



VOL.7

Since 1992

與時俱進 先端製造

Keep Up With The Times & Proactive Advanced Manufacturing

正河源股份有限公司創立於西元1992年，經營方針致力於CNC加工中心機週邊工具及切削刀具，近年因應切削市場需求公司投入更多資源建立完善營運環境及先端製造設備，為機械加工業者提供更優質的產品品質及加工效率提升。在研發方向著重於未來智能化製造相關週邊工具及切削刀具，人力資源投入方面結合科技大學共同培育未來切削領域專業人才，在資源投入方面包括8250平方米現代辦公大樓及自動化製造廠區，歐洲日本生產設備及檢驗設備等。因應未來科技發展高溫合金及非鐵金屬材料應用於各產業，正河源經營團隊展現Cutting Edge Solution 快速解決客加工需求的專業與服務熱忱，持續研發生產高效能切削刀具為機械加工業者提供最佳服務。

Proactive Advanced Manufacturing

Chain Headway was founded in 1992 to develop and produce cutting tools and accessories for CNC machining centers. Our company has developed over the years to provide a stable production environment with advanced R&D and manufacturing capabilities.

This is designed to provide cutting edge products and more efficient materials processing solutions for various types of industries. Our investment in R&D helps us to deliver the latest materials processing solutions for intelligent manufacturing to our customers.

- We are partnered with the University of Science & Technology developing a group of future Cutting professionals.
- We have a new 8250 square meter production facility which combines our office buildings with automated production facilities.
- Our production and inspection equipment is sourced from Japan and Europe to maintain the best possible quality and efficiency.

Industry processing challenges are constantly evolving with the development of high temperature alloys and composite materials. Our management team is proactively addressing these evolving materials processing requirements to rapidly develop & provide customers with the latest material processing solutions and the best possible customer service.



正河源



正河源機械配件有限公司
CHAIN HEADWAY MACHINE TOOLS CO., LTD.

CHAIN HEADWAY

CHAIN HEADWAY

我們堅持嚴格的製作流程

We Insist on Rigorous of Every Procedures

我們不只是銷售產品給您，而是透過我們專業的技術與知識幫助您！

We not only sell you products but also assist you by using our specialized techniques and knowledge!

因應各式各樣的加工需求，我們的產品線包含刀桿、切削刀具、刀片與輔助工具，且在細節的注重上，我們說一不二。正河源的重要使命是為了解決顧客的需求，隨時做好溝通與協助的準備是不可或缺的。為了使命，不論是製造或是檢驗都設有嚴格的檢驗流程與標準。正河源隨時為您提供多樣化的產品線與親切友善的專業人員。To address process needs of all kinds, our product range includes tool holders, cutting tools, inserts, and aid tools. Also, we never compromise when it comes to attention to detail. The important task of CHAIN HEADWAY is to address customers' needs, to which end, good communications and being ready to assist are essential. To fulfill this task, rigorous inspection procedures and standards are in place in terms of both manufacture and inspection. At CHAIN HEADWAY, a diverse range of product and kind professionals are always available.

1



刀片基座 / PCD 毛胚
Tool base/PCD Blank

2



切割
Cutting

3



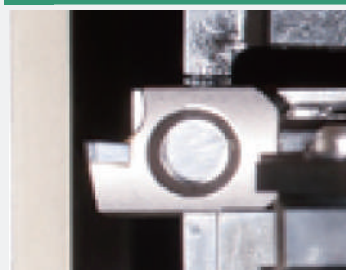
焊接
Welding

4



真空焊接
Vacuum welding

5



研磨
Grinding

6



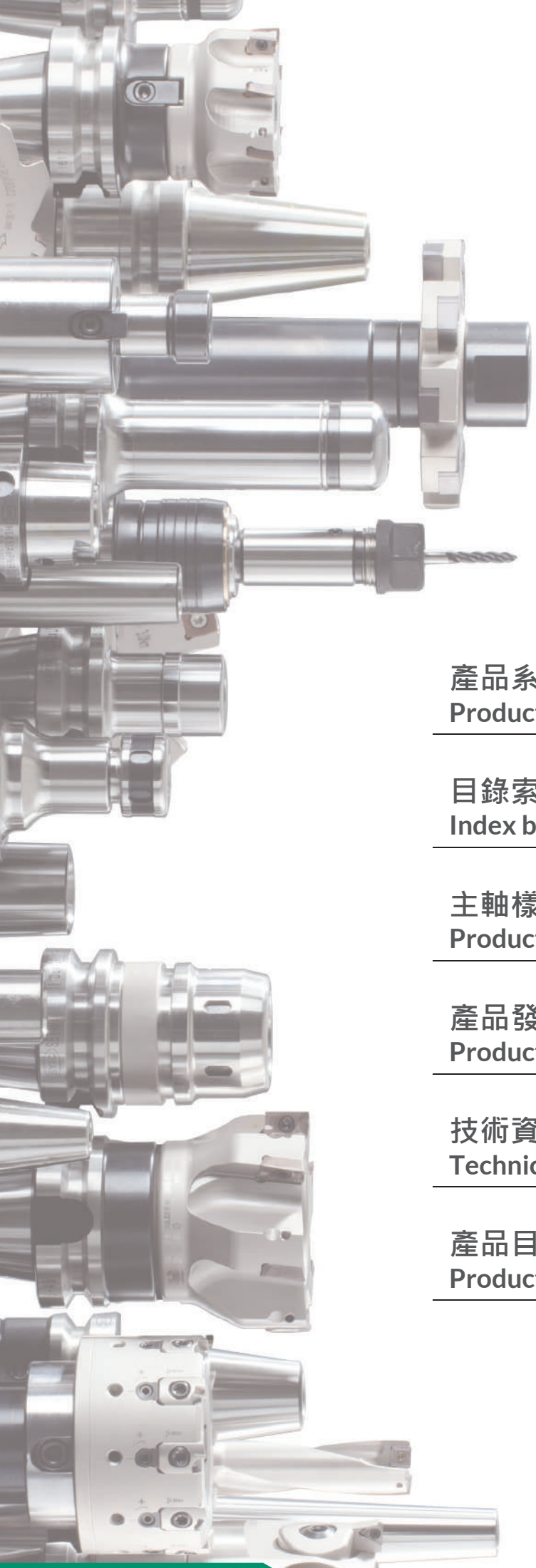
檢驗
QC

7



成品
Finished Product





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|  | HSK-T | 刀桿系列 Tooling System | B520 |
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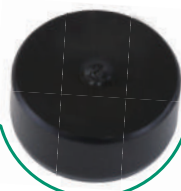


刀具管理系統RFID

Tool Management System RFID

智能化管理刀具壽命、刀具身份、加工履歷、尺寸參數

Intelligent management of tool life, tool identity, processing history, and size parameters



台製晶片
Taiwanese chip



歐製晶片
European chip

• 整合導入RFID系統
RFID system Integration

• RFID晶片提供
RFID chips available

• 新刀桿植入RFID(含動平衡)
Implant RFID to new tool holders with
dynamic balance

• 廠內舊刀桿植入RFID(含動平衡)
Implant RFID to old tool holders with
dynamic balance

• RFID晶片符合DIN69873規格
RFID chips are designed to conform to DIN69873 Standard



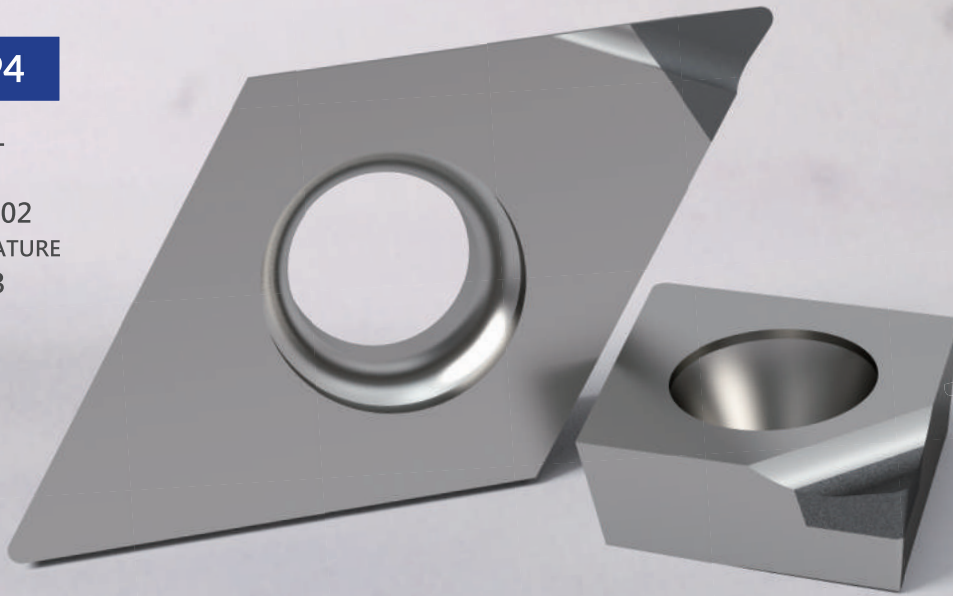


PCD&PCBN 精密刀片

PRECISION INSERT

INSERT A094

- 材料等級 B001
GRADES
- 粒度及特性 B002
GRAIN SIZE&FEATURE
- 產品規格 B003
SPEC.



富
機
立
斷

提供再次回磨，降低您的加工成本

Provide the re-grinding service to reduce your processing costs.

可依照需求搭配不同的刃口處理方式

Customize the cutting edge to fit your demand.

S

倒角及鈍圓
Chamfer and hone

E

刃口鈍圓
Honed edge

T

倒角/T-LAND
Chamfer / T-LAND

適用切削多種材料

Can Cut A Wide Range Of Materials

粗細微粒底材
Various size substrate

- 合金鋼
Alloy steel
- 鎳基合金
Nickel-based alloy
- 工具鋼
Tool steel
- 鈷基合金
Cobalt-based alloy
- 高溫合金HRC35以上
Epoxy Resins
- 高鈷粉末金屬
Poedered metal with more cobalt
- 硬鎳鑄鐵
Hardened ni cast iron
- 冷激鑄鐵
Chilled cast iron
- 鑄鐵
Cast iron

微粒金剛石
Micro-diamond

- 塑膠
Plastic
- 鋁合金
Nickel-based alloy
- 氧基樹脂
Epoxy Resins
- 陶瓷
Ceramics
- 黃銅青銅合金
Brass&Bronze Alloys
- 鎂合金
Magnesium Alloy
- 硬質橡膠
Hard Rubber
- 碳、石碳酸
Carbon-Phenolic
- 矽鋁合金
Silicon-Aluminum Alloys
- 石墨
Graphite
- 木材、複合木材
Wood, compound Wood
- 玻璃纖維
Fibre Glass Composites
- 預燒結或全燒結碳化鎢
Presintered or Sintered Tungsten Carbide
- 銅合金
Copper Alloys



PNER 立銑刀夾頭系列

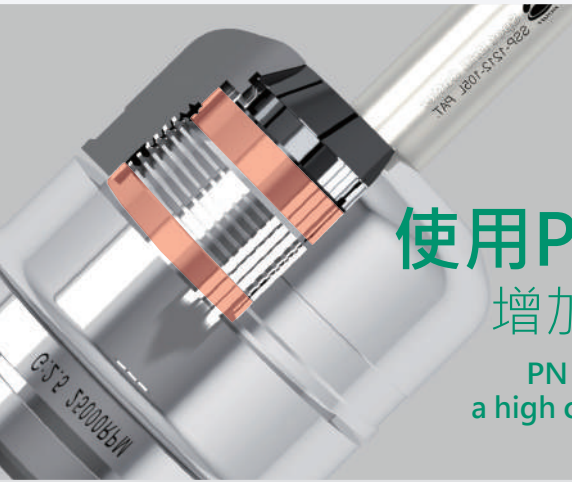
COLLET CHUCK SERIES

BT B421

SBT B459

HSK B496

PSC B557



使用PN筒夾
增加夾持力

PN collet features
a high clamping force



偏擺精度 < 3 μ m
Run-out accuracy < 3 μ m

刀桿 Tooling System



BT/PNER立銑刀夾頭
COLLET CHUCK

BT30 / BT40 / BT50



SBT/PNER立銑刀夾頭
COLLET CHUCK

SBT30 / SBT40 / SBT50
- 雙面拘束 DualDRIVE+



HSK/PNER立銑刀夾頭
COLLET CHUCK (FOR TYPE A)

HSK32A / HSK40A / HSK50A
HSK63A / HSK100A



PSC/PNER立銑刀夾頭
COLLET CHUCK

PSC32 / PSC40 / PSC50
PSC63 / PSC80

肩銑Shoulder milling

S50C Ap=18
S=1600 Ae=3
F=512 立銑刀 End Mill=10mm

PNER-3μm



ER-5μm



PNER 刀桿 PNER Chuck

燒結刀桿 Shrink-fit Chuck

高速機專用刀桿 High-Speed Collet Chuck

後拉刀桿 Silim-fit Collet Chuck

ER刀桿 ER Chuck

| | PNER 刀桿 PNER Chuck | 燒結刀桿 Shrink-fit Chuck | 高速機專用刀桿 High-Speed Collet Chuck | 後拉刀桿 Silim-fit Collet Chuck | ER刀桿 ER Chuck |
|----------------------------------|-----------------------|--------------------------|------------------------------------|--------------------------------|------------------|
| 精度 Run-out Accuracy | ++ ★ | + | + | + | - |
| 夾持力 Clamping Force | ++ ★ | ○ | ○ | ○ | + |
| 剛性 Rigidity | ++ ★ | ++ ★ | ○ | ○ | - |
| 筒夾選擇性 Various Types of Collet | ○ | 無 not available | + | ○ | ++ ★ |

++ 佳 Very good + 好 Good ○ 普通 Neutral - 不好 Bad

筒夾 & 螺帽 Collet & Clamping Nut



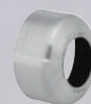
PN筒夾
COLLET

PN16 / PN20 / PN25
PN32 / PN40



PN-ES斜槽止水筒夾
STEEL SEALED COLLET

PN16ES / PN20ES / PN25ES
PN32ES / PN40ES



PNER螺帽
CLAMPING NUT

PNER16-NUT / PNER20-NUT / PNER25-NUT
PNER32-NUT / PNER40-NUT



PNER止水螺帽
SEALED NUT

PNER16-CO / PNER20-CO / PNER25-CO
PNER32-CO / PNER40-CO

需搭配止水墊片使用
Should be used with Coolant rings



PNER偏心螺帽
ECCENTRIC NUT

PNER16-A / PNER20-A / PNER25-A
PNER32-A / PNER40-A

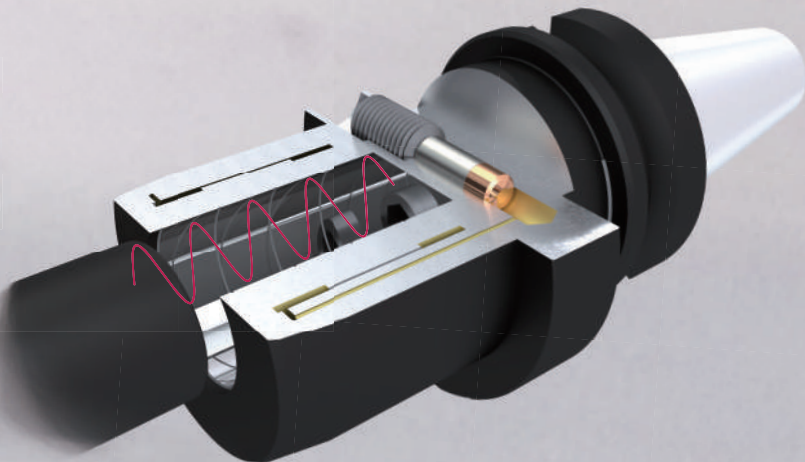


LHC 液壓系列

HYDRAULIC EXPANSION TOOLHOLDER SERIES

高精度 高穩定
High Accuracy and Stability

同心度和重覆精度在0.003mm 以內(2.5D)
Accuracy of Concentricity and Repeatability within 0.003 mm (2.5D)



BT B414

HSK B495

減震性能

Vibration Damping Performance

優良的減震性能，可確保獲得最佳的工件表面質量。液壓系統具備良好的液態結構，具有減震功能。刀具刃口上的微觀崩刃得以避免，表現最佳的加工效果。

Excellent vibration damping performance can process the perfect surface roughness of workpiece. The hydraulic system provides function of vibration damping through nice liquid structure. Prevent the cutting edge from chipping, perform the best processing effect.



液壓刀桿技術

Designed of Usage Method

液壓刀桿可在數秒內快速換刀，精確度達微米。

Spend few seconds to change cutters with excellent accuracy.



液壓筒夾

Hydraulic Collet

刀具可中心出水，O型環的設計可加強中心出水效果。

精度0.005 (2.5D)。With O-ring designed, improve and enhance the effect of oil coolant function Accuracy 0.005 mm (2.5D)



簡易維護易保養

Easy to Maintain

密封設計，防污垢，冷卻劑，潤滑劑或切屑。

With sealed design, avoid entering dirt, coolant, lubricant, and chips.



各軸類型皆可夾持

Clamping different kinds of shank

能夾持市面上各類型刀具，也可以透過液壓套筒夾持。

Available to hold variety type of tool shanks, and acceptable to be hold by Hydraulic Collet

刀桿 Tooling System



BT / LHC 扭力型液壓刀桿

TORQUE HYDRAULIC TOOLHOLDER

BT30 / BT40 / BT50



BT / LHC 扭力型液壓刀桿

TORQUE HYDRAULIC TOOLHOLDER

BT40 / HSK63A
- 加工小孔徑 Ø6-Ø10



HSK / LHC 扭力型液壓刀桿

TORQUE HYDRAULIC TOOLHOLDER

HSK63A / HSK100A

筒夾 Collet



HYP 液壓套筒

STRAIGHT COLLET

HYP12 / HYP16
HYP20 / HYP32



HYP 液壓出水套筒

STRAIGHT COOLANT COLLET

HYP20-FID





Pro.E 筒夾式刀桿

COLLET CHUCK

可使用三種筒夾

Able to fit three kinds of collet

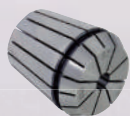
ER、ERS直溝止水筒夾、ERS-FOD直溝出水筒夾，可耐高壓出水100bar。

ER Collet, ERS Metallic Sealed Collet, ERS-FOD Coolant Collet are able to reach maximum coolant pressure 100bar.

SBT B461

HSK B500

PSC B556



ER



ERS



ERS-FOD



上下直部設計，減少牙部公差、提高精度
Straight part design decreases the deviation of the threads and improves accuracy.



刀桿內孔加大設計，ER筒夾包覆性更佳
The enlarged design of holder ID hole optimized the coverage of ER collet



刀桿內孔加大設計，縮短了刀具懸伸長度，提升偏擺精度與加工穩定性
Straight part design has shortened the tool overhanging length and improved runout accuracy and machining stability.



無風阻螺帽降低風切
Non wind resistance nut reduces the wind shear.



刀桿 Tooling System



SBT / Pro.E筒夾式刀桿
COLLET CHUCK

SBT30 / SBT40 / SBT50



HSK / Pro.E筒夾式刀桿
COLLET CHUCK

HSK40A / HSK50A / HSK63A
HSK80A / HSK100A /
HSK125A



HSK-E / Pro.E筒夾式刀桿
COLLET CHUCK

HSK25E / HSK32E / HSK40E
HSK50E



HSK-F / Pro.E筒夾式刀桿
COLLET CHUCK

HSK63F



PSC / Pro.E筒夾式刀桿
COLLET CHUCK

PSC40 / PSC50 / PSC63
PSC80 / PSC100

螺帽 Clamping Nut



HSK-F / Pro.E筒夾式刀桿
COLLET CHUCK

Pro.E16-A / Pro.E20-A
Pro.E25-A / Pro.E32-A



主軸檢測系列

SPINDLE MASTER BAR SERIES

適用各式主軸 Applicable to various spindles

BT B444

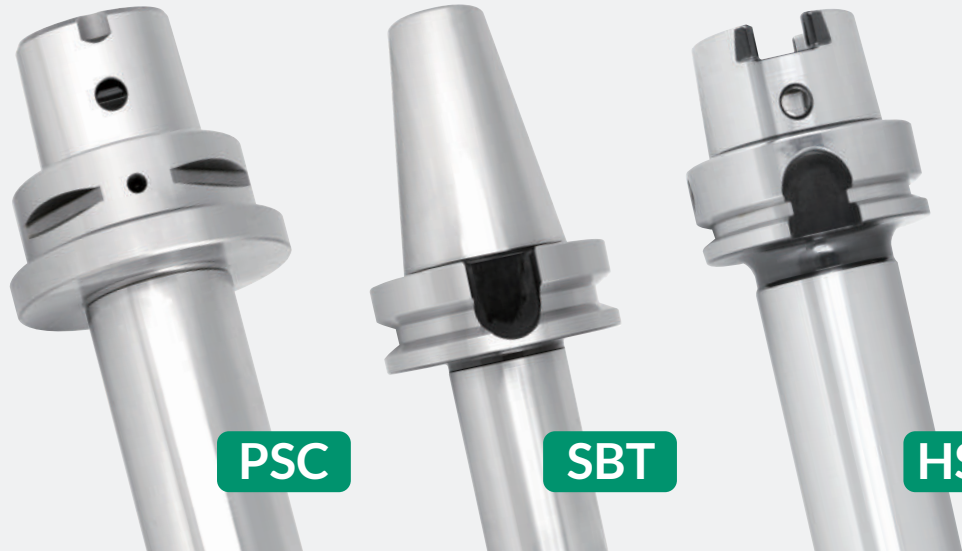
SBT B472

DAT B485

HSK B517

VDI B540

PSC B565



PSC

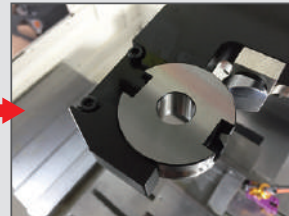
SBT

HSK

1. 錐度套筒端鎖上拉頭，置入主軸內
Taper sleeve end lock pull stud, into the spindle.

2. 換刀槽零件置入換刀臂內
ATC arm into the inner groove parts.

3. 將換刀槽旋轉到主軸中
The tool change to the spindle rotation groove.



SBT主軸精密標準棒
SPINDLE MASTER BAR

SBT30 / SBT40 / SBT50
SCAT40 / SCAT50



PSC主軸精密標準棒
SPINDLE MASTER BAR

PSC32 / PSC40 / PSC50
PSC63



HSK主軸精密標準棒
SPINDLE MASTER BAR

HSK40A / HSK50A / HSK63A
HSK80A / HSK100A



HSK主軸精密標準棒
SPINDLE MASTER BAR

HSK25E / HSK32E / HSK40E
HSK50E / HSK63E



主軸檢測棒
SPINDLE MASTER BAR

BT30 / BT40 / BT50
- 標準型



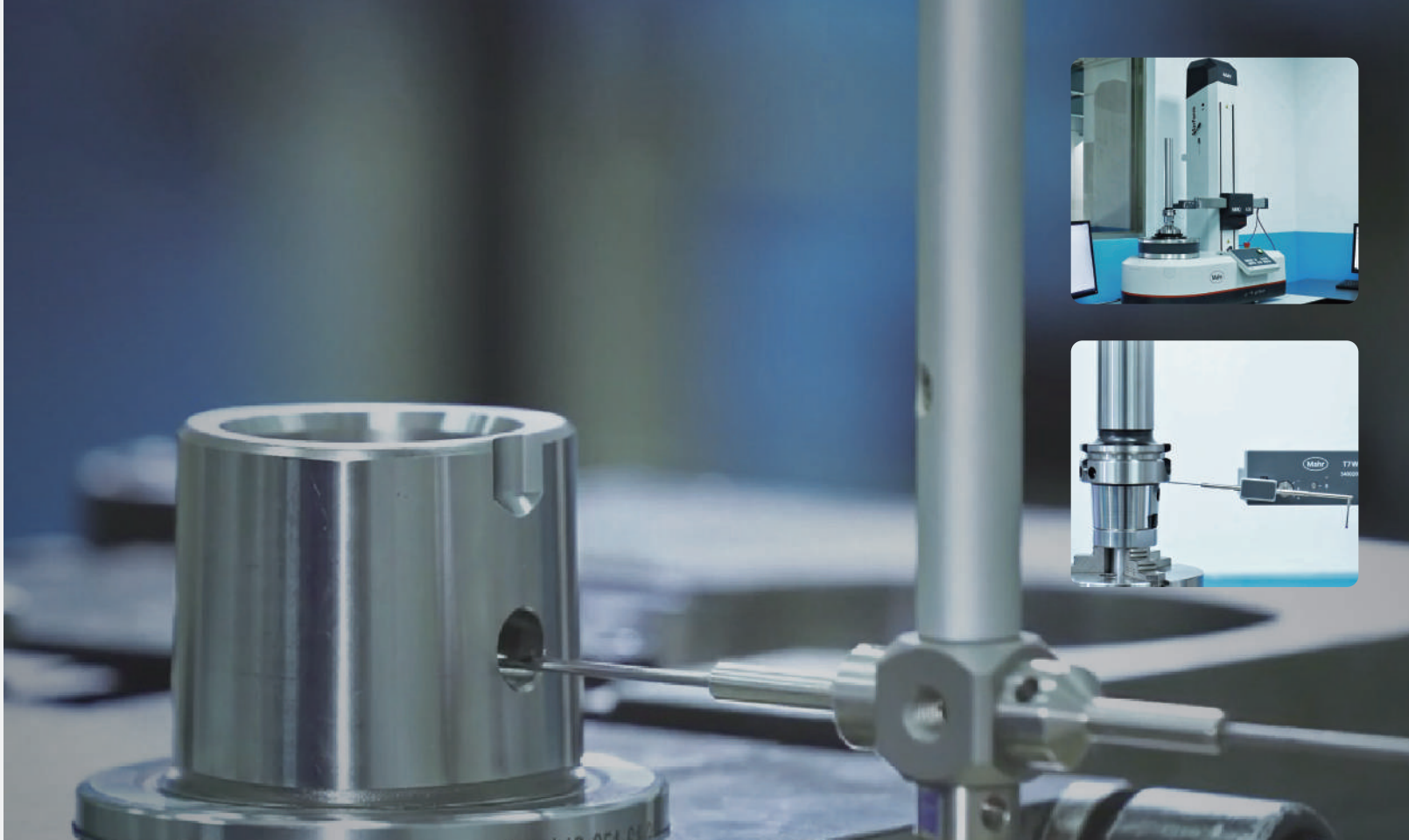
主軸檢測棒
SPINDLE MASTER BAR

SFC6 / SFC8 / SFC10 / SFC12
SFC16 / SFC20



測試棒
TEST BAR

HSK40A / HSK50A / HSK63A
HSK80A / HSK100A

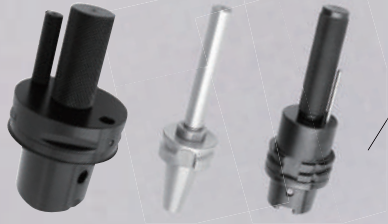


軸中心
the spindle center of

4.將測試圓棒插入錐度套筒及換刀槽的中心孔，如能同時穿過，代表換刀臂與主軸有同心

The test rod inserted into the taper sleeve and the grooves of the ATC center hole, such as to pass through at the same time, the representative ATC arm concentric with the spindle.





測試組(三件組)
REGULATE TOOLS SET(THREE-PIECE)

BT30 / BT40 / BT50
HSK32A / HSK40A / HSK50A / HSK63A /
HSK80A / HSK100A / HSK125A / PSC32 /
PSC40 / PSC50 / PSC63

範例 Example





車銑複合 - 車刀系列

TURNING AND MILLING CENTER - TURNING SYSTEM

HSK-T B522

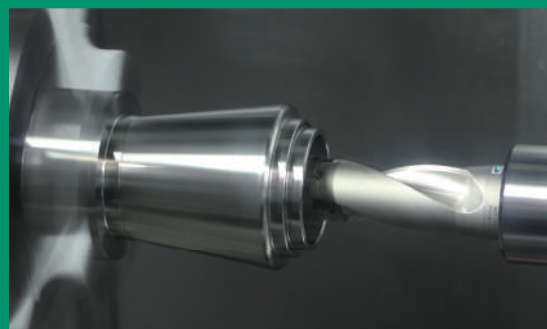
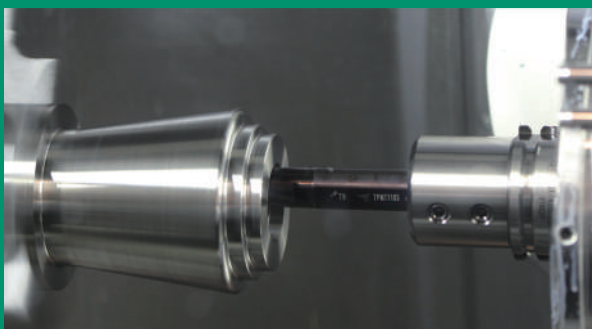
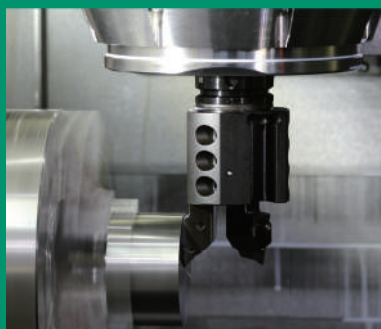
PSC B547

PSC主軸穩定性佳、精度高和便利快換性，實現獨特的靈活性，顯著提升機台效益，符合ISO26623-1標準。

The PSC spindle has good stability, high precision and convenient and quick change. Achieve unique flexibility and significantly improve machine efficiency, Comply with ISO26623-1 standard.

HSK-T主軸相較其他HSK系統對尺寸公差要求更為嚴格，能確保在車加工的精度及穩定，符合DIN ISO 12164-3:2014規範。

Compared with other HSK systems, HSK-T spindle has dimensional tolerance The requirements are more stringent, which can ensure the accuracy of in-car processing. And stable, in line with DIN ISO 12164-3:2014 specifications.



DCLN外徑車刀
DCLN EXTERNAL TURNING TOOL
HSK-T63 / PSC32 / PSC40
PSC50 / PSC63 / PSC80



DDJN外徑車刀
DDJN EXTERNAL TURNING TOOL
HSK-T63 / PSC32 / PSC40
PSC50 / PSC63



DTJN外徑車刀
DTJN EXTERNAL TURNING TOOL
HSK-T63 / PSC32



DWLN外徑車刀
DWLN EXTERNAL TURNING TOOL
HSK-T63 / PSC40 / PSC50
PSC63 / PSC80



DVLN外徑車刀
DVLN EXTERNAL TURNING TOOL
HSK-T63 / PSC32 / PSC40
PSC50 / PSC63



DCMN外徑車刀
DCMN EXTERNAL TURNING TOOL
HSK-T63 / PSC32 / PSC40
PSC50 / PSC63



DDNN外徑車刀
DDNN EXTERNAL TURNING TOOL
HSK-T63 / PSC32 / PSC40
PSC50 / PSC63



DTEN外徑車刀
DTEN EXTERNAL TURNING TOOL
HSK-T63



DWMN外徑車刀
DWMN EXTERNAL TURNING TOOL
HSK-T63



DVVN外徑車刀
DVVN EXTERNAL TURNING TOOL
HSK-T63 / PSC32 / PSC40
PSC50 / PSC63



SLT側固式刀柄
SIDE LOCK HOLDER FOR INTERNAL TURNING BAR
HSK-T63



SLD側固式刀柄
SIDE LOCK HOLDER FOR INTERNAL TURNING BAR
HSK-T63



SV外徑車刀架
EXTERNAL TURNING TOOL HOLDS
HSK-T63 / PSC50 / PSC63
PSC80



SB外徑車刀架
EXTERNAL TURNING TOOL HOLDS
HSK-T63



SF外徑車刀架
EXTERNAL TURNING TOOL HOLDS
HSK-T63 / PSC40 / PSC50
PSC63 / PSC80 / PSC100



SN外徑車刀架
EXTERNAL TURNING TOOL HOLDS
HSK-T63 / PSC50 / PSC63
PSC80



素材系列

BLANK SERIES

主軸式齊全 Provide Variety Spindle Type of Tool Holder

產品品質穩定 Products Stable Quality

BT B444

DAT B485

HSK B517

PSC B565



BT

HSK

PSC

DAT



加工前(素材)
Before:
Blank Tool Holder



加工後(特殊刀具)
After:
Special Tool Holder



素材有助於快速生產客戶訂製刀具，可靈活運用改變形狀，縮短加工時間，提升生產效益。
Blank tool holder brings benefit of designing customized cutter which are able to change the shape flexibly, reduce time of machining process, and improve the productivity.



BT 素材刀桿

BLANK

BT30 / BT40 / BT50



HSK 素材刀桿

BLANK

HSK32A / HSK63A / HSK100A



PSC 素材刀桿

BLANK

PSC32 / PSC40 / PSC50
PSC63

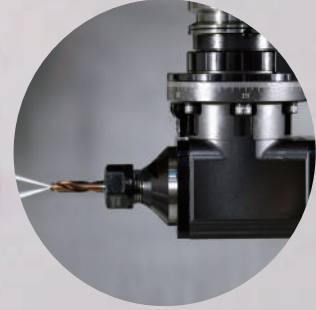


DAT 素材刀桿

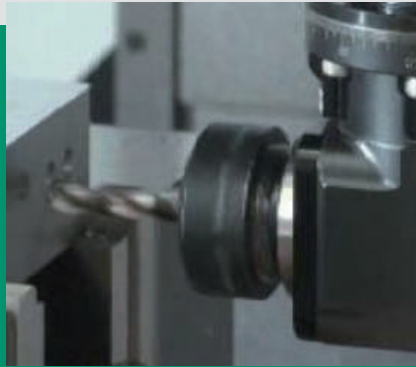
BLANK

DAT50

角度頭系列
Angle Head System **B566**



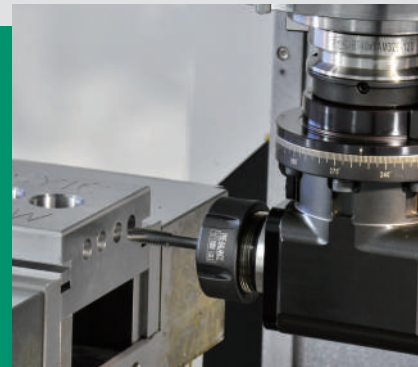
- * 夾頭心軸 360 度旋轉
Spindle chuck could rotate in 360 degree.
- * 可指定最高轉速 6000-8000rpm
Optional speed 6000-8000 rpm.



鑽孔 Drilling

S45C(Steels)
Tool: Ø12 高速鋼鑽頭
(Ø12 High Speed Steels Drills)
Vc: 31m/min
S: 1000rpm
Vf: 100mm/min
Ap: 20mm

BT40xSAM32EX-120



攻牙 Tapping

S45C(Steels)
Tool: M12x1.75P 絲攻
(M12x1.75P Tap)
Vc: 7.53m/min
S: 200rpm
Vf: 350mm/min
Ap: 20mm

BT40xSAM32EX-120



SAM小鋼炮銑削頭

ANGLE HEAD HOLDER FOR
LIGHT CUTTING

BT40 / BT50

- 鑽孔 Drilling
- 攻牙 Tapping
- 輕切削
Light Cutting
- 90 度加工
Available 90° Processing



SAM小鋼炮銑削頭

ANGLE HEAD HOLDER FOR
LIGHT CUTTING

HSK63A / HSK100A

- 鑽孔 Drilling
- 攻牙 Tapping
- 輕切削
Light Cutting
- 90 度加工
Available 90° Processing



BT



PSC



FMA



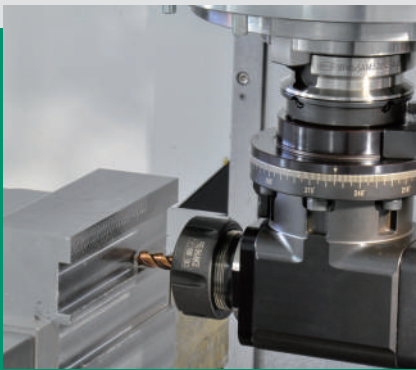
MLD

SAR大鋼炮

ANGLE HEAD HOLDER
(FOR HEAVY-DUTY CUTTING)

BT30 / PSC50 / FMA25.4 / MLD32

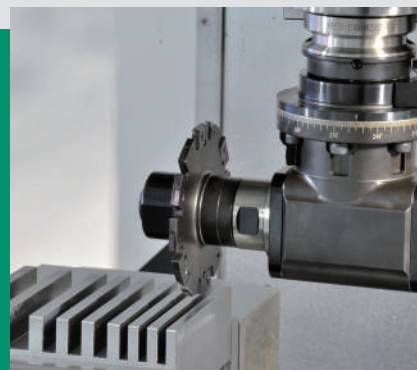
- 鑽孔 Drilling
- 攻牙 Tapping
- 大扭力值
Powerful Torque Provide
- 可接刀桿及刀頭
Suitable Connect with Tool Holders



銑削 Milling

S45C(Steels)
Tool: Ø12 鎢鋼立銑刀
(Ø12 End mills)
Vc: 18.8m/min
S: 500rpm
Vf: 150mm/min
Ap: 4mm

BT40xSAM32EX-120



銑削 Milling

S45C(Steels)
Tool: SDC-100X08A25.4
Vc: 120m/min
S: 380rpm
Vf: 90mm/min
Ap: 6mm
Ae: 8mm

BT40xSAM25.4SCAX-120



SAC中鋼炮

ANGLE HEAD HOLDER FOR
MEDIAL CUTTING

BT40 / BT50
HSK63A / HSK100A

- 鑽孔 Drilling
- 攻牙 Tapping
- 銑削 Milling

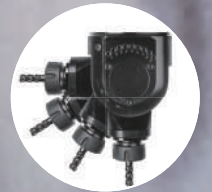


SAU萬向型

ANGLE HEAD HOLDER(UNIVERSAL TYPE FOR
MIDDLE CUTTING)

BT50

- 鑽孔 Drilling
- 攻牙 Tapping
- 銑削 Milling



SAG/DE雙頭龍

ANGLE HEAD HOLDER FOR
DUAL SIDE MACHINE

BT40

- 雙面加工
Dual Side Machine
- 鑽孔 Drilling
- 攻牙 Tapping



SAG小徑銑削頭

ANGLE HEAD HOLDER
(SLIM TYPE)

BT40

- 鑽孔 Drilling
- 攻牙 Tapping
- 加長型
Lengthen Type



SAG小徑銑削頭

ANGLE HEAD HOLDER
(SLIM TYPE)

HSK63A

- 鑽孔 Drilling
- 攻牙 Tapping
- 加長型
Lengthen Type

可調刀桿系列

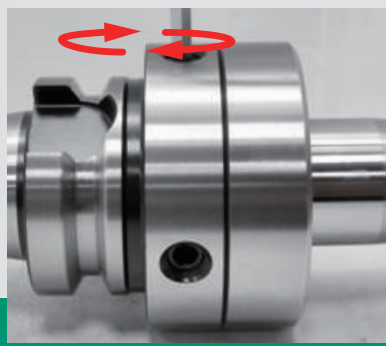
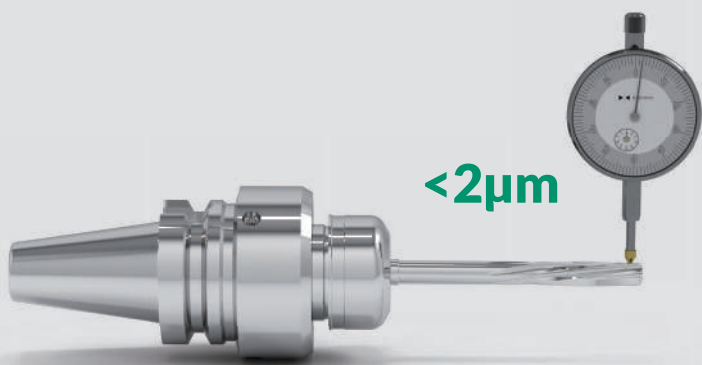
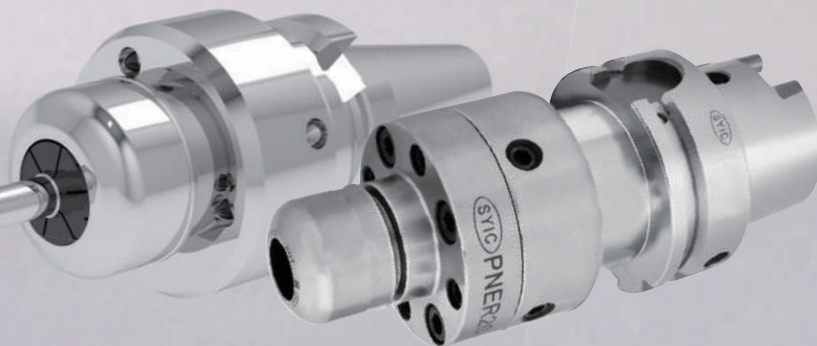
ADJUSTABLE HOLDER SERIES

可調式刀桿
RUNOUT
ADJUSTABLE HOLDER **B578**



SAF 可軸向徑向雙向調整(Adjustable: Axial & Radial)

SBF 可徑向調整(Adjustable: Radial)



SAF 模組化示意圖

SAF Modular Combination



SAF 可調式刀桿本體
RUNOUT ADJUSTABLE HOLDER BODY

BT30 / BT40 / BT50
SBT30 / SBT40 / SBT50
HSK40A / HSK50A / HSK63A
HSK80A / HSK100A
PSC40 / PSC50 / PSC63 / PSC80



SAF
可調式刀桿法蘭盤-SFC桿
SHRINK FIT CHUCK FLANGE FOR SAF

SFC6 / SFC8 / SFC10 / SFC12
SFC16 / SFC20



SAF
可調式刀桿法蘭盤-PNER
PNER COLLET CHUCK FLANGE FOR SAF

PNER16 / PNER20 / PNER25
PNER32



| | SAF | SBF | 台製 | 日製 |
|--------------------|-----------------------|--------------|--------------|---------------|
| 調整方向 Direction | 軸向、徑向 Axial、Radial | 徑向 Radial | 徑向 Radial | 徑向 Radial |
| 調整精度 Precision | <0.002 | <0.002 | <0.005 | <0.002 |
| 調整便利 Convenient | ★★★ | ★★★★ | ★★★★ | ★★★★★ |
| 穩定性 Stabilities | ★★★★★ | ★★★★ | ★★ | ★★★★★ |
| 價格 Price | 高 High | 中 Middle | 中 Middle | 最高 Highest |

SAF 模組化 SAF Modular



SBT / SAF 可調式刀桿
RUNOUT ADJUSTABLE HOLDER

SBT30 / SBT40 / SBT50



HSK / SAF 可調式刀桿
RUNOUT ADJUSTABLE HOLDER

HSK40A / HSK50A / HSK63A
HSK80A / HSK100A



PSC / SAF 可調式刀桿
RUNOUT ADJUSTABLE HOLDER

PSC40 / PSC50 / PSC63
PSC80



BT / SAF 可調式刀桿
RUNOUT ADJUSTABLE HOLDER

BT30 / BT40 / BT50

SBF 一體式 SBF Integrated



SBF
法蘭加厚型可調式徑向歸零刀桿
RADIAL ZERO ADJUSTABLE HOLDER


















SBT30 / SBT40 / SBT50




































SBF
可調式徑向歸零刀桿
RADIAL ZERO ADJUSTABLE HOLDER

HSK40A / HSK50A / HSK63A
HSK80A / HSK100A

刀片 Insert System

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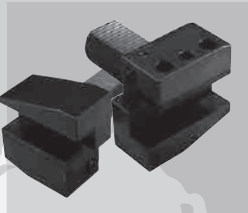
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PSC-Boring Series

2011-2013

TSD快速鑽頭
TSD High Speed Drill

SSP倒角刀 **PAT.**
SSP Indexable Chamfer Milling Cutter

側銑刀系列
Side Milling Series

VDI固定刀座
VDI Precision tool holder series

2014-2016

可調式面銑系列
Adjustable Face Milling Series

攻牙系列
Tapping Series

PSC主軸
PSC Precision Tool Holder



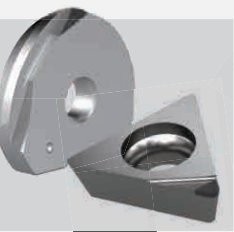
20

DP減震
DP Anti-Vibration
Series-Turn-Milling

車銑複合
Turn-Milling

角度頭系列
Angle Head Series

刀片系列
Inserts Series



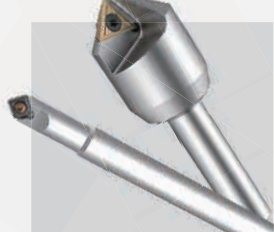
刀片系列
Inserts Series



DP減震系列
DP Anti-Vibration Series



倒角系列
Adjustable
Chamfering Series



倒角系列
Special
Chamfering Series



負角面銑系列
Negative Angle Face
Milling Series



車銑複合系列
Turn-Mill Series



角度頭系列
Angle Head Series



自動化周邊工具系列
Accessories For
Automatic Machines



量測 / 燒結系列
Measuring/Shrinking-Fit Series

2017-2019

減震系列-車/搪
Anti-Vibration
Series-Turning/Boring

複合系列
Mill Series

角度頭系列
Angle Head Series

刀片系列
Inserts Series

2020-2021

倒角系列
Chamfering Series

自動化管理
Accessories For Automatic
Machines

設備系列
Measuring/Shrinking-Fit Series

負角刀系列
Negative Angle Face Milling Series



銑削刀片規格介紹 DESIGNATION OF MILLING INSERTS

KOVIT

| 記號 Symbol | 孔 Hole | 孔的形狀 Hole Configuration | 斷屑槽 Chip Breaker | 形狀 Shape |
|--------------|--------------------|----------------------------|---------------------|-------------|
| N | 無孔 Without Hole | — | 無 NO | |
| R | | | 單面 One side | |
| F | | | 兩面 Double side | |
| W | 有孔 With Hole | 有孔 With Hole 40°~60° | 無 NO | |
| T | | | 單面 One side | |
| Q | | | 兩面 Double side | |
| U | | 有孔 With Hole 40°~60° | 無 NO | |
| B | | | 單面 One side | |
| H | | | 兩面 Double side | |
| C | | 有孔 With Hole 70°~90° | 無 NO | |
| J | | | 單面 One side | |
| X | | | 兩面 Double side | |

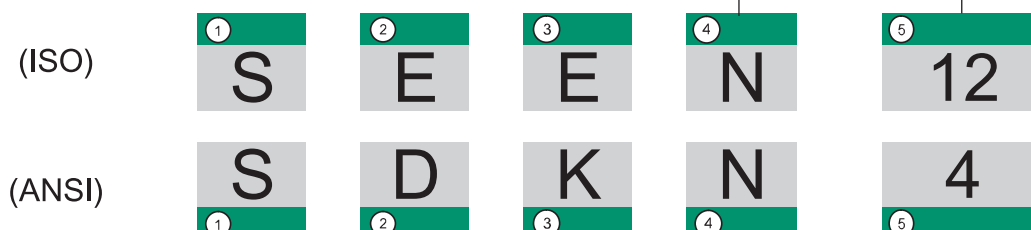
4 斷屑槽·螺絲孔記號
Chip Breaker · Hole Symbol

| 形狀 Shape | 切刃長(ℓ) Cutting Edge Length |
|-------------|-------------------------------|
| S | |
| T | |
| R | |
| H | |
| A | |

5 切刃長記號
Cutting Edge Length

| 記號 Symbol | 厚度 (mm) Thickness |
|--------------|----------------------|
| 02 | 2.38 |
| 03 | 3.18 |
| T3 | 3.97 |
| 04 | 4.76 |
| 06 | 6.35 |

6 厚度記號
Insert Thickness



1 形狀記號
Insert Shape

| 記號 Symbol | 形狀 Shape | 刀尖角 Degree | 圖形 Shape |
|--------------|------------------------|---------------|-------------|
| H | 正六角形 Hexagonal | 120° | |
| S | 正方形 Square | 90° | |
| T | 正三角形 Triangular | 60° | |
| C | 菱形 Rhombic | 80° | |
| E | | 75° | |
| G | | 70° | |
| L | 長方形 Rectangular | 90° | |
| A | 平行四邊形 Parallelogram | 85° | |
| R | 圓形 Round | — | |
| W | 六角形 Trigon | 80° | |
| | 修光刃刀片 Wiper insert | — | |
| X | 特殊形狀 Special Design | 其他 Other | |
| Y | 特殊形狀 Special Design | 35° | |
| Z | 特殊形狀 Special Design | | |

2 離隙角記號
Insert Shape

| 記號 Symbol | 離隙角 Relief Angle |
|--------------|---------------------|
| C | 7° |
| D | 15° |
| E | 20° |
| F | 25° |
| G | 30° |
| N | 0° |
| P | 11° |
| O | 其他 Other |
| X | 其他 Other |
| S | 其他 Other |

3 精度等級記號 (mm)
Tolerance Class

| 記號 Symbol | 刀尖位置容許公差 Tolerance of Nose Height | 厚度容許公差 Tolerance of Thickness | 內接圓直徑容許公差 Tolerance of Inscribed Circle | |
|--------------|--------------------------------------|----------------------------------|--|--|
| A | ± 0.005 | ± 0.025 | ± 0.025 | |
| C | ± 0.013 | ± 0.025 | ± 0.025 | |
| E | ± 0.025 | ± 0.025 | ± 0.025 | |
| G | ± 0.025 | ± 0.13 | ± 0.025 | |
| H | ± 0.013 | ± 0.025 | ± 0.013 | |
| K | ± 0.013 | ± 0.025 | ± 0.05 ~ ± 0.13 | |
| M | ± 0.08 ~ ± 0.18 | ± 0.13 | ± 0.05 ~ ± 0.13 | |
| N | ± 0.08 ~ ± 0.18 | ± 0.025 | ± 0.05 ~ ± 0.13 | |

| 基準內接圓 Detail of M Class Insert Tolerance | 內接圓直徑(φd)容許公差 Tolerance of Inscribed Circle | | 刀尖高(mm)容許公差 Tolerance of Nose Height | |
|--|--|-----------|---|-----------|
| | J.K.L.M.N(級Class) | U(級Class) | M.N(級Class) | U(級Class) |
| 6.35 | ± 0.05 | ± 0.08 | ± 0.08 | ± 0.13 |
| 9.525 | | | | |
| 12.7 | ± 0.1 | ± 0.18 | ± 0.15 | ± 0.27 |
| 15.875 | | | | |
| 19.05 | | | | |
| 25.4 | ± 0.13 | ± 0.25 | ± 0.18 | ± 0.38 |

•長度單位 Unit of Length (mm)



銑削刀片規格介紹

DESIGNATION OF MILLING INSERTS

KOVIT

| 記號 Symbol | 切削角 Cutting Angle |
|--------------|----------------------|
| A | 45° |
| D | 60° |
| E | 75° |
| F | 85° |
| H | 87° |
| P | 90° |
| Z | 特殊 Special |

7 切削角記號
Cutting Angle

| 記號 Symbol | 離隙角 Relief Angle |
|--------------|---------------------|
| A | 3° |
| B | 5° |
| C | 7° |
| D | 15° |
| E | 20° |
| F | 25° |
| G | 30° |
| N | 0° |
| P | 11° |
| Z | 特殊 Special |

8 離隙角記號
Relief Angle

| 記號 Symbol | 切削刀狀態 Cutting Edge | 形狀 Shape |
|--------------|--|-------------|
| F | 大銳角削角 Sharp Cutting Edges | |
| E | 圓切削角 Round Cutting Edges | |
| T | 雙切削導角 Chamfered Cutting Edges | |
| S | 倒角及圓切削角 Chamfered and Rounded Cutting Edges | |
| P | 雙倒角及圓切削角 Double Chamfered and Rounded Cutting Edges | |

9 刀邊處理
Cutting Edge Condition

| 記號 Symbol | 方向 Direction |
|--------------|-----------------|
| R | 右 Right |
| L | 左 Left |
| N | 中間 Neutral |

10 切削方向
Cutting Direction

| 記號 Symbol | 斷屑槽等級 Chip Breaker |
|--------------|-----------------------|
| R01 | 粗切削 Roughing |
| M01 | 中切削 Semi-finishing |
| F01 | 精切削 Finishing |

11 特別記號
Special Symbol



| 4 斷屑槽·螺絲孔記號 Chip Breaker · Hole Symbol | | |
|---|-----------------------|--------------------|
| 記號 Symbol | 斷屑槽狀況 Chip Breaker | 孔 Hole |
| A | 無 NO | 有孔 With Hole |
| F | 雙面 Double side | 無孔 Without Hole |
| G | 雙面 Double side | 有孔 With Hole |
| M | 單面 One side | 有孔 With Hole |
| N | 無 NO | 無孔 Without Hole |
| W | 無 NO | 無孔 Without Hole |

| 5 內接圓記號 Inscribed Circle | |
|-----------------------------|-------------------------------|
| 記號 Symbol | 內接圓直徑(mm) Inscribed Circle |
| 3 | 9.525 |
| 4 | 12.7 |
| 5 | 15.875 |
| 6 | 19.05 |

英制
Imperial
units

| 6 厚度記號 Insert Thickness | |
|----------------------------|---------------------|
| 記號 Symbol | 厚度(mm) Thickness |
| 2 | 3.18 |
| 3 | 4.76 |
| 4 | 6.35 |
| 6 | 9.52 |

英制
Imperial
units

| 7 刀尖代號 Degree | |
|------------------|-----------------------------|
| 記號 Symbol | 刀尖圓弧半徑(mm) Corner Radius |
| 1 | 0.4 (0.397) |
| 2 | 0.8 (0.794) |
| 3 | 1.2 (1.191) |
| 4 | 1.6 (1.588) |
| 5 | 2.0 (1.984) |
| 6 | 2.4 (2.381) |

•長度單位 Unit of Length (mm)



車削刀片規格介紹

DESIGNATION OF TURNING INSERTS

KOVIT

| 記號 Symbol | 形狀 Shape | 頂角 Vertical angles | 圖形 Shape |
|--------------|--------------------|-----------------------|-------------|
| H | 正六角形 Hexagonal | 120° | |
| O | 正八角形 Octagonal | 135° | |
| P | 正五角形 Pentagonal | 108° | |
| S | 正方形 Square | 90° | |
| T | 正三角形 Triangular | 60° | |
| C | 菱形 Rhombic | 80° | |
| D | | 55° | |
| E | | 75° | |
| F | | 50° | |
| M | | 86° | |
| V | | 35° | |
| Y | 多角形 Rhombic | 25° | |
| W | 六角形 Trigon | 80° | |
| L | 長方形 Rectangular | 90° | |
| A | 菱形 Rhombic | 85° | |
| B | | 82° | |
| K | | 55° | |
| R | 圓形 Round | - | |

1 形狀記號
Insert Shape

| 記號 Symbol | 離除角 Relief Angle |
|--------------|---------------------|
| A | 3° |
| B | 5° |
| C | 7° |
| D | 15° |
| E | 20° |
| F | 25° |
| G | 30° |
| N | 0° |
| P | 11° |
| O | 其他 Other |

2 離除角記號
Relief Angle

| 記號 (級) Symbol | 容許公差 (mm) Tolerance | | |
|---------------------|------------------------|----------------------|--------------------------------|
| | 高度 (mm) Height | 厚度 (mm) Thickness | 內接圓直徑 (Ød) Inscribed Circle |
| A | ±0.005 | ±0.025 | ±0.025 |
| F | ±0.005 | ±0.025 | ±0.13 |
| C | ±0.013 | ±0.025 | ±0.025 |
| H | ±0.013 | ±0.025 | ±0.13 |
| E | ±0.025 | ±0.025 | ±0.025 |
| G | ±0.025 | ±0.13 | ±0.025 |
| J | ±0.005 | ±0.025 | ±0.005~±0.13 |
| K | ±0.013 | ±0.025 | ±0.005~±0.13 |
| L | ±0.025 | ±0.025 | ±0.005~±0.13 |
| M | ±0.08~±0.18 | ±0.13 | ±0.005~±0.13 |
| N | ±0.08~±0.18 | ±0.025 | ±0.005~±0.13 |
| U | ±0.13~±0.38 | ±0.13 | ±0.008~±0.25 |

3 精度等級記號
Tolerance Class



| 4 螺絲孔記號 Hole Symbol | | | | |
|------------------------|--------------------|----------------------------|---------------------|-------------|
| 記號 Symbol | 孔 Hole | 孔的形狀 Hole Configuration | 斷屑槽 Chip Breaker | 形狀 Shape |
| N | 無孔 Without Hole | - | 無 NO | |
| R | | | 單面 One side | |
| F | | | 兩面 Double side | |
| A | 有孔 With Hole | 有孔 With Hole | 無 NO | |
| M | | | 單面 One side | |
| G | 有孔 With Hole | 有孔 With Hole | 兩面 Double side | |
| W | 有孔 With Hole | 有孔 With Hole | 無 NO | |
| T | | | 單面 One side | |
| Q | 有孔 With Hole | 有孔 With Hole | 無 NO | |
| U | | | 兩面 Double side | |
| B | 有孔 With Hole | 有孔 With Hole | 無 NO | |
| H | | | 單面 One side | |
| C | 有孔 With Hole | 有孔 With Hole | 無 NO | |
| J | | | 兩面 Double side | |
| X | - | - | - | - |

| 5 長度記號 Cutting Edge Length | | | | | | | | | | | | | | | | |
|-------------------------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|---------------------------|
| 記號 Symbol | 寸法 Size | 記號 Symbol | 寸法 Size | 記號 Symbol | 寸法 Size | 記號 Symbol | 寸法 Size | 記號 Symbol | 寸法 Size | 記號 Symbol | 寸法 Size | 記號 Symbol | 寸法 Size | 記號 Symbol | 寸法 Size | 內接圓直徑 Inscribed Circle |
| *R | | | | | | | | | | | | | | | | |
| | | 03 | 3.97 | 03 | 4.0 | | | 06 | 6.9 | 04 | 4.8 | | | | | 3.97 |
| | | 04 | 4.76 | 04 | 4.8 | | | 08 | 8.2 | 05 | 5.8 | | | | | 4.67 |
| *05 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| | | 05 | 5.56 | 05 | 5.6 | 03 | 3.8 | 09 | 9.6 | 06 | 6.8 | | | | | 5.56 |
| *06 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| | | 06 | 6.35 | 06 | 6.5 | 04 | 4.3 | 11 | 11 | 07 | 7.8 | 11 | 11.2 | | | 6.35 |
| | | 07 | 7.94 | 08 | 8.1 | 05 | 5.4 | 13 | 13.8 | 09 | 9.7 | | | | | 7.94 |
| *08 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| 09 | 9.525 | 09 | 9.525 | 09 | 9.7 | 06 | 6.5 | 16 | 16.5 | 11 | 11.6 | 16 | 16.6 | 16 | 19.7 | 9.525 |
| *10 | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| *12 | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| 12 | 12.7 | 12 | 12.7 | 12 | 12.9 | 08 | 8.7 | 22 | 22 | 15 | 15.5 | 22 | 22.1 | | | 12.7 |
| 15 | 15.875 | 15 | 15.875 | 16 | 16.1 | 10 | 10.9 | 27 | 27.5 | 19 | 19.4 | | | | | 15.875 |
| *16 | 16 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 16 |
| 19 | 19.05 | 19 | 19.05 | 19 | 19.3 | 13 | 13 | 33 | 33 | 23 | 23.3 | | | | | 19.05 |
| *20 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 20 |
| | | 22 | 22.225 | 22 | 22.6 | | | 38 | 38.5 | 27 | 27.1 | | | | | 22.225 |
| *25 | 25 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 25 |
| 25 | 25.4 | 25 | 25.4 | 25 | 25.8 | | | 44 | 44 | 31 | 31 | | | | | 25.4 |
| 31 | 31.75 | 31 | 31.75 | 32 | 32.2 | | | 55 | 55 | 38 | 38.8 | | | | | 31.75 |
| *32 | 32 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 32 |

•長度單位 Unit of Length (mm)



車削刀片規格介紹

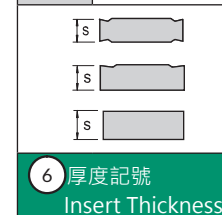
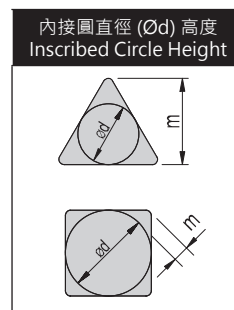
DESIGNATION OF TURNING INSERTS

KOVIT

| 基準內接圓 Detail of M Class Insert Tolerance | 內接圓直徑 (Ød) 容許公差 Tolerance of Inscribed Circle | | 高度 (m) 容許公差 Tolerance of Height | | 適用形狀 Shape |
|---|--|------------|------------------------------------|------------|---------------|
| | J.K.L.M.N(級 Class) | U(級 Class) | J.K.L.M.N(級 Class) | U(級 Class) | |
| 6.35 | ±0.05 | ±0.08 | ±0.08 | ±0.13 | H W |
| 9.525 | | | | | |
| 12.7 | ±0.08 | ±0.13 | ±0.13 | ±0.2 | O R |
| 15.875 | | | | | |
| 19.05 | ±0.1 | ±0.18 | ±0.15 | ±0.27 | P |
| 25.4 | | | | | |
| 31.75 | ±0.13 | ±0.25 | ±0.18 | ±0.38 | S |
| 32 | | | | | |
| | ±0.15 | ±0.25 | ±0.2 | ±0.38 | T |
| | | | | | |
| | | | | | C、E、M |

| 記號 Symbol | 厚度 (mm) Thickness |
|--------------|----------------------|
| 01 | 1.59 |
| 02 | 2.38 |
| T2 | 2.78 |
| 03 | 3.18 |
| T3 | 3.97 |
| 04 | 4.76 |
| 05 | 5.56 |
| 06 | 6.35 |
| 07 | 7.94 |
| 09 | 9.52 |

| 基準內接圓 Detail of M Class Insert Tolerance | 內接圓直徑 (Ød) 容許公差 Tolerance of Inscribed Circle | 高度 (m) 容許公差 Tolerance of Height | 適用形狀 Shape |
|--|--|------------------------------------|---------------|
| 6.35 | ±0.05 | ±0.11 | D |
| 9.525 | | | |
| 12.7 | | | |
| 15.875 | ±0.08 | ±0.15 | |
| 19.05 | | | |
| | ±0.1 | ±0.18 | |
| | | | |
| 6.35 | ±0.05 | ±0.16 | V Y |
| 9.525 | | | |



6 厚度記號
Insert Thickness

04
6

08
7

T
8

N
9

-

M01
10

7 r 角記號
Corner (radius)

| 記號 Symbol | 刀尖圓弧半徑 Corner Radius |
|--------------|-------------------------|
| 00 | 0.03 |
| 02 | 0.2 |
| 04 | 0.4 |
| 08 | 0.8 |
| 12 | 1.2 |
| 16 | 1.6 |
| 20 | 2.0 |
| 24 | 2.4 |
| 38 | 2.8 |
| 32 | 3.2 |

8 刃邊處理
Corner (radius)

| 記號 Symbol | 切削刃的狀態 Cutting Edge | 形狀 Shape |
|--------------|--|-------------|
| F | 大銳角削角 Sharp Cutting Edges | |
| E | 圓切削角 Round Cutting Edges | |
| W.T | 雙切削削角 Chamfered Cutting Edges | |
| S | 雙倒角及圓切削角 Double Chamfered and Rounded Cutting Edges | |

9 切削方向
Cutting Direction

| 記號 Symbol | 方向 Direction |
|--------------|-----------------|
| R | 右 Right |
| L | 左 Left |
| N | 中間 Neutral |

10 特別記號
Special Symbol

| 記號 Symbol | 方向 Direction |
|--------------|-----------------------|
| R01 | 粗切削 Roughing |
| M01 | 中切削 Semi-finishing |
| F01 | 精切削 Finishing |

•長度單位 Unit of Length (mm)



切削範圍對照表 CUTTING RANGE

KOVIT

| ISO 分類 | Material 加工材質 | Material Strength 工件抗拉強度 | Uncoated | | | | TiCN | | | | AlCrN | AlCrN + TiAlN | TiAlN | AlCrN |
|--------|-------------------------|---------------------------------|-----------|-------|-------|--------|-------------------|--------|---------------|-------|------------------|---------------|------------------|---------------|
| | | | TSK10 | TSP20 | TSP25 | RM1205 | OM1115 | OM2115 | RM315 | RM425 | OM2040 | OM4010 | OM4025 | OM4030 RM4030 |
| | | | 銀色 Silver | | | | 金黃色 Golden yellow | | 鐵灰色 Iron gray | | 藍、紫色 Blue、Purple | 鐵灰色 Iron gray | 藍、紫色 Blue、Purple | 棕色 Brown |
| P | Unalloyed Steels 非鐵合金鋼類 | P10 P20 P30 P40 P50 | | | | | | | | | | | | |
| | Alloyed Steels 合金鋼類 | | | | | | | | | | | | | |
| M | Stainless Steels 不鏽鋼類 | M10 M20 M30 M40 | | | | | | | | | | | | |
| K | Cast Iron 鑄類 | K01 K10 K20 K30 K40 | | | | | | | | | | | | |
| N | Aluminium & Al 鋁及鋁合金 | N10 N20 N30 N40 | | | | | | | | | | | | |
| S | Refractory Alloys 高溫合金 | S10 S20 S30 S40 | | | | | | | | | | | | |
| H | Hard Material 高硬度材 | H10 H20 H30 H40 | | | | | | | | | | | | |

• 長度單位 Unit of Length (mm)



切削範圍對照表 CUTTING RANGE

KOVIT

| ISO 分類 | Material 加工材質 | Material Strength 工件抗拉強度 | TiAlN | | TiN | DLC | Uncoated | | | |
|--------|----------------------------|---------------------------------|----------------------------|--------------------------------------|---------------------------------------|----------------------|-------------|---------------|-----|------|
| | | | RM4010 RM4110 RM4125 | RM3130 RM4025 RM4130 RM4230 | PTE30 | OM5060 RM5060 | RM5005 | OM5005 | GH1 | GH05 |
| | | | 外觀顏色 Surface color | 鐵灰色 Iron gray | 藍、紫色、紅銅色 Blue、Purple Red Copper | 金黃色 Golden yellow | 彩色 Color | 銀白色 silver | | |
| P | Unalloyed Steels 非鐵合金鋼類 | P10 P20 P30 P40 P50 | | | | | | | | |
| | Alloyed Steels 合金鋼類 | | | | | | | | | |
| M | Stainless Steels 不銹鋼類 | M10 M20 M30 M40 | | | | | | | | |
| K | Cast Iron 鑄類 | K01 K10 K20 K30 K40 | | | | | | | | |
| N | Aluminium & Al 鋁及鋁合金 | N10 N20 N30 N40 | | | | | | | | |
| S | Refractory Alloys 高溫合金 | S10 S20 S30 S40 | | | | | | | | |
| H | Hard Material 高硬度材 | H10 H20 H30 H40 | | | | | | | | |

•長度單位 Unit of Length (mm)

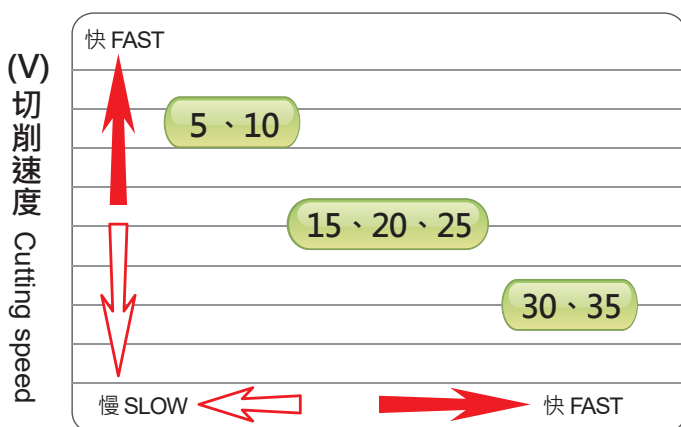


精密刀片斷屑槽列表 PRECISION INSERT CHIPBREAKER

KOVIT

| | | | | |
|------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|------------------------------------|
| 精切削 F01 Finishing | 精切削 FR Finishing | 精切削 -701 Finishing | 中切削 M01 Semi-Finishing | 中切削 HM Semi-Finishing |
| 中切削 AR Semi-Finishing | 中切削 MT Semi-Finishing | 中切削 GM2 Semi-Finishing | 中切削 GS2 Semi-Finishing | 粗切削 R01 Roughing |

材質與速度關係圖 Cutting Relative chart



⚠ 請注意! Caution!
依加工速度決定合適的切削進給量，避免超速過載！
Caution: Cutting speed depends on suitable feeding speed to avoid overloaded cutting!

(F) 進給速度 Feeding speed

斷屑槽示意表 Chip breaker Cutting Table

| | | |
|--------------------------------|----------------------------|---|
| 斷屑槽程度 Degree of Chipbreaker | 切削深度 Cutting Depth (mm) | 切削狀況 |
| 粗切削 Roughing | R01 | 斷續，不良的切削狀況 Discontinuous & bad cutting |
| 中切削 Semi-Finishing | M01 | 一般的切削狀況 General cutting |
| 精切削 Finishing | F01 | 穩定，良好的切削狀況 Stable & good cutting |

進給速率(mm/r) Feeding speed

•長度單位 Unit of Length (mm)



切削範圍對照表 CUTTING RANGE

KOVIT

| 類別 Class | | 材質特性 Characteristics of Materials | P | M | K | N | S | H |
|----------------------|--|--|---|---|---|-------------------------------------|--|---------------------------|
| | | | Unalloyed Steels 非合金鋼類 | Alloyed Steels 合金鋼類 | Stainless Steels 不鏽鋼類 | Cast Iron 鑄鐵類 | Aluminium & Al 鋁及鋁合金 | Refractory Alloys 高溫合金 |
| 外徑 Outer Diameter |  Turning | 耐磨韌性 Abrasion Resistance Toughness ↕ 韌性 Toughness / Ductility | RM4010 | RM4010 | RM4010 | | | |
| | | | RM425 | RM425 | RM425 | RM4010 | PCD GH05 | RM4010 |
| 內徑 Inner Diameter |  Boring | 耐磨韌性 Abrasion Resistance Toughness ↕ 韌性 Toughness / Ductility | RM1205 | RM1205 | RM1205 | | | |
| | | | RM4010 RM4030 RM425 | RM4010 RM4030 RM425 RM4035 | RM4010 RM4030 RM425 | RM1205 RM4010 RM4030 RM315 | PCD GH05 RM5005 | RM4015 RM4010 |
| 車牙 Turning Thread |  Threading | 耐磨韌性 Abrasion Resistance Toughness ↕ 韌性 Toughness / Ductility | RM325 | RM325 | RM325 | - | - | - |
| | | | | | | | | |
| 切斷 Cutting Off |  Parting-off | 耐磨韌性 Abrasion Resistance Toughness ↕ 韌性 Toughness / Ductility | RM4010 | RM4010 | | | | |
| | | | OM4010 OM4025 RM4025 | OM4010 OM4025 RM4025 | OM4025 RM4025 | OM4025 RM4025 | OM5005 | - |
| 切槽 Cutting Groove |  Grooving | 耐磨韌性 Abrasion Resistance Toughness ↕ 韌性 Toughness / Ductility | OM4025 | OM4025 | OM4025 | | | |
| | | | RM4030 RM1205 | RM4030 RM1205 | RM4030 RM1205 | OM4025 | - | OM4025 |
| 鑽孔 Drilling |  Drilling | 耐磨韌性 Abrasion Resistance Toughness ↕ 韌性 Toughness / Ductility | RM3130 | RM3130 | RM3130 | | | |
| | | | RM4025 PTE30 | RM4025 PTE30 | RM4025 PTE30 | RM3130 RM4025 PTE30 | RM5005 RM5060 | - |
| 銑削 Milling |  Milling | 耐磨韌性 Abrasion Resistance Toughness ↕ 韌性 Toughness / Ductility | OM4010 | OM4010 | OM4010 | | | |
| | | | OM4025 RM1205 RM4010 RM4130 RM4030 PTE30 | OM4025 RM1205 RM4010 RM4130 RM4030 PTE30 | OM4025 RM4010 RM4130 RM4030 RM2040 RM535 | RM3130 | PCD OM5005 OM5060 RM5005 RM5060 GH1 GH05 | RM535 RM5035 |

•長度單位 Unit of Length (mm)

TiAlN

MICROGRAIN

Physical Vapor Deposition: 物理氣相沉積

耐熱性優秀的 3~7 μ m 鍍層而形成的高質量、高性能的捨棄式刀片的主力材質，廣泛適用於鋼、鑄鐵、難切削的高速、高效率加工。

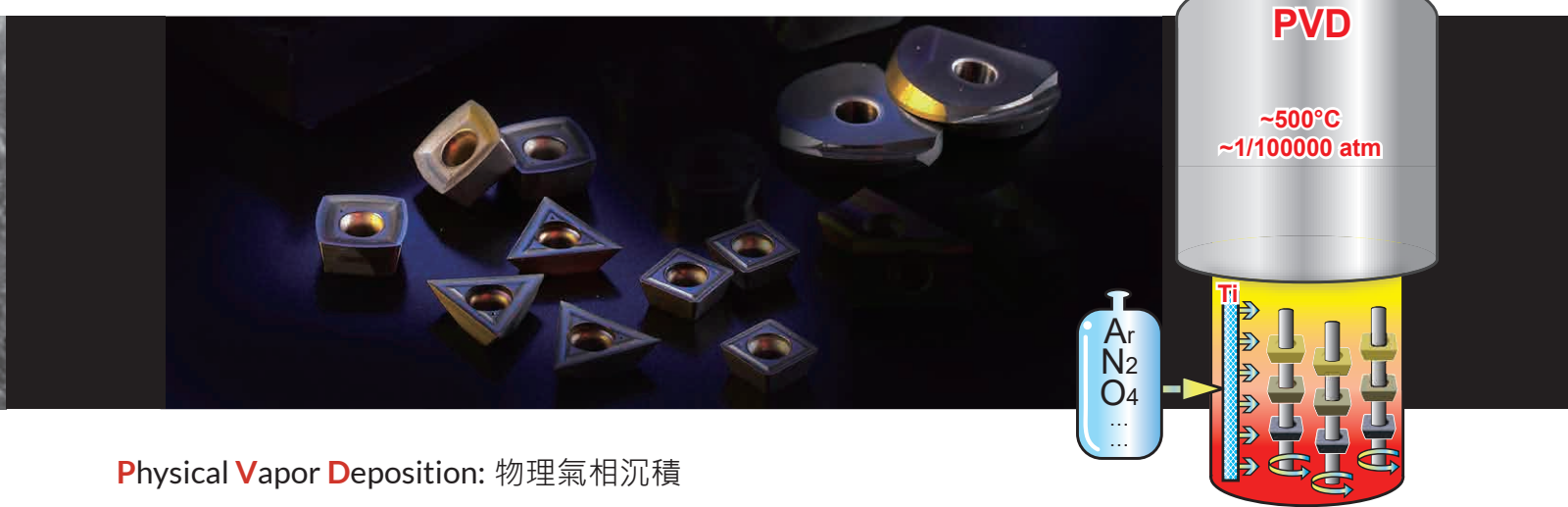
The main coating for supplemental inserts with high quality & performance is formed from the range of coating thickness from 3~7 μ m with excellent heat resistance. It is widely used in high speed and high efficiency of difficult cutting for steel and cast iron.

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 材質 Grade | 顏色 Color | 硬度 (Hv) Hardness | 承受溫度 (攝氏) Withstanding Temperature(°C) | 主要成份 Composition | 切削速度 Vc(m/min) | 特點 Features |
|-----------------------------------|------------------------|-------------|----------------------|------------------------|--|---------------------|-------------------|---|
| P 鋼 Alloyed Steels | K10~K20 | OM4010 | 鐵灰色 Iron Grey | 3300 | >1100 | AlCrN | 150~300 | 在超微粒底材表面鍍上耐溶著性、抗氧化性佳的鍍層，適合加工合金鋼，具有高穩定性及壽命長的特性。 Solvent resistance and anti-oxidation coated ultra-micro grain substrate featuring high stability and extended life when processing alloy steel. |
| | K10~K20 | OM4025 | 藍紫色 Blue purple | 3300 | 900 | TiAlN | 150~250 | |
| | K10~K20 | OM4035 | 金黃色 Golden yellow | 3300 | 900 | TiAlN+TiN | 100~220 | |
| | P15~P25 | RM4010 | 藍紫色 Blue purple | 3300 | 900 | TiAlN | 150~250 | |
| | P15~P25 | RM4130 | 紅銅色 Red copper | 3300 | 1100 | TiAlN+AlCrN | 100~250 | |
| | M15~M25 | RM4030 | 紅銅色 Red copper | 3300 | 1100 | AlTiN | 100~200 | |
| | P15~P25 | PTE30 | 金黃色 Golden yellow | 3300 | 900 | TiAlN+TiN | 150~250 | |
| M 不鏽鋼 Stainless Steels | P15~P25 | RM4130 | 紅銅色 Red copper | 3300 | 1100 | TiAlN+AlCrN | 100~250 | 在超微粒底材表面鍍上耐溶著性、抗氧化性佳的鍍層，適合加工合金鋼及不鏽鋼等難切削材之加工。 Solvent resistance and anti-oxidation coated ultra-micro grain substrate is suitable for processing difficult cutting materials, alloy steel and stainless steel. |
| | K10~K20 | RM4230 | | 1550 | 900 | TiAlN | 100~300 | |
| | K10~K20 | OM4010 | 鐵灰色 Iron Grey | 3300 | >1100 | AlCrN | 100~220 | |
| S 高溫合金 Refractory Alloys | K10~K20 | OM4010 | 鐵灰色 Iron Grey | 3300 | >1100 | AlCrN | 20~40 | 在超微粒底材表面鍍上耐溶著性、抗氧化性佳的鍍層，適合加工高溫合金，具有高穩定性及壽命長的特性。 Solvent resistance and anti-oxidation coated ultra-micro grain substrate featuring high stability and extended life when processing refractory alloys. |
| H 高硬度材質 Hard Material | K10~K20 | OM4010 | 鐵灰色 Iron Grey | 3300 | >1100 | AlCrN | 50~100 | 在超微粒底材表面鍍上耐溶著性、抗氧化性佳的鍍層，適合加工高硬鋼材，具有高穩定性及壽命長的特性。 Solvent resistance and anti-oxidation coated ultra-micro grain substrate featuring high stability and extended life when processing dead-hard steel. |

• 長度單位 Unit of Length (mm)



鍍層等級 - PVD COATING GRADES-PVD



Physical Vapor Deposition: 物理氣相沉積

在 PVD 鍍層處理中，通過金屬蒸汽在刀片表面上冷凝而形成。PVD 的工作原理與濕空氣在冷路面上冷凝繼而在路面上形成冰霜的原理相同。PVD 的形成溫度比 CVD 更低。通常，PVD 的處理溫度為大約 500°C。

Physical vapor deposition (PVD) is a coating process in which thin films is deposited by the condensation of vaporized metal. The PVD working process is the same principle as when humid air condense frost on cold pavement. PVD process is carried out at lower temperature than CVD process, in which the PVD process temperature is approximately 500°C.

車削 Turning

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Finishing | 中切削 Semi- Finishing | 重切削 Heavy Cutting |
|------------------------------------|---------------------|------------------|---------------------------|-------------------------|
| P 鋼 Alloyed Steels | K10~K20 | OM4010 | | |
| | K10~K20 | OM4025 | | |
| | P15~P25 | RM4130/RM325 | | |
| | M15~M25 | RM4010 | | |
| | P15~P25 | | | RM4030 |
| M 不鏽鋼 Stainless Steels | K10~K20 | PTE30 | | |
| | K10~K20 | OM4010/RM325 | | |
| K 鑄鐵 Cast Iron | K15~K25 | OM4025 | | |
| S 高溫合金 Refractory Alloys | K10~K20 | OM4010 | | |
| H 高硬度 材質 Hard Material | K10~K20 | OM4010 | | |

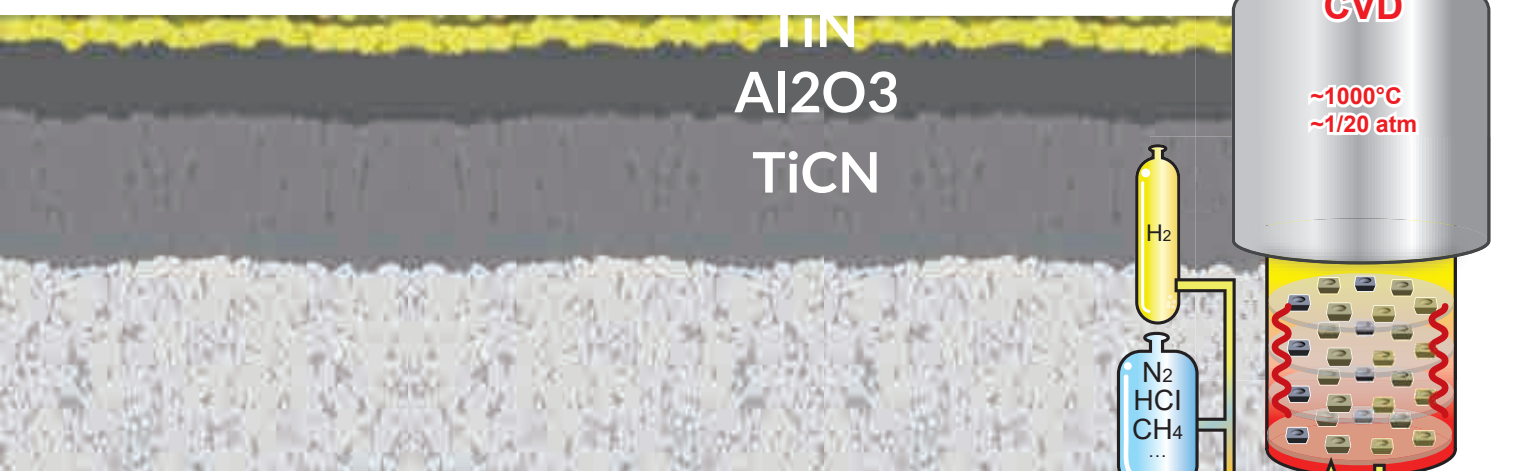
銑削 Milling

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Finishing | 中切削 Semi- Finishing | 重切削 Heavy Cutting |
|------------------------------------|---------------------|------------------|---------------------------|-------------------------|
| P 鋼 Alloyed Steels | K10~K20 | OM4010 | | |
| | K10~K20 | OM4025 | | |
| | K10~K20 | RM4130 | | |
| | P15~P25 | RM4010 | | |
| | M15~M25 | | | RM4030 |
| | P15~P25 | | PTE30 | |
| M 不鏽鋼 Stainless Steels | K10~K20 | OM4010 | | |
| | K10~K20 | OM4025 | | RM2040 |
| K 鑄鐵 Cast Iron | K15~K25 | | OM4030/RM3130 | |
| H 高硬度 材質 Hard Material | K10~K20 | OM4010/RM4110 | | |

•長度單位 Unit of Length (mm)

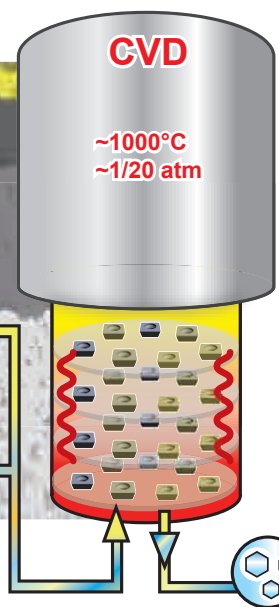


鍍層等級 - CVD COATING GRADES-CVD



KOVIT

TiN
Al₂O₃
TiCN



Chemical Vapor Deposition: 化學氣相沉積

鍍層具有優秀的耐磨損性、耐熱性、及鍍層膜黏著力優秀的多層鍍層膜而形成的高品質、高性能的捨棄式主力刀片材質，廣泛適用於鋼、鑄鐵、難削材的高速、高效率加工。

The coating features excellent abrasion, heat resistance and adhesion. Excellent CVD adhesion multi-layer coating results in high quality and good performance in main coating for indexable inserts, which is widely used in steel, cast iron, and high-speed and high-efficiency processing.

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 材質 Grade | 顏色 Color | 硬度 (Hv) Hardness | 摩擦係數 Friction Coefficient | 主要成份 Composition | 切削速度 Cutting Speed Vc(m/min) | 特點 Features |
|---------------------------------|------------------------|-------------|-------------------------|------------------------|---------------------------------|---|---------------------------------------|---|
| P 鋼 Alloyed Steels | P15~P35 | RM115 | 金黃色 Golden yellow | 2000 | 0.4 | MT-Ti(CN)+Al ₂ O ₃ +TiN | 60~320 | 採用特殊專用的底材，提高了耐磨性及耐崩損性。 Improved stability & wear resistance due to the adoption of special substrate. |
| | P25~P40 | RM4035 | | 1560 | 0.4 | MT-Ti(CN)+Al ₂ O ₃ +TiN | 150~200 | 適用於合金鋼及不鏽鋼類的粗、中加工。 Applicable for alloy steel and stainless steel in roughing & semi-finishing. |
| | P15~P25 | RM425 | 鐵灰色 Iron Gray | 2000 | 0.35 | MT-Ti(CN)+Al ₂ O ₃ +TiN | 170~460 | 刃口衝擊性和耐磨性增強，進而提高刃口的破損力。 Increased flute strength due to improved wear resistance. |
| M 不鏽鋼 Stainless Steels | P15~P35 | RM115 | 金黃色 Golden yellow | 2000 | 0.4 | MT-Ti(CN)+Al ₂ O ₃ +TiN | 50~210 | 採用特殊專用的底材，提高了耐磨性及耐崩損性。 Improved stability & wear resistance due to the adoption of special substrate. |
| | P15~P25 | RM425 | 鐵灰色 Iron Gray | 2000 | 0.35 | MT-Ti(CN)+Al ₂ O ₃ +TiN | 70~180 | 刃口衝擊性和耐磨性增強，進而提高刃口的破損力。 Increased flute strength due to improved wear resistance. |
| K 鑄鐵 Cast Iron | K10~K20 | RM315 | 鐵灰色 Iron Gray | 2000 | 0.3 | MT-Ti(CN)+Al ₂ O ₃ | 190~410 | 適用於鑄鐵輕切削加工，可承受輕微的重切削加工。 Suitable for light machining and reduce the insert wear during heavy cutting machining on cast iron. |

車削 Turning

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Fine Cutting | 中切削 Medium Cutting | 重切削 Heavy Cutting |
|---------------------------------|------------------------|---------------------|--------------------------|-------------------------|
| P 鋼 Alloyed Steels | P15~P25 | | RM425 / RM4035 | |
| M 不鏽鋼 Stainless Steels | P15~P25 | | RM425 | |
| K 鑄鐵 Cast Iron | K10~K20 | | RM315 | |

銑削 Milling

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Fine Cutting | 中切削 Medium Cutting | 重切削 Heavy Cutting |
|---------------------------------|------------------------|---------------------|--------------------------|-------------------------|
| P 鋼 Alloyed Steels | P15~P35 | OM1115 | | |
| | P25~P40 | | RM4035 | |
| | | OM2115 | | |

•長度單位 Unit of Length (mm)



RC Coating

MICROGRAIN (HF)K10,C3

Rainbow Coating: 彩虹鍍層

鍍層是一種碳元素構成、性質上和鑽石類似，同時又具有石墨原子組成結構的物質。具有高硬度、高彈性、耐磨損性以及良好的低磨擦係數特性，適合作為耐磨鍍層。適用於鋁、銅、塑膠及非鐵金屬材料加工。

A coating composed of carbon elements, similar to the feature of diamonds as well as carbon composed properties. It has higher rigidity, more flexibility, greater abrasion resistance, and a lower friction coefficient suitable for abrasion-resistant coating, which is widely used in aluminum, copper, plastic, and non-iron metal material processing.

| 材質 Material | 工件切削底面 Cutting Bottom of Workpiece | 工件切削側面 Cutting Side of Workpiece | 顯微鏡 x20 倍 Microscope | 比較結果 Compared Result |
|--------------------------------|---------------------------------------|-------------------------------------|-------------------------|---|
| OM5005- 未鍍層 OM5005-Uncoated | | | | 表面平坦度☆☆ Surface Flatness 抗沾黏☆☆☆ Anti-Adhesion |
| OM5060- 鍍層 OM5060-Coated | | | | 表面平坦度☆☆☆☆ Surface Flatness 抗沾黏☆☆☆☆ Anti-Adhesion win |

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 材質 Grade | 顏色 Color | 硬度 (Hv) | 摩擦係數 (Friction Coefficient) | 最高使用溫度 (°C) | 切削速度 Vc(m/min) | 特點 Features |
|------------------------------|---------------------|-------------|-------------|------------|--------------------------------|----------------|-------------------|--|
| N 鋁及鋁合金 Aluminum & Al | K10~K20 | OM5060 | 彩色 Color | 2000~3000 | 0.1~0.15 | 300°~400° | 500~800 | 低磨擦係數、耐磨損、抗沾黏、表面平滑。 Low friction coefficient, abrasion resistance, anti-adhesion, and smooth surface. |
| | K10~K20 | RM5060 | 彩色 Color | 2000~3000 | 0.1~0.15 | 300°~400° | 500~700 | |

車削 Turning

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Fine Cutting | 中切削 Medium Cutting | 重切削 Heavy Cutting |
|------------------------------|---------------------|---------------------|-----------------------|----------------------|
| N 鋁及鋁合金 Aluminum & Al | K10~K20 | OM5060 | | |
| | K10~K20 | RM5060 | | |

銑削 Milling

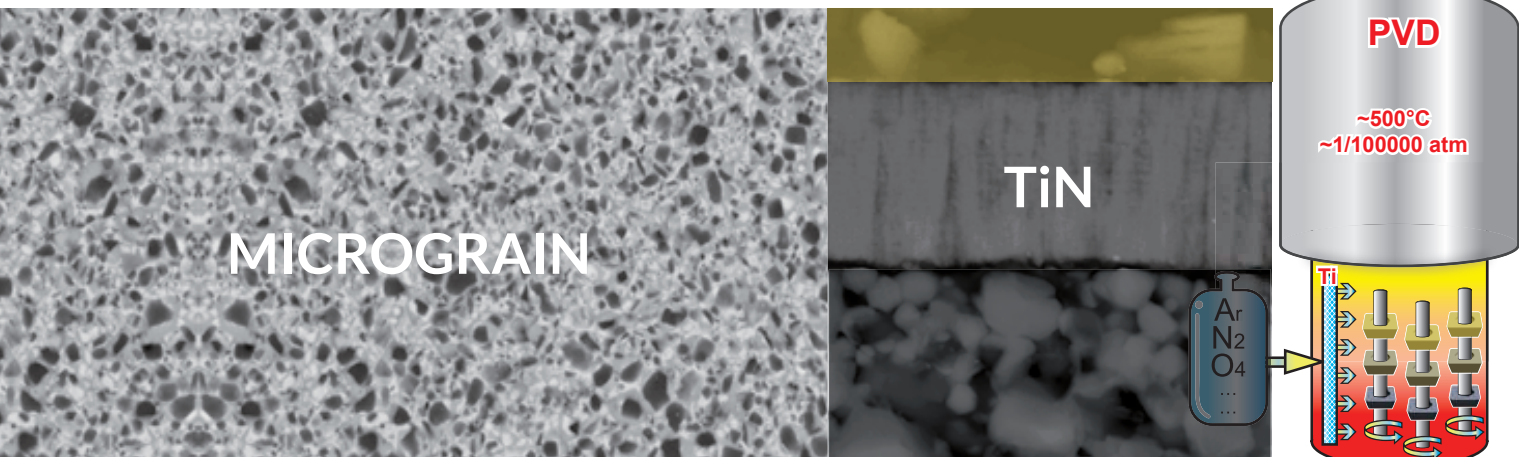
| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Fine Cutting | 中切削 Medium Cutting | 重切削 Heavy Cutting |
|------------------------------|---------------------|---------------------|-----------------------|----------------------|
| N 鋁及鋁合金 Aluminum & Al | K10~K20 | OM5060 | | |
| | K10~K20 | RM5060 | | |

• 長度單位 Unit of Length (mm)



材料等級 - HT/PVD
COATING GRADES-HT/PVD

KOVIT



Coated Cermet: 金屬陶瓷

金屬陶瓷以 Ti 系碳化物、氮化物為主要成份，也被稱為 Ti 系硬質合金。結合最優化及特殊合金，提高了耐磨損性與耐破損性，並且可發揮穩定性能。

Metal ceramic is composed of Ti-based carbide and nitrides, named as well as Ti carbide alloy. When combining with the optimized and special alloys, it improves wear resistance & stability.

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 材質 Grade | 顏色 Color | 硬度 (Hv) Hardness | 主要成份 Composition | 切削速度 Vc(m/min) | 特點 Features |
|---------------------------------|------------------------|-------------|---------------|------------------------|---------------------|-------------------|---|
| P 鋼 Alloyed Steels | P15~P25 | RM1205 | 銀灰色 Silver | 1800 | UN Coating | 100~300 | 高強度及高韌性的金屬陶瓷，提高耐磨性及耐酸化性，可在廣泛的切削條件下，獲得良好的精加工表面。適用於合金鋼及不鏽鋼類加工。 High strength and high toughness cermet, improve the wear resistance, can use in wide range of Cutting Parameter to obtain a good surface finish. Suitable for steel and stainless materials. |

車削 Turning

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Fine Cutting | 中切削 Medium Cutting | 重切削 Heavy Cutting |
|---------------------------------|------------------------|------------------------|--------------------------|-------------------------|
| P 鋼 Alloyed Steels | P15~P25 | RM1205 OM1205 | | |

•長度單位 Unit of Length (mm)



材料等級 - HW COATING GRADES-HW

KOVIT

WC
CO

Cemented Carbide: 硬質合金

HW 硬質合金在常溫到高溫的條件下，都兼具優良的耐磨性和韌性，韌性高、切削阻力低適用於所有被加工材質。
Under room temperature to high temperature, HW hard alloy is consists of good wear resistance, high ductility, and low cutting resistance. It is widely used in all machining materials.

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 材質 Grade | 顏色 Color | 硬度 (HRA) | 主要成份 Composition | 切削速度 Vc(m/min) | 特點 Features |
|------------------------------------|---------------------|-------------|--------------|-------------|---------------------|-------------------|--|
| N 鋁及鋁合金 Aluminium & Al | K10~K20 | GH1 | 銀色 Silver | 91.5 | WC+CO | 150~600 | 耐磨損性優、抗崩韌性佳。 Excellent wear resistance and ductility. |
| | K10~K20 | GH05 | | 91.5 | WC+CO | 150~600 | 非鐵金屬的連續及精加工使表面光亮。 Continuous cutting for non-ferrous metal and a polished surface under high precision cutting. |
| | K10~K15 | RM5005 | | 92 | WC+CO | 300~800 | 鑄鐵、非鐵金屬具有穩定的耐磨損性及抗崩韌性。 Cast iron and non-ferrous metal with stable wear resistance. |

車削 Turning

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Fine Cutting | 中切削 Medium Cutting | 重切削 Heavy Cutting |
|------------------------------------|---------------------|---------------------|--------------------------|-------------------------|
| N 鋁及鋁合金 Aluminium & Al | K10~K20 | GH05 | | |

銑削 Milling

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Fine Cutting | 中切削 Medium Cutting | 重切削 Heavy Cutting |
|------------------------------------|---------------------|---------------------|--------------------------|-------------------------|
| N 鋁及鋁合金 Aluminium & Al | K10~K20 | GH1 | | |
| | K10~K20 | GH05 | | |

•長度單位 Unit of Length (mm)

MICROGRAIN (HF)K10,C3

Micrograin Carbide: 超微粒硬質合金

與一般硬質合金比較，其硬質相粒子是極細的，平均粒度在 1 μ m 以下，因此能獲得比相同硬度的一般硬質合金更高的韌性和抗塑變形性。

As compared to other conventional carbide alloy, HF is relatively tiny with an average particlesize of below 1 μ m resulting in higher deformation resistance and ductility.

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 材質 Grade | 顏色 Color | 硬度 (HRA) | 主要成份 Composition | 切削速度 Vc(m/min) | 特點 Features |
|-----------------------------------|------------------------|-------------|--------------|-------------|---------------------|-------------------|--|
| N 鋁及鋁合金 Aluminum & Al | Z10 | OM5005 | 銀色 Silver | 92.7 | Micrograin | 200~800 | 可使用於鑄鐵、鋁合金及耐熱合金之加工。 Applicable for cast iron, Al alloy and other alloy with heat resistance. |
| | Z10 | RM5005 | 銀色 Silver | 92.8 | Micrograin | 150~600 | 適用於加工 \leq 12% 矽含量鍛造鋁合金材料。 Applicable for forged Al alloy with less than 12% silicon element. |

車削 Turning

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Fine Cutting | 中切削 Medium Cutting | 重切削 Heavy Cutting |
|-----------------------------------|---------------------|------------------------|--------------------------|-------------------------|
| N 鋁及鋁合金 Aluminum & Al | Z10 | OM5005 | | |
| | Z10 | RM5005 | | |

銑削 Milling

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Fine Cutting | 中切削 Medium Cutting | 重切削 Heavy Cutting |
|-----------------------------------|---------------------|------------------------|--------------------------|-------------------------|
| N 鋁及鋁合金 Aluminum & Al | Z10 | OM5005 | | |
| | Z10 | RM5005 | | |

• 長度單位 Unit of Length (mm)



粗細微粒底材

Various size substrate

Polycrystalline Cubic Boron Nitride: 立方氮化硼

加入特殊陶瓷成份作為結合劑，在超高壓高溫的條件下燒結合成，與原來材質相比，具有更高的硬度和更優秀的耐熱性。

Cubic Boron Nitride with ceramic bonded sintered at high pressure and temperature, as compared to original characteristics, has higher hardness and better heat resistance.

| | |
|--------------------------------|-----------------------------------|
| 工具鋼 Tool steel | 硬鎳鑄鐵 Hardened Ni Cast Iron |
| 合金鋼 Alloy steel | 高溫合金 HRC35 以上 Refractory alloy |
| 鑄鐵 Cast iron | 鈷基合金 Cobalt-based alloy |
| 冷激鑄鐵 Chilled cast iron | 鎳基合金 Nickel-based alloy |
| 高鈷粉末金屬 Cobalt Powered Metal | |

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 材質 Grade | 顏色 Color | 硬度 (Hv) | 主要成份 Composition | 切削速度 Vc(m/min) | 特點 Features |
|--|---------------------|-------------|------------------|------------|---------------------|-------------------|---|
| K 鑄鐵 Cast Iron | - | CBN500 | 鐵灰色 Iron gray | 3000~4000 | CBN+TiN | 100~1500 | 高硬度、耐高溫下穩定性佳、良好的耐磨性。 High stability and good wear resistance under high hardness and heat resistance. |
| H 高硬度材質 High Hardness Material | - | CBN250 | 鐵灰色 Iron gray | 3000~3500 | CBN+TiN | 50~300 | 高硬度、耐高溫下穩定性佳、良好的耐磨性、高速連續加工使用，建議採用乾式切削，可加工出光亮表面。 High stability and good wear resistance under high hardness and heat resistance. Obtained polished surface under continuous high speed processing and Recommended for dry cutting. |

車削 Turning

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Fine Cutting | 中切削 Medium Cutting | 重切削 Heavy Cutting |
|--|---------------------|---------------------|-----------------------|----------------------|
| K 鑄鐵 Cast Iron | - | CBN400 | CBN300 | |
| H 高硬度材質 High Hardness Material | - | CBN250 | | |

銑削 Milling

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Fine Cutting | 中切削 Medium Cutting | 重切削 Heavy Cutting |
|--|---------------------|---------------------|-----------------------|----------------------|
| K 鑄鐵 Cast Iron | - | CBN400 | CBN300 | |
| H 高硬度材質 High Hardness Material | - | CBN250 | | |

•長度單位 Unit of Length (mm)



粒度及特性 - CBN

CBN GRAIN SIZE & FEATURES

KOVIT

CBN250



粒度 Grain Size

1 μ m

硬度 Hardness

2400Hv

切削速度 Cutting Speed

100~400 Vc(m/min)

CBN300



粒度 Grain Size

2 μ m

硬度 Hardness

2400Hv

切削速度 Cutting Speed

100~400 Vc(m/min)

CBN400



粒度 Grain Size

3 μ m

硬度 Hardness

2400Hv

切削速度 Cutting Speed

800~220 Vc(m/min)

是耐磨與耐崩刃性的通用材質。適合刀具使用壽命更長的應用。在對灰鑄鐵和硬鑄鐵進行斷續加工、淬硬鋼銑削對大多數鐵基閥座環加工時表現優異。是大多數鐵基粉末金屬的優先選擇材質。

CBN250 is a general material with high wear resistance and abrasion extending the tool life. Excellent performance on interruptedly cutting gray and hard cast iron, milling of quenched steel, and machining valve seat ring alloys. It is the most common material choice for powder metallurgy.

提高了粒子間的結合強度，是切刃強度最高的材質。適用於所有常見硬化鋼的中度到重度斷續車削。在韌性、月牙灣和後刀面耐磨性之間實現很好的平衡。還可用於鐵基閥座環的插銑加工。

CBN300 is the strongest cutting edge material as it has a better bonding strength between particles. Applicable for moderate to heavy interrupted turning hardened steel. Perfect balancing between the toughness of the crater and the wear resistance of the flank. Idea for plunge milling the valve seat rings.

適用於汽車用鋼的輕度斷續切削，由於具有較優的耐磨性，所以非常適用在冷作工具鋼和某些閥座用合金。還建議用於拋光粗糙的高強度鑄鐵。

It is suitable for continuous and lightly interrupted cutting of automotive industries. Excellent abrasion resistance makes CBN400 the ideal choice for cold work tool steels and certain valve seat alloys. It is also Recommended for finishing abrasive high strength cast irons.

超硬燒結合金
Super-hard sintered alloy

中切削硬化鋼
Interrupted cutting of hardened steel

連續~輕切削加工
Continuous~
Light interrupted cutting

•長度單位 Unit of Length (mm)



微粒金剛石

Micro grain diamond

Poly Crystalline Diamond: 聚晶鑽石

聚晶鑽石通常用來進行精密切削加工和普通半精密加工，還可用作較大切削量的粗加工和斷續加工（如：銑削等）。其焊接性、機械磨削性和斷裂韌性最高。經過嚴格篩選過的人造鑽石顆粒，經過高壓高溫技術燒結並將人造超微粒子鑽石結晶的集積層僅密切合於碳化鎢基座上而成。

Generally use on precision cutting and semi-precision cutting, also use on heavy rough cutting and non continuous cutting (like milling etc.). Good property on soldering / sharpening and ductile metal. Strictly selected synthetic diamond, powder bonded together by sintering at high pressures and temperature, produced on a cemented carbide substrate.

| 塑膠 Plastic | 石墨 Graphite | | | | | | | | |
|--|--|--|---|-----------------------|--|---|--|--|---|
| 黃銅青銅合金 Brass&Bronze Alloys | 氧基樹脂 Epoxy Resins | | | | | | | | |
| 矽鋁合金 Silicon-Aluminum Alloys | 木材、複合木材 Wood, Compound Wood | | | | | | | | |
| 銅合金 Copper Alloys | 硬質橡膠 Hard Rubber | | | | | | | | |
| 鎂合金 Magnesium Alloys | 玻璃纖維 Fibre Glass Composites | | | | | | | | |
| 鋁合金 Aluminum Alloys | 陶瓷 Ceramics | | | | | | | | |
| 預燒結或全燒結碳化鎢 Presintered or Sintered Tungsten Carbide | 碳、石碳酸 Carbon-Phenolic | | | | | | | | |
| <table border="1" style="width: 100%;"> <thead> <tr> <th colspan="2">鋁合金 Aluminum 4~8% SI</th> <th colspan="2">鋁合金 Aluminum 9~13% SI</th> </tr> </thead> <tbody> <tr> <td> 車削 Turning 線速度 V 900~3500(m/min) 進給 F 0.1~0.4(mm/rev) 切削深度 Ap 0.1~0.4(mm) </td> <td> 銑削 Milling 線速度 V 1000~5000(m/min) 進給 F 0.1~0.3(mm/rev) 切削深度 Ap 0.1~0.3(mm) </td> <td> 車削 Turning 線速度 V 600~2400(m/min) 進給 F 0.1~0.4(mm/rev) 切削深度 Ap 0.1~0.4(mm) </td> <td> 銑削 Milling 線速度 V 1000~5000(m/min) 進給 F 0.1~0.3(mm/rev) 切削深度 Ap 0.1~0.3(mm) </td> </tr> </tbody> </table> | | 鋁合金 Aluminum 4~8% SI | | 鋁合金 Aluminum 9~13% SI | | 車削 Turning 線速度 V 900~3500(m/min) 進給 F 0.1~0.4(mm/rev) 切削深度 Ap 0.1~0.4(mm) | 銑削 Milling 線速度 V 1000~5000(m/min) 進給 F 0.1~0.3(mm/rev) 切削深度 Ap 0.1~0.3(mm) | 車削 Turning 線速度 V 600~2400(m/min) 進給 F 0.1~0.4(mm/rev) 切削深度 Ap 0.1~0.4(mm) | 銑削 Milling 線速度 V 1000~5000(m/min) 進給 F 0.1~0.3(mm/rev) 切削深度 Ap 0.1~0.3(mm) |
| 鋁合金 Aluminum 4~8% SI | | 鋁合金 Aluminum 9~13% SI | | | | | | | |
| 車削 Turning 線速度 V 900~3500(m/min) 進給 F 0.1~0.4(mm/rev) 切削深度 Ap 0.1~0.4(mm) | 銑削 Milling 線速度 V 1000~5000(m/min) 進給 F 0.1~0.3(mm/rev) 切削深度 Ap 0.1~0.3(mm) | 車削 Turning 線速度 V 600~2400(m/min) 進給 F 0.1~0.4(mm/rev) 切削深度 Ap 0.1~0.4(mm) | 銑削 Milling 線速度 V 1000~5000(m/min) 進給 F 0.1~0.3(mm/rev) 切削深度 Ap 0.1~0.3(mm) | | | | | | |
| <table border="1" style="width: 100%;"> <thead> <tr> <th colspan="2">銅合金 Copper Alloy 銅、鋅、黃銅 Copper, zinc, brass</th> <th colspan="2">木材 Wood</th> </tr> </thead> <tbody> <tr> <td> 車削 Turning 線速度 V 900~3500(m/min) 進給 F 0.1~0.4(mm/rev) 切削深度 Ap 0.1~0.4(mm) </td> <td> 銑削 Milling 線速度 V 1000~5000(m/min) 進給 F 0.1~0.3(mm/rev) 切削深度 Ap 0.1~0.3(mm) </td> <td> 車削 Turning 線速度 V 400~1260(m/min) 進給 F 0.03~0.3(mm/rev) 切削深度 Ap 0.1~0.4(mm) </td> <td> 銑削 Milling 線速度 V 1000~5000(m/min) 進給 F 0.05~2.0(mm/rev) 切削深度 Ap 0.1~0.4(mm) </td> </tr> </tbody> </table> | | 銅合金 Copper Alloy 銅、鋅、黃銅 Copper, zinc, brass | | 木材 Wood | | 車削 Turning 線速度 V 900~3500(m/min) 進給 F 0.1~0.4(mm/rev) 切削深度 Ap 0.1~0.4(mm) | 銑削 Milling 線速度 V 1000~5000(m/min) 進給 F 0.1~0.3(mm/rev) 切削深度 Ap 0.1~0.3(mm) | 車削 Turning 線速度 V 400~1260(m/min) 進給 F 0.03~0.3(mm/rev) 切削深度 Ap 0.1~0.4(mm) | 銑削 Milling 線速度 V 1000~5000(m/min) 進給 F 0.05~2.0(mm/rev) 切削深度 Ap 0.1~0.4(mm) |
| 銅合金 Copper Alloy 銅、鋅、黃銅 Copper, zinc, brass | | 木材 Wood | | | | | | | |
| 車削 Turning 線速度 V 900~3500(m/min) 進給 F 0.1~0.4(mm/rev) 切削深度 Ap 0.1~0.4(mm) | 銑削 Milling 線速度 V 1000~5000(m/min) 進給 F 0.1~0.3(mm/rev) 切削深度 Ap 0.1~0.3(mm) | 車削 Turning 線速度 V 400~1260(m/min) 進給 F 0.03~0.3(mm/rev) 切削深度 Ap 0.1~0.4(mm) | 銑削 Milling 線速度 V 1000~5000(m/min) 進給 F 0.05~2.0(mm/rev) 切削深度 Ap 0.1~0.4(mm) | | | | | | |

•長度單位 Unit of Length (mm)

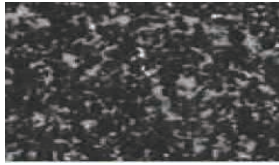


粒度及特性 - PCD

PCD GRAIN SIZE & FEATURES

KOVIT

PCD010

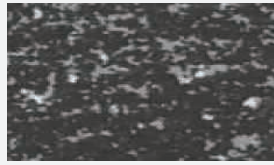


粒度 Grain Size
1µm
硬度 Hardness
7000~8000Hv
切削速度 Cutting Speed
300~3000 Vc(m/min)

超細晶粒結構擁有極強的刃口鋒利度和刃口耐用度，適用於需要鏡面拋光效果的應用場合。
Ultrafine grain structure allows precisely sharpened and durable cutting edges. It's most suitable for mirror polishing.

鋁合金的銑削和粗切，也適用於鈦及鈦合金和複合材料的機加工。
Milling and roughing for aluminum material and also can process titanium and titanium alloys and composite material.

PCD020



粒度 Grain Size
2µm
硬度 Hardness
8000~9000Hv
切削速度 Cutting Speed
200~3000 Vc(m/min)

鈷含量更高，便於加工，適用於需要重度加工的複雜工具。
Increased cobalt levels improve processing. It is suitable for heavy-cutting.

非鐵金屬的一般精加工、壓模成形表面加工、ERP、硬質橡膠、木材、無機板材等的切割及端面加工。
Finishing for non-ferrous, surface milling for press forming, and face milling for ERP, hard rubber, wood, and inorganic plates.

PCD100



粒度 Grain Size
10µm
硬度 Hardness
9000~10000Hv
切削速度 Cutting Speed
100~2500 Vc(m/min)

平均粒徑為 10µm，廣泛適用於需要良好的韌性和較高的耐磨性的情況。
The average grain size is 10µm. It processes high tolerance and wear resistant workpieces.

非鐵金屬的一般加工、陶瓷燒結品、壓模成形表面加工、ERP、硬質橡膠、石墨加工、木材、無機板材等的切割及端面加工。
Processing for non-ferrous, surface milling for shrink-fitting ceramic and press forming, and face-milling for ERP, hard rubber, graphite, wood, and inorganic plates.

PCD250



粒度 Grain Size
25µm
硬 Hardness
10000~11000Hv
切削速度 Cutting Speed
50~2000 Vc(m/min)

平均粒徑為 25µm，適用於需要高耐磨性的加工場合。
The average grain size is 25µm. It processes highly wear-resistant workpieces.

高矽鋁合金加工、鋁複合材料的加工、硬質合金、陶瓷半燒結品、壓模成形的粗加工、陶瓷燒結加工、石材、岩石加工。
Processing for silicon-aluminum alloys, aluminum composite, cemented carbide, and shrink-fitting semi-ceramic; roughing for press forming, shrink-fitting ceramic, and rock.

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 材質 Material | 顏色 Color | 硬度 (Hv) | 主要成份 Composition | 切削速度 Vc(m/min) | 特點 Features |
|---------------------------------|------------------------|----------------|-------------|------------|---------------------|-------------------|--|
| N 鋁及鋁合金 Aluminum & Al | - | PCD | 黑色 Black | 7000~8000 | Micro Grain Diamond | 10~1000 | 超微粒聚晶鑽石，抗沾黏及耐磨性佳，導熱係數高、熱膨脹及摩擦係數低。 Micro Poly crystalline diamond, adhesion resistance and greater wear resistance, high thermal conductivity. Thermal expansion |

車削 Turning

| 被加工材質 Machining Materials | ISO 範圍 ISO Scope | 精切削 Fine cutting | 中切削 Medium cutting | 重切削 Heavy cutting |
|---------------------------------|---------------------|---------------------|--------------------------|-------------------------|
| N 鋁及鋁合金 Aluminum & Al | - | PCD | | |

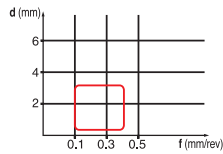
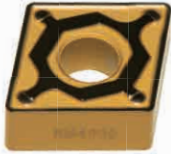
銑削 Milling

| 被加工材質 Machining Materials | ISO 範圍 ISO scope | 精切削 Fine cutting | 中切削 Medium cutting | 重切削 Heavy cutting |
|---------------------------------|---------------------|---------------------|--------------------------|-------------------------|
| N 鋁及鋁合金 Aluminum & Al | - | PCD | | |

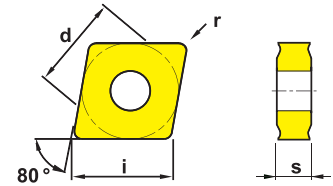
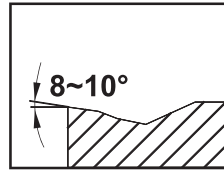


負角刀片 NEGATIVE RAKE ANGLE INSERT

KOVIT

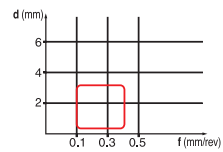


d=0.8~3.5mm
f=0.25(0.20-0.45) mm/rev

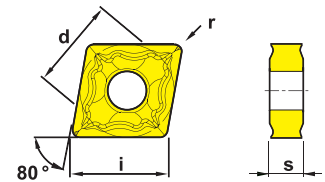
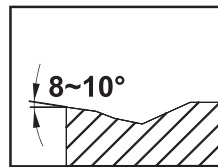


| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | 尺寸 (mm) | | | |
|-----------------------|--------------------------------------|--|--|--|--|---------|------|------|-----|
| | CVD | | | | | Size | | | |
| | RM4035 | | | | | d | i | s | r |
| ★ NEW CNMG120404N-M01 | P | | | | | 12.7 | 12.9 | 4.76 | 0.4 |
| ★ NEW CNMG120408N-M01 | P | | | | | 12.7 | 12.9 | 4.76 | 0.8 |

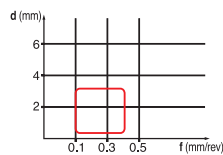
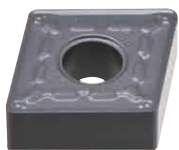
★ 推薦 Recommended NEW 新品 New Product



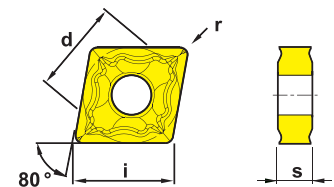
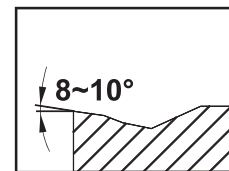
d = 0.8 ~ 3.5 mm
f = 0.1 ~ 0.4 mm/rev



| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | 尺寸 (mm) | | | |
|----------------|--------------------------------------|-------|-------|--|--|---------|------|------|-----|
| | CVD | | | | | Size | | | |
| | RM425 | RM315 | RM125 | | | d | i | s | r |
| CNMG120404-GM2 | P M | K | | | | 12.7 | 12.9 | 4.76 | 0.4 |
| CNMG120408-GM2 | P M | K | | | | 12.7 | 12.9 | 4.76 | 0.8 |
| CNMG120408-GR2 | | K | | | | 12.7 | 12.9 | 4.76 | 0.8 |
| CNMG120408-BM2 | | | M | | | 12.7 | 12.9 | 4.76 | 0.8 |
| CNMG120412-BM2 | | | M | | | 12.7 | 12.9 | 4.76 | 1.2 |



d = 0.8 ~ 3.5 mm
f = 0.1 ~ 0.4 mm/rev



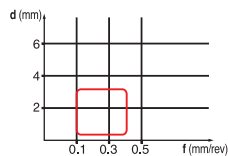
| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | 尺寸 (mm) | | | |
|----------------|--------------------------------------|--|--|--|--|---------|------|------|-----|
| | CVD | | | | | Size | | | |
| | RM425 | | | | | d | i | s | r |
| CNMG120404-GS2 | P M | | | | | 12.7 | 12.9 | 4.76 | 0.4 |
| CNMG120408-GS2 | P M | | | | | 12.7 | 12.9 | 4.76 | 0.8 |

•長度單位 Unit of Length (mm)

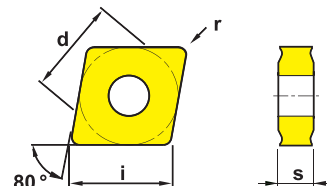
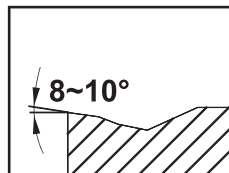


負角刀片 NEGATIVE RAKE ANGLE INSERT

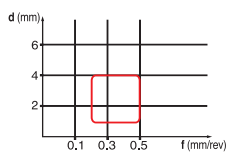
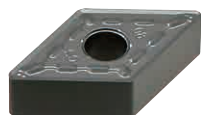
KOVIT



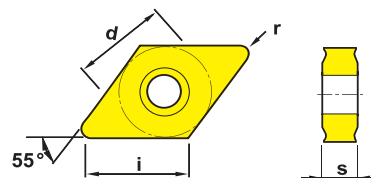
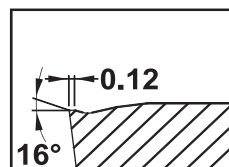
d=0.8~3.5mm
f= 0.25(0.20-0.45) mm/rev



| 規格 Spec. | 超微粒硬質合金 Micro grain carbide alloy | | | | | | 尺寸 (mm) | | | |
|---------------|--------------------------------------|--|--|--|--|--|---------|------|------|-----|
| | HF | | | | | | Size | | | |
| | RM5005 | | | | | | d | i | s | r |
| CNMG120404-NA | N | | | | | | 12.7 | 12.9 | 4.76 | 0.4 |
| CNMG120408-NA | N | | | | | | 12.7 | 12.9 | 4.76 | 0.8 |



d = 1 ~ 4 mm
f = 0.2 ~ 0.5 mm/rev



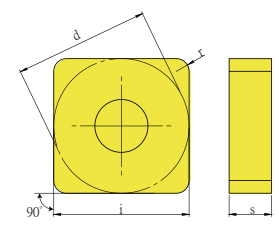
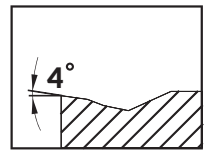
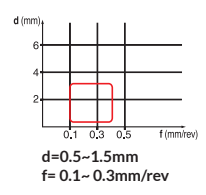
| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | | 尺寸 (mm) | | | |
|----------------|--------------------------------------|-------|--|--|--|--|---------|------|------|-----|
| | CVD | | | | | | Size | | | |
| | RM425 | RM315 | | | | | d | i | s | r |
| DNMG150404-GM | P M | K | | | | | 12.7 | 15.5 | 4.76 | 0.4 |
| DNMG150408-GM | P M | K | | | | | 12.7 | 15.5 | 4.76 | 0.8 |
| DNMG150412-GM | P M | K | | | | | 12.7 | 15.5 | 4.76 | 1.2 |
| DNMG150604-GS2 | P M | K | | | | | 12.7 | 15.5 | 6.35 | 0.4 |
| DNMG150608-GS2 | P M | K | | | | | 12.7 | 15.5 | 6.35 | 0.8 |

•長度單位 Unit of Length (mm)

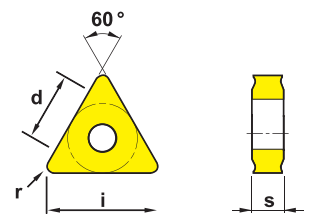
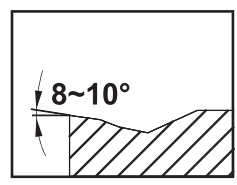
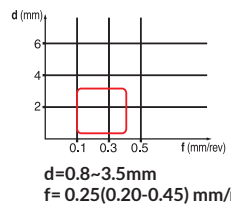
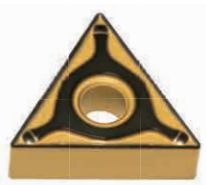


負角刀片
NEGATIVE RAKE ANGLE INSERT

KOVIT

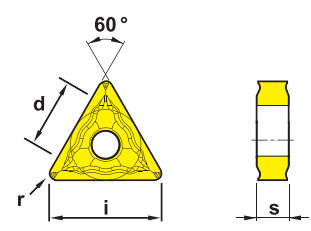
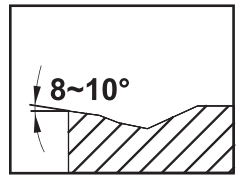
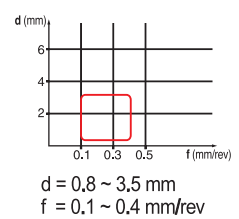
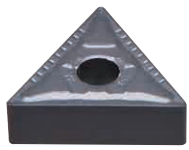


| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | | 尺寸 (mm) | | | |
|--------------------|--------------------------------------|--|--|--|--|--|---------|------|------|-----|
| | CVD | | | | | | Size | | | |
| | RM125 | | | | | | d | i | s | r |
| NEW SNMG120412-BM2 | M | | | | | | 12.7 | 12.7 | 4.76 | 1.2 |



| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | | 尺寸 (mm) | | | |
|-----------------------|--------------------------------------|--|--|--|--|--|---------|------|------|-----|
| | CVD | | | | | | Size | | | |
| | RM4035 | | | | | | d | i | s | r |
| ★ NEW TNMG160404N-M01 | P | | | | | | 9.525 | 16.5 | 4.76 | 0.4 |
| ★ NEW TNMG160408N-M01 | P | | | | | | 9.525 | 16.5 | 4.76 | 0.8 |

★ 推薦 Recommended NEW 新品 New Product



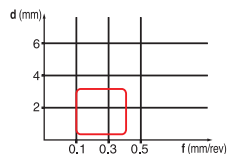
| 規格 Spec. | 鍍層硬質合金 Carbide alloy | | | | | | 尺寸 (mm) | | | |
|----------------|-------------------------|-------|--|--|--|--|---------|------|------|-----|
| | CVD | | | | | | Size | | | |
| | RM425 | RM315 | | | | | d | i | s | r |
| TNMG160404-GM2 | P M | K | | | | | 9.525 | 16.5 | 4.76 | 0.4 |
| TNMG160408-GM2 | P M | K | | | | | 9.525 | 16.5 | 4.76 | 0.8 |

•長度單位 Unit of Length (mm)

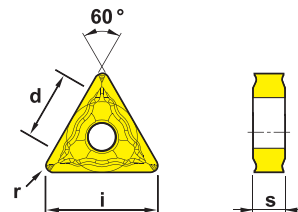
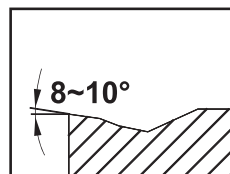


負角刀片 NEGATIVE RAKE ANGLE INSERT

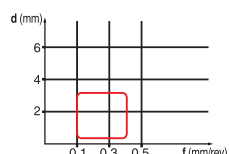
KOVIT



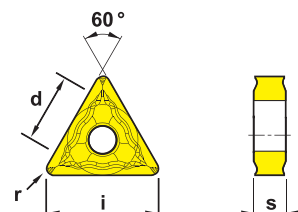
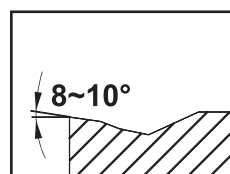
d = 0.8 ~ 3.5 mm
f = 0.1 ~ 0.4 mm/rev



| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | | 尺寸 (mm) | | | |
|----------------|--------------------------------------|-------|--|--|--|--|---------|------|------|-----|
| | CVD | | | | | | Size | | | |
| | RM425 | RM125 | | | | | d | i | s | r |
| TNMG160404-GS2 | | | | | | | 9.525 | 16.5 | 4.76 | 0.4 |
| TNMG160408-GS2 | | | | | | | 9.525 | 16.5 | 4.76 | 0.8 |
| TNMG160408-MA1 | | | | | | | 9.525 | 16.5 | 4.76 | 0.8 |
| TNMG160412-MA1 | | | | | | | 9.525 | 16.5 | 4.76 | 1.2 |



d = 0.8 ~ 3.5 mm
f = 0.1 ~ 0.4 mm/rev




| 規格 Spec. | 超微粒硬質合金 Micro grain carbide alloy | | | | | | 尺寸 (mm) | | | |
|---------------|--------------------------------------|--|--|--|--|--|---------|------|------|-----|
| | HF | | | | | | Size | | | |
| | RM5005 | | | | | | d | i | s | r |
| TNMG160404-NA | | | | | | | 9.525 | 16.5 | 4.76 | 0.4 |
| TNMG160408-NA | | | | | | | 9.525 | 16.5 | 4.76 | 0.8 |


•長度單位 Unit of Length (mm)

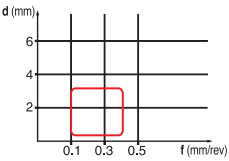


負角刀片 NEGATIVE RAKE ANGLE INSERT

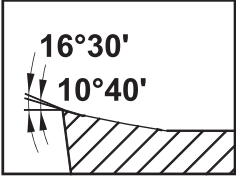
KOVIT

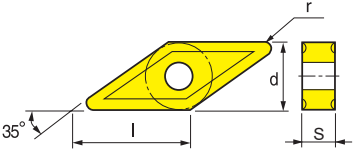








$d = 0.8 \sim 3.5 \text{ mm}$
 $f = 0.1 \sim 0.4 \text{ mm/rev}$

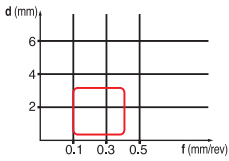




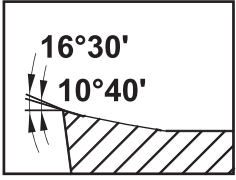
| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | 尺寸 (mm) | | | |
|----------------|--------------------------------------|--|--|--|--|---------|-------|------|-----|
| | CVD | | | | | Size | | | |
| | RM425 | | | | | d | i | s | r |
| VNMG160404-GM2 | | | | | | 16.6 | 9.525 | 4.76 | 0.4 |
| VNMG160408-GM2 | | | | | | 16.6 | 9.525 | 4.76 | 0.8 |

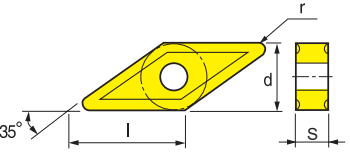








$d = 0.8 \sim 3.5 \text{ mm}$
 $f = 0.1 \sim 0.4 \text{ mm/rev}$

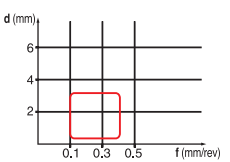




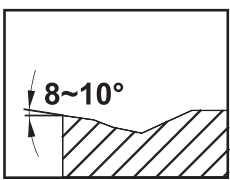
| 規格 Spec. | 超微粒硬質合金 Micro grain cemented carbide | | | | | 尺寸 (mm) | | | |
|---------------|---|--|--|--|--|---------|------|------|-----|
| | HF | | | | | Size | | | |
| | RM5005 | | | | | d | i | s | r |
| VNMG160408-NA | | | | | | 9.525 | 16.6 | 4.76 | 0.8 |

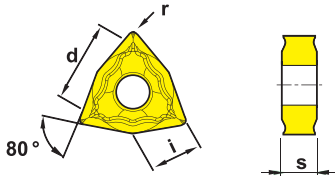






$d = 0.8 \sim 3.5 \text{ mm}$
 $f = 0.25(0.20 \sim 0.45) \text{ mm/rev}$





| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | 尺寸 (mm) | | | |
|-----------------------|--------------------------------------|--|--|--|--|---------|-----|------|-----|
| | CVD | | | | | Size | | | |
| | RM4035 | | | | | d | i | s | r |
| ★ NEW WNMG080404N-M01 | | | | | | 12.7 | 8.7 | 4.76 | 0.4 |
| ★ NEW WNMG080408N-M01 | | | | | | 12.7 | 8.7 | 4.76 | 0.8 |

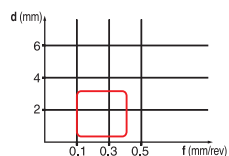
★ 推薦 Recommended NEW 新品 New Product

• 長度單位 Unit of Length (mm)

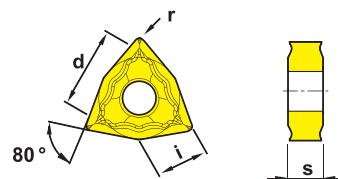
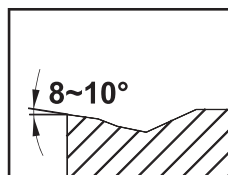


負角刀片 NEGATIVE RAKE ANGLE INSERT

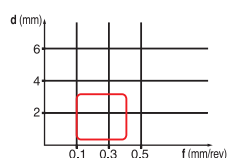
KOVIT



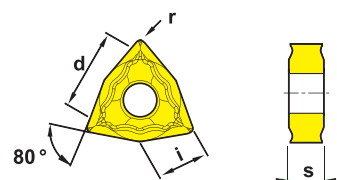
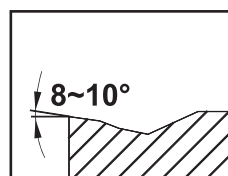
d = 0.8 ~ 3.5 mm
f = 0.1 ~ 0.4 mm/rev



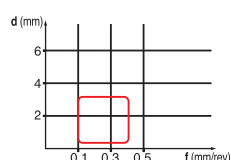
| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | 尺寸 (mm) Size | | | |
|----------------|--------------------------------------|-------|--|--|--|-----------------|-----|------|-----|
| | CVD | | | | | Size | | | |
| | RM425 | RM315 | | | | d | i | s | r |
| WNMG080404-GM2 | | | | | | 12.7 | 8.7 | 4.76 | 0.4 |
| WNMG080408-GM2 | | | | | | 12.7 | 8.7 | 4.76 | 0.8 |



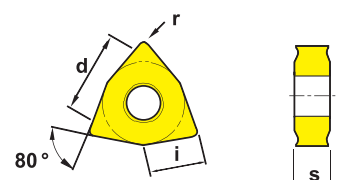
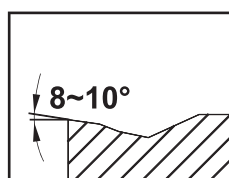
d = 0.8 ~ 3.5 mm
f = 0.1 ~ 0.4 mm/rev



| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | 尺寸 (mm) Size | | | |
|----------------|--------------------------------------|--|--|--|--|-----------------|-----|------|-----|
| | CVD | | | | | Size | | | |
| | RM425 | | | | | d | i | s | r |
| WNMG080404-GS2 | | | | | | 12.7 | 8.7 | 4.76 | 0.4 |
| WNMG080408-GS2 | | | | | | 12.7 | 8.7 | 4.76 | 0.8 |



d = 0.8 ~ 3.5 mm
f = 0.1 ~ 0.4 mm/rev



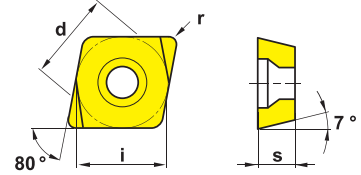
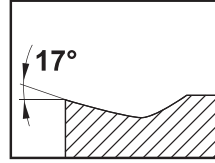
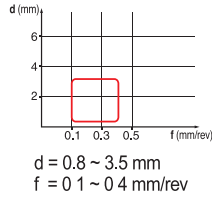
| 規格 Spec. | 超微粒硬質合金 Micro grain carbide alloy | | | | | 尺寸 (mm) Size | | | |
|---------------|--------------------------------------|--|--|--|--|-----------------|-----|------|-----|
| | HF | | | | | Size | | | |
| | RM5005 | | | | | d | i | s | r |
| WNMG080408-NA | | | | | | 12.7 | 8.7 | 4.76 | 0.8 |

•長度單位 Unit of Length (mm)

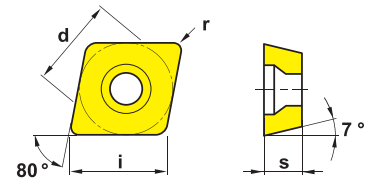
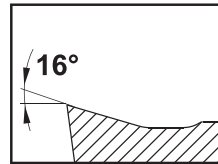
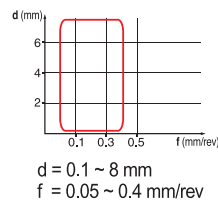


正角刀片 POSITIVE RAKE ANGLE INSERT

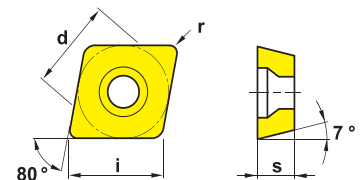
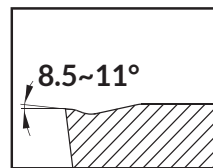
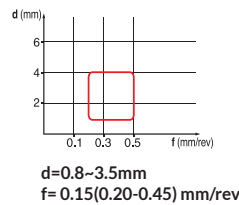
KOVIT



| 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | | | 尺寸 (mm) | | | |
|---------------|-----------------------------------|--|--|--|--|--|--|---------|---|------|-----|
| | CHF | | | | | | | Size | | | |
| | RM4015 | | | | | | | d | i | s | r |
| CCGT03S102L-F | P | | | | | | | 3.57 | - | 1.39 | 0.2 |
| CCGT03S104L-F | P | | | | | | | 3.57 | - | 1.39 | 0.4 |
| CCGT04T002L-F | P | | | | | | | 4.37 | - | 1.79 | 0.2 |
| CCGT04T004L-F | P | | | | | | | 4.37 | - | 1.79 | 0.4 |



| 規格 Spec. | 超微粒硬質合金 Micro grain carbide alloy | | | | | | | 尺寸 (mm) | | | |
|---------------|--------------------------------------|--|--|--|--|--|--|---------|------|------|-----|
| | HF | | | | | | | Size | | | |
| | RM5005 | | | | | | | d | i | s | r |
| CCGT060202-NK | N | | | | | | | 6.35 | 6.5 | 2.38 | 0.2 |
| CCGT060204-NK | N | | | | | | | 6.35 | 6.5 | 2.38 | 0.4 |
| CCGT060208-NK | N | | | | | | | 6.35 | 6.5 | 2.38 | 0.8 |
| CCGT09T304-NK | N | | | | | | | 9.525 | 9.7 | 3.97 | 0.4 |
| CCGT09T308-NK | N | | | | | | | 9.525 | 9.7 | 3.97 | 0.8 |
| CCGT120404-NK | N | | | | | | | 12.7 | 12.9 | 4.76 | 0.4 |
| CCGT120408-NK | N | | | | | | | 12.7 | 12.9 | 4.76 | 0.8 |

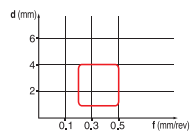


| 規格 Spec. | 瓷金鍍層 Cermet | | | | | | | 尺寸 (mm) | | | |
|-----------------|----------------|--|--|--|--|--|--|---------|-----|------|-----|
| | HT | | | | | | | Size | | | |
| | RM1205 | | | | | | | d | i | s | r |
| CCMT060204N-M01 | P H | | | | | | | 6.35 | 6.4 | 2.38 | 0.4 |
| CCMT09T304N-M01 | P H | | | | | | | 9.525 | 9.7 | 3.97 | 0.4 |
| CCMT09T308N-M01 | P H | | | | | | | 9.525 | 9.7 | 3.97 | 0.8 |

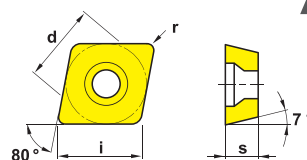
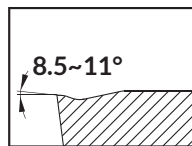
•長度單位 Unit of Length (mm)



正角刀片 POSITIVE RAKE ANGLE INSERT



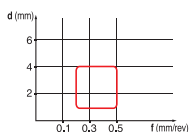
d=0.8~3.5mm
f=0.15(0.20-0.45) mm/rev



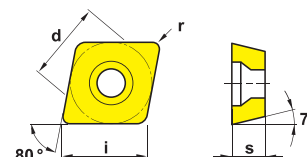
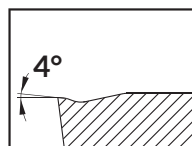
KOVIT

| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | 尺寸 (mm) Size | | | |
|-----------------------|--------------------------------------|--|--|--|-----------------|------|------|-----|
| | CVD | | | | Size | | | |
| | RM4035 | | | | d | i | s | r |
| ★ NEW CCMT060202N-F01 | P | | | | 6.35 | 6.4 | 2.38 | 0.2 |
| ★ NEW CCMT060204N-F01 | P | | | | 6.35 | 6.4 | 2.38 | 0.4 |
| ★ NEW CCMT09T304N-F01 | P | | | | 9.525 | 9.7 | 3.97 | 0.4 |
| ★ NEW CCMT09T308N-F01 | P | | | | 9.525 | 9.7 | 3.97 | 0.8 |
| ★ NEW CCMT120404N-F01 | P | | | | 12.7 | 12.9 | 4.76 | 0.4 |
| ★ NEW CCMT120408N-F01 | P | | | | 12.7 | 12.9 | 4.76 | 0.8 |

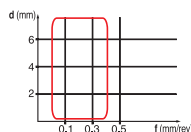
★ 推薦 Recommended NEW 新品 New Product



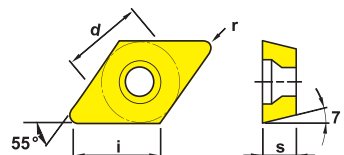
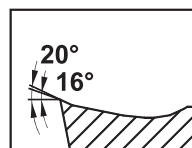
d=0.8~3.5mm
f=0.25(0.20-0.45) mm/rev



| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | 尺寸 (mm) Size | | | |
|---------------|--------------------------------------|-------|-------|--|-----------------|------|------|-----|
| | CVD | | | | Size | | | |
| | RM425 | RM315 | RM125 | | d | i | s | r |
| CCMT060204-HM | P M | K | | | 6.35 | 6.4 | 2.38 | 0.4 |
| CCMT060208-HM | P M | K | M | | 6.35 | 6.4 | 2.38 | 0.8 |
| CCMT09T304-HM | P M | K | | | 9.525 | 9.7 | 3.97 | 0.4 |
| CCMT09T308-HM | P M | K | M | | 9.525 | 9.7 | 3.97 | 0.8 |
| CCMT120404-HM | P M | K | | | 12.7 | 12.9 | 4.76 | 0.4 |
| CCMT120408-HM | P M | K | | | 12.7 | 12.9 | 4.76 | 0.8 |



d = 0.1 ~ 8 mm
f = 0.05 ~ 0.4 mm/rev



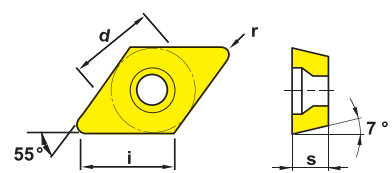
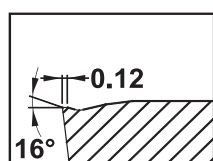
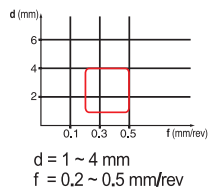
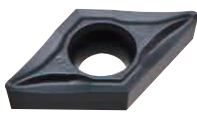
| 規格 Spec. | 超微粒硬質合金 Micro grain carbide alloy | | | | 尺寸 (mm) Size | | | |
|---------------|--------------------------------------|--|--|--|-----------------|------|------|-----|
| | HF | | | | Size | | | |
| | RM5005 | | | | d | i | s | r |
| DCGT070204-NK | N | | | | 6.35 | 7.8 | 2.38 | 0.4 |
| DCGT070208-NK | N | | | | 6.35 | 7.8 | 2.38 | 0.8 |
| DCGT11T302-NK | N | | | | 9.525 | 11.6 | 3.97 | 0.2 |
| DCGT11T304-NK | N | | | | 9.525 | 11.6 | 3.97 | 0.4 |
| DCGT11T308-NK | N | | | | 9.525 | 11.6 | 3.97 | 0.8 |

• 長度單位 Unit of Length (mm)

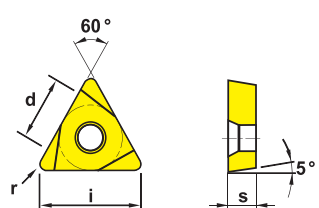
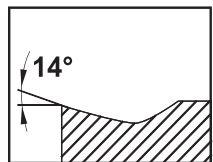
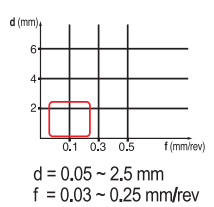


正角刀片 POSITIVE RAKE ANGLE INSERT

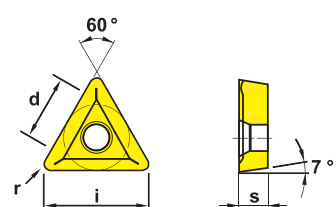
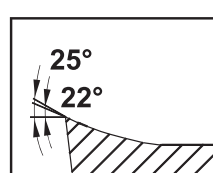
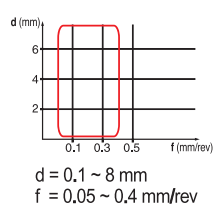
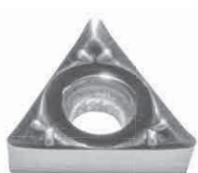
KOVIT



| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | | | 尺寸 (mm) | | | |
|---------------|--------------------------------------|---|--|--|--|--|--|---------|------|------|-----|
| | CVD | | | | | | | Size | | | |
| | RM425 | | | | | | | d | i | s | r |
| DCMT070204-HM | P | M | | | | | | 6.35 | 7.8 | 2.38 | 0.4 |
| DCMT070208-HM | P | M | | | | | | 6.35 | 7.8 | 2.38 | 0.8 |
| DCMT11T304-HM | P | M | | | | | | 12.7 | 12.9 | 4.76 | 0.4 |
| DCMT11T308-HM | P | M | | | | | | 12.7 | 12.9 | 4.76 | 0.8 |



| 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | 瓷金鍍層 Cermet | | 超微粒硬質合金 Micro grain carbide alloy | | | 尺寸 (mm) | | | | | | | |
|-----------------|-----------------------------------|--|----------------|--|--------------------------------------|---|--|---------|--|--|--|------|-----|------|-----|
| | CHF | | HT | | HF | | | Size | | | | | | | |
| | RM4030 | | | | RM1205 | | | RM5005 | | | | | | | |
| TBGT060102L-F01 | P | | | | P | M | | N | | | | 3.97 | 6.4 | 1.59 | 0.2 |
| TBGT060104L-F01 | P | | | | P | M | | N | | | | 3.97 | 6.4 | 1.59 | 0.4 |



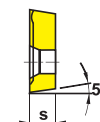
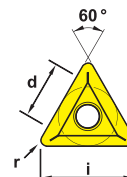
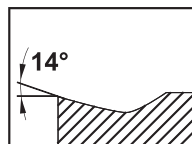
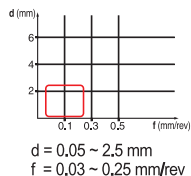
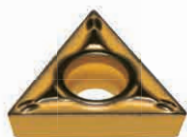
| 規格 Spec. | 超微粒硬質合金 Micro grain carbide alloy | | | | | | | 尺寸 (mm) | | | |
|---------------|--------------------------------------|--|--|--|--|--|--|---------|------|------|-----|
| | HF | | | | | | | Size | | | |
| | RM5005 | | | | | | | d | i | s | r |
| TCGT090204-NK | N | | | | | | | 5.56 | 9.6 | 3.38 | 0.4 |
| TCGT110204-NK | N | | | | | | | 6.35 | 11 | 2.38 | 0.4 |
| TCGT16T304-NK | N | | | | | | | 9.525 | 16.5 | 3.97 | 0.4 |
| TCGT16T308-NK | N | | | | | | | 9.525 | 16.5 | 3.97 | 0.8 |

•長度單位 Unit of Length (mm)



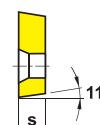
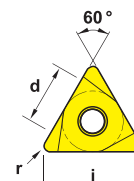
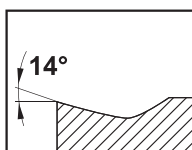
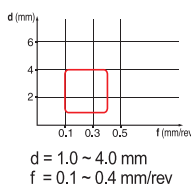
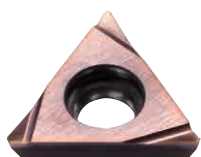
正角刀片 POSITIVE RAKE ANGLE INSERT

KOVIT

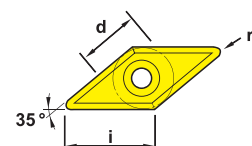
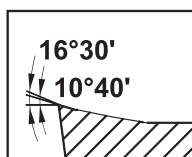
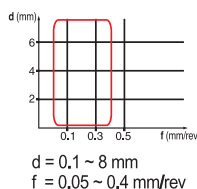


| 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | | | 尺寸 (mm) | | | |
|-----------------------|--------------------------------------|--|--|--|--|--|--|---------|------|------|-----|
| | CVD | | | | | | | Size | | | |
| | RM4035 | | | | | | | d | i | s | r |
| ★ NEW TCMT110202N-F01 | P | | | | | | | 6.35 | 11 | 2.38 | 0.2 |
| ★ NEW TCMT110204N-F01 | P | | | | | | | 6.35 | 11 | 2.38 | 0.4 |
| ★ NEW TCMT16T304N-F01 | P | | | | | | | 9.525 | 16.5 | 3.97 | 0.4 |
| ★ NEW TCMT16T308N-F01 | P | | | | | | | 9.525 | 16.5 | 3.97 | 0.8 |

★ 推薦 Recommended NEW 新品 New Product



| 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | 瓷金鍍層 Cermet | | 超微粒硬質合金 Micro grain carbide alloy | | | 尺寸 (mm) | | | | | |
|-----------------|-----------------------------------|--|----------------|--------|--------------------------------------|--------|--|---------|--|------|-----|------|-----|
| | CHF | | HT | | HF | | | Size | | | | | |
| | RM4030 | | | RM1205 | | RM5005 | | | | d | i | s | r |
| TPGT080202L-F01 | P | | | P M | | N | | | | 4.76 | 8.2 | 2.38 | 0.2 |
| TPGT080204L-F01 | P | | | P M | | N | | | | 4.76 | 8.2 | 2.38 | 0.4 |
| TPGT090202L-F01 | P | | | P M | | N | | | | 5.56 | 9.6 | 2.38 | 0.2 |
| TPGT090204L-F01 | P | | | P M | | N | | | | 5.56 | 9.6 | 2.38 | 0.4 |
| TPGT110302L-F01 | P | | | P M | | N | | | | 6.35 | 11 | 2.38 | 0.2 |
| TPGT110304L-F01 | P | | | P M | | N | | | | 6.35 | 11 | 2.38 | 0.4 |



| 規格 Spec. | 超微粒硬質合金 Micro grain carbide alloy | | | | | | | 尺寸 (mm) | | | |
|---------------|--------------------------------------|--|--|--|--|--|--|---------|------|------|-----|
| | HF | | | | | | | Size | | | |
| | RM5005 | | | | | | | d | i | s | r |
| VCGT160402-NK | N | | | | | | | 9.525 | 16.5 | 4.76 | 0.2 |
| VCGT160404-NK | N | | | | | | | 9.525 | 16.5 | 4.76 | 0.4 |
| VCGT160408-NK | N | | | | | | | 9.525 | 16.5 | 4.76 | 0.8 |

• 長度單位 Unit of Length (mm)



車牙刀片
THREADING INSERTS

外螺紋 External Thread

KOVIT

| 形狀 shape | 規格 Spec.. | 鍍層超微粒 Layer coated micro grain | | | | | | 尺寸 (mm) | | | | 圖形 Drawing |
|-------------|--------------|-----------------------------------|---|--|--|--|--|---------|----|-----|-----|---------------|
| | | CHF | | | | | | Size | | | | |
| | | RM1325 | | | | | | ic | i | x | y | |
| | 16ERA60 | P | M | | | | | 9.525 | 16 | 0.8 | 0.9 | |
| | 16ERAG60 | P | M | | | | | 9.525 | 16 | 1.1 | 1.5 | |
| | 16ERG60 | P | M | | | | | 9.525 | 16 | 1.2 | 1.7 | |
| | 22ERN60 | P | M | | | | | 9.525 | 16 | 1.7 | 2.5 | |
| | 16ERA55 | P | M | | | | | 9.525 | 16 | 0.8 | 0.9 | |
| | 16ERAG55 | P | M | | | | | 9.525 | 16 | 1.1 | 1.5 | |
| | 16ERG55 | P | M | | | | | 9.525 | 16 | 1.2 | 1.7 | |
| | 22ERN55 | P | M | | | | | 12.7 | 22 | 1.7 | 2.5 | |
| | 16ER1.0ISO | P | M | | | | | 9.525 | 16 | 0.8 | 0.7 | |
| | 16ER1.25ISO | P | M | | | | | 9.525 | 16 | 0.8 | 0.9 | |
| | 16ER1.5ISO | P | M | | | | | 9.525 | 16 | 0.8 | 1.0 | |
| | 16ER1.75ISO | P | M | | | | | 9.525 | 16 | 1.2 | 1.2 | |
| | 16ER2.0ISO | P | M | | | | | 9.525 | 16 | 1.2 | 1.3 | |
| | 16ER2.5ISO | P | M | | | | | 9.525 | 16 | 1.2 | 1.5 | |
| | 16ER3.0ISO | P | M | | | | | 9.525 | 16 | 1.2 | 1.5 | |
| | 22ER3.5ISO | P | M | | | | | 12.7 | 22 | 1.6 | 2.3 | |
| | 22ER4.0ISO | P | M | | | | | 12.7 | 22 | 1.6 | 2.3 | |
| | 22ER4.5ISO | P | M | | | | | 12.7 | 22 | 1.7 | 2.4 | |
| | 22ER5.0ISO | P | M | | | | | 12.7 | 22 | 1.7 | 2.5 | |
| | | | | | | | | | | | | |
| | 16ER24UN | P | M | | | | | 9.525 | 16 | 0.8 | 0.8 | |
| | 16ER20UN | P | M | | | | | 9.525 | 16 | 0.8 | 0.9 | |
| | 16ER18UN | P | M | | | | | 9.525 | 16 | 0.8 | 1.0 | |
| | 16ER16UN | P | M | | | | | 9.525 | 16 | 0.9 | 1.1 | |
| | 16ER14UN | P | M | | | | | 9.525 | 16 | 1.2 | 1.5 | |
| | 16ER12UN | P | M | | | | | 9.525 | 16 | 1.2 | 1.5 | |
| | 16ER10UN | P | M | | | | | 9.525 | 16 | 1.2 | 1.5 | |
| | 16ER8UN | P | M | | | | | 9.525 | 16 | 1.3 | 1.7 | |
| | | | | | | | | | | | | |

•長度單位 Unit of Length (mm)



車牙刀片
THREADING INSERTS

KOVIT

內螺紋 Internal Thread

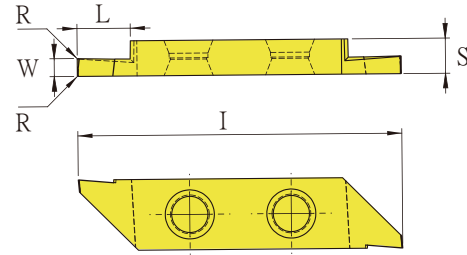
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing |
|-------------|-------------|-----------------------------------|--|--|--|--|------|-----------------|-----|-----|-----|---------------|
| | | CHF | | | | | | Size | | | | |
| | | RM325 | | | | | | ic | i | x | y | |
| | 11IRA60 | P M | | | | | | 6.35 | 11 | 0.8 | 0.9 | |
| | 16IRA60 | P M | | | | | | 9.525 | 16 | 0.8 | 0.9 | |
| | 16IRAG60 | P M | | | | | | 9.525 | 16 | 1.1 | 1.5 | |
| | 16IRG60 | P M | | | | | | 9.525 | 16 | 1.2 | 1.7 | |
| | 22IRN60 | P M | | | | | | 12.7 | 22 | 1.7 | 2.5 | |
| | 11IRA55 | P M | | | | | | 6.35 | 11 | 0.8 | 0.9 | |
| | 16IRA55 | P M | | | | | | 9.525 | 16 | 0.8 | 0.9 | |
| | 16IRAG55 | P M | | | | | | 9.525 | 16 | 1.1 | 1.5 | |
| | 16IRG55 | P M | | | | | | 9.525 | 16 | 1.2 | 1.7 | |
| | 22IRN55 | P M | | | | | | 12.7 | 22 | 1.7 | 2.5 | |
| | 11R1.0ISO | P M | | | | | | 6.35 | 11 | 0.8 | 0.7 | |
| | 11R1.25ISO | P M | | | | | | 6.35 | 11 | 0.8 | 0.9 | |
| | 11R1.5ISO | P M | | | | | | 6.35 | 11 | 0.8 | 1.0 | |
| | 11R1.75ISO | P M | | | | | | 6.35 | 11 | 0.9 | 1.1 | |
| | 11R2.0ISO | P M | | | | | | 6.35 | 11 | 0.9 | 1.1 | |
| | 16R1.0ISO | P M | | | | | | 9.525 | 16 | 0.8 | 0.7 | |
| | 16R1.25ISO | P M | | | | | | 9.525 | 16 | 0.8 | 0.9 | |
| | 16R1.5ISO | P M | | | | | | 9.525 | 16 | 0.8 | 1.0 | |
| | 16R1.75ISO | P M | | | | | | 9.525 | 16 | 1.2 | 1.2 | |
| | 16R2.0ISO | P M | | | | | | 9.525 | 16 | 1.2 | 1.3 | |
| | 16R2.5ISO | P M | | | | | | 9.525 | 16 | 1.2 | 1.5 | |
| | 16R3.0ISO | P M | | | | | | 9.525 | 16 | 1.2 | 1.5 | |
| | 22R3.5ISO | P M | | | | | | 12.7 | 22 | 1.6 | 2.3 | |
| | 22R4.0ISO | P M | | | | | | 12.7 | 22 | 1.6 | 2.3 | |
| | 22R4.5ISO | P M | | | | | | 12.7 | 22 | 1.6 | 2.4 | |
| 22R5.0ISO | P M | | | | | | 12.7 | 22 | 1.6 | 2.3 | | |
| | 11R20UN | P M | | | | | | 6.35 | 11 | 0.8 | 0.9 | |
| | 11R18UN | P M | | | | | | 6.35 | 11 | 0.8 | 1.0 | |
| | 16R24UN | P M | | | | | | 9.525 | 16 | 0.8 | 0.8 | |
| | 16R20UN | P M | | | | | | 9.525 | 16 | 0.8 | 0.9 | |
| | 16R18UN | P M | | | | | | 9.525 | 16 | 0.8 | 1.0 | |
| | 16R16UN | P M | | | | | | 9.525 | 16 | 0.9 | 1.1 | |
| | 16R14UN | P M | | | | | | 9.525 | 16 | 1.2 | 1.5 | |
| | 16R12UN | P M | | | | | | 9.525 | 16 | 1.2 | 1.5 | |
| | 16R10UN | P M | | | | | | 9.525 | 16 | 1.2 | 1.5 | |
| | 16R8UN | P M | | | | | | 9.525 | 16 | 1.3 | 1.7 | |

•長度單位 Unit of Length (mm)

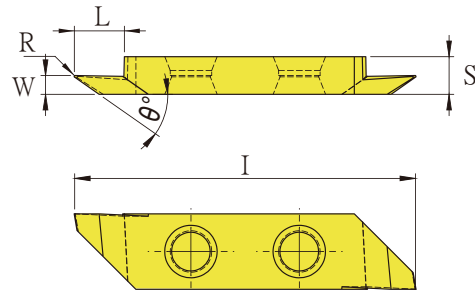


走心式車刀片 THREADING INSERTS FOR SWISS-TYPE LATHES

KOVIT



| 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | 超微粒硬質合金 Micro grain carbide alloy | | | 尺寸 (mm) | | | | | |
|--------------------|--------------------------------------|--------|---|--|--|---------|-----|-------------------|----|------|-----|
| | CHF | | HF | | | Size | | | | | |
| | OM4025 | OM5035 | OM5005 | | | W | R | 加工 深度 Depth | L | I | S |
| NEW SCCIL375-41002 | P K | M | N | | | 1 | 0.2 | 6 | 11 | 37.5 | 4.0 |
| NEW SCCIR375-41002 | P K | M | N | | | 1 | 0.2 | 6 | 11 | 37.5 | 4.0 |
| NEW SCCIL375-41502 | P K | M | N | | | 1.5 | 0.2 | 8 | 11 | 37.5 | 4.0 |
| NEW SCCIR375-41502 | P K | M | N | | | 1.5 | 0.2 | 8 | 11 | 37.5 | 4.0 |
| NEW SCCIL375-42002 | P K | M | N | | | 2 | 0.2 | 10 | 11 | 37.5 | 4.0 |
| NEW SCCIR375-42002 | P K | M | N | | | 2 | 0.2 | 10 | 11 | 37.5 | 4.0 |
| NEW SCCIL375-42502 | P K | M | N | | | 2.5 | 0.2 | 10 | 11 | 37.5 | 4.0 |
| NEW SCCIR375-42502 | P K | M | N | | | 2.5 | 0.2 | 10 | 11 | 37.5 | 4.0 |
| NEW SCCIL375-43002 | P K | M | N | | | 3 | 0.2 | 10 | 11 | 37.5 | 4.0 |
| NEW SCCIR375-43002 | P K | M | N | | | 3 | 0.2 | 10 | 11 | 37.5 | 4.0 |



| 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | 超微粒硬質合金 Micro grain carbide alloy | | | 尺寸 (mm) | | | | | | | |
|-------------------------|--------------------------------------|--------|---|--|--|---------|-----|-----|-------------------|----|-----|------|-----|
| | CHF | | HF | | | Size | | | | | | | |
| | OM4025 | OM5035 | OM5005 | | | W | HF | R | 加工 深度 Depth | L | θ | I | S |
| NEW SCCIL375-BL40502-60 | P K | M | N | | | 0.5 | 0.5 | 0.2 | 0.1-4.2 | 11 | 60° | 37.5 | 4.0 |
| NEW SCCIR375-BL40502-60 | P K | M | N | | | 0.5 | 0.5 | 0.2 | 0.1-4.2 | 11 | 60° | 37.5 | 4.0 |
| NEW SCCIL375-BL41002-60 | P K | M | N | | | 1 | 0.5 | 0.2 | 0.1-4.2 | 11 | 60° | 37.5 | 4.0 |
| NEW SCCIR375-BL41002-60 | P K | M | N | | | 1 | 0.5 | 0.2 | 0.1-4.2 | 11 | 60° | 37.5 | 4.0 |
| NEW SCCIR375-BL41002-70 | P K | M | N | | | 1 | 0.2 | 0.2 | 0.1-4.2 | 11 | 70° | 37.5 | 4.0 |
| NEW SCCIL375-BL41002-70 | P K | M | N | | | 1 | 0.2 | 0.2 | 0.1-4.2 | 11 | 70° | 37.5 | 4.0 |

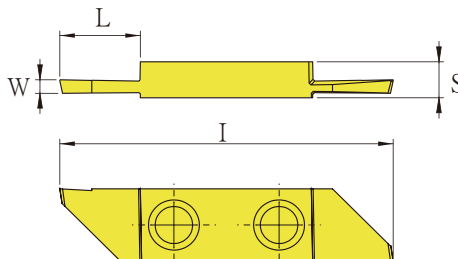
NEW 新品 New Product

•長度單位 Unit of Length (mm)

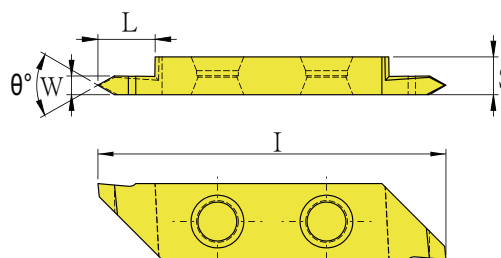


走心式車刀片 THREADING INSERTS FOR SWISS-TYPE LATHES

KOVIT



| 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | 超微粒硬質合金 Micro grain carbide alloy | | | 尺寸 (mm) | | | | | |
|----------------------|--------------------------------------|----------|--------------------------------------|--|--|---------|-----|-------------------|----|------|-----|
| | CHF | | HF | | | Size | | | | | |
| | OM4025 | OM5035 | OM5005 | | | W | R | 加工 深度 Depth | L | I | S |
| NEW SCCIL375-AD43002 | P K | M | N | | | 3 | 0.2 | 11 | 11 | 37.5 | 4.0 |



| 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | 超微粒硬質合金 Micro grain carbide alloy | | | 尺寸 (mm) | | | | | |
|-------------------------|--------------------------------------|----------|--------------------------------------|--|--|---------|-----|---------|----------|------|-----|
| | CHF | | HF | | | Size | | | | | |
| | OM4025 | OM5035 | OM5005 | | | W | R | PITCH | θ | I | S |
| NEW SCCIL375-T42001-A60 | P K | M | N | | | 4 | 0.1 | 0.4-1.5 | 60° | 37.5 | 4.0 |
| NEW SCCIR375-T42001-A60 | P K | M | N | | | 4 | 0.1 | 0.4-1.5 | 60° | 37.5 | 4.0 |
| NEW SCCIR375-T43002-B60 | P K | M | N | | | 6 | 0.2 | 1.5-2.5 | 60° | 37.5 | 4.0 |
| NEW SCCIR375-T43002-B60 | P K | M | N | | | 6 | 0.2 | 1.5-2.5 | 60° | 37.5 | 4.0 |

NEW 新品 New Product

•長度單位 Unit of Length (mm)



銑削刀片 MILLING INSERTS

KOVIT

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | ○ | ○ | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|--------------------------------|---------|--------|--------|--------|-----------------------------------|------|--------|--------|--------|--------------|------|------|-----|---|
| | M | 不鏽鋼 Stainless Steels | ○ | | | | ○ | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | | ○ | | | | | | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | ■ | ■ | ○ | ○ | ○ | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | ○ | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | ○ | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain carbide alloy | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing |
| | | CHF | | | | | HF | | | | | d | i | s | r | |
| | | OM4025 | OM4025N | RM3130 | RM4110 | RM4130 | RM535 | GH05 | OM5005 | OM5060 | RM5005 | RM5060 | | | | |
| | NEW AECX32T302ER-F01 | | | | | | | ● | ● | | | 11.9 | 37 | 3.97 | 0.2 | |
| | NEW AECX32T320ER-F01 | | | | | | | ● | ● | | | 11.9 | 37 | 3.97 | 2 | |
| | NEW AECX32T330ER-F01 | | | | | | | ● | ● | | | 11.9 | 37 | 3.97 | 3 | |
| | NEW AECX32T340ER-F01 | | | | | | | ● | ● | | | 11.9 | 37 | 3.97 | 4 | |
| | NEW AECX32T350ER-F01 | | | | | | | ● | ● | | | 11.9 | 37 | 3.97 | 5 | |
| | ★ APEX100304PDFR-F01 | | | | | | | ● | ● | | | 6.68 | 10.5 | 3.47 | 0.4 | |
| | ★ APEX1604PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | |
| | ★ APEX160400PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | |
| | ★ APEX160404PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | 0.4 | |
| | ★ APEX160408PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | |
| | APEX1604PDFR-701 | | | | | | | ● | | | | 9.525 | 16.4 | 4.76 | 0.2 | |
| | APGT100304PDFR-F04 | | | | | | | | ● | | | 6.68 | 10.5 | 3.47 | 0.4 | |
| | APGT1604PDFR-G2 | | | | | | | | ● | | | 9.525 | 16.5 | 4.76 | - | |
| | APGT160408PDFR-F02 | | | | | | | | ● | | | 9.525 | 16.4 | 4.76 | 0.8 | |
| | APHT1003PDFR-F03 | | | | | | | | ● | | | 6.68 | 10.4 | 3.47 | 0.8 | |
| | APKT060204-M02 | | | | | ● | | | | | | 3.7 | 6.45 | 2.38 | 0.4 | |
| | APKT060204-MT | | | | | | | | | ● | ● | 3.7 | 6.45 | 2.38 | 0.4 | |
| | APKT100304PDER-M04 | | | | | ● | | | | | | 6.68 | 10.5 | 3.47 | 0.4 | |
| | APKT100308PDER-M04 | | | | | ● | | | | | | 6.68 | 10.5 | 3.47 | 0.8 | |
| | APKT1003PDER-M05 | | | | | | ● | | | | | 6.68 | 10.5 | 3.5 | - | |
| | APKT1604PDER-M05 | | | | | | ● | | | | | 9.525 | 16.4 | 4.76 | 0.8 | |
| | ★ APKT160408-M01 | ● | ● | | | | | | | | | 9.525 | 16.6 | 4.76 | 0.8 | |
| | APKT160408PDER-M02 | | | ● | | ● | | | | | | 9.525 | 16.4 | 4.76 | 0.8 | |
| | APMT113508PDER-M04 | | | | ● | ● | | | | | | 6.35 | 11 | 3.5 | 0.8 | |
| | APMT1135PDER-M04 | | | | | ● | | | | | | 6.35 | 11 | 3.5 | 0.4 | |
| | APMT1604PDER-M04 | | | | ● | ● | | | | | | 9.525 | 16.5 | 4.76 | 0.8 | |

- MT 鋁合金專用 MT: Applicable to Aluminum ★ 推薦 Recommended NEW 新品 New Product

●長度單位 Unit of Length (mm)



銑削刀片 MILLING INSERTS

KOVIT

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | ○ | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | |
|----------|------------------------|--------------------------------|--------|--------|--------|--------|--------|-----------------------------------|--|---|---|--|--|--------------|---|------|------|------------|---|--|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | | | | ○ | | | | | | | | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | ○ | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | ○ | | | | | | | | | | |
| H | 高硬度材 Hard Material | | ○ | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | | 超微粒硬質合金 Micro grain carbide alloy | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | |
| | | CHF | | | | | | HF | | | | | | d | i | s | r | | | |
| | | OM4010 | OM4025 | OM5035 | RM4025 | RM5035 | RM4125 | OM5005 | | | | | | | | | | | | |
| | APMT1503-R01 | ● | ● | | | | | | | | | | | | | 15 | 9.52 | 3.18 | 0.8 | |
| | BR08S | ● | ● | | | | | ● | | | | | | | | 8 | 3 | 2 | - | |
| | BR10S | ● | ● | | | | | ● | | | | | | | | 10 | 4 | 2.5 | - | |
| | BR12S | ● | ● | | | | | ● | | | | | | | | 12 | 5 | 2.5 | - | |
| | BR16S | ● | ● | | | | | ● | | | | | | | | 16 | 5 | 3 | - | |
| | BR20S | ● | ● | | | | | ● | | | | | | | | 20 | 5 | 3 | - | |
| | BR25S | ● | ● | | | | | ● | | | | | | | | 25 | 6 | 4 | - | |
| | BR30S | ● | ● | | | | | ● | | | | | | | | 30 | 8 | 5 | - | |
| | BR32S | ● | ● | | | | | ● | | | | | | | | 32 | 8 | 5 | - | |
| | CNEX120612-M01 | ● | ● | | | | | | | | | | | | | 12.7 | - | 6.35 | 1.2 | |
| | CNEX150812-M01 | ● | ● | | | | | | | | | | | | | 15 | - | 8 | 1.2 | |
| | DGN2202-J1 | | | | ● | | | | | | | | | | | 19.8 | 2.2 | - | 0.2 | |
| | DGN3102-J1 | | | | ● | | | | | | | | | | | 20.1 | 3.1 | - | 0.2 | |
| | NEW HNGX0604ANEN-M01 | | ● | ● | | | | ● | | | | | | | | 10.5 | - | 5.2 | - | |
| | | | | | | | | | | | | | | | | | | | | |
| | NEW HPKT0604AZER-M05 | | | | | ● | ● | | | | | | | | | 16.3 | | 4.5 | - | |
| | | | | | | | | | | | | | | | | | | | | |

NEW 新品 New Product

•長度單位 Unit of Length (mm)



銑削刀片 MILLING INSERTS

KOVIT

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|-------------|------------------------|-----------------------------------|--------|--------|--------------------------------------|--|--|--|-----------------|--|---|---|---------------|---|---|---|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | | | | | | | | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | 超微粒硬質合金 Micro grain carbide alloy | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | |
| | | CHF | | | HF | | | | | | | | | | | |
| | | RM1125 | OM4010 | OM4025 | | | | | | | d | i | | s | r | |
| | LC1210 | | ● | | | | | | | | | | | | | |
| | LC1220 | | ● | | | | | | | | | | | | | |
| | LC1230 | | ● | | | | | | | | | | | | | |
| | LC1210-F | | ● | | | | | | | | | | | | | |
| | LC1220-F | | ● | | | | | | | | | | | | | |
| | LC1230-F | | ● | | | | | | | | | | | | | |
| | LC1210-RE | | ● | | | | | | | | | | | | | |
| | LC1220-RE | | ● | | | | | | | | | | | | | |
| | LC1230-RE | | ● | | | | | | | | | | | | | |
| | LC1245-CH | | ● | ● | | | | | | | | | | | | |
| | LC1260-CH | | ● | ● | | | | | | | | | | | | |
| | NEW LNMU0303ZER-MJ | ● | | | | | | | | | | | | | | |
| | LPMT1504-R01 | | | ● | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | ODMT040408 | | | ● | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

NEW 新品 New Product

•長度單位 Unit of Length (mm)



銑削刀片 MILLING INSERTS

KOVIT

| ISO 分類 | P 合金鋼 Alloyed Steels M 不鏽鋼 Stainless Steels K 鑄鐵 Cast Iron N 鋁及鋁合金 Aluminum&Al S 高溫合金 Refractory Alloys H 高硬度材 Hard Material | | | | | | | | | | | 切削狀態 Cutting Condition : | | | | | |
|--------|---|----------|----------|----------------------|--------|--------|--------------------------------|--------|--------|-----------------------------------|--------|---|---------|------|-----|--|------------|
| | | | | | | | | | | | | ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | | | | |
| | | 形狀 Shape | 規格 Spec. | 鍍層硬質合金 Carbide alloy | | | 鍍層超微粒 Layer coated micro grain | | | 超微粒硬質合金 Micro grain carbide alloy | | | 尺寸 (mm) | | | | 圖形 Drawing |
| | | | | HC | | | CHF | | | HF | | | Size | | | | |
| | | | OM0125 | OM1115 | OM2115 | OM4010 | OM4025 | RM4130 | OM5005 | OM5060 | RM5005 | d | i | s | r | | |
| | RDET1003MOF-F01 | | | | | | | | ● | | | 10 | - | 3.18 | 5 | | |
| | RDET1604MOF-F01 | | | | | | | | ● | ● | | 16 | - | 4.76 | 8 | | |
| | RDGT1003MO-F01 | | | | | | | | | | ● | 10 | - | 3.18 | 5 | | |
| | RDGT1604MO-F01 | | | | | | | | | | ● | 16 | - | 4.76 | 8 | | |
| | RDKW0501MO | ● | | ● | | | | | | | | 5 | - | 1.51 | 2.5 | | |
| | RDKW0702MO | ● | ● | ● | | | | | | | | 7 | - | 2.38 | 3.5 | | |
| | RDKW1003MO | | ● | ● | | | | | | | | 10 | - | 3.18 | 5 | | |
| | RDMT0802MOTN | | | | | | ● | | | | | 8 | - | 2.38 | 4 | | |
| | RDMT10T3MOTN | | | | | | ● | | | | | 10 | - | 3.97 | 5 | | |
| | RDMT1204MOTN | | | | | | ● | | | | | 12 | - | 4.76 | 6 | | |
| | RDMT1604MOTN | | | | | | ● | | | | | 16 | - | 4.76 | 8 | | |
| | RPET1204MOE-M01 | | | | ● | ● | | | ● | | | 12 | - | 4.76 | 6 | | |
| | | | | | | | | | | | | | | | | | |
| | RPMT10T3MON | | | | | | ● | | | | | 10 | - | 3.97 | 5 | | |
| | RPMT1204MON | | | | | | ● | | | | | 12 | - | 4.76 | 6 | | |
| | RPMT1204MO-M01 | | | ● | | | | | | | | 12 | - | 4.76 | 6 | | |
| | | | | | | | | | | | | | | | | | |
| | RPMW1003MON | | | | | | ● | | | | | 10 | - | 3.18 | 5 | | |
| | | | | | | | | | | | | | | | | | |

•長度單位 Unit of Length (mm)



銑削刀片 MILLING INSERTS

KOVIT

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | | | 切削狀態 Cutting Condition : | |
|--------------|------------------------|--------------------------------|--------|--------|--------|--------|-----------------------------------|--------|--|---|--|--------------|--|----|------|------------|------|-----|---|--------------------------|---------------------------|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | | | ● 連續切削 Continuous Cutting |
| | K | 鑄鐵 Cast Iron | ○ | ○ | ○ | ○ | | | | | | | | | | | | | | | ○ 一般切削 General Cutting |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain carbide alloy | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | | | |
| | | CHF | | | | | HF | | | | | | | | | | | | | | |
| | | OM4010 | OM4025 | OM4125 | RM4025 | RM3125 | OM5005 | OM5060 | | | | | | | d | | i | s | r | | |
| | NEW SBT050202-F01 | | ● | ● | | | | | | ● | | | | | 4.85 | - | 2 | 0.2 | | | |
| | SDMT090308-R01 | ● | ● | | | | | | | | | | | | 9.52 | - | 3.18 | 0.8 | | | |
| | SDET090408EDER-M01 | ● | ● | | | | | | | | | | | | 9.52 | 9.52 | 4.76 | 0.8 | | | |
| | NEW SDMT090408EDER-M04 | | | | ● | | | | | | | | | | 9.52 | 9.52 | 4.76 | 0.8 | | | |
| | SDET120508ER-M01 | ● | ● | | | | | | | | | | | | 12.7 | 12.7 | 5.56 | 0.8 | | | |
| | NEW SDMT120512EDER-M04 | | | | ● | | | | | | | | | | 12.7 | 12.7 | 5.56 | 0.8 | | | |
| | NEW SDZ13003 | | ● | | | ● | | | | | | | | | 13 | - | 3.18 | - | | | |
| | NEW SDZ14003 | | ● | | | ● | | | | | | | | | 14 | - | 3.18 | - | | | |
| | NEW SDZ15003 | | ● | | | ● | | | | | | | | | 15 | - | 3.18 | - | | | |
| | NEW SDZ16003 | | ● | | | ● | | | | | | | | | 16 | - | 3.18 | - | | | |
| | NEW SDZ17003 | | ● | | | ● | | | | | | | | | 17 | - | 3.18 | - | | | |
| | NEW SDZ180T3 | | ● | | | ● | | | | | | | | | 18 | - | 3.97 | - | | | |
| | NEW SDZ190T3 | | ● | | | ● | | | | | | | | | 19 | - | 3.97 | - | | | |
| | NEW SDZ200T3 | | ● | | | ● | | | | | | | | | 20 | - | 3.97 | - | | | |
| | NEW SDZ210T3 | | ● | | | ● | | | | | | | | | 21 | - | 3.97 | - | | | |
| | NEW SDZ220T3 | | ● | | | ● | | | | | | | | | 22 | - | 3.97 | - | | | |
| | NEW SDZ230T3 | | ● | | | ● | | | | | | | | | 23 | - | 3.97 | - | | | |
| | NEW SDZ240T3 | | ● | | | ● | | | | | | | | | 24 | - | 3.97 | - | | | |
| | NEW SDZ25004 | | ● | | | ● | | | | | | | | | 25 | - | 4.76 | - | | | |
| | NEW SDZ26004 | | ● | | | ● | | | | | | | | | 26 | - | 4.76 | - | | | |
| | NEW SDZ27004 | | ● | | | ● | | | | | | | | | 27 | - | 4.76 | - | | | |
| | NEW SDZ28004 | | ● | | | ● | | | | | | | | | 28 | - | 4.76 | - | | | |
| | NEW SDZ29004 | | ● | | | ● | | | | | | | | | 29 | - | 4.76 | - | | | |
| | NEW SDZ30004 | | ● | | | ● | | | | | | | | | 30 | - | 4.76 | - | | | |
| | NEW SDZ31004 | | ● | | | ● | | | | | | | | | 31 | - | 4.76 | - | | | |
| | NEW SDZ32004 | | ● | | | ● | | | | | | | | | 32 | - | 4.76 | - | | | |
| NEW SDZ33004 | | ● | | | ● | | | | | | | | | 33 | - | 4.76 | - | | | | |
| NEW SDZ34004 | | ● | | | ● | | | | | | | | | 34 | - | 4.76 | - | | | | |

NEW 新品 New Product

•長度單位 Unit of Length (mm)



銑削刀片 MILLING INSERTS

KOVIT

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | ○ | ● | | ○ | ○ | | | | | | | | | 切削狀態 Cutting Condition: | | | | 圖形 Drawing |
|----------|------------------------|--------------------------------|--------|--------|--------|--------|-------------|---|--------------------|-------|-------|-----------------------------------|--------|--------|-----|--------------|---|--------|---------------------------|------------------------|----------------------------|--|------------|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | ○ | ○ | | | | | | | | | | | | | ● 連續切削 Continuous Cutting | ○ 一般切削 General Cutting | ■ 斷續切削 Interrupted Cutting | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | | ○ | | | | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | ■ | ■ | ■ | ■ | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 瓷金鍍層 Cermet | | 硬質合金 Carbide alloy | | | 超微粒硬質合金 Micro grain carbide alloy | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | |
| | | CHF | | | | | HT | | HW | | | HF | | | | Size | | | | | | | |
| | | OM4010 | OM4025 | RM2140 | RM4025 | RM4230 | OM1205 | | TSP20 | TSP25 | TSK10 | OM5005 | OM5060 | RM5005 | GH1 | d | i | s | r | | | | |
| | SEET13T3AGFN-F01 | | | | | | | | | | | | | ● | | | | 13.4 | - | 3.97 | 2.55 | | |
| | SEHT1204AFFN | | | | | | | | | | | | | ● | ● | | | 12.7 | - | 4.76 | - | | |
| | ★ SEHT1204AFEN-M01 | ● | ● | | | | | | | | | | | | | | | 12.7 | - | 4.76 | Facet | | |
| | SEHT1204AFFN-M02 | | | | | ● | | | | | | | | | | | | 12.7 | - | 4.76 | Facet | | |
| | SEKN1203AFR | | | | | | | | ● | ● | | | | | | | | 12.7 | - | 3.18 | - | | |
| | SEKN1504AFR | | | | | | | ● | ● | | | | | | | | | 15.875 | - | 4.76 | - | | |
| | SEKT1204AFTN | | | | ● | | | | | | | | | | | | | 12.7 | - | 4.76 | - | | |
| | SEKW1204AFN | | ● | | | | ● | | | | | | | | | | | 12.7 | - | 4.76 | - | | |
| | SEMT13T3AGEN-M02 | | | ● | ● | | | | | | | | | | | | | 13.4 | - | 3.97 | 2.55 | | |
| | SPET060308ER-M01 | ● | ● | | | | | | | | | | ● | | | | | 7 | 7 | 3.18 | 0.8 | | |
| | NEW SPMT060308EDER-M04 | | | | ● | | | | | | | | | | | | | 7 | 7 | 3.18 | 0.8 | | |
| | SPET120408-M02 | ● | ● | | | | | | | | | | ● | | | | | 12.7 | - | 4.76 | 0.8 | | |

★ 推薦 Recommended NEW 新品 New Product

• 長度單位 Unit of Length (mm)



銑削刀片 MILLING INSERTS

KOVIT

| ISO 分類 | P 合金鋼 Alloyed Steels M 不鏽鋼 Stainless Steels K 鑄鐵 Cast Iron N 鋁及鋁合金 Aluminum&Al S 高溫合金 Refractory Alloys H 高硬度材 Hard Material | 鍍層超微粒 Layer coated micro grain | | | | | | | | | | 超硬微粒 Micro grain carbide alloy | | 硬質合金 Carbide alloy | | | 尺寸 (mm) Size | | | | 圖形 Drawing |
|--------|---|--------------------------------|--------|--------|--------|--------|--------|--------|-------|-------|-------|--------------------------------|---|--------------------|------|------|--------------|-----|--|--|------------|
| | | CHF | | | | | HF | | HW | | | d | i | s | r | | | | | | |
| | | OM4010 | OM4025 | RM4025 | RM3130 | RM4030 | RM5005 | RM5060 | TSP20 | TSP25 | TSK10 | | | | | | | | | | |
| | SPGT050204-M02 | | | | | ● | | | | | ● | | | | 5 | - | 2.38 | 0.4 | | | |
| | SPGT060204-M02 | | | | | ● | | | | | ● | | | | 6 | - | 2.38 | 0.4 | | | |
| | SPGT07T308-M02 | | | | | ● | | | | | ● | | | | 7.94 | - | 3.97 | 0.8 | | | |
| | SPGT090408-M02 | | | | | ● | | | | | ● | | | | 9.8 | - | 4.3 | 0.8 | | | |
| | SPGT110408-M02 | | | | | ● | | | | | ● | | | | 11.5 | - | 4.76 | 0.8 | | | |
| | SPGT140512-M02 | | | | | ● | | | | | ● | | | | 14.3 | - | 5.2 | 1.2 | | | |
| | SPK43C2SR | | | | | | | | | | | ● | ● | 12.7 | - | 4.76 | - | | | | |
| | SPK53C2SR | | | | | | | | | | | ● | ● | 15.88 | - | 4.76 | - | | | | |
| | SPKN1203EDR | | | | | | | | | | | | ● | ● | 12.7 | - | 3.18 | - | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | ★ SPMT050204-M03 | | | ● | ● | | | | | | | | | | 5 | - | 2.38 | 0.4 | | | |
| | ★ SPMT060204-M03 | | | ● | ● | | | | | | | | | | 6 | - | 2.38 | 0.4 | | | |
| | ★ SPMT07T308-M03 | | | ● | ● | | | | | | | | | | 7.94 | - | 3.97 | 0.8 | | | |
| | ★ SPMT090408-M03 | | | ● | ● | | | | | | | | | | 9.8 | - | 4.3 | 0.8 | | | |
| | ★ SPMT110408-M03 | | | ● | ● | | | | | | | | | | 11.5 | - | 4.76 | 0.8 | | | |
| | ★ SPMT140512-M03 | | | ● | ● | | | | | | | | | | 14.3 | - | 5.2 | 1.2 | | | |
| | ★ SPMT050204-MT | | | | | | | | | | ● | ● | | | 5 | - | 2.38 | 0.4 | | | |
| | ★ SPMT060204-MT | | | | | | | | | | ● | ● | | | 6 | - | 2.38 | 0.4 | | | |
| | ★ SPMT07T308-MT | | | | | | | | | | ● | ● | | | 7.94 | - | 3.97 | 0.8 | | | |
| | ★ SPMT090408-MT | | | | | | | | | | ● | ● | | | 9.8 | - | 4.3 | 0.8 | | | |
| | ★ SPMT110408-MT | | | | | | | | | | ● | ● | | | 11.5 | - | 4.76 | 0.8 | | | |
| | ★ SPMT140512-MT | | | | | | | | | | ● | ● | | | 14.3 | - | 5.2 | 1.2 | | | |
| | SPMT090308-M01 | | | ● | | | | | | | | | | 9.8 | - | 3.18 | 0.8 | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | SPMT120408-R01 | | | ● | | | | | | | | | | 12.7 | - | 4.76 | 0.8 | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | SPMW090304 | ● | ● | | | | | | | | | | | 9.525 | - | 3.18 | 0.4 | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

- MT 鋁合金專用 MT: Applicable to Aluminum ★ 推薦 Recommended

• 長度單位 Unit of Length (mm)



銑削刀片 MILLING INSERTS

KOVIT

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | ○ | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | | |
|----------------|------------------------|--------------------------------|--------|--------|--------|-------|-----------------------------------|--------|---|--------------|---|------|------|---|------|-----|--|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | ○ | | | ○ | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | ○ | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | ■ | ■ | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | ○ | | | | | | | | | | |
| H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain carbide alloy | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | |
| | | CHF | | | | | HF | | | Size | | | | | | | |
| | | OM4010 | OM4025 | RM3130 | RM4025 | RM535 | OM5005 | OM5060 | | d | i | s | r | | | | |
| | SNFX1102 | ● | ● | | | | | ● | | | | | 11 | - | 2.3 | - | |
| | SNFX1103 | ● | ● | | | | | ● | | | | | 11 | - | 2.7 | - | |
| | SNFX1203 | ● | ● | | | | | ● | | | | | 12.7 | - | 3.2 | - | |
| | SNFX1205 | ● | ● | | | | | ● | | | | | 12.7 | - | 5.4 | - | |
| | SNFX1207 | ● | ● | | | | | ● | | | | | 12.7 | - | 7 | - | |
| | NEW SNFX120305 | ● | ● | | | | | ● | | | | | 12.7 | - | 3.2 | 0.5 | |
| | NEW SNFX120310 | ● | ● | | | | | ● | | | | | 12.7 | - | 3.2 | 1 | |
| | NEW SNFX120315 | ● | ● | | | | | ● | | | | | 12.7 | - | 3.2 | 1.5 | |
| | NEW SNFX120505 | ● | ● | | | | | ● | | | | | 12.7 | - | 5.4 | 0.5 | |
| | NEW SNFX120510 | ● | ● | | | | | ● | | | | | 12.7 | - | 5.4 | 1 | |
| | NEW SNFX120515 | ● | ● | | | | | ● | | | | | 12.7 | - | 5.4 | 1.5 | |
| | NEW SNFX120516 | ● | ● | | | | | ● | | | | | 12.7 | - | 5.4 | 1.6 | |
| | NEW SNFX120705 | ● | ● | | | | | ● | | | | | 12.7 | - | 7 | 0.5 | |
| | NEW SNFX120710 | ● | ● | | | | | ● | | | | | 12.7 | - | 7 | 1 | |
| NEW SNFX120715 | ● | ● | | | | | ● | | | | | 12.7 | - | 7 | 1.5 | | |
| | NEW SNMU1206ANEN-M01 | | | ● | ● | | | | | | | | 12.7 | - | 6.35 | - | |
| | | | | | | | | | | | | | | | | | |
| | TCEX100302E-FR | ● | ● | | | | | ● | ● | | | | 5.8 | 10 | 3.18 | 0.2 | |
| | ★ TCEX100304E-FR | ● | ● | | | | | ● | ● | | | | 5.8 | 10 | 3.18 | 0.4 | |
| | TCEX100302E-AR | ● | ● | | | | | | | | | | 5.8 | 10 | 3.18 | 0.2 | |
| | TCEX100304E-AR | ● | ● | | | | | ● | | | | | 5.8 | 10 | 3.18 | 0.4 | |
| | NEW TCEX100304E-MR | | | | | | | ● | | | | | 5.8 | 10 | 3.18 | 0.4 | |
| | TCEX13T302E-FR | ● | ● | | | | | ● | ● | | | | 7.94 | 13.4 | 3.97 | 0.2 | |
| | ★ TCEX13T304E-FR | ● | ● | | | | | ● | ● | | | | 7.94 | 13.4 | 3.97 | 0.4 | |
| | TCEX13T302E-AR | ● | ● | | | | | | | | | | 7.94 | 13.4 | 3.97 | 0.2 | |
| | TCEX13T304E-AR | ● | ● | | | | | | | | | | 7.94 | 13.4 | 3.97 | 0.4 | |
| | NEW TCEX13T304E-MR | | | | | | | ● | | | | | 7.94 | 13.4 | 3.97 | 0.4 | |
| | NEW TCEX13T304E-CR | | | | | | | ● | | | | | 7.94 | 13.4 | 3.97 | 0.4 | |

- MR 鈦合金專用 MR: Applicable to Titanium - CR 鑽床倒角刀專用 CR: Applicable to Deburring And Chamfering Cutter
 ★ 推薦 Recommended NEW 新品 New Product

● 長度單位 Unit of Length (mm)



銑削刀片 MILLING INSERTS

KOVIT

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | ○ | ○ | ○ | | | | | | | | | | | |
|----------|------------------------|--------------------------------|--------|-------|--------------------|--------|-------|-----------------------------------|-------|--------|--------------|------|-------|-------|-------|------|------------|------|------|-----|--|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | | ○ | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | | | | | | | | | | | | | | ○ | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | ■ | ■ | ○ | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | ○ | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | 硬質合金 Carbide alloy | | | 超微粒硬質合金 Micro grain carbide alloy | | | 尺寸 (mm) Size | | | | | | 圖形 Drawing | | | | |
| | | CHF | | | HW | | | HF | | | W | L | d | i | s | r | | | | | |
| | | OM4010 | OM4025 | PTE30 | RM535 | RM4025 | TSP20 | TSP25 | TSK10 | OM5005 | OM5060 | GH05 | | | | | | | | | |
| | TCEX16T304E-FR | ● | ● | | | | | | ● | ● | | | | | | | 9.52 | 16.5 | 3.97 | 0.4 | |
| | ★ TCEX16T308E-FR | ● | ● | | | | | | ● | ● | | | | | | | 9.52 | 16.5 | 3.97 | 0.8 | |
| | TCMX16T304E-AR | ● | ● | | | | | | | | | | | | | | 9.52 | 16.5 | 3.97 | 0.4 | |
| | TCMX16T308E-AR | ● | ● | | | | | | | | | | | | | | 9.52 | 16.5 | 3.97 | 0.8 | |
| | NEW TCEX16T308E-MR | | | | ● | | | | | | | | | | | | 9.52 | 16.5 | 3.97 | 0.8 | |
| | TGAR4125 | ● | ● | | | | | | | | | 1.25 | 1.2 | 12.70 | 17.59 | 4.76 | 0.20 | | | | |
| | TGAR4150 | ● | ● | | | | | | | | | 1.50 | 3 | 12.70 | 17.59 | 4.76 | 0.20 | | | | |
| | TGAR4175 | ● | ● | | | | | | | | | 1.75 | 3 | 12.70 | 17.59 | 4.76 | 0.20 | | | | |
| | TGAR4200 | ● | ● | | | | | | | | | 2.00 | 3 | 12.70 | 17.59 | 4.76 | 0.20 | | | | |
| | TGAR4235 | ● | ● | | | | | | | | | 2.35 | 3 | 12.70 | 17.59 | 4.76 | 0.20 | | | | |
| | TGAR4250 | ● | ● | | | | | | | | | 2.50 | 4.5 | 12.70 | 17.59 | 4.76 | 0.30 | | | | |
| | TGAR4300 | ● | ● | | | | | | | | | 3.00 | 4.5 | 12.70 | 17.59 | 4.76 | 0.30 | | | | |
| | TGAR4350 | ● | ● | | | | | | | | | 3.50 | 4.5 | 12.70 | 17.59 | 4.76 | 0.30 | | | | |
| TGAR4400 | ● | ● | | | | | | | | | 4.00 | 4.5 | 12.70 | 17.59 | 4.76 | 0.40 | | | | | |
| | TGTN3 | ● | ● | | ● | | | | ● | | | | | - | 11.3 | 3.1 | 0.2 | | | | |
| | TGTN4 | ● | ● | | | | | | ● | | | | | - | 11.3 | 4.1 | 0.25 | | | | |
| | TPKN1603PDR | | | | | | | ● | ● | | | | | 9.525 | - | 3.18 | - | | | | |
| | TPKN2204PDR | | | | | | ● | | ● | | | | | 12.7 | - | 4.76 | - | | | | |
| | TPMN160308 | | | | | | | ● | ● | | | | | 9.525 | - | 3.18 | 0.8 | | | | |
| | TPMN220412 | | | | | | ● | | ● | | | | | 12.7 | - | 4.76 | 1.2 | | | | |
| | WCKT030208 | | | | | | | | | ● | | | | 5.56 | 3.8 | 2.38 | 0.8 | | | | |
| | WCKT040208 | | | | | | | | | ● | | | | 6.35 | 4.3 | 2.38 | 0.8 | | | | |
| | WCKT050308 | | | | | | | | | ● | | | | 7.94 | 5.4 | 3.18 | 0.8 | | | | |
| | WCKT06T308 | | | | | | | | | ● | | | | 9.525 | 6.5 | 3.97 | 0.8 | | | | |
| | WCKT080408 | | | | | | | | | ● | | | | 12.7 | 8.7 | 4.76 | 0.8 | | | | |
| | WCMX030208-M01 | | | ● | | | | | | | | | | 5.56 | 3.8 | 2.38 | 0.8 | | | | |
| | WCMT040208-M01 | | | ● | | | | | | | | | | 6.35 | 4.3 | 2.38 | 0.8 | | | | |
| | WCMT050308-M01 | | | ● | | | | | | | | | | 7.94 | 5.4 | 3.18 | 0.8 | | | | |
| | WCMT06T308-M01 | | | ● | | | | | | | | | | 9.525 | 6.5 | 3.97 | 0.8 | | | | |
| | WCMX080412-M01 | | | ● | | | | | | | | | | 12.7 | 8.7 | 4.76 | 1.2 | | | | |

- MR 鈦合金專用 MR : Applicable to Titanium ★ 推薦 Recommended NEW 新品 New Product

•長度單位 Unit of Length (mm)



鑽石刀片 POLYCRYSTALLINE DIAMOND INSERTS

KOVIT

| ISO 分類 | P | 合金鋼 Alloyed Steels | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | |
|-------------|------------------------|---------------------------------|--------|--------|--------|---------|-------|------|------|---|---|
| | M | 不鏽鋼 Stainless Steels | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | ●■ | ● | ■ | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | ○ | | | |
| 形狀 Shape | 規格 Spec. | 聚晶鑽石 Polycrystalline diamond | | | | 尺寸 (mm) | | | | 圖形 Drawing | |
| | | DP | | | | Size | | | | | |
| | | PCD010 | PCD020 | PCD100 | PCD250 | | d | i | s | | r |
| | APGW160404PDFR-F01 | | ● | ● | | | 9.525 | 16.5 | 4.76 | - | |
| | APGW1604PDFR-F01 | | ● | ● | | | 9.525 | 16.5 | 4.76 | - | |
| | CCGW060202FN-F01 | | ● | ● | | | 6.35 | 6.5 | 2.38 | 0.2 | |
| | CCGW060204FN-F01 | | ● | ● | | | 6.35 | 6.5 | 2.38 | 0.4 | |
| | CCGW09T304FN-F01 | | ● | ● | | | 9.525 | 9.7 | 3.97 | 0.4 | |
| | CCGW120404FN-F01 | | ● | ● | | | 12.7 | 12.9 | 4.76 | 0.4 | |
| | CNGA120404FN-F01 | | ● | ● | | | 12.7 | 12.9 | 4.76 | 0.4 | |
| | | | | | | | | | | | |
| | DCGW070202FN-F01 | | ● | ● | | | 6.35 | 7.8 | 2.38 | 0.2 | |
| | DCGW070204FN-F01 | | ● | ● | | | 6.35 | 7.8 | 2.38 | 0.4 | |
| | DCGW11T302FN-F01 | | ● | ● | | | 9.525 | 11.6 | 3.97 | 0.2 | |
| | DCGW11T304FN-F01 | | ● | ● | | | 9.525 | 11.6 | 3.97 | 0.4 | |
| | SEGW120404AFFN-F01 | | ● | ● | | | 12.7 | - | 4.76 | - | |
| | SEGW1204AFFN-F01 | | ● | ● | | | 12.7 | - | 4.76 | - | |

•長度單位 Unit of Length (mm)



鑽石刀片 POLYCRYSTALLINE DIAMOND INSERTS

KOVIT


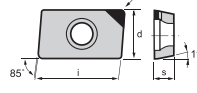

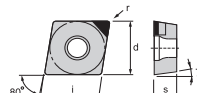

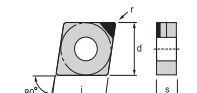
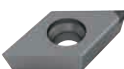
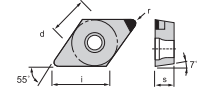

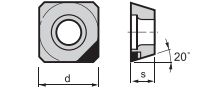
| ISO 分類 | P | 合金鋼 Alloyed Steels | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|------------------------------|--------|--------|--------|---------|------|------|-----|---|
| | M | 不鏽鋼 Stainless Steels | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | ●■ | ● | ■ | ○ | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 聚晶鑽石 Polycrystalline diamond | | | | 尺寸 (mm) | | | | 圖形 Drawing |
| | | DP | | | | Size | | | | |
| | | PCD010 | PCD020 | PCD100 | PCD250 | d | i | s | r | |
| | TBGW060102FN-F01 | | ● | ● | | 3.97 | 6.4 | 1.59 | 0.2 | |
| | TBGW060104FN-F01 | | ● | ● | | 3.97 | 6.4 | 1.59 | 0.4 | |
| | TCGW110202FN-F01 | | ● | ● | | 6.35 | 11 | 2.38 | 0.2 | |
| | TCGW110204FN-F01 | | ● | ● | | 6.35 | 11 | 2.38 | 0.4 | |
| | TCGW16T304FN-F01 | | ● | ● | | 9.525 | 16.5 | 3.97 | 0.4 | |
| | TNGA160402FN-F01 | | ● | ● | | 9.525 | 16.5 | 4.76 | 0.2 | |
| | TNGA160404FN-F01 | | ● | ● | | 9.525 | 16.5 | 4.76 | 0.4 | |
| | TPGW090202FN-F01 | | ● | ● | | 5.56 | 9.6 | 2.38 | 0.2 | |
| | TPGW090204FN-F01 | | ● | ● | | 5.56 | 9.6 | 2.38 | 0.4 | |
| | TPGW110302FN-F01 | | ● | ● | | 6.35 | 11 | 3.18 | 0.2 | |
| | TPGW110304FN-F01 | | ● | ● | | 6.35 | 11 | 3.18 | 0.4 | |
| | TPGW080202FN-F01 | | ● | ● | | 4.76 | 8.2 | 2.38 | 0.2 | |
| | TPGW080204FN-F01 | | ● | ● | | 4.76 | 8.2 | 2.38 | 0.4 | |
| | VCGW160402FN-F01 | | ● | ● | | 9.525 | 16.5 | 4.76 | 0.2 | |
| | VCGW160404FN-F01 | | ● | ● | | 9.525 | 16.5 | 4.76 | 0.4 | |
| | VCGW160408FN-F01 | | ● | ● | | 9.525 | 16.5 | 4.76 | 0.8 | |

•長度單位 Unit of Length (mm)



氮化硼刀片 CUBIC BORON NITRIDE INSERTS

KOVIT

| ISO 分類 | P 合金鋼 Alloyed Steels M 不鏽鋼 Stainless Steels K 鑄鐵 Cast Iron N 鋁及鋁合金 Aluminum&Al S 高溫合金 Refractory Alloys H 高硬度材 Hard Material | 立方氮化硼 CBN | | | | 尺寸 (mm) | | | | 圖形 Drawing |
|---|---|-----------|--------|--------|--|---------|------|------|-----|---|
| | | CBN | | | | Size | | | | |
| | | CBN250 | CBN300 | CBN400 | | d | i | s | r | |
|  | APGW1604PDER | ● | | | | 9.525 | 16.5 | 4.76 | - |  |
| | APGW1604PDFR | ● | | | | 9.525 | 16.5 | 4.76 | - | |
| | APGW1604PDTR | ● | | | | 9.525 | 16.5 | 4.76 | - | |
| | APGW1604PDSR | ● | | | | 9.525 | 16.5 | 4.76 | - | |
|  | CCGW060202SN | ● | | | | 6.35 | 6.5 | 2.38 | 0.2 |  |
| | CCGW060204SN | ● | | | | 6.35 | 6.5 | 2.38 | 0.4 | |
| | CCGW060208SN | ● | | | | 6.35 | 6.5 | 2.38 | 0.8 | |
| | CCGW09T302SN | ● | | | | 9.525 | 9.7 | 3.97 | 0.2 | |
| | CCGW09T304SN | ● | | | | 9.525 | 9.7 | 3.97 | 0.4 | |
| | CCGW09T308SN | ● | | | | 9.525 | 9.7 | 3.97 | 0.8 | |
| | CCGW120404SN | ● | | | | 12.7 | 12.9 | 4.76 | 0.4 | |
|  | CNGA120404SN | ● | | | | 12.7 | 12.9 | 4.76 | 0.4 |  |
| | CNGA120408SN | ● | | | | 12.7 | 12.9 | 4.76 | 0.8 | |
|  | DCGW070202SN | ● | | | | 6.35 | 7.8 | 2.38 | 0.2 |  |
| | DCGW070204SN | ● | | | | 6.35 | 7.8 | 2.38 | 0.4 | |
| | DCGW070208SN | ● | | | | 6.35 | 7.8 | 2.38 | 0.8 | |
| | DCGW11T302SN | ● | | | | 9.525 | 11.6 | 3.97 | 0.2 | |
| | DCGW11T304SN | ● | | | | 9.525 | 11.6 | 3.97 | 0.4 | |
|  | SEGW1204AFSN | ● | | | | 12.7 | - | 4.76 | - |  |
| | SEGW1204AFTN | ● | | | | 12.7 | - | 4.76 | - | |
| | SEGW1204AFEN | ● | | | | 12.7 | - | 4.76 | - | |
| | SEGW1204AFFN | ● | | | | 12.7 | - | 4.76 | - | |

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

•長度單位 Unit of Length (mm)



氮化硼刀片 CUBIC BORON NITRIDE INSERTS

KOVIT

| ISO 分類 | P 合金鋼 Alloyed Steels M 不鏽鋼 Stainless Steels K 鑄鐵 Cast Iron N 鋁及鋁合金 Aluminum&Al S 高溫合金 Refractory Alloys H 高硬度材 Hard Material | 立方氮化硼 CBN | | | | 尺寸 (mm) | | | | 圖形 Drawing |
|--------|---|-----------|--------|--------|--|---------|------|------|-----|---|
| | | CBN | | | | Size | | | | |
| | | CBN250 | CBN300 | CBN400 | | d | i | s | r | |
| | | ● | ■ | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
| | TBGW060104SN | ● | | | | 3.97 | 6.4 | 1.59 | 0.4 | |
| | | | | | | | | | | |
| | TNGA160402SN | ● | | | | 9.525 | 16.5 | 4.76 | 0.2 | |
| | TNGA160404SN | ● | | | | 9.525 | 16.5 | 4.76 | 0.4 | |
| | TNGA160408SN | ● | | | | 9.525 | 16.5 | 4.76 | 0.8 | |
| | TPGW080202SN | ● | | | | 4.76 | 8.2 | 2.38 | 0.2 | |
| | TPGW080204SN | ● | | | | 4.76 | 8.2 | 2.38 | 0.4 | |
| | TPGW090202SN | ● | | | | 5.56 | 9.6 | 2.38 | 0.2 | |
| | TPGW090204SN | ● | | | | 5.56 | 9.6 | 2.38 | 0.4 | |
| | TPGW110302SN | ● | | | | 6.35 | 11 | 3.18 | 0.2 | |
| | TPGW110304SN | ● | | | | 6.35 | 11 | 3.18 | 0.4 | |
| | TPGW110308SN | ● | | | | 6.35 | 11 | 3.18 | 0.8 | |
| | TPGW16T302SN | ● | | | | 9.525 | 16.5 | 3.97 | 0.2 | |
| | TPGW16T304SN | ● | | | | 9.525 | 16.5 | 3.97 | 0.4 | |
| | VCGW110302SN | ● | | | | 6.35 | 11 | 3.18 | 0.2 | |
| | VCGW110304SN | ● | | | | 6.35 | 11 | 3.18 | 0.4 | |
| | VCGW160402SN | ● | | | | 9.525 | 16.5 | 4.76 | 0.2 | |
| | VCGW160404SN | ● | | | | 9.525 | 16.5 | 4.76 | 0.4 | |
| | VCGW160408SN | ● | | | | 9.525 | 16.5 | 4.76 | 0.8 | |
| | VNGA160404SN | ● | | | | 9.525 | 16.5 | 4.76 | 0.4 | |
| | VNGA160408SN | ● | | | | 9.525 | 16.5 | 4.76 | 0.8 | |

•長度單位 Unit of Length (mm)



毛胚刀片
BLANK INSERTS

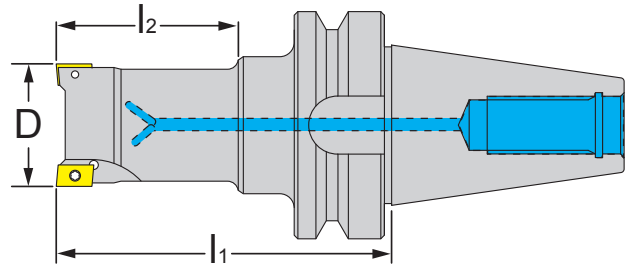
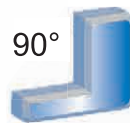
KOVIT

| ISO 分類 | <table border="1"> <tr><td>P</td><td>合金鋼 Alloyed Steels</td></tr> <tr><td>M</td><td>不鏽鋼 Stainless Steels</td></tr> <tr><td>K</td><td>鑄鐵 Cast Iron</td></tr> <tr><td>N</td><td>鋁及鋁合金 Aluminum&Al</td></tr> <tr><td>S</td><td>高溫合金 Refractory Alloys</td></tr> <tr><td>H</td><td>高硬度材 Hard Material</td></tr> </table> | P | 合金鋼 Alloyed Steels | M | 不鏽鋼 Stainless Steels | K | 鑄鐵 Cast Iron | N | 鋁及鋁合金 Aluminum&Al | S | 高溫合金 Refractory Alloys | H | 高硬度材 Hard Material | 硬質合金 Carbide Alloy | | | | | | | 尺寸 (mm) | | | 圖形 Drawing |
|----------|--|----|----------------------|---|----------------------|---|--------------|---|-------------------|-------|------------------------|---|--------------------|--------------------|--|--|--|--|--|--|---------|--|--|------------|
| | | P | 合金鋼 Alloyed Steels | | | | | | | | | | | | | | | | | | | | | |
| | | M | 不鏽鋼 Stainless Steels | | | | | | | | | | | | | | | | | | | | | |
| K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | HC | | | | | | | Size | | | | | | | | | | | | | | | |
| | | BM | | | | | | | d | i | s | | | | | | | | | | | | | |
| | APMW1003 | ● | | | | | | | 7.0 | 10.85 | 3.58 | | | | | | | | | | | | | |
| | APMW1604 | ● | | | | | | | 9.9 | 16.8 | 5.1 | | | | | | | | | | | | | |
| | CCMW0602 | ● | | | | | | | 6.85 | - | 2.78 | | | | | | | | | | | | | |
| | CCMW09T3 | ● | | | | | | | 9.9 | - | 4.27 | | | | | | | | | | | | | |
| | CCMW1204 | ● | | | | | | | 13.1 | - | 5.1 | | | | | | | | | | | | | |
| | CNMW1204 | ● | | | | | | | 13.1 | - | 5.1 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | DCMW0702 | ● | | | | | | | 6.85 | - | 2.78 | | | | | | | | | | | | | |
| | DCMW11T3 | ● | | | | | | | 9.9 | - | 4.27 | | | | | | | | | | | | | |
| | SEMW1204 | ● | | | | | | | 13.1 | - | 5.1 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | TBMW0601 | ● | | | | | | | 4.27 | - | 2.0 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | TCMW0902 | ● | | | | | | | 5.96 | - | 2.78 | | | | | | | | | | | | | |
| | TCMW1102 | ● | | | | | | | 6.75 | - | 2.78 | | | | | | | | | | | | | |
| | TCMW16T3 | ● | | | | | | | 9.9 | - | 4.27 | | | | | | | | | | | | | |
| | TNMW1604 | ● | | | | | | | 9.9 | - | 5.1 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | TPMW0802 | ● | | | | | | | 5.1 | - | 2.78 | | | | | | | | | | | | | |
| | TPMW0902 | ● | | | | | | | 5.96 | - | 2.78 | | | | | | | | | | | | | |
| | TPMW1103 | ● | | | | | | | 6.75 | - | 3.58 | | | | | | | | | | | | | |
| | TPMW16T3 | ● | | | | | | | 9.9 | - | 4.27 | | | | | | | | | | | | | |
| | VCMW1103 | ● | | | | | | | 6.75 | - | 3.58 | | | | | | | | | | | | | |
| | VCMW1604 | ● | | | | | | | 9.9 | - | 5.1 | | | | | | | | | | | | | |

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

•長度單位 Unit of Length (mm)



特點 Feature

- 整體式結構
- 剛性增加
- 加工效率提升
- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Integrated structure.
- Improved rigidity.
- Advanced efficiency.
- Made of anti-vibration tool steel
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | l_1 | l_2 | D | 刀數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-------------------------|-------|-------|----|-----------|-----------|-----------------|
| SBT30-MAS16AP10-65-2T-C | 65 | 28 | 16 | 2 | AP..1003 | 0.60 |
| SBT30-MAS20AP10-65-3T-C | 65 | 28 | 20 | 3 | AP..1003 | 0.56 |
| SBT30-MAS25AP10-65-4T-C | 65 | 33 | 25 | 4 | AP..1003 | 0.60 |
| SBT30-MAS32AP10-65-5T-C | 65 | 40 | 32 | 5 | AP..1003 | 0.70 |
| SBT40-MAS16AP10-90-2T-C | 90 | 35 | 16 | 2 | AP..1003 | 1.27 |
| SBT40-MAS20AP10-90-3T-C | 90 | 40 | 20 | 3 | AP..1003 | 1.28 |
| SBT40-MAS25AP10-90-4T-C | 90 | 53 | 25 | 4 | AP..1003 | 1.34 |
| SBT40-MAS32AP10-90-5T-C | 90 | 55 | 32 | 5 | AP..1003 | 1.40 |
| SBT40-MAS40AP10-90-6T-C | 90 | 60 | 40 | 6 | AP..1003 | 1.60 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------------|-----------|------------------|
| AP..1003 | M2.5-6.45-3.7-43 | T8 | 1.2 |



• 長度單位 Unit of Length (mm)



Fig1.

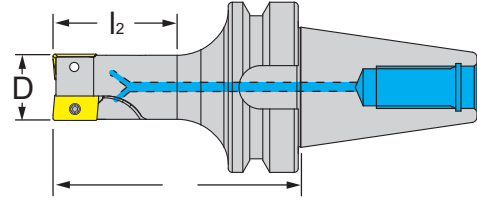
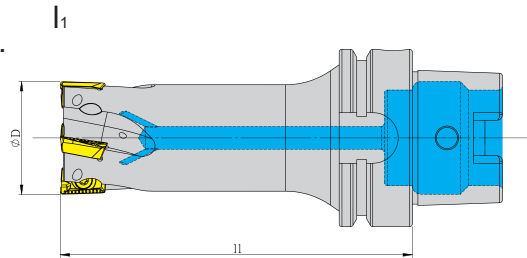


Fig2.



特點 Feature

- 整體式結構
- 剛性增加
- 加工效率提升
- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Integrated structure.
- Improved rigidity.
- Advanced efficiency.
- Made of anti-vibration tool steel
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | l_1 | l_2 | D | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|----------------------------|-------|-------|----|--------------|--------------|-----------------------|
| SBT40-MAS25AP16-90-2T-C | 90 | 45 | 25 | 2 | AP..1604 | 1.34 |
| SBT40-MAS32AP16-90-3T-C | 90 | 45 | 32 | 3 | AP..1604 | 1.44 |
| SBT40-MAS40AP16-90-4T-C | 90 | 45 | 40 | 4 | AP..1604 | 1.60 |
| SBT50-MAS25AP16-90-2T-C | 90 | 40 | 25 | 2 | AP..1604 | 4.02 |
| SBT50-MAS32AP16-90-3T-C | 90 | 40 | 32 | 3 | AP..1604 | 4.06 |
| SBT50-MAS40AP16-90-4T-C | 90 | 40 | 40 | 4 | AP..1604 | 4.12 |
| HSK63A-MAS25AP16-90-2T-C | 90 | - | 25 | 2 | AP..1604 | - |
| HSK63A-MAS32AP16-90-3T-C | 90 | - | 32 | 3 | AP..1604 | - |
| HSK63A-MAS40AP16-125-4T-C | 125 | - | 40 | 4 | AP..1604 | - |
| HSK100A-MAS25AP16-90-2T-C | 90 | - | 25 | 2 | AP..1604 | - |
| HSK100A-MAS32AP16-90-3T-C | 90 | - | 32 | 3 | AP..1604 | - |
| HSK100A-MAS40AP16-125-4T-C | 125 | - | 40 | 4 | AP..1604 | - |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|--------------|--------------|------------------------|
| AP..1604 | M4-10-5.7-60 | T15 | 3.0 |



• 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | ○ | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|--------------------------------|---------|--------|--------|-------|--------------------------------------|------|--------|--------|--------------|-------|------|------|------------|---|
| | M | 不鏽鋼 Stainless Steels | ○ | | | ○ | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | | | ○ | | | | | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | ■ | ■ | ○ | ■ | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | ○ | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | |
| | | CHF | | | | | HF | | | | Size | | | | | |
| | | OM4025 | OM4025N | RM3130 | RM4130 | RM535 | | GH05 | OM5005 | OM5060 | RM5005 | | d | i | | s |
| | ★ APEX100304PDFR-F01 | | | | | | | ● | ● | | | 6.68 | 10.5 | 2.38 | 0.4 | |
| | ★ APEX1604PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | |
| | ★ APEX160400PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | |
| | ★ APEX160404PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | 0.4 | |
| | ★ APEX160408PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | 0.8 | |
| | APEX1604PDFR-701 | | | | | | | ● | | | | 9.525 | 16.4 | 4.76 | 0.2 | |
| | APGT100304PDFR-F04 | | | | | | | | ● | | | 6.68 | 10.5 | 2.38 | 0.4 | |
| | APGT160408PDFR-F02 | | | | | | | | ● | | | 9.525 | 16.4 | 4.76 | 0.8 | |
| | APHT1003PDFR-F03 | | | | | | | | ● | | | 6.68 | 10.4 | 3.47 | 0.8 | |
| | APKT100304PDER-M04 | | | | ● | | | | | | | 6.68 | 10.5 | 2.38 | 0.4 | |
| | APKT1003PDER-M05 | | | | | ● | | | | | | 6.68 | 10.5 | 3.47 | - | |
| | APKT1604PDER-M05 | | | | | | ● | | | | | 9.525 | 16.4 | 4.76 | 0.4 | |
| | ★ APKT160408-M01 | ● | ● | | | | | | | | | 9.525 | 16.6 | 4.76 | 0.8 | |
| | APKT160408PDER-M02 | | | ● | ● | | | | | | | 9.525 | 16.4 | 4.76 | 0.8 | |

★ 推薦 Recommended

• 長度單位 Unit of Length (mm)



AP_10.16 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|------------------------------|--------------------|-------------------|--------------------|--------------|
| P 低合金鋼 Low-Alloy Steels | OM4025 | 220~300 | 0.14~0.24 | 1.0~2.0 |
| | OM4025N | 220~300 | 0.14~0.24 | 1.0~2.0 |
| | RM4130 | 60~300 | 0.10~0.25 | 1.0~2.0 |
| | 合金鋼 Alloyed Steels | OM4025 | 100~195 | 0.12~0.20 |
| RM4130 | | 60~300 | 0.10~0.25 | 1.0~2.0 |
| M 不鏽鋼 Stainless Steels | OM4025 | 180~230 | 0.15~0.35 | 0.5~1.5 |
| | RM4130 | 120~160 | 0.10~0.25 | 0.5~1.5 |
| K 鑄鐵 Cast Iron | OM4025 | 200~300 | 0.06~0.30 | 1.5~3.0 |
| | RM3130 | 200~300 | 0.06~0.30 | 1.5~3.0 |
| N 鋁合金 Aluminum&Al | OM5005 | 400~850 | 0.05~0.30 | 1.5~3.0 |
| | OM5060 | 400~850 | 0.05~0.30 | 1.5~3.0 |
| | RM5005 | 400~850 | 0.05~0.30 | 1.5~3.0 |
| | GH05 | 300~700 | 0.04~0.25 | 1.5~3.0 |
| S 高溫合金 Refractory Alloys | RM535 | 100~195 | 0.12~0.20 | 1.0~2.0 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)

Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

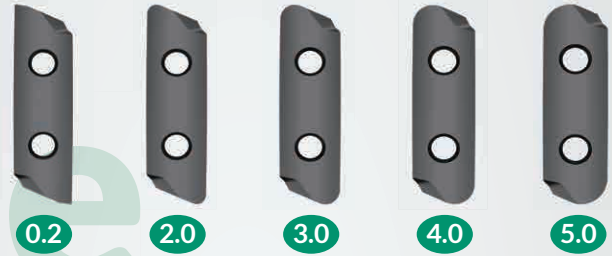
床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速

Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

AECX32T3

長刃鋁合金颶風刀片

Long Edge Aluminum Milling Insert

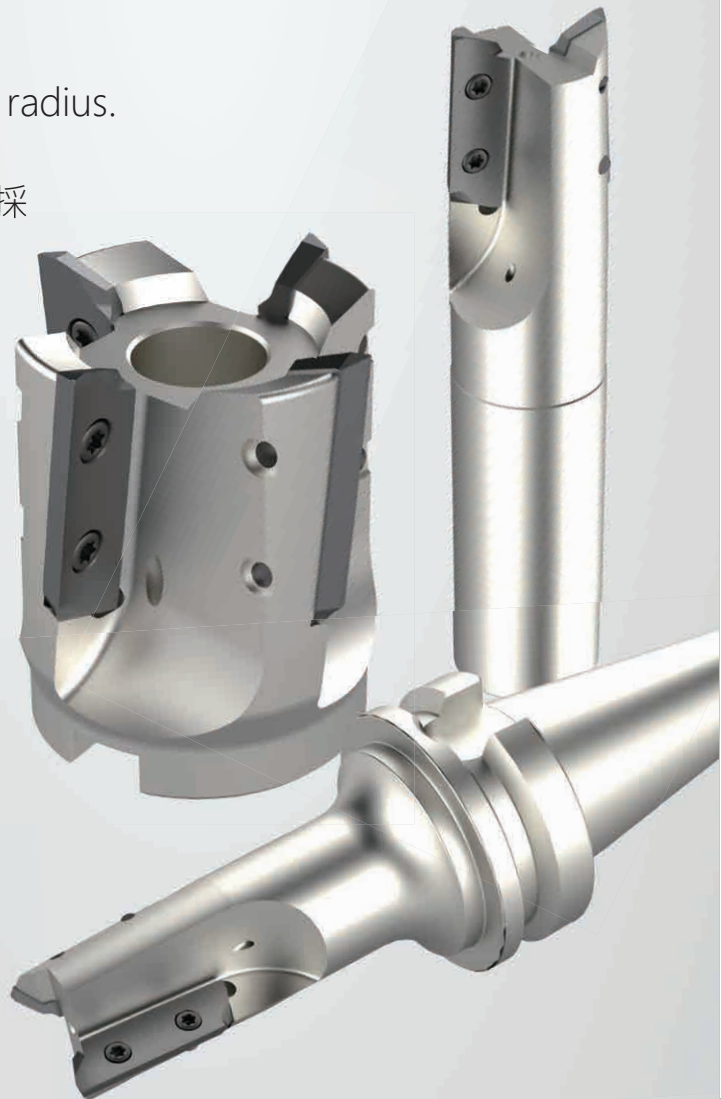


- 專為鋁合金及非鐵金屬腔體銑削和曲面銑削加工設計。
Specially designed for aluminum alloy and non-ferrous metal cavity milling and surface milling processing.
- 可進行大切深，粗精加工切削、最大切深可達30mm。
Larger cutting depth is used for both roughing and finishing.
Max. cutting depth is 30mm.
- 此刀片提供有5種規格刀尖圓弧半徑
The insert is available with five different nose radius.
- 刀片採用高仰角切削角度設計、刀片整體加工採全研磨製程
The insert is fully grinded with high elevation cutting angle design.

長刃型颶風刀具系列

Hurricane Type Milling Cutter Series

- 為了能高速切削加工使用、銑刀具本體設計高剛性及制震功能設計。
Designed for high rigidity and anti-vibration for high speed machining.
- 銑刀具設計中心出水設計可使排屑順暢並提高進給率。
Through coolant design makes chip removal easily and increases Feed speed.



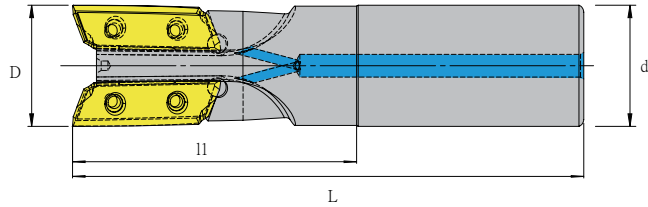


HRCN 颶風直柄銑刀

HRCN HURRICANE INDEXABLE MILLING CUTTER



NEW



| 規格 Spec. | L | l_1 | D | d | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|--------------------------|-----|-------|----|----|-----------|-----------|-----------------|
| HRCN-3232-AE32-135L-2T-C | 135 | 75 | 32 | 32 | 2 | AE..32T3 | - |
| HRCN-3332-AE32-135L-2T-C | 135 | 75 | 33 | 32 | 2 | AE..32T3 | - |
| HRCN-4032-AE32-135L-2T-C | 135 | 75 | 40 | 32 | 2 | AE..32T3 | - |

配件表 Accessories

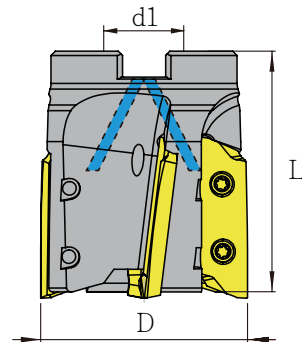
| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|---------------|-----------|------------------|
| AE..32T3 | M4-8.0-5.0-43 | T15 | 3 |



HRCN 颶風殼形銑刀

HRCN HURRICANE SHELL MILLING CUTTER

NEW



| 規格 Spec. | L | d_1 | D | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|--------------------------|----|-------|----|-----------|-----------|-----------------|
| HRCN-500-FMB22-AE32-4T-C | 60 | 22 | 50 | 4 | AE..32T3 | - |
| HRCN-630-FMB22-AE32-4T-C | 60 | 22 | 63 | 4 | AE..32T3 | - |
| HRCN-800-FMB27-AE32-5T-C | 70 | 27 | 80 | 5 | AE..32T3 | - |

配件表 Accessories


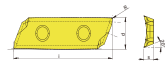
| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|---------------|-----------|------------------|
| AE..32T3 | M4-8.0-5.0-43 | T15 | 3 |

•長度單位 Unit of Length (mm)



AECX32T3 長刃鋁合金颯風刀片

AECX32T3 LONG EDGE ALUMINUM MILLING INSERT

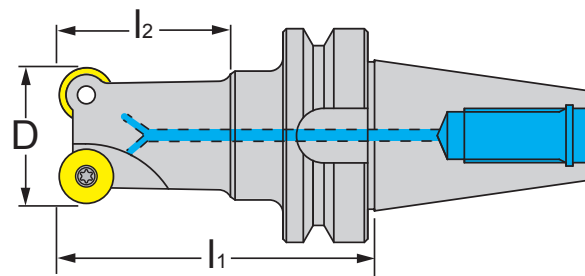
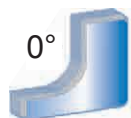
| | | | | | | | | | | | | |
|---|-------------|---|--------|---|--|-----------------|--|------|----|---|-----|---|
| ISO 分類 | P | 合金鋼 Alloyed Steels | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | |
| | M | 不鏽鋼 Stainless Steels | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | ■ | ○ | | | | | | | | |
| | S | 高溫合金 Refractory Alloys | | | | | | | | | | |
| | H | 高硬度材 Hard Material | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 超微粒硬質合金 Micro grain cemented carbide | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | |
| | | HF | | | | Size | | | | | | |
| | | OM5005 | OM5060 | | | | | d | i | | s | r |
|  | NEW | AECX32T302ER-F01 | ● | ● | | | | 11.9 | 37 | 3.97 | 0.2 |  |
| | NEW | AECX32T320ER-F01 | ● | ● | | | | 11.9 | 37 | 3.97 | 2 | |
| | NEW | AECX32T330ER-F01 | ● | ● | | | | 11.9 | 37 | 3.97 | 3 | |
| | NEW | AECX32T340ER-F01 | ● | ● | | | | 11.9 | 37 | 3.97 | 4 | |
| | NEW | AECX32T350ER-F01 | ● | ● | | | | 11.9 | 37 | 3.97 | 5 | |

NEW 新品 New Product

AECX32_ 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 (mm) |
|------------------------------|-----------------|---------------|-------------------|--------------|
| N | 鋁合金 Aluminum&Al | OM5005 | 500~1800 | 0.05~0.25 |
| | | OM5060 | 500~1800 | 0.05~0.25 |

•長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | l ₁ | l ₂ | D | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-------------------------|----------------|----------------|----|-----------|-----------|-----------------|
| BT40-STR3.5R16-90L-2T | 90 | 40 | 16 | 2 | RD..0702 | 1.29 |
| BT40-STR3.5R16-120L-2T | 120 | 65 | 16 | 2 | RD..0702 | 1.30 |
| ● BT40-STR3.5R20-90L-3T | 90 | 45 | 20 | 3 | RD..0702 | 1.32 |
| BT40-STR3.5R20-120L-3T | 120 | 70 | 20 | 3 | RD..0702 | 1.33 |
| ● BT40-STR3.5R25-90L-3T | 90 | 40 | 25 | 3 | RD..0702 | 1.36 |
| BT40-STR3.5R25-120L-3T | 120 | 70 | 25 | 3 | RD..0702 | 1.41 |
| BT40-STR3.5R30-120L-4T | 120 | 85 | 30 | 4 | RD..0702 | 1.52 |
| ● BT40-STR5R30-90L-3T | 90 | 55 | 30 | 3 | RD..1003 | 1.31 |
| ● BT40-STR5R35-90L-4T | 90 | 60 | 35 | 4 | RD..1003 | 1.42 |
| BT40-STR5R35-120L-4T | 120 | 85 | 35 | 4 | RD..1003 | 1.59 |

- 附壓板螺絲 Clamp screw included

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|-----------|------------------|-----------|------------------|-------------------|------------------|
| RD..0702 | M2.5-6.45-3.7-43 | T8 | M3.5-8.0-5.0-60 | T15 | 3.0 |
| RD..1003 | M3.5-8.0-5.0-60 | T15 | M4-8.0-5.7-60 | T15 | 3.0 |

※ 圓刀端銑刀，其軸向切深與有效刃徑有相對應關係，計算切削數據時，須修正

The axial depth is related to effective diameter on a round tooth milling cutter. Please be aware when calculating cutting parameter.

每刃進給切削公式
Feeding per Flutes

$$f_z = h_m \times \sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}$$

平均屑片厚度計算公式
Average chip thickness

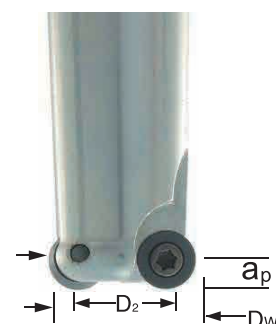
$$h_m = \frac{f_z}{\sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}}$$

有效刃徑計算公式
Effective diameter

$$D_w = D_2 + 2 \times \sqrt{r^2 - (r - A_p)^2}$$

where :

- D_w = 有效直徑 Effective diameter (mm)
- D₂ = 刀具中心距 Centre-to-centre distance of cutter (mm)
- r = 刀片半徑 Radius of Insert (mm)
- A_p = 切深 Depth (mm)



● 長度單位 Unit of Length (mm)



| | | | | | | | | | | | | | | | | | | | | |
|----------|--------------------------|-----------------------------------|--------|--------|--|--|--|--------------------------------|--|--|--|--|--|--------------|---|------|-----|------------|--|---|
| ISO 分類 | P 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
| | M 不鏽鋼 Stainless Steels | | ○ | ○ | | | | | | | | | | | | | | | | |
| | K 鑄鐵 Cast Iron | | | | | | | | | | | | | | | | | | | |
| | N 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | | | |
| | S 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | | |
| | H 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層硬質合金 Layer coated carbide alloy | | | | | | 鍍層超微粒 Layer coated micro grain | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | |
| | | HC | | | | | | CHF | | | | | | d | i | s | r | | | |
| | | OM0125 | OM1115 | OM2115 | | | | | | | | | | | | | | | | |
| | RDKW0702MO | ● | ● | ● | | | | | | | | | | 7 | - | 2.38 | 3.5 | | | |
| | RDKW1003MO | | ● | ● | | | | | | | | | | 10 | - | 3.18 | 5 | | | |
| | | | | | | | | | | | | | | | | | | | | |

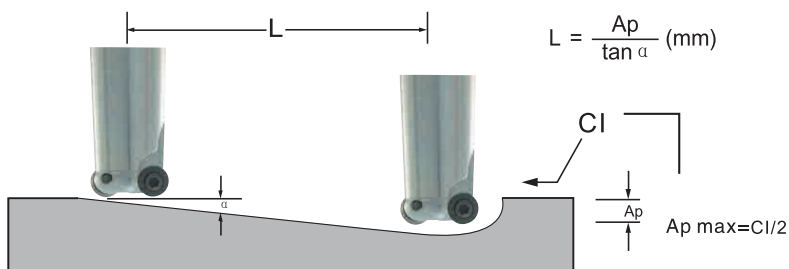
RD_07.10 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 平均屑片厚度 (mm) Average chip thickness | 切深 Ap (mm) |
|---------------------------|------------|----------------|------------------------------------|------------|
| P 低合金鋼 Low-Alloy Steels | OM1115 | 160~300 | 0.14~0.40 | 0.10~0.50 |
| | OM2115 | 120~250 | 0.08~0.25 | 0.10~0.50 |
| P 合金鋼 Alloyed Steels | OM1115 | 160~300 | 0.14~0.40 | 0.10~0.50 |
| | OM2115 | 120~250 | 0.08~0.25 | 0.10~0.50 |
| | OM0125 | 60~220 | 0.14~0.30 | 0.10~0.30 |
| M 不鏽鋼 Stainless Steels | OM1115 | 70~100 | 0.06~0.10 | 0.10~0.25 |
| | OM2115 | 70~100 | 0.06~0.10 | 0.10~0.25 |
| H 高硬度材 Hard Material | OM0125 | 60~110 | 0.14~0.40 | 0.05~0.20 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

最大斜向切削公式 Max. inclined cutting



| 規格 Spec. | 螺旋下刀孔徑 (mm) Tap Drill Size. | | 最大斜度切削角度 α° Max. inclined cutting angle | 最大斜向進刀長度 Max. inclined cutting length |
|------------|-----------------------------|---------|---|---------------------------------------|
| | 最小 Min. | 最大 Max. | | |
| STR-3.5R16 | 16 | 23 | 13° | 15.16 |
| STR-3.5R20 | 20 | 27 | 14.5° | 13.53 |
| STR-3.5R25 | 25 | 32 | 10° | 19.85 |
| STR-5R25 | 25 | 32 | 10° | 19.85 |
| STR-5R30 | 30 | 40 | 14° | 20.05 |
| STR-5R35 | 35 | 45 | 14° | 20.05 |

• 長度單位 Unit of Length (mm)



SBT/SOM
螺紋鎖固式刀桿
Screwed End
Mill Holder



直柄C/M螺紋鎖固式
鎢鋼延長桿
C/M Straight Shank
Tungsten Carbide
Extension Shank



CAT/SOM
鎖牙式刀桿
Screwed-on End
Mill Holder



SOM鎖牙式延長桿
SOM Screwed-on End
Mill Extension Shank



MAS 鎖牙式迷你銑刀
MAS Screwed-on
End Mill Cutter



STR鎖牙式切削刀具
STR Screwed-on
End Mill Cutter



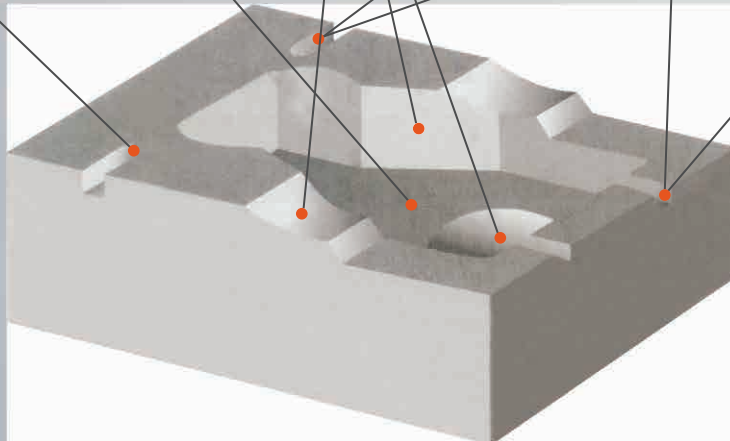
BR鎖牙式球型銑刀
Screwed-on Rounded Corner
End Mill Cutter



NHF 高進給鎖牙銑刀
High Feed Screwed-on
End mill Cutter

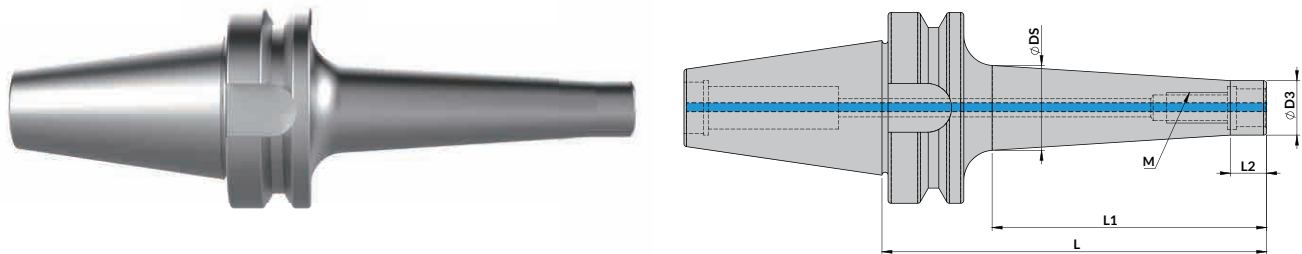


HAS鎖牙式大進給切削刀具
Screwed-on High
Speed Mill Cutter



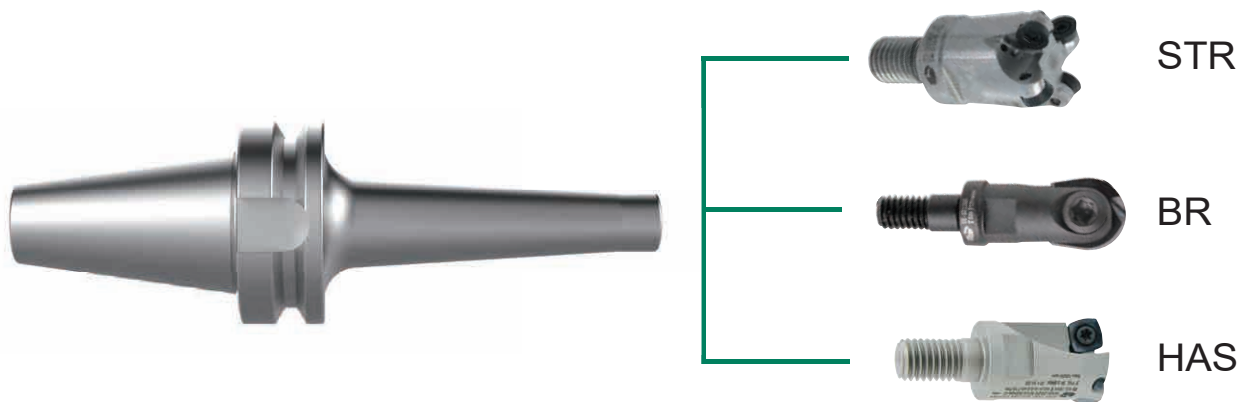
※ 刀桿通孔，利於出水及抗震。

Through-hole design for better water coolant and anti-vibration



| 規格 Spec. | M | Ds | D3 | L | L1 | L2 |
|-----------------|-----|------|-----|-----|-----|----|
| SBT40-SOM6-110 | M6 | 25 | 9.7 | 110 | 80 | 10 |
| SBT40-SOM8-105 | M8 | 30 | 15 | 105 | 75 | 10 |
| SBT40-SOM10-100 | M10 | 35 | 18 | 100 | 70 | 10 |
| SBT40-SOM10-130 | M10 | 35 | 18 | 130 | 100 | 10 |
| SBT40-SOM12-95 | M12 | 40 | 21 | 95 | 65 | 10 |
| SBT40-SOM12-130 | M12 | 40 | 21 | 130 | 100 | 10 |
| SBT40-SOM16-90 | M16 | 48 | 28 | 90 | 60 | 10 |
| SBT40-SOM16-140 | M16 | 48 | 28 | 140 | 110 | 10 |
| SBT50-SOM12-150 | M12 | 41 | 21 | 150 | 105 | 30 |
| SBT50-SOM12-200 | M12 | 42.5 | 21 | 200 | 155 | 30 |
| SBT50-SOM16-150 | M16 | 49 | 28 | 150 | 105 | 30 |
| SBT50-SOM16-200 | M16 | 50 | 28 | 200 | 155 | 35 |

範例 Example

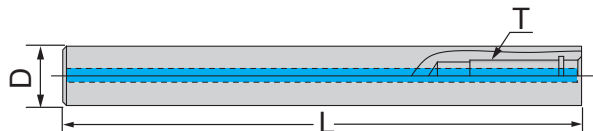


•長度單位 Unit of Length (mm)

直柄 C/M 螺紋鎖固式鎢鋼延長桿

C/M STRAIGHT TUNGSTEN CARBIDE EXTENSION SHANK

LEMMA



特點 Feature

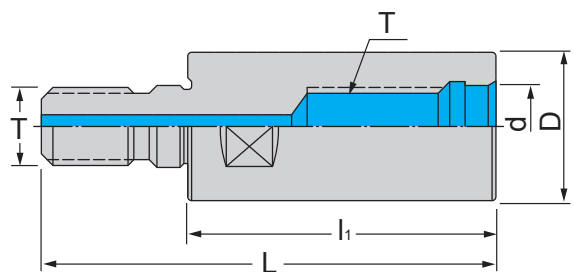
- 整支通孔 · 利於出水及抗震

- Through-hole design for better water coolant and anti-vibration.

| 規格 Spec. | L | D | T | 重量 (KGS) Weight |
|---------------|-----|----|-----------|-----------------|
| C10-M5-150-C | 150 | 10 | M5X0.8P | 0.16 |
| C12-M6-100-C | 100 | 12 | M6×1.0P | 0.16 |
| C12-M6-150-C | 150 | 12 | M6×1.0P | 0.24 |
| C16-M8-100-C | 100 | 16 | M8×1.25P | 0.26 |
| C16-M8-150-C | 150 | 16 | M8×1.25P | 0.57 |
| C16-M8-200-C | 200 | 16 | M8×1.25P | 0.54 |
| C20-M10-150-C | 150 | 20 | M10×1.5P | 0.60 |
| C20-M10-200-C | 200 | 20 | M10×1.5P | 0.85 |
| C25-M12-200-C | 200 | 25 | M12×1.75P | 1.30 |
| C25-M12-250-C | 250 | 25 | M12×1.75P | 1.60 |

SOM 鎖牙式延長桿

SOM SCREW-ON END MILL EXTENSION SHANK



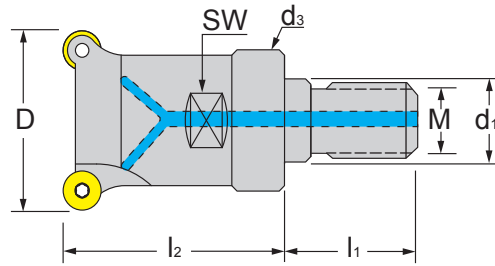
特點 Feature

- 整支通孔利於出水及抗震
- 採用抗震型材質
- 螺紋精度一級牙 4H

- Through-hole design for better water coolant and anti-vibration.
- Made of anti-vibration material.
- Thread accuracy grade 1, 4H.

| 規格 Spec. | L | l ₁ | D | d | T | 重量 (KGS) Weight |
|----------|----|----------------|----|------|-----------|-----------------|
| SOM6-25 | 42 | 25 | 13 | 6.5 | M6×1.0P | 0.03 |
| SOM8-32 | 50 | 32 | 15 | 8.5 | M8×1.25P | 0.06 |
| SOM10-40 | 59 | 40 | 19 | 10.5 | M10×1.5P | 0.09 |
| SOM12-50 | 73 | 50 | 21 | 12.5 | M12×1.75P | 0.13 |
| SOM16-60 | 85 | 60 | 25 | 17 | M16×2.0P | 0.23 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | l ₁ | l ₂ | D | d ₁ | d ₃ | M | SW | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|--------------------|----------------|----------------|----|----------------|----------------|----|----|-----------|-----------|-----------------|
| STR-2.5R12M6-2T | 17 | 22 | 12 | 6.5 | 10 | 6 | 8 | 2 | RD..0501 | 0.03 |
| STR-3.5R16M8-2T | 18 | 23 | 16 | 8.5 | 13.5 | 8 | 12 | 2 | RD..0702 | 0.05 |
| STR-3.5R20M10-3T | 19 | 30 | 20 | 10.5 | 18 | 10 | 14 | 3 | RD..0702 | 0.08 |
| ● STR-3.5R25M12-3T | 23 | 35 | 25 | 12.5 | 21 | 12 | 17 | 3 | RD..0702 | 0.12 |
| ● STR-5R25M12-2T | 23 | 35 | 25 | 12.5 | 21 | 12 | 17 | 2 | RD..1003 | 0.11 |
| ● STR-5R30M16-3T | 25 | 42 | 30 | 17 | 26 | 16 | 21 | 3 | RD..1003 | 0.19 |
| ● STR-5R35M16-4T | 25 | 42 | 35 | 17 | 29 | 16 | 21 | 4 | RD..1003 | 0.23 |

● 附壓板螺絲 Clamp screw included

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|-----------|------------------|-----------|------------------|------------------|-------------------|------------------|
| RD..0501 | M2-3.8-2.68-43 | T6 | 0.6 | M2-3.8-2.68-43 | T6 | 0.6 |
| RD..0702 | M2.5-6.45-3.7-43 | T8 | 1.2 | M3.5-8.0-5.0-60 | T15 | 3.0 |
| RD..1003 | M3.5-8.0-5.0-60 | T15 | 3.0 | M4-8.0-5.7-60 | T15 | 3.0 |

每刃進給切削公式
Formula of feeding per flutes

$$f_z = h_m \times \sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}$$

平均屑片厚度計算公式
Formula of average chip thickness

$$h_m = \frac{f_z}{\sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}}$$

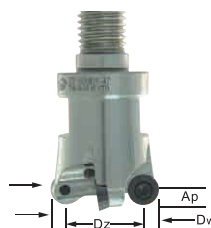
有效刃徑計算公式
Formula of effective diameter

$$D_w = D_2 + 2 \times \sqrt{r^2 - (r - A_p)^2}$$

D_w = 有效直徑 Effective diameter (mm)
D₂ = 刀具中心距 Centre-to-centre distance of cutter (mm)
r = 刀片半徑 Radius of Insert (mm)
A_p = 切深 Depth (mm)

鎖固力矩 Locking torque

| 螺紋 Screw thread | 緊固力矩 Locking N.m | 扳手開口度 (mm) Spanner Size |
|-----------------|------------------|-------------------------|
| M6 | 6Nm | SW8 |
| M8 | 23Nm | SW12 |
| M10 | 46Nm | SW14 |
| M12 | 80Nm | SW17 |
| M16 | 90Nm | SW21 |
| M20 | 200Nm | SW30 |
| M20 | 200Nm | SW36 |

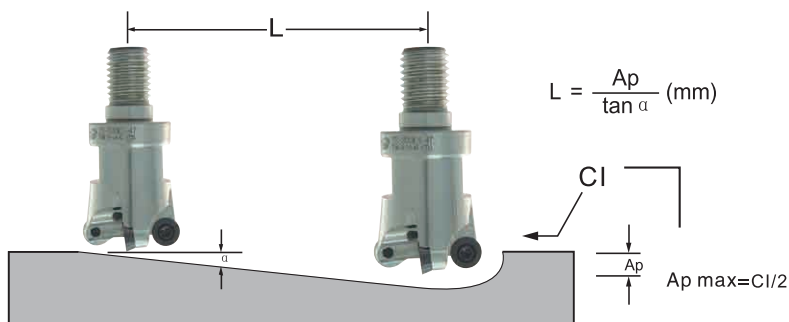


● 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|----------------------|--------|--------|---|--|--|--------------------------------|--|--|--|--|--|--------------|---|------|-----|------------|---|
| | M | 不鏽鋼 Stainless Steels | | ○ | ○ | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | ○ | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層硬質合金 Carbide alloy | | | | | | 鍍層超微粒 Layer coated micro grain | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | |
| | | HC | | | | | | CHF | | | | | | | | | | | |
| | | OM0125 | OM1115 | OM2115 | | | | | | | | | | | d | i | s | | r |
| | RDKW0501MO | ● | | ● | | | | | | | | | | 5 | - | 1.51 | 2.5 | | |
| | RDKW0702MO | ● | ● | ● | | | | | | | | | | 7 | - | 2.38 | 3.5 | | |
| | RDKW1003MO | | ● | ● | | | | | | | | | | 10 | - | 3.18 | 5 | | |

最大斜向切削公式 Max. inclined cutting



| 規格 Spec. | 螺旋下刀孔徑 (mm) Tap Drill Size. | | 最大斜度切削角度 α° Max. inclined cutting angle | 最大斜向進刀長度 Max. inclined length |
|------------|-----------------------------|---------|---|-------------------------------|
| | 最小 Min. | 最大 Max. | | |
| STR-2.5R12 | 12 | 19 | 21.5° | 8.89 |
| STR-3.5R16 | 16 | 23 | 13° | 15.16 |
| STR-3.5R20 | 20 | 27 | 14.5° | 13.53 |
| STR-3.5R25 | 25 | 32 | 10° | 19.85 |
| STR-5R25 | 25 | 32 | 10° | 19.85 |
| STR-5R30 | 30 | 40 | 14° | 20.05 |
| STR-5R35 | 35 | 45 | 14° | 20.05 |

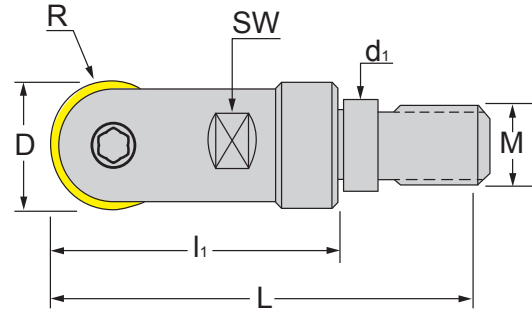
RD_05.07.10 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 平均屑片厚度 (mm) Average chip thickness | 切深 Ap (mm) |
|---------------------------|------------|----------------|------------------------------------|------------|
| 低合金鋼 Low-Alloy Steels | OM1115 | 160~300 | 0.14~0.04 | 0.10~0.50 |
| | OM2115 | 120~250 | 0.08~0.25 | 0.10~0.50 |
| 合金鋼 Alloyed Steels | OM1115 | 160~300 | 0.14~0.04 | 0.10~0.50 |
| | OM2115 | 120~250 | 0.08~0.25 | 0.10~0.50 |
| | OM0125 | 60~220 | 0.14~0.30 | 0.10~0.30 |
| 不鏽鋼 Stainless Steels | OM1115 | 70~100 | 0.06~0.10 | 0.10~0.25 |
| | OM2115 | 70~100 | 0.06~0.10 | 0.10~0.25 |
| 高硬度材 Hard Material | OM0125 | 60~110 | 0.14~0.40 | 0.05~0.20 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

● 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | D | d ₁ | R | M N.m | SW | 刀片 Insert | 重量 (KGS) Weight |
|---------------|----|----------------|----|----------------|------|----------|----|-----------|--------------------|
| BR-4R08M6 | 34 | 20 | 8 | 8.5 | 4 | M6 / 10 | 8 | BR08 | 0.04 |
| BR-5R10M6 | 36 | 21 | 10 | 8.5 | 5 | M6 / 10 | 8 | BR10 | 0.05 |
| BR-6R12M6 | 40 | 25 | 12 | 8.5 | 6 | M6 / 10 | 8 | BR12 | 0.05 |
| BR-8R16M8 | 43 | 26 | 16 | 8.5 | 8 | M8 / 23 | 12 | BR16 | 0.06 |
| BR-10R20M10 | 51 | 32 | 20 | 10.5 | 10 | M10 / 46 | 14 | BR20 | 0.09 |
| BR-12.5R25M12 | 62 | 40 | 25 | 12.5 | 12.5 | M12 / 80 | 17 | BR25 | 0.06 |
| BR-15R30M16 | 62 | 40 | 30 | 17 | 15 | M16 / 90 | 21 | BR30 | 0.26 |
| BR-16R32M16 | 65 | 43 | 32 | 17 | 16 | M16 / 90 | 21 | BR32 | 0.29 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|----------|-----------|---------------------|
| BR08 | BR4 | T8 | 1.2 |
| BR10 | BR5 | T15 | 3.0 |
| BR12 | BR6 | T20 | 5.0 |
| BR16 | BR8 | T20 | 5.0 |
| BR20 | BR10 | T20 | 5.0 |
| BR25 | BR12.5 | T30 | 10.0 |
| BR30 | BR15 | T30 | 10.0 |
| BR32 | BR16 | T30 | 10.0 |



• 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | | | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|--------------------------------|--------|---|--|--------------------------------------|--|--|---|--------------|--|--|--|------------|---|-----|---|---|---|---|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | | | | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | ○ | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | | | | |
| | | CHF | | | | HF | | | | Size | | | | | | | | | | |
| | | OM4010 | OM4025 | | | | | | | OM5005 | | | | | | d | i | s | r | |
| | BR08S | ● | ● | | | | | | ● | | | | | 8 | 3 | 2 | - | | | |
| | BR10S | ● | ● | | | | | | ● | | | | | 10 | 4 | 2.5 | - | | | |
| | BR12S | ● | ● | | | | | | ● | | | | | 12 | 5 | 2.5 | - | | | |
| | BR16S | ● | ● | | | | | | ● | | | | | 16 | 5 | 3 | - | | | |
| | BR20S | ● | ● | | | | | | ● | | | | | 20 | 5 | 3 | - | | | |
| | BR25S | ● | ● | | | | | | ● | | | | | 25 | 6 | 4 | - | | | |
| | BR30S | ● | ● | | | | | | ● | | | | | 30 | 8 | 5 | - | | | |
| | BR32S | ● | ● | | | | | | ● | | | | | 32 | 8 | 5 | - | | | |

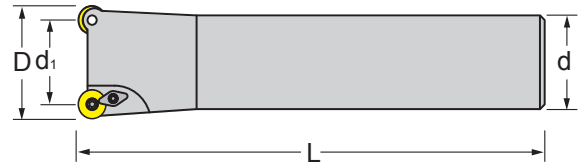
BR_08.10.12.16.20.25.30.32 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|---------------------------|------------|----------------|-----------------|
| P 低合金鋼 Low-Alloy Steels | OM4010 | 180~200 | 0.08~0.20 |
| | OM4025 | 180~220 | 0.08~0.19 |
| 合金鋼 Alloyed Steels | OM4010 | 100~140 | 0.08~0.12 |
| | OM4025 | 100~120 | 0.06~0.12 |
| M 不鏽鋼 Stainless Steels | OM4010 | 160~200 | 0.08~0.12 |
| | OM4025 | 155~190 | 0.08~0.12 |
| K 鑄鐵 Cast Iron | OM4025 | 110~143 | 0.09~0.11 |
| N 鋁合金 Aluminum&Al | OM5005 | 300~500 | 0.05~0.30 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

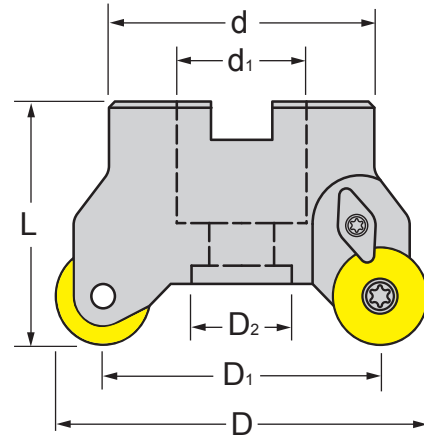
- Made of anti-vibration tool steel.
- After heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | d | d ₁ | R | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-----------------|-----|----|----|----------------|----|-----------|-----------|-----------------|
| HR-4R2020-150L | 150 | 20 | 20 | 12 | 4R | 2 | RP..0803 | 0.37 |
| HR-5R2525-150L | 150 | 25 | 25 | 15 | 5R | 2 | RP..10T3 | 0.56 |
| HR-5R2525-200L | 200 | 25 | 25 | 15 | 5R | 2 | RP..10T3 | 0.76 |
| HR-5R3025-150L | 150 | 30 | 25 | 20 | 5R | 2 | RP..10T3 | 0.59 |
| HR-5R3025-200L | 200 | 30 | 25 | 20 | 5R | 2 | RP..10T3 | 0.78 |
| HR-5R3532-150L | 150 | 35 | 32 | 25 | 5R | 3 | RP..10T3 | 0.92 |
| HR-5R3532-200L | 200 | 35 | 32 | 25 | 5R | 3 | RP..10T3 | 1.26 |
| HR-5R3532-300L | 300 | 35 | 32 | 25 | 5R | 3 | RP..10T3 | 1.89 |
| HR-6R3225-200L | 200 | 32 | 25 | 20 | 6R | 2 | RP..1204 | 0.78 |
| HR-6R3232-200L | 200 | 32 | 32 | 20 | 6R | 2 | RP..1204 | 1.21 |
| HR-6 R4032-180L | 180 | 40 | 32 | 28 | 6R | 3 | RP..1204 | 1.16 |
| HR-6R4032-230L | 230 | 40 | 32 | 28 | 6R | 3 | RP..1204 | 1.48 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板螺絲 Clamp Screw | 壓板 Clamp | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|---------------|-----------|------------------|------------------|----------|-----------|------------------|
| RP..0803 | M3-8.0-4.4-60 | T9 | 1.4 | - | - | T9 | 1.4 |
| RP..10T3 | M4-10-5.0-43 | T15 | 3.0 | M3.5-8.0-5.5-60 | GR-4R.5R | T15 | 3.0 |
| RP..1204 | M4-10-5.0-43 | T15 | 3.0 | M5-11-7.5-60 | RR-6R.8R | T20 | 5.0 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|------------------|----|----|----------------|----------------|----|----------------|-----------|-----------|-----------------|
| HR-5R50-FMB22-4T | 50 | 50 | 40 | 18 | 40 | 22 | 4 | RP.10T3 | 0.41 |
| HR-6R50-FMB22-3T | 50 | 50 | 38 | 18 | 40 | 22 | 3 | RP.1204 | 0.44 |
| HR-6R50-FMB22-4T | 50 | 50 | 38 | 18 | 40 | 22 | 4 | RP.1204 | 0.41 |
| HR-6R63-FMB22-4T | 55 | 63 | 51 | 18 | 50 | 22 | 4 | RP.1204 | 0.66 |
| HR-6R63-FMB22-5T | 55 | 63 | 51 | 18 | 50 | 22 | 5 | RP.1204 | 0.67 |
| HR-6R63-5T | 55 | 63 | 51 | 19 | 50 | 25.4 | 5 | RP.1204 | 0.63 |
| HR-6R80-FMB27-6T | 55 | 80 | 68 | 19 | 60 | 27 | 6 | RP.1204 | 1.22 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板螺絲 Clamp Screw | 壓板 Clamp | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|------------------|----------|-----------|------------------|
| RP.10T3 | M4-10-5.0-43 | T15 | 3.0 | M3.5-8.0-5.5-60 | HR-4R.5R | T15 | 3.0 |
| RP.1204 | M4-10-5.0-43 | T15 | 3.0 | M5-11-7.5-60 | HR-6R.8R | T20 | 5.0 |

每刃進給切削公式
Feeding per Flutes

$$f_z = h_m \times \sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}$$

平均屑片厚度計算公式
Average chip thickness

$$h_m = \frac{f_z}{\sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}}$$

有效刃徑計算公式
Effective diameter

$$D_w = D_2 + 2 \times \sqrt{r^2 - (r - A_p)^2}$$

D_w = 有效直徑 Effective diameter (mm)

D₂ = 刀具中心距 Centre-to-centre distance of cutter (mm)

r = 刀片半徑 Radius of Insert (mm)

A_p = 切深 Depth (mm)

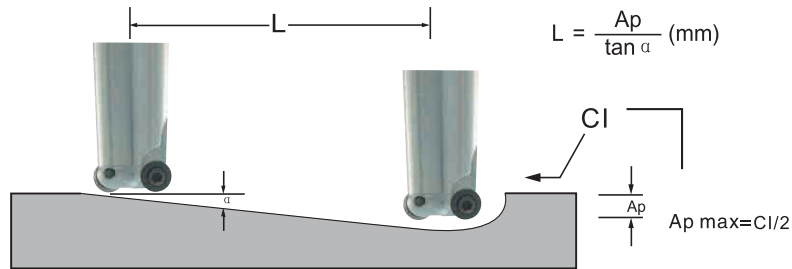


• 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | | | | |
|--------------------------|-----------------|--------------------------------|--------------------|--------|----|--------------------------------------|--|----|--------------|--|---|---|------------|----|---|------|---|--|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | ○ | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | | | | | | | | | | | | | | |
| 切削狀態 Cutting Condition : | ● | 連續切削 Continuous Cutting | | | | | | | | | | | | | | | | |
| | ○ | 一般切削 General Cutting | | | | | | | | | | | | | | | | |
| | ■ | 斷續切削 Interrupted Cutting | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | 硬質合金 Carbide alloy | | | 超微粒硬質合金 Micro grain cemented carbide | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | | | |
| | | CHF | | | HW | | | HF | | | | | | | | | | |
| | | OM4010 | OM4025 | RM4130 | | | | | | | d | i | | s | r | | | |
| | RPET1204MOE-M01 | ● | ● | | | | | ● | | | | | | 12 | - | 4.76 | 6 | |
| | RPMT10T3MON | | | ● | | | | | | | | | | 10 | - | 3.97 | 5 | |
| | RPMT1204MON | | | ● | | | | | | | | | | 12 | - | 4.76 | 6 | |

最大斜向切削公式 Max. inclined cutting



| 規格 Spec. | 螺旋下刀孔徑 (mm) Tap Drill Size. | | 最大徑向切削角度 α° Max. radial cutting angle | 最大斜向進刀長度 Max. inclined cutting length |
|----------|-----------------------------|---------|---------------------------------------|---------------------------------------|
| | 最小 Min. | 最大 Max. | | |
| HR-4R20 | 14 | 20 | 5.4° | 31.74 |
| HR-5R25 | 17 | 25 | 7.85° | 39.01 |
| HR-5R30 | 22 | 32 | 7.55° | 37.72 |
| HR-5R35 | 25 | 35 | 7.23° | 39.16 |
| HR-6R40 | 40 | 52 | 4.15° | 82.69 |
| HR-5R50 | 50 | 62 | 4.4° | 77.98 |
| HR-6R63 | 63 | 75 | 3.5° | 98.10 |

切削條件數據表 Cutting Parameter

| 被加工材質 Machining Material | 刀片種類 Inserts | | | |
|--------------------------|--------------|---------------|--------------|---------------|
| | RP_10 | | RP_12 | |
| | 米速 Vc(m/min) | 平均屑片厚度 hm(mm) | 米速 Vc(m/min) | 平均屑片厚度 hm(mm) |
| P 低合金鋼 Low-Alloy Steels | 180~300 | 0.10~0.28 | 180~300 | 0.12~0.30 |
| 合金鋼 Alloyed Steels | 70~195 | 0.08~0.24 | 70~195 | 0.08~0.25 |
| M 不鏽鋼 Stainless Steels | 55~100 | 0.08~0.14 | 55~100 | 0.08~0.14 |
| K 鑄鐵 Cast Iron | 140~350 | 0.08~0.24 | 140~350 | 0.08~0.25 |
| N 鋁合金 Aluminum&Al | 275~1000 | 0.04~0.12 | 275~1000 | 0.04~0.16 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)
 Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).
 床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速
 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- The tool is pre-hardened from the heat treatment prior to finish cutting for better accuracy consistency

| 規格 Spec. | L | D | D ₁ | d | R | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|----------------------|-----|----|----------------|----|------|-----------|-----------|-----------------|
| STR-2.5R1212-108L-2T | 108 | 12 | 7 | 12 | 2.5R | 2 | RD..0501 | 0.10 |
| STR-3.5R1616-150L-2T | 150 | 16 | 9 | 16 | 3.5R | 2 | RD..0702 | 0.26 |
| STR-3.5R2020-170L-2T | 170 | 20 | 13 | 20 | 3.5R | 2 | RD..0702 | 0.44 |
| STR-3.5R2525-150L-3T | 150 | 25 | 18 | 25 | 3.5R | 3 | RD..0702 | 0.57 |
| ● STR-5R2525-150L-2T | 150 | 25 | 15 | 25 | 5R | 2 | RD..1003 | 0.56 |
| ● STR-5R2525-200L-2T | 200 | 25 | 15 | 25 | 5R | 2 | RD..1003 | 0.76 |
| ● STR-5R3025-150L-3T | 150 | 30 | 20 | 25 | 5R | 3 | RD..1003 | 0.58 |
| ● STR-5R3025-200L-3T | 200 | 30 | 20 | 25 | 5R | 3 | RD..1003 | 0.78 |

- 附壓板螺絲 Clamp screw included

配件表 Accessories

| 規格 Spec. | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板螺絲 Clamp Screw | 壓板扳手 Wrench | 扭力值 (N.m) Torque |
|----------------------|-----------|------------------|-----------|------------------|------------------|-------------|------------------|
| STR-2.5R1212-108L-2T | RD..0501 | M2-3.8-2.68-43 | T6 | 0.6 | - | - | - |
| STR-3.5R1616-150L-2T | RD..0702 | M2.5-6.45-3.7-43 | T8 | 1.2 | - | - | - |
| STR-3.5R2020-170L-2T | RD..0702 | M2.5-6.45-3.7-43 | T8 | 1.2 | M3.5-8.0-5.0-60 | T15 | 3.0 |
| STR-3.5R2525-150L-3T | RD..0702 | M2.5-6.45-3.7-43 | T8 | 1.2 | M3.5-8.0-5.0-60 | T15 | 3.0 |
| STR-5R2525-150L-2T | RD..1003 | M3.5-8.0-5.0-60 | T15 | 3.0 | M4-5.0-5.7-60 | T15 | 3.0 |
| STR-5R2525-200L-2T | RD..1003 | M3.5-8.0-5.0-60 | T15 | 3.0 | M4-5.0-5.7-60 | T15 | 3.0 |
| STR-5R3025-150L-3T | RD..1003 | M3.5-8.0-5.0-60 | T15 | 3.0 | M4-5.0-5.7-60 | T15 | 3.0 |
| STR-5R3025-200L-3T | RD..1003 | M3.5-8.0-5.0-60 | T15 | 3.0 | M4-5.0-5.7-60 | T15 | 3.0 |

每刃進給切削公式
Formula of feeding per Flutes

$$f_z = h_m \times \sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}$$

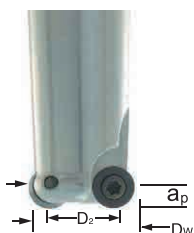
平均屑片厚度計算公式
Formula of average chip thickness

$$h_m = \frac{f_z}{\sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}}$$

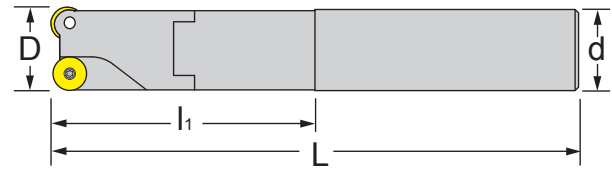
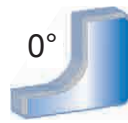
有效刃徑計算公式
Formula of effective diameter

$$D_w = D_2 + 2 \times \sqrt{r^2 - (r - A_p)^2}$$

D_w = 有效直徑 Effective diameter (mm)
D₂ = 刀具中心距 Centre-to-centre distance of cutter (mm)
r = 刀片半徑 Radius of Insert (mm)
A_p = 切深 Depth (mm)



● 長度單位 Unit of Length (mm)



特點 Feature

- CSTR 系列以鎢鋼柄部確保剛性，加以 2.5R 高性能超硬刀片，結合而成高性能低成本的革命性產品
- 細小尺寸設計最適合中小型模具的模穴粗銑
- 阻抗排解力強，穩定性極佳
- 刀片相容性高，使用者適應性強
- The revolutionary CSTR series are a combination of tungsten carbide shank and 2.5R super hard insert which are featured low cost and high efficiency.
- Small size is available for rough milling of small-medium mold cavity.
- High resistance relief and excellent stability.
- Compatible with various inserts. User friendly.

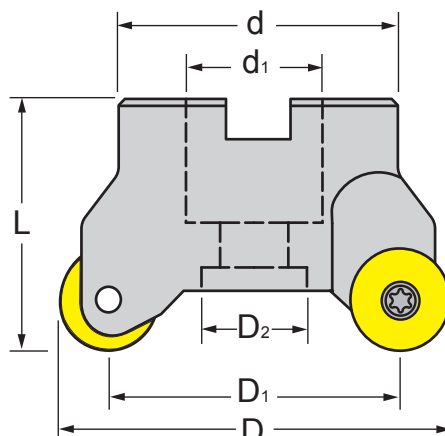
| 規格 Spec. | L | l ₁ | D | d | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-----------------------|-----|----------------|----|----|-----------|-----------|-----------------|
| CSTR-2.5R1010-85L-2T | 85 | 40 | 10 | 10 | 2 | RD..0501 | - |
| CSTR-2.5R1110-110L-2T | 110 | - | 11 | 10 | 2 | RD..0501 | 0.14 |
| CSTR-2.5R1212-95L-2T | 95 | 50 | 12 | 12 | 2 | RD..0501 | 0.16 |
| CSTR-2.5R1212-95L-3T | 95 | 50 | 12 | 12 | 3 | RD..0501 | 0.16 |
| CSTR-2.5R1312-125L-2T | 125 | - | 13 | 12 | 2 | RD..0501 | 0.20 |
| CSTR-2.5R1312-125L-3T | 125 | - | 13 | 12 | 3 | RD..0501 | 0.20 |
| CSTR-3.5R1716-150L-2T | 150 | - | 17 | 16 | 2 | RD..0702 | 0.25 |
| CSTR-3.5R1716-200L-2T | 200 | - | 17 | 16 | 2 | RD..0702 | 0.60 |
| CSTR-3.5R2120-150L-3T | 150 | - | 21 | 20 | 3 | RD..0702 | 0.64 |
| CSTR-3.5R2120-200L-3T | 200 | - | 21 | 20 | 3 | RD..0702 | 0.89 |
| CSTR-3.5R2625-150L-4T | 150 | - | 26 | 25 | 4 | RD..0702 | 1.70 |
| CSTR-3.5R2625-250L-4T | 250 | - | 26 | 25 | 4 | RD..0702 | 1.70 |
| CSTR-5R2120-200L-2T | 200 | - | 21 | 20 | 2 | RD..1003 | 0.89 |
| CSTR-5R2625-250L-3T | 250 | - | 26 | 25 | 3 | RD..1003 | 1.70 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------------|-----------|------------------|
| RD..0501 | M2-3.8-2.68-43 | T6 | 0.6 |
| RD..0702 | M2.5-6.45-3.7-43 | T8 | 1.2 |
| RD..1003 | M3.5-8.0-5.0-60 | T15 | 3.0 |



•長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-------------------|----|----|----------------|----------------|----|----------------|-----------|-----------|-----------------|
| STR-5R50-FMB22-5T | 50 | 50 | 40 | 18 | 40 | 22 | 5 | RD..1003 | 0.45 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板螺絲 Clamp Screw | 壓板扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-----------------|-----------|------------------|------------------|-------------|------------------|
| RD..1003 | M3.5-8.0-5.0-60 | T15 | 3.0 | M4-8.0-5.7-60 | T15 | 3.0 |

每刃進給切削公式
Formula of feeding per Flutes

$$f_z = h_m \times \sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}$$

平均屑片厚度計算公式
Formula of average chip thickness

$$h_m = \frac{f_z}{\sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}}$$

有效刃徑計算公式
Formula of effective diameter

$$D_w = D_2 + 2 \times \sqrt{r^2 - (r - A_p)^2}$$

D_w = 有效直徑 Effective diameter (mm)
D₂ = 刀具中心距 Centre-to-centre distance of cutter (mm)
r = 刀片半徑 Radius of Insert (mm)
A_p = 切深 Depth (mm)



• 長度單位 Unit of Length (mm)

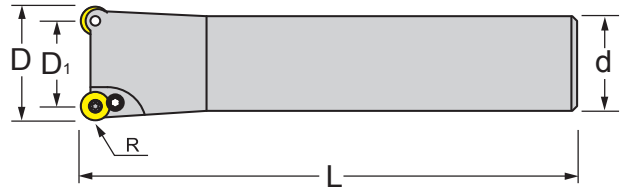


| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | | |
|----------|------------------------|----------------------|--------|--------|---|--|--|--|--|--|--|--|---------|---|---|---|------------|---|------|-----|--|
| | M | 不鏽鋼 Stainless Steels | | ○ | ○ | | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | ○ | | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層硬質合金 Carbide alloy | | | | | | | | | | | 尺寸 (mm) | | | | 圖形 Drawing | | | | |
| | | HC | | | | | | | | | | | Size | | | | | | | | |
| | | OM0125 | OM1115 | OM2115 | | | | | | | | | d | i | s | r | | | | | |
| | RDKW0501MO | ● | | ● | | | | | | | | | | | | | 5 | - | 1.51 | 2.5 | |
| | RDKW0702MO | ● | ● | ● | | | | | | | | | | | | | 7 | - | 2.38 | 3.5 | |
| | RDKW1003MO | | ● | ● | | | | | | | | | | | | | 10 | - | 3.18 | 5 | |

RD_05.07.10 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 平均屑片厚度 (mm) Average chip thickness | 切深 Ap (mm) |
|---------------------------|-----------------------|------------|----------------|------------------------------------|------------|
| P | 低合金鋼 Low-Alloy Steels | OM1115 | 160~300 | 0.14~0.04 | 0.10~0.50 |
| | | OM2115 | 120~250 | 0.08~0.25 | 0.10~0.50 |
| P | 合金鋼 Alloyed Steels | OM1115 | 160~300 | 0.14~0.04 | 0.10~0.50 |
| | | OM2115 | 120~250 | 0.08~0.25 | 0.10~0.50 |
| | | OM0125 | 60~220 | 0.14~0.30 | 0.10~0.30 |
| M | 不鏽鋼 Stainless Steels | OM1115 | 70~100 | 0.06~0.10 | 0.10~0.25 |
| | | OM2115 | 70~100 | 0.06~0.10 | 0.10~0.25 |
| H | 高硬度材 Hard Material | OM0125 | 60~110 | 0.14~0.40 | 0.05~0.20 |

- 主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)
Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).
- 床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速
Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.


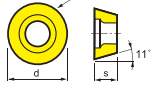
| 規格 Spec. | L | D | D ₁ | d | R | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----|----------------|----|----|-----------|-----------|-----------------|
| C25-FR25-150L | 150 | 25 | 15 | 25 | 5R | 2 | RP.1003 | 0.55 |
| C25-FR25-180L | 180 | 25 | 15 | 25 | 5R | 2 | RP.1003 | 0.67 |
| C25-FR25-250L | 250 | 25 | 15 | 25 | 5R | 2 | RP.1003 | 0.95 |
| C25-FR30-150L | 150 | 30 | 20 | 25 | 5R | 2 | RP.1003 | 0.59 |
| C25-FR30-200L | 200 | 30 | 20 | 25 | 5R | 2 | RP.1003 | 0.79 |
| C25-FR30-250L | 250 | 30 | 20 | 25 | 5R | 2 | RP.1003 | 0.98 |
| C25-FR30-300L | 300 | 30 | 20 | 25 | 5R | 2 | RP.1003 | 1.20 |
| C32-FR32-200L | 200 | 32 | 22 | 32 | 5R | 3 | RP.1003 | 1.18 |
| C32-FR35-120L | 120 | 35 | 25 | 32 | 5R | 3 | RP.1003 | 0.72 |
| C32-FR35-150L | 150 | 35 | 25 | 32 | 5R | 3 | RP.1003 | 0.91 |
| C32-FR35-200L | 200 | 35 | 25 | 32 | 5R | 3 | RP.1003 | 1.25 |
| C32-FR35-250L | 250 | 35 | 25 | 32 | 5R | 3 | RP.1003 | 1.55 |
| C32-FR35-300L | 300 | 35 | 25 | 32 | 5R | 3 | RP.1003 | 1.88 |
| C32-FR35-350L | 350 | 35 | 25 | 32 | 5R | 3 | RP.1003 | 2.18 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板螺絲 Clamp Screw | 壓板扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|------------------|-------------|------------------|
| RP.1003 | M4-10-5.7-60 | T15 | 3.0 | M5-0.8P | T15 | 3.0 |

• 長度單位 Unit of Length (mm)

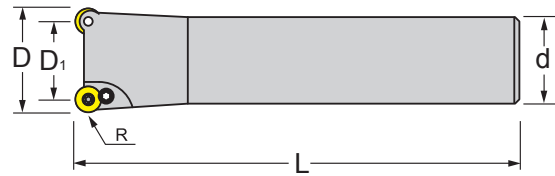


| | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-----------------------------------|---|--|--|--|--|--|--|--|--|--|-----------------|---|---|---|---------------|----|---|------|---|---|
| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | | | | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | | |
| | M | 不鏽鋼 Stainless Steels | ○ | | | | | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | | | | |
| | S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | | | |
| | H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | 超微粒硬質合金 Micro grain cemented carbide | | | | | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | | | |
| | | CHF | HF | | | | | | | | | | d | i | s | r | | | | | | |
| | | RM4130 | | | | | | | | | | | | | | | | | | | | |
|  | RPMW1003MON | ● | | | | | | | | | | | | | | | | 10 | - | 3.18 | 5 |  |

RP_10 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 硬度 HB | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|------------------------------|-------------------------|---------------|-------------------|--------------------|
| P 合金鋼 Alloyed Steels | HRC30 以下 Below HRC30 | RM4130 | 100~170 | 0.12~0.40 |
| M 不鏽鋼 Stainless Steels | HB270 以下 Below HB270 | RM4130 | 70~150 | 0.12~0.40 |

| 主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)
 Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).
 | 床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速
 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

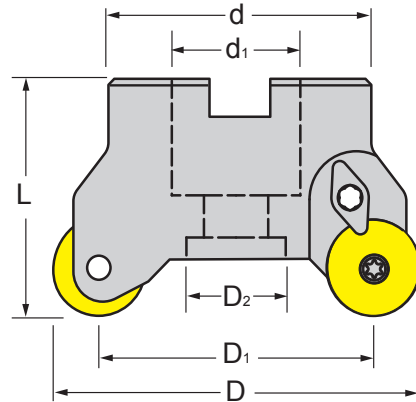
- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | D ₁ | d | R | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----|----------------|----|----|-----------|-----------|-----------------|
| GR-4R1212-130L | 130 | 12 | 8 | 12 | 4R | 1 | RD..0802 | 0.15 |
| GR-4R1616-150L | 150 | 16 | 8 | 16 | 4R | 1 | RD..0802 | 0.25 |
| GR-4R1616-200L | 200 | 16 | 8 | 16 | 4R | 1 | RD..0802 | 0.34 |
| GR-4R2019-150L | 150 | 20 | 12 | 19 | 4R | 2 | RD..0802 | 0.35 |
| GR-4R2019-200L | 200 | 20 | 12 | 19 | 4R | 2 | RD..0802 | 0.46 |
| GR-4R2020-150L | 150 | 20 | 12 | 20 | 4R | 2 | RD..0802 | 0.37 |
| GR-4R2020-200L | 200 | 20 | 12 | 20 | 4R | 2 | RD..0802 | 0.51 |
| GR-5R2525-150L | 150 | 25 | 15 | 25 | 5R | 2 | RD..10T3 | 0.55 |
| GR-5R2525-200L | 200 | 25 | 15 | 25 | 5R | 2 | RD..10T3 | 0.74 |
| GR-5R2525-250L | 250 | 25 | 15 | 25 | 5R | 2 | RD..10T3 | 0.93 |
| GR-5R3025-150L | 150 | 30 | 20 | 25 | 5R | 2 | RD..10T3 | 0.55 |
| GR-5R3025-200L | 200 | 30 | 20 | 25 | 5R | 2 | RD..10T3 | 0.78 |
| GR-5R3532-150L | 150 | 35 | 25 | 32 | 5R | 3 | RD..10T3 | 0.92 |
| GR-5R3532-200L | 200 | 35 | 25 | 32 | 5R | 3 | RD..10T3 | 1.25 |
| GR-5R3532-250L | 250 | 35 | 25 | 32 | 5R | 3 | RD..10T3 | 1.57 |
| GR-5R3532-300L | 300 | 35 | 25 | 32 | 5R | 3 | RD..10T3 | 1.87 |
| GR-5R3532-350L | 350 | 35 | 25 | 32 | 5R | 3 | RD..10T3 | 2.24 |
| GR-5R4032-180L | 180 | 40 | 30 | 32 | 5R | 3 | RD..10T3 | 1.15 |
| GR-5R4032-230L | 230 | 40 | 30 | 32 | 5R | 3 | RD..10T3 | 1.47 |
| GR-8R5032-200L | 200 | 50 | 34 | 32 | 8R | 3 | RD..1604 | 1.31 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板螺絲 Clamp Screw | 壓板 Clamp | 壓板扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|---------------|-----------|------------------|------------------|----------|-------------|------------------|
| RD..0802 | M3-6.0-3.7-43 | T10 | 2.0 | M3.5-8.0-5.5-60 | GR-4R.5R | T15 | 3.0 |
| RD..10T3 | M4-10-5.0-43 | T15 | 3.0 | M3.5-8.0-5.5-60 | GR-4R.5R | T15 | 3.0 |
| RD..1604 | M5-11-7.5-60 | T20 | 5.0 | M5-11-7.5-60 | GR-6R.8R | T20 | 5.0 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|----------------|----|-----|----------------|----------------|----|----------------|-----------|-----------|-----------------|
| GR-5R50-FMB22 | 50 | 50 | 40 | 18 | 40 | 22 | 4 | RD..10T3 | 0.42 |
| GR-6R50-FMB22 | 50 | 50 | 38 | 18 | 40 | 22 | 4 | RD..1204 | 0.29 |
| GR-6R63-FMB22 | 50 | 63 | 51 | 18 | 50 | 22 | 4 | RD..1204 | 0.54 |
| GR-8R63-FMB22 | 50 | 63 | 47 | 18 | 50 | 22 | 4 | RD..1604 | 0.62 |
| GR-8R66 | 50 | 66 | 50 | 19 | 50 | 25.4 | 4 | RD..1604 | 0.61 |
| GR-8R66-FMB22 | 50 | 66 | 50 | 18 | 50 | 22 | 4 | RD..1604 | 0.65 |
| GR-8R80 | 55 | 80 | 64 | 19 | 62 | 25.4 | 5 | RD..1604 | 1.07 |
| GR-8R80-FMB27 | 55 | 80 | 64 | 19 | 62 | 27 | 5 | RD..1604 | 1.06 |
| GR-8R100 | 55 | 100 | 84 | 42 | 70 | 31.75 | 6 | RD..1604 | 1.63 |
| GR-8R100-FMB32 | 55 | 100 | 84 | 42 | 70 | 32 | 6 | RD..1604 | 1.62 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板螺絲 Clamp Screw | 壓板 Clamp | 壓板扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|---------------|-----------|------------------|------------------|----------|-------------|------------------|
| RD..10T3 | M4-10-5.0-43 | T15 | 3.0 | M3.5-8.0-5.5-60 | GR-4R.5R | T15 | 3.0 |
| RD..1204 | M4-9.5-5.5-55 | T15 | 3.0 | M5-11-7.5-60 | GR-6R.8R | T20 | 5.0 |
| RD..1604 | M5-11-7.5-60 | T20 | 5.0 | M5-11-7.5-60 | GR-6R.8R | T20 | 5.0 |

•長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | |
|----------|-----------------|--------------------------------|---|--|--|--|--------------------------------------|--------|--------|--|--|--------------|----|---|------|---|---|
| | M | 不鏽鋼 Stainless Steels | ○ | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | |
| | | CHF | | | | | HF | | | | | Size | | | | | |
| | | RM4130 | | | | | OM5005 | OM5060 | RM5005 | | | | | d | i | | s |
| | RDET1604MOF-F01 | | | | | | ● | ● | | | | | 16 | - | 4.76 | 8 | |
| | RDGT1604MO-F01 | | | | | | | | ● | | | | 16 | - | 4.76 | 8 | |
| | RDMT0802MOTN | ● | | | | | | | | | | | 8 | - | 2.38 | 4 | |
| | RDMT10T3MOTN | ● | | | | | | | | | | | 10 | - | 3.97 | 5 | |
| | RDMT1204MOTN | ● | | | | | | | | | | | 12 | - | 4.76 | 6 | |
| | RDMT1604MOTN | ● | | | | | | | | | | | 16 | - | 4.76 | 8 | |

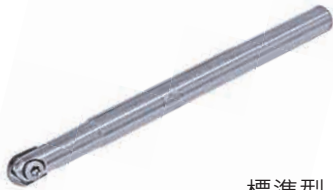
| 被加工材質 Machining Materials | 刀片材質 Grade | 刀具外徑 (Cutter outer diameter) | | | | | | | | | |
|---------------------------|------------|------------------------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|
| | | Ø12mm(4R) | | Ø16mm(4R) | | Ø20mm(4R) | | Ø25mm(5R) | | Ø32mm(5R) | |
| | | 主軸轉速 S (rpm) | 床檔進給 F (mm/min) | 主軸轉速 S (rpm) | 床檔進給 F (mm/min) | 主軸轉速 S (rpm) | 床檔進給 F (mm/min) | 主軸轉速 S (rpm) | 床檔進給 F (mm/min) | 主軸轉速 S (rpm) | 床檔進給 F (mm/min) |
| P 低合金鋼 Low-Alloy Steels | RM4130 | 5,255 | 525 | 3,940 | 1,180 | 4,380 | 3,500 | 3,500 | 2,794 | 2,739 | 3,290 |
| 合金鋼 Alloyed Steel | RM4130 | 3,795 | 478 | 2,847 | 854 | 2,629 | 1,056 | 2,100 | 836 | 1,640 | 979 |
| M 不鏽鋼 Stainless Steels | RM4130 | 5,254 | 524 | 3,941 | 1,181 | 3,489 | 1,749 | 2,805 | 1,408 | 2,189 | 1,639 |
| K 鑄鐵 Cast Iron | RM4130 | 3,795 | 379 | 2,846 | 853 | 3,146 | 2,519 | 2,519 | 2,013 | 1,969 | 2,365 |

| 被加工材質 Machining Materials | 刀片材質 Grade | 刀具外徑 (Cutter outer diameter) | | | | | | | | | |
|---------------------------|------------|------------------------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|
| | | Ø40mm(5R) | | Ø50mm(5R) | | Ø63mm(6R) | | Ø66mm(8R) | | Ø80mm(8R) | |
| | | 主軸轉速 S (rpm) | 床檔進給 F (mm/min) | 主軸轉速 S (rpm) | 床檔進給 F (mm/min) | 主軸轉速 S (rpm) | 床檔進給 F (mm/min) | 主軸轉速 S (rpm) | 床檔進給 F (mm/min) | 主軸轉速 S (rpm) | 床檔進給 F (mm/min) |
| P 低合金鋼 Low-Alloy Steels | RM4130 | 2,189 | 1,970 | 1,750 | 2,098 | 1,386 | 1,663 | 1,326 | 1,591 | 1,100 | 1,320 |
| 合金鋼 Alloyed Steel | RM4130 | 1,310 | 785 | 1,056 | 844 | 836 | 668 | 796 | 636 | 660 | 528 |
| M 不鏽鋼 Stainless Steels | RM4130 | 1,750 | 1,050 | 1,397 | 1,117 | 1,111 | 888 | 1,061 | 849 | 792 | 633 |
| K 鑄鐵 Cast Iron | RM4130 | 1,573 | 1,415 | 1,265 | 1,518 | 1,000 | 1,201 | 955 | 1,147 | 792 | 950 |
| N 鋁合金 | RM5005 | - | - | - | - | - | - | 1500 | 600 | 1200 | 600 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)
Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檔進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速
Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

● 長度單位 Unit of Length (mm)



標準型 Standard Type



加長型 Extended Type

Fig.1

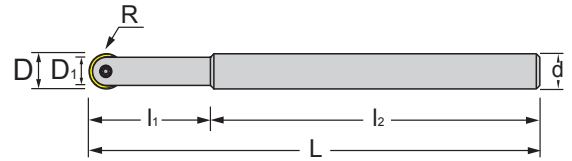
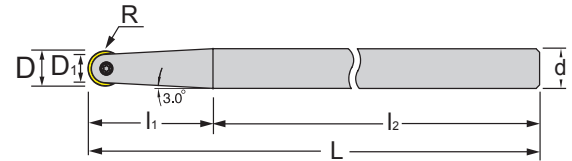


Fig.2



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | l ₂ | D | D ₁ | d | R | 刀片 Insert | Fig. | 重量 (KGS) Weight |
|-----------------|-----|----------------|----------------|----|----------------|----|-------|-----------|------|-----------------|
| C10-BR4-140L | 140 | 30 | 110 | 8 | 7 | 10 | R4 | BR08 | 2 | 0.10 |
| C10-BR5-130L | 130 | 30 | 100 | 10 | 9 | 10 | R5 | BR10 | 1 | 0.10 |
| C12-BR5-150L | 150 | 35 | 115 | 10 | 9 | 12 | R5 | BR10 | 2 | 0.15 |
| C12-BR6-130L | 130 | 32 | 98 | 12 | 10 | 12 | R6 | BR12/LC.. | 1 | 0.14 |
| C16-BR6-160L | 160 | 58 | 128 | 12 | 10 | 16 | R6 | BR12/LC.. | 2 | 0.25 |
| C16-BR8-150L | 150 | 36 | 114 | 16 | 14 | 16 | R8 | BR16 | 2 | 0.25 |
| C20-BR8-200L | 200 | 65 | 135 | 16 | 14 | 20 | R8 | BR16 | 2 | 0.48 |
| C20-BR10-160L | 160 | 45 | 115 | 20 | 18 | 20 | R10 | BR20 | 2 | 0.39 |
| C25-BR10-250L | 250 | 76 | 174 | 20 | 18 | 25 | R10 | BR20 | 2 | 0.91 |
| C25-BR12.5-180L | 180 | 45 | 135 | 25 | 23 | 25 | R12.5 | BR25 | 2 | 0.67 |
| C32-BR12.5-250L | 250 | 98 | 152 | 25 | 23 | 32 | R12.5 | BR25 | 2 | 1.46 |
| C32-BR16-200L | 200 | 45 | 155 | 32 | 30 | 32 | R16 | BR32 | 2 | 1.24 |
| C42-BR16-280L | 280 | 98 | 182 | 32 | 30 | 42 | R16 | BR32 | 2 | 2.66 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|----------|-----------|------------------|
| BR08 | BR4 | T8 | 1.2 |
| BR10 | BR5 | T15 | 3.0 |
| BR12/LC.. | BR6 | T20 | 5.0 |
| BR16. | BR8 | T20 | 5.0 |
| BR20 | BR10 | T20 | 5.0 |
| BR25 | BR12.5 | T30 | 6.0 |
| BR32 | BR16 | T30 | 6.0 |



• 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|--------------------------------|--------|---|--|--------------------------------------|--|---|--|--------------|----|-----|---|------------|---|--|---|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | ○ | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | |
| | | CHF | | | | HF | | | | Size | | | | | | | |
| | | OM4010 | OM4025 | | | OM5005 | | | | | d | i | s | | r | | |
| | BR08S | ● | ● | | | ● | | | | 8 | 3 | 2 | - | | | | |
| | BR10S | ● | ● | | | ● | | | | 10 | 4 | 2.5 | - | | | | |
| | BR12S | ● | ● | | | ● | | | | 12 | 5 | 2.5 | - | | | | |
| | BR16S | ● | ● | | | ● | | | | 16 | 5 | 3 | - | | | | |
| | BR20S | ● | ● | | | ● | | | | 20 | 5 | 3 | - | | | | |
| | BR25S | ● | ● | | | ● | | | | 25 | 6 | 4 | - | | | | |
| | BR30S | ● | ● | | | ● | | | | 30 | 8 | 5 | - | | | | |
| | BR32S | ● | ● | | | ● | | | | 32 | 8 | 5 | - | | | | |
| | LC1210 | ● | | | | | | | | 12 | 14 | 2.5 | 1 | | | | |
| | LC1220 | ● | | | | | | | | 12 | 14 | 2.5 | 2 | | | | |
| | LC1230 | ● | | | | | | | | 12 | 14 | 2.5 | 3 | | | | |
| | LC1210-F | ● | | | | | | | | 12 | 14 | 2.5 | 1 | | | | |
| | LC1220-F | ● | | | | | | | | 12 | 14 | 2.5 | 2 | | | | |
| | LC1230-F | ● | | | | | | | | 12 | 14 | 2.5 | 3 | | | | |
| | LC1210-RE | ● | | | | | | | | 12 | 14 | 2.5 | 1 | | | | |
| | LC1220-RE | ● | | | | | | | | 12 | 14 | 2.5 | 2 | | | | |
| | LC1230-RE | ● | | | | | | | | 12 | 14 | 2.5 | 3 | | | | |
| | LC1245-CH | ● | ● | | | | | | | 12 | 14 | 2.5 | - | | | | |
| | LC1260-CH | ● | ● | | | | | | | 12 | 14 | 2.5 | - | | | | |

LC12.BR08.10.12.16.20.25.32 切削條件數據表 Cutting Parameter

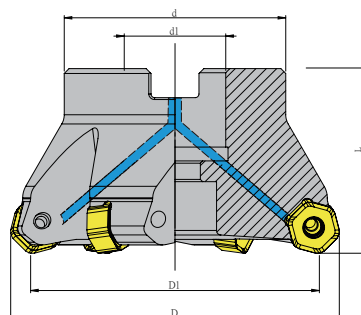
| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|---------------------------|-----------------------|------------|----------------|-----------------|
| P | 低合金鋼 Low-Alloy Steels | OM4010 | 180~200 | 0.08~0.20 |
| | | OM4025 | 180~220 | 0.08~0.19 |
| P | 合金鋼 Alloyed Steels | OM4010 | 100~140 | 0.08~0.12 |
| | | OM4025 | 100~120 | 0.06~0.12 |
| M | 不鏽鋼 Stainless Steels | OM4010 | 160~200 | 0.08~0.12 |
| | | OM4025 | 155~190 | 0.08~0.12 |
| K | 鑄鐵 Cast Iron | OM4025 | 110~143 | 0.09~0.11 |
| N | 鋁合金 Aluminum&Al | OM5005 | 300~500 | 0.05~0.30 |

• 長度單位 Unit of Length (mm)



NAC45 度負角殼型銑刀

NAC 45°NEGATIVE ANGLE SHELL MILLING CUTTER



NEW

特點 Feature

- 採用負角刀片，刀片切削角數增加，降低成本
- 加工方式適合大量移除鐵削

- Negative insert with 8 cutting edges. Effective cost-saving.
- Ideal for a large area of cutting.

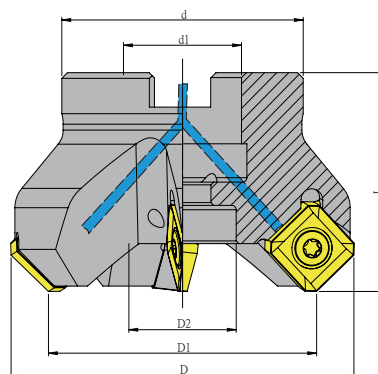
| 規格 Spec. | L | D | D1 | d | d1 | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------------------|----|-----|-----|----|----|-----------|-----------|-----------------|
| NAC45-50-HN06-FMB22-5T-C | 40 | 57 | 50 | 45 | 22 | 5 | HN..0604 | 0.64 |
| NAC45-63-HN06-FMB22-6T-C | 40 | 72 | 63 | 48 | 22 | 6 | HN..0604 | 0.80 |
| NAC45-80-HN06-FMB27-7T-C | 50 | 87 | 80 | 55 | 27 | 7 | HN..0604 | 1.40 |
| NAC45-100-HN06-FMB32-8T-C | 50 | 107 | 100 | 73 | 32 | 8 | HN..0604 | 2.10 |

| 螺絲 Screw | 扳手 Wrench | 扭力值 Torque(N.m) |
|----------------------|-----------|-----------------|
| M3-7.0-4.3-43-T9-TIN | T19 | 1.4Nm |



NAC45 度負角殼型銑刀

NAC 45°NEGATIVE ANGLE SHELL MILLING CUTTER



NEW

特點 Feature

- 採用負角刀片，刀片切削角數增加，降低成本
- 加工方式適合大量移除鐵削

- Negative insert with 12 cutting edges. Effective cost-saving.
- Ideal for a large area of cutting.

| 規格 Spec. | L | D | D1 | D2 | d | d1 | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|----------------------------|-----|---|----|----|---|----|-----------|-----------|-----------------|
| NAC45-50-SN12-FMB22-4T-C | 50 | | 40 | 27 | | 22 | 4 | SN..1206 | 0.57 |
| NAC45-63-SN12-FMB22-6T-C | 63 | | 40 | 27 | | 22 | 6 | SN..1206 | 0.78 |
| NAC45-80-SN12-FMB27-7T-C | 80 | | 50 | 32 | | 27 | 7 | SN..1206 | 1.39 |
| NAC45-100-SN12-FMB32-8T-C | 100 | | 50 | 42 | | 32 | 8 | SN..1206 | 1.76 |
| NAC45-125-SN12-FMB40-10T-C | 125 | | 63 | 50 | | 40 | 10 | SN..1206 | 3.5 |
| NAC45-160-SN12-FMB40-12T-C | 160 | | 63 | 50 | | 40 | 12 | SN..1206 | 6 |

配件表 Accessories

| 螺絲 Screw | 扳手 Wrench | 扭力值 Torque(N.m) |
|----------------|-----------|-----------------|
| M4-7.1-13.6-60 | T15 | 3.0m |

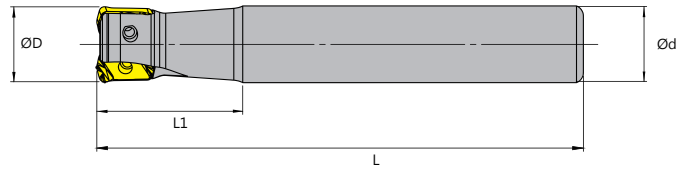
•長度單位 Unit of Length (mm)



NHF 高進給直柄銑刀

NHF HIGH FEED MILLING END MILL

NEW



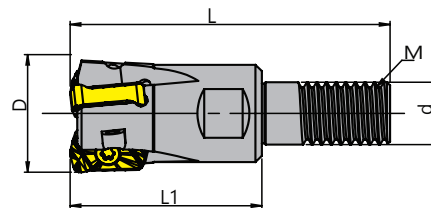
| 規格 Spec. | L | l ₁ | D | d | T | 刀片 Insert | 扳手 Spanner |
|-------------------|-----|----------------|----|----|---|--------------|---------------|
| NHF-1516LN03-150L | 150 | 30 | 15 | 16 | 2 | LNMU0303 | T8 |
| NHF-1616LN03-150L | 150 | 40 | 16 | 16 | 2 | | |
| NHF-1716LN03-150L | 150 | 30 | 17 | 16 | 2 | | |
| NHF-2020LN03-150L | 150 | 40 | 20 | 20 | 3 | | |
| NHF-2120LN03-150L | 150 | 50 | 21 | 20 | 3 | | |
| NHF-2525LN03-150L | 150 | 60 | 25 | 25 | 4 | | |
| NHF-2625LN03-150L | 150 | 60 | 26 | 25 | 4 | | |
| NHF-2625LN03-200L | 200 | 60 | 26 | 25 | 4 | | |
| NHF-3232LN03-150L | 150 | 45 | 32 | 32 | 5 | | |
| NHF-3532LN03-220L | 220 | 60 | 35 | 32 | 5 | | |



NHF 高進給鎖牙銑刀

NHF HIGH FEED SCREW-ON MILLING END MILL

NEW



| 規格 Spec. | L | l ₁ | D | d | M | 刃數 T | 刀片 Insert | 扳手 Spanner |
|----------------|----|----------------|----|-----|-----|---------|--------------|---------------|
| NHF-17M08-LN03 | 43 | 26 | 17 | 8.5 | M08 | 2 | LNMU0303 | T8 |
| NHF-21M10-LN03 | 49 | 30 | 21 | 8.5 | M10 | 3 | | |
| NHF-26M12-LN03 | 57 | 35 | 26 | 8.5 | M12 | 4 | | |
| NHF-35M16-LN03 | 66 | 43 | 35 | 8.5 | M16 | 4 | | |

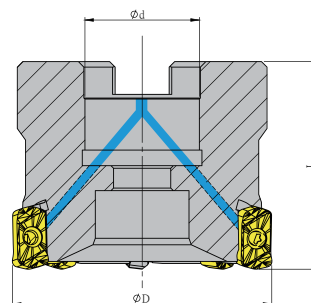
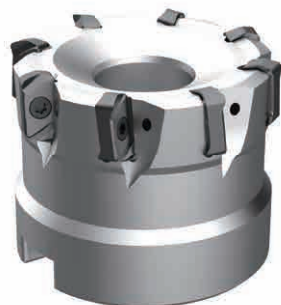
•長度單位 Unit of Length (mm)



NHF 高進給殼型銑刀

NHF HIGH FEED FACE MILLING CUTTER

NEW



| 規格 Spec. | D | d | L | M | T |
|---------------------|----|----|----|-----|---|
| NHF-40-FMB16-LN03-C | 40 | 16 | 40 | M8 | 6 |
| NHF-50-FMB22-LN03-C | 50 | 22 | 50 | M10 | 8 |



負角刀片

NEGATIVE INSERT

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | | | |
|----------|-----------------------------|--------------------------------|--------|--------|--------|--------|--------------------------------------|--|---|--|---|---------|--|---|---|------------|------|-----|--|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | ○ | ○ | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | | | ○ | ○ | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | ○ | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | ○ | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer Coated micro grain | | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | | 尺寸 (mm) | | | | 圖形 Drawing | | | |
| | | CHF | | | | | HF | | | | | Size | | | | | | | |
| | | RM1125 | OM4025 | OM5035 | RM4025 | RM3130 | OM5005 | | | | | | | d | i | | s | r | |
| | NEW HNGX0604ANEN-M01 | | ● | ● | | | | | | | ● | | | | 10.5 | - | 5.2 | - | |
| | NEW LNMU0303ZER-MJ | ● | | | | | | | | | | | | | 6 | 11.9 | 4.3 | 1.2 | |
| | NEW SNMU1206ANEN-M01 | | | | ● | ● | | | | | | | | | 12.7 | - | 6.35 | - | |

NEW 新品 New Product

•長度單位 Unit of Length (mm)



負角刀片 NEGATIVE INSERT

LN_03 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|------------------------------|--------------------|---------------|-------------------|--------------------|
| P | 合金鋼 Alloyed Steels | RM1125 | 150(100~200) | 0.7(0.5~1.2) |
| K | 鑄鐵 Cast Iron | RM1125 | 150(80~250) | 0.7(0.5~1.2) |

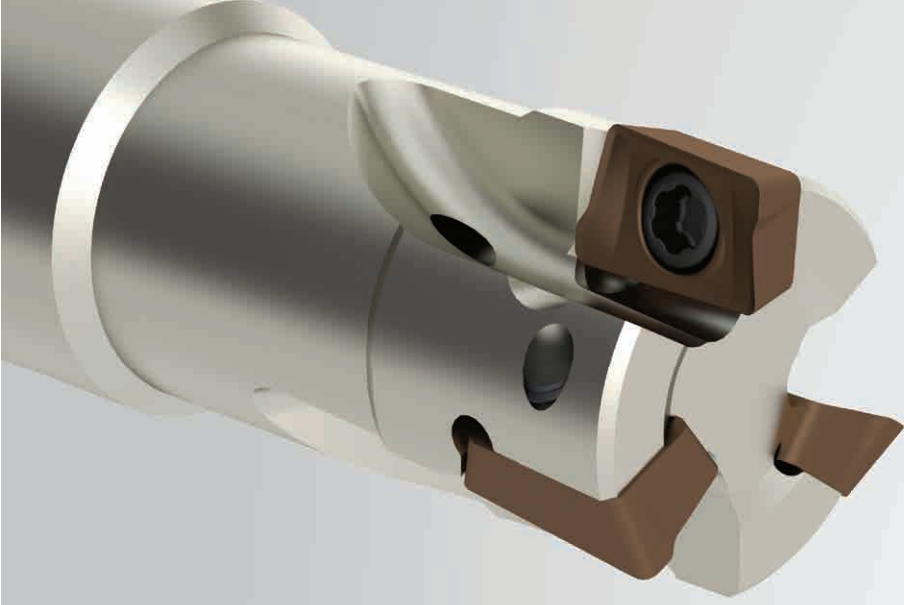
HN_06 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|------------------------------|----------------------|---------------|-------------------|--------------------|
| P | 合金鋼 Alloyed Steels | OM4025 | 220(150~300) | 0.15(0.08~0.25) |
| M | 不鏽鋼 Stainless Steels | OM5035 | 120(100~200) | 0.12(0.08~0.20) |
| K | 鑄鐵 Cast Iron | OM4025 | 180(130~240) | 0.15(0.08~0.25) |

SN_12 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|------------------------------|--------------------|---------------|-------------------|--------------------|
| P | 合金鋼 Alloyed Steels | RM4025 | 220(170~320) | 0.20(0.10~0.35) |
| K | 鑄鐵 Cast Iron | RM3130 | 180(130~240) | 0.20(0.10~0.35) |

•長度單位 Unit of Length (mm)



MAS

迷你銑刀

Mini Indexable End Mill

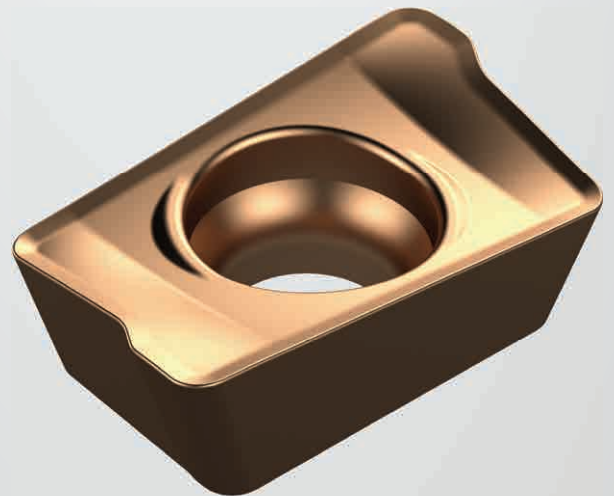
Feature

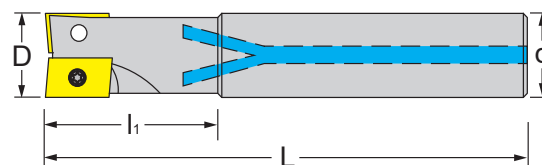
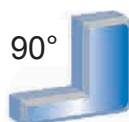
中心出水 Through Coolant

- 多刃型設計可提高加工效率
Multi-cutting-edge design improves machining efficiency.
- 刀具材質選用特殊鋼材，增強刀具穩定性
Made by special alloyed steel to enhance the stability of the cutting tool.
- 尺寸從 $\text{Ø}10\sim\text{Ø}63$ 均有刀具搭配，鎖牙式結構可結合碳化鎢鎖牙延長桿，針對小尺寸及閃避干涉加工使用，適合電子產業及加工產業
The MAS type cutters are available from 10 to 63 mm. We also have screwed on type structure which can be combined with tungsten carbide extension. They are suitable for small and interference cutting especially for electronics industries.

APKT060204

- 刃口強化，低阻力的高精度設計，適合斷續切削
Low-resistance and high-precision design are good for interrupted cutting.
- 複合塗層，可提高刀片使用壽命
Composite coating helps to improve insert life.





特點 Feature

- 刀具材質選用特殊鋼材，增強刀具穩定性
- 整體預硬後，再行精修，避免二次處理所產生應變

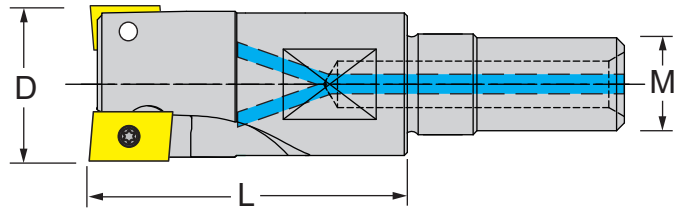
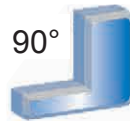
- Made by special alloyed steel to enhance the stability of the cutting tool.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | D | d | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-------------------------|-----|----------------|----|----|-----------|-----------|-----------------|
| MAS-1008AP06-100L-2T-C | 100 | 15 | 10 | 8 | 2 | AP.0602 | 0.06 |
| MAS-1010AP06-80L-2T-C | 80 | 20 | 10 | 10 | 2 | AP.0602 | 0.06 |
| MAS-1110AP06-80L-2T-C | 80 | 20 | 11 | 10 | 2 | AP.0602 | 0.06 |
| MAS-1210AP06-100L-2T-C | 100 | 20 | 12 | 10 | 2 | AP.0602 | 0.08 |
| MAS-1212AP06-80L-2T-C | 80 | 20 | 12 | 12 | 2 | AP.0602 | 0.08 |
| MAS-1212AP06-80L-3T-C | 80 | 20 | 12 | 12 | 3 | AP.0602 | 0.08 |
| MAS-1412AP06-80L-3T-C | 80 | 20 | 14 | 12 | 3 | AP.0602 | 0.08 |
| MAS-1614AP06-160L-3T-C | 160 | 25 | 16 | 14 | 3 | AP.0602 | 0.2 |
| MAS-1616AP06-120L-3T-C | 120 | 25 | 16 | 16 | 3 | AP.0602 | 0.18 |
| MAS-1616AP06-160L-3T-C | 160 | 25 | 16 | 16 | 3 | AP.0602 | 0.24 |
| MAS-1616AP06-90L-4T-C | 90 | 25 | 16 | 16 | 4 | AP.0602 | 0.14 |
| MAS-1816AP06-90L-4T-C | 90 | 25 | 18 | 16 | 4 | AP.0602 | 0.16 |
| MAS-2018AP06-160L-4T-C | 160 | 30 | 20 | 18 | 4 | AP.0602 | 0.32 |
| MAS-2020AP06-160L-4T-C | 160 | 30 | 20 | 20 | 4 | AP.0602 | 0.38 |
| MAS-2020AP06-100L-5T-C | 100 | 30 | 20 | 20 | 5 | AP.0602 | 0.22 |
| MAS-2120AP06-110L-5T-C | 110 | 30 | 21 | 20 | 5 | AP.0602 | 0.26 |
| MAS-2520AP06-110L-7T-C | 110 | 40 | 25 | 20 | 7 | AP.0602 | 0.28 |
| MAS-2525AP06-120L-7T-C | 120 | 40 | 25 | 25 | 7 | AP.0602 | 0.44 |
| MAS-3225AP06-130L-8T-C | 130 | 45 | 32 | 25 | 8 | AP.0602 | 0.54 |
| MAS-4032AP06-140L-10T-C | 140 | 45 | 40 | 32 | 10 | AP.0602 | 0.94 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-------------------------|-----------|------------------|
| AP.0602 | M1.8-3.9-2.45-60-TP6-EU | TP6-EU | 0.6 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | M | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-------------------|----|----|-----|-----------|-----------|-----------------|
| MAS-10-M6-AP06-C | 20 | 10 | M6 | 2 | AP.0602 | 0.04 |
| MAS-11-M6-AP06-C | 20 | 11 | M6 | 2 | AP.0602 | 0.04 |
| MAS-12-M6-AP06-C | 20 | 12 | M6 | 3 | AP.0602 | 0.04 |
| MAS-13-M6-AP06-C | 20 | 13 | M6 | 3 | AP.0602 | 0.04 |
| MAS-16-M8-AP06-C | 25 | 16 | M8 | 4 | AP.0602 | 0.06 |
| MAS-17-M8-AP06-C | 25 | 17 | M8 | 4 | AP.0602 | 0.06 |
| MAS-20-M10-AP06-C | 30 | 20 | M10 | 5 | AP.0602 | 0.08 |
| MAS-21-M10-AP06-C | 30 | 21 | M10 | 5 | AP.0602 | 0.08 |
| MAS-25-M12-AP06-C | 35 | 25 | M12 | 7 | AP.0602 | 0.14 |
| MAS-26-M12-AP06-C | 35 | 26 | M12 | 7 | AP.0602 | 0.14 |
| MAS-32-M16-AP06-C | 43 | 32 | M16 | 8 | AP.0602 | 0.24 |
| MAS-40-M16-AP06-C | 50 | 40 | M16 | 10 | AP.0602 | 0.36 |

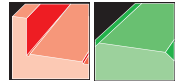
配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-------------------------|-----------|------------------|
| AP.0602 | M1.8-3.9-2.45-60-TP6-EU | TP6-EU | 0.6 |

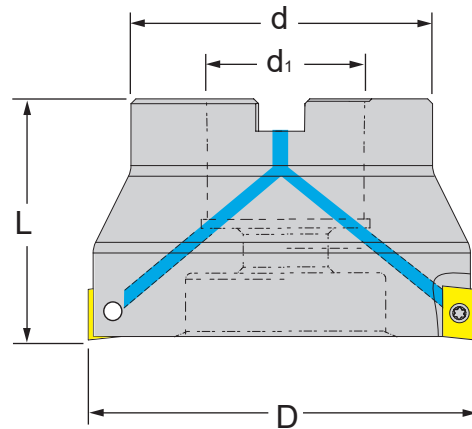
• 長度單位 Unit of Length (mm)

BGP 迷你殼型銑刀

BGP FACE MILLING CUTTER



KOVIT



特點 Feature

- 刀器材質選用特殊鋼材，增強刀具穩定性
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made by special alloyed steel to enhance the stability of the cutting tool.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | d | d1 | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|--------------------------|----|----|------|----|-----------|-----------|-----------------|
| BGP-400-FMB16-AP06-10T-C | 40 | 40 | 38.5 | 16 | 10 | AP.0602 | 0.44 |
| BGP-500-FMB22-AP06-12T-C | 40 | 50 | 45 | 22 | 12 | AP.0602 | 0.6 |
| BGP-630-FMB22-AP06-14T-C | 40 | 63 | 45 | 22 | 14 | AP.0602 | 0.88 |

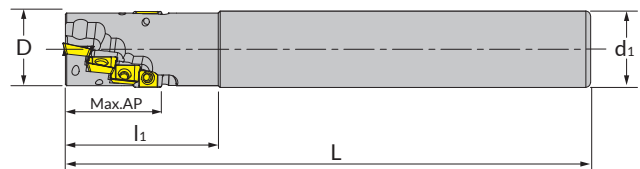
APE 迷你型粗切削銑刀

APE MINI ROUGH CUTTING END MILL



KOVIT

NEW



| 規格 Spec. | Max. Ap | L | l1 | D | d | 刃數 T | 刀片數量 Insert Qty. | 刀片 Insert | 重量 (KGS) Weight |
|---------------------|---------|-----|----|----|----|------|------------------|-----------|-----------------|
| APE-1216AP06-10L-2T | 10 | 100 | 22 | 12 | 16 | 2 | 4 | AP.0602 | 0.16 |
| APE-1616AP06-15L-3T | 15 | 110 | 26 | 16 | 16 | 3 | 9 | AP.0602 | - |
| APE-1616AP06-20L-2T | 20 | 110 | 32 | 16 | 16 | 2 | 8 | AP.0602 | 0.18 |
| APE-1616AP06-30L-2T | 30 | 110 | 40 | 16 | 16 | 2 | 10 | AP.0602 | 0.18 |
| APE-2020AP06-25L-3T | 25 | 120 | 32 | 20 | 20 | 3 | 15 | AP.0602 | 0.29 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 Torque (N.m) |
|-----------|-------------------------|-----------|------------------|
| AP.0602 | M1.8-3.9-2.45-60-TP6-EU | TP6-EU | 0.5 |

• 長度單位 Unit of Length (mm)

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|--------------------------------|---|--|--------|--------|---|--------------|-----|------|------|------------|---|
| | M | 不鏽鋼 Stainless Steels | ○ | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | ○ | ○ | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | |
| | | CHF | | | HF | | | Size | | | | | |
| | | RM4130 | | | RM5005 | RM5060 | | | d | i | s | | r |
| | APKT060204-M02 | ● | | | | | | | 3.7 | 6.45 | 2.38 | 0.4 | |
| | APKT060204-MT | | | | | ● | ● | | 3.7 | 6.45 | 2.38 | 0.4 | |

- MT 鋁合金專用 MT: Applicable to Aluminum

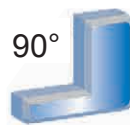
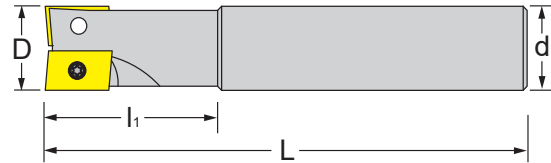
適用 BGP&MAS (Suitable for BGP & MAS)

| 被加工材質 Machining Materials | 刀片材質 Materials | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|---------------------------|----------------|----------------|-----------------|
| P 合金鋼 Alloyed Steels | RM4130 | 160(70~260) | 0.12(0.08~0.16) |
| M 不鏽鋼 Stainless Steels | RM4130 | 120(90~140) | 0.10(0.08~0.12) |
| K 鑄鐵 Cast Iron | RM4130 | 140(100~240) | 0.12(0.08~0.16) |
| N 鋁及鋁合金 Aluminum&Al | RM5005 | 400(300~800) | 0.10(0.05~0.30) |
| | RM5060 | | |

適用 APE (Suitable for APE)

| 被加工材質 Machining Materials | 刀片材質 Materials | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | AE 切幅寬 |
|---------------------------|----------------|----------------|-----------------|---------|
| P 合金鋼 Alloyed Steels | RM4130 | 80(70-180) | 0.10(0.06~0.20) | 0.8-1.5 |
| M 不鏽鋼 Stainless Steels | RM4130 | 70(70-120) | 0.08(0.06~0.15) | 0.5-1.0 |
| K 鑄鐵 Cast Iron | RM4130 | 80(70-140) | 0.10(0.06~0.20) | 1.0-2.0 |
| N 鋁及鋁合金 Aluminum&Al | RM5005 | 300(250-600) | 0.10(0.06~0.30) | 1.0-2.0 |
| | RM5060 | | | |

•長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

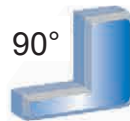
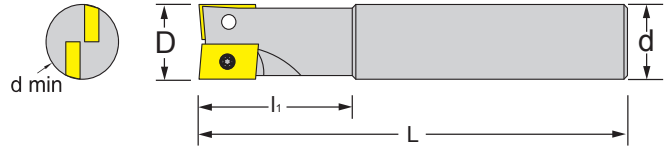
| 規格 Spec. | L | l ₁ | D | d | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----------------|----|----|-----------|-----------|-----------------|
| MAS-1012-100L | 100 | 20 | 10 | 12 | 1 | AP.1003 | 0.09 |
| MAS-1212-100L | 100 | 25 | 12 | 12 | 1 | AP.1003 | 0.09 |
| MAS-1616-120L | 120 | 25 | 16 | 16 | 2 | AP.1003 | 0.18 |
| MAS-1616-160L | 160 | 25 | 16 | 16 | 2 | AP.1003 | 0.24 |
| MAS-1716-120L | 120 | 25 | 17 | 16 | 2 | AP.1003 | 0.30 |
| MAS-1716-180L | 180 | 25 | 17 | 16 | 2 | AP.1003 | 0.30 |
| MAS-2020-120L | 120 | 30 | 20 | 20 | 2 | AP.1003 | 0.28 |
| MAS-2020-150L | 150 | 30 | 20 | 20 | 2 | AP.1003 | 0.36 |
| MAS-2020-200L | 200 | 30 | 20 | 20 | 2 | AP.1003 | 0.49 |
| MAS-2120-150L | 150 | 30 | 21 | 20 | 2 | AP.1003 | 0.38 |
| MAS-2120-200L | 200 | 30 | 21 | 20 | 2 | AP.1003 | 0.60 |

配件表 Accessories

| 規格 Spec. | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|---------------|-----------|------------------|-----------|------------------|
| MAS-1012-100L | APKT1003 | M2.5-5.0-3.7-43 | T8 | 1.2 |
| MAS-1212-100L | APKT1003 | M2.5-6.45-3.7-43 | T8 | 1.2 |
| MAS-1616-120L | APKT1003 | M2.5-5.0-3.7-43 | T8 | 1.2 |
| MAS-1616-160L | APKT1003 | M2.5-5.0-3.7-43 | T8 | 1.2 |
| MAS-1716-120L | APKT1003 | M2.5-5.0-3.7-43 | T8 | 1.2 |
| MAS-1716-180L | APKT1003 | M2.5-5.0-3.7-43 | T8 | 1.2 |
| MAS-2020-120L | APKT1003 | M2.5-6.45-3.7-43 | T8 | 1.2 |
| MAS-2020-150L | APKT1003 | M2.5-6.45-3.7-43 | T8 | 1.2 |
| MAS-2020-200L | APKT1003 | M2.5-6.45-3.7-43 | T8 | 1.2 |
| MAS-2120-150L | APKT1003 | M2.5-6.45-3.7-43 | T8 | 1.2 |
| MAS-2120-200L | APKT1003 | M2.5-6.45-3.7-43 | T8 | 1.2 |



• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

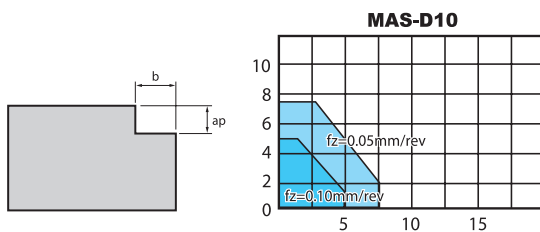
| 規格 Spec. | L | l ₁ | D | d | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----------------|----|----|-----------|-----------|-----------------|
| MAS-2525-150L | 150 | 40 | 25 | 25 | 2 | AP.1604 | 0.55 |
| MAS-2525-220L | 220 | 40 | 25 | 25 | 2 | AP.1604 | 0.81 |
| MAS-3232-150L | 150 | 45 | 32 | 32 | 2 | AP.1604 | 0.88 |
| MAS-3232-150L | 150 | 45 | 32 | 32 | 3 | AP.1604 | 0.87 |
| MAS-3232-200L | 200 | 45 | 32 | 32 | 2 | AP.1604 | 1.20 |
| MAS-3232-250L | 250 | 45 | 32 | 32 | 2 | AP.1604 | 1.53 |
| MAS-4032-150L | 150 | 45 | 40 | 32 | 4 | AP.1604 | 0.99 |
| MAS-4032-250L | 250 | 45 | 40 | 32 | 4 | AP.1604 | 1.62 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| AP.1604 | M4-10-5.7-60 | T15 | 3.0 |

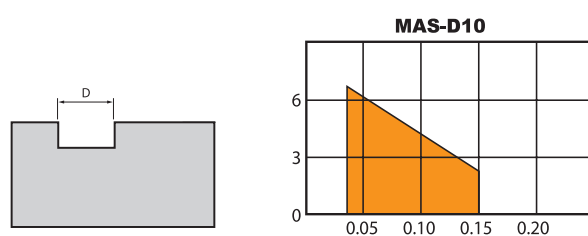
肩銑加工 Shoulder milling

被削材質 Machining material : S58C(HB220)



開槽加工 Grooving

被削材質 Machining material : S58C(HB280)



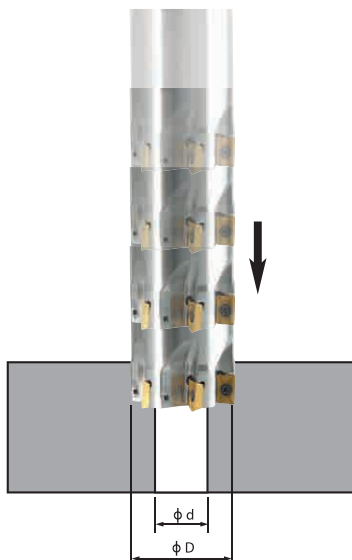
• 長度單位 Unit of Length (mm)



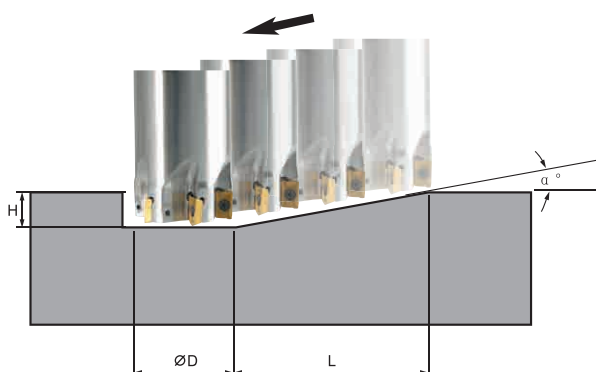
AP_10.16 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|------------------------------|---------------|-------------------|--------------------|--------------|
| P 低合金鋼 Low-Alloy Steels | OM4025 | 220~300 | 0.14~0.24 | 1.0~2.0 |
| | OM4025N | 220~300 | 0.14~0.24 | 1.0~2.0 |
| | RM4130 | 60~300 | 0.10~0.25 | 1.0~2.0 |
| 合金鋼 Alloyed Steels | OM4025 | 100~195 | 0.12~0.20 | 1.0~2.0 |
| | RM4130 | 60~300 | 0.10~0.25 | 1.0~2.0 |
| M 不鏽鋼 Stainless Steels | OM4025 | 180~230 | 0.15~0.35 | 0.5~1.5 |
| | RM4130 | 120~160 | 0.10~0.25 | 0.5~1.5 |
| K 鑄鐵 Cast Iron | OM4025 | 200~300 | 0.06~0.30 | 1.5~3.0 |
| | RM3130 | 200~300 | 0.06~0.30 | 1.5~3.0 |
| N 鋁合金 Aluminum&Al | OM5005 | 400~850 | 0.05~0.30 | 1.5~3.0 |
| | OM5060 | 400~850 | 0.05~0.30 | 1.5~3.0 |
| | RM5005 | 400~850 | 0.05~0.30 | 1.5~3.0 |
| | GH05 | 300~700 | 0.04~0.25 | 1.5~3.0 |
| S 高溫合金 Refractory Alloys | RM535 | 25~40 | 0.01~0.20 | 1.0~2.0 |

沉孔頭加工 Countersink hole drilling



斜度銑削加工 Inclined milling



MAS AP_10

| 規格 Spec. | 刀具直徑 Diameter ØD(mm) | 下孔徑 Ød(mm) |
|---------------|----------------------------|---------------|
| MAS-1012-100L | 10 | 6 |
| MAS-1212-100L | 12 | 5 |
| MAS-1616-120L | 16 | 5.5 |
| MAS-2020-120L | 20 | 8 |

MAS AP_16

| 規格 Spec. | 刀具直徑 Diameter ØD(mm) | 下孔徑 Ød(mm) |
|---------------|----------------------------|---------------|
| MAS-2525-150L | 25 | 8 |
| MAS-3232-150L | 32 | 15 |
| MAS-4032-150L | 40 | 23 |

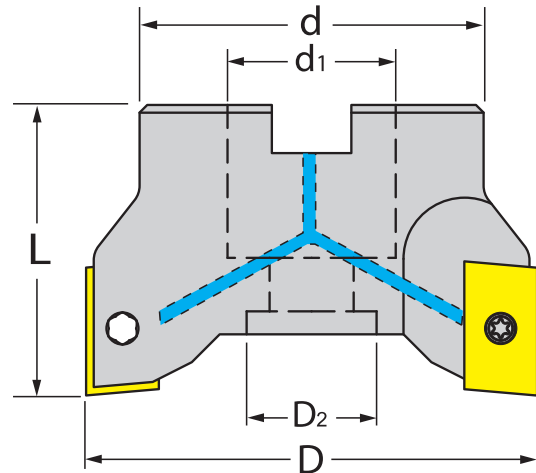
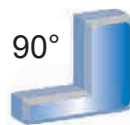
MAS AP_10

| 規格 Spec. | 刀具直徑 Diameter ØD(mm) | 最大斜度銑削角度 α° Max. inclined milling angle | L(mm) α° Max |
|---------------|----------------------------|--|-----------------|
| MAS-1012-100L | 10 | 5.0 | 91.5 |
| MAS-1212-100L | 12 | 32.0 | 14.4 |
| MAS-1616-120L | 16 | 15.0 | 33.5 |
| MAS-2020-120L | 20 | 7.5 | 128.7 |

MAS AP_16

| 規格 Spec. | 刀具直徑 Diameter ØD(mm) | 最大斜度銑削角度 α° Max. inclined milling angle | L(mm) α° Max |
|---------------|----------------------------|--|-----------------|
| MAS-2525-150L | 25 | 11.5 | 182 |
| MAS-3232-150L | 32 | 5.3 | 309 |
| MAS-4032-150L | 40 | 4.0 | 386 |

•長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

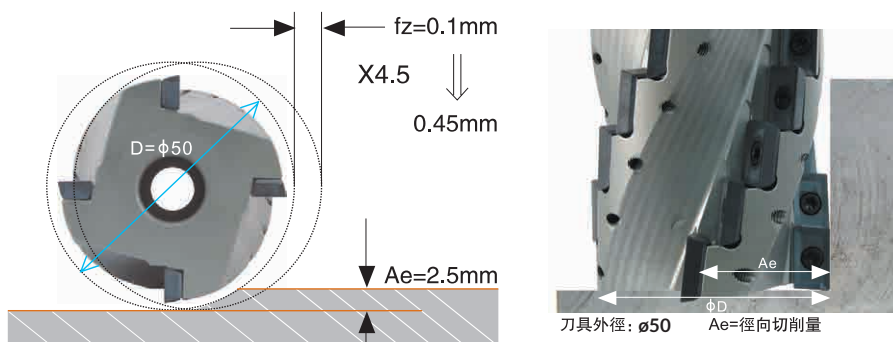
- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------------------|----|-----|----------------|----|----------------|-----------|-----------|-----------------|
| BGP-500-FMB22-AP10-7T-C | 40 | 50 | 18 | 40 | 22 | 7 | AP..1003 | 0.54 |
| BGP-630-FMB22-AP10-9T-C | 40 | 60 | 18 | 48 | 22 | 9 | AP..1003 | 0.76 |
| BGP-800-FMB27-AP10-11T-C | 50 | 80 | 32 | 62 | 27 | 11 | AP..1003 | 1.36 |
| BGP-1000-FMB32-AP10-13T-C | 50 | 100 | 42 | 78 | 32 | 13 | AP..1003 | 2.12 |
| BGP-1250-FMB40-AP10-16T-C | 63 | 125 | 50 | 89 | 40 | 16 | AP..1003 | 3.66 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------------------|-----------|------------------|
| AP.1003 | M2.5-6.3-3.7-43-T8-TIN | T8 | 1.2 |

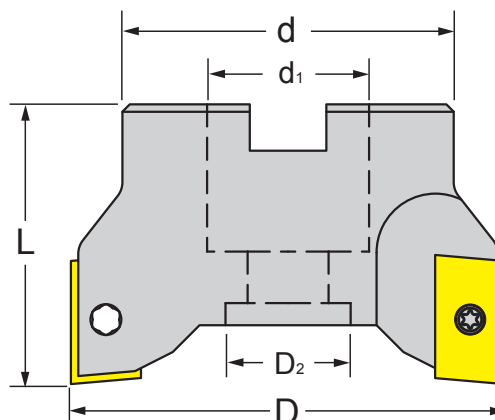
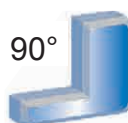
範例 Example



| |
|---|
| 刀具外徑 Cutter outer diameter : $\phi 50$ |
| 徑向切削量 Radial cutting : 2.5mm(5%) |
| 進給率 × 倍數 Feeding speed x multiple : 4.5 |
| 當切削率 Practical cutting speed: $Ae/D=100\% \rightarrow fz=0.1\text{mm/rev}$ $Ae/D=5\% \rightarrow \times 4.5 \rightarrow fz=0.45\text{mm/rev}$ |



• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|----------------|----|-----|----------------|-----|----------------|-----------|-----------|-----------------|
| BGP-500 | 50 | 50 | 19 | 40 | 25.4 | 4 | AP..1604 | 0.42 |
| BGP-500-FMB22 | 50 | 50 | 18 | 40 | 22 | 4 | AP..1604 | 0.46 |
| BGP-630 | 50 | 63 | 19 | 50 | 25.4 | 5 | AP..1604 | 0.72 |
| BGP-630-FMB22 | 50 | 63 | 18 | 50 | 22 | 5 | AP..1604 | 0.76 |
| BGP-800 | 55 | 80 | 42 | 60 | 31.75 | 6 | AP..1604 | 0.94 |
| BGP-800-FMB27 | 55 | 80 | 42 | 60 | 27 | 6 | AP..1604 | 0.99 |
| BGP-1000 | 55 | 100 | 42 | 60 | 31.75 | 8 | AP..1604 | 1.62 |
| BGP-1000-FMB32 | 55 | 100 | 42 | 60 | 32 | 8 | AP..1604 | 1.61 |
| BGP-1250 | 63 | 125 | 60 | 85 | 38.1 | 8 | AP..1604 | 3.09 |
| BGP-1250-FMB40 | 63 | 125 | 60 | 85 | 40 | 8 | AP..1604 | 3.07 |
| BGP-1600 | 63 | 160 | 80 | 120 | 50.8 | 10 | AP..1604 | 4.73 |
| BGP-1600-FMB40 | 63 | 160 | 80 | 120 | 40 | 10 | AP..1604 | 5.61 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| AP..1604 | M4-10-5.7-60 | T15 | 3.0 |



• 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | ○ | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|--------------------------------|---------|--------|--------|-------|--------------------------------------|--------|--------|--------|--------|--------------|------|------|-----|------------|--|---|
| | M | 不鏽鋼 Stainless Steels | ○ | | | ○ | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | | ○ | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | ■ | ■ | ○ | ■ | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | ○ | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | |
| | | CHF | | | | | HF | | | | | Size | | | | | | |
| | | OM4025 | OM4025N | RM3130 | RM4130 | RM535 | GH05 | OM5005 | OM5060 | RM5005 | RM5060 | d | i | s | r | | | |
| | ★ APEX100304PDFR-F01 | | | | | | | ● | ● | | | 6.68 | 10.5 | 2.38 | 0.4 | | | |
| | ★ APEX1604PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | | | |
| | ★ APEX160400PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | | | |
| | ★ APEX160402PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | 0.2 | | | |
| | ★ APEX160404PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | 0.4 | | | |
| | ★ APEX160408PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | 0.8 | | | |
| | APEX1604PDFR-701 | | | | | | | ● | | | | 9.525 | 16.4 | 4.76 | 0.2 | | | |
| | APGT100304PDFR-F04 | | | | | | | | | ● | | 6.68 | 10.5 | 2.38 | 0.4 | | | |
| | APGT1604PDFR-G2 | | | | | | | | | ● | | 9.525 | 16.5 | 4.76 | 0.8 | | | |
| | APGT160408PDFR-F02 | | | | | | | | | ● | | 9.525 | 16.4 | 4.76 | 0.8 | | | |
| | APHT1003PDER-F03 | | | | | | | | | ● | | 6.68 | 10.4 | 3.47 | 0.8 | | | |
| | APKT100304PDER-M04 | | | | ● | | | | | | | 6.68 | 10.5 | 2.38 | 0.4 | | | |
| | APKT1003PDER-M05 | | | | | ● | | | | | | 6.68 | 10.5 | 3.47 | - | | | |
| | APKT1604PDER-M05 | | | | | ● | | | | | | 9.525 | 16.4 | 4.76 | 0.4 | | | |
| | ★ APKT160408-M01 | ● | ● | | | | | | | | | 9.525 | 16.6 | 4.76 | 0.8 | | | |
| | APKT160408PDER-M02 | | | ● | ● | | | | | | | 9.525 | 16.4 | 4.76 | 0.8 | | | |

★推薦 Recommended

•長度單位 Unit of Length (mm)



AP_10.16 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|------------------------------|---------------|-------------------|--------------------|--------------|
| P 低合金鋼 Low-Alloy Steels | OM4025 | 220~300 | 0.14~0.24 | 1.0~2.0 |
| | OM4025N | 220~300 | 0.14~0.24 | 1.0~2.0 |
| | RM4130 | 60~300 | 0.10~0.25 | 1.0~2.0 |
| 合金鋼 Alloyed Steels | OM4025 | 100~195 | 0.12~0.20 | 1.0~2.0 |
| | RM4130 | 60~300 | 0.10~0.25 | 1.0~2.0 |
| M 不鏽鋼 Stainless Steels | OM4025 | 180~230 | 0.15~0.35 | 0.5~1.5 |
| | RM4130 | 120~160 | 0.10~0.25 | 0.5~1.5 |
| K 鑄鐵 Cast Iron | OM4025 | 200~300 | 0.06~0.30 | 1.5~3.0 |
| | RM3130 | 200~300 | 0.06~0.30 | 1.5~3.0 |
| N 鋁合金 Aluminum&Al | OM5005 | 400~850 | 0.05~0.30 | 1.5~3.0 |
| | OM5060 | 400~850 | 0.05~0.30 | 1.5~3.0 |
| | RM5005 | 400~850 | 0.05~0.30 | 1.5~3.0 |
| | GH05 | 300~700 | 0.04~0.25 | 1.5~3.0 |
| S 高溫合金 Refractory Alloys | RM535 | 25~40 | 0.10~0.20 | 1.0~3.0 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)

Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速

Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

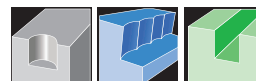
增加切削效率公式 Formula of advancing cutting efficiency

| 刀具刃徑切寬百分比 Percentage between insert diameter and cutting width | 進給率 × 倍數 Feeding speed x Multiple | 刀具刃徑切寬百分比 Percentage between insert diameter and cutting width | 進給率 × 倍數 Feeding speed x Multiple |
|---|--------------------------------------|---|--------------------------------------|
| 1% | 10.00 | 9% | 3.30 |
| 2% | 7.00 | 10% | 3.20 |
| 3% | 5.80 | 20% | 2.20 |
| 4% | 5.00 | 30% | 1.80 |
| 5% | 4.50 | 40% | 1.60 |
| 6% | 4.00 | 50% | 1.40 |
| 7% | 3.80 | 60% | 1.30 |
| 8% | 3.50 | 70<100% | 1.00 |

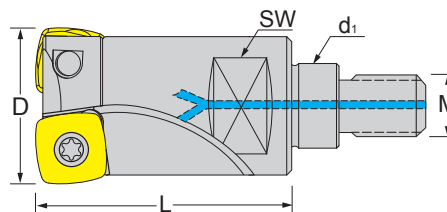
• 長度單位 Unit of Length (mm)



HAS 鎖牙式大進給切削刀具 HAS SCREW-ON HIGH SPEED MILLING CUTTER



KOVIT



特點 Feature

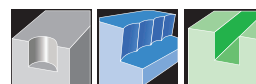
- 切削力以軸向為主·與圓形刀片刀具相比較·刀片及刀具的使用壽命較長
- 可大進給切削工件·減少加工時間
- 刀片可使用四個刃口·有效降低成本

- The cutting force is exerted in the axial direction. Compare with cutters using round inserts, cutters using square inserts are more durable.
- Available for high feeding cutting, and is able to shorten processing time.
- There are 4 edges usable on each insert, effective cost-saving.

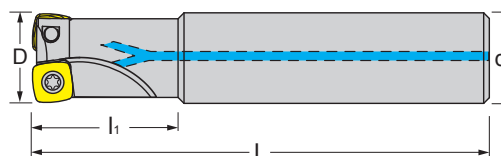
| 規格 Spec. | L | D | d ₁ | M | SW | 鎖固力 (N.m) | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------------|----|----|----------------|----|----|-----------|-----------|-----------|-----------------|
| HAS-1616-M8-SP06-C | 25 | 16 | 8.5 | 8 | 10 | 25 | 2 | SP..0603 | 0.04 |
| HAS-2020-M10-SP06-C | 35 | 20 | 10.5 | 10 | 15 | 40 | 3 | SP..0603 | 0.07 |
| HAS-2525-M12-SP06-C | 35 | 25 | 12.5 | 12 | 19 | 60 | 4 | SP..0603 | 0.10 |
| HAS-3232-M16-SP06-C | 43 | 32 | 17 | 16 | 26 | 80 | 5 | SP..0603 | 0.22 |
| HAS-2525-M12-SD09-C | 35 | 25 | 12.5 | 12 | 19 | 60 | 2 | SD..0904 | 0.08 |
| HAS-3232-M16-SD09-C | 43 | 32 | 17 | 16 | 26 | 80 | 3 | SD..0904 | 0.19 |
| HAS-4040-M16-SD09-C | 50 | 40 | 17 | 16 | 30 | 80 | 4 | SD..0904 | 0.39 |



HAS 直柄式大進給切削刀具 HAS STRAIGHT SHANK HIGH SPEED MILLING CUTTER



KOVIT



特點 Feature

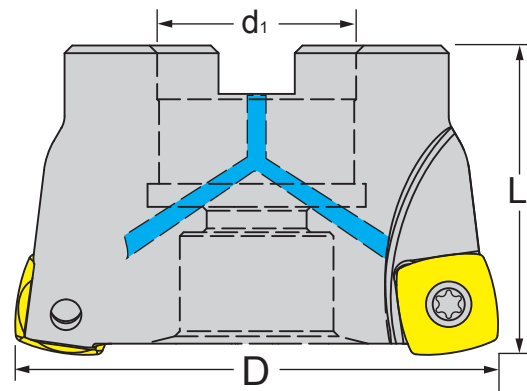
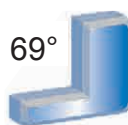
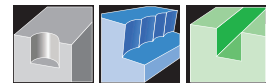
- 切削力以軸向為主·與圓形刀片刀具相比較·刀片及刀具的使用壽命較長
- 可大進給切削工件·減少加工時間
- 刀片可使用四個刃口·有效降低成本

- The cutting force is exerted in the axial direction. Compare with cutters using round inserts, cutters using square inserts are more durable.
- Available for high feeding cutting, and is able to shorten processing time.
- There are 4 edges usable on each insert, effective cost-saving.

| 規格 Spec. | L | l ₁ | D | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-----------------|-----|----------------|----|----------------|-----------|-----------|-----------------|
| HAS-1616-120L-C | 120 | 25 | 16 | 16 | 2 | SP..0603 | 0.15 |
| HAS-2020-120L-C | 120 | 32 | 20 | 20 | 3 | SP..0603 | 0.24 |
| HAS-2525-150L-C | 150 | 40 | 25 | 25 | 4 | SP..0603 | 0.49 |
| HAS-3232-150L-C | 150 | 40 | 32 | 32 | 5 | SP..0603 | 0.83 |
| HAS-2525-120L-C | 120 | 35 | 25 | 25 | 2 | SD..0904 | 0.42 |
| HAS-2625-120L-C | 120 | 35 | 26 | 25 | 2 | SD..0904 | 0.44 |
| HAS-3232-130L-C | 130 | 40 | 32 | 32 | 3 | SD..0904 | 0.74 |
| HAS-3332-130L-C | 130 | 40 | 33 | 32 | 3 | SD..0904 | 0.76 |
| HAS-4032-170L-C | 170 | 50 | 40 | 32 | 4 | SD..0904 | 1.10 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------------------|-----------|------------------|
| SP..0603 | M2.5-6.3-3.7-43-T8-TIN | T8 | 1.2 |
| SD..0904 | M3.5-10-5.2-43-T15-TIN | T15 | 3.0 |





特點 Feature

- 切削力以軸向為主·與圓形刀片刀具相比較·刀片及刀具的使用壽命較長
- 可大進給切削工件·減少加工時間
- 刀片可使用四個刃口·有效降低成本

- The cutting force is exerted in the axial direction. Compare with cutters using round inserts, cutters using square inserts are more durable.
- Available for high feeding cutting, and is able to shorten processing time.
- There are 4 edges usable on each insert, effective cost-saving.

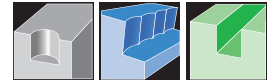
| 規格 Spec. | L | D | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------------|----|-----|----------------|--------------|--------------|-----------------------|
| HGP-500-FMB22-C | 40 | 50 | 22 | 4 | SD..1205 | 0.37 |
| HGP-500-FMA25.4-C | 40 | 50 | 25.4 | 4 | SD..1205 | 0.38 |
| HGP-630-FMB22-C | 40 | 63 | 22 | 4 | SD..1205 | 0.54 |
| HGP-630-FMA25.4-C | 40 | 63 | 25.4 | 4 | SD..1205 | 0.66 |
| HGP-800-FMB27-C | 50 | 80 | 27 | 5 | SD..1205 | 1.03 |
| HGP-800-FMA31.75-C | 50 | 80 | 31.75 | 5 | SD..1205 | 1.04 |
| HGP-1000-FMB32-C | 50 | 100 | 32 | 6 | SD..1205 | 1.54 |
| HGP-1000-FMA31.75-C | 50 | 100 | 31.75 | 6 | SD..1205 | 1.54 |
| HGP-1250-FMB40-C | 63 | 125 | 40 | 8 | SD..1205 | 3.38 |
| HGP-1250-FMA38.1-C | 63 | 125 | 38.1 | 8 | SD..1205 | 3.37 |

配件表 Accessories

| 刀片 Insert | 螺絲  Screw | 扳手  Wrench | 扭力值 (N.m) Torque |
|--------------|--|--|------------------------|
| SD..1205 | M4-13-5.2-43-T15-TIN | T15 | 3.0 |



•長度單位 Unit of Length (mm)

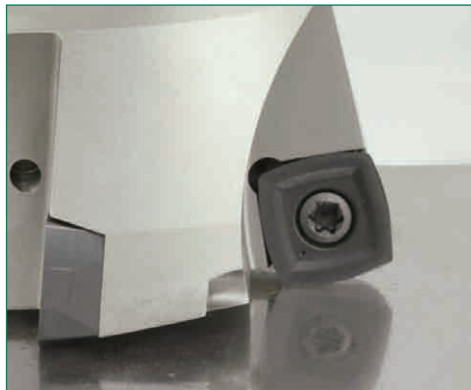


| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | | | | | |
|--------|------------------------|----------------------|---|---|---|--|--|--|--|--|---|--|--|--|--|--|--|--|--|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | ○ | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | ○ | | | | | | | | | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | ■ | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | | | |

| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | 尺寸 (mm) Size | | | | 圖形 Drawing |
|----------|-------------------------------|--------------------------------|--------|--------|--|--|--|--------------------------------------|---|--|--|--------------|------|------|-----|------------|
| | | CHF | | | | | | HF | | | | Size | | | | |
| | | OM4010 | OM4025 | RM4025 | | | | OM5005 | | | | d | i | s | r | |
| | SDET090408EDER-M01 | ● | ● | | | | | | | | | 9.52 | 9.52 | 4.76 | 0.8 | |
| | NEW SDMT090408EDER-M04 | | | ● | | | | | | | | 9.52 | 9.52 | 4.76 | 0.8 | |
| | SDET120508ER-M01 | ● | ● | | | | | | | | | 12.7 | 12.7 | 5.56 | 0.8 | |
| | NEW SDMT120512EDER-M04 | | | ● | | | | | | | | 12.7 | 12.7 | 5.56 | 0.8 | |
| | SPET060308ER-M01 | ● | ● | | | | | | ● | | | 7 | 7 | 3.18 | 0.8 | |
| | NEW SPMT060308EDER-M04 | | | ● | | | | | | | | 7 | 7 | 3.18 | 0.8 | |
| | | | | | | | | | | | | | | | | |

NEW 新品 New Product

範例 Example



•長度單位 Unit of Length (mm)



SP_06/SD_09.12 切削條件數據表 Cutting Parameter

SP.0603

| 被加工材質 Machining Materials | 面銑 Facing | | | 開槽 Slotting | | | 插銑 Plunging | | |
|------------------------------|-------------------------------|--------------|----------------|---------------|--------------|----------------|---------------|--------------|----------------|
| | 切削速度 Speed | 每刃進給 Feed | 切深 D.O.C. | 切削速度 Speed | 每刃進給 Feed | 切深 D.O.C. | 切削速度 Speed | 每刃進給 Feed | 切寬 W.O.C. |
| | V_c (m/min) | f_m (mm) | a_p max (mm) | V_c (m/min) | f_m (mm) | a_p max (mm) | V_c (m/min) | f max (mm) | a_e max (mm) |
| P 低合金鋼 Low-Alloy Steels | 107-235 | 0.2-0.8 | 0.9 | 107-235 | 0.2-0.6 | 0.9 | 107-235 | 0.04-0.15 | 3 |
| | 合金鋼 Alloyed Steels | 75-160 | 0.2-0.8 | 0.9 | 75-160 | 0.2-0.6 | 0.9 | 75-160 | 0.04-0.1 |
| M 不鏽鋼 Stainless Steels | 115-265 | 0.15-0.8 | 0.9 | 115-265 | 0.15-0.6 | 0.9 | 115-265 | 0.04-0.12 | 3 |
| | 析出硬化系 Precipitation-Hardening | 50-150 | 0.15-0.8 | 0.9 | 50-150 | 0.15-0.6 | 0.9 | 50-150 | 0.04-0.12 |
| K 鑄鐵 Cast Iron | 152-335 | 0.2-0.8 | 0.9 | 152-335 | 0.2-0.6 | 0.9 | 152-335 | 0.04-0.12 | 3 |
| N 鋁及鋁合金 Aluminum&Al | - | - | - | - | - | - | - | - | - |
| S 高溫合金 Refractory Alloys | 25-60 | 0.15-0.5 | 0.9 | 25-60 | 0.1-0.4 | 0.9 | 25-60 | 0.04-0.08 | 3 |
| H 高硬度材質 Hard Material | 35-100 | 0.2-0.5 | 0.9 | 35-100 | 0.2-0.4 | 0.9 | 35-100 | 0.04-0.08 | 3 |

SD..0904

| 被加工材質 Machining Materials | 面銑 Facing | | | 開槽 Slotting | | | 插銑 Plunging | | |
|------------------------------|-------------------------------|--------------|----------------|---------------|--------------|----------------|---------------|--------------|----------------|
| | 切削速度 Speed | 每刃進給 Feed | 切深 D.O.C. | 切削速度 Speed | 每刃進給 Feed | 切深 D.O.C. | 切削速度 Speed | 每刃進給 Feed | 切寬 W.O.C. |
| | V_c (m/min) | f_m (mm) | a_p max (mm) | V_c (m/min) | f_m (mm) | a_p max (mm) | V_c (m/min) | f max (mm) | a_e max (mm) |
| P 低合金鋼 Low-Alloy Steels | 120-235 | 0.3-2.0 | 1.5 | 120-235 | 0.3-1.5 | 1.5 | 120-235 | 0.1-0.2 | 6.0 |
| | 合金鋼 Alloyed Steels | 70-160 | 0.3-2.0 | 1.5 | 70-160 | 0.3-1.5 | 1.5 | 70-160 | 0.1-0.16 |
| M 不鏽鋼 Stainless Steels | 115-265 | 0.2-1.0 | 1.5 | 115-265 | 0.2-0.8 | 1.5 | 115-265 | 0.12-0.16 | 6.0 |
| | 析出硬化系 Precipitation-Hardening | 50-100 | 0.02-0.6 | 1.5 | 50-100 | 0.1-0.4 | 1.5 | 50-100 | 0.05-0.08 |
| K 鑄鐵 Cast Iron | 150-395 | 0.3-2.0 | 1.5 | 150-395 | 0.3-1.5 | 1.5 | 150-395 | 0.1-0.2 | 6.0 |
| N 鋁及鋁合金 Aluminum&Al | 400-1000 | 0.3-1.5 | 1.5 | 400-1000 | 0.3-1.0 | 1.5 | 400-1000 | 0.1-0.3 | 6.0 |
| S 高溫合金 Refractory Alloys | 25-60 | 0.2-0.8 | 1.5 | 25-60 | 0.1-0.5 | 1.5 | 25-60 | 0.05-0.1 | 6.0 |
| H 高硬度材質 Hard Material | 35-100 | 0.3-1.0 | 1.5 | 35-100 | 0.3-0.8 | 1.5 | 35-100 | 0.08-0.12 | 6.0 |

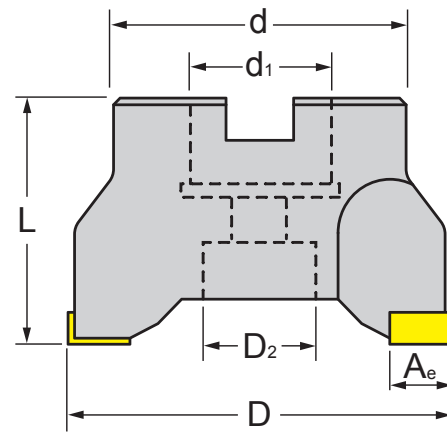
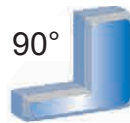
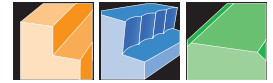
SD..1205

| 被加工材質 Machining Materials | 面銑 Facing | | | 開槽 Slotting | | | 插銑 Plunging | | |
|------------------------------|-------------------------------|--------------|----------------|---------------|--------------|----------------|---------------|--------------|----------------|
| | 切削速度 Speed | 每刃進給 Feed | 切深 D.O.C. | 切削速度 Speed | 每刃進給 Feed | 切深 D.O.C. | 切削速度 Speed | 每刃進給 Feed | 切寬 W.O.C. |
| | V_c (m/min) | f_m (mm) | a_p max (mm) | V_c (m/min) | f_m (mm) | a_p max (mm) | V_c (m/min) | f max (mm) | a_e max (mm) |
| P 低合金鋼 Low-Alloy Steels | 120-235 | 0.3-3.0 | 2.5 | 120-235 | 0.3-2.0 | 2.0 | 120-235 | 0.1-0.25 | 9.0 |
| | 合金鋼 Alloyed Steels | 70-160 | 0.3-3.0 | 2.5 | 70-160 | 0.3-2.0 | 2.0 | 70-160 | 0.1-0.18 |
| M 不鏽鋼 Stainless Steels | 115-265 | 0.2-1.2 | 2.5 | 115-265 | 0.2-1.0 | 2.0 | 115-265 | 0.12-0.13 | 9.0 |
| | 析出硬化系 Precipitation-Hardening | 50-100 | 0.02-0.7 | 2.5 | 50-100 | 0.1-0.6 | 2.0 | 50-100 | 0.05-0.1 |
| K 鑄鐵 Cast Iron | 150-395 | 0.3-3.0 | 2.5 | 150-395 | 0.3-2.0 | 2.0 | 150-395 | 0.1-0.25 | 9.0 |
| N 鋁及鋁合金 Aluminum&Al | 400-1000 | 0.3-1.5 | 2.5 | 400-1000 | 0.3-1.5 | 2.0 | 400-1000 | 0.1-0.4 | 9.0 |
| S 高溫合金 Refractory Alloys | 25-60 | 0.2-1.0 | 2.5 | 25-60 | 0.1-0.7 | 2.0 | 25-60 | 0.05-0.12 | 9.0 |
| H 高硬度材質 Hard Material | 35-100 | 0.3-1.5 | 2.5 | 35-100 | 0.3-1.0 | 2.0 | 35-100 | 0.08-0.15 | 9.0 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | D ₂ | d | d ₁ | 切幅寬 Ae | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------|----|----|----------------|----|----------------|--------|-----------|-----------|-----------------|
| MSAE-50-FMB22 | 50 | 50 | 18 | 42 | 22 | 11 | 3 | CN..1206 | 0.47 |
| MSAE-63-FMB22 | 50 | 63 | 18 | 50 | 22 | 14 | 3 | CN..1508 | 0.75 |
| MSAE-80 | 55 | 80 | 42 | 60 | 25.4 | 14 | 4 | CN..1508 | 1.05 |
| MSAE-80-FMB27 | 55 | 80 | 42 | 60 | 27 | 14 | 4 | CN..1508 | 1.03 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| CN..1206 | M4-10-5.7-60 | T15 | 3.0 |
| CN..1508 | M5-14-7.0-43 | T20 | 5.0 |

| ISO 分類 | ISO Material Classification | | | | | | | | | | 切削狀態 Cutting Condition : | | | | |
|----------|-----------------------------|---------------------------------|--------------|-------------------|------------------------|--------------------|--|--|--|--------------|--------------------------|---|------|------------|--|
| | P | M | K | N | S | H | | | | | | | | | |
| | 合金鋼 Alloyed Steels | 不鏽鋼 Stainless Steels | 鑄鐵 Cast Iron | 鋁及鋁合金 Aluminum&Al | 高溫合金 Refractory Alloys | 高硬度材 Hard Material | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coating ultra-micro | | | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | |
| | | CHF | | | | | | | | Size | | | | | |
| | | OM4010 | OM4025 | | | | | | | d | i | s | r | | |
| | CNEX120612-M01 | ● | ● | | | | | | | | 12.7 | - | 6.35 | 1.2 | |
| | CNEX150812-M01 | ● | ● | | | | | | | | 15 | - | 8 | 1.2 | |

•長度單位 Unit of Length (mm)



特點 Feature

大進給、大切深，排屑性良好。可做多種加工方式應用。加工範圍可遍及零件加工、模具製造業使用。

High feeding, deep cutting, and smooth chip evacuation. Available for various processing. Could be applied to part processing, mold making.

刀片可承受高進給時所產生的巨大切削阻力。由於容屑槽較大，可供鐵屑暫時停留排出，較不受鐵屑干擾，而產生震動，影響切削效率。

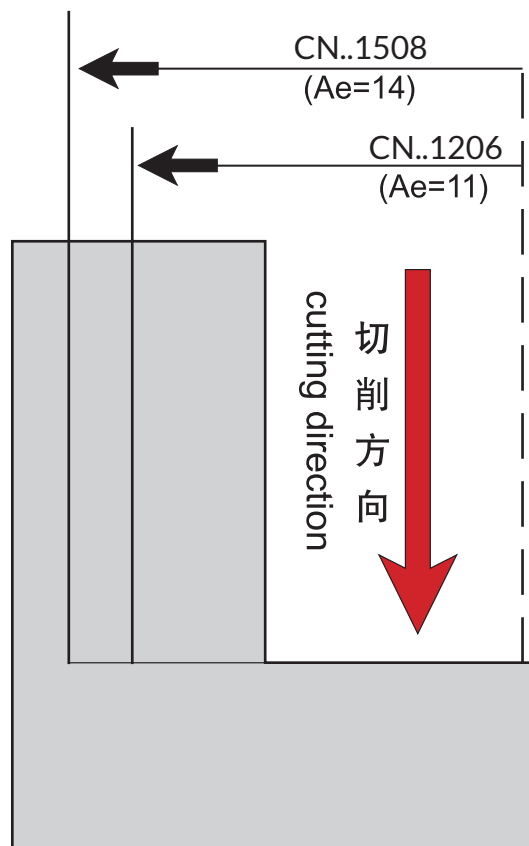
The insert can bear huge cutting resistance during high feeding. With bigger chip breaker which stores chips temporarily, the cutter is free of vibration and is high cutting efficiency.

本刀片設計於優越的斷屑能力，及降低切削阻力。並增加刀片刃口強度，有助於重插銑、中插銑及半精加工。

The insert is designed with superior chip breaking, strong flutes and low cutting resistance which is suitable for plunge milling and semi-finishing.

本刀片採用超微粒底材，鍍層 PVD 的 (TiAlSi)N 被覆，可泛用於各種加工材質。

The insert is made of PVD (TiAlSi)N coated micro grain substrate, and is available for processing different materials.



CN_12.15 切削條件數據表 Cutting Parameter

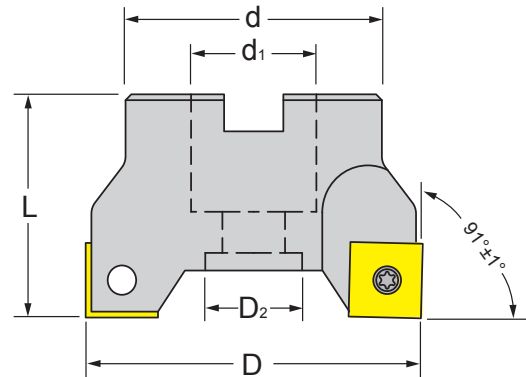
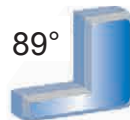
| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|------------------------------|---------------|-------------------|--------------------|
| P 低合金鋼 Low-Alloy Steels | OM4010 | 90~190 | 0.10~0.25 |
| | OM4025 | 80~170 | 0.08~0.25 |
| M 合金鋼 Alloyed Steels | OM4010 | 70~160 | 0.08~0.20 |
| | OM4025 | 70~160 | 0.08~0.20 |
| K 不鏽鋼 Stainless Steels | OM4010 | 70~180 | 0.10~0.20 |
| | OM4025 | 70~160 | 0.10~0.18 |
| K 鑄鐵 Cast Iron | OM4025 | 110~180 | 0.08~0.25 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)

Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速

Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | D ₂ | d | d ₁ | 切幅寬 Ae | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------|----|-----|----------------|-----|----------------|--------|-----------|-----------|-----------------|
| SGP-50-FMB22 | 50 | 50 | 18 | 40 | 22 | 12 | 4 | SP..1204 | 0.44 |
| SGP-63 | 50 | 63 | 19 | 50 | 25.4 | 12 | 5 | SP..1204 | 0.68 |
| SGP-63-FMB22 | 50 | 63 | 18 | 50 | 22 | 12 | 5 | SP..1204 | 0.71 |
| SGP-80 | 50 | 80 | 32 | 60 | 25.4 | 12 | 6 | SP..1204 | 0.93 |
| SGP-80-FMB27 | 50 | 80 | 32 | 60 | 27 | 12 | 6 | SP..1204 | 0.99 |
| SGP-100 | 55 | 100 | 42 | 70 | 31.75 | 12 | 8 | SP..1204 | 1.71 |
| SGP-100-FMB32 | 55 | 100 | 42 | 70 | 32 | 12 | 8 | SP..1204 | 1.71 |
| SGP-125-FMB40 | 63 | 125 | 58 | 90 | 40 | 12 | 8 | SP..1204 | 3.22 |
| SGP-160-FMB40 | 63 | 160 | 58 | 130 | 40 | 12 | 10 | SP..1204 | 6.22 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| SP..1204 | M5-10-6.3-43 | T20 | 5.0 |

可有效使用刀片切削刃，可利用刀刃可達四刃，具有經濟效率的刀片。
4 indexable edges, effective cost-saving..

刀片可與其他粗切削工具互換使用。
Inserts are compatible with other rough cutting tools.

最大切削量可達 10mm，加工範圍為 50~100mm。
Max. cutting amount is up to 10mm, and machining range is from 50mm to 100mm.

可使用在平面銑削與肩部銑削。
Available for face milling and shoulder milling.



• 長度單位 Unit of Length (mm)

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | | | | | |
|----------|----------------|--------------------------------|--------|--------|--------------------------------------|--|--|---|--------|---------|---|--|--|------------|---|---|---|---|--|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | ○ | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | ○ | | | | | | | | | | | | | | |
| ISO 分類 | N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | ■ | | | | | | | | |
| | S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | |
| | H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | 超微粒硬質合金 Micro grain cemented carbide | | | | | 尺寸 (mm) | | | | 圖形 Drawing | | | | | |
| | | CHF | | | HF | | | | | Size | | | | | | | | | |
| | | OM4010 | OM4025 | RM4025 | | | | | OM5005 | | | | | | d | i | s | r | |
| | SPET120408-M02 | ● | ● | | | | | ● | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | SPMT120408-R01 | | | ● | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

SP_12 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|---------------------------|------------|----------------|-----------------|-----------|
| P 低合金鋼 Low-Alloy Steels | OM4010 | 100~220 | 0.10~0.35 | 2.0~9.0 |
| | OM4025 | 100~220 | 0.10~0.35 | 2.0~9.0 |
| | RM4025 | 100~220 | 0.10~0.35 | 2.0~9.0 |
| P 合金鋼 Alloyed Steels | OM4010 | 70~120 | 0.10~0.25 | 1.0~5.0 |
| | OM4025 | 70~120 | 0.10~0.25 | 1.0~5.0 |
| | RM4025 | 70~120 | 0.10~0.25 | 1.0~5.0 |
| M 不鏽鋼 Stainless Steels | OM4010 | 130~200 | 0.12~0.30 | 3.0~8.0 |
| | OM4025 | 130~200 | 0.12~0.30 | 3.0~8.0 |
| K 鑄鐵 Cast Iron | OM4010 | 100~210 | 0.10~0.20 | 2.0~9.0 |
| | OM4025 | 100~210 | 0.10~0.20 | 2.0~9.0 |
| N 鋁合金 Aluminum&Al | OM5005 | 450(500~700) | 1.2(1.2~1.8) | 2.0~9.0 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)

Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速

Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

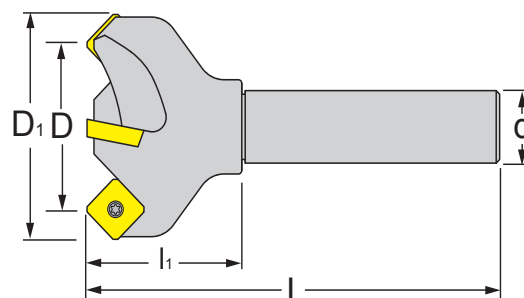
• 長度單位 Unit of Length (mm)



KE45° 高速端銑刀 KE45° HIGH SPEED FACE MILLING CUTTER



KOVIT



特點 Feature

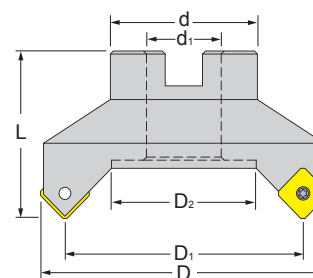
- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | D | D ₁ | d | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|----------|-----|----------------|----|----------------|----|-----------|-----------|-----------------|
| C20-KE50 | 120 | 45 | 50 | 63.7 | 20 | 4 | SE..1204 | 0.77 |
| C25-KE50 | 120 | 45 | 50 | 63.7 | 25 | 4 | SE..1204 | 0.85 |
| C32-KE50 | 120 | 45 | 50 | 63.7 | 32 | 4 | SE..1204 | 1.06 |
| C25-KE63 | 120 | 45 | 63 | 75 | 25 | 5 | SE..1204 | 1.14 |
| C32-KE63 | 120 | 45 | 63 | 75 | 32 | 5 | SE..1204 | 1.36 |



KM45° 殼型銑刀 KM45° FACE SHELL MILLING CUTTER



| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|--------------|----|-----|----------------|----------------|-----|----------------|-----------|-----------|-----------------|
| KM-50-FMB22 | 40 | 63 | 50 | 18 | 46 | 22 | 4 | SE..1204 | 0.52 |
| KM-63 | 45 | 76 | 63 | 19 | 48 | 25.4 | 5 | SE..1204 | 0.78 |
| KM-63-FMB22 | 45 | 76 | 63 | 18 | 48 | 22 | 5 | SE..1204 | 0.80 |
| KM-80 | 50 | 95 | 80 | 45 | 60 | 31.75 | 6 | SE..1204 | 1.15 |
| KM-80-FMB27 | 50 | 95 | 80 | 44.2 | 60 | 27 | 6 | SE..1204 | 1.21 |
| KM-100 | 50 | 114 | 100 | 61.8 | 80 | 31.75 | 6 | SE..1204 | 1.83 |
| KM-100-FMB32 | 50 | 114 | 100 | 61.8 | 80 | 32 | 6 | SE..1204 | 1.81 |
| KM-125 | 63 | 140 | 125 | 72.1 | 90 | 38.1 | 8 | SE..1204 | 3.07 |
| KM-125-FMB40 | 63 | 140 | 125 | 72.1 | 90 | 40 | 8 | SE..1204 | 3.04 |
| KM-160 | 63 | 175 | 160 | 110.9 | 120 | 50.8 | 10 | SE..1204 | 5.05 |
| KM-160-FMB40 | 63 | 175 | 160 | 110.9 | 120 | 40 | 10 | SE..1204 | 5.35 |
| KM-200 | 63 | 215 | 200 | 145.9 | 160 | 47.625 | 12 | SE..1204 | 7.62 |
| KM-250 | 63 | 265 | 250 | 195.8 | 220 | 47.625 | 14 | SE..1204 | 13.3 |

• 長度單位 Unit of Length (mm)

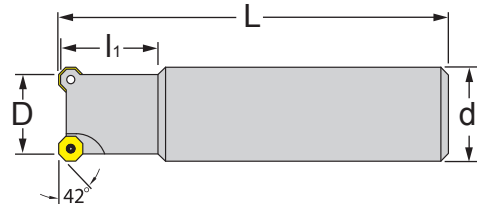


SE_12 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|------------------------------------|---------------|-------------------|--------------------|--------------|
| P 低合金鋼 Low-Alloy Steels | OM4010 | 260~320 | 0.20~0.45 | 1.0~3.0 |
| | OM4025 | 220~260 | 0.20~0.45 | 1.0~3.0 |
| | RM4025 | 220~260 | 0.20~0.45 | 1.0~3.0 |
| P 合金鋼 Alloyed Steels | OM1205 | 100~195 | 0.05~0.15 | 1.0~2.0 |
| | OM4010 | 130~250 | 0.20~0.35 | 1.0~3.0 |
| | OM4025 | 100~195 | 0.05~0.15 | 1.0~2.0 |
| M 不鏽鋼 Stainless Steels | OM4010 | 180~220 | 0.10~0.30 | 1.0~2.0 |
| | OM4025 | 140~180 | 0.10~0.30 | 1.0~2.0 |
| | RM4025 | 100~195 | 0.20~0.35 | 1.0~3.0 |
| M 析出硬化系 Precipitation-Hardening | OM4010 | 90~120 | 0.15~0.20 | 0.2~1.0 |
| | OM4025 | 70~85 | 0.15~0.20 | 0.2~1.0 |
| K 鑄鐵 Cast Iron | OM4010 | 160~300 | 0.12~0.35 | 1.0~3.0 |
| | OM4025 | 180~300 | 0.15~0.35 | 1.0~3.0 |
| N 鋁合金 Aluminum&Al | OM5060 | 500~850 | 0.15~0.35 | 3.6~6.0 |
| | GH1 | 275~450 | 0.15~0.35 | 3.0~6.0 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

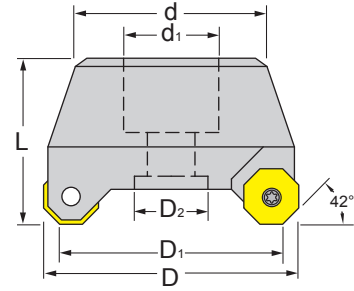
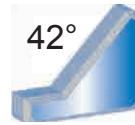
- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | D | d | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----------------|----|----|--------------|--------------|-----------------------|
| SKM-2520-120L | 120 | 40 | 25 | 20 | 2 | OD..0404 | 0.32 |
| SKM-2525-120L | 120 | 40 | 25 | 25 | 2 | OD..0404 | 0.45 |
| SKM-3225-120L | 120 | 40 | 32 | 25 | 3 | OD..0404 | 0.48 |
| SKM-3232-120L | 120 | 40 | 32 | 32 | 3 | OD..0404 | 0.71 |
| SKM-4032-120L | 120 | 50 | 40 | 32 | 4 | OD..0404 | 0.82 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|--------------|--------------|------------------------|
| OD..0404 | M4-10-5.7-60 | T15 | 3.0 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

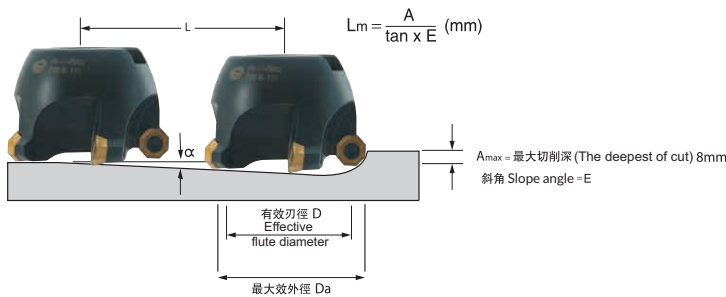
- Made of anti-vibration tool steel
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------|----|-----|----------------|----------------|-------|----------------|-----------|-----------|-----------------|
| SKM-50-FMB22 | 45 | 58 | 50 | 18 | 42.24 | 22 | 4 | OD..0404 | 0.50 |
| SKM-63 | 45 | 71 | 63 | 19 | 48.82 | 25.4 | 5 | OD..0404 | 0.63 |
| SKM-63-FMB22 | 45 | 71 | 63 | 18 | 48.82 | 22 | 5 | OD..0404 | 0.67 |
| SKM-80 | 50 | 88 | 80 | 44 | 61.78 | 31.75 | 6 | OD..0404 | 1.13 |
| SKM-80-FMB27 | 50 | 88 | 80 | 35 | 61.78 | 27 | 6 | OD..0404 | 1.24 |
| SKM-100 | 55 | 108 | 100 | 45 | 70 | 31.75 | 7 | OD..0404 | 1.86 |
| SKM-100-FMB32 | 55 | 108 | 100 | 45 | 70 | 32 | 7 | OD..0404 | 1.86 |
| SKM-125 | 58 | 133 | 125 | 60 | 90 | 38.1 | 8 | OD..0404 | 3.13 |
| SKM-160 | 63 | 168 | 160 | 93.81 | 125 | 50.8 | 10 | OD..0404 | 5.83 |

配件表 Accessories

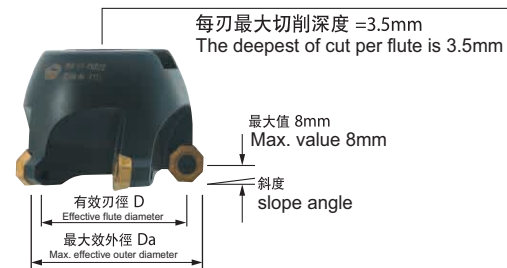
| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| OD..0404 | M4-10-5.7-60 | T15 | 3.0 |

直角斜度銑削公式 Inclination angle milling formula :



螺旋斜度銑削公式

Formula to spiral milling



螺旋銑削加工數據 Spiral milling data

| 銑削刀具 Milling cutter | | 螺旋切削直徑 ØSpiral milling cutting diameter | | 斜度 incline |
|---------------------------------|-----------------------------|---|------------|------------|
| 有效刃徑 D effective flute diameter | 最大外徑 Da Max. outer diameter | 最小值 D Min. | 最大值 D Max. | |
| Ø50 | Ø60 | Ø94 | Ø118 | 6.0° |
| Ø63 | Ø73 | Ø120 | Ø144 | 4.6° |
| Ø80 | Ø90 | Ø154 | Ø178 | 3.3° |
| Ø100 | Ø110 | Ø194 | Ø218 | 2.6° |
| Ø125 | Ø135 | Ø244 | Ø268 | 2.0° |
| Ø160 | Ø170 | Ø314 | Ø338 | 1.5° |

•長度單位 Unit of Length (mm)



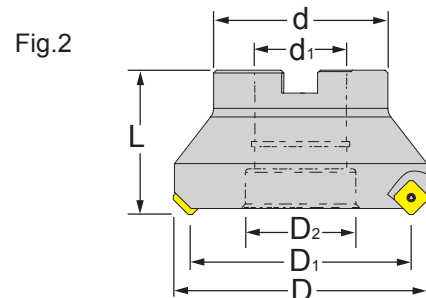
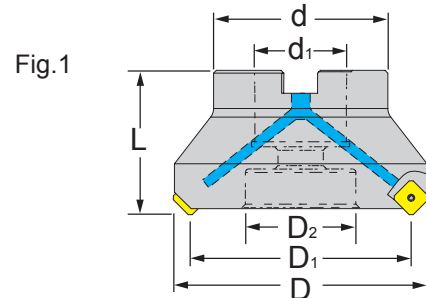
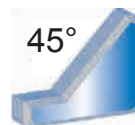
| | | | | | | | | | | | | | | | | | | | |
|-------------|-------------|--------------------------------------|-----------------------|--|--|---|--|--|---------|--|---|---|---------------|---|---|--|--|--|---|
| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | | | | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
| | M | 不鏽鋼 Stainless Steels | | | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | |
| | S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | |
| | H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | 硬質合金 Carbide alloy | | | 超微粒硬質合金 Micro grain carbide alloy | | | 尺寸 (mm) | | | | 圖形 Drawing | | | | | | |
| | | CHF | HW | | | HF | | | Size | | | | | | | | | | |
| | | OM4025 | | | | | | | | | d | i | | s | r | | | | |
| | ODMT040408 | ● | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

OD_04 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|------------------------------|-----------------------|---------------|-------------------|--------------------|--------------|
| P | 低合金鋼 Low-Alloy Steels | OM4025 | 130~330 | 0.08~0.40 | 1.0~2.0 |
| | 合金鋼 Alloyed Steels | OM4025 | 70~160 | 0.08~0.20 | 1.0~2.0 |



主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)
 Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速
 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.



| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | Fig. | 重量 (KGS) Weight |
|--------------------|----|-------|----------------|----------------|-----|----------------|--------------|--------------|------|-----------------------|
| SFM-50-FMB22-C | 40 | 62 | 50 | 18 | 48 | 22 | 4 | SE..13T3 | 1 | 0.64 |
| SFM-50-FMA25.4-C | 40 | 62 | 50 | 20 | 50 | 25.4 | 4 | SE..13T3 | 1 | 0.54 |
| SFM-63-FMB22-C | 40 | 75 | 63 | 18 | 48 | 22 | 5 | SE..13T3 | 1 | 0.70 |
| SFM-63-FMA25.4-C | 40 | 75 | 63 | 20 | 50 | 25.4 | 5 | SE..13T3 | 1 | 0.68 |
| SFM-80-FMB27-C | 50 | 92 | 80 | 32 | 62 | 27 | 6 | SE..13T3 | 1 | 1.28 |
| SFM-80-FMA31.75-C | 50 | 92 | 80 | 42 | 62 | 31.75 | 6 | SE..13T3 | 1 | 1.20 |
| SFM-100-FMB32-C | 50 | 112 | 100 | 42 | 78 | 32 | 7 | SE..13T3 | 1 | 1.98 |
| SFM-100-FMA31.75-C | 50 | 112 | 100 | 42 | 78 | 31.75 | 7 | SE..13T3 | 1 | 2.04 |
| SFM-125-FMB40-C | 63 | 137 | 125 | 50 | 89 | 40 | 8 | SE..13T3 | 1 | 3.57 |
| SFM-125-FMA38.1-C | 63 | 137 | 125 | 50 | 80 | 38.1 | 8 | SE..13T3 | 1 | 3.24 |
| SFM-160-FMB40 | 63 | 172 | 160 | 50 | 98 | 40 | 10 | SE..13T3 | 2 | 5.30 |
| SFM-160-FMA50.8 | 63 | 172 | 160 | 67 | 98 | 50.8 | 10 | SE..13T3 | 2 | 4.80 |
| SFM-200-FMB60 | 63 | 210.4 | 200 | 174 | 138 | 60 | 12 | SE..13T3 | 2 | 6.78 |
| SFM-200-FMA47.625 | 63 | 210.4 | 200 | 174 | 138 | 47.625 | 12 | SE..13T3 | 2 | 7.18 |
| SFM-250-FMB60 | 63 | 260.4 | 250 | 224 | 138 | 60 | 14 | SE..13T3 | 2 | 10.40 |
| SFM-250-FMA47.625 | 63 | 260.4 | 250 | 224 | 138 | 47.625 | 14 | SE..13T3 | 2 | 10.72 |

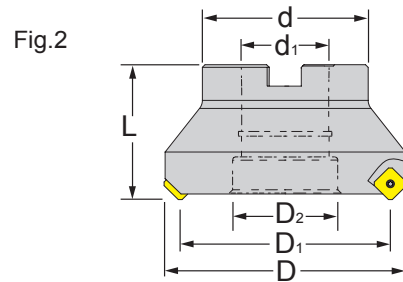
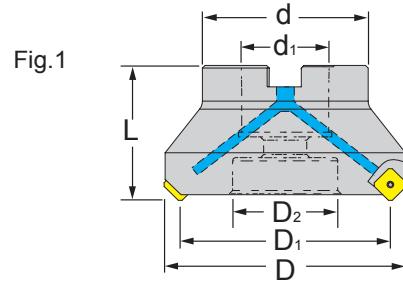
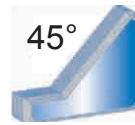
配件表 Accessories

| 刀片 Insert | 螺絲  Screw | 扳手  Wrench | 扭力值 (N.m) Torque |
|--------------|--|--|------------------------|
| SE..13T3 | M3.5-11.7-5.3-60 | T15 | 3.0 |

•長度單位 Unit of Length (mm)



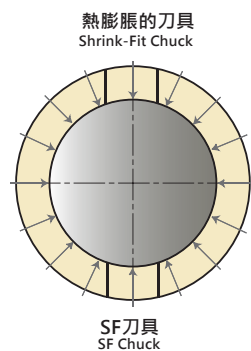
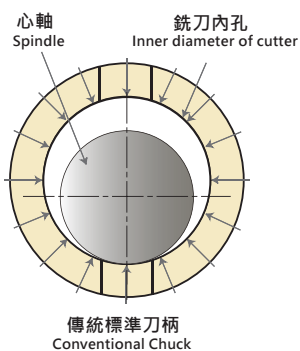
燒結式 Shrink-Fit



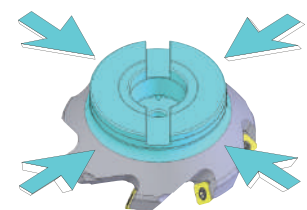
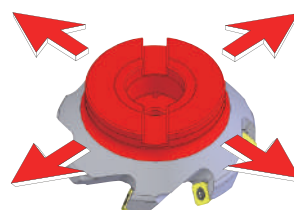
| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | Fig. | 重量 (KGS) Weight |
|-----------------------|----|-----|----------------|----------------|----|----------------|-----------|-----------|------|-----------------|
| SFM-50-SF-FMB22-C | 40 | 62 | 50 | 18 | 48 | 22 | 4 | SE..13T3 | 1 | 0.64 |
| SFM-50-SF-FMA25.4-C | 40 | 62 | 50 | 20 | 50 | 25.4 | 4 | SE..13T3 | 1 | 0.54 |
| SFM-63-SF-FMB22-C | 40 | 75 | 63 | 18 | 48 | 22 | 5 | SE..13T3 | 1 | 0.70 |
| SFM-63-SF-FMA25.4-C | 40 | 75 | 63 | 20 | 50 | 25.4 | 5 | SE..13T3 | 1 | 0.68 |
| SFM-80-SF-FMB27-C | 50 | 92 | 80 | 32 | 62 | 27 | 6 | SE..13T3 | 1 | 1.28 |
| SFM-80-SF-FMA31.75-C | 50 | 92 | 80 | 42 | 62 | 31.75 | 6 | SE..13T3 | 1 | 1.20 |
| SFM-100-SF-FMB32-C | 50 | 112 | 100 | 42 | 78 | 32 | 7 | SE..13T3 | 1 | 1.98 |
| SFM-100-SF-FMA31.75-C | 50 | 112 | 100 | 42 | 78 | 31.75 | 7 | SE..13T3 | 1 | 2.04 |
| SFM-125-SF-FMB40-C | 63 | 137 | 125 | 50 | 89 | 40 | 8 | SE..13T3 | 1 | 3.57 |
| SFM-125-SF-FMA38.1-C | 63 | 137 | 125 | 50 | 80 | 38.1 | 8 | SE..13T3 | 1 | 3.24 |
| SFM-160-SF-FMB40 | 63 | 172 | 160 | 50 | 98 | 40 | 10 | SE..13T3 | 2 | 5.30 |
| SFM-160-SF-FMA50.8 | 63 | 172 | 160 | 67 | 98 | 50.8 | 10 | SE..13T3 | 2 | 4.80 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------------|-----------|------------------|
| SE..13T3 | M3.5-11.7-5.3-60 | T15 | 3.0 |


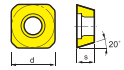

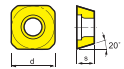


SF 刀具原理 SF Tool Principle



•長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | | | | | | | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | | | |
|--|------------------------|--------------------------------|--------|--|--|--|--|--|--|--------------------------------------|--|--|--|--------------|---|---|---|------------|---|---|---|---|------|------|--|
| | M | 不鏽鋼 Stainless Steels | ○ | | | | | | | | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | ■ | | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | ○ | | | | | | | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | | | | | |
| | | CHF | | | | | | | | HF | | | | | | | | | | | | | | | |
| | | RM2140 | RM4025 | | | | | | | RM5005 | | | | | d | i | s | | r | | | | | | |
|  | SEET13T3AGFN-F01 | | | | | | | | | | | | | | | | | | | ● | 13.4 | - | 3.97 | 2.55 |  |
|  | SEMT13T3AGEN-M02 | ● | ● | | | | | | | | | | | | | | | | | | 13.4 | - | 3.97 | 2.55 |  |

SE_13T3 切削條件數據表 Cutting Parameter

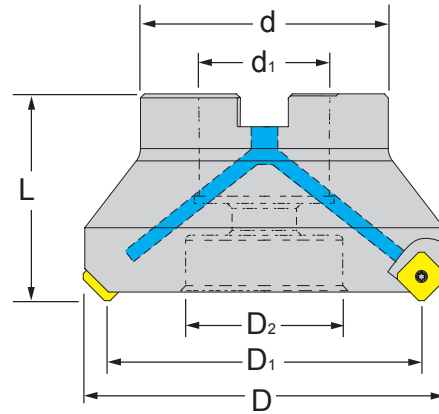
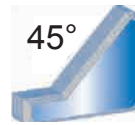
| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|---------------------------|------------------------|------------|----------------|-----------------|
| P | 低合金鋼 Low-Alloy Steels | RM4025 | 220~260 | 0.20~0.45 |
| | 合金鋼 Alloyed Steels | RM4025 | 220~260 | 0.20~0.45 |
| M | 不鏽鋼 Stainless Steels | RM2140 | 130~250 | 0.20~0.35 |
| N | 鋁合金 Aluminum&Al | RM5005 | 500~850 | 0.15~0.35 |
| S | 高溫合金 Refractory Alloys | RM2140 | 130~250 | 0.20~0.35 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)

Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速

Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

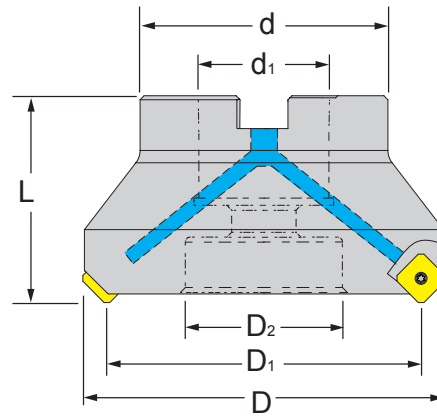
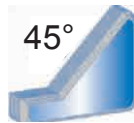


| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|--------------------|----|-----|----------------|----------------|----|----------------|-----------|-----------|-----------------|
| KFM-50-FMB22-C | 40 | 62 | 50 | 18 | 48 | 22 | 4 | SE..1204 | 0.51 |
| KFM-50-FMA25.4-C | 40 | 62 | 50 | 20 | 50 | 25.4 | 4 | SE..1204 | 0.51 |
| KFM-63-FMB22-C | 40 | 75 | 63 | 18 | 48 | 22 | 5 | SE..1204 | 0.73 |
| KFM-63-FMA25.4-C | 40 | 75 | 63 | 32 | 50 | 25.4 | 5 | SE..1204 | 0.70 |
| KFM-80-FMB27-C | 50 | 92 | 80 | 32 | 62 | 27 | 6 | SE..1204 | 1.31 |
| KFM-80-FMA31.75-C | 50 | 92 | 80 | 42 | 62 | 31.75 | 6 | SE..1204 | 1.21 |
| KFM-100-FMB32-C | 50 | 112 | 100 | 42 | 78 | 32 | 7 | SE..1204 | 2.00 |
| KFM-100-FMA31.75-C | 50 | 112 | 100 | 42 | 78 | 31.75 | 7 | SE..1204 | 2.02 |
| KFM-125-FMB40-C | 63 | 137 | 125 | 50 | 89 | 40 | 8 | SE..1204 | 3.53 |
| KFM-125-FMA38.1-C | 63 | 137 | 125 | 50 | 80 | 38.1 | 8 | SE..1204 | 3.25 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| SE..1204 | M5-11-7.0-55 | T20 | 5.0 |

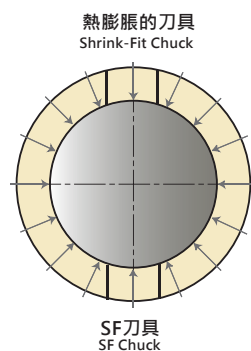
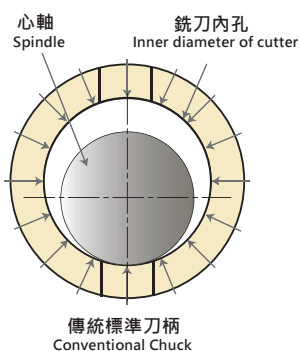
燒結式 Shrink-Fit



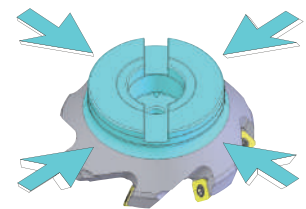
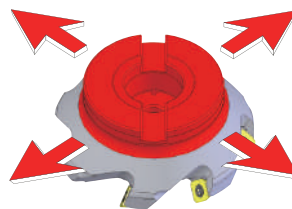
| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-----------------------|----|-----|----------------|----------------|----|----------------|--------------|--------------|-----------------------|
| KFM-50-SF-FMB22-C | 40 | 62 | 50 | 18 | 48 | 22 | 4 | SE..1204 | 0.51 |
| KFM-50-SF-FMA25.4-C | 40 | 62 | 50 | 20 | 50 | 25.4 | 4 | SE..1204 | 0.51 |
| KFM-63-SF-FMB22-C | 40 | 75 | 63 | 18 | 48 | 22 | 5 | SE..1204 | 0.73 |
| KFM-63-SF-FMA25.4-C | 40 | 75 | 63 | 32 | 50 | 25.4 | 5 | SE..1204 | 0.70 |
| KFM-80-SF-FMB27-C | 50 | 92 | 80 | 32 | 62 | 27 | 6 | SE..1204 | 1.31 |
| KFM-80-SF-FMA31.75-C | 50 | 92 | 80 | 42 | 62 | 31.75 | 6 | SE..1204 | 1.21 |
| KFM-100-SF-FMB32-C | 50 | 112 | 100 | 42 | 78 | 32 | 7 | SE..1204 | 2.00 |
| KFM-100-SF-FMA31.75-C | 50 | 112 | 100 | 42 | 78 | 31.75 | 7 | SE..1204 | 2.02 |
| KFM-125-SF-FMB40-C | 63 | 137 | 125 | 50 | 89 | 40 | 8 | SE..1204 | 3.53 |
| KFM-125-SF-FMA38.1-C | 63 | 137 | 125 | 50 | 80 | 38.1 | 8 | SE..1204 | 3.25 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|--------------|--------------|------------------------|
| SE..1204 | M5-11-7.0-55 | T20 | 5.0 |



SF 刀具原理
SF Tool Principle



• 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | ● | | | | | | | | | | | | | |
|----------|--------------------|------------------------|--------------------------------|--------|--------|--------|--------|--------------------------------------|---|--|--|------|--------------|------|---|------|------------|---|---|--|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | ○ | ○ | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | ○ | | | | | | | | | | | | | | | |
| ISO 分類 | N | 鋁及鋁合金 Aluminum&Al | | | | | | ■ | ■ | | | | | | | | | | | |
| | S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | |
| ISO 分類 | H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | | | |
| | | | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | |
| 形狀 Shape | 規格 Spec. | CHF | | | | | HF | | | | | Size | | | | | | | | |
| | | OM4010 | OM4025 | RM4025 | RM4230 | OM1025 | OM5060 | GH1 | | | | | | | d | i | | s | r | |
| | ★ SEHT1204AFEN-M01 | ● | ● | | | | | | | | | | | 12.7 | - | 4.76 | Facet | | | |
| | SEHT1204AFEN-M02 | | | | ● | | | | | | | | | 12.7 | - | 4.76 | Facet | | | |
| | SEHT1204AFFN | | | | | | | ● | ● | | | | | 12.7 | - | 4.76 | - | | | |
| | SEKT1204AFTN | | | ● | | | | | | | | | | 12.7 | - | 4.76 | - | | | |
| | SEKW1204AFN | | ● | | | ● | | | | | | | | 12.7 | - | 4.76 | - | | | |

★ 推薦 Recommended

SE_12 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) | |
|---------------------------|-------------------------------|----------------|-----------------|-----------|---------|
| P 低合金鋼 Low-Alloy Steels | OM4010 | 260~320 | 0.20~0.45 | 1.0~3.0 | |
| | OM4025 | 220~260 | 0.20~0.45 | 1.0~3.0 | |
| | RM4025 | 220~260 | 0.20~0.45 | 1.0~3.0 | |
| | OM1205 | 100~195 | 0.05~0.15 | 1.0~2.0 | |
| P 合金鋼 Alloyed Steels | OM4010 | 130~250 | 0.20~0.35 | 1.0~3.0 | |
| | OM4025 | 100~195 | 0.20~0.35 | 1.0~3.0 | |
| | RM4025 | 100~195 | 0.20~0.35 | 1.0~3.0 | |
| M 不鏽鋼 Stainless Steels | OM4010 | 180~220 | 0.10~0.30 | 1.0~2.0 | |
| | OM4025 | 140~180 | 0.10~0.30 | 1.0~2.0 | |
| | 析出硬化系 Precipitation-Hardening | OM4010 | 90~120 | 0.15~0.20 | 0.2~1.0 |
| | | OM4025 | 70~85 | 0.15~0.20 | 0.2~1.0 |
| K 鑄鐵 Cast Iron | OM4010 | 160~300 | 0.12~0.35 | 1.0~3.0 | |
| | OM4025 | 180~300 | 0.15~0.35 | 1.0~3.0 | |
| N 鋁合金 Aluminum&Al | OM5060 | 500~850 | 0.15~0.35 | 3.6~6.0 | |
| | GH1 | 275~450 | 0.15~0.35 | 3.0~6.0 | |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

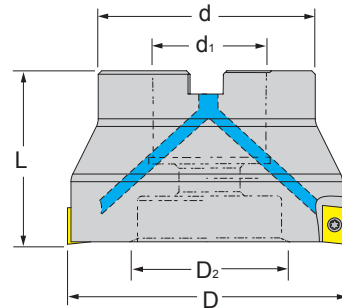
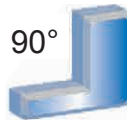
• 長度單位 Unit of Length (mm)

IFM 殼型銑刀

IFM FACE MILLING CUTTER



KOVIT



| 規格 Spec. | L | D | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-----------------|----|-----|----------------|----|----------------|-----------|-----------|-----------------|
| IFM-50-FMB22-C | 40 | 50 | 18 | 45 | 22 | 5 | AP..1604 | 0.43 |
| IFM-63-FMB22-C | 40 | 63 | 18 | 48 | 22 | 5 | AP..1604 | 0.57 |
| IFM-80-FMB27-C | 50 | 80 | 32 | 62 | 27 | 6 | AP..1604 | 1.16 |
| IFM-100-FMB32-C | 50 | 100 | 42 | 78 | 32 | 7 | AP..1604 | 1.90 |
| IFM-125-FMB40-C | 63 | 125 | 50 | 89 | 40 | 8 | AP..1604 | 3.41 |

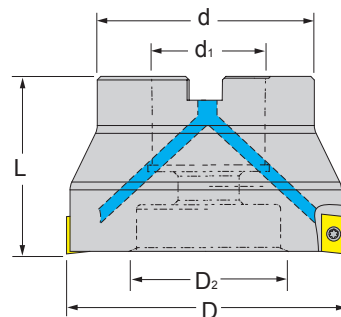
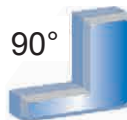
IFM 燒結式殼型銑刀

IFM SHRINK-FIT FACE MILLING CUTTER



KOVIT

燒結式 Shrink-Fit



| 規格 Spec. | L | D | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-----------------------|----|-----|----------------|------|----------------|-----------|-----------|-----------------|
| IFM-50-SF-FMB22-C | 40 | 50 | 18 | 40 | 22 | 5 | AP..1604 | 0.43 |
| IFM-50-SF-FMA25.4-C | 40 | 50 | 20 | 48.5 | 25.4 | 5 | AP..1604 | 0.42 |
| IFM-63-SF-FMB22-C | 40 | 63 | 18 | 48 | 22 | 5 | AP..1604 | 0.57 |
| IFM-63-SF-FMA25.4-C | 40 | 63 | 32 | 50 | 25.4 | 5 | AP..1604 | 1.20 |
| IFM-80-SF-FMB27-C | 50 | 80 | 32 | 62 | 27 | 6 | AP..1604 | 1.16 |
| IFM-80-SF-FMA31.75-C | 50 | 80 | 42 | 62 | 31.75 | 6 | AP..1604 | 1.04 |
| IFM-100-SF-FMB32-C | 50 | 100 | 42 | 78 | 32 | 7 | AP..1604 | 1.90 |
| IFM-100-SF-FMA31.75-C | 50 | 100 | 42 | 78 | 31.75 | 7 | AP..1604 | 1.91 |
| IFM-125-SF-FMB40-C | 63 | 125 | 50 | 89 | 40 | 8 | AP..1604 | 3.41 |
| IFM-125-SF-FMA38.1-C | 63 | 125 | 50 | 80 | 38.1 | 8 | AP..1604 | 3.23 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| AP..1604 | M4-10-5.7-60 | T15 | 3.0 |



•長度單位 Unit of Length (mm)



| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain carbide alloy | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | |
|-------------|----------------------|-----------------------------------|---------|--------|--------|-------|--------------------------------------|--------|--------|--------|-----------------|-------|------|------|---------------|--|
| | | CHF | | | | | HF | | | | Size | | | | | |
| | | OM4025 | OM4025N | RM3130 | RM4130 | RM535 | GH05 | OM5005 | OM5060 | RM5005 | d | i | s | r | | |
| | | | | | | | | | | | | | | | | |
| | ★ APEX1604PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | |
| | ★ APEX160400PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | |
| | ★ APEX160404PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | 0.4 | |
| | ★ APEX160408PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | 0.8 | |
| | APEX1604PDFR-701 | | | | | | | ● | | | | 9.525 | 16.4 | 4.76 | 0.2 | |
| | APGT1604PDFR-G2 | | | | | | | | | ● | | 9.525 | 16.5 | 4.76 | 0.8 | |
| | APGT160408PDFR-F02 | | | | | | | | | ● | | 9.525 | 16.4 | 4.76 | 0.8 | |
| | APKT1604PDER-M05 | | | | | | | | ● | | | 9.525 | 16.4 | 4.76 | 0.4 | |
| | APKT160408PDER-M02 | | | ● | ● | | | | | | | 9.525 | 16.4 | 4.76 | 0.8 | |
| | ★ APKT160408-M01 | ● | ● | | | | | | | | | 9.525 | 16.6 | 4.76 | 0.8 | |

★ 推薦 Recommended

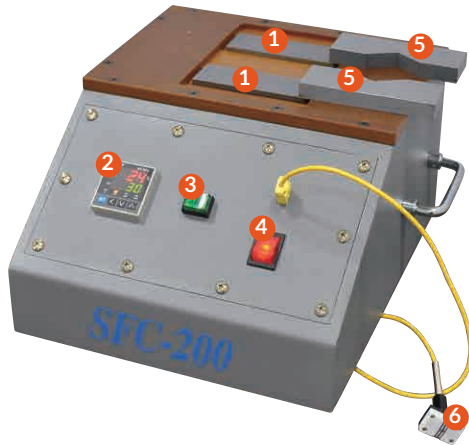
AP_16 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|------------------------------|---------------|-------------------|--------------------|--------------|
| P 低合金鋼 Low-Alloy Steels | OM4025 | 120~300 | 0.15~0.40 | 3.0~8.0 |
| | OM4025N | 120~300 | 0.15~0.40 | 3.0~8.0 |
| | RM4130 | 60~300 | 0.10~0.25 | 3.0~8.0 |
| 合金鋼 Allied Steels | OM4025 | 80~180 | 0.15~0.35 | 3.0~8.0 |
| | RM4130 | 60~300 | 0.10~0.25 | 3.0~8.0 |
| M 不鏽鋼 Stainless Steels | OM4025 | 120~160 | 0.15~0.35 | 3.0~8.0 |
| | RM4130 | 120~160 | 0.10~0.25 | 3.0~8.0 |
| K 鑄鐵 Cast Iron | OM4025 | 160~250 | 0.15~0.30 | 3.0~8.0 |
| | RM3130 | 160~250 | 0.15~0.30 | 3.0~8.0 |
| N 鋁合金 Aluminum&Al | OM5005 | 400~1000 | 0.04~0.20 | 3.0~8.0 |
| | OM5060 | 400~1000 | 0.04~0.20 | 3.0~8.0 |
| | RM5005 | 400~1000 | 0.04~0.20 | 3.0~8.0 |
| | GH05 | 300~800 | 0.04~0.20 | 3.0~8.0 |
| S 高溫合金 Refractory Alloys | RM535 | 20~40 | 0.10~0.20 | 1.0~3.0 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

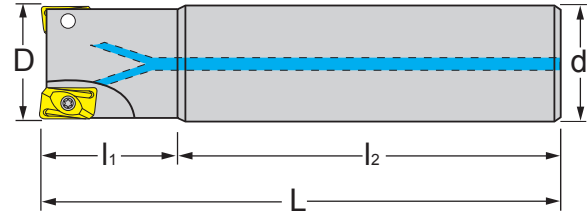
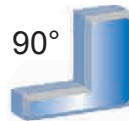
床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

• 長度單位 Unit of Length (mm)



- ① 正負兩極面 Positive and negative poles face
- ② 微電腦溫度控制器 Microcomputer Temperature Controller
- ③ 啟動加熱 Start heating
- ④ 啟動電源 Turn on the power
- ⑤ V 型枕 V block
- ⑥ 測溫棒 Temperature Stick

| | |
|-----------------------------|--|
| 規格 Spec. | SFC-200 |
| 電源 Voltage | 220V(單相)220V(Single-phase) |
| 輸出電源 Out put | 15A |
| 機體尺寸 Uni dimension (mm) | 350(L)x190(W)x400(H) |
| 重量 Weight (KGS) | 32 |
| 冷卻方式 Cooling system | 氣冷 Gas-cooled |
| 建議使用範圍 Range | Ø50~Ø160mm 面銑刀 Ø50~Ø160mm Face milling cutter |
| 加熱時間 Heating time | 加熱面銑刀到 150°C ~160°C約 4~6 分鐘 (依平面銑刀大小及形狀而定) 。 Heating face milling cutter to 150°C ~ 160°C for 4 ~ 6 minutes. (Depending on the size and shape of face milling cutters may be.) |
| 使用刀具種類 Cutting tool type | 須使用特製捨棄式刀具 Required special type of supplemental cutting tool. |
| 刀具材質 Tool Material | 特殊合金鋼 Special alloy steel |
| 功能 Function | 利用加熱原理將平面銑刀內孔膨脹後，並可緊密配合平面銑刀桿。 Using the principle of heating to expand the inner hole to match tightly with the face milling shank. |



| 規格 Spec. | D -0.1 | d | L | l ₁ | l ₂ | 刃數 Flutes | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------------------|-----------|----|-----|----------------|----------------|--------------|--------------|------------------------|--------------|------------------------|-----------------------|
| M104AP1190-1012-100-1T-C | 10 | 12 | 100 | 25 | 75 | 1 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.10 |
| M104AP1190-1212-100-1T-C | 12 | 12 | 100 | 30 | 70 | 1 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.10 |
| M104AP1190-1516-200-2T-C | 15 | 16 | 200 | 30 | 170 | 2 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | - |
| M104AP1190-1616-120-2T-C | 16 | 16 | 120 | 30 | 90 | 2 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.17 |
| M104AP1190-1616-160-2T-C | 16 | 16 | 160 | 30 | 130 | 2 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.31 |
| M104AP1190-1716-150-2T-C | 17 | 16 | 150 | 30 | 120 | 2 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.24 |
| M104AP1190-1820-100-2T-C | 18 | 20 | 100 | 28 | 72 | 2 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | - |
| M104AP1190-1920-200-2T-C | 19 | 20 | 200 | 35 | 165 | 2 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.34 |
| M104AP1190-2020-120-2T-C | 20 | 20 | 120 | 35 | 85 | 2 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.28 |
| M104AP1190-2020-150-2T-C | 20 | 20 | 150 | 35 | 115 | 2 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.38 |
| M104AP1190-2020-150-3T-C | 20 | 20 | 150 | 35 | 115 | 3 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.34 |
| M104AP1190-2020-200-3T-C | 20 | 20 | 200 | 35 | 165 | 3 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.46 |
| M104AP1190-2120-150-3T-C | 21 | 20 | 150 | 35 | 115 | 3 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | - |
| M104AP1190-2220-150-3T-C | 22 | 20 | 150 | 35 | 115 | 3 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.34 |
| M104AP1190-2320-150-3T-C | 23 | 20 | 150 | 35 | 115 | 3 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.50 |
| M104AP1190-2525-150-3T-C | 25 | 25 | 150 | 35 | 115 | 3 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | - |
| M104AP1190-2525-150-4T-C | 25 | 25 | 150 | 35 | 115 | 4 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | - |
| M104AP1190-2625-150-4T-C | 26 | 25 | 150 | 35 | 115 | 4 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.54 |
| M104AP1190-3032-150-4T-C | 30 | 32 | 150 | 45 | 115 | 4 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | - |
| M104AP1190-3132-150-4T-C | 31 | 32 | 150 | 45 | 115 | 4 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.87 |
| M104AP1190-3232-150-5T-C | 32 | 32 | 150 | 45 | 115 | 5 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.86 |
| M104AP1190-3332-150-5T-C | 33 | 32 | 150 | 45 | 115 | 5 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.87 |
| M104AP1190-3532-150-5T-C | 35 | 32 | 150 | 45 | 115 | 5 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 0.94 |
| M104AP1190-4032-150-6T-C | 40 | 32 | 150 | 45 | 115 | 6 | AP.1135 | M2.5-5.5-3.3-60-T8-TIN | T8 | 1.2 | 1.04 |
| M104AP1690-2525-150-2T-C | 25 | 25 | 150 | 40 | 110 | 2 | AP.1604 | M4-10-5.4-60-T15-TIN | T15 | 3.0 | 0.54 |
| M104AP1690-2525-220-2T-C | 25 | 25 | 220 | 40 | 180 | 2 | AP.1604 | M4-10-5.4-60-T15-TIN | T15 | 3.0 | 0.80 |
| M104AP1690-2525-300-2T-C | 25 | 25 | 300 | 40 | 260 | 2 | AP.1604 | M4-10-5.4-60-T15-TIN | T15 | 3.0 | 1.11 |
| M104AP1690-2625-150-2T-C | 26 | 25 | 150 | 40 | 110 | 2 | AP.1604 | M4-10-5.4-60-T15-TIN | T15 | 3.0 | 0.55 |
| M104AP1690-3232-150-3T-C | 32 | 32 | 150 | 45 | 105 | 3 | AP.1604 | M4-10-5.4-60-T15-TIN | T15 | 3.0 | 0.84 |
| M104AP1690-3232-250-3T-C | 32 | 32 | 250 | 45 | 205 | 3 | AP.1604 | M4-10-5.4-60-T15-TIN | T15 | 3.0 | 1.54 |
| M104AP1690-3232-300-3T-C | 32 | 32 | 300 | 45 | 255 | 3 | AP.1604 | M4-10-5.4-60-T15-TIN | T15 | 3.0 | 1.75 |
| M104AP1690-3332-150-3T-C | 33 | 32 | 150 | 45 | 105 | 3 | AP.1604 | M4-10-5.4-60-T15-TIN | T15 | 3.0 | 0.84 |
| M104AP1690-3532-300-3T-C | 35 | 32 | 300 | 45 | 255 | 3 | AP.1604 | M4-10-5.4-60-T15-TIN | T15 | 3.0 | 1.82 |

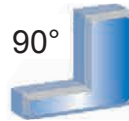
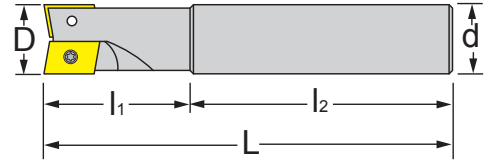
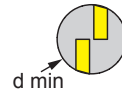
•長度單位 Unit of Length (mm)

ASSM 直角高速銑刀

ASSM INDEXABLE SQUARE SHOULDER END MILL

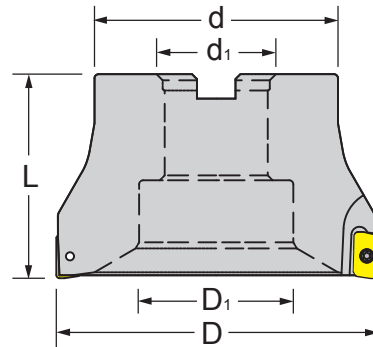


KOVIT



| 規格 Spec. | L | l ₁ | l ₂ | D | d | 刃數 Flutes | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|----|----|--------------|--------------|-----------------|--------------|------------------------|-----------------------|
| ASSM-1012-100L | 100 | 23 | 75 | 10 | 12 | 1 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.09 |
| ASSM-1212-100L | 100 | 30 | 70 | 12 | 12 | 1 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.10 |
| ASSM-1615-150L | 150 | 30 | 120 | 16 | 15 | 2 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.21 |
| ASSM-1615-200L | 200 | 30 | 170 | 16 | 15 | 2 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.28 |
| ASSM-1616-120L | 120 | 30 | 90 | 16 | 16 | 2 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.19 |
| ASSM-1616-160L | 160 | 30 | 130 | 16 | 16 | 2 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.25 |
| ASSM-1716-150L | 150 | 30 | 120 | 17 | 16 | 2 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.26 |
| ASSM-2019-150L | 150 | 35 | 115 | 20 | 19 | 2 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.34 |
| ASSM-2019-200L | 200 | 35 | 165 | 20 | 19 | 2 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.36 |
| ASSM-2020-120L | 120 | 35 | 85 | 20 | 20 | 2 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.30 |
| ASSM-2020-150L | 150 | 35 | 115 | 20 | 20 | 2 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.38 |
| ASSM-2020-200L | 200 | 35 | 165 | 20 | 20 | 2 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.50 |
| ASSM-2120-150L | 150 | 35 | 115 | 21 | 20 | 2 | AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.38 |
| ASSM-2525-150L | 150 | 40 | 110 | 25 | 25 | 2 | AP.1604 | M4-8.0-5.7-60 | T15 | 3.0 | 0.55 |
| ASSM-2525-220L | 220 | 40 | 180 | 25 | 25 | 2 | AP.1604 | M4-8.0-5.7-60 | T15 | 3.0 | 0.83 |
| ASSM-2525-300L | 300 | 40 | 260 | 25 | 25 | 2 | AP.1604 | M4-8.0-5.7-60 | T15 | 3.0 | 1.13 |
| ASSM-2625-150L | 150 | 40 | 110 | 26 | 25 | 2 | AP.1604 | M4-8.0-5.7-60 | T15 | 3.0 | 0.58 |
| ASSM-3232-150L | 150 | 45 | 105 | 32 | 32 | 2 | AP.1604 | M4-10-5.7-60 | T15 | 3.0 | 0.90 |
| ASSM-3232-250L | 250 | 45 | 205 | 32 | 32 | 3 | AP.1604 | M4-10-5.7-60 | T15 | 3.0 | 1.53 |
| ASSM-3232-300L | 300 | 45 | 255 | 32 | 32 | 3 | AP.1604 | M4-10-5.7-60 | T15 | 3.0 | 1.84 |
| ASSM-3332-150L | 150 | 45 | 105 | 33 | 32 | 2 | AP.1604 | M4-10-5.7-60 | T15 | 3.0 | 0.92 |
| ASSM-3532-200L | 200 | 45 | 155 | 35 | 32 | 3 | AP.1604 | M4-10-5.7-60 | T15 | 3.0 | 1.24 |
| ASSM-3532-250L | 250 | 45 | 205 | 35 | 32 | 3 | AP.1604 | M4-10-5.7-60 | T15 | 3.0 | 1.58 |
| ASSM-3532-300L | 300 | 45 | 255 | 35 | 32 | 3 | AP.1604 | M4-10-5.7-60 | T15 | 3.0 | 1.87 |

•長度單位 Unit of Length (mm)



| 規格 Spec. | L | D | D ₁ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|----------------------|----|-----|----------------|----|----------------|--------------|--------------|-----------------------|
| BAP-500-FMB22-11 | 40 | 50 | 18 | 40 | 22 | 7 | AP.1135 | 0.40 |
| BAP-630-FMB22-11 | 40 | 63 | 18 | 50 | 22 | 8 | AP.1135 | 0.66 |
| BAP-630-FMA25.4-11 | 40 | 63 | 19 | 50 | 25.4 | 8 | AP.1135 | 0.80 |
| BAP-800-FMB27-11 | 50 | 80 | 43 | 60 | 27 | 9 | AP.1135 | 1.20 |
| BAP-800-FMA31.75-11 | 50 | 80 | 43 | 60 | 31.75 | 9 | AP.1135 | 1.20 |
| BAP-1000-FMB32-11 | 50 | 100 | 43 | 78 | 32 | 11 | AP.1135 | 2.08 |
| BAP-1000-FMA31.75-11 | 50 | 100 | 43 | 78 | 31.75 | 11 | AP.1135 | 2.09 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|-----------------|------------------|------------------------|
| AP.1135 | M2.5-6.0-3.5-60 | T8 | 1.2 |



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | |
|----------|------------------------|--------------------------------|--------|---|--|--|--|--|--|--|--|---------|---|-------|------|------------|---|--|
| | M | 不鏽鋼 Stainless Steels | ○ | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | ○ | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | | | | | | 尺寸 (mm) | | | | 圖形 Drawing | | |
| | | CHF | | | | | | | | | | Size | | | | | | |
| | | RM4130 | RM4110 | | | | | | | | | d | i | s | r | | | |
| | APMT113508PDER-M04 | ● | ● | | | | | | | | | | | 6.35 | 11 | 3.5 | 0.8 | |
| | APMT1135PDER-M04 | ● | | | | | | | | | | | | 6.35 | 11 | 3.5 | 0.4 | |
| | APMT1604PDER-M04 | ● | ● | | | | | | | | | | | 9.525 | 16.5 | 4.76 | 0.8 | |

AP_11.16 切削條件數據表 Cutting Parameter

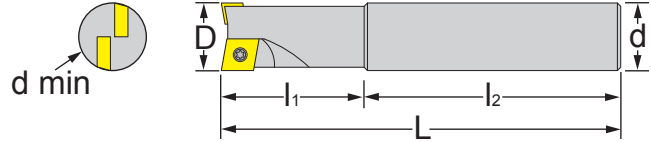
| 被加工材質 machining Material | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|--------------------------|-----------------------|------------|----------------|-----------------|
| P | 低合金鋼 Low-Alloy Steels | RM4130 | 80~370 | 0.08~0.35 |
| | 合金鋼 Alloyed Steels | RM4130 | 60~250 | 0.10~0.25 |
| | | RM4110 | 100~160 | 0.07~0.15 |
| M | 不鏽鋼 Stainless Steels | RM4130 | 110~180 | 0.10~0.25 |
| H | 高硬度材質 Hard Material | RM4110 | 100~150 | 0.05~0.15 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)

Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速

Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | l ₂ | D | d | 刃數 Flutes | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|----|----|--------------|----------------------|--------------------------------------|--------------|------------------------|-----------------------|
| C10-DDM10-130L | 130 | 30 | 100 | 10 | 10 | 1 | CC..0602 | M2.5-5.5-3.35-60 | T8 | 1.2 | 0.09 |
| C12-DDM12-120L | 120 | 30 | 90 | 12 | 12 | 1 | CP..0802 | M2.5-5.5-3.35-60 | T8 | 1.2 | 0.11 |
| C12-DDM12-150L | 150 | 40 | 110 | 12 | 12 | 1 | CP..0802 | M2.5-5.5-3.35-60 | T8 | 1.2 | 0.14 |
| C16-DDM16-120L | 120 | 30 | 90 | 16 | 16 | 2 | CC..0602 CP..0802 | M2.5-5.5-3.35-60 M2.5-6.45-3.7-43 | T8 | 1.2 | 0.19 |
| C16-DDM16-175L | 175 | 40 | 135 | 16 | 16 | 2 | | | T8 | 1.2 | 0.27 |
| C20-DDM20-120L | 120 | 30 | 90 | 20 | 20 | 2 | CC..0602 CP..0902 | M2.5-5.5-3.35-60 M3.5-6.0-5.0-60 | T8 | 1.2 3.0 | 0.31 |
| C20-DDM20-185L | 185 | 50 | 135 | 20 | 20 | 2 | | | T15 | | 0.46 |
| C25-DDM25-150L | 150 | 40 | 110 | 25 | 25 | 2 | CP..0903 CP..1203 | M4-8.75-5.6-60 | T15 | 3.0 | 0.55 |
| C25-DDM25-220L | 220 | 70 | 150 | 25 | 25 | 2 | | | T15 | 3.0 | 0.82 |
| C25-DDM25-300L | 300 | 170 | 130 | 25 | 25 | 2 | | | T15 | 3.0 | 1.14 |
| C32-DDM25-300L | 300 | 170 | 130 | 25 | 32 | 2 | | | T15 | 3.0 | 1.58 |
| C32-DDM32-150L | 150 | 40 | 110 | 32 | 32 | 2 | CP..1204 CP..1604 | M5-11-7.5-60 | T20 | 5.0 | 0.86 |
| C32-DDM32-250L | 250 | 80 | 170 | 32 | 32 | 2 | | | T20 | 5.0 | 1.50 |
| C32-DDM32-300L | 300 | 80 | 220 | 32 | 32 | 2 | | | T20 | 5.0 | 1.85 |
| C32-DDM32-350L | 350 | 80 | 270 | 32 | 32 | 2 | | | T20 | 5.0 | 2.18 |
| C32-DDM40-170L | 170 | 50 | 120 | 40 | 32 | 2 | CP..1604 CP..1904 | M5-11-7.5-60 M6-12-8.4-60 | T20 T25 | 5.0 7.5 | 1.09 |
| C32-DDM40-250L | 250 | 50 | 200 | 40 | 32 | 2 | | | | | 1.63 |

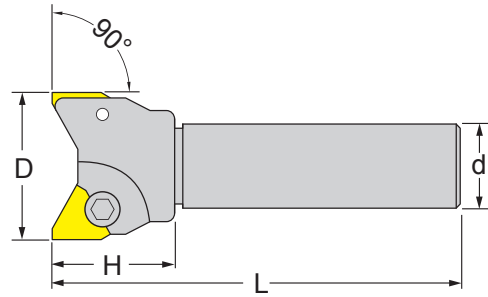
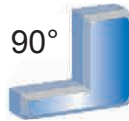
•長度單位 Unit of Length (mm)

SKE 90°捨棄式直角銑刀

SKE 90° INDEXABLE SQUARE SHOULDER MILLING CUTTER



KOVIT



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | d | H | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-------------|-----|----|----|----|--------------|--------------|-----------------------|
| SKE-2020 | 90 | 20 | 20 | 30 | 2 | TP..1102 | 0.21 |
| SKE-2025 | 100 | 25 | 20 | 30 | 2 | TP..1102 | 0.26 |
| SKE-2030 | 100 | 30 | 20 | 30 | 2 | TP..1603 | 0.27 |
| SKE-2035 | 100 | 35 | 20 | 40 | 2 | TP..1603 | 0.32 |
| SKE-2535 | 105 | 35 | 25 | 40 | 2 | TP..1603 | 0.43 |
| SKE-3235 | 110 | 35 | 32 | 40 | 2 | TP..1603 | 0.64 |
| SKE-2040 | 110 | 40 | 20 | 40 | 3 | TP..1603 | 0.39 |
| SKE-2540 | 110 | 40 | 25 | 40 | 3 | TP..1603 | 0.48 |
| SKE-3240 | 115 | 40 | 32 | 40 | 3 | TP..1603 | 0.70 |
| SKE-2045 | 105 | 45 | 20 | 40 | 3 | TP..1603 | 0.48 |
| SKE-2050 | 105 | 50 | 20 | 40 | 3 | TP..1603 | 0.52 |
| SKE-2550 | 110 | 50 | 25 | 40 | 3 | TP..1603 | 0.63 |
| SKE-3250 | 115 | 50 | 32 | 40 | 3 | TP..1603 | 0.84 |
| SKE-3263 | 125 | 63 | 32 | 45 | 3 | TP..2204 | 1.20 |

配件表 Accessories

| 刀片 Insert | 螺絲  Screw | 扳手  Wrench | 扭力值 (N.m) Torque |
|--------------|--|--|------------------------|
| TP..1102 | M5-0.8P | T15 | 3.0 |
| TP..1103 | M5-0.8P | T15 | 3.0 |
| TP..1603 | M6-0.75P | PL4 | 5.0 |
| TP..2204 | M8-1.0P | PL5 | 6.0 |

•長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|-------------|------------------------|-------|-------|---|--|--|--|--|--|--|--|---------|-------|---|------|------------|---|---|
| | M | 不鏽鋼 Stainless Steels | | | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | ○ | | | | | | | | | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | |
| | S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | |
| | H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 硬質合金 Carbide alloy | | | | | | | | | | | 尺寸 (mm) | | | | 圖形 Drawing | | |
| | | HW | | | | | | | | | | | Size | | | | | | |
| | | TSP20 | TSP25 | TSK10 | | | | | | | | | | d | i | s | | r | |
| | TPKN1603PDR | | ● | ● | | | | | | | | | | 9.525 | - | 3.18 | - | | |
| | TPKN2204PDR | ● | | ● | | | | | | | | | | 12.7 | - | 4.76 | - | | |
| | TPMN160308 | | ● | ● | | | | | | | | | | 9.525 | - | 3.18 | 0.8 | | |
| | TPMN220412 | ● | | ● | | | | | | | | | | 12.7 | - | 4.76 | 1.2 | | |

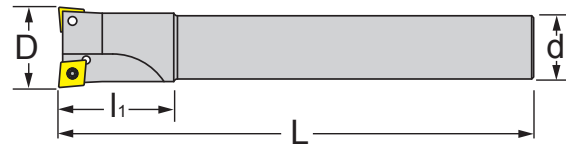
TP_16.22 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|---------------------------|-----------------------|------------|----------------|-----------------|
| P | 低合金鋼 Low-Alloy Steels | TSP20 | 125~200 | 0.1~0.3 |
| | | TSP25 | 125~200 | 0.1~0.3 |
| P | 合金鋼 Alloyed Steels | TSP20 | 50~100 | 0.1~0.2 |
| | | TSP25 | 50~100 | 0.1~0.2 |
| K | 鑄鐵 Cast Iron | TSK10 | 80~120 | 0.1~0.3 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)
 Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速
 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | D | d | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight | |
|---------------|-----|----------------|------|----|-----------|---|---|------|
| ATB-1216-120L | 120 | 30 | 11.7 | 16 | 1 | CC..060202(D+0.1) CC..060204(D) CC..060208(D-0.2) | 0.18 | |
| ATB-1316-120L | 120 | 30 | 12.7 | 16 | 1 | | 0.18 | |
| ATB-1416-120L | 120 | 30 | 13.7 | 16 | 1 | | 0.18 | |
| ATB-1516-120L | 120 | 30 | 14.7 | 16 | 1 | | 0.18 | |
| ATB-1616-120L | 120 | 30 | 15.7 | 16 | 2 | | 0.18 | |
| ATB-1716-120L | 120 | 30 | 16.7 | 16 | 2 | | 0.18 | |
| ATB-1816-120L | 120 | 30 | 17.7 | 16 | 2 | | 0.19 | |
| ATB-1916-120L | 120 | 30 | 18.7 | 16 | 2 | | 0.19 | |
| ATB-2016-120L | 120 | 30 | 19.7 | 16 | 2 | | 0.19 | |
| ATB-2216-120L | 120 | 30 | 21.7 | 16 | 2 | | 0.19 | |
| ATB-2420-130L | 130 | 30 | 23.7 | 20 | 2 | | 0.32 | |
| ATB-2520-130L | 130 | 30 | 24.7 | 20 | 2 | | 0.34 | |
| ATB-2620-130L | 130 | 30 | 25.7 | 20 | 2 | | CC..09T302(D+0.1) CC..09T304(D) CC..09T308(D-0.2) | 0.33 |
| ATB-2720-130L | 130 | 30 | 26.7 | 20 | 2 | | | 0.34 |
| ATB-2820-130L | 130 | 30 | 27.7 | 20 | 2 | | | 0.35 |
| ATB-3025-160L | 160 | 40 | 29.7 | 25 | 2 | 0.62 | | |
| ATB-3525-160L | 160 | 40 | 34.7 | 25 | 2 | 0.65 | | |
| ATB-4025-160L | 160 | 40 | 39.7 | 25 | 2 | 0.69 | | |
| ATB-4232-200L | 200 | 45 | 41.7 | 32 | 2 | 1.29 | | |
| ATB-4532-200L | 200 | 45 | 44.7 | 32 | 2 | 1.28 | | |
| ATB-4832-200L | 200 | 45 | 47.7 | 32 | 2 | 1.33 | | |
| ATB-5032-200L | 200 | 45 | 49.7 | 32 | 2 | 1.35 | | |
| ATB-5532-200L | 200 | 45 | 54.7 | 32 | 2 | 1.50 | | |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-------------------|------------------|-----------|------------------|
| CC..060202(D+0.1) | M2.5-6.45-3.7-43 | T8 | 1.2 |
| CC..060204(D) | M2.5-6.45-3.7-43 | T8 | 1.2 |
| CC..060208(D-0.2) | M2.5-6.45-3.7-43 | T8 | 1.2 |
| CC..09T302(D+0.1) | M4-10-5.7-60 | T15 | 3.0 |
| CC..09T304(D) | M4-10-5.7-60 | T15 | 3.0 |
| CC..09T308(D-0.2) | M4-10-5.7-60 | T15 | 3.0 |

D 尺寸會隨著刀片 R 角改變，尺寸跟著改變 D varies with R angle on insert.

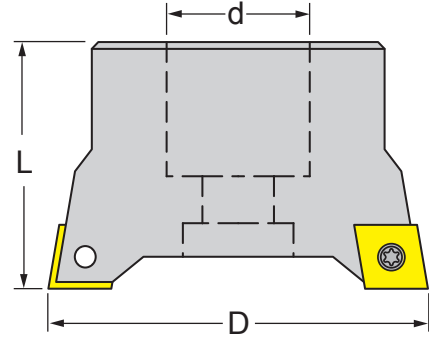
< 例 > ATB-2016-120L

D=19.7

使用刀片為 CC..060202 時 · D=19.8
04 時 · D=19.7
08 時 · D=19.5

(Example) If using inserts with corner radius 02, D=19.8
04, D=19.8
08, D=19.5

• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | D | d | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-----------------|----|-------|-------|-----------|-----------|-----------------|
| ATB45-FMB22 | 50 | 44.8 | 22 | 2 | CC..09T3 | 0.55 |
| ATB50-FMB22 | 50 | 49.8 | 22 | 2 | CC..09T3 | 0.59 |
| ATB55-FMB22 | 50 | 54.8 | 22 | 2 | CC..09T3 | - |
| ATB60-FMB22 | 50 | 59.8 | 22 | 2 | CC..09T3 | 0.63 |
| ATB60-FMA25.4 | 50 | 59.8 | 25.4 | 2 | CC..09T3 | 0.63 |
| ATB65-FMA25.4 | 50 | 64.8 | 25.4 | 2 | CC..09T3 | 0.69 |
| ATB70-FMA25.4 | 50 | 69.8 | 25.4 | 2 | CC..09T3 | 0.75 |
| ATB75-FMA25.4 | 50 | 74.8 | 25.4 | 2 | CC..09T3 | - |
| ATB80-FMA25.4 | 50 | 79.8 | 25.4 | 2 | CC..09T3 | 0.80 |
| ATB85-FMA25.4 | 50 | 84.8 | 25.4 | 2 | CC..09T3 | 0.85 |
| ATB90-FMA25.4 | 50 | 89.8 | 25.4 | 2 | CC..09T3 | 1.00 |
| ATB95-FMA25.4 | 50 | 94.8 | 25.4 | 2 | CC..09T3 | 1.15 |
| ATB100-FMA25.4 | 50 | 99.8 | 25.4 | 2 | CC..09T3 | 1.30 |
| ATB105-FMA31.75 | 50 | 104.8 | 31.75 | 2 | CC..09T3 | 1.30 |
| ATB110-FMA31.75 | 50 | 109.8 | 31.75 | 2 | CC..09T3 | 1.40 |
| ATB115-FMA31.75 | 50 | 114.8 | 31.75 | 2 | CC..09T3 | 1.50 |
| ATB120-FMA31.75 | 50 | 119.8 | 31.75 | 2 | CC..09T3 | 1.62 |
| ATB125-FMA31.75 | 50 | 124.8 | 31.75 | 2 | CC..09T3 | 1.73 |
| ATB130-FMA31.75 | 50 | 129.8 | 31.75 | 2 | CC..09T3 | 1.85 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| CC..09T3 | M4-10-5-7-60 | T15 | 3.0 |

D 尺寸會隨著刀片 R 角改變 · 尺寸跟著改變 D varies with R angle on insert.

< 例 > ATB-60-FMB22

D=59.7

使用刀片為 CC..09T302 時 · D=59.7

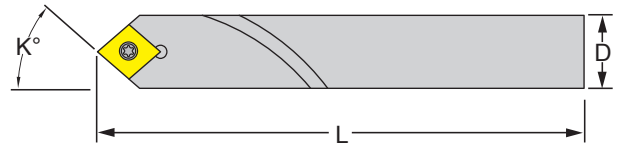
04 時 · D=59.6

08 時 · D=59.4

(Example) If using inserts with corner radius 02, D=59.7

04, D=59.6

08, D=59.4



| | 規格 Spec. | L | D | K° | 刀片 Insert | 重量 (KGS) Weight |
|--|-------------|-----|----|-----|--------------|-----------------------|
| | CBS-308 | 55 | 8 | 30° | CC..0602 | 0.04 |
| | CBS-310 | 65 | 10 | 30° | CC..0602 | 0.06 |
| | CBS-313 | 80 | 13 | 30° | CC..09T3 | 0.12 |
| | CBS-316 | 120 | 16 | 30° | CC..09T3 | 0.25 |
| | CBS-319 | 140 | 19 | 30° | CC..1204 | 0.41 |
| | CBS-408 | 55 | 8 | 45° | CC..0602 | 0.04 |
| | CBS-410 | 65 | 10 | 45° | CC..0602 | 0.06 |
| | CBS-413 | 80 | 13 | 45° | CC..09T3 | 0.12 |
| | CBS-416 | 120 | 16 | 45° | CC..09T3 | 0.26 |
| | CBS-419 | 140 | 19 | 45° | CC..1204 | 0.40 |
| | CBS-908 | 55 | 8 | 90° | CC..0602 | 0.04 |
| | CBS-910 | 65 | 10 | 90° | CC..0602 | 0.06 |
| | CBS-913 | 80 | 13 | 90° | CC..09T3 | 0.12 |
| | CBS-916 | 120 | 16 | 90° | CC..09T3 | 0.27 |
| | CBS-919 | 140 | 19 | 90° | CC..1204 | 0.41 |

左旋

Counter clockwise



| | 規格 Spec. | L | D | K° | 刀片 Insert | 重量 (KGS) Weight |
|--|-------------|-----|----|-----|--------------|-----------------------|
| | CBS-908L | 55 | 8 | 90° | CC..0602 | 0.04 |
| | CBS-910L | 65 | 10 | 90° | CC..0602 | 0.06 |
| | CBS-913L | 80 | 13 | 90° | CC..09T3 | 0.12 |
| | CBS-916L | 120 | 16 | 90° | CC..09T3 | 0.27 |
| | CBS-919L | 140 | 19 | 90° | CC..1204 | 0.42 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|-----------------|--------------|------------------------|
| CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| CC..09T3 | M4-10-5.7-60 | T15 | 3.0 |
| CC..1204 | M5-11-7.5-60 | T20 | 5.0 |

•長度單位 Unit of Length (mm)

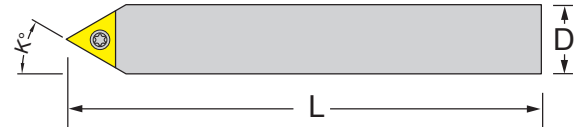


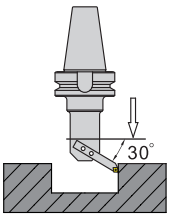
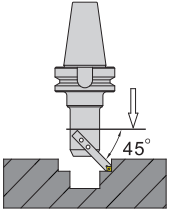
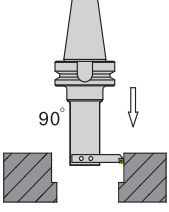
※ 不同刀片 R 角會改變尺寸 Different corner radius of inserts will change the size.

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | | | | ○ | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | |
|----------|------------------------|----------------------|---|--|--|--------------------|---|-----------------------------------|--|--|-------|--------------|------|---|---|------------|
| | M | 不鏽鋼 Stainless Steels | ○ | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | ■ | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | ○ | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層硬質合金 Carbide alloy | | | | 瓷金鍍層 Cermet coated | | 超微粒硬質合金 Micro grain carbide alloy | | | | 尺寸 (mm) Size | | | | 圖形 Drawing |
| | | CVD | | | | | | HF | | | | | | | | |
| | | RM4035 | | | | RM1205 | | RM5005 | | | | d | i | s | r | |
| | CCGT060202-NK | | | | | | | ● | | | 6.35 | 6.5 | 2.38 | 0.2 | | |
| | CCGT060204-NK | | | | | | | ● | | | 6.35 | 6.5 | 2.38 | 0.4 | | |
| | CCGT060208-NK | | | | | | | ● | | | 6.35 | 6.5 | 2.38 | 0.8 | | |
| | CCGT09T304-NK | | | | | | | ● | | | 9.525 | 9.7 | 3.97 | 0.4 | | |
| | CCGT09T308-NK | | | | | | | ● | | | 9.525 | 9.7 | 3.97 | 0.8 | | |
| | CCGT120404-NK | | | | | | | ● | | | 12.7 | 12.9 | 4.76 | 0.4 | | |
| | CCGT120408-NK | | | | | | | ● | | | 12.7 | 12.9 | 4.76 | 0.8 | | |
| | NEW CCMT060204N-M01 | | | | | | | ● | | | 6.35 | 6.4 | 2.38 | 0.4 | | |
| | NEW CCMT09T304N-M01 | | | | | | | ● | | | 9.525 | 9.7 | 3.97 | 0.4 | | |
| | NEW CCMT09T308N-M01 | | | | | | | ● | | | 9.525 | 9.7 | 3.97 | 0.8 | | |
| | ★ NEW CCMT060202N-F01 | ● | | | | | | | | | 6.35 | 6.4 | 2.38 | 0.2 | | |
| | ★ NEW CCMT060204N-F01 | ● | | | | | | | | | 6.35 | 6.4 | 2.38 | 0.4 | | |
| | ★ NEW CCMT09T304N-F01 | ● | | | | | | | | | 9.525 | 9.7 | 3.97 | 0.4 | | |
| | ★ NEW CCMT09T308N-F01 | ● | | | | | | | | | 9.525 | 9.7 | 3.97 | 0.8 | | |
| | ★ NEW CCMT120404N-F01 | ● | | | | | | | | | 12.7 | 12.9 | 4.76 | 0.4 | | |
| | ★ NEW CCMT120408N-F01 | ● | | | | | | | | | 12.7 | 12.9 | 4.76 | 0.8 | | |

★ 推薦 Recommended NEW 新品 New Product

• 長度單位 Unit of Length (mm)

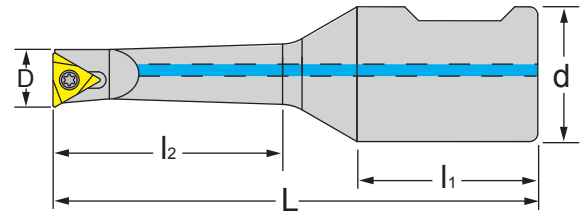


| | 規格 Spec. | L | D | 角度 Angle | 刀片 Insert | 重量 (KGS) Weight |
|---|-------------|-----|----|-------------|--------------|-----------------------|
|  | SBS-308 | 55 | 8 | 30° | TP.0902 | 0.04 |
| | SBS-310 | 65 | 10 | 30° | TP.0902 | 0.06 |
| | SBS-313 | 80 | 13 | 30° | TP.1103 | 0.11 |
| | SBS-316 | 120 | 16 | 30° | TP.1103 | 0.24 |
| | SBS-319 | 140 | 19 | 30° | TP.1603 | 0.40 |
| | SBS-325 | 150 | 25 | 30° | TP.1603 | 0.74 |
|  | SBS-408 | 55 | 8 | 45° | TP.0902 | 0.04 |
| | SBS-410 | 65 | 10 | 45° | TP.0902 | 0.06 |
| | SBS-413 | 80 | 13 | 45° | TP.1103 | 0.11 |
| | SBS-416 | 120 | 16 | 45° | TP.1103 | 0.26 |
| | SBS-419 | 140 | 19 | 45° | TP.1603 | 0.41 |
| | SBS-425 | 150 | 25 | 45° | TP.1603 | 0.72 |
|  | SBS-908 | 55 | 8 | 90° | TP.0902 | 0.04 |
| | SBS-910 | 65 | 10 | 90° | TP.0902 | 0.06 |
| | SBS-913 | 80 | 13 | 90° | TP.1103 | 0.11 |
| | SBS-916 | 120 | 16 | 90° | TP.1103 | 0.25 |
| | SBS-919 | 140 | 19 | 90° | TP.1603 | 0.42 |
| | SBS-925 | 150 | 25 | 90° | TP.1603 | 0.74 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|-----------------|--------------|------------------------|
| TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 |
| TP.1603 | M4-10-5.0-43 | T15 | 3.0 |

•長度單位 Unit of Length (mm)



特點 Feature

- 可使用於 HBOR 精搪孔頭上
- 附中心出水孔

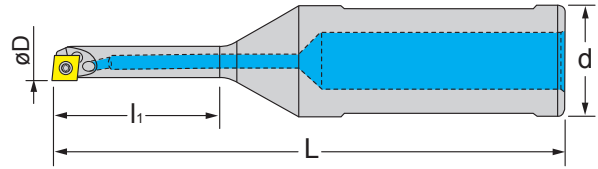
- Available to install in HBOR boring head.
- With through coolant hole.

| 規格 Spec. | ØD 搪孔範圍 Boring Range | | L | l ₁ | l ₂ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|-------------|----------------------|------|----|----------------|----------------|----|----|-----------|-----------------|
| | Min. | Max. | | | | | | | |
| BR1606-21-C | 6 | 9 | 56 | 22 | 21 | 6 | 16 | WB..0601 | 0.04 |
| BR1608-28-C | 8 | 11 | 58 | 22 | 28 | 8 | 16 | TB..0601 | 0.04 |
| BR1610-35-C | 10 | 13 | 64 | 22 | 35 | 10 | 16 | TB..0601 | 0.05 |
| BR1612-42-C | 12 | 15 | 69 | 22 | 42 | 12 | 16 | TP..0902 | 0.06 |
| BR1614-50-C | 14 | 17 | 76 | 22 | 50 | 14 | 16 | TP..0902 | 0.07 |
| BR1616-60-C | 16 | 20 | 87 | 22 | 60 | 16 | 16 | TP..0902 | 0.09 |
| BR1620-65-C | 20 | 24 | 90 | 22 | 65 | 20 | 16 | TP..1103 | 0.11 |
| BR1624-68-C | 24 | 28 | 93 | 22 | 68 | 24 | 16 | TP..1103 | 0.12 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-----------------|-----------|------------------|
| WB..0601 | M2-3.8-2.68-43 | T6 | 0.6 |
| TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 |
| TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 |

• 長度單位 Unit of Length (mm)





特點 Feature

- 可使用於 HBOR 及 SBJ16 精搪孔頭上
- 附中心出水孔

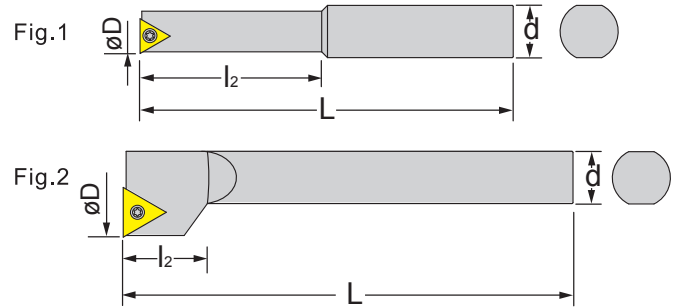
- Available to install in HBOR/SBJ boring head.
- With through coolant hole.

| 規格 Spec. | ØD 搪孔範圍 Boring Range | | L | l ₁ | d | 刀片 Insert | 重量 (KGS) Weight |
|---------------|----------------------|------|-----|----------------|----|--------------|-----------------------|
| | Min. | Max. | | | | | |
| CBJ-1606-24-C | 6 | 9 | 73 | 24 | 16 | CC..03S1 | 0.09 |
| CBJ-1608-32-C | 8 | 11 | 78 | 32 | 16 | CC..04T0 | 0.09 |
| CBJ-1610-40-C | 10 | 13 | 86 | 40 | 16 | CC..0602 | 0.10 |
| CBJ-1612-53-C | 12 | 17 | 99 | 53 | 16 | CC..0602 | 0.10 |
| CBJ-1616-68-C | 16 | 21 | 114 | 68 | 16 | CC..0602 | 0.15 |
| CBJ-1620-83-C | 20 | 26 | 122 | 83 | 16 | CC..09T3 | 0.19 |
| CBJ-1625-90-C | 25 | 32 | 129 | 90 | 16 | CC..09T3 | 0.20 |
| CBJ-1630-90-C | 30 | 40 | 129 | 90 | 16 | CC..09T3 | 0.28 |
| CBJ-1640-90-C | 40 | 50 | 129 | 90 | 16 | CC..09T3 | 0.40 |

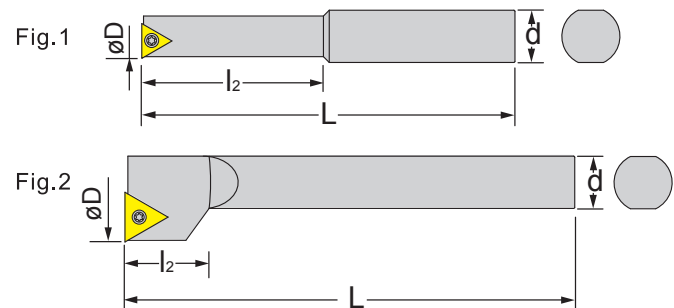
配件表 Accessories

| 刀片 Insert | 螺絲  Screw | 扳手  Wrench | 扭力值 (N.m) Torque |
|--------------|--|--|------------------------|
| CC..03S1 | M1.8-4.2-2.5-54 | T6 | 0.6 |
| CC..04T0 | M2.2-4.7-3.1-60 | T7 | 0.9 |
| CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| CC..09T3 | M4-8.0-5.7-60 | T9 | 1.4 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | øD 搪孔範圍 Boring Range | | D | d | L | l ₂ | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-------------|----------------------|------|----|----|----|----------------|-----------|-----------------|-----------|------------------|------|-----------------|
| | Min. | Max. | | | | | | | | | | |
| SBJ-1008-32 | 8 | 10 | 8 | 10 | 64 | 32 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.06 |
| SBJ-1010-40 | 10 | 12 | 10 | 10 | 77 | 40 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.06 |
| SBJ-1012-45 | 12 | 16 | 12 | 10 | 77 | 22 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.08 |
| SBJ-1016-45 | 16 | 20 | 16 | 10 | 77 | 20 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.08 |
| SBJ-1020-45 | 20 | 25 | 20 | 10 | 77 | 22.7 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.08 |



| 規格 Spec. | øD 搪孔範圍 Boring Range | | D | d | L | l ₂ | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-------------|----------------------|------|----|----|----|----------------|-----------|-----------------|-----------|------------------|------|-----------------|
| | Min. | Max. | | | | | | | | | | |
| SBJ-1208-32 | 8 | 10 | 8 | 12 | 64 | 32 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.08 |
| SBJ-1210-40 | 10 | 12 | 10 | 12 | 72 | 40 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.08 |
| SBJ-1212-45 | 12 | 16 | 12 | 12 | 77 | 45 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.08 |
| SBJ-1216-45 | 16 | 20 | 16 | 12 | 77 | 20 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.10 |
| SBJ-1220-45 | 20 | 25 | 20 | 12 | 77 | 23 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.08 |

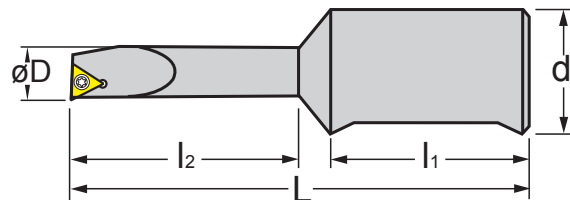
•長度單位 Unit of Length (mm)

SBJ-16 替換式搪孔刀柄

SBJ-16 INTERCHANGEABLE BORING CUTTER



KOVIT



| 規格 Spec. | ϕD 搪孔範圍 Boring Range | | D | d | L | l_1 | l_2 | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------|-------------------------------|------|----|----|-----|-------|-------|--------------|-----------------|--------------|------------------------|-----------------------|
| | Min. | Max. | | | | | | | | | | |
| SBJ-1606-24 | 6 | 9 | 6 | 16 | - | 32 | 24 | WB..0601 | M2-3.8-2.68-43 | T6 | 0.6 | 0.09 |
| SBJ-1608-32 | 8 | 11 | 8 | 16 | 74 | 32 | 32 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.09 |
| SBJ-1608-40 | 8 | 11 | 8 | 16 | 82 | 32 | 40 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.07 |
| SBJ-1610-40 | 10 | 13 | 10 | 16 | 75 | 32 | 40 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.09 |
| SBJ-1610-50 | 10 | 13 | 10 | 16 | 85 | 32 | 50 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.08 |
| SBJ-1612-53 | 12 | 17 | 12 | 16 | 85 | 32 | 53 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.10 |
| SBJ-1612-65 | 12 | 17 | 12 | 16 | 97 | 32 | 65 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.12 |
| SBJ-1616-68 | 16 | 21 | 16 | 16 | 100 | 32 | 68 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.15 |
| SBJ-1616-85 | 16 | 21 | 16 | 16 | 117 | 32 | 85 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.16 |
| SBJ-1620-83 | 20 | 26 | 20 | 16 | 115 | 32 | 83 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.23 |
| SBJ-1620-105 | 20 | 26 | 20 | 16 | 137 | 32 | 105 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.25 |
| SBJ-1625-90 | 25 | 32 | 25 | 16 | 122 | 32 | 90 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.25 |
| SBJ-1630-90 | 30 | 40 | 30 | 16 | 122 | 32 | 90 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.29 |
| SBJ-1640-90 | 40 | 50 | 40 | 16 | 122 | 32 | 90 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.30 |

SBJ-20 替換式搪孔刀柄

SBJ-20 INTERCHANGEABLE BORING CUTTER



KOVIT



Fig.1

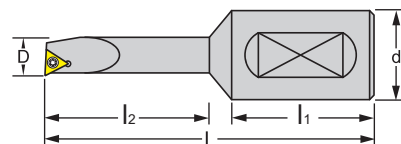
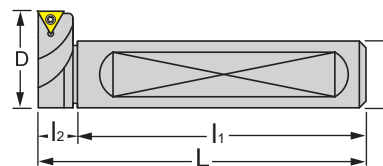


Fig.2



| 規格 Spec. | ϕD 搪孔範圍 Boring Range | | D | d | L | l_1 | l_2 | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|--------------|-------------------------------|------|----|----|-----|-------|-------|--------------|-----------------|--------------|------------------------|------|-----------------------|
| | Min. | Max. | | | | | | | | | | | |
| SBJ-2008-32 | 8 | 11 | 8 | 20 | 76 | 32 | 44 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.12 |
| SBJ-2010-40 | 10 | 13 | 10 | 20 | 76 | 32 | 44 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.10 |
| SBJ-2012-53 | 12 | 17 | 12 | 20 | 85 | 32 | 53 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.13 |
| SBJ-2016-68 | 16 | 21 | 16 | 20 | 100 | 32 | 68 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.18 |
| SBJ-2020-83 | 20 | 26 | 20 | 20 | 115 | 32 | 83 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 0.25 |
| SBJ-2025-96 | 25 | 32 | 25 | 20 | 135 | 32 | 96 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 0.30 |
| SBJ-2030-115 | 30 | 40 | 30 | 20 | 158 | 32 | 115 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 0.59 |
| SBJ-L20-20 | 120 | 280 | 28 | 20 | 97 | 83.5 | 13.5 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 2 | 0.28 |

•長度單位 Unit of Length (mm)



Fig.1



Fig.2



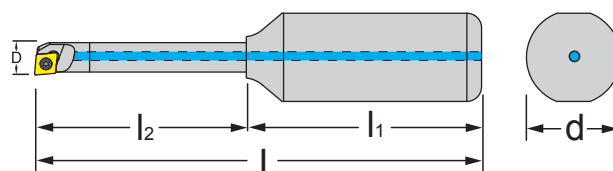
Fig.3



Fig.4

| 規格 Spec. | 內容物 Contents | | | | | | Fig. | 重量 (KGS) Weight |
|------------------|----------------|-------------------------------|-----------------|--------------|------------------------|-----------|------|-----------------------|
| | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | | |
| CSBJ16-C D×5-SET | CSBJ-1605-28-C | CCGT03S104L-F RM4015(10片) | M1.8-4.2-2.5-54 | T6K | 0.6 | 1 | 1 | 2.16 |
| | CSBJ-1606-30-C | | | | | | | |
| | CSBJ-1608-40-C | TBGT060104L RM4030(10片) | M2-5.0-2.7-60 | T8K | 1.2 | | | |
| | CSBJ-1610-50-C | | | | | | | |
| | CSBJ-1612-60-C | TPGT090204L RM4030(10片) | M2.5-6.0-3.5-60 | T9K | 1.4 | | | |
| | CSBJ-1614-70-C | | | | | | | |
| | CSBJ-1616-80-C | TPGT110304L RM4030(10片) | M3-8.0-4.0-43 | | | | | |
| CSBJ-1618-90-C | | | | | | | | |
| | 內容物 Contents | | | | | | | |
| 規格 Spec. | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | Fig. | 重量 (KGS) Weight |
| CSBJ16-C D×6-SET | CSBJ-1605-34-C | CCGT03S104L-F RM4015(10片) | M1.8-4.2-2.5-54 | T6K | 0.6 | 1 | 2 | 2.16 |
| | CSBJ-1606-36-C | | | | | | | |
| | CSBJ-1608-48-C | TBGT060104L RM4030(10片) | M2-5.0-2.7-60 | T8K | 1.2 | | | |
| | CSBJ-1610-60-C | | | | | | | |
| | CSBJ-1612-72-C | TPGT090204L RM4030(10片) | M2.5-6.0-3.5-60 | T9K | 1.4 | | | |
| | CSBJ-1614-84-C | | | | | | | |
| | CSBJ-1616-96-C | TPGT110304L RM4030(10片) | M3-8.0-4.0-43 | | | | | |
| CSBJ-1618-108-C | | | | | | | | |
| | 內容物 Contents | | | | | | | |
| 規格 Spec. | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | Fig. | 重量 (KGS) Weight |
| CCBJ16-C D×5-SET | CSBJ-1605-28-C | CCGT03S104L-F RM4015(10片) | M1.8-4.2-2.5-54 | T6K | 0.6 | 1 | 3 | 2.16 |
| | CSBJ-1606-30-C | | | | | | | |
| | CCBJ-1608-40-C | | | | | | | |
| | CCBJ-1610-50-C | CCMT060204-M01 RM4035(10片) | M2.5-6.0-3.5-60 | T8K | 1.2 | | | |
| | CCBJ-1612-60-C | | | | | | | |
| | CCBJ-1614-70-C | CCMT09T304-M01 RM4035(10片) | M4-8.0-5.7-60 | T15K | 3.0 | | | |
| | CCBJ-1616-80-C | | | | | | | |
| CCBJ-1618-90-C | | | | | | | | |
| | 內容物 Contents | | | | | | | |
| 規格 Spec. | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | Fig. | 重量 (KGS) Weight |
| CCBJ16-C D×6-SET | CSBJ-1605-34-C | CCGT03S104L-F RM4015(10片) | M1.8-4.2-2.5-54 | T6K | 0.6 | 1 | 4 | 3.2 |
| | CSBJ-1606-36-C | | | | | | | |
| | CCBJ-1608-48-C | | | | | | | |
| | CCBJ-1610-60-C | CCMT060204-M01 RM4035(10片) | M2.5-6.0-3.5-60 | T8K | 1.2 | | | |
| | CCBJ-1612-72-C | | | | | | | |
| | CCBJ-1614-84-C | CCMT09T304-M01 RM4035(10片) | M4-8.0-5.7-60 | T15K | 3.0 | | | |
| | CCBJ-1616-96-C | | | | | | | |
| CCBJ-1618-108-C | | | | | | | | |

•長度單位 Unit of Length (mm)



特點 Feature

- 使用碳化鎢鋼材質，加工深度可達直徑的數倍
- 高剛性，延長使用刀片壽命
- 抗震性佳，加工後搪孔尺寸穩定

- Tungsten carbide material applied. Working depth could be up to times of cutter diameter.
- High rigidity, extended life.
- Excellent vibration resistance, machining maintain accurate boring size.

D×5

| 規格 Spec. | L | l ₁ | l ₂ | D | d | 搪孔範圍 Boring Range | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|-----|----|-------------------|-----------|-----------------|
| CSBJ-1605-28-C | 68 | 40 | 28 | 5.6 | 16 | 5.6-8 | CC..03S1 | 0.06 |
| CSBJ-1606-30-C | 70 | 40 | 30 | 6 | 16 | 6-9 | CC..03S1 | 0.07 |
| CCBJ-1608-40-C | 80 | 40 | 40 | 8 | 16 | 8-11 | CC..03S1 | 0.07 |
| CCBJ-1610-50-C | 90 | 40 | 50 | 10 | 16 | 10-13 | CC..0602 | 0.10 |
| CCBJ-1612-60-C | 100 | 40 | 60 | 12 | 16 | 12-15 | CC..0602 | 0.13 |
| CCBJ-1614-70-C | 110 | 40 | 70 | 14 | 16 | 14-17 | CC..09T3 | 0.18 |
| CCBJ-1616-80-C | 120 | 40 | 80 | 16 | 16 | 16-19 | CC..09T3 | 0.25 |
| CCBJ-1618-90-C | 130 | - | - | 18 | 16 | 18-21 | CC..09T3 | 0.33 |

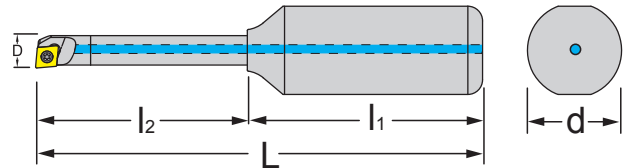
D×6

| 規格 Spec. | L | l ₁ | l ₂ | D | d | 搪孔範圍 Boring Range | 刀片 Insert | 重量 (KGS) Weight |
|-----------------|-----|----------------|----------------|-----|----|-------------------|-----------|-----------------|
| CSBJ-1605-34-C | 74 | 40 | 34 | 5.6 | 16 | 5.6-8 | CC..03S1 | 0.06 |
| CSBJ-1606-36-C | 76 | 40 | 36 | 6 | 16 | 6-9 | CC..03S1 | 0.07 |
| CCBJ-1608-48-C | 88 | 40 | 48 | 8 | 16 | 8-11 | CC..03S1 | 0.08 |
| CCBJ-1610-60-C | 100 | 40 | 60 | 10 | 16 | 10-13 | CC..0602 | 0.10 |
| CCBJ-1612-72-C | 112 | 40 | 72 | 12 | 16 | 12-15 | CC..0602 | 0.15 |
| CCBJ-1614-84-C | 124 | 40 | 84 | 14 | 16 | 14-17 | CC..09T3 | 0.20 |
| CCBJ-1616-96-C | 136 | 40 | 96 | 16 | 16 | 16-19 | CC..09T3 | 0.28 |
| CCBJ-1618-108-C | 148 | - | - | 18 | 16 | 18-21 | CC..09T3 | 0.38 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-----------------|-----------|------------------|
| CC..03S1 | M1.8-4.2-2.5-54 | T6 | 0.6 |
| CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 使用碳化鎢鋼材質，加工深度可達直徑的數倍
- 高剛性，延長使用刀片壽命
- 抗震性佳，加工後搪孔尺寸穩定

- Tungsten carbide material applied. Working depth could be up to times of cutter diameter.
- High rigidity, extended life.
- Excellent vibration resistance, machining maintain accurate boring size.

Dx5

| 規格 Spec. | L | l ₁ | l ₂ | D | d | 搪孔範圍 Boring Range | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|-----|----|-------------------|-----------|-----------------|
| CSBJ-1605-28-C | 68 | 40 | 28 | 5.6 | 16 | 5.6-8 | CC..03S1 | 0.06 |
| CSBJ-1606-30-C | 70 | 40 | 30 | 6 | 16 | 6-9 | CC..03S1 | 0.07 |
| CSBJ-1608-40-C | 80 | 40 | 40 | 8 | 16 | 8-11 | TB..0601 | 0.07 |
| CSBJ-1610-50-C | 90 | 40 | 50 | 10 | 16 | 10-13 | TB..0601 | 0.10 |
| CSBJ-1612-60-C | 100 | 40 | 60 | 12 | 16 | 12-15 | TP..0902 | 0.13 |
| CSBJ-1614-70-C | 110 | 40 | 70 | 14 | 16 | 14-17 | TP..0902 | 0.18 |
| CSBJ-1616-80-C | 120 | 40 | 80 | 16 | 16 | 16-19 | TP..1103 | 0.25 |
| CSBJ-1618-90-C | 130 | - | - | 18 | 16 | 18-21 | TP..1103 | 0.33 |

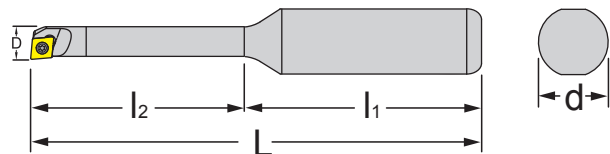
Dx6

| 規格 Spec. | L | l ₁ | l ₂ | D | d | 搪孔範圍 Boring Range | 刀片 Insert | 重量 (KGS) Weight |
|-----------------|-----|----------------|----------------|-----|----|-------------------|-----------|-----------------|
| CSBJ-1605-34-C | 74 | 40 | 34 | 5.6 | 16 | 5.6-8 | CC..03S1 | 0.06 |
| CSBJ-1606-36-C | 76 | 40 | 36 | 6 | 16 | 6-9 | CC..03S1 | 0.07 |
| CSBJ-1608-48-C | 88 | 40 | 48 | 8 | 16 | 8-11 | TB..0601 | 0.08 |
| CSBJ-1610-60-C | 100 | 40 | 60 | 10 | 16 | 10-13 | TB..0601 | 0.10 |
| CSBJ-1612-72-C | 112 | 40 | 72 | 12 | 16 | 12-15 | TP..0902 | 0.15 |
| CSBJ-1614-84-C | 124 | 40 | 84 | 14 | 16 | 14-17 | TP..0902 | 0.20 |
| CSBJ-1616-96-C | 136 | 40 | 96 | 16 | 16 | 16-19 | TP..1103 | 0.28 |
| CSBJ-1618-108-C | 148 | - | - | 18 | 16 | 18-21 | TP..1103 | 0.38 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-----------------|-----------|------------------|
| CC..03S1 | M1.8-4.2-2.5-54 | T6 | 0.6 |
| TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 |
| TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 |

•長度單位 Unit of Length (mm)



特點 Feature

- 使用碳化鎢鋼材質 · 加工深度可達直徑的數倍
- 高剛性 · 延長使用刀片壽命
- 抗震性佳 · 加工後搪孔尺寸穩定

- Tungsten carbide material applied. Working depth could be up to times of cutter diameter.
- High rigidity, extended life.
- Excellent vibration resistance, machining maintain accurate boring size.

D×5

| 規格 Spec. | L | l ₁ | l ₂ | D | d | 搪孔範圍 Boring Range | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----------------|----------------|-----|----|-------------------|-----------|-----------------|
| CSBJ-2005-28 | 68 | 40 | 28 | 5.6 | 20 | 5.6-8 | CC..03S1 | 0.12 |
| CSBJ-2006-30 | 70 | 40 | 30 | 6 | 20 | 6-9 | CC..03S1 | 0.13 |
| CSBJ-2008-40 | 80 | 40 | 40 | 8 | 20 | 8-11 | TB..0601 | 0.13 |
| CSBJ-2010-50 | 90 | 40 | 50 | 10 | 20 | 10-13 | TB..0601 | 0.16 |
| CSBJ-2012-60 | 100 | 40 | 60 | 12 | 20 | 12-15 | TP..0902 | 0.19 |
| CSBJ-2014-70 | 110 | 40 | 70 | 14 | 20 | 14-17 | TP..0902 | 0.24 |
| CSBJ-2016-80 | 120 | 40 | 80 | 16 | 20 | 16-19 | TP..1103 | 0.31 |
| CSBJ-2018-90 | 130 | 40 | 90 | 18 | 20 | 18-21 | TP..1103 | 0.39 |
| CSBJ-2020-100 | 140 | 40 | 100 | 20 | 20 | 20-26 | TP..1103 | 0.42 |
| CSBJ-2025-125 | 165 | - | - | 25 | 20 | 25-31 | TP..1103 | 0.72 |
| CSBJ-2030-150 | 190 | - | - | 30 | 20 | 31-37 | TP..1103 | 0.86 |

D×6

| 規格 Spec. | L | l ₁ | l ₂ | D | d | 搪孔範圍 Boring Range | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----------------|----------------|-----|----|-------------------|-----------|-----------------|
| CSBJ-2005-34 | 74 | 40 | 34 | 5.6 | 20 | 5.6-8 | CC..03S1 | 0.12 |
| CSBJ-2006-36 | 76 | 40 | 36 | 6 | 20 | 6-9 | CC..03S1 | 0.13 |
| CSBJ-2008-48 | 88 | 40 | 48 | 8 | 20 | 8-11 | TB..0601 | 0.13 |
| CSBJ-2010-60 | 100 | 40 | 60 | 10 | 20 | 10-13 | TB..0601 | 0.16 |
| CSBJ-2012-72 | 112 | 40 | 72 | 12 | 20 | 12-15 | TP..0902 | 0.20 |
| CSBJ-2014-84 | 124 | 40 | 84 | 14 | 20 | 14-17 | TP..0902 | 0.27 |
| CSBJ-2016-96 | 136 | 40 | 96 | 16 | 20 | 16-19 | TP..1103 | 0.35 |
| CSBJ-2018-108 | 148 | 40 | 108 | 18 | 20 | 18-21 | TP..1103 | 0.44 |
| CSBJ-2020-120 | 160 | 40 | 120 | 20 | 20 | 20-26 | TP..1103 | 0.48 |
| CSBJ-2025-150 | 190 | - | - | 25 | 20 | 25-31 | TP..1103 | 0.84 |
| CSBJ-2030-180 | 220 | - | - | 30 | 20 | 31-37 | TP..1103 | 0.99 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-----------------|-----------|------------------|
| CC..03S1 | M1.8-4.2-2.5-54 | T6 | 0.6 |
| TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 |
| TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 |

• 長度單位 Unit of Length (mm)

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | |
|----------|------------------------|--------------------------------|--------|--------|---|------------------|--|--|---|-----------------------------------|---|--|-------|--------------|------|---|---|------------|
| | M | 不鏽鋼 Stainless Steels | ○ | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | ○ | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | ○ | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | 瓷金 Cermet coated | | | | 超微粒硬質合金 Micro grain carbide alloy | | | | 尺寸 (mm) Size | | | | 圖形 Drawing |
| | | CHF | | | | HT | | | | HF | | | | | | | | |
| | | RM4015 | RM4030 | RM4035 | | RM1205 | | | | RM5005 | | | | d | i | s | r | |
| | CCGT03S102L-F | ● | | | | | | | | | | | 3.57 | - | 1.39 | 0.2 | | |
| | CCGT03S104L-F | ● | | | | | | | | | | | 3.57 | - | 1.39 | 0.4 | | |
| | NEW CCMT060204N-M01 | | | | | ● | | | | | | | 6.35 | 6.4 | 2.38 | 0.4 | | |
| | NEW CCMT09T304N-M01 | | | | | ● | | | | | | | 9.525 | 9.7 | 3.97 | 0.4 | | |
| | NEW CCMT09T308N-M01 | | | | | ● | | | | | | | 9.525 | 9.7 | 3.97 | 0.8 | | |
| | ★ NEW CCMT060202N-F01 | | | ● | | | | | | | | | 6.35 | 6.4 | 2.38 | 0.2 | | |
| | ★ NEW CCMT060204N-F01 | | | ● | | | | | | | | | 6.35 | 6.4 | 2.38 | 0.4 | | |
| | ★ NEW CCMT09T304N-F01 | | | ● | | | | | | | | | 9.525 | 9.7 | 3.97 | 0.4 | | |
| | ★ NEW CCMT09T308N-F01 | | | ● | | | | | | | | | 9.525 | 9.7 | 3.97 | 0.8 | | |
| | ★ NEW CCMT120404N-F01 | | | ● | | | | | | | | | 12.7 | 12.9 | 4.76 | 0.4 | | |
| | ★ NEW CCMT120408N-F01 | | | ● | | | | | | | | | 12.7 | 12.9 | 4.76 | 0.8 | | |
| | TBGT060102L-F01 | | ● | | | ● | | | ● | | | | 3.97 | 6.4 | 1.59 | 0.2 | | |
| | TBGT060104L-F01 | | ● | | | ● | | | ● | | | | 3.97 | 6.4 | 1.59 | 0.4 | | |
| | TPGT080202L-F01 | | ● | | | ● | | | ● | | | | 4.76 | 8.2 | 2.38 | 0.2 | | |
| | TPGT080204L-F01 | | ● | | | ● | | | ● | | | | 4.76 | 8.2 | 2.38 | 0.4 | | |
| | TPGT090202L-F01 | | ● | | | ● | | | ● | | | | 5.56 | 9.6 | 2.38 | 0.2 | | |
| | TPGT090204L-F01 | | ● | | | ● | | | ● | | | | 5.56 | 9.6 | 2.38 | 0.4 | | |
| | TPGT110302L-F01 | | ● | | | ● | | | ● | | | | 6.35 | 11 | 3.18 | 0.2 | | |
| | TPGT110304L-F01 | | ● | | | ● | | | ● | | | | 6.35 | 11 | 3.18 | 0.4 | | |

★ 推薦 Recommended NEW 新品 New Product

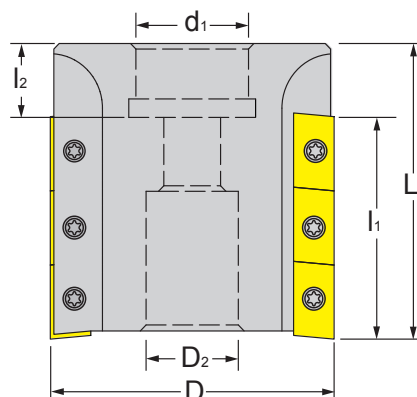
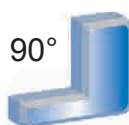
• 長度單位 Unit of Length (mm)

AMC 殼式粗切削端銑刀

AMC SHELL TYPE ROUGH CUTTING END MILL



KOVIT



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

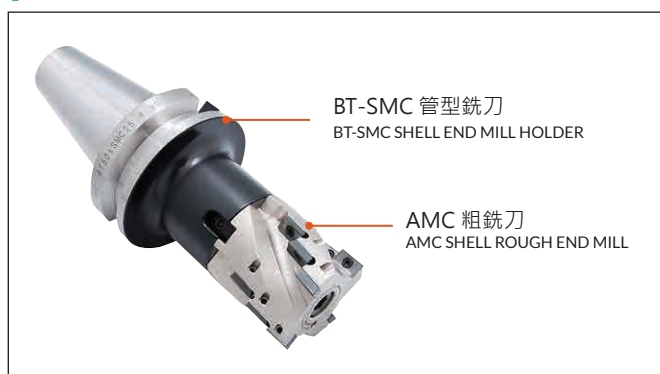
- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | l ₂ | D | D ₂ | d ₁ | 刃數 Flutes | 刀片數 Insert Qty. | 刀片 Insert | 重量 (KGS) Weight |
|---------------------|----|----------------|----------------|----|----------------|----------------|-----------|-----------------|-----------|-----------------|
| AMC-50-45L-FMB22 | 64 | 45 | 31 | 50 | 18 | 22 | 3 | 9 | AP..1604 | 0.51 |
| AMC-63-45L-FMA25.4 | 64 | 45 | - | 63 | 19 | 25.4 | 4 | 12 | AP..1604 | 1.03 |
| AMC-63-68L-FMA25.4 | 90 | 68 | 42 | 63 | 19 | 25.4 | 4 | 20 | AP..1604 | 1.19 |
| AMC-63-68L-FMA31.75 | 90 | 68 | - | 63 | 26 | 31.75 | 4 | 20 | AP..1604 | 0.92 |

配件表 Accessories

| 規格 Spec. | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 華司螺絲 Screw | 小頭華司 Screw |
|---------------------|-----------|--------------|-----------|------------------|--------------------|--------------|
| AMC-50-45L-FMB22 | AP..1604 | M4-10-5.7-60 | T15 | 3.0 | AMC-M10-1.5P-50L | - |
| AMC-63-45L-FMA25.4 | AP..1604 | M4-10-5.7-60 | T15 | 3.0 | AMC-1/2-12W-2L | - |
| AMC-63-68L-FMA25.4 | AP..1604 | M4-10-5.7-60 | T15 | 3.0 | AMC-1/2-12W-2L | - |
| AMC-63-68L-FMA31.75 | AP..1604 | M4-10-5.7-60 | T15 | 3.0 | AMC-1/2-12W-2-1/2L | D25.2-19-16L |

範例 Example



• 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | ○ | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|--------------------------------|---------|--------|--------|-------|-----------------------------------|--------|--------|--------|--------------|-------|------|------|------------|--|---|
| | M | 不鏽鋼 Stainless Steels | ○ | | | ○ | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | | ○ | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | ■ | ■ | ○ | ○ | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | ○ | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain carbide alloy | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | |
| | | CHF | | | | | HF | | | | Size | | | | | | |
| | | OM4025 | OM4025N | RM3130 | RM4130 | RM535 | GH05 | OM5005 | OM5060 | RM5005 | d | i | s | r | | | |
| | ★ APEX1604PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | | |
| | ★ APEX160400PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | | |
| | ★ APEX160404PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | 0.4 | | |
| | ★ APEX160408PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | 0.8 | | |
| | APEX1604PDFR-701 | | | | | | | ● | | | | 9.525 | 16.4 | 4.76 | 0.2 | | |
| | APGT1604PDFR-G2 | | | | | | | | ● | | | 9.525 | 16.5 | 4.76 | 0.8 | | |
| | APGT160408PDFR-F02 | | | | | | | | ● | | | 9.525 | 16.4 | 4.76 | 0.8 | | |
| | APKT1604PDER-M05 | | | | | | | | | ● | | 9.525 | 16.4 | 4.76 | 0.4 | | |
| | APKT160408PDER-M02 | | | ● | ● | | | | | | | 9.525 | 16.4 | 4.76 | 0.8 | | |
| | ★ APKT160408-M01 | ● | ● | | | | | | | | | 9.525 | 16.6 | 4.76 | 0.8 | | |

★ 推薦 Recommended

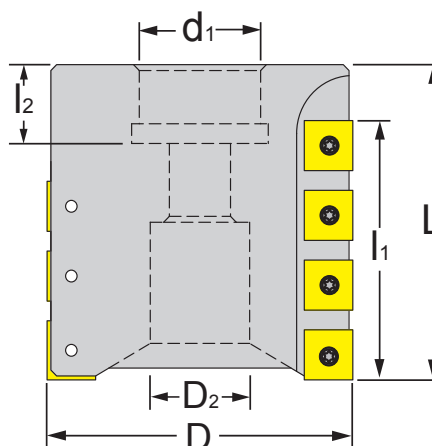
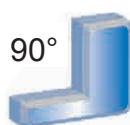
AP_16 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|---------------------------|------------|----------------|-----------------|-----------|
| P 低合金鋼 Low-Alloy Steels | OM4025 | 120~300 | 0.15~0.40 | 3.0~8.0 |
| | OM4025N | 120~300 | 0.15~0.40 | 3.0~8.0 |
| | RM4130 | 60~300 | 0.10~0.25 | 3.0~8.0 |
| 合金鋼 Alloyed Steels | OM4025 | 80~180 | 0.15~0.35 | 3.0~8.0 |
| | RM4130 | 60~300 | 0.10~0.25 | 3.0~8.0 |
| M 不鏽鋼 Stainless Steels | OM4025 | 120~160 | 0.15~0.35 | 3.0~8.0 |
| | RM4130 | 120~160 | 0.10~0.25 | 3.0~8.0 |
| K 鑄鐵 Cast Iron | OM4025 | 160~250 | 0.15~0.30 | 3.0~8.0 |
| | RM3130 | 160~250 | 0.15~0.30 | 3.0~8.0 |
| N 鋁合金 Aluminum&Al | OM5005 | 400~1000 | 0.04~0.20 | 3.0~8.0 |
| | OM5060 | 400~1000 | 0.04~0.20 | 3.0~8.0 |
| | RM5005 | 400~1000 | 0.04~0.20 | 3.0~8.0 |
| | GH05 | 300~800 | 0.04~0.20 | 3.0~8.0 |
| S 高溫合金 Refractory Alloys | RM535 | 80~180 | 0.15~0.35 | 3.0~8.0 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

● 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

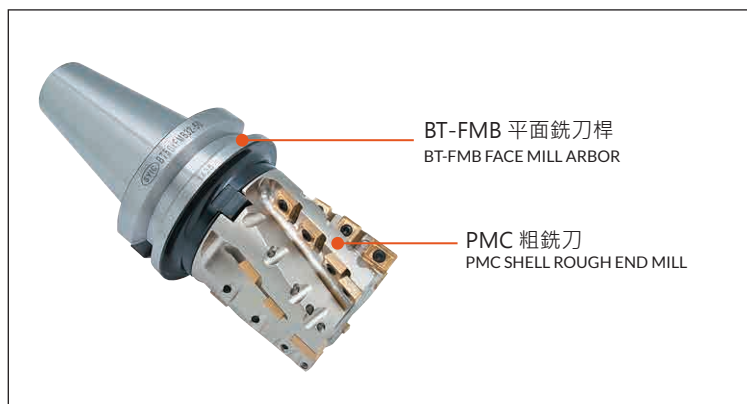
- Made of anti-vibration tool steel
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | l ₂ | D | D ₂ | d ₁ | 刃數 Flutes | 刀片 Insert | 刀片數 Insert Qty. | 刀片 Insert | 刀片數 Insert | 重量 (KGS) Weight |
|-------------------|-----|----------------|----------------|-----|----------------|----------------|-----------|-----------|-----------------|-----------|------------|-----------------|
| PMC-80-67L | 80 | 67 | 42 | 80 | 26 | 31.75 | 6 | LP..1504 | 3 | SP..1204 | 18 | 1.92 |
| PMC-80-67L-FMB32 | 80 | 67 | 42 | 80 | 26 | 32 | 6 | LP..1504 | 3 | SP..1204 | 18 | 1.92 |
| PMC-100-77L-FMB40 | 100 | 77 | - | 100 | 48 | 40 | 8 | LP..1504 | 4 | SP..1204 | 28 | 3.82 |

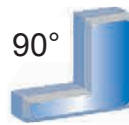
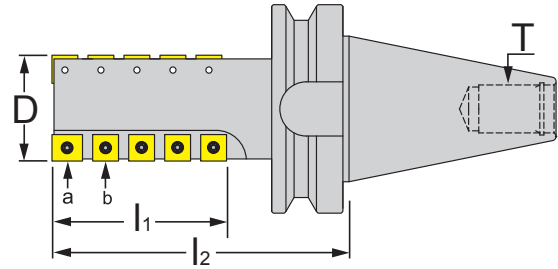
配件表 Accessories

| 規格 Spec. | 刀片 Insert | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 華司螺絲 Screw | 小頭華司 Screw |
|-------------------|-----------|-----------|--------------|-----------|------------------|--------------------|--------------|
| PMC-80-67L | LP..1504 | SP..1204 | M5-11-6.4-43 | T20 | 5.0 | PMC-1/2-12W-2-1/2L | D25.2-19-16L |
| PMC-80-67L-FMB32 | LP..1504 | SP..1204 | M5-11-6.4-43 | T20 | 5.0 | PMC-M12-1.75P-50L | D25.2-19-16L |
| PMC-100-77L-FMB40 | LP..1504 | SP..1204 | M5-11-6.4-43 | T20 | 5.0 | PMC-M16-2.0P-80L | - |

範例 Example



• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

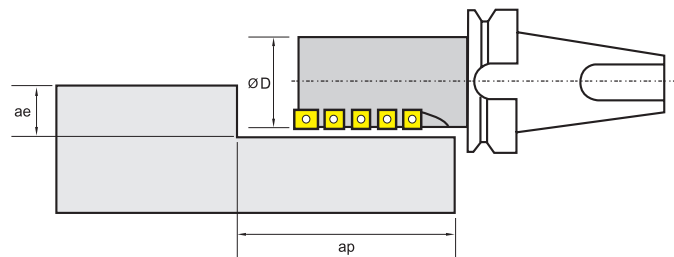
- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | l ₁ | l ₂ | D | T | 刃數 Flutes | 刀片 Insert Qty. | 刀片數量 Insert Qty. | 重量 (KGS) Weight |
|-----------------|----------------|----------------|----|----------|-----------|----------------|------------------|-----------------|
| | | | | | | LP..1504 (a) | SP..1204 (b) | |
| NT50-BMC50-77L | 77 | 123.2 | 50 | 1"-8W | 4 | 2 | 14 | 4.21 |
| NT50-BMC63-87L | 87 | 133.2 | 63 | 1"-8W | 4 | 2 | 16 | 5.19 |
| BT50-BMC50-77L | 77 | 144 | 50 | M24×3.0P | 4 | 2 | 14 | 5.08 |
| BT50-BMC50-97L | 97 | 166 | 50 | M24×3.0P | 4 | 2 | 18 | 5.48 |
| BT50-BMC63-87L | 87 | 156 | 63 | M24×3.0P | 4 | 2 | 16 | 5.90 |
| BT50-BMC63-107L | 107 | 176 | 63 | M24×3.0P | 4 | 2 | 20 | 6.48 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| LP..1504 | M5-11-6.4-43 | T20K | 5.0 |
| SP..1204 | M5-11-6.4-43 | T20K | 5.0 |

| 軸向切削量 (Ap) Depth of cut in axial direction | 徑向切削量 (Ae) Depth of cut in radial direction |
|---|--|
| Ap ≤ 1D → | (ae/D) ≤ 0.5 |
| 1D < Ap ≤ 1.5D → | (ae/D) ≤ 0.25 |
| 1.5D < Ap ≤ 2D → | (ae/D) ≤ 0.1 |



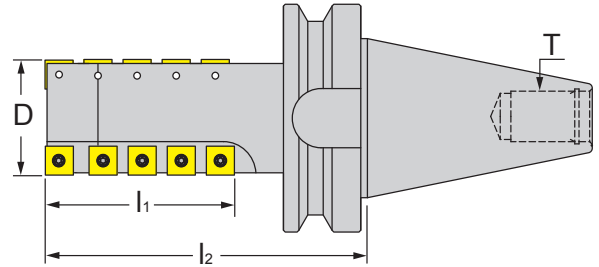
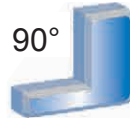
• 長度單位 Unit of Length (mm)

BT/CBMC 替換式粗切削銑刀

BT/CBMC INDEXABLE ROUGH CUTTING END MILL



KOVIT



特點 Feature

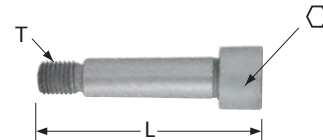
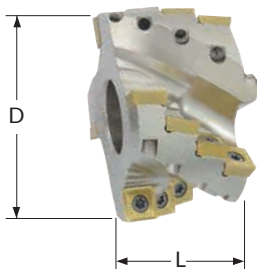
- 如切削損壞時，前端刀頭可更換粗銑刀，降低成本

- The front cutting head is replaceable, effective cost-saving.

| 規格 Spec. | l_1 | l_2 | D | T | 刃數 Flutes | 刀片 Insert | 刀片數量 Insert Qty. | 重量 (KGS) Weight |
|------------------|-------|-------|----|----------|-----------|-----------|------------------|-----------------|
| BT50-CBMC63-200L | 200 | 285 | 63 | M24×3.0P | 3 | SP.1204 | 57 | 7.40 |
| BT50-CBMC63-260L | 260 | 345 | 63 | M24×3.0P | 3 | SP.1204 | 75 | 8.10 |
| BT50-CBMC80-200L | 200 | 285 | 80 | M24×3.0P | 4 | SP.1204 | 76 | 10.0 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| SP.1204 | M5-10-6.3-43 | T20K | 5.0 |



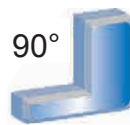
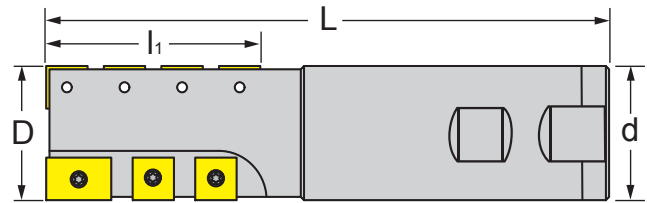
| 規格 Spec. | L | D | 刃數 Flutes | 刀片數量 Insert Qty. | 重量 (KGS) Weight |
|------------|----|----|-----------|------------------|-----------------|
| CBMC63-42L | 42 | 63 | 3 | 12 | 0.60 |
| CBMC80-42L | 42 | 80 | 4 | 16 | 1.00 |

| 規格 Specification | L | T | Wrench | 重量 (KGS) Weight |
|------------------|----|-----|--------|-----------------|
| CBMC63-M16-83L | 83 | M16 | 10 | 0.14 |
| CBMC80-M16-93L | 93 | M16 | 12 | 0.20 |

範例 Example



• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

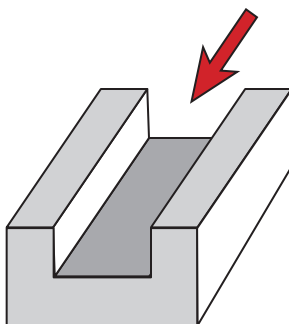
- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | 剖面 Profile | L | l ₁ | D | d | 刃數 Flutes | 刀片 Insert | 刀片數量 Insert Qty. | 刀片 Insert | 刀片數量 Insert Qty. | 重量 (KGS) Weight |
|----------------|------------|-----|----------------|----|------|-----------|-----------|------------------|-----------|------------------|-----------------|
| SPE-40-56L-2T | A | 173 | 56 | 40 | 42 | 2 | LP.1504 | 1 | SP.1204 | 5 | 1.45 |
| SPE-40-50L-4T | A | 155 | 64 | 40 | 32 | 4 | AP.1503 | 2 | SD.0903 | 16 | 0.92 |
| SPE-50-97L-4T | B | 224 | 97 | 50 | 50.8 | 4 | LP.1504 | 2 | SP.1204 | 18 | 2.69 |
| SPE-50-158L-4T | B | 284 | 158 | 50 | 50.8 | 4 | LP.1504 | 2 | SP.1204 | 30 | 3.15 |

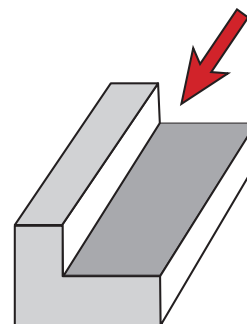
配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| LP.1504 | M5-11-6.4-43 | T20 | 5.0 |
| AP.1503 | M4-10-5.0-43 | T15 | 3.0 |
| SD.0903 | M4-10-5.0-43 | T15 | 3.0 |
| SP.1204 | M5-11-6.4-43 | T20 | 5.0 |

最大切削深度 .12mm
Max. Ap. 12mm



開槽
Slotting



側邊加工
Shoulder milling

• 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|--------------------------------|--------|--------|---|--|--------------------------------------|--|--|---|--------|--------------|---|------|-------|------------|-----|--|--|---|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | | | | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | ○ | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | | |
| | | CHF | | | | | HF | | | | | d | i | s | r | | | | | |
| | | OM4010 | OM4025 | RM4025 | | | | | | | OM5005 | | | | | | | | | |
| | APMT1503-R01 | ● | ● | | | | | | | | | | | 9.52 | 15 | 3.18 | 0.8 | | | |
| | LPMT1504-R01 | | ● | | | | | | | | | | | 12.7 | 15.88 | 4.76 | - | | | |
| | SDMT090308-R01 | ● | ● | | | | | | | | | | | 9.52 | - | 3.18 | 0.8 | | | |
| | SPET120408-M02 | ● | ● | | | | | | | ● | | | | 12.7 | - | 4.76 | 0.8 | | | |
| | SPMT120408-R01 | | | ● | | | | | | | | | | 12.7 | - | 4.76 | 0.8 | | | |

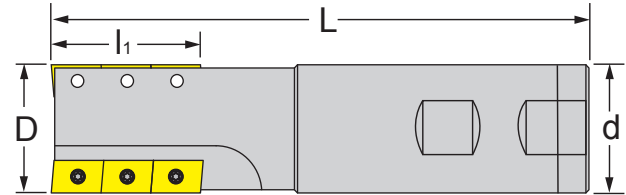
AP_15.SP_12.SD_09.LP_15 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 加工型態 Processing Type | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|---------------------------|----------------------|------------|----------------|-----------------|
| P 低合金鋼 Low-Alloy Steels | 開槽 Slotting | OM4010 | 90~120 | 0.05~0.10 |
| | 側邊加工 Side Milling | | 110~140 | 0.08~0.13 |
| | 開槽 Slotting | OM4025 | 90~110 | 0.05~0.10 |
| | 側邊加工 Side Milling | | 110~130 | 0.08~0.13 |
| | 開槽 Slotting | RM4025 | 90~110 | 0.05~0.10 |
| | 側邊加工 Side Milling | | 110~130 | 0.08~0.13 |
| P 合金鋼 Alloyed Steels | 開槽 Slotting | OM4010 | 70~100 | 0.05~0.10 |
| | 側邊加工 Side Milling | OM4010 | 90~120 | 0.06~0.15 |
| | 開槽 Slotting | OM4025 | 70~90 | 0.05~0.10 |
| | 側邊加工 Side Milling | OM4025 | 90~110 | 0.06~0.15 |
| | 開槽 Slotting | RM4025 | 70~90 | 0.05~0.10 |
| | 側邊加工 Side Milling | | 90~110 | 0.06~0.15 |
| M 不鏽鋼 Stainless Steels | 側邊加工 Side Milling | OM4010 | 130~190 | 0.06~0.15 |
| | | OM4025 | 130~170 | 0.06~0.15 |
| K 鑄鐵 Cast Iron | 開槽 Slotting | OM4025 | 70~90 | 0.18~0.12 |
| | 側邊加工 Side Milling | | 90~150 | 0.10~0.15 |
| N 鋁合金 Aluminum&Al | 開槽 Slotting | OM5005 | 450(500~700) | 1.2(1.2~1.8) |
| | 側邊加工 Side Milling | | | |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | D | d | 刃數 Flutes | 刀片數量 Insert Qty. | 刀片 Insert | 重量 (KGS) Weight |
|-----------------|-----|----------------|----|----|-----------|------------------|-----------|-----------------|
| APE-2020-28L-2T | 107 | 28 | 20 | 20 | 2 | 5 | AP..1003 | 0.23 |
| APE-2525-37L-2T | 125 | 37 | 25 | 25 | 2 | 8 | AP..1003 | 0.41 |
| APE-3232-46L-3T | 135 | 46 | 32 | 32 | 3 | 15 | AP..1003 | 0.70 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------------|-----------|------------------|
| AP..1003 | M2.5-6.45-3.7-43 | T8 | 1.2 |

側邊加工 SHOULDER MILLING

| Ap | Ar | 每刃進給 f (mm/rev) | | |
|----|----|-----------------|------|-----|
| | | 0.08 | 0.12 | 0.1 |
| 9 | 8 | - | 1.0 | 1.0 |
| | 16 | - | 1.5 | 1.8 |
| 18 | 8 | 1.5 | 1.8 | 2.0 |
| | 16 | 2.0 | 2.5 | 2.8 |
| 27 | 8 | 2.0 | 2.5 | 2.8 |
| | 16 | 3.0 | 3.8 | 4.0 |

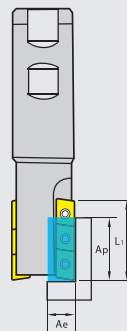
kW

| Ap | Ar | 每刃進給 f (mm/rev) | | |
|----|----|-----------------|------|--|
| | | 0.15 | 0.20 | |
| 25 | 10 | 3.0 | 3.5 | |
| | 15 | 3.8 | 4.5 | |
| 40 | 10 | 4.0 | 5.0 | |
| | 15 | 5.0 | 6.0 | |
| | 20 | 6.0 | - | |

kW

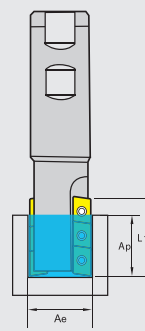
側銑加工 PROFILE MILLING

| d1 | ap |
|------|----|
| Ø 20 | 22 |
| Ø 25 | 30 |
| Ø 32 | 37 |
| Ø 40 | 44 |

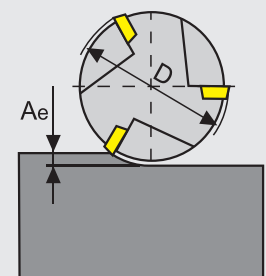


開槽加工 SLOTTING

| d1 | ap |
|------|----|
| Ø 20 | 14 |
| Ø 25 | 18 |
| Ø 32 | 23 |
| Ø 40 | 27 |



| ae | correct feed rate |
|-----|-------------------|
| 0.1 | 2.2×fz |
| 0.2 | 1.4×fz |
| 0.5 | 1.0×fz |
| 0.7 | 0.8×fz |
| 1.0 | 0.7×fz |



開槽加工 SLOTTING

| D | Ap | 每刃進給 f (mm/rev) | | |
|-------|----|-----------------|------|-----|
| | | 0.08 | 0.12 | 0.1 |
| 20-25 | 9 | 1.8 | 2.2 | 2.5 |
| | 18 | 3.2 | 4.0 | 4.5 |
| | 27 | - | 5.5 | 5.8 |

kW

| D | Ap | 每刃進給 f (mm/rev) | | |
|----|----|-----------------|------|------|
| | | 0.10 | 0.15 | 0.20 |
| 32 | 20 | 4.4 | 5.5 | 6.8 |
| | 30 | 5.8 | 7.8 | 9.2 |
| | 40 | 7.8 | 10 | - |

kW

• 長度單位 Unit of Length (mm)



| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | 超微粒硬質合金 Micro grain carbide alloy | | | | 尺寸 (mm) Size | | | | 圖形 Drawing |
|-------------|----------------------|-----------------------------------|-------|--|--|--------------------------------------|--------|--------|--|-----------------|------|------|-----|---------------|
| | | CHF | | | | HF | | | | Size | | | | |
| | | RM4130 | RM535 | | | OM5005 | OM5060 | RM5005 | | d | i | s | r | |
| | | | | | | | | | | | | | | |
| | ★ APEX100304PDFR-F01 | | | | | ● | ● | | | 6.68 | 10.5 | 2.38 | 0.4 | |
| | | | | | | | | | | | | | | |
| | APGT100304PDFR-F04 | | | | | | | ● | | 6.68 | 10.5 | 2.38 | 0.4 | |
| | | | | | | | | | | | | | | |
| | APHT1003PDFR-F03 | | | | | | | ● | | 6.68 | 10.4 | 3.47 | 0.8 | |
| | | | | | | | | | | | | | | |
| | APKT100304PDER-M04 | ● | | | | | | | | 6.68 | 10.5 | 2.38 | 0.4 | |
| | | | | | | | | | | | | | | |
| | APKT1003PDER-M05 | | ● | | | | | | | 6.68 | 10.5 | 3.47 | - | |
| | | | | | | | | | | | | | | |

★ 推薦 Recommended

AP_10 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|------------------------------|--------------------|-------------------|--------------------|--------------|
| P 低合金鋼 Low-Alloy Steels | RM4130 | 60~300 | 0.10~0.25 | 1.0~2.0 |
| | 合金鋼 Alloyed Steels | RM4130 | 60~300 | 1.0~2.0 |
| M 不鏽鋼 Stainless Steels | RM4130 | 120~160 | 0.10~0.25 | 0.5~1.5 |
| N 鋁合金 Aluminum&Al | OM5005 | 400~850 | 0.05~0.30 | 1.5~3.0 |
| | OM5060 | 400~850 | 0.05~0.30 | 1.5~3.0 |
| | RM5005 | 400~850 | 0.05~0.30 | 1.5~3.0 |
| S 高溫合金 Refractory Alloys | RM535 | 25~40 | 0.10~0.20 | 0.8~1.5 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

• 長度單位 Unit of Length (mm)

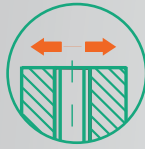
TSD多孔類型加工

TSD VARIETY OF HOLE TYPES MACHINING



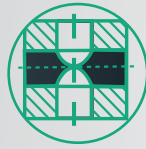
斜面孔

Oblique Face



擴孔

Enlarge Hole



交叉孔

Cross Hole



半邊孔

Half Hole



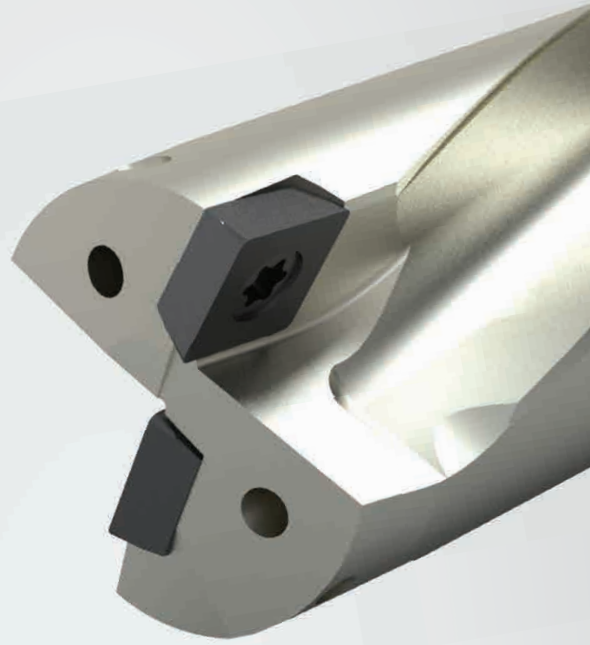
套孔

Target Drills



凹面孔

Concave Face



High Speed Drill



注意事項 Tips

可用於粗加工除料或不規則表面鑽孔，無需預加工小孔，但表面傾斜角度不超過6度

Drilling irregular surface slope angle must be within 6° with no spot drill needed.

在進刀和退刀時，降低進給率30%~50%

Reduce 30% to 50% feed speed during engage and retract.

層板堆疊加工時，間隙應小於0.2mm

Gap b/w layers must be within 0.2mm when drilling stacking layer.

板材有變形及彎曲時，仍可進行加工作業

Available for drilling irregular or bending plates.

正確的使用切削液的壓力值，有助於鐵屑的排出，及降低刀具振動，和提高刀具壽命

Correctly adjust the exact pressures of coolant can provide you stable operation and extended cutter life.



Feature

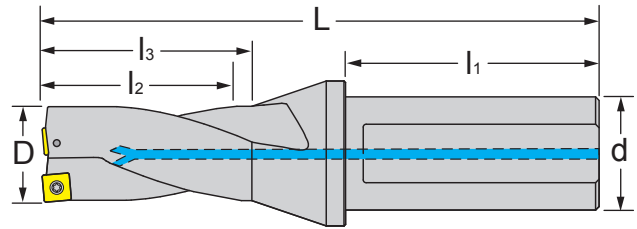
TSD 四角刀片快速鑽頭 (2 倍長)

TSD SQUARE INSERT HIGH SPEED DRILL



KOVIT

Dx2



特點 Feature

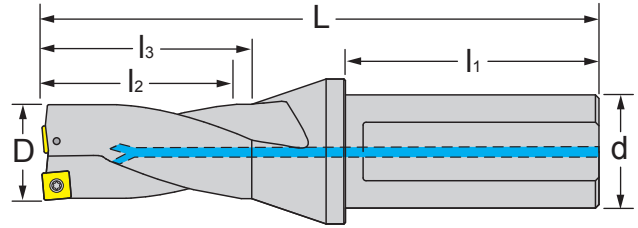
- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- 4 edges are usable on 1 insert, effective cost-saving.
- Both inner and outer flutes use the same type of square inserts, which is easy for stock management, prevent mis-assembly and reduce cutter damaging.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|----------------|----|----|--------------|-----------------------|
| C25-TSD13-26L | 106 | 56 | 26 | 31 | 13 | 25 | SP.0502 | 0.32 |
| C25-TSD14-28L | 108 | 56 | 28 | 33 | 14 | 25 | SP.0502 | 0.33 |
| C25-TSD15-30L | 110 | 56 | 30 | 35 | 15 | 25 | SP.0502 | 0.33 |
| C25-TSD16-32L | 114 | 56 | 32 | 37 | 16 | 25 | SP.0602 | 0.34 |
| C25-TSD17-34L | 116 | 56 | 34 | 39 | 17 | 25 | SP.0602 | 0.35 |
| C25-TSD18-36L | 118 | 56 | 36 | 41 | 18 | 25 | SP.0602 | 0.36 |
| C25-TSD19-38L | 120 | 56 | 38 | 43 | 19 | 25 | SP.0602 | 0.37 |
| C25-TSD20-40L | 122 | 56 | 40 | 45 | 20 | 25 | SP.0602 | 0.38 |
| C25-TSD21-42L | 124 | 56 | 42 | 47 | 21 | 25 | SP.0602 | 0.39 |
| C25-TSD22-44L | 126 | 56 | 44 | 49 | 22 | 25 | SP.07T3 | 0.60 |
| C32-TSD23-46L | 134 | 60 | 46 | 51 | 23 | 32 | SP.07T3 | 0.61 |
| C32-TSD24-48L | 136 | 60 | 48 | 53 | 24 | 32 | SP.07T3 | 0.61 |
| C32-TSD25-50L | 138 | 60 | 50 | 55 | 25 | 32 | SP.07T3 | 0.64 |
| C32-TSD26-52L | 140 | 60 | 52 | 57 | 26 | 32 | SP.07T3 | 0.66 |
| C32-TSD27-54L | 142 | 60 | 54 | 59 | 27 | 32 | SP.07T3 | 0.67 |
| C32-TSD28-56L | 146 | 60 | 56 | 61 | 28 | 32 | SP.0904 | 0.68 |
| C32-TSD29-58L | 148 | 60 | 58 | 63 | 29 | 32 | SP.0904 | 0.72 |
| C32-TSD30-60L | 150 | 60 | 60 | 65 | 30 | 32 | SP.0904 | 0.74 |
| C32-TSD31-62L | 152 | 60 | 62 | 67 | 31 | 32 | SP.0904 | 0.76 |
| C32-TSD32-64L | 154 | 60 | 64 | 69 | 32 | 32 | SP.0904 | 0.78 |
| C32-TSD33-66L | 156 | 60 | 66 | 71 | 33 | 32 | SP.0904 | 0.80 |
| C32-TSD34-68L | 158 | 60 | 68 | 73 | 34 | 32 | SP.1104 | 0.82 |
| C32-TSD35-70L | 160 | 60 | 70 | 75 | 35 | 32 | SP.1104 | 0.84 |
| C32-TSD36-72L | 162 | 60 | 72 | 77 | 36 | 32 | SP.1104 | 0.86 |
| C32-TSD37-74L | 164 | 60 | 74 | 79 | 37 | 32 | SP.1104 | 0.88 |
| C32-TSD38-76L | 166 | 60 | 76 | 81 | 38 | 32 | SP.1104 | 0.93 |
| C32-TSD39-78L | 168 | 60 | 78 | 83 | 39 | 32 | SP.1104 | 0.94 |
| C40-TSD40-80L | 184 | 70 | 80 | 85 | 40 | 40 | SP.1104 | 1.40 |
| C40-TSD41-82L | 186 | 70 | 82 | 87 | 41 | 40 | SP.1104 | 1.38 |
| C40-TSD42-84L | 188 | 70 | 84 | 89 | 42 | 40 | SP.1405 | 1.42 |
| C40-TSD43-86L | 190 | 70 | 86 | 91 | 43 | 40 | SP.1405 | 1.44 |
| C40-TSD44-88L | 192 | 70 | 88 | 93 | 44 | 40 | SP.1405 | 1.51 |
| C40-TSD45-90L | 194 | 70 | 90 | 95 | 45 | 40 | SP.1405 | 1.57 |
| C40-TSD46-92L | 196 | 70 | 92 | 97 | 46 | 40 | SP.1405 | 1.61 |
| C40-TSD47-94L | 198 | 70 | 94 | 99 | 47 | 40 | SP.1405 | 1.66 |
| C40-TSD48-96L | 200 | 70 | 96 | 101 | 48 | 40 | SP.1405 | 1.71 |
| C40-TSD49-98L | 202 | 70 | 98 | 103 | 49 | 40 | SP.1405 | 1.77 |
| C40-TSD50-100L | 204 | 70 | 100 | 102 | 50 | 40 | SP.1405 | 1.81 |

• 長度單位 Unit of Length (mm)

Dx2 0.5 Type



特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- 4 edges are usable on 1 insert, effective cost-saving.
- Both inner and outer flutes use the same type of square inserts, which is easy for stock management, prevent mis-assembly and reduce cutter damaging.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|-----------------|-----|----------------|----------------|----------------|------|----|-----------|-----------------|
| C25-TSD13.5-27L | 107 | 56 | 27 | 32 | 13.5 | 25 | SP..0502 | 0.33 |
| C25-TSD14.5-29L | 109 | 56 | 29 | 34 | 14.5 | 25 | SP..0502 | 0.33 |
| C25-TSD15.5-31L | 113 | 56 | 31 | 36 | 15.5 | 25 | SP..0602 | 0.34 |
| C25-TSD16.5-33L | 115 | 56 | 33 | 38 | 16.5 | 25 | SP..0602 | 0.35 |
| C25-TSD17.5-35L | 117 | 56 | 35 | 40 | 17.5 | 25 | SP..0602 | 0.36 |
| C25-TSD18.5-37L | 119 | 56 | 37 | 42 | 18.5 | 25 | SP..0602 | 0.36 |
| C25-TSD19.5-39L | 121 | 56 | 39 | 44 | 19.5 | 25 | SP..0602 | 0.37 |
| C25-TSD20.5-41L | 123 | 56 | 41 | 46 | 20.5 | 25 | SP..0602 | 0.38 |
| C25-TSD21.5-43L | 125 | 56 | 43 | 48 | 21.5 | 25 | SP..0602 | 0.39 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-------------------------|-----------|------------------|
| SP..0502 | M2-4.3-2.7-60-T6-TIN | T6 | 0.6 |
| SP..0602 | M2.2-5.2-3.1-60-T7-TIN | T7 | 0.9 |
| SP..07T3 | M2.5-6.33-3.5-48-T8-TIN | T8 | 1.2 |
| SP..0904 | M3.5-8.4-5.0-60-T10-TIN | T10 | 2.0 |
| SP..1104 | M4-9.35-5.65-60-T15-TIN | T15 | 3.0 |
| SP..1405 | M5-12.8-7.0-60-T20-TIN | T20 | 5.0 |

•長度單位 Unit of Length (mm)

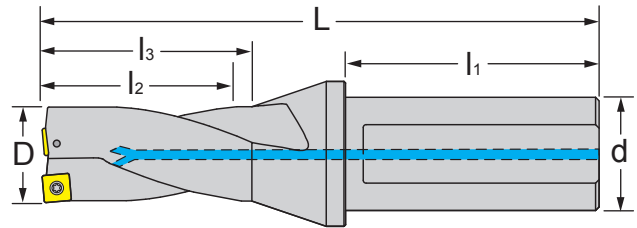
TSD 四角刀片快速鑽頭 (3 倍長)

TSD SQUARE INSERT HIGH SPEED DRILL



KOVIT

Dx3



特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- 4 edges are usable on 1 insert, effective cost-saving.
- Both inner and outer flutes use the same type of square inserts, which is easy for stock management, prevent mis-assembly and reduce cutter damaging.

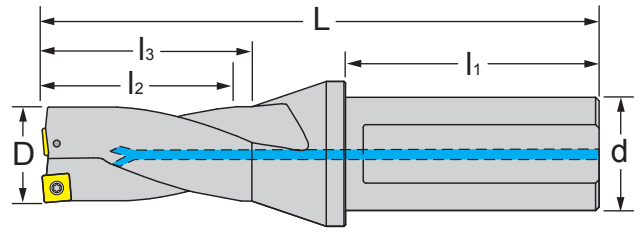
| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----------------|----------------|----------------|----|----|-----------|-----------------|
| C20-TSD13-39L | 111 | 50 | 39 | 44 | 13 | 20 | SP..0502 | 0.20 |
| C20-TSD14-42L | 114 | 50 | 42 | 47 | 14 | 20 | SP..0502 | 0.18 |
| C20-TSD15-45L | 117 | 50 | 45 | 50 | 15 | 20 | SP..0502 | 0.21 |
| C25-TSD16-48L | 130 | 56 | 48 | 53 | 16 | 25 | SP..0602 | 0.31 |
| C25-TSD17-51L | 133 | 56 | 51 | 56 | 17 | 25 | SP..0602 | 0.32 |
| C25-TSD18-54L | 136 | 56 | 54 | 59 | 18 | 25 | SP..0602 | 0.34 |
| C25-TSD19-57L | 139 | 56 | 57 | 62 | 19 | 25 | SP..0602 | 0.35 |
| C25-TSD20-60L | 142 | 56 | 60 | 65 | 20 | 25 | SP..0602 | 0.37 |
| C25-TSD21-63L | 145 | 56 | 63 | 68 | 21 | 25 | SP..0602 | 0.38 |
| C25-TSD22-66L | 148 | 56 | 66 | 71 | 22 | 25 | SP..07T3 | 0.39 |
| C25-TSD23-69L | 157 | 60 | 69 | 74 | 23 | 25 | SP..07T3 | 0.44 |
| C25-TSD24-72L | 160 | 60 | 72 | 77 | 24 | 25 | SP..07T3 | 0.44 |
| C25-TSD25-75L | 163 | 60 | 75 | 80 | 25 | 25 | SP..07T3 | 0.46 |
| C32-TSD23-69L | 157 | 60 | 69 | 74 | 23 | 32 | SP..07T3 | 0.66 |
| C32-TSD24-72L | 160 | 60 | 72 | 77 | 24 | 32 | SP..07T3 | 0.67 |
| C32-TSD25-75L | 163 | 60 | 75 | 80 | 25 | 32 | SP..07T3 | 0.72 |
| C32-TSD26-78L | 166 | 60 | 78 | 83 | 26 | 32 | SP..07T3 | 0.73 |
| C32-TSD27-81L | 169 | 60 | 81 | 86 | 27 | 32 | SP..07T3 | 0.75 |
| C32-TSD28-84L | 174 | 60 | 84 | 89 | 28 | 32 | SP..0904 | 0.78 |
| C32-TSD29-87L | 177 | 60 | 87 | 92 | 29 | 32 | SP..0904 | 0.81 |
| C32-TSD30-90L | 180 | 60 | 90 | 95 | 30 | 32 | SP..0904 | 0.83 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-------------------------|-----------|------------------|
| SP.0502 | M2-4.3-2.7-60-T6-TIN | T6 | 0.6 |
| SP.0602 | M2.2-5.2-3.1-60-T7-TIN | T7 | 0.9 |
| SP.07T3 | M2.5-6.33-3.5-48-T8-TIN | T8 | 1.2 |
| SP.0904 | M3.5-8.4-5.0-60-T10-TIN | T10 | 2.0 |
| SP.1104 | M4-9.35-5.65-60-T15-TIN | T15 | 3.0 |
| SP.1405 | M5-12.8-7.0-60-T20-TIN | T20 | 5.0 |

•長度單位 Unit of Length (mm)

Dx3



特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- 4 edges are usable on 1 insert, effective cost-saving.
- Both inner and outer flutes use the same type of square inserts, which is easy for stock management, prevent mis-assembly and reduce cutter damaging.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|----------------|----|----|-----------|-----------------|
| C32-TSD31-93L | 183 | 60 | 93 | 98 | 31 | 32 | SP..0904 | 0.88 |
| C32-TSD32-96L | 186 | 60 | 96 | 101 | 32 | 32 | SP..0904 | 0.90 |
| C32-TSD33-99L | 189 | 60 | 99 | 104 | 33 | 32 | SP..0904 | 0.93 |
| C32-TSD34-102L | 192 | 60 | 102 | 107 | 34 | 32 | SP..1104 | 0.98 |
| C32-TSD35-105L | 195 | 60 | 105 | 110 | 35 | 32 | SP..1104 | 0.99 |
| C32-TSD36-108L | 198 | 60 | 108 | 113 | 36 | 32 | SP..1104 | 1.09 |
| C32-TSD37-111L | 201 | 60 | 111 | 116 | 37 | 32 | SP..1104 | 1.08 |
| C32-TSD38-114L | 204 | 60 | 114 | 119 | 38 | 32 | SP..1104 | 1.12 |
| C32-TSD39-117L | 207 | 60 | 117 | 122 | 39 | 32 | SP..1104 | 1.22 |
| C40-TSD40-120L | 224 | 70 | 120 | 125 | 40 | 40 | SP..1104 | 1.74 |
| C40-TSD41-123L | 227 | 70 | 123 | 128 | 41 | 40 | SP..1104 | 1.79 |
| C40-TSD42-126L | 230 | 70 | 126 | 131 | 42 | 40 | SP.1405 | 1.62 |
| C40-TSD43-129L | 233 | 70 | 129 | 134 | 43 | 40 | SP.1405 | 1.70 |
| C40-TSD44-132L | 236 | 70 | 132 | 137 | 44 | 40 | SP.1405 | 1.75 |
| C40-TSD45-135L | 239 | 70 | 135 | 140 | 45 | 40 | SP.1405 | 1.84 |
| C40-TSD46-138L | 242 | 70 | 138 | 143 | 46 | 40 | SP.1405 | 1.92 |
| C40-TSD47-141L | 245 | 70 | 141 | 146 | 47 | 40 | SP.1405 | 1.97 |
| C40-TSD48-144L | 248 | 70 | 144 | 149 | 48 | 40 | SP.1405 | 2.06 |
| C40-TSD49-147L | 251 | 70 | 147 | 152 | 49 | 40 | SP.1405 | 2.12 |
| C40-TSD50-150L | 254 | 70 | 150 | 155 | 50 | 40 | SP.1405 | 2.22 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-------------------------|-----------|------------------|
| SP.0904 | M3.5-8.4-5.0-60-T10-TIN | T10 | 2.0 |
| SP.1104 | M4-9.35-5.65-60-T15-TIN | T15 | 3.0 |
| SP.1405 | M5-12.8-7.0-60-T20-TIN | T20 | 5.0 |



•長度單位 Unit of Length (mm)

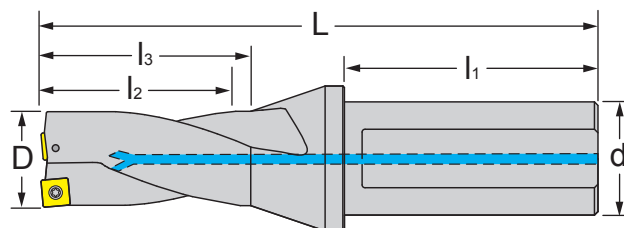
TSD 四角刀片快速鑽頭 (3 倍點數)

TSD SQUARE INSERT HIGH SPEED DRILL



KOVIT

Dx3 0.5 Type



特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- 4 edges are usable on 1 insert, effective cost-saving.
- Both inner and outer flutes use the same type of square inserts, which is easy for stock management, prevent mis-assembly and reduce cutter damaging.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|--------------------|-------|----------------|----------------|----------------|------|----|-----------|-----------------|
| C20-TSD13.5-40.5L | 112.5 | 50 | 40.5 | 45.5 | 13.5 | 20 | SP.0502 | 0.18 |
| C20-TSD14.5-43.5L | 115.5 | 50 | 43.5 | 48.5 | 14.5 | 20 | SP.0502 | 0.21 |
| C25-TSD15.5-46.5L | 128.5 | 56 | 46.5 | 51.5 | 15.5 | 25 | SP.0602 | 0.32 |
| C25-TSD16.5-49.5L | 131.5 | 56 | 49.5 | 54.5 | 16.5 | 25 | SP.0602 | 0.33 |
| C25-TSD17.5-52.5L | 134.5 | 56 | 52.5 | 57.5 | 17.5 | 25 | SP.0602 | 0.33 |
| C25-TSD18.5-55.5L | 137.5 | 56 | 55.5 | 60.5 | 18.5 | 25 | SP.0602 | 0.35 |
| C25-TSD19.5-58.5L | 140.5 | 56 | 58.5 | 63.5 | 19.5 | 25 | SP.0602 | 0.38 |
| C25-TSD20.5-61.5L | 143.5 | 56 | 61.5 | 66.5 | 20.5 | 25 | SP.0602 | 0.38 |
| C25-TSD21.5-64.5L | 146.5 | 56 | 64.5 | 69.5 | 21.5 | 25 | SP.0602 | 0.40 |
| C32-TSD22.5-67.5L | 155.5 | 60 | 67.5 | 72.5 | 22.5 | 32 | SP.07T3 | 0.65 |
| C32-TSD23.5-70.5L | 158.5 | 60 | 70.5 | 75.5 | 23.5 | 32 | SP.07T3 | 0.66 |
| C32-TSD24.5-73.5L | 161.5 | 60 | 73.5 | 78.5 | 24.5 | 32 | SP.07T3 | 0.71 |
| C32-TSD25.5-76.5L | 164.5 | 60 | 76.5 | 81.5 | 25.5 | 32 | SP.07T3 | 0.72 |
| C32-TSD26.5-79.5L | 167.5 | 60 | 79.5 | 84.5 | 26.5 | 32 | SP.07T3 | 0.75 |
| C32-TSD27.5-82.5L | 170.5 | 60 | 82.5 | 87.5 | 27.5 | 32 | SP.07T3 | 0.76 |
| C32-TSD28.5-85.5L | 175.5 | 60 | 85.5 | 90.5 | 28.5 | 32 | SP.0904 | 0.80 |
| C32-TSD29.5-88.5L | 178.5 | 60 | 88.5 | 93.5 | 29.5 | 32 | SP.0904 | 0.82 |
| C32-TSD30.5-91.5L | 181.5 | 60 | 91.5 | 96.5 | 30.5 | 32 | SP.0904 | 0.87 |
| C32-TSD31.5-94.5L | 184.5 | 60 | 94.5 | 99.5 | 31.5 | 32 | SP.0904 | 0.89 |
| C32-TSD32.5-97.5L | 187.5 | 60 | 97.5 | 102.5 | 32.5 | 32 | SP.0904 | 0.92 |
| C32-TSD33.5-100.5L | 190.5 | 60 | 100.5 | 105.5 | 33.5 | 32 | SP.0904 | 0.96 |

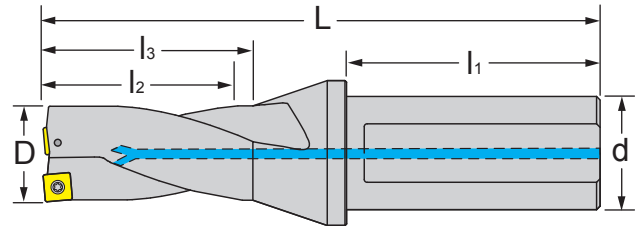
配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-------------------------|-----------|------------------|
| SP.0502 | M2-4.3-2.7-60-T6-TIN | T6 | 0.6 |
| SP.0602 | M2.2-5.2-3.1-60-T7-TIN | T7 | 0.9 |
| SP.07T3 | M2.5-6.33-3.5-48-T8-TIN | T8 | 1.2 |
| SP.0904 | M3.5-8.4-5.0-60-T10-TIN | T10 | 2.0 |
| SP.1104 | M4-9.35-5.65-60-T15-TIN | T15 | 3.0 |
| SP.1405 | M5-12.8-7.0-60-T20-TIN | T20 | 5.0 |

• 長度單位 Unit of Length (mm)

Dx4

KOVIT



特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

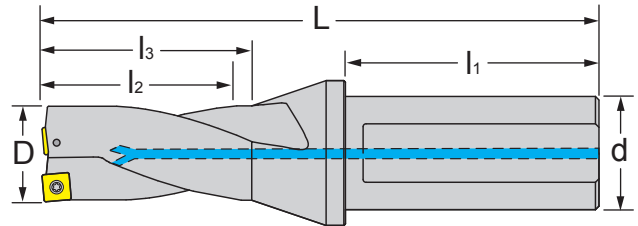
- 4 edges are usable on 1 insert, effective cost-saving.
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| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|----------------|----|----|-----------|-----------------|
| C25-TSD13-52L | 132 | 56 | 52 | 57 | 13 | 25 | SP..0502 | 0.34 |
| C25-TSD14-56L | 136 | 56 | 56 | 61 | 14 | 25 | SP..0502 | 0.34 |
| C25-TSD15-60L | 140 | 56 | 60 | 65 | 15 | 25 | SP..0502 | 0.36 |
| C25-TSD16-64L | 146 | 56 | 64 | 69 | 16 | 25 | SP..0602 | 0.37 |
| C25-TSD17-68L | 150 | 56 | 68 | 73 | 17 | 25 | SP..0602 | 0.38 |
| C25-TSD18-72L | 154 | 56 | 72 | 77 | 18 | 25 | SP..0602 | 0.40 |
| C25-TSD19-76L | 158 | 56 | 76 | 81 | 19 | 25 | SP..0602 | 0.41 |
| C25-TSD20-80L | 162 | 56 | 80 | 85 | 20 | 25 | SP..0602 | 0.43 |
| C25-TSD21-84L | 166 | 56 | 84 | 89 | 21 | 25 | SP..0602 | 0.45 |
| C25-TSD22-88L | 170 | 56 | 88 | 93 | 22 | 25 | SP..07T3 | 0.67 |
| C32-TSD23-92L | 180 | 60 | 92 | 97 | 23 | 32 | SP..07T3 | 0.69 |
| C32-TSD24-96L | 184 | 60 | 96 | 101 | 24 | 32 | SP..07T3 | 0.71 |
| C32-TSD25-100L | 188 | 60 | 100 | 105 | 25 | 32 | SP..07T3 | 0.74 |
| C32-TSD26-104L | 192 | 60 | 104 | 109 | 26 | 32 | SP..07T3 | 0.77 |
| C32-TSD27-108L | 196 | 60 | 108 | 113 | 27 | 32 | SP..07T3 | 0.81 |
| C32-TSD28-112L | 202 | 60 | 112 | 117 | 28 | 32 | SP..0904 | 0.86 |
| C32-TSD29-116L | 206 | 60 | 116 | 121 | 29 | 32 | SP..0904 | 0.88 |
| C32-TSD30-120L | 210 | 60 | 120 | 125 | 30 | 32 | SP..0904 | 0.94 |
| C32-TSD31-124L | 214 | 60 | 124 | 129 | 31 | 32 | SP..0904 | 0.96 |
| C32-TSD32-128L | 218 | 60 | 128 | 133 | 32 | 32 | SP..0904 | 1.01 |
| C32-TSD33-132L | 222 | 60 | 132 | 137 | 33 | 32 | SP..0904 | 1.06 |
| C32-TSD34-136L | 226 | 60 | 136 | 141 | 34 | 32 | SP..1104 | 1.07 |
| C32-TSD35-140L | 230 | 60 | 140 | 145 | 35 | 32 | SP..1104 | 1.12 |
| C32-TSD36-144L | 234 | 60 | 144 | 149 | 36 | 32 | SP..1104 | 1.15 |
| C32-TSD37-148L | 238 | 60 | 148 | 153 | 37 | 32 | SP..1104 | 1.21 |
| C32-TSD38-152L | 242 | 60 | 152 | 157 | 38 | 32 | SP..1104 | 1.24 |
| C32-TSD39-156L | 246 | 60 | 156 | 161 | 39 | 32 | SP..1104 | 1.33 |



•長度單位 Unit of Length (mm)

Dx4



特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- 4 edges are usable on 1 insert, effective cost-saving.
- Both inner and outer flutes use the same type of square inserts, which is easy for stock management, prevent mis-assembly and reduce cutter damaging.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|----------------|----|----|-----------|-----------------|
| C40-TSD40-160L | 264 | 70 | 160 | 165 | 40 | 40 | SP.1104 | 1.80 |
| C40-TSD41-164L | 268 | 70 | 164 | 169 | 41 | 40 | SP.1104 | 1.81 |
| C40-TSD42-168L | 272 | 70 | 168 | 173 | 42 | 40 | SP.1405 | 1.83 |
| C40-TSD43-172L | 276 | 70 | 172 | 177 | 43 | 40 | SP.1405 | 1.93 |
| C40-TSD44-176L | 280 | 70 | 176 | 181 | 44 | 40 | SP.1405 | 2.00 |
| C40-TSD45-180L | 284 | 70 | 180 | 185 | 45 | 40 | SP.1405 | 2.13 |
| C40-TSD46-184L | 288 | 70 | 184 | 189 | 46 | 40 | SP.1405 | 2.20 |
| C40-TSD47-188L | 292 | 70 | 188 | 193 | 47 | 40 | SP.1405 | 2.28 |
| C40-TSD48-192L | 296 | 70 | 192 | 197 | 48 | 40 | SP.1405 | 2.38 |
| C40-TSD49-196L | 300 | 70 | 196 | 201 | 49 | 40 | SP.1405 | 2.48 |
| C40-TSD50-200L | 304 | 70 | 200 | 205 | 50 | 40 | SP.1405 | 2.61 |

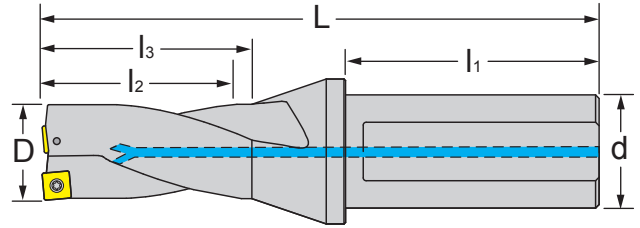
配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-------------------------|-----------|------------------|
| SP.0502 | M2-4.3-2.7-60-T6-TIN | T6 | 0.6 |
| SP.0602 | M2.2-5.2-3.1-60-T7-TIN | T7 | 0.9 |
| SP.07T3 | M2.5-6.33-3.5-48-T8-TIN | T8 | 1.2 |
| SP.0904 | M3.5-8.4-5.0-60-T10-TIN | T10 | 2.0 |
| SP.1104 | M4-9.35-5.65-60-T15-TIN | T15 | 3.0 |
| SP.1405 | M5-12.8-7.0-60-T20-TIN | T20 | 5.0 |



•長度單位 Unit of Length (mm)

Dx5



特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- 4 edges are usable on 1 insert, effective cost-saving.
- Both inner and outer flutes use the same type of square inserts, which is easy for stock management, prevent mis-assembly and reduce cutter damaging.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|----------------|----|----|-----------|-----------------|
| C25-TSD16-80L | 162 | 56 | 80 | 85 | 16 | 25 | SP.0602 | 0.38 |
| C25-TSD17-85L | 167 | 56 | 85 | 90 | 17 | 25 | SP.0602 | 0.40 |
| C25-TSD18-90L | 172 | 56 | 90 | 95 | 18 | 25 | SP.0602 | 0.42 |
| C25-TSD19-95L | 177 | 56 | 95 | 100 | 19 | 25 | SP.0602 | 0.44 |
| C25-TSD20-100L | 182 | 56 | 100 | 105 | 20 | 25 | SP.0602 | 0.46 |
| C25-TSD21-105L | 187 | 56 | 105 | 110 | 21 | 25 | SP.0602 | 0.49 |
| C25-TSD22-110L | 192 | 56 | 110 | 115 | 22 | 25 | SP.07T3 | 0.50 |
| C32-TSD23-115L | 203 | 60 | 115 | 120 | 23 | 32 | SP.07T3 | 0.75 |
| C32-TSD24-120L | 208 | 60 | 120 | 125 | 24 | 32 | SP.07T3 | 0.77 |
| C32-TSD25-125L | 213 | 60 | 125 | 130 | 25 | 32 | SP.07T3 | 0.80 |
| C32-TSD26-130L | 218 | 60 | 130 | 135 | 26 | 32 | SP.07T3 | 0.83 |
| C32-TSD27-135L | 223 | 60 | 135 | 140 | 27 | 32 | SP.07T3 | 0.87 |
| C32-TSD28-140L | 230 | 60 | 140 | 145 | 28 | 32 | SP.0904 | 0.93 |
| C32-TSD29-145L | 235 | 60 | 145 | 150 | 29 | 32 | SP.0904 | 0.97 |
| C32-TSD30-150L | 240 | 60 | 150 | 155 | 30 | 32 | SP.0904 | 1.01 |
| C32-TSD31-155L | 245 | 60 | 155 | 160 | 31 | 32 | SP.0904 | 1.06 |
| C32-TSD32-160L | 250 | 60 | 160 | 165 | 32 | 32 | SP.0904 | 1.11 |
| C32-TSD33-165L | 255 | 60 | 165 | 170 | 33 | 32 | SP.0904 | 1.17 |
| C32-TSD34-170L | 260 | 60 | 170 | 175 | 34 | 32 | SP.1104 | 1.20 |
| C32-TSD35-175L | 265 | 60 | 175 | 180 | 35 | 32 | SP.1104 | 1.26 |
| C32-TSD36-180L | 270 | 60 | 180 | 185 | 36 | 32 | SP.1104 | 1.31 |
| C32-TSD37-185L | 275 | 60 | 185 | 190 | 37 | 32 | SP.1104 | 1.36 |
| C32-TSD38-190L | 280 | 60 | 190 | 195 | 38 | 32 | SP.1104 | 1.45 |
| C32-TSD39-195L | 285 | 60 | 195 | 200 | 39 | 32 | SP.1104 | 1.51 |
| C40-TSD40-200L | 304 | 70 | 200 | 205 | 40 | 40 | SP.1104 | 2.20 |
| C40-TSD41-205L | 309 | 70 | 205 | 210 | 41 | 40 | SP.1104 | 2.40 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-------------------------|-----------|------------------|
| SP.0602 | M2.2-5.2-3.1-60-T7-TIN | T7 | 0.9 |
| SP.07T3 | M2.5-6.33-3.5-48-T8-TIN | T8 | 1.2 |
| SP.0904 | M3.5-8.4-5.0-60-T10-TIN | T10 | 2.0 |
| SP.1104 | M4-9.35-5.65-60-T15-TIN | T15 | 3.0 |
| SP.1405 | M5-12.8-7.0-60-T20-TIN | T20 | 5.0 |

•長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | | ○ | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | |
|----------|------------------------|--------------------------------|--------|--------|---|--------------------------------------|--------|---|--|---------|---|---|------|------------|------|---|--|
| | M | 不鏽鋼 Stainless Steels | ○ | | ○ | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | ○ | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | ■ | ■ | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | 尺寸 (mm) | | | | 圖形 Drawing | | | |
| | | CHF | | | | HF | | | | Size | | | | | | | |
| | | RM4025 | RM3130 | RM4030 | | RM5005 | RM5060 | | | d | i | s | r | | | | |
| | SPGT050204-M02 | | | ● | | | | | | | | | 5 | - | 2.38 | 0.4 | |
| | SPGT060204-M02 | | | ● | | | | | | | | | 6 | - | 2.38 | 0.4 | |
| | SPGT07T308-M02 | | | ● | | | | | | | | | 7.94 | - | 3.97 | 0.8 | |
| | SPGT090408-M02 | | | ● | | | | | | | | | 9.8 | - | 4.3 | 0.8 | |
| | SPGT110408-M02 | | | ● | | | | | | | | | 11.5 | - | 4.76 | 0.8 | |
| | SPGT140512-M02 | | | ● | | | | | | | | | 14.3 | - | 5.2 | 1.2 | |
| | ★ SPMT050204-M03 | ● | ● | | | | | | | | | | 5 | - | 2.38 | 0.4 | |
| | ★ SPMT060204-M03 | ● | ● | | | | | | | | | | 6 | - | 2.38 | 0.4 | |
| | ★ SPMT07T308-M03 | ● | ● | | | | | | | | | | 7.94 | - | 3.97 | 0.8 | |
| | ★ SPMT090408-M03 | ● | ● | | | | | | | | | | 9.8 | - | 4.3 | 0.8 | |
| | ★ SPMT110408-M03 | ● | ● | | | | | | | | | | 11.5 | - | 4.76 | 0.8 | |
| | ★ SPMT140512-M03 | ● | ● | | | | | | | | | | 14.3 | - | 5.2 | 1.2 | |
| | ★ SPMT050204-MT | | | | | ● | ● | | | | | | 5 | - | 2.38 | 0.4 | |
| | ★ SPMT060204-MT | | | | | ● | ● | | | | | | 6 | - | 2.38 | 0.4 | |
| | ★ SPMT07T308-MT | | | | | ● | ● | | | | | | 7.94 | - | 3.97 | 0.8 | |
| | ★ SPMT090408-MT | | | | | ● | ● | | | | | | 9.8 | - | 4.3 | 0.8 | |
| | ★ SPMT110408-MT | | | | | ● | ● | | | | | | 11.5 | - | 4.76 | 0.8 | |
| | ★ SPMT140512-MT | | | | | ● | ● | | | | | | 14.3 | - | 5.2 | 1.2 | |

★ 推薦 Recommended

SP_05.06.07.09.11.14 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 進給率 (mm/rev) | | | | |
|------------------------------|---------------|-------------------|--------------|-----------|-----------|-----------|-----------|
| | | | ø13-ø15 | ø16-ø22 | ø23-ø33 | ø34-ø41 | ø42-ø50 |
| P 低合金鋼 Low-Alloy Steels | RM4025 | 180~260 | 0.06~0.12 | 0.06~0.10 | 0.06~0.12 | 0.12~0.24 | 0.12~0.25 |
| | RM4030 | 180~260 | 0.06~0.12 | 0.06~0.10 | 0.06~0.12 | 0.12~0.24 | 0.12~0.25 |
| P 合金鋼 Alloyed Steels | RM4025 | 140~200 | 0.05~0.08 | 0.08~0.15 | 0.10~0.18 | 0.08~0.15 | 0.10~0.18 |
| | RM4030 | 140~200 | 0.05~0.08 | 0.08~0.15 | 0.10~0.18 | 0.08~0.15 | 0.10~0.18 |
| M 不鏽鋼 Stainless Steels | RM4025 | 120~180 | 0.05~0.10 | 0.06~0.12 | 0.08~0.15 | 0.10~0.17 | 0.12~0.20 |
| | RM4030 | 120~180 | 0.05~0.10 | 0.06~0.12 | 0.08~0.15 | 0.10~0.17 | 0.12~0.20 |
| K 鑄鐵 Cast Iron | RM3130 | 120~180 | 0.05~0.10 | 0.06~0.12 | 0.08~0.15 | 0.10~0.17 | 0.12~0.20 |
| N 鋁合金 Aluminum&Al | RM5005 | 338~380 | 0.06~0.14 | 0.08~0.18 | 0.12~0.22 | 0.14~0.25 | 0.14~0.28 |
| | RM5060 | 338~380 | 0.06~0.14 | 0.08~0.18 | 0.12~0.22 | 0.14~0.25 | 0.14~0.28 |

| 主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

| 床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

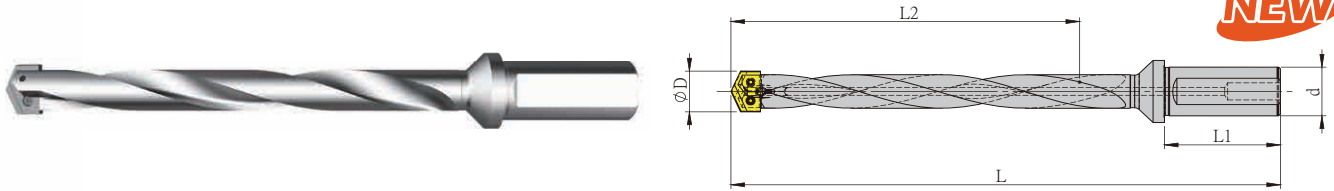
• 長度單位 Unit of Length (mm)



Dx7

KOVIT

NEW



| 規格 Spec. | D | d | L | L1 | L2 | 刀片 | 板手 | 螺絲 |
|------------------|-------|----|-----|----|-----|-------------|-----|------------------------------|
| C20-ZSD1315-105L | 13-15 | 20 | | 50 | 105 | SDZ13~SDZ15 | T8 | M2.5-6.33-3.5-48-T8-TIN |
| C20-ZSD1517-120L | 15-17 | 20 | | 50 | 120 | SDZ15~SDZ17 | T8 | M2.5-6.33-3.5-48-T8-TIN |
| C25-ZSD1821-150L | 18-21 | 25 | 244 | 55 | 150 | SDZ18~SDZ21 | T9 | M3-8.0-4.4-60/M3-7.5-4.2-53 |
| C25-ZSD2224-170L | 22-24 | 25 | | 55 | 170 | SDZ22~SDZ24 | T9 | M3-8.0-4.4-60/M3-7.5-4.2-53 |
| C32-ZSD2529-205L | 25-29 | 32 | | 60 | 205 | SDZ25~SDZ29 | T15 | M4-8.75-5.6-60/M4-9.5-5.5-55 |
| C32-ZSD3034-255L | 30-34 | 32 | | 60 | 255 | SDZ30~SDZ34 | T15 | M4-8.75-5.6-60/M4-9.5-5.5-55 |

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|--------|---|------------------------|---|---|--|--|--|--|---|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | |
| | S | 高溫合金 Refractory Alloys | | | | | | | |
| | H | 高硬度材 Hard Material | | | | | | | |

| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | 尺寸 (mm) Size | | | | 圖形 Drawing |
|--------------|----------|--------------------------------|--------|--|--|--------------|---|------|---|------------|
| | | CHF | | | | Size | | | | |
| | | OM4010 | RM3125 | | | d | i | s | r | |
| NEW SDZ13003 | | ● | ● | | | 13 | - | 3.18 | - | |
| NEW SDZ14003 | | ● | ● | | | 14 | - | 3.18 | - | |
| NEW SDZ15003 | | ● | ● | | | 15 | - | 3.18 | - | |
| NEW SDZ16003 | | ● | ● | | | 16 | - | 3.18 | - | |
| NEW SDZ17003 | | ● | ● | | | 17 | - | 3.18 | - | |
| NEW SDZ180T3 | | ● | ● | | | 18 | - | 3.97 | - | |
| NEW SDZ190T3 | | ● | ● | | | 19 | - | 3.97 | - | |
| NEW SDZ200T3 | | ● | ● | | | 20 | - | 3.97 | - | |
| NEW SDZ210T3 | | ● | ● | | | 21 | - | 3.97 | - | |
| NEW SDZ220T3 | | ● | ● | | | 22 | - | 3.97 | - | |
| NEW SDZ230T3 | | ● | ● | | | 23 | - | 3.97 | - | |
| NEW SDZ240T3 | | ● | ● | | | 24 | - | 3.97 | - | |
| NEW SDZ25004 | | ● | ● | | | 25 | - | 4.76 | - | |
| NEW SDZ26004 | | ● | ● | | | 26 | - | 4.76 | - | |
| NEW SDZ27004 | | ● | ● | | | 27 | - | 4.76 | - | |
| NEW SDZ28004 | | ● | ● | | | 28 | - | 4.76 | - | |
| NEW SDZ29004 | | ● | ● | | | 29 | - | 4.76 | - | |
| NEW SDZ30004 | | ● | ● | | | 30 | - | 4.76 | - | |
| NEW SDZ31004 | | ● | ● | | | 31 | - | 4.76 | - | |
| NEW SDZ32004 | | ● | ● | | | 32 | - | 4.76 | - | |
| NEW SDZ33004 | | ● | ● | | | 33 | - | 4.76 | - | |
| NEW SDZ34004 | | ● | ● | | | 34 | - | 4.76 | - | |

NEW 新品 New Product

•長度單位 Unit of Length (mm)

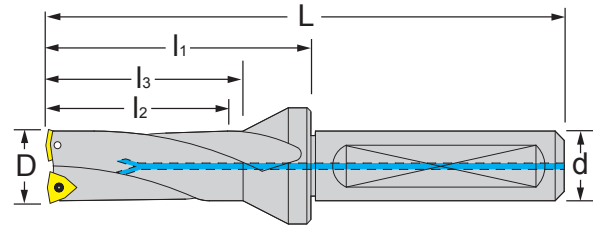
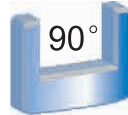
SD 捨棄式快速鑽頭 (2 倍長)

SD INDEXABLE HIGH SPEED DRILL



KOVIT

Dx2



特點 Feature

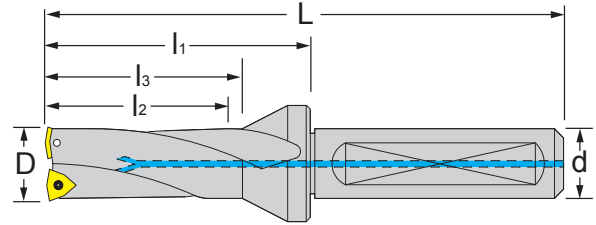
- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----------------|----------------|----------------|----|----|--------------|-----------------------|
| C25-SD16-32L | 119 | 63 | 32 | 35 | 16 | 25 | WC..0302 | 0.38 |
| C25-SD17-34L | 120 | 64 | 34 | 37 | 17 | 25 | WC..0302 | 0.38 |
| C25-SD18-36L | 122 | 66 | 36 | 39 | 18 | 25 | WC..0302 | 0.39 |
| C25-SD19-38L | 124 | 68 | 38 | 41 | 19 | 25 | WC..0302 | 0.40 |
| C25-SD20-40L | 126 | 70 | 40 | 43 | 20 | 25 | WC..0302 | 0.41 |
| C25-SD21-42L | 128 | 72 | 42 | 45 | 21 | 25 | WC..0402 | 0.43 |
| C32-SD22-44L | 136 | 76 | 44 | 47 | 22 | 32 | WC..0402 | 0.62 |
| C32-SD23-46L | 138 | 78 | 46 | 49 | 23 | 32 | WC..0402 | 0.64 |
| C32-SD24-48L | 141 | 81 | 48 | 51 | 24 | 32 | WC..0402 | 0.66 |
| C32-SD25-50L | 142 | 82 | 50 | 53 | 25 | 32 | WC..0402 | 0.66 |
| C32-SD26-52L | 144 | 84 | 52 | 55 | 26 | 32 | WC..0503 | 0.68 |
| C32-SD27-54L | 146 | 86 | 54 | 57 | 27 | 32 | WC..0503 | 0.69 |
| C32-SD28-56L | 148 | 88 | 56 | 59 | 28 | 32 | WC..0503 | 0.72 |
| C32-SD29-58L | 150 | 90 | 58 | 61 | 29 | 32 | WC..0503 | 0.73 |
| C32-SD30-60L | 152 | 92 | 60 | 63 | 30 | 32 | WC..0503 | 0.75 |
| C32-SD31-62L | 154 | 94 | 62 | 65 | 31 | 32 | WC..06T3 | 0.76 |
| C32-SD32-64L | 156 | 96 | 64 | 67 | 32 | 32 | WC..06T3 | 0.78 |
| C32-SD33-66L | 159 | 99 | 66 | 70 | 33 | 32 | WC..06T3 | 0.82 |
| C32-SD34-68L | 160 | 100 | 68 | 71 | 34 | 32 | WC..06T3 | 0.83 |
| C32-SD35-70L | 162 | 102 | 70 | 73 | 35 | 32 | WC..06T3 | 0.84 |
| C32-SD36-72L | 164 | 104 | 72 | 75 | 36 | 32 | WC..06T3 | 0.88 |
| C32-SD37-74L | 166 | 106 | 74 | 77 | 37 | 32 | WC..06T3 | 0.92 |
| C32-SD38-76L | 168 | 108 | 76 | 79 | 38 | 32 | WC..06T3 | 0.94 |
| C32-SD39-78L | 170 | 110 | 78 | 81 | 39 | 32 | WC..06T3 | 0.97 |
| C40-SD40-80L | 185 | 115 | 80 | 83 | 40 | 40 | WC..06T3 | 1.47 |
| C40-SD41-82L | 187 | 117 | 82 | 85 | 41 | 40 | WC..06T3 | 1.49 |
| C40-SD42-84L | 189 | 119 | 84 | 87 | 42 | 40 | WC..0804 | 1.55 |
| C40-SD43-86L | 191 | 121 | 86 | 89 | 43 | 40 | WC..0804 | 1.56 |
| C40-SD44-88L | 194 | 124 | 88 | 91 | 44 | 40 | WC..0804 | 1.63 |
| C40-SD45-90L | 195 | 125 | 90 | 93 | 45 | 40 | WC..0804 | 1.65 |
| C40-SD46-92L | 197 | 127 | 92 | 95 | 46 | 40 | WC..0804 | 1.79 |
| C40-SD47-94L | 199 | 129 | 94 | 97 | 47 | 40 | WC..0804 | 1.84 |
| C40-SD48-96L | 201 | 131 | 96 | 99 | 48 | 40 | WC..0804 | 1.76 |
| C40-SD49-98L | 202 | 132 | 98 | 101 | 49 | 40 | WC..0804 | 1.87 |
| C40-SD50-100L | 204 | 134 | 100 | 103 | 50 | 40 | WC..0804 | 1.93 |
| C40-SD51-102L | 206 | 136 | 102 | 105 | 51 | 40 | WC..0804 | 1.19 |
| C40-SD52-104L | 208 | 138 | 104 | 107 | 52 | 40 | WC..0804 | 0.20 |
| C40-SD53-106L | 210 | 140 | 106 | 109 | 53 | 40 | WC..0804 | 0.20 |
| C40-SD54-108L | 212 | 142 | 108 | 111 | 54 | 40 | WC..0804 | 2.08 |
| C40-SD55-110L | 215 | 145 | 110 | 113 | 55 | 40 | WC..0804 | 2.20 |
| C40-SD56-112L | 217 | 147 | 112 | 115 | 56 | 40 | WC..0804 | 2.30 |
| C40-SD57-114L | 219 | 149 | 114 | 117 | 57 | 40 | WC..0804 | 2.40 |
| C40-SD58-116L | 221 | 151 | 116 | 119 | 58 | 40 | WC..0804 | 2.45 |
| C40-SD59-118L | 223 | 153 | 118 | 121 | 59 | 40 | WC..0804 | 2.70 |

•長度單位 Unit of Length (mm)

Dx3 0.5 Type



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

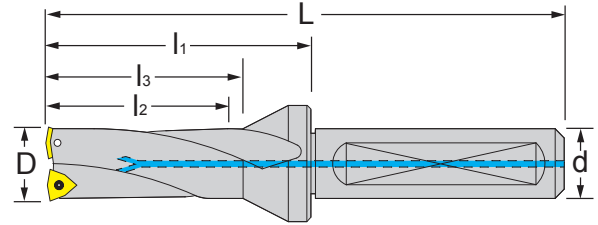
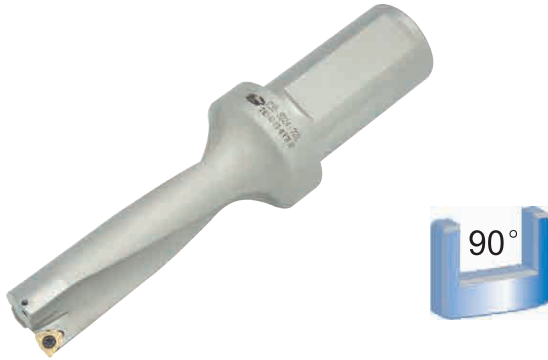
| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|----------------|------|----|-----------|-----------------|
| C25-SD16.5-48L | 134 | 78 | 48 | 51 | 16.5 | 25 | WC..0302 | 0.39 |
| C25-SD17.5-51L | 133 | 77 | 51 | 54 | 17.5 | 25 | WC..0302 | 0.41 |
| C25-SD18.5-54L | 140 | 84 | 54 | 57 | 18.5 | 25 | WC..0302 | 0.42 |
| C25-SD19.5-57L | 143 | 87 | 57 | 60 | 19.5 | 25 | WC..0302 | 0.43 |
| C25-SD20.5-60L | 145 | 89 | 60 | 63 | 20.5 | 25 | WC..0302 | 0.45 |
| C25-SD21.5-63L | 148 | 92 | 63 | 66 | 21.5 | 25 | WC..0402 | 0.46 |
| C32-SD22.5-66L | 155 | 95 | 66 | 69 | 22.5 | 32 | WC..0402 | 0.66 |
| C32-SD23.5-69L | 160 | 100 | 69 | 72 | 23.5 | 32 | WC..0402 | 0.66 |
| C32-SD24.5-72L | 164 | 104 | 72 | 75 | 24.5 | 32 | WC..0402 | 0.70 |
| C32-SD25.5-75L | 167 | 107 | 75 | 78 | 25.5 | 32 | WC..0402 | 0.73 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------------|-----------|------------------|
| WC..0302 | M2.5-5.5-3.35-60 | T8 | 1.2 |
| WC..0402 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| WC..0503 | M3-8.0-4.4-60 | T9 | 1.4 |
| WC..06T3 | M3.5-8.0-5.0-60 | T15 | 3.0 |
| WC..0804 | M4-10-5.7-60 | T15 | 3.0 |

•長度單位 Unit of Length (mm)

Dx3



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel
- After the heat treatment, we will finish the cutter again for better accuracy.

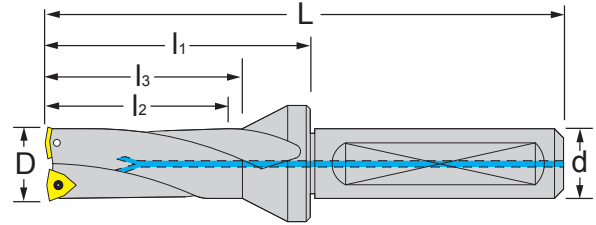
| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----------------|----------------|----------------|----|----|-----------|-----------------|
| C25-SD16-48L | 134 | 78 | 48 | 51 | 16 | 25 | WC..0302 | 0.39 |
| C25-SD17-51L | 137 | 81 | 51 | 54 | 17 | 25 | WC..0302 | 0.40 |
| C25-SD18-54L | 140 | 84 | 54 | 57 | 18 | 25 | WC..0302 | 0.41 |
| C25-SD19-57L | 143 | 87 | 57 | 60 | 19 | 25 | WC..0302 | 0.43 |
| C25-SD20-60L | 146 | 90 | 60 | 63 | 20 | 25 | WC..0302 | 0.44 |
| C25-SD21-63L | 149 | 93 | 63 | 66 | 21 | 25 | WC..0402 | 0.45 |
| C32-SD22-66L | 158 | 98 | 66 | 69 | 22 | 32 | WC..0402 | 0.66 |
| C32-SD23-69L | 161 | 101 | 69 | 72 | 23 | 32 | WC..0402 | 0.69 |
| C32-SD24-72L | 164 | 104 | 72 | 75 | 24 | 32 | WC..0402 | 0.69 |
| C32-SD25-75L | 167 | 107 | 75 | 78 | 25 | 32 | WC..0402 | 0.72 |
| C32-SD26-78L | 170 | 110 | 78 | 81 | 26 | 32 | WC..0503 | 0.73 |
| C32-SD27-81L | 173 | 113 | 81 | 84 | 27 | 32 | WC..0503 | 0.76 |
| C32-SD28-84L | 176 | 116 | 84 | 87 | 28 | 32 | WC..0503 | 0.79 |
| C32-SD29-87L | 179 | 119 | 87 | 90 | 29 | 32 | WC..0503 | 0.81 |
| C32-SD30-90L | 182 | 122 | 90 | 93 | 30 | 32 | WC..0503 | 0.82 |
| C32-SD31-93L | 185 | 125 | 93 | 96 | 31 | 32 | WC..06T3 | 0.86 |
| C32-SD32-96L | 188 | 128 | 96 | 99 | 32 | 32 | WC..06T3 | 0.88 |
| C32-SD33-99L | 191 | 131 | 99 | 102 | 33 | 32 | WC..06T3 | 0.92 |
| C32-SD34-102L | 194 | 134 | 102 | 105 | 34 | 32 | WC..06T3 | 0.95 |
| C32-SD35-105L | 197 | 137 | 105 | 108 | 35 | 32 | WC..06T3 | 1.00 |
| C32-SD36-108L | 200 | 140 | 108 | 111 | 36 | 32 | WC..06T3 | 1.04 |
| C32-SD37-111L | 203 | 143 | 111 | 114 | 37 | 32 | WC..06T3 | 1.11 |
| C32-SD38-114L | 206 | 146 | 114 | 117 | 38 | 32 | WC..06T3 | 1.12 |
| C32-SD39-117L | 209 | 149 | 117 | 120 | 39 | 32 | WC..06T3 | 1.18 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------------|-----------|------------------|
| WC..0302 | M2.5-5.5-3.35-60 | T8 | 1.2 |
| WC..0402 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| WC..0503 | M3-8.0-4.4-60 | T9 | 1.4 |
| WC..06T3 | M3.5-8.0-5.0-60 | T15 | 3.0 |
| WC..0804 | M4-10-5.7-60 | T15 | 3.0 |

•長度單位 Unit of Length (mm)

Dx3



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

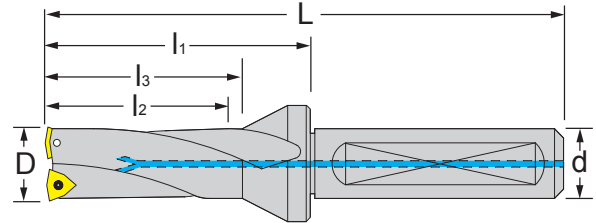
| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----------------|----------------|----------------|----|----|-----------|-----------------|
| C40-SD40-120L | 225 | 155 | 120 | 123 | 40 | 40 | WC..06T3 | 1.64 |
| C40-SD41-123L | 228 | 158 | 123 | 126 | 41 | 40 | WC..06T3 | 1.73 |
| C40-SD42-126L | 231 | 161 | 126 | 129 | 42 | 40 | WC..0804 | 1.78 |
| C40-SD43-129L | 234 | 164 | 129 | 132 | 43 | 40 | WC..0804 | 1.82 |
| C40-SD44-132L | 238 | 168 | 132 | 135 | 44 | 40 | WC..0804 | 1.84 |
| C40-SD45-135L | 240 | 170 | 135 | 138 | 45 | 40 | WC..0804 | 1.96 |
| C40-SD46-138L | 243 | 173 | 138 | 141 | 46 | 40 | WC..0804 | 1.97 |
| C40-SD47-141L | 246 | 176 | 141 | 144 | 47 | 40 | WC..0804 | 2.38 |
| C40-SD48-144L | 249 | 179 | 144 | 147 | 48 | 40 | WC..0804 | 2.11 |
| C40-SD49-147L | 252 | 182 | 147 | 150 | 49 | 40 | WC..0804 | 2.25 |
| C40-SD50-150L | 254 | 184 | 150 | 153 | 50 | 40 | WC..0804 | 2.28 |
| C40-SD51-153L | 257 | 187 | 153 | 156 | 51 | 40 | WC..0804 | 2.40 |
| C40-SD52-156L | 260 | 190 | 156 | 159 | 52 | 40 | WC..0804 | 2.42 |
| C40-SD53-159L | 263 | 193 | 159 | 162 | 53 | 40 | WC..0804 | 2.49 |
| C40-SD54-162L | 266 | 196 | 162 | 165 | 54 | 40 | WC..0804 | 2.63 |
| C40-SD55-165L | 270 | 200 | 165 | 168 | 55 | 40 | WC..0804 | 2.85 |
| C40-SD56-168L | 273 | 203 | 168 | 171 | 56 | 40 | WC..0804 | 2.92 |
| C40-SD57-171L | 275 | 205 | 171 | 174 | 57 | 40 | WC..0804 | 3.01 |
| C40-SD58-174L | 279 | 209 | 174 | 177 | 58 | 40 | WC..0804 | 3.19 |
| C40-SD59-177L | 282 | 212 | 177 | 180 | 59 | 40 | WC..0804 | 3.21 |
| C40-SD60-180L | 285 | 215 | 180 | 183 | 60 | 40 | WC..0804 | 3.41 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-----------------|-----------|------------------|
| WC..06T3 | M3.5-8.0-5.0-60 | T15 | 3.0 |
| WC..0804 | M4-10-5.7-60 | T15 | 3.0 |

•長度單位 Unit of Length (mm)

Dx4



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----------------|----------------|----------------|----|----|--------------|-----------------------|
| C25-SD16-64L | 150 | 94 | 64 | 67 | 16 | 25 | WC..0302 | 0.39 |
| C25-SD17-68L | 154 | 98 | 68 | 71 | 17 | 25 | WC..0302 | 0.42 |
| C25-SD18-72L | 158 | 102 | 72 | 75 | 18 | 25 | WC..0302 | 0.44 |
| C25-SD19-76L | 162 | 106 | 76 | 79 | 19 | 25 | WC..0302 | 0.44 |
| C25-SD20-80L | 166 | 110 | 80 | 83 | 20 | 25 | WC..0302 | 0.47 |
| C25-SD21-84L | 170 | 114 | 84 | 87 | 21 | 25 | WC..0402 | 0.48 |
| C32-SD22-88L | 180 | 120 | 88 | 91 | 22 | 32 | WC..0402 | 0.69 |
| C32-SD23-92L | 184 | 124 | 92 | 95 | 23 | 32 | WC..0402 | 0.71 |
| C32-SD24-96L | 188 | 128 | 96 | 99 | 24 | 32 | WC..0402 | 0.74 |
| C32-SD25-100L | 192 | 132 | 100 | 103 | 25 | 32 | WC..0402 | 0.78 |
| C32-SD26-104L | 196 | 136 | 104 | 107 | 26 | 32 | WC..0503 | 0.80 |
| C32-SD27-108L | 200 | 140 | 108 | 111 | 27 | 32 | WC..0503 | 0.82 |
| C32-SD28-112L | 204 | 144 | 112 | 115 | 28 | 32 | WC..0503 | 0.84 |
| C32-SD29-116L | 208 | 148 | 116 | 119 | 29 | 32 | WC..0503 | 0.89 |
| C32-SD30-120L | 212 | 152 | 120 | 123 | 30 | 32 | WC..0503 | 0.94 |
| C32-SD31-124L | 216 | 156 | 124 | 127 | 31 | 32 | WC..06T3 | 0.95 |
| C32-SD32-128L | 220 | 160 | 128 | 131 | 32 | 32 | WC..06T3 | 1.04 |
| C32-SD33-132L | 224 | 164 | 132 | 135 | 33 | 32 | WC..06T3 | 1.07 |
| C32-SD34-136L | 228 | 168 | 136 | 139 | 34 | 32 | WC..06T3 | 1.08 |
| C32-SD35-140L | 232 | 172 | 140 | 143 | 35 | 32 | WC..06T3 | 1.18 |
| C32-SD39-156L | 248 | 188 | 156 | 159 | 39 | 32 | WC..06T3 | 1.36 |
| C40-SD41-164L | 269 | 199 | 164 | 167 | 41 | 40 | WC..06T3 | 1.89 |
| C40-SD44-176L | 282 | 212 | 176 | 179 | 44 | 40 | WC..0804 | 2.18 |
| C40-SD47-188L | 293 | 223 | 188 | 191 | 47 | 40 | WC..0804 | 2.28 |
| C40-SD49-196L | 301 | 231 | 196 | 199 | 49 | 40 | WC..0804 | 2.63 |
| C40-SD54-216L | 320 | 250 | 216 | 219 | 54 | 40 | WC..0804 | 3.22 |
| C40-SD59-236L | 341 | 271 | 236 | 239 | 59 | 40 | WC..0804 | 3.75 |

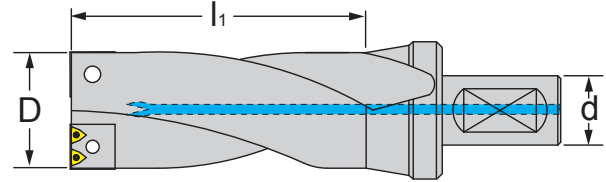
配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|------------------|--------------|------------------------|
| WC..0302 | M2.5-5.5-3.35-60 | T8 | 1.2 |
| WC..0402 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| WC..0503 | M3-8.0-4.4-60 | T9 | 1.4 |
| WC..06T3 | M3.5-8.0-5.0-60 | T15 | 3.0 |
| WC..0804 | M4-10-5.7-60 | T15 | 3.0 |

• 長度單位 Unit of Length (mm)

加工直徑 Cutting Dia.: Ø61~Ø80

KOVIT



配件表 Accessories

- 可利用更換刀片座方式就可讓刀具直徑加大
- 有效降低購刀成本
- 鋼性的設計大幅提高了加工效率

- Replaceable insert holder for larger diameter.
- Effective cost-saving.
- Enhanced rigidity improves cutting efficiency.

| 規格 Spec. | l ₁ | D | d | 內刃 Inner Edge | 外刃 Outer Edge | 鑽孔範圍 Range | 鎖固螺絲 Lock Screw | 刀片 Insert | 重量 (KGS) Weight |
|------------------|----------------|----|----|---------------|---------------|---------------|-----------------|-----------|-----------------|
| C40-CSD6161-195L | 195 | 61 | 40 | ICSD6165 | OCSD61 | Ø 61 ~ Ø 65mm | BH-M8-20 | WC..06T3 | 6.05 |
| C40-CSD6162-195L | 195 | 62 | 40 | ICSD6165 | OCSD62 | Ø 61 ~ Ø 65mm | BH-M8-20 | WC..06T3 | 6.09 |
| C40-CSD6163-195L | 195 | 63 | 40 | ICSD6165 | OCSD63 | Ø 61 ~ Ø 65mm | BH-M8-20 | WC..06T3 | 6.11 |
| C40-CSD6164-195L | 195 | 64 | 40 | ICSD6165 | OCSD64 | Ø 61 ~ Ø 65mm | BH-M8-20 | WC..06T3 | 6.13 |
| C40-CSD6165-195L | 195 | 65 | 40 | ICSD6165 | OCSD65 | Ø 61 ~ Ø 65mm | BH-M8-20 | WC..06T3 | 5.90 |
| C40-CSD6666-210L | 210 | 66 | 40 | ICSD6670 | OCSD66 | Ø 66 ~ Ø 70mm | BH-M8-20 | WC..06T3 | 7.42 |
| C40-CSD6667-210L | 210 | 67 | 40 | ICSD6670 | OCSD67 | Ø 66 ~ Ø 70mm | BH-M8-20 | WC..06T3 | 7.42 |
| C40-CSD6668-210L | 210 | 68 | 40 | ICSD6670 | OCSD68 | Ø 66 ~ Ø 70mm | BH-M8-20 | WC..06T3 | 7.44 |
| C40-CSD6669-210L | 210 | 69 | 40 | ICSD6670 | OCSD69 | Ø 66 ~ Ø 70mm | BH-M8-20 | WC..06T3 | 7.46 |
| C40-CSD6670-210L | 210 | 70 | 40 | ICSD6670 | OCSD70 | Ø 66 ~ Ø 70mm | BH-M8-20 | WC..06T3 | 7.50 |
| C40-CSD7171-225L | 225 | 71 | 40 | ICSD7175 | OCSD71 | Ø 71 ~ Ø 75mm | BH-M8-20 | WC..06T3 | 7.62 |
| C40-CSD7172-225L | 225 | 72 | 40 | ICSD7175 | OCSD72 | Ø 71 ~ Ø 75mm | BH-M8-20 | WC..06T3 | 7.62 |
| C40-CSD7173-225L | 225 | 73 | 40 | ICSD7175 | OCSD73 | Ø 71 ~ Ø 75mm | BH-M8-20 | WC..06T3 | 7.63 |
| C40-CSD7174-225L | 225 | 74 | 40 | ICSD7175 | OCSD74 | Ø 71 ~ Ø 75mm | BH-M8-20 | WC..06T3 | 7.64 |
| C40-CSD7175-225L | 225 | 75 | 40 | ICSD7175 | OCSD75 | Ø 71 ~ Ø 75mm | BH-M8-20 | WC..06T3 | 7.65 |
| C40-CSD7676-240L | 240 | 76 | 40 | ICSD7680 | OCSD76 | Ø 76 ~ Ø 80mm | BH-M8-22 | WC..06T3 | 6.49 |
| C40-CSD7677-240L | 240 | 77 | 40 | ICSD7680 | OCSD77 | Ø 76 ~ Ø 80mm | BH-M8-22 | WC..06T3 | 8.80 |
| C40-CSD7678-240L | 240 | 75 | 40 | ICSD7680 | OCSD78 | Ø 76 ~ Ø 80mm | BH-M8-22 | WC..06T3 | 8.82 |
| C40-CSD7679-240L | 240 | 79 | 40 | ICSD7680 | OCSD79 | Ø 76 ~ Ø 80mm | BH-M8-22 | WC..06T3 | 8.84 |
| C40-CSD7680-240L | 240 | 80 | 40 | ICSD7680 | OCSD80 | Ø 76 ~ Ø 80mm | BH-M8-22 | WC..06T3 | 8.84 |


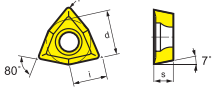

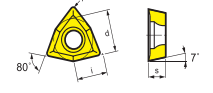
配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 扳手 Wrench |
|-----------|-----------------|-----------|------------------|-----------|
| WC..06T3 | M3.5-8.0-5.0-60 | T15K | 3.0 | PT5 |



•長度單位 Unit of Length (mm)

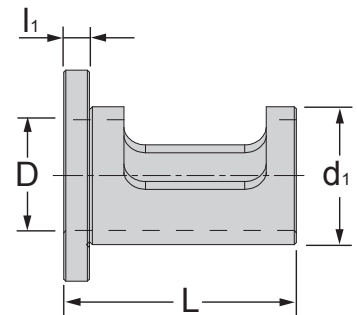
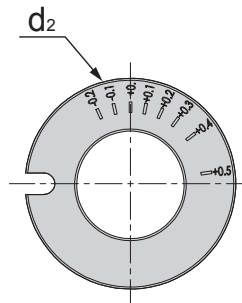


| ISO 分類 | P | 合金鋼 Alloyed Steels | | ○ | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | |
|---|---------------------------|---|-------|---|--|--|--|--|--|--|--|-----------------|-----|---|-----|---|
| | M | 不鏽鋼 Stainless Steels | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | ○ | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 超微粒硬質合金 Micro grain cemented carbide | | | | | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing |
| | | HF | | | | | | | | | | d | i | s | r | |
| | | GH05 | PTE30 | | | | | | | | | | | | | |
|  | WCKT030208 | ● | | | | | | | | | | 5.56 | 3.8 | 2.38 | 0.8 |  |
| | WCKT040208 | ● | | | | | | | | | | 6.35 | 4.3 | 2.38 | 0.8 | |
| | WCKT050308 | ● | | | | | | | | | | 7.94 | 5.4 | 3.18 | 0.8 | |
| | WCKT06T308 | ● | | | | | | | | | | 9.525 | 6.5 | 3.97 | 0.8 | |
| | WCKT080408 | ● | | | | | | | | | | 12.7 | 8.7 | 4.76 | 0.8 | |
|  | WCMX030208-M01 | | ● | | | | | | | | | 5.56 | 3.8 | 2.38 | 0.8 |  |
| | WCMT040208-M01 | | ● | | | | | | | | | 6.35 | 4.3 | 2.38 | 0.8 | |
| | WCMT050308-M01 | | ● | | | | | | | | | 7.94 | 5.4 | 3.18 | 0.8 | |
| | WCMT06T308-M01 | | ● | | | | | | | | | 9.525 | 6.5 | 3.97 | 0.8 | |
| | WCMX080412-M01 | | ● | | | | | | | | | 12.7 | 8.7 | 4.76 | 1.2 | |

WC_03.04.05.06.08 切削條件數據表 Cutting Parameter

| | 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 進給率 (mm/rev) | | | |
|---|------------------------------|---------------|-------------------|--------------|------------|------------|-----------|
| | | | | ø20 以下 | ø20~ø25 以下 | ø25~ø45 以下 | ø45 以下 |
| P | 低合金鋼 Low-Alloy Steels | PET30 | 100~200 | 0.05~0.12 | 0.06~0.15 | 0.08~0.17 | 0.10~0.20 |
| | 合金鋼 Alloyed Steels | PET30 | 80~160 | 0.05~0.12 | 0.06~0.15 | 0.08~0.17 | 0.10~0.20 |
| M | 不鏽鋼 Stainless Steels | PET30 | 70~140 | 0.05~0.12 | 0.06~0.12 | 0.08~0.15 | 0.10~0.20 |
| K | 鑄鐵 Cast Iron | PET30 | 70~180 | 0.06~0.10 | 0.08~0.15 | 0.08~0.20 | 0.10~0.30 |
| N | 鋁合金 Aluminum&Al | GH05 | 150~250 | 0.05~0.10 | 0.10~0.20 | 0.12~0.23 | 0.20~0.30 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 通過調整直徑範圍來調整加工徑

- To adjust a drilling diameter by adjusting diameter range either enlarging or reducing.

| 規格 Spec. | L | L ₁ | D | d ₁ | d ₂ | 銑床加工徑調整可能範圍 Milling Machine Adjustment | 車床中心高調整範圍 Lathe Machine Adjustment | 重量 (KGS) Weight |
|------------|----|----------------|----|----------------|----------------|--|------------------------------------|-----------------|
| EC-2532-48 | 54 | 6 | 25 | 32 | 49 | -0.2~+0.5 | -0.15~+0.2 | 0.14 |
| EC-3240-53 | 59 | 6 | 32 | 40 | 58 | -0.2~+0.5 | -0.15~+0.2 | 0.20 |

銑床鑽孔徑尺寸調整

Adjust the drill hole diameter for milling process

- 請自行註記一個基準點當作基準，對準偏心套筒外緣刻度做調整。(請參照圖1)
Please mark an index as a datum by yourself and make an adjustment per the scale on the eccentric sleeve.(see diagram 1)
- 要擴大加工孔徑時，偏心套筒向(+)方向旋轉，要縮小加工孔徑時，偏心套筒向(-)方向旋轉。
Rotate in direction of (+) to enlarge the diameter of cutting hole. Rotate in direction of (-) to smaller the diameter of cutting hole.
- 旋轉偏心套筒時，請使用Ø3~Ø5 mm 調整圓棒插入偏心套筒外緣上的切槽溝，即可旋轉調整偏心套筒。
Please use adjustable round bar of Ø3~Ø5mm which inserted into the slot for rotating the eccentric sleeve.
- 使用側固刀桿的「A側固螺絲」，以偏心套筒的切槽開口處，對準螺絲鎖固，「B側固螺絲」則輕輕鎖緊即可。(請參照圖2)
Set screw for side A of chuck: fasten screw at the slot opening area of eccentric sleeve. Set screw for side B of chuck: slightly screw is enough (see diagram 2)



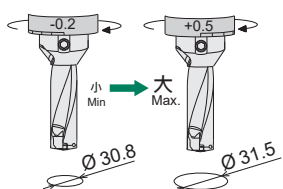
請注意 Cautions:

- 不可以使用筒夾固定軸把
Do not use the fixed shaft of collet.
- 套筒上的刻度為標準值
Take the scale on sleeve as a standard index.
- 調整後檢查實際加工徑
Check the actual cutting diameter after adjustment.
- 根據中心高的調整，孔徑會改變
Hole diameter varies with per adjustment of center height.
- 建議調整中心高後，再檢查孔徑
Double check the hole diameter per recommended adjustment of center height.

銑床加工徑調整

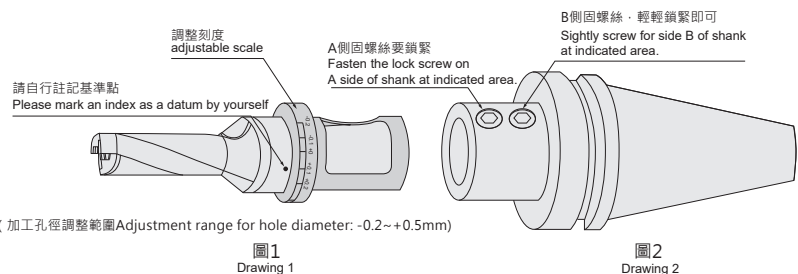
Adjust machining diameter for milling process

例：Ø31mm鑽頭 Drill head



加工徑調整範圍(mm)
Adjustable range for cutting diameter

| 調整範圍 |
|-----------|
| -0.2~+0.5 |



車床中心高調整

Adjust center height of lathe

車床的問題，大多是由中心高偏移引起的。
若孔端面中心殘留有直徑約0.5mm的芯核，則中心高是合適的，以下情況中，有必要調整中心高：1. 沒有殘留芯核 2. 芯核直徑大於1mm。

The lathe issue mostly caused by the high offset of center height.
The center height is appropriate if there remains 0.5mm diameter of core on the end side of hole.
Required center height adjustment for the following condition:

- No core remained
- Core diameter larger than 1mm.

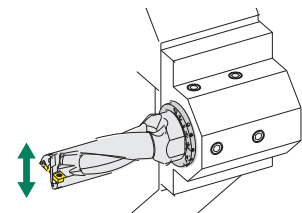
調整方法

Adjustment methods.

- 使偏心套筒外緣端面刻度(車床用)對準鑽頭外緣上的切液液孔插銷中央
- 如沒有芯核，向(+)方向旋轉偏心套筒；當芯核直徑大於1mm時，向(-)方向旋轉偏心套筒
- 旋轉偏心套筒時，請使用Ø3~Ø5 mm 調整圓棒插入偏心套筒外緣上的切槽溝，即可旋轉調整偏心套筒。
- 用車床上的刀把固定螺絲時，以偏心套筒的切槽開口處，直接固定鑽頭

中心高調整-車床加工用

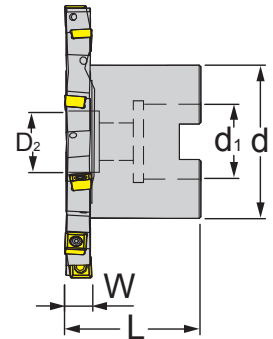
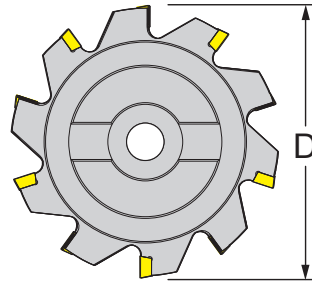
Adjust center height for lathe machining



中心高調整範圍(mm)
Adjustable range for center height

| 調整範圍 |
|------------|
| -0.15~+0.2 |

•長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變
- 刀片使用四個刃口，可有效降低成本

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.
- 4 edges usable, effective cost-saving.

| 規格 Spec. | L | D | D ₂ | d | d ₁ | W | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------|----|-----|----------------|----|----------------|----|--------------|--------------|-----------------------|
| FDC-80×08B22 | 40 | 80 | 18 | 45 | 22 | 8 | 8 | SP.0602 | 0.73 |
| FDC-100×08B27 | 40 | 100 | 19 | 50 | 27 | 8 | 10 | SP.0602 | 0.96 |
| FDC-100×10B27 | 40 | 100 | 19 | 50 | 27 | 10 | 10 | SP.0602 | 1.03 |
| FDC-100×14B27 | 40 | 100 | 19 | 50 | 27 | 14 | 10 | SP.0903 | 1.02 |
| FDC-125×10B32 | 45 | 125 | 43 | 70 | 32 | 10 | 12 | SP.0602 | 1.70 |
| FDC-125×12B32 | 45 | 125 | 43 | 70 | 32 | 12 | 12 | SP.0903 | 1.70 |
| FDC-160×12B40 | 50 | 160 | 50 | 80 | 40 | 12 | 14 | SP.0903 | 2.70 |
| FDC-200×12B40 | 50 | 200 | 50 | 90 | 40 | 12 | 16 | SP.0903 | 4.00 |
| FDC-125×16B32 | 45 | 125 | 43 | 70 | 32 | 16 | 10 | SP.1204 | 1.80 |
| FDC-160×16B40 | 50 | 160 | 50 | 80 | 40 | 16 | 12 | SP.1204 | 2.90 |
| FDC-160×18B40 | 50 | 160 | 50 | 80 | 40 | 18 | 12 | SP.1204 | 2.90 |
| FDC-200×16B40 | 50 | 200 | 50 | 90 | 40 | 16 | 14 | SP.1204 | 4.50 |
| FDC-200×18B40 | 50 | 200 | 50 | 90 | 40 | 18 | 14 | SP.1204 | 4.90 |
| FDC-200×20B40 | 50 | 200 | 50 | 90 | 40 | 20 | 14 | SP.1204 | 5.19 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|------------------------|--------------|------------------------|
| SP.0602 | M2.2-5.2-3.1-60-T7-TIN | T7 | 0.9 |
| SP.0903 | M4-10-5.7-60 | T15 | 3.0 |
| SP.1204 | M5-11-6.4-43 | T20 | 5.0 |



• 長度單位 Unit of Length (mm)

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | | | | | |
|--------|---|------------------------|---|---|---|---|--|--|--|---|--|--|--|--|--|--|--|--|--|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | | ○ | | | | | | | | | | | | | |
| ISO 分類 | N | 鋁及鋁合金 Aluminum&Al | | | | | | | | ■ | | | | | | | | | |
| | S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | |
| | H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | | |

| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | | |
|----------|----------------|--------------------------------|--------|--------|--------|--------------------------------------|--|---|--|--------------|---|---|---|------------|---|------|-----|--|
| | | CHF | | | | HF | | | | Size | | | | | | | | |
| | | OM4010 | OM4025 | RM4025 | RM3130 | OM5005 | | | | | d | i | s | | r | | | |
| | SPMT060204-M01 | | | ● | ● | | | | | | | | | 6 | - | 2.38 | 0.4 | |
| | SPMT090308-M01 | | | ● | | | | | | | | | | 9.8 | - | 3.18 | 0.8 | |
| | SPMW090304 | ● | ● | | | | | | | | | | | 9.525 | - | 3.18 | 0.4 | |
| | SPET120408-M02 | ● | ● | | | | | ● | | | | | | 12.7 | - | 4.76 | 0.8 | |
| | SPMT120408-R01 | | | ● | | | | | | | | | | 12.7 | - | 4.76 | 0.8 | |

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

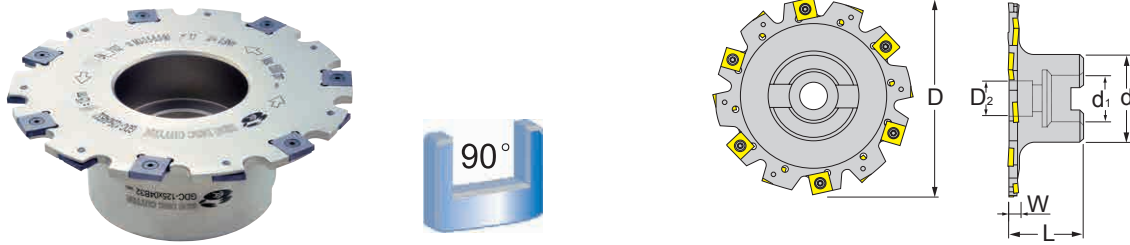
SP_06.09.12 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|---------------------------|------------|----------------|-----------------|-----------|
| P 低合金鋼 Low-Alloy Steels | OM4010 | 100~220 | 0.10~0.35 | 2.0~9.0 |
| | OM4025 | 100~220 | 0.10~0.35 | 2.0~9.0 |
| | RM4025 | 100~220 | 0.10~0.35 | 2.0~9.0 |
| P 合金鋼 Alloyed Steels | OM4010 | 70~120 | 0.10~0.25 | 1.0~5.0 |
| | OM4025 | 70~120 | 0.10~0.25 | 1.0~5.0 |
| | RM4025 | 70~120 | 0.10~0.25 | 1.0~5.0 |
| M 不鏽鋼 Stainless Steels | OM4010 | 130~200 | 0.12~0.30 | 3.0~8.0 |
| | OM4025 | 130~200 | 0.12~0.30 | 3.0~8.0 |
| K 鑄鐵 Cast Iron | OM4025 | 100~210 | 0.10~0.20 | 2.0~9.0 |
| | RM3130 | 100~210 | 0.10~0.20 | 2.0~9.0 |
| N 高溫合金 Aluminum&Al | OM5005 | 450(500~700) | 1.2(1.2~1.8) | 2.0~9.0 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).



床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

• 長度單位 Unit of Length (mm)



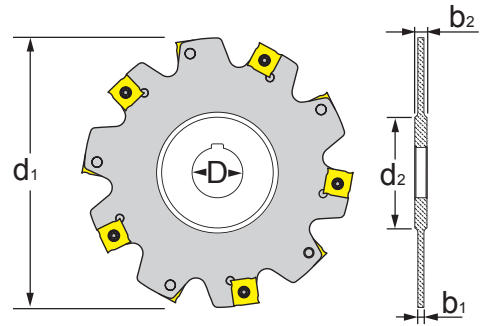
| 規格 Spec. | L | D | D ₂ | d | d ₁ | W | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------|----|-----|----------------|----|----------------|----|--------------|--------------|-----------------------|
| GDC-80×04B22 | 40 | 80 | 28 | 45 | 22 | 4 | 10 | SN..1102 | 0.50 |
| GDC-80×05B22 | 40 | 80 | 28 | 45 | 22 | 5 | 10 | SN..1103 | 0.50 |
| GDC-80×06B22 | 40 | 80 | 28 | 45 | 22 | 6 | 8 | SN..1203 | 0.55 |
| GDC-80×07B22 | 40 | 80 | 28 | 45 | 22 | 7 | 9 | SN..1203 | 0.57 |
| GDC-80×08B22 | 40 | 80 | 28 | 45 | 22 | 8 | 9 | SN..1203 | 0.70 |
| GDC-80×09B22 | 40 | 80 | 28 | 45 | 22 | 9 | 8 | SN..1205 | 0.60 |
| GDC-80×10B22 | 40 | 80 | 28 | 45 | 22 | 10 | 8 | SN..1205 | 0.62 |
| GDC-80×12B22 | 40 | 80 | 28 | 45 | 22 | 12 | 8 | SN..1207 | 0.66 |
| GDC-80×14B22 | 40 | 80 | 28 | 45 | 22 | 14 | 9 | SN..1207 | 0.70 |
| GDC-100×04B27 | 40 | 100 | 33 | 50 | 27 | 4 | 12 | SN..1102 | 0.74 |
| GDC-100×05B27 | 40 | 100 | 33 | 50 | 27 | 5 | 12 | SN..1103 | 0.70 |
| GDC-100×06B27 | 40 | 100 | 33 | 50 | 27 | 6 | 10 | SN..1203 | 0.73 |
| GDC-100×07B27 | 40 | 100 | 33 | 50 | 27 | 7 | 9 | SN..1203 | 0.76 |
| GDC-100×08B27 | 40 | 100 | 33 | 50 | 27 | 8 | 9 | SN..1203 | 0.80 |
| GDC-100×09B27 | 40 | 100 | 33 | 50 | 27 | 9 | 10 | SN..1205 | 0.82 |
| GDC-100×10B27 | 40 | 100 | 33 | 50 | 27 | 10 | 10 | SN..1205 | 0.86 |
| GDC-100×12B27 | 40 | 100 | 33 | 50 | 27 | 12 | 10 | SN..1207 | 0.90 |
| GDC-100×14B27 | 40 | 100 | 33 | 50 | 27 | 14 | 9 | SN..1207 | 0.98 |
| GDC-125×04B32 | 45 | 125 | 43 | 70 | 32 | 4 | 14 | SN..1102 | 1.30 |
| GDC-125×05B32 | 45 | 125 | 43 | 70 | 32 | 5 | 14 | SN..1103 | 1.40 |
| GDC-125×06B32 | 45 | 125 | 43 | 70 | 32 | 6 | 12 | SN..1203 | 1.40 |
| GDC-125×07B32 | 45 | 125 | 43 | 70 | 32 | 7 | 12 | SN..1203 | 1.45 |
| GDC-125×08B32 | 45 | 125 | 43 | 70 | 32 | 8 | 12 | SN..1203 | 1.45 |
| GDC-125×09B32 | 45 | 125 | 43 | 70 | 32 | 9 | 12 | SN..1205 | 1.58 |
| GDC-125×10B32 | 45 | 125 | 43 | 70 | 32 | 10 | 12 | SN..1205 | 1.58 |
| GDC-125×12B32 | 45 | 125 | 43 | 70 | 32 | 12 | 12 | SN..1207 | 1.65 |
| GDC-125×14B32 | 45 | 125 | 43 | 70 | 32 | 14 | 12 | SN..1207 | 1.76 |
| GDC-160×06B40 | 50 | 160 | 50 | 90 | 40 | 6 | 16 | SN..1203 | 2.60 |
| GDC-160×07B40 | 50 | 160 | 50 | 90 | 40 | 7 | 15 | SN..1203 | 2.60 |
| GDC-160×08B40 | 50 | 160 | 50 | 90 | 40 | 8 | 15 | SN..1203 | 2.80 |
| GDC-160×09B40 | 50 | 160 | 50 | 90 | 40 | 9 | 16 | SN..1205 | 2.80 |
| GDC-160×10B40 | 50 | 160 | 50 | 90 | 40 | 10 | 16 | SN..1205 | 2.90 |
| GDC-160×12B40 | 50 | 160 | 50 | 90 | 40 | 12 | 16 | SN..1207 | 3.08 |
| GDC-160×14B40 | 50 | 160 | 50 | 90 | 40 | 14 | 15 | SN..1207 | 0.23 |

配件表 Accessories

| 刀片 Insert | 螺絲  Screw | 扳手  Wrench | 扭力值 (N.m) Torque |
|--------------|--|--|------------------------|
| SN..1102 | M3-3.5-5.0-90 | T7 | 0.9 |
| SN..1103 | M3-4.3-5.0-90 | T7 | 0.9 |
| SN..1203 | M4-5.0-6.2-90 | T15 | 3.0 |
| SN..1205 | M4-8.2-6.2-90 | T15 | 3.0 |
| SN..1207 | M4-11-6.2-90-T15-TIN | T15 | 3.0 |



•長度單位 Unit of Length (mm)



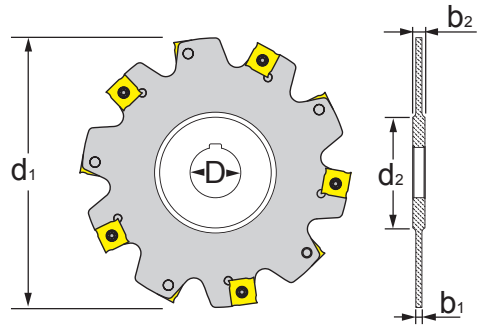
| 規格 Spec. | D | d ₁ | d ₂ | b ₁ | b ₂ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-----------------|------|----------------|----------------|----------------|----------------|--------------|--------------|-----------------------|
| SDC-100×04A25.4 | 25.4 | 100 | 41 | 4 | 12 | 12 | SN..1102 | 0.38 |
| SDC-100×05A25.4 | 25.4 | 100 | 41 | 5 | 12 | 12 | SN..1103 | 0.44 |
| SDC-100×06A25.4 | 25.4 | 100 | 41 | 6 | 12 | 10 | SN..1203 | 0.45 |
| SDC-100×07A25.4 | 25.4 | 100 | 41 | 7 | 12 | 9 | SN..1203 | 0.49 |
| SDC-100×08A25.4 | 25.4 | 100 | 41 | 8 | 12 | 9 | SN..1203 | 0.54 |
| SDC-100×10A25.4 | 25.4 | 100 | 41 | 10 | 12 | 10 | SN..1205 | 0.59 |
| SDC-100×11A25.4 | 25.4 | 100 | 41 | 11 | 12 | 10 | SN..1207 | 0.62 |
| SDC-100×12A25.4 | 25.4 | 100 | 41 | 12 | 12 | 10 | SN..1207 | 0.66 |
| SDC-100×14A25.4 | 25.4 | 100 | 41 | 14 | 16 | 9 | SN..1207 | 0.77 |
| SDC-125×04A25.4 | 25.4 | 125 | 41 | 4 | 12 | 14 | SN..1102 | 0.58 |
| SDC-125×05A25.4 | 25.4 | 125 | 41 | 5 | 12 | 14 | SN..1103 | 0.63 |
| SDC-125×06A25.4 | 25.4 | 125 | 41 | 6 | 12 | 12 | SN..1203 | 0.69 |
| SDC-125×07A25.4 | 25.4 | 125 | 41 | 7 | 12 | 12 | SN..1203 | 0.75 |
| SDC-125×08A25.4 | 25.4 | 125 | 41 | 8 | 12 | 12 | SN..1203 | 0.81 |
| SDC-125×09A25.4 | 25.4 | 125 | 41 | 9 | 12 | 12 | SN..1205 | 0.86 |
| SDC-125×10A25.4 | 25.4 | 125 | 41 | 10 | 12 | 12 | SN..1205 | 0.94 |
| SDC-125×12A25.4 | 25.4 | 125 | 41 | 12 | 12 | 12 | SN..1207 | 1.05 |
| SDC-125×14A25.4 | 25.4 | 125 | 41 | 14 | 16 | 12 | SN..1207 | 1.20 |
| SDC-160×06A25.4 | 25.4 | 160 | 41 | 6 | 12 | 16 | SN..1203 | 1.04 |
| SDC-160×07A25.4 | 25.4 | 160 | 41 | 7 | 12 | 15 | SN..1203 | 0.17 |
| SDC-160×08A25.4 | 25.4 | 160 | 41 | 8 | 12 | 15 | SN..1203 | 1.26 |
| SDC-160×09A25.4 | 25.4 | 160 | 41 | 9 | 12 | 16 | SN..1205 | 1.35 |
| SDC-160×10A25.4 | 25.4 | 160 | 41 | 10 | 12 | 16 | SN..1205 | 1.48 |
| SDC-160×12A25.4 | 25.4 | 160 | 41 | 12 | 12 | 16 | SN..1207 | 1.74 |
| SDC-160×14A25.4 | 25.4 | 160 | 41 | 14 | 16 | 15 | SN..1207 | 1.99 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|----------------------|--------------|------------------------|
| SN..1102 | M3-3.5-5.0-90 | T7 | 0.9 |
| SN..1103 | M3-4.3-5.0-90 | T7 | 0.9 |
| SN..1203 | M4-5.0-6.2-90 | T15 | 3.0 |
| SN..1205 | M4-8.2-6.2-90 | T15 | 3.0 |
| SN..1207 | M4-11-6.2-90-T15-TIN | T15 | 3.0 |





•長度單位 Unit of Length (mm)



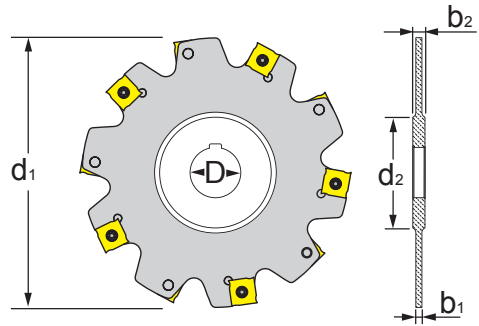
| 規格 Spec. | D | d ₁ | d ₂ | b ₁ | b ₂ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------|----|----------------|----------------|----------------|----------------|--------------|--------------|-----------------------|
| SDC-63×04B22 | 22 | 63 | 34 | 4 | 8 | 8 | SN..1102 | 0.27 |
| SDC-63×05B22 | 22 | 63 | 34 | 5 | 8 | 8 | SN..1103 | 0.28 |
| SDC-63×06B22 | 22 | 63 | 34 | 6 | 8 | 6 | SN..1203 | 0.28 |
| SDC-80×04B22 | 22 | 80 | 34 | 4 | 8 | 10 | SN..1102 | 0.31 |
| SDC-80×05B22 | 22 | 80 | 34 | 5 | 8 | 10 | SN..1103 | 0.33 |
| SDC-80×06B22 | 22 | 80 | 34 | 6 | 8 | 8 | SN..1203 | 0.35 |
| SDC-100×04B27 | 27 | 100 | 41 | 4 | 12 | 12 | SN..1102 | 0.38 |
| SDC-100×05B27 | 27 | 100 | 41 | 5 | 12 | 12 | SN..1103 | 0.44 |
| SDC-100×06B27 | 27 | 100 | 41 | 6 | 12 | 10 | SN..1203 | 0.45 |
| SDC-100×07B27 | 27 | 100 | 41 | 7 | 12 | 9 | SN..1203 | 0.49 |
| SDC-100×08B27 | 27 | 100 | 41 | 8 | 12 | 9 | SN..1203 | 0.54 |
| SDC-100×10B27 | 27 | 100 | 41 | 10 | 12 | 10 | SN..1205 | 0.59 |
| SDC-100×12B27 | 27 | 100 | 41 | 12 | 12 | 10 | SN..1207 | 0.70 |
| SDC-100×14B27 | 27 | 100 | 41 | 14 | 12 | 9 | SN..1207 | 0.70 |
| SDC-125×04B32 | 32 | 125 | 47 | 4 | 12 | 14 | SN..1102 | 0.58 |
| SDC-125×05B32 | 32 | 125 | 47 | 5 | 12 | 14 | SN..1103 | 0.63 |
| SDC-125×06B32 | 32 | 125 | 47 | 6 | 12 | 12 | SN..1203 | 0.69 |
| SDC-125×07B32 | 32 | 125 | 47 | 7 | 12 | 12 | SN..1203 | 0.75 |
| SDC-125×08B32 | 32 | 125 | 47 | 8 | 12 | 12 | SN..1203 | 0.81 |
| SDC-125×09B32 | 32 | 125 | 47 | 9 | 12 | 12 | SN..1205 | 0.86 |
| SDC-125×10B32 | 32 | 125 | 47 | 10 | 12 | 12 | SN..1205 | 0.94 |
| SDC-125×12B32 | 32 | 125 | 47 | 12 | 12 | 12 | SN..1207 | 1.05 |
| SDC-125×14B32 | 32 | 125 | 47 | 14 | 12 | 12 | SN..1207 | 1.20 |

配件表 Accessories

| 刀片 Insert | 螺絲  Screw | 扳手  Wrench | 扭力值 (N.m) Torque |
|--------------|--|--|------------------------|
| SN..1102 | M3-3.5-5.0-90 | T7 | 0.9 |
| SN..1103 | M3-4.3-5.0-90 | T7 | 0.9 |
| SN..1203 | M4-5.0-6.2-90 | T15 | 3.0 |
| SN..1205 | M4-8.2-6.2-90 | T15 | 3.0 |
| SN..1207 | M4-11-6.2-90-T15-TIN | T15 | 3.0 |



•長度單位 Unit of Length (mm)

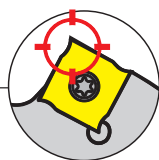
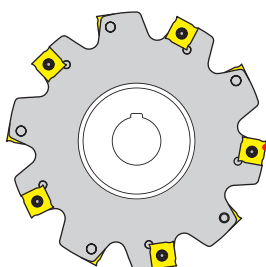


| 規格 Spec. | D | d1 | d2 | b1 | b2 | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|---------------|----|-----|----|----|----|-----------|-----------|-----------------|
| SDC-160×06B40 | 40 | 160 | 55 | 6 | 12 | 16 | SN..1203 | 1.04 |
| SDC-160×07B40 | 40 | 160 | 55 | 7 | 12 | 15 | SN..1203 | 0.17 |
| SDC-160×08B40 | 40 | 160 | 55 | 8 | 12 | 15 | SN..1203 | 1.26 |
| SDC-160×09B40 | 40 | 160 | 55 | 9 | 12 | 16 | SN..1205 | 1.35 |
| SDC-160×10B40 | 40 | 160 | 55 | 10 | 12 | 16 | SN..1205 | 1.48 |
| SDC-160×12B40 | 40 | 160 | 55 | 12 | 12 | 16 | SN..1207 | 1.74 |
| SDC-160×14B40 | 40 | 160 | 55 | 14 | 12 | 15 | SN..1207 | 1.99 |
| SDC-200×06B50 | 50 | 200 | 69 | 6 | 12 | 18 | SN..1203 | - |
| SDC-200×08B50 | 50 | 200 | 69 | 8 | 12 | 18 | SN..1203 | - |
| SDC-200×10B50 | 50 | 200 | 69 | 10 | 12 | 18 | SN..1205 | - |
| SDC-200×12B50 | 50 | 200 | 69 | 12 | 12 | 18 | SN..1207 | - |
| SDC-200×14B50 | 50 | 200 | 69 | 14 | 14 | 18 | SN..1207 | 3.20 |
| SDC-250×08B50 | 50 | 250 | 69 | 8 | 12 | 24 | SN..1203 | 4.30 |
| SDC-250×10B50 | 50 | 250 | 69 | 10 | 12 | 24 | SN..1205 | 4.30 |
| SDC-250×12B50 | 50 | 250 | 69 | 12 | 12 | 24 | SN..1207 | 4.50 |
| SDC-250×14B50 | 50 | 250 | 69 | 14 | 14 | 24 | SN..1207 | 4.50 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|----------------------|-----------|------------------|
| SN..1203 | M4-5.0-6.2-90 | T15 | 3.0 |
| SN..1205 | M4-8.2-6.2-90 | T15 | 3.0 |
| SN..1207 | M4-11-6.2-90-T15-TIN | T15 | 3.0 |

⚠ 請注意! Cautions!



刀片安裝時，需留意刀尖方向 (如圖示紅色準心)

When installing inserts, need to notice the direction of the nose. (red aim point of drawing)



•長度單位 Unit of Length (mm)

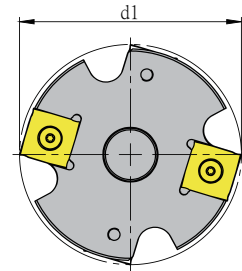
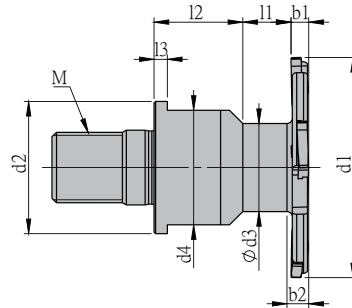
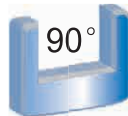
SDC 鎖牙式小徑側銑刀

SDC INDEXABLE SIDE DISC CUTTER FOR SMALL DIAMETER



KOVIT

NEW



特點 Feature

- 小徑專用 · 可搭配鑄鋼延長桿加長使用

- Designed for small diameters, and be able to work with the carbide extension shank.

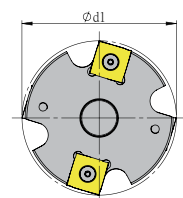
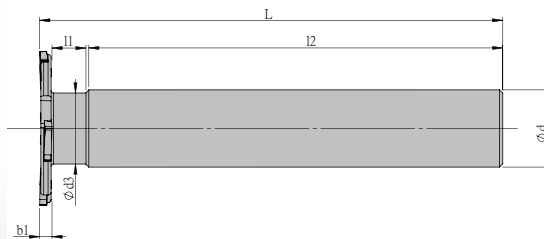
| 規格 Spec. | d1 | d2 | d3 | d4 | b1 | b2 | l1 | l2 | l3 | M | 刃數 Flutes | 刀片 Insert |
|--------------|----|------|----|----|----|-----|-----|------|----|-----|--------------|--------------|
| SDC-40-04M10 | 40 | 18.5 | 14 | 16 | 4 | 4.9 | 8.3 | 10.7 | 3 | M10 | 4 | SNFX1102 |
| SDC-40-05M10 | 40 | 18.5 | 14 | 16 | 5 | 5.9 | 8.3 | 10.7 | 3 | M10 | 4 | SNFX1103 |
| SDC-50-04M12 | 50 | 23 | 16 | 18 | 4 | 4.9 | 11 | 13 | 3 | M12 | 6 | SNFX1102 |
| SDC-50-05M12 | 50 | 23 | 16 | 18 | 5 | 5.9 | 11 | 13 | 3 | M12 | 6 | SNFX1103 |
| SDC-50-06M12 | 50 | 23 | 16 | 18 | 6 | 6.9 | 11 | 13 | 3 | M12 | 4 | SNFX1203 |

- 搭配 SOM 鎖牙式延長桿 B000

SDC 直柄小徑側銑刀

SDC INDEXABLE SIDE DISC CUTTER FOR SMALL DIAMETER

NEW



| 規格 Spec. | d1 | d | d3 | b1 | L | l1 | l2 | 刃數 Flutes | 刀片 Insert |
|-----------------|----|----|----|----|-----|----|-----|--------------|--------------|
| SDC-04-5025-150 | 50 | 25 | 23 | 4 | 150 | 11 | 134 | 4 | SNFX1102 |
| SDC-05-5025-150 | 50 | 25 | 23 | 5 | 150 | 10 | 134 | 4 | SNFX1103 |
| SDC-04-6332-150 | 63 | 32 | 35 | 4 | 170 | 17 | 148 | 4 | SNFX1102 |

配件表 Accessories

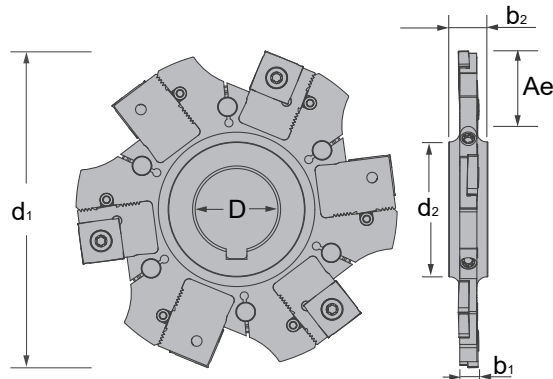
| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|---------------|--------------|------------------------|
| SN..1102 | M3-3.5-5.0-90 | T7 | 0.9 |

• 長度單位 Unit of Length (mm)

專利號 PAT.NO M574526(TW)

專利號 PAT.NO ZL 2018 2 1953076.6(CN)

KOVIT

NEW


| 規格 Spec. | D | d1 | d2 | b1 | b2 | 切寬 Ae | 刃數 Flutes | 刀片座 Insert Seat | 刀片 Insert | 重量 (KGS) Weight |
|-------------------------------|------|-----|----|-------|----|-------|-----------|--|-----------|-----------------|
| ASDC-100-0608A25.4-6T-SN1203 | 25.4 | 100 | 41 | 6~8 | 12 | 25 | 6 | ASDC-CA0608-SN1203-R ASDC-CA0608-SN1203-L | SN..1203 | 0.27 |
| ASDC-100-0810A25.4-6T-SN1205 | 25.4 | 100 | 41 | 8~10 | 12 | 25 | 6 | ASDC-CA0810-SN1205-R ASDC-CA0810-SN1205-L | SN..1205 | - |
| ASDC-100-1012A25.4-6T-SN1207 | 25.4 | 100 | 41 | 10~12 | 12 | 25 | 6 | ASDC-CA1012-SN1207-R ASDC-CA1012-SN1207-L | SN..1207 | - |
| ASDC-100-1214A25.4-6T-SN1207 | 25.4 | 100 | 41 | 12~14 | 16 | 25 | 6 | ASDC-CA1214-SN1207-R ASDC-CA1214-SN1207-L | SN..1207 | - |
| ASDC-125-0608A25.4-8T-SN1203 | 25.4 | 125 | 41 | 6~8 | 12 | 25 | 8 | ASDC-CA0608-SN1203-R ASDC-CA0608-SN1203-L | SN..1203 | - |
| ASDC-125-0810A25.4-8T-SN1205 | 25.4 | 125 | 41 | 8~10 | 12 | 35 | 8 | ASDC-CA0810-SN1205-R ASDC-CA0810-SN1205-L | SN..1205 | - |
| ASDC-125-1012A25.4-8T-SN1207 | 25.4 | 125 | 41 | 10~12 | 12 | 35 | 8 | ASDC-CA1012-SN1207-R ASDC-CA1012-SN1207-L | SN..1207 | - |
| ASDC-125-1214A25.4-8T-SN1207 | 25.4 | 125 | 41 | 12~14 | 16 | 35 | 8 | ASDC-CA1214-SN1207-R ASDC-CA1214-SN1207-L | SN..1207 | - |
| ASDC-160-0608A25.4-10T-SN1203 | 25.4 | 160 | 41 | 6~8 | 12 | 45 | 10 | ASDC-CA0608-SN1203-R ASDC-CA0608-SN1203-L | SN..1203 | - |
| ASDC-160-0810A25.4-10T-SN1205 | 25.4 | 160 | 41 | 8~10 | 12 | 45 | 10 | ASDC-CA0810-SN1205-R ASDC-CA0810-SN1205-L | SN..1205 | - |
| ASDC-160-1012A25.4-10T-SN1207 | 25.4 | 160 | 41 | 10~12 | 12 | 45 | 10 | ASDC-CA1012-SN1207-R ASDC-CA1012-SN1207-L | SN..1207 | - |
| ASDC-160-1214A25.4-10T-SN1207 | 25.4 | 160 | 41 | 12~14 | 16 | 45 | 10 | ASDC-CA1214-SN1207-R ASDC-CA1214-SN1207-L | SN..1207 | - |

- 搭配 BT/SCA 側銑刀桿 B000、SBT/SCA 側銑刀桿 B000

範例 Example



利用調整螺絲來進行切槽尺寸的調整
Use the adjustable lock screw to fine-tune the groove size.



刀片座排齒設計，可增加接合穩定性
Insert seat tooth design for junction stability.



微調尺寸6~8mm (微調範圍2mm)
Adjustable size 6~8mm.
(Adjustable range 2mm)

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 Torque |
|-----------|----------------------|-----------|------------|
| SN..1203 | M4-5.0-6.2-90 | T15 | 3.0 N.m |
| SN..1205 | M4-8.2-6.2-90 | T15 | 3.0 N.m |
| SN..1207 | M4-11-6.2-90-T15-TIN | T15 | 3.0 N.m |

• 長度單位 Unit of Length (mm)



KOVIT

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | |
|----------|------------------------|--------------------------------|--------|---|--|--|--------------------------------------|--|--|--|--------|--------------|---|---|------|---|-----|-----|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | ■ | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | |
| | | CHF | | | | | HF | | | | | d | i | s | r | | | |
| | | OM4010 | OM4025 | | | | | | | | OM5005 | | | | | | | |
| | SNFX1102 | ● | ● | | | | | | | | ● | | | | 11 | - | 2.3 | - |
| | SNFX1103 | ● | ● | | | | | | | | ● | | | | 11 | - | 2.7 | - |
| | SNFX1203 | ● | ● | | | | | | | | ● | | | | 12.7 | - | 3.2 | - |
| | SNFX1205 | ● | ● | | | | | | | | ● | | | | 12.7 | - | 5.4 | - |
| | SNFX1207 | ● | ● | | | | | | | | ● | | | | 12.7 | - | 7 | - |
| | NEW SNFX120305 | ● | ● | | | | | | | | ● | | | | 12.7 | - | 3.2 | 0.5 |
| | NEW SNFX120310 | ● | ● | | | | | | | | ● | | | | 12.7 | - | 3.2 | 1 |
| | NEW SNFX120315 | ● | ● | | | | | | | | ● | | | | 12.7 | - | 3.2 | 1.5 |
| | NEW SNFX120505 | ● | ● | | | | | | | | ● | | | | | | | |
| | NEW SNFX120510 | ● | ● | | | | | | | | ● | | | | 12.7 | - | 5.4 | 1 |
| | NEW SNFX120515 | ● | ● | | | | | | | | ● | | | | 12.7 | - | 5.4 | 1.5 |
| | NEW SNFX120516 | ● | ● | | | | | | | | ● | | | | 12.7 | - | 5.4 | 1.6 |
| | NEW SNFX120705 | ● | ● | | | | | | | | ● | | | | 12.7 | - | 7 | 0.5 |
| | NEW SNFX120710 | ● | ● | | | | | | | | ● | | | | 12.7 | - | 7 | 1 |
| | NEW SNFX120715 | ● | ● | | | | | | | | ● | | | | 12.7 | - | 7 | 1.5 |

NEW 新品 New Product

有效屑片厚度計算公式
Formula of average chip thickness

$$f_z = \sqrt{\frac{D}{A_p}} \times f \quad 0.11 = \sqrt{\frac{D}{A_p}} \times f \quad 0.31 = f$$

D= 有效外徑 Effective outer diameter
f= 每刃進給量 Feed per flutes
A_p= 切深 Depth
h_m= 有效屑片厚度 Effective chip thickness

SN_11.12 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 (mm) |
|------------------------------|---------------|-------------------|-----------------|
| P 合金鋼 Alloyed Steels | OM4010 | 90~250 | 0.08(0.06~0.12) |
| | OM4025 | 90~230 | 0.08(0.06~0.12) |
| M 不鏽鋼 Stainless Steels | OM4010 | 55~110 | 0.06(0.06~0.12) |
| | OM4025 | 55~100 | 0.06(0.06~0.12) |
| K 鑄鐵 Cast Iron | OM4025 | 110~275 | 0.08(0.06~0.12) |
| N 鋁合金 Aluminum&Al | OM5005 | 500~700 | 0.15(0.15~0.17) |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

● 長度單位 Unit of Length (mm)



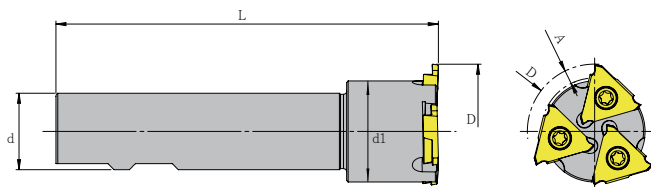
TGC 捨棄式槽銑刀 TGC INDEXABLE GROOVE MILLING CUTTER



NEW



範例 Example



特點 Feature

- 適用於槽型銑削
- 多切削刃，有效提升效率
- 適用加工 O 型環槽

- Used for groove milling applications.
- Multiple cutting edges for efficient machining.
- Suitable for processing O-ring grooves.

| 規格 Spec. | D | A | L | d | d ₁ | 刀片 Insert | 重量 (KGS) Weight |
|--------------|----|---|-----|----|----------------|-----------|-----------------|
| TGC-4020-125 | 40 | 2 | 125 | 20 | 30 | TGAR | 0.43 |
| TGC-4420-125 | 44 | 3 | 125 | 20 | 34 | 4125-4400 | 0.5 |

配件表 Accessories

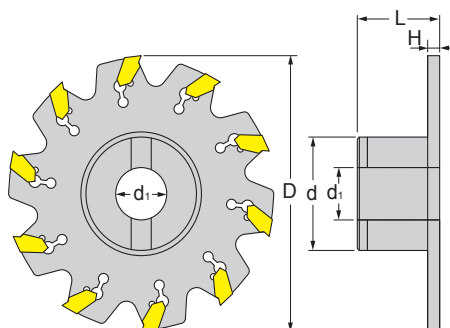
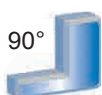
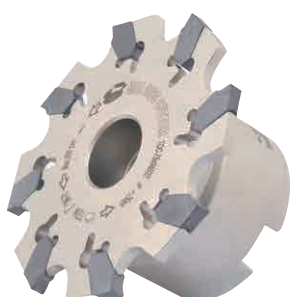
| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 Torque |
|-------------------|--------------|-----------|------------|
| TGAR 4125-4400 | M5-11-7.0-55 | T20 | 6.5 |



TDC 捨棄式側銑刀 TDC INDEXABLE SIDE DISC CUTTER



NEW



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of vibration resistance tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | D | d | d ₁ | H | 切深 Ae | 刃數 Flutes | 刀片 Insert | 扳手 Wrench | 重量 (KGS) Weight | | |
|---------------|----|-----|----|----------------|-----|-------|-----------|-----------|-----------|-----------------|-------|------|
| TDC-75×03B22 | 40 | 75 | 50 | 22 | 3 | 12.5 | 8 | TGTN3 | DW-70 | 0.60 | | |
| TDC-75×04B22 | | | | | 4 | | | TGTN4 | | 0.51 | | |
| TDC-100×03B22 | 50 | 100 | | | 3 | | | 25 | | 10 | TGTN3 | 0.79 |
| TDC-100×04B22 | | | | | 4 | | | | | | TGTN4 | 0.81 |
| TDC-125×03B22 | | | | | 125 | 125 | 3 | 37.5 | | 12 | TGTN3 | 1.20 |
| TDC-125×04B22 | | | | | | | 4 | | | | TGTN4 | 2.03 |

• 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | |
|----------|------------------------|--------------------------------|--------------------------------------|--------|--------|---|---------|--|--|------|-----|-------|------------|------|---|---|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | ■ | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | 超微粒硬質合金 Micro grain cemented carbide | | | | 尺寸 (mm) | | | | | | 圖形 Drawing | | | |
| | | CHF | | | HF | | Size | | | | | | | | | |
| | | OM4010 | OM4025 | RM4025 | OM5005 | | | | | W | L | d | | i | s | r |
| | TGAR4125 | ● | ● | | | | | | | 1.25 | 1.2 | 12.70 | 17.59 | 4.76 | 0.20 | |
| | TGAR4150 | ● | ● | | | | | | | 1.50 | 3 | 12.70 | 17.59 | 4.76 | 0.20 | |
| | TGAR4175 | ● | ● | | | | | | | 1.75 | 3 | 12.70 | 17.59 | 4.76 | 0.20 | |
| | TGAR4200 | ● | ● | | | | | | | 2.00 | 3 | 12.70 | 17.59 | 4.76 | 0.20 | |
| | TGAR4235 | ● | ● | | | | | | | 2.35 | 3 | 12.70 | 17.59 | 4.76 | 0.20 | |
| | TGAR4250 | ● | ● | | | | | | | 2.50 | 4.5 | 12.70 | 17.59 | 4.76 | 0.30 | |
| | TGAR4300 | ● | ● | | | | | | | 3.00 | 4.5 | 12.70 | 17.59 | 4.76 | 0.30 | |
| | TGAR4350 | ● | ● | | | | | | | 3.50 | 4.5 | 12.70 | 17.59 | 4.76 | 0.30 | |
| | TGAR4400 | ● | ● | | | | | | | 4.00 | 4.5 | 12.70 | 17.59 | 4.76 | 0.40 | |
| | TGTN3 | ● | ● | ● | | ● | | | | | | - | 11.3 | 3.1 | 0.2 | |
| | TGTN4 | ● | ● | | | ● | | | | | | - | 11.3 | 4.1 | 0.25 | |
| | | | | | | | | | | | | | | | | |

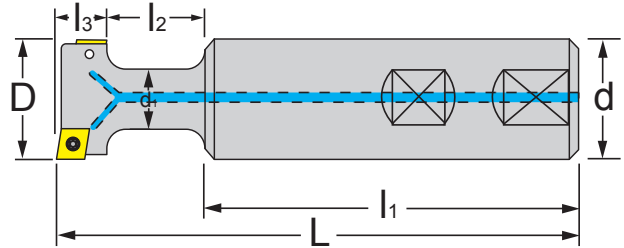
TG_41.42.43.44 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 切削速度 Vc(m/min) | 切槽每刃進給 (mm) | | | |
|---------------------------|----------------|-------------|-------------|------------|-----------|
| | | W=0.5~1.2 | W=1.25~2.25 | W=2.3~3.25 | W=4~4.5 |
| P 合金鋼 Alloyed Steels | 80~160 | 0.03~0.08 | 0.04~0.09 | 0.05~0.1 | 0.05~0.12 |
| M 不鏽鋼 Stainless Steels | 60~130 | 0.03~0.07 | 0.04~0.08 | 0.05~0.09 | 0.05~0.1 |
| K 鑄鐵 Cast Iron | 80~300 | 0.03~0.08 | 0.04~0.09 | 0.05~0.1 | 0.05~0.12 |
| H 高硬度材 Hard Material | 80~120 | - | 0.02~0.05 | 0.03~0.07 | - |

TGTN_3.4 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 (mm) |
|---------------------------|------------|----------------|-----------------|
| P 合金鋼 Alloyed Steel | OM4010 | 90~250 | 0.08(0.06~0.12) |
| | OM4025 | 90~230 | 0.08(0.06~0.12) |
| M 不鏽鋼 Stainless Steels | OM4010 | 55~110 | 0.06(0.06~0.12) |
| | OM4025 | 55~100 | 0.06(0.06~0.12) |
| K 鑄鐵 Cast Iron | OM4025 | 110~275 | 0.08(0.06~0.12) |
| N 鋁合金 Aluminum&Al | OM5005 | 500~700 | 0.15(0.15~0.17) |

• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質，中心出水
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel with through coolant.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|-----------|-----|----------------|----------------|----------------|----|----|----------------|-----------|-----------|-----------------|
| ATS-25-11 | 112 | 80 | 21 | 11 | 25 | 25 | 12.5 | 2 | CC..0602 | 0.35 |
| ATS-32-14 | 120 | 77 | 30 | 14 | 32 | 32 | 16 | 4 | CC..0803 | 0.55 |
| ATS-40-18 | 130 | 80 | 32 | 18 | 40 | 32 | 20 | 4 | CC..09T3 | 0.67 |
| ATS-50-22 | 140 | 80 | 39 | 22 | 50 | 32 | 26 | 4 | CC..1204 | 0.77 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-----------------|-----------|------------------|
| CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| CC..0803 | M3-8.0-4.0-43 | T9 | 1.4 |
| CC..09T3 | M4-10-5.7-60 | T15 | 3.0 |
| CC..1204 | M5-11-7.5-60 | T20 | 5.0 |

JIS B 0952-1987
JIS B 0953-1987

| 公稱尺寸 Nominal Size | A | | | | B | | C | | H | | 參考 | | JIS B 0953 | |
|----------------------|--------------------|------------------|------------|------------|------------|--------------------|------------------|--------------------|------------------|------------|------------|-------------|-------------|-------------|
| | 基準尺寸 Basic Size | 容許差 Tolerance | | | | 基準尺寸 Basic Size | 容許差 Tolerance | 基準尺寸 Basic Size | 容許差 Tolerance | 最大值 Max | 最小值 Min | n 最大 | f 最大 | 槽間隔 p |
| | | 1級 H8 | 2級 H12 | 3級 H14 | 4級 | | | | | | | | | |
| 5 | 5 | +0.018 | +0.12 | - | - | 10 | +1 0 | 3 | +0.5 0 | 10 | 8 | 1 | 0.6 | 20、25、32 |
| 6 | 6 | 0 | 0 | - | - | 11 | +1.5 0 | 5 | +1 0 | 13 | 11 | | | 25、32、40 |
| 8 | 8 | +0.022 | +0.15 | - | - | 14.5 | +2 0 | 7 | | 18 | 15 | | | 32、40、50 |
| 10 | 10 | 0 | 0 | - | - | 16 | | 8 | | 21 | 17 | | | 40、50、63 |
| 12 | 12 | +0.027 0 | +0.18 0 | +0.43 0 | +2.7 0 | 19 | +3 0 | 16 | +2 0 | 25 | 20 | 1.6 | 1 | 50、63、80 |
| 14 | 14 | | | | | 23 | | | | 28 | 23 | | | 63、80、100 |
| 18 | 18 | 30 | 36 | 30 | 80、100、125 | | | | | | | | | |
| 22 | 22 | +0.033 | +0.21 | +0.52 | +3.3 | 37 | +4 0 | 25 | +3 0 | 45 | 38 | | | 2 |
| 28 | 28 | 0 | 0 | 0 | 0 | 46 | | | | 20 | 56 | 48 | 125、160、200 | |
| 36 | 36 | +0.039 0 | +0.25 0 | +0.62 0 | +0.39 0 | 56 | +5 0 | 32 | +4 0 | 71 | 61 | 160、200、250 | | |
| 42 | 42 | | | | | 68 | | | | 85 | 74 | 200、250、320 | | |
| 48 | 48 | +0.046 0 | +0.30 0 | +0.74 0 | 0 | 80 | 40 | 36 | +4 0 | 95 | 84 | 2 | 2 | 250、320、400 |
| 54 | 54 | | | | | 90 | | | | 106 | 94 | | | 320、400、500 |

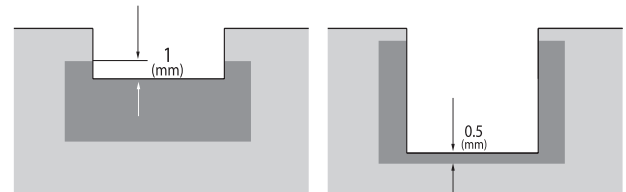
•長度單位 Unit of Length (mm)

| 形狀 Shape | 規格 Spec. | 鍍層硬質合金 Carbide alloy | | | | | | | | 尺寸 (mm) | | | | 圖形 Drawing |
|-------------|-----------------------|-------------------------|--|--|--|--|--|--|--|---------|------|------|-----|---------------|
| | | CVD | | | | | | | | Size | | | | |
| | | RM4035 | | | | | | | | d | i | s | r | |
| | ★ NEW CCMT060202N-F01 | ● | | | | | | | | 6.35 | 6.4 | 2.38 | 0.2 | |
| | ★ NEW CCMT060204N-F01 | ● | | | | | | | | 6.35 | 6.4 | 2.38 | 0.4 | |
| | ★ NEW CCMT09T304N-F01 | ● | | | | | | | | 9.525 | 9.7 | 3.97 | 0.4 | |
| | ★ NEW CCMT09T308N-F01 | ● | | | | | | | | 9.525 | 9.7 | 3.97 | 0.8 | |
| | ★ NEW CCMT120404N-F01 | ● | | | | | | | | 12.7 | 12.9 | 4.76 | 0.4 | |
| | ★ NEW CCMT120408N-F01 | ● | | | | | | | | 12.7 | 12.9 | 4.76 | 0.8 | |

★ 推薦 Recommended NEW 新品 New Product

※ 注意事項 Cautions:

- 溝槽加工須注意排屑問題，必要時須以噴霧裝置排出切屑
Removing the metal chips by mist cooler if necessary.
- 本 T 型刀附出水孔易於排屑。
With coolant hole, benefit for chip release.
- 本 T 型設計為粗切削，如須要求尺寸精度，須另行精修。
Designed for roughing. Additional fine cutting is required if necessary.
- 特殊規格可接受訂製。
Customized products are available.



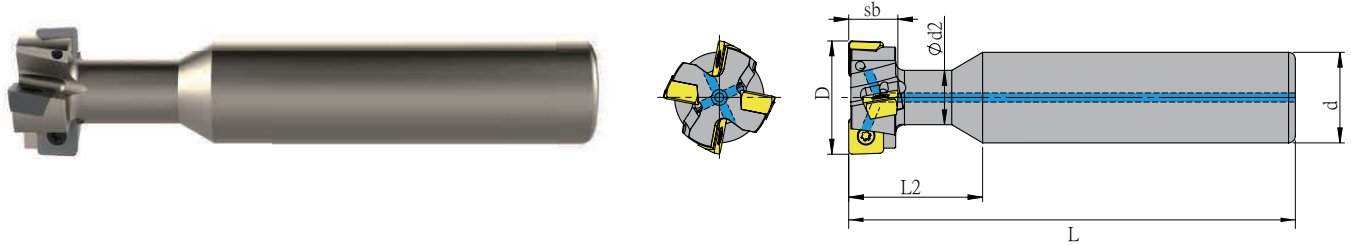
CC_06.08.09.12 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|------------------------------|-------------------|--------------------|
| P 合金鋼 Alloyed Steel | 180~220 | 0.08~0.12 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

• 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質，中心出水
- 整體預硬後，再行精修，避免二次處理所產生應變



- Made of anti-vibration tool steel with through coolant.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | D | sb | d2 | L2 | L | d | t | 刀片 Insert |
|------------------|----|----|-----|----|-----|----|---|-----------|
| BTS-1916-SP05-08 | 19 | 8 | 9.5 | 25 | 120 | 16 | 4 | SP.0502 |
| BTS-2116-SP06-09 | 21 | 9 | 11 | 27 | 120 | 16 | 4 | SP.0602 |
| BTS-2520-SP07-11 | 25 | 11 | 12 | 30 | 120 | 20 | 4 | SP.07T3 |
| BTS-3225-SP07-11 | 32 | 11 | 23 | 30 | 150 | 25 | 4 | SP.07T3 |
| BTS-3225-SP09-14 | 32 | 14 | 17 | 39 | 150 | 25 | 4 | SP.0904 |
| BTS-3525-SP09-14 | 35 | 14 | 20 | 39 | 150 | 25 | 4 | SP.0904 |
| BTS-4025-SP11-18 | 40 | 18 | 21 | 49 | 150 | 25 | 4 | SP.1104 |
| BTS-5032-SP14-22 | 50 | 22 | 27 | 61 | 150 | 32 | 4 | SP.1405 |
| BTS-5525-SP07-11 | 55 | 11 | 20 | 40 | 180 | 25 | 6 | SP.07T3 |
| BTS-6025-SP09-15 | 60 | 15 | 25 | 40 | 180 | 25 | 6 | SP.0904 |
| BTS-6032-SP14-15 | 60 | 25 | 32 | 55 | 180 | 32 | 4 | SP.1405 |

配件表 Accessories

| 刀片 Insert | 板手 Wrench | 螺絲 Screw | 扭力值 (N.m) Torque |
|-----------|-----------|-------------------------|------------------|
| SP.0502 | T6 | M2-4.3-2.7-60-T6-TIN | 0.6 |
| SP.0602 | T7 | M2.2-5.2-3.1-60-T7-TIN | 0.9 |
| SP.07T3 | T8 | M2.5-6.33-3.5-48-T8-TIN | 1.2 |
| SP.0904 | T10 | M3.5-8.4-5.0-60-T10-TIN | 2.0 |
| SP.1104 | T15 | M4-9.35-5.65-60-T15-TIN | 3.0 |
| SP.1405 | T20 | M5-12.8-7.0-60-T20-TIN | 5.0 |

•長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | | ○ | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|--------------------------------|--------|--------|---|--|--------------------------------------|--------|---|--|--|---------|---|------|-----|---|
| | M | 不鏽鋼 Stainless Steels | ○ | | ○ | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | ○ | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | ■ | ■ | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | | 尺寸 (mm) | | | | 圖形 Drawing |
| | | CHF | | | | | HF | | | | | Size | | | | |
| | | RM4025 | RM3130 | RM4030 | | | RM5005 | RM5060 | | | | | d | i | s | |
| | SPGT050204-M02 | | | ● | | | | ● | | | | 5 | - | 2.38 | 0.4 | |
| | SPGT060204-M02 | | | ● | | | | ● | | | | 6 | - | 2.38 | 0.4 | |
| | SPGT07T308-M02 | | | ● | | | | ● | | | | 7.94 | - | 3.97 | 0.8 | |
| | SPGT090408-M02 | | | ● | | | | ● | | | | 9.8 | - | 4.3 | 0.8 | |
| | SPGT110408-M02 | | | ● | | | | ● | | | | 11.5 | - | 4.76 | 0.8 | |
| | SPGT140512-M02 | | | ● | | | | ● | | | | 14.3 | - | 5.2 | 1.2 | |
| | ★ SPMT050204-M03 | ● | ● | | | | | | | | | 5 | - | 2.38 | 0.4 | |
| | ★ SPMT060204-M03 | ● | ● | | | | | | | | | 6 | - | 2.38 | 0.4 | |
| | ★ SPMT07T308-M03 | ● | ● | | | | | | | | | 7.94 | - | 3.97 | 0.8 | |
| | ★ SPMT090408-M03 | ● | ● | | | | | | | | | 9.8 | - | 4.3 | 0.8 | |
| | ★ SPMT110408-M03 | ● | ● | | | | | | | | | 11.5 | - | 4.76 | 0.8 | |
| | ★ SPMT140512-M03 | ● | ● | | | | | | | | | 14.3 | - | 5.2 | 1.2 | |
| | ★ SPMT050204-MT | | | | | | | ● | ● | | | 5 | - | 2.38 | 0.4 | |
| | ★ SPMT060204-MT | | | | | | | ● | ● | | | 6 | - | 2.38 | 0.4 | |
| | ★ SPMT07T308-MT | | | | | | | ● | ● | | | 7.94 | - | 3.97 | 0.8 | |
| | ★ SPMT090408-MT | | | | | | | ● | ● | | | 9.8 | - | 4.3 | 0.8 | |
| | ★ SPMT110408-MT | | | | | | | ● | ● | | | 11.5 | - | 4.76 | 0.8 | |
| | ★ SPMT140512-MT | | | | | | | ● | ● | | | 14.3 | - | 5.2 | 1.2 | |

★ 推薦 Recommended

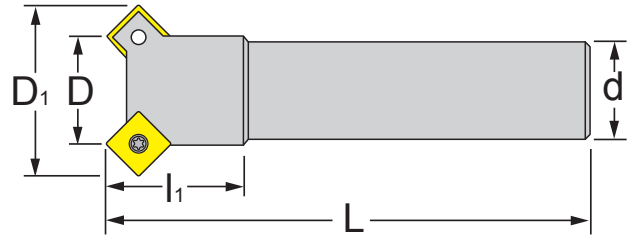
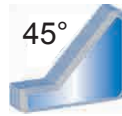
SP_05.06.07.09.11.14 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) |
|------------------------------|-------------------|--------------------|
| P 合金鋼 Alloyed Steel | 130~200 | 0.08~0.12 |
| K 鑄鐵 Cast Iron | 110~230 | 0.07~0.01 |
| N 鋁及鋁合金 Aluminum&Al | 180~600 | 0.12~0.15 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

● 長度單位 Unit of Length (mm)



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After the heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | l ₁ | D | D ₁ | d | 角度 Angle | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----------------|----|----------------|----|----------|-----------|-----------|-----------------|
| C20-SPK25-150L | 150 | 38 | 25 | 37.6 | 20 | 45° | 2 | SP.0903 | 0.43 |
| C20-SPK30-150L | 150 | 38 | 30 | 42 | 20 | 45° | 2 | SP.0903 | 0.45 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| SP.0903 | M4-10-5.7-60 | T15 | 3.0 |

| ISO 分類 | 材料 | 適用性 | | | | | | | | | | 切削狀態 Cutting Condition : | | | | | | |
|--------|------------------------|-----|---|---|---|---|---|---|---|---|---|--------------------------|---|---|---|---|---|--|
| | | P | M | K | N | S | H | 1 | 2 | 3 | 4 | | 5 | 6 | 7 | 8 | 9 | |
| P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | | | | | |
| M | 不鏽鋼 Stainless Steels | ○ | | ○ | | | | | | | | | | | | | | |
| K | 鑄鐵 Cast Iron | ○ | ○ | ○ | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | | |

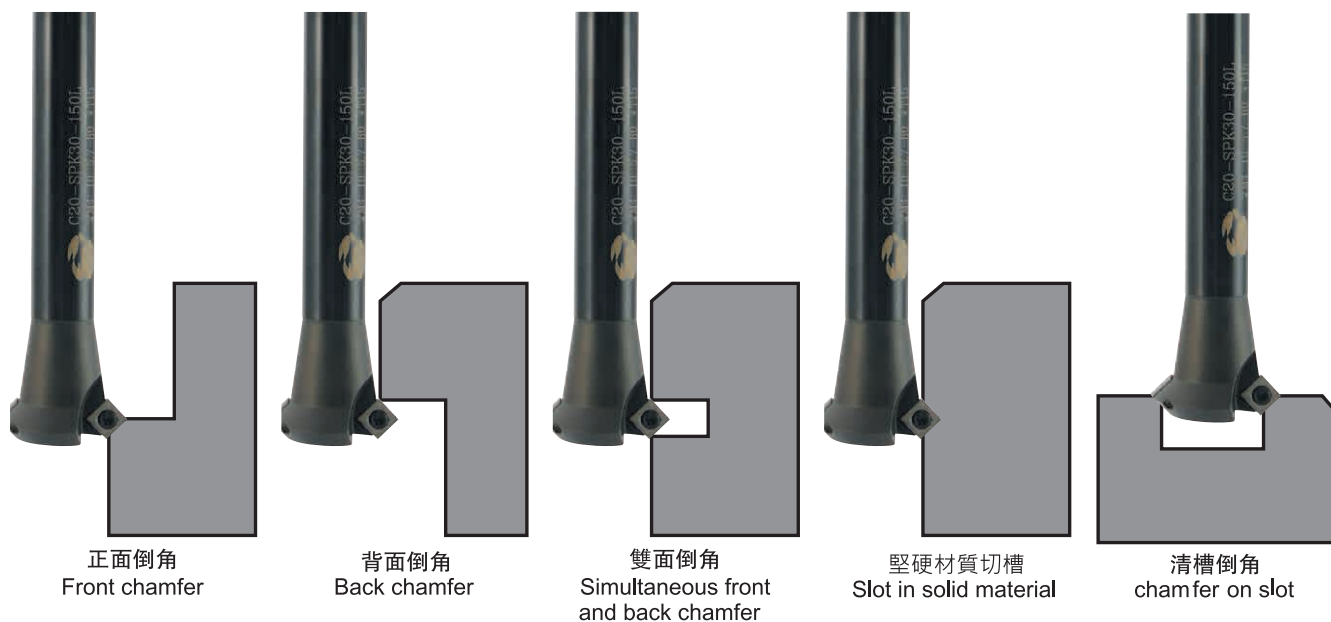
● 連續切削 Continuous Cutting
○ 一般切削 General Cutting
■ 斷續切削 Interrupted Cutting

| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | |
|----------|----------------|--------------------------------|--------|--------|--|--|--|--|--|--|--|--------------|-------|---|------|------------|---|
| | | CHF | | | | | | | | | | Size | | | | | |
| | | OM4010 | OM4025 | RM4025 | | | | | | | | | d | i | s | | r |
| | SPMT090308-M01 | | | ● | | | | | | | | | 9.8 | - | 3.18 | 0.8 | |
| | SPMW090304 | ● | ● | | | | | | | | | | 9.525 | - | 3.18 | 0.4 | |

•長度單位 Unit of Length (mm)

倒角刀具 Chamfering Cutter: SPK

刀具柄徑 Diameter : Ø25.Ø30



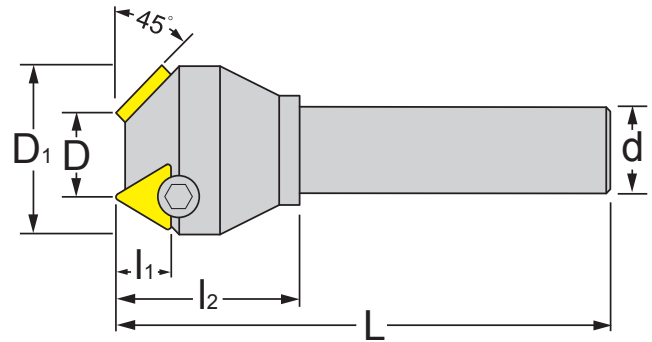
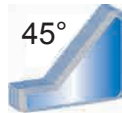
SP_09 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|---|---------------|-------------------|--------------------|--------------|
| P 低合金鋼 Low-Alloy Steels 合金鋼 Alloyed Steels | OM4010 | 100~220 | 0.10~0.35 | 2.0~9.0 |
| | OM4025 | 100~220 | 0.10~0.35 | 2.0~9.0 |
| | OM4010 | 70~120 | 0.10~0.25 | 1.0~5.0 |
| | OM4025 | 70~120 | 0.10~0.25 | 1.0~5.0 |
| M 不鏽鋼 Stainless Steels | OM4010 | 130~200 | 0.12~0.30 | 3.0~8.0 |
| | OM4025 | 130~200 | 0.12~0.30 | 3.0~8.0 |
| K 鑄鐵 Cast Iron | OM4025 | 100~210 | 0.10~0.20 | 2.0~9.0 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)
Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速
Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | l ₂ | D | D ₁ | d | 刃數 Flutes | 角度 Angle | 刀片 Insert | 重量 (KGS) Weight |
|------------|-----|----------------|----------------|------|----------------|----|-----------|----------|-----------|-----------------|
| 45°-SSE-32 | 115 | 10 | 40 | 12.2 | 32 | 20 | 2 | 45° | TP..1603 | 0.36 |
| 45°-SSE-50 | 125 | 15 | 50 | 22.9 | 50 | 32 | 3 | 45° | TP..2204 | 0.88 |
| 45°-SSE-63 | 145 | 15 | 50 | 36.5 | 63 | 32 | 3 | 45° | TP..2204 | 1.32 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|----------|-----------|------------------|
| TP..1603 | M6-0.75P | P4 | 5.0 |
| TP..2204 | M8-1.0P | P5 | 6.0 |

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | | | | | | | | | | | | | | | 切削狀態 Cutting Condition: ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|--------|------------------------|----------------------|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | M | 不鏽鋼 Stainless Steels | | | | | | | | | | | | | | | | | | |
| K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | | | | |

| 形狀 Shape | 規格 Spec. | 硬質合金 Carbide alloy | | | | | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | |
|----------|-------------|--------------------|-------|-------|--|--|--|--|--|--|--|--------------|---|-------|---|------------|-----|--|
| | | HW | | | | | | | | | | d | i | s | r | | | |
| | | TSP20 | TSP25 | TSK10 | | | | | | | | | | | | | | |
| | TPKN1603PDR | | ● | ● | | | | | | | | | | 9.525 | - | 3.18 | - | |
| | TPKN2204PDR | ● | | ● | | | | | | | | | | 12.7 | - | 4.76 | - | |
| | TPMN160308 | | ● | ● | | | | | | | | | | 9.525 | - | 3.18 | 0.8 | |
| | TPMN220412 | ● | | ● | | | | | | | | | | 12.7 | - | 4.76 | 1.2 | |

•長度單位 Unit of Length (mm)

SSP倒角刀

- 可作倒角，V槽切削，45°定位倒角刀亦可作刻字及當定位鑽使用
- 刀具及刀片特殊設計，於定位鑽及V槽切削時刀片可避免干涉
- 使用一般銑床、CNC銑床、CNC車床
- Chamfering, v-grooving, the 45° spot drill can be used for carving and spot-drilling.
- Clearance angle negates interference between the insert/cutting tool and the workpiece during v-grooving and spot-drilling.
- Could be applied on milling machine, CNC milling machine and CNC lathe.

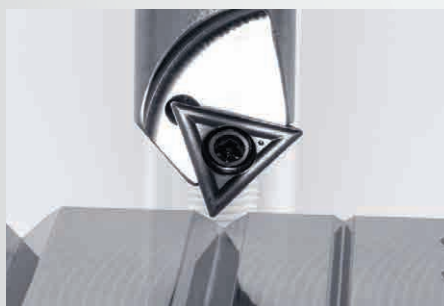


Feature

5 in 1



內孔倒角
Inner hole chamfering



V槽切削
V-grooving



定位鑽
Spotting



刻字
Carving

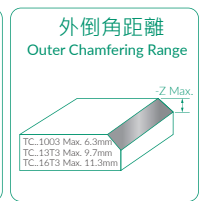
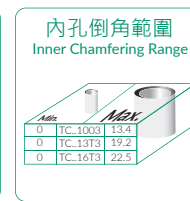
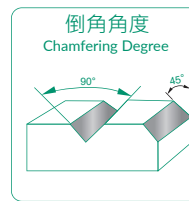
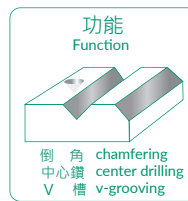
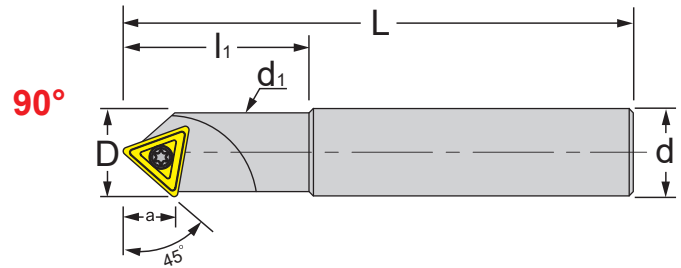


倒角
Chamfering

Chamfer Cutter



KOVIT



| 規格 Spec. | L | l ₁ | D | d | d ₁ | a | 功能 Function | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----------------|------|----|----------------|------|-------------------------------------|-----------|-----------------|
| SSP-1212-105L | 105 | 26 | 13.4 | 12 | 11.8 | 6.05 | 倒角 / 定位 (04R 角) Chamfering/Spotting | TC..1003 | 0.12 |
| SSP-1616-110L | 110 | 30 | 19.2 | 16 | 14 | 9.7 | 倒角 / 定位 (04R 角) Chamfering/Spotting | TC..13T3 | 0.18 |
| SSP-2012-100L | 100 | 35 | 22.5 | 12 | 19 | 11.3 | 倒角 / 定位 (04R 角) Chamfering/Spotting | TC..16T3 | 0.16 |
| SSP-2020-130L | 130 | 50 | 22.5 | 20 | 19 | 11.3 | 倒角 / 定位 (04R 角) Chamfering/Spotting | TC..16T3 | 0.31 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-----------------|-----------|------------------|
| TC..1003 | M2.5-5.0-3.7-43 | T8 | 1.2 |
| TC..13T3 | M3.5-8.0-5.0-60 | T15 | 3.0 |
| TC..16T3 | M4-10-5.0-43 | T15 | 3.0 |

※ 定位鑽使用注意事項 Cautions of spot drilling:

- 銑床加工：刀具偏擺精度不能過大 (0.02mm 以內) Milling: runout must be within 0.02mm.
- 車床加工：刀片須與刀塔上下進給平行 Turning: Insert must be parallel to turret when vertical feeding.

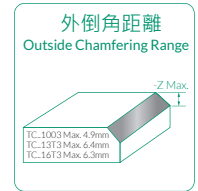
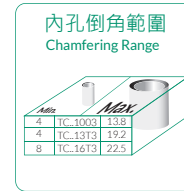
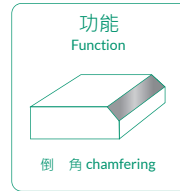
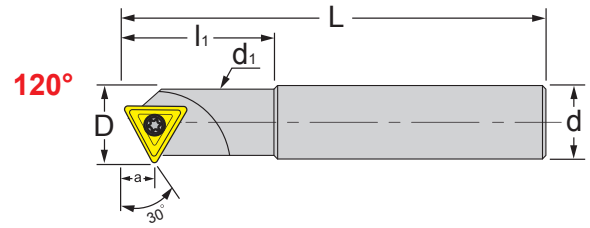


• 長度單位 Unit of Length (mm)



SSP 30° 倒角刀

SSP 30°INDEXABLE CHAMFER MILLING CUTTER

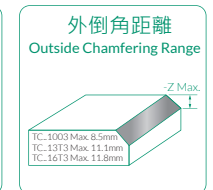
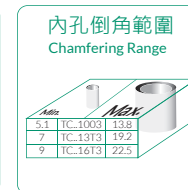
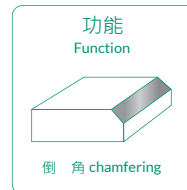
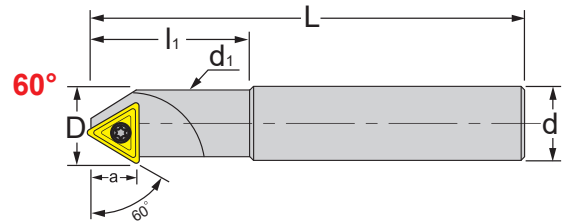


| 規格 Spec. | L | l ₁ | D | d | d ₁ | a | 功能 Function | 刀片 Insert | 重量 (KGS) Weight |
|-----------------------|-----|----------------|------|----|----------------|-----|------------------|--------------|--------------------|
| SSP-1212-105L-TC10-30 | 105 | 26 | 13.8 | 12 | 11.8 | 4.6 | 倒角 Chamfering | TC..1003 | 0.12 |
| SSP-1616-110L-TC13-30 | 110 | 30 | 19.2 | 16 | 14 | 6.5 | 倒角 Chamfering | TC..13T3 | 0.18 |
| SSP-2020-130L-TC16-30 | 130 | 50 | 22.5 | 20 | 19 | 7.6 | 倒角 Chamfering | TC..16T3 | 0.32 |



SSP 60° 倒角刀

SSP 60°INDEXABLE CHAMFER MILLING CUTTER



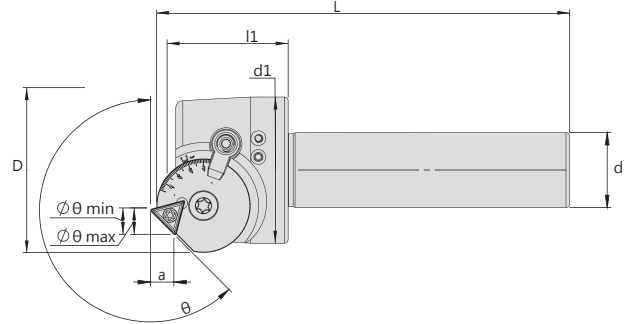
| 規格 Spec. | L | l ₁ | D | d | d ₁ | a | 功能 Function | 刀片 Insert | 重量 (KGS) Weight |
|-----------------------|-----|----------------|------|----|----------------|-------|------------------|--------------|--------------------|
| SSP-1212-105L-TC10-60 | 105 | 26 | 13.8 | 12 | 11.8 | 8.5 | 倒角 Chamfering | TC..1003 | 0.12 |
| SSP-1616-110L-TC13-60 | 110 | 30 | 19.2 | 16 | 14 | 11.16 | 倒角 Chamfering | TC..13T3 | 0.18 |
| SSP-2020-130L-TC16-60 | 130 | 50 | 22.5 | 20 | 19 | 11.83 | 倒角 Chamfering | TC..16T3 | 0.32 |

配件表 Accessories

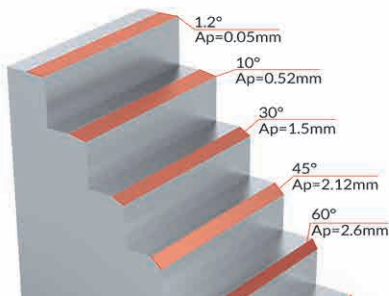
| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|-----------------|--------------|------------------------|
| TC..1003 | M2.5-5.0-3.7-43 | T8 | 1.2 |
| TC..13T3 | M3.5-8.0-5.0-60 | T15 | 3.0 |
| TC..16T3 | M4-10-5.0-43 | T15 | 3.0 |



•長度單位 Unit of Length (mm)



範例 Example



- * 刀桿 Tool holder : BT40-LHC20-58
- * 刀具 Cutter Tool : AAC-4020-110L-TC10
- * 刀片 Insert : TCEX100304E-AR OM4025(1pcs)
- * 工件材質 Material : S50C
- * (V):100m/min
- * (S) : 1600rpm
- * (f) : 150mm/rev
- * (F) : 0.06mm/min
- * (Ap) : 3mm
- * (Ae) : 2.12mm

| 規格 Spec. | L | l1 | D | d | d1 | a | θ | 刀片座 Insert Seat | 刀片 Insert | 重量 (KGS) Weight |
|--------------------|-----|----|----|----|----|------------|------------|-----------------|-----------|-----------------|
| AAC-4020-110L-TC10 | 105 | 30 | 41 | 20 | 39 | 0.005~9.29 | 0.1°~89.9° | AAC-TC10 | TC..1003 | 0.36 |

配件表 Accessories

| 壓塊 Clamp | 壓塊螺絲 Clamp Screw | 扳手 Wrench | 扭力值 Torque | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 Torque |
|----------|------------------|-----------|------------|-----------|-----------------|-----------|------------|
| MC515 | MS520 | PL2.5 | 5.0 | TC..1003 | M2.5-5.0-3.7-43 | T8 | 1.2 |

| 圖示 Fig. | 壓塊螺絲 Clamp Screw | 壓塊 Clamp | 微調渦桿 Adjustable Screw | 固定螺絲 Fixed Screw | 止付螺絲 Screw |
|----------|---------------------------|---------------------------|------------------------------|-------------------------|-------------------------------------|
| 名稱 Name | MS520 | MC515 | AAC-M5-28L | AAC-M6-5L | M3-5L |
| 規格 Spec. | 固定刀片座 Fix The Insert Seat | 固定刀片座 Fix The Insert Seat | 調整刀片座 Adjust The Insert Seat | 鎖固渦桿 Lock The Worm Gear | 固定微調渦桿 Fix The Adjustable Worm Gear |

| 圖示 Fig. | 圓柱梢 Cylindrical pin | 螺絲 Screw | 螺絲 Screw | 扳手 Wrench | 扳手 Wrench |
|----------|---------------------------------|---------------------------|---------------------|--|---------------------------------|
| 名稱 Name | AAC-2.5-4.5L | M5-12.5-7.5(BR8) | M2.5-5.0-3.7-43 | T8、T10、T20 | PL2.5 |
| 規格 Spec. | 固定微調渦桿 Fix The Adjustable Screw | 固定刀片座 Fix The Insert Seat | 固定刀片 Fix The Insert | 鎖固刀片 & 刀片座 Lock The Insert & Insert Seat | 調整尺寸精度 Adjust The Size Accuracy |

•長度單位 Unit of Length (mm)

AAC 可調式倒角刀 (套裝一支組)

AAC ADJUSTABLE ANGLE CHAMFERING CUTTER SET (1PC/SET)



KOVIT




範例 Example



| 規格 Spec. | 內容物 Contents | | | | | | | 重量 (KGS) Weight |
|------------------------|---------------|--------------------|--------------------------------|---|---------------------------|--------------------------------|-----------|-----------------------|
| | 刀具 Tools | 刀片座 Insert seat | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 數位角度規 Digital Protractor | 數量 Qty | |
| AAC-4020-110L-TC10-SET | AAC-4020-110L | AAC-TC10 | TCEX100304E-AR OM4025(1pcs) | 1. MS520 壓塊螺絲 *1pcs (clamp screw) 2. AAC-M6-5L 固定螺絲 *1pcs (fixed screw) 3. AAC-M5-28L 微調渦桿 *1pcs (adjustable worm gear) 4. M5-12.5-7.5(BR8) 螺絲 *1pcs (screw) 5. M2.5-5.0-3.7-43 刀片螺絲 *1pcs (insert screw) 6. M3-5L 止付螺絲 *2pcs (set screw) 7. AAC-2.5-4.5L 圓柱梢 *2pcs (Cylindrical pin) 8. MC515 壓塊 *1pcs (clamp) | T8 T10 T20 PL2.5 | LM-DP60 | 1 | - |

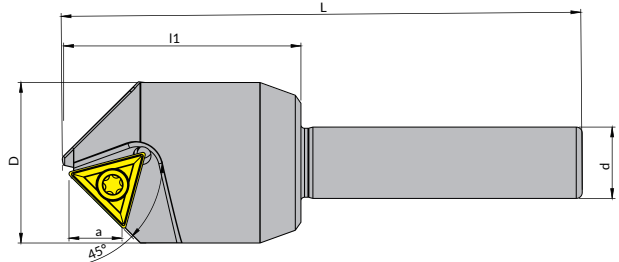
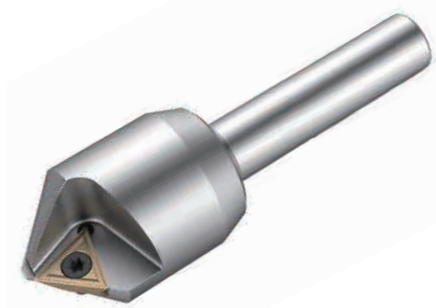
•長度單位 Unit of Length (mm)



內孔倒角範圍 Chamfer Range $\varnothing 4.5 - \varnothing 21$

KOVIT

NEW



特點 Feature

- 適用機台：鑽床、CNC 銑床、旋臂鑽床、傳統銑床、電（氣）動工具
- 萬用夾持柄徑 $\varnothing 12$
- 刀片可提供出色的倒角表面
- Suitable Machines: Drilling Machine, CNC Milling Machine, Conventional Milling Machine, and Electric/Pneumatic Tool
- Shank diameter $\varnothing 12$.
- Excellent chamfering surface.

| 規格 Spec. | L | l1 | D | d | d1 | a | 內孔倒角範圍 Inner Chamfer Range | 功能 Features | 刀片 Insert | 重量 (KGS) Weight |
|-------------------|----|----|----|----|----|---|------------------------------------|---------------|---------------|-----------------|
| MDC-2212-85L-TC13 | 85 | 38 | 22 | 12 | 27 | 8 | $\varnothing 4.5 - \varnothing 21$ | 倒角 Chamfering | TC..13T3..-CR | 0.36 |

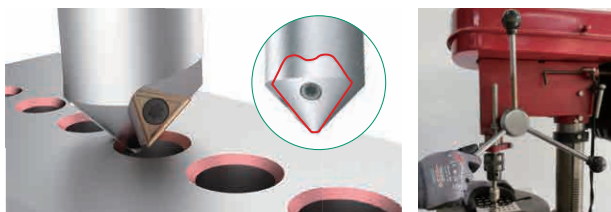
| 規格 Spec. | 內容物 Contents | | | |
|-----------------------|-------------------|------------------------------|----------------------------------|-----------|
| | 刀具 Tool | 刀片 Insert | 螺絲 Screw | 扳手 Wrench |
| MDC-2212-85L-TC13-SET | MDC-2212-85L-TC13 | TC..13T3..-CR RM535(2pcs) | M3.5-6.2-5.0-60 M4-8.0-5.0-43 | T15 |

配件表 Accessories

| 圖示 Fig. | | | | | |
|-------------|---------------|------------------------|------------------|-------------------------------|--------------------|
| 名稱 Name | 刀片 Insert | 支撐導塊 Support Guide Pad | 螺絲 Screw | 螺絲 Screw | 扳手 Wrench |
| 規格 Spec. | TC..13T3..-CR | MDC-SGP | M3.5-6.2-5.0-60 | M4-8.0-5.0-43 | T15 |
| 功能 Function | 切削 Cutting | 引導加工 Guide The Cutter | 鎖固刀片 Lock Insret | 鎖固支撐導塊 Lock Support Guide Pad | 鎖固螺絲 Fasten Screws |

| 下孔徑 Hole Diameter Size | 轉速 n(rpm) | | | |
|------------------------|-----------|---------------------|--------------|--------------------|
| | 鋼 Steel | 不鏽鋼 Stainless Steel | 鑄鐵 Cast Iron | 鋁合金 Aluminum Alloy |
| $\varnothing 4.5$ | 600 | 550 | 850 | 1150 |
| $\varnothing 12$ | 450 | 350 | 550 | 750 |
| $\varnothing 16$ | 350 | 250 | 450 | 550 |
| $\varnothing 18$ | 250 | 250 | 450 | 450 |

範例 Example



- 支撐導塊消除了顫動，易於操作
- Support guide pad eliminates chatter, enables easy operation.

• 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | | | | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|--------------------------------|--------|-------|---|--|--------------------------------------|--------|---|---|--|--------------|------|------|-----|------------|--|--|--|--|---|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | ○ | | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | | | | | | | | | | | | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | ■ | ■ | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | ○ | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | ○ | | | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | | | |
| | | CHF | | | | | HF | | | | | | | | | | | | | | |
| | | OM4010 | OM4025 | RM535 | | | OM5005 | OM5060 | | | | d | i | s | r | | | | | | |
| | TCEX100302E-FR | ● | ● | | | | ● | ● | | | | 5.8 | 10 | 3.18 | 0.2 | | | | | | |
| | ★ TCEX100304E-FR | ● | ● | | | | ● | ● | | | | 5.8 | 10 | 3.18 | 0.4 | | | | | | |
| | TCEX100302E-AR | ● | ● | | | | | | | | | 5.8 | 10 | 3.18 | 0.2 | | | | | | |
| | TCEX100304E-AR | ● | ● | | | | | | | | | 5.8 | 10 | 3.18 | 0.4 | | | | | | |
| | NEW TCEX100304E-MR | | | ● | | | | | | | | 5.8 | 10 | 3.18 | 0.4 | | | | | | |
| | TCEX13T302E-FR | ● | ● | | | | ● | ● | | | | 7.94 | 13.4 | 3.97 | 0.2 | | | | | | |
| | ★ TCEX13T304E-FR | ● | ● | | | | ● | ● | | | | 7.94 | 13.4 | 3.97 | 0.4 | | | | | | |
| | TCEX13T302E-AR | ● | ● | | | | | | | | | 7.94 | 13.4 | 3.97 | 0.2 | | | | | | |
| | TCEX13T304E-AR | ● | ● | | | | | | | | | 7.94 | 13.4 | 3.97 | 0.4 | | | | | | |
| | NEW TCEX13T304E-MR | | | ● | | | | | | | | 7.94 | 13.4 | 3.97 | 0.4 | | | | | | |
| | NEW TCEX13T304E-CR | | | ● | | | | | | | | 7.94 | 13.4 | 3.97 | 0.4 | | | | | | |
| | TCEX16T304E-FR | ● | ● | | | | ● | ● | | | | 9.52 | 16.5 | 3.97 | 0.4 | | | | | | |
| | ★ TCEX16T308E-FR | ● | ● | | | | ● | ● | | | | 9.52 | 16.5 | 3.97 | 0.8 | | | | | | |
| | TCMX16T304E-AR | ● | ● | | | | | | | | | 9.52 | 16.5 | 3.97 | 0.4 | | | | | | |
| | TCMX16T308E-AR | ● | ● | | | | | | | | | 9.52 | 16.5 | 3.97 | 0.8 | | | | | | |
| | NEW TCEX16T308E-MR | | | ● | | | | | | | | 9.52 | 16.5 | 3.97 | 0.8 | | | | | | |

- MR 鈦合金專用 MR: Applicable to Titanium - CR 鑽床倒角刀專用 CR: Applicable to Deburring And Chamfering Cutter

★ 推薦 Recommended NEW 新品 New Product

-TC..10/TC..13 · 02R 角刀片為「倒角功能」專用

- TC..10/TC..13 → 02 radius can only use for chamfering.

-TC..16 · 04 刀片為「倒角功能」專用

- TC..16 → 04 radius can only use for chamfering.

- 規格末編碼帶 FR 刀片為銳角刀片 Suffix FR model designates a sharp cutting edge.insert.

•長度單位 Unit of Length (mm)

TC_10.13.16 切削條件數據表 Cutting Parameter

| 加工型態 Processing Type | 被加工材質 Machining Materials | 刀片材質 Materials | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|-------------------------|-------------------------------|-------------------|-------------------|--------------------|--------------|
| | P 低合金鋼 Low-Alloy Steels | OM4010 | 220~290 | 0.05~0.12 | 1.0~11.0 |
| | | OM4025 | 220~260 | 0.03~0.06 | 0.5~3.0 |
| | M 合金鋼 Alloy Steels | OM4010 | 80~150 | 0.05~0.12 | 1.0~11.0 |
| | | OM4025 | 100~150 | 0.03~0.06 | 0.5~3.0 |
| | M 不鏽鋼 Stainless Steels | OM4010 | 90~200 | 0.05~0.12 | 1.0~11.0 |
| | | OM4025 | 90~180 | 0.01~0.05 | 0.5~3.0 |
| K 鑄鐵 Cast Iron | OM4025 | 70~130 | 0.05~0.12 | 1.0~11.0 | |
| N 鋁合金 Aluminum&Al | OM5005 | 400~2000 | 0.06~0.08 | 0.5~3.0 | |

| 加工型態 Processing Type | 被加工材質 Machining Materials | 刀片材質 Materials | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|-------------------------|-------------------------------|-------------------|-------------------|--------------------|--------------|
| | P 低合金鋼 Low-Alloy Steels | OM4010 | 220~290 | 0.01~0.03 | 0.05~1.0 |
| | | OM4025 | 220~260 | 0.01~0.03 | 0.05~1.0 |
| | M 合金鋼 Alloy Steels | OM4010 | 80~150 | 0.01~0.03 | 0.05~1.0 |
| | | OM4025 | 100~150 | 0.01~0.03 | 0.05~1.0 |
| | M 不鏽鋼 Stainless Steels | OM4010 | 90~200 | 0.01~0.03 | 0.05~1.0 |
| | | OM4025 | 90~180 | 0.01~0.03 | 0.05~1.0 |
| K 鑄鐵 Cast Iron | OM4025 | 70~130 | 0.03~0.06 | 0.05~2.0 | |
| N 鋁合金 Aluminum&Al | OM5005 | 400~2000 | 0.03~0.06 | 0.05~3.0 | |

| 加工型態 Processing Type | 被加工材質 Machining Materials | 刀片材質 Materials | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|-------------------------|-------------------------------|-------------------|-------------------|--------------------|--------------|
| | P 低合金鋼 Low-Alloy Steels | OM4010 | 220~290 | 0.03~0.06 | 1.3~3.0 |
| | | OM4025 | 220~290 | 0.03~0.06 | 0.1~3.0 |
| | M 合金鋼 Alloy Steels | OM4010 | 100~120 | 0.03~0.06 | 0.1~3.0 |
| | | OM4025 | 100~150 | 0.03~0.06 | 1.3~3.0 |
| | M 不鏽鋼 Stainless Steels | OM4010 | 90~160 | 0.03~0.06 | 0.1~3.0 |
| | | OM4025 | 140~160 | 0.03~0.06 | 0.1~3.0 |
| K 鑄鐵 Cast Iron | OM4025 | 70~160 | 0.05~0.08 | 0.1~5.0 | |
| N 鋁合金 Aluminum&Al | OM5005 | 400~1200 | 0.05~0.1 | 0.1~6.0 | |

| 加工型態 Processing Type | 被加工材質 Machining Materials | 刀片材質 Materials | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|-------------------------|-------------------------------|-------------------|-------------------|--------------------|--------------|
| | P 低合金鋼 Low-Alloy Steels | OM4010 | 220~290 | 0.05~0.12 | 1.0~11.0 |
| | | OM4025 | 220~260 | 0.05~0.12 | 0.5~3.0 |
| | M 合金鋼 Alloy Steels | OM4010 | 100~150 | 0.03~0.1 | 1.0~11.0 |
| | | OM4025 | 100~150 | 0.03~0.1 | 0.5~3.0 |
| | M 不鏽鋼 Stainless Steels | OM4010 | 90~180 | 0.05~0.12 | 1.0~11.0 |
| | | OM4025 | 140~180 | 0.03~0.06 | 0.5~3.0 |
| K 鑄鐵 Cast Iron | OM4025 | 70~120 | 0.05~0.12 | 1.0~11.0 | |
| N 鋁合金 Aluminum&Al | OM5005 | 400~750 | 0.05~0.12 | 0.5~3.0 | |

•長度單位 Unit of Length (mm)

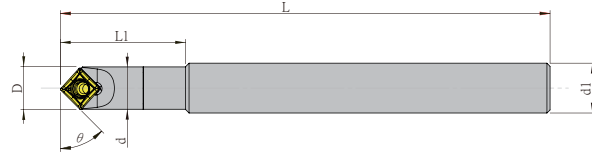


MSP 小徑倒角刀

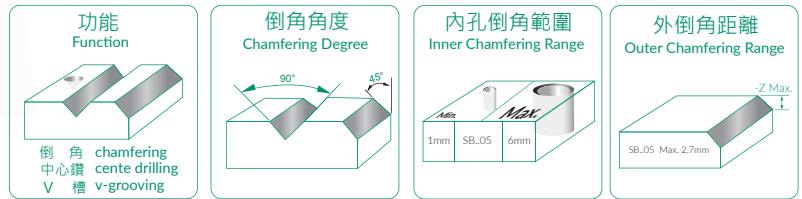
MSP MINI-CHAMFERING END MILL



KOVIT



NEW



特點 Feature

- 尺寸小 · 減少干涉

- The slim design reduces interference while machining.

| 規格 Spec. | D | d1 | d | L1 | L | θ | 刃數 T | 刀片 Insert | 螺絲 Screw | 扳手 Wrench |
|-------------------|-----|----|-----|----|----|----------|------|------------|----------------------|-----------|
| MSP-0708-80L-SB05 | 7.2 | 8 | 6.8 | 20 | 80 | 45 | 1 | SBGT050202 | M2-4.3-2.7-60-T6-TIN | T6 |



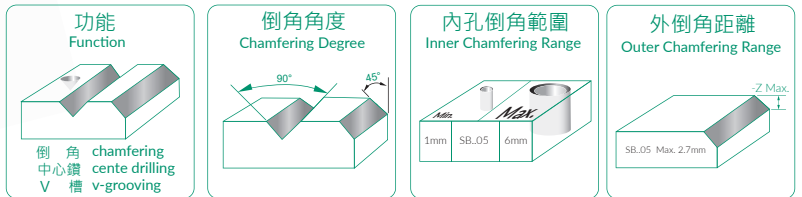
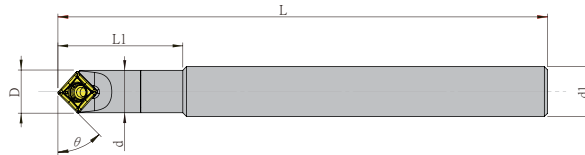
CMSP 碳化鎢鋼小徑倒角刀

CMSP CARBIDE STEEL MINI-CHAMFERING END MILL



KOVIT

NEW



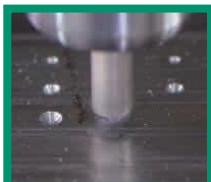
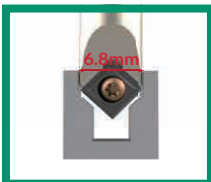
特點 Feature

- 尺寸小 · 減少干涉
- 使用碳化鎢鋼材質 · 增加剛性

- The slim design reduces interference while machining.
- Made of tungsten carbide material for higher rigidity.

| 規格 Spec. | D | d1 | d | L1 | L | θ | 刃數 T | 刀片 Insert | 螺絲 Screw | 扳手 Wrench |
|---------------------|-----|----|-----|----|-----|----------|------|------------|----------------------|-----------|
| CMSP-0708-100L-SB05 | 7.2 | 8 | 6.8 | 20 | 100 | 45 | 1 | SBGT050202 | M2-4.3-2.7-60-T6-TIN | T6 |

範例 Example



定位鑽
Spot Drilling



倒角
Chamfering



刻字
Caring/Engraving



V 槽切削
V-Grooving

• 長度單位 Unit of Length (mm)

| | | | | | | | | | | | | | | | | |
|-------------|--------------------|--------------------------------------|--------|--------|--|--|---|---|--------|--|---------|------|---|---|---|---|
| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | |
| | M | 不鏽鋼 Stainless Steels | | ○ | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | ○ | | | | | | | | | | | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | ■ | | | | | | | |
| | S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | |
| | H | 高硬度材 Hard Material | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | 尺寸 (mm) | | | | 圖形 Drawing | |
| | | | CHF | | | | HF | | | | Size | | | | | |
| | | | OM4025 | OM4125 | | | | | OM5005 | | | | | d | | i |
| | NEW SBGT050202-F01 | | ● | ● | | | | ● | | | | 4.85 | - | 2 | 2.0 | |

NEW 新品 New Product

SP_05 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 進給率 (mm/rev) ø13-ø15 |
|------------------------------|-----------------------|---------------|-------------------|-------------------------|
| P | 低合金鋼 Low-Alloy Steels | OM4025 | 100~150 | 0.03~0.06 |
| | 合金鋼 Alloyed Steels | RM4125 | 100~150 | 0.03~0.06 |
| M | 不鏽鋼 Stainless Steels | OM4125 | 90~150 | 0.01~0.05 |
| K | 鑄鐵 Cast Iron | OM4025 | 70~130 | 0.05~0.10 |
| | | OM4125 | 70~130 | 0.05~0.10 |

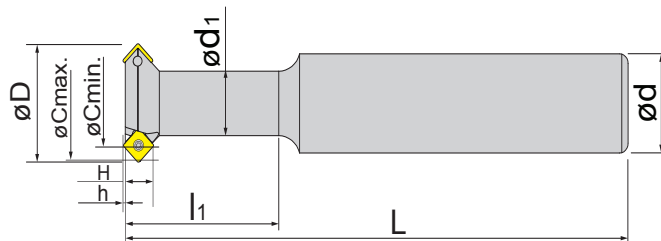
主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)

Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速

Feeding Speed (mm/min) = Feed per Flute × Flutes × Spindle speed.

• 長度單位 Unit of Length (mm)



特點 Feature

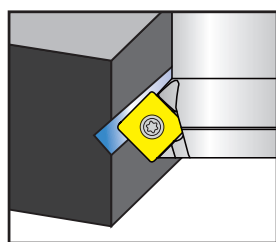
- 多刃數的設計可增加進給率
- 倒角時，較不易起毛邊，並可作上下倒角加工
- Multi edges for high feeding speed and extended insert life.
- Free of burrs when chamfering. Available for inner and outer chamfering.

| 規格 Spec. | L | l ₁ | ØD | Ød | Ød ₁ | ØC | | H | h | 角度 Angle | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|--------------------------|-----|----------------|------|----|-----------------|------|------|------|------|-------------|--------------|--------------|-----------------------|
| | | | | | | Min. | Max. | | | | | | |
| M405SP0545-091512-120-2T | 120 | 20 | 15.7 | 12 | 8 | 9.9 | 15.3 | 6.57 | 0.12 | 45° | 2 | SP.0502 | 0.14 |
| M405SP0545-131916-150-3T | 150 | 30 | 19.7 | 16 | 12.8 | 13.6 | 19.3 | 6.66 | 0.12 | 45° | 3 | SP.0502 | 0.26 |
| M405SP0545-172320-150-4T | 150 | 35 | 23.7 | 20 | 13 | 17.7 | 23.3 | 5.98 | 0.12 | 45° | 4 | SP.0502 | 0.36 |
| M405SP0745-202920-150-3T | 150 | 40 | 29.9 | 20 | 17.2 | 20.3 | 29.6 | 10.4 | 0.15 | 45° | 3 | SP.07T3 | 0.38 |
| M405SP0745-273625-150-3T | 150 | 40 | 36.9 | 25 | 20 | 27.5 | 36.3 | 10.1 | 0.2 | 45° | 3 | SP.07T3 | 0.58 |
| M405SP0745-344325-150-4T | 150 | 40 | 43.9 | 25 | 20 | 34.5 | 43.5 | 10.1 | 0.2 | 45° | 4 | SP.07T3 | 0.60 |
| M405SP0745-415025-150-4T | 150 | 40 | 50.9 | 25 | 20 | 41.2 | 50.3 | 10.4 | 0.12 | 45° | 4 | SP.07T3 | 0.66 |

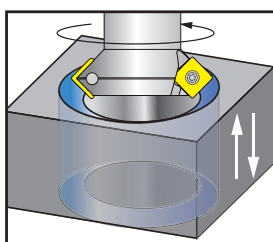
配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|-------------------------|--------------|------------------------|
| SP.0502 | M2-4.3-2.7-60-T6-TIN | T6 | 0.6 |
| SP.07T3 | M2.5-6.33-3.5-48-T8-TIN | T8 | 1.2 |

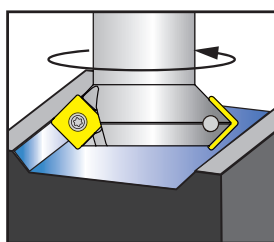
範例 Example



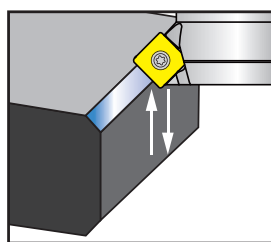
V 槽加工
V-Grooving



上下孔倒角加工
Hole Chamfering



凹槽加工
Pocket Machining



上下外邊倒角加工
Inner Chamfering



• 長度單位 Unit of Length (mm)

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | |
|----------|------------------------|----------------------|--------------------------------|--------|--------|--------|--------------------------------------|--------|---|---|--------------|--|---|------|------------|---|-----|--|
| | M | 不鏽鋼 Stainless Steels | ○ | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | ○ | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | ■ | ■ | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | | 鍍層超微粒 Layer coated micro grain | | | | 超微粒硬質合金 Micro grain cemented carbide | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | |
| | | | CHF | | | | HF | | | | Size | | | | | | | |
| | | | RM4025 | RM4125 | RM3130 | RM4030 | RM5060 | OM5005 | | | | | d | i | | s | r | |
| | SPGT050204-M02 | | | | ● | | | | | ● | | | | 5 | - | 2.38 | 0.4 | |
| | SPGT07T308-M02 | | | | ● | | | | | ● | | | | 7.94 | - | 3.97 | 0.8 | |
| | ★ SPMT050204-M03 | ● | | ● | | | | | | | | | | 5 | - | 2.38 | 0.4 | |
| | ★ SPMT07T308-M03 | ● | | ● | | | | | | | | | | 7.94 | - | 3.97 | 0.8 | |

★ 推薦 Recommended NEW 新品 New Product

SP_05.07 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 進給率 (mm/rev) | | | | |
|------------------------------|---------------|-------------------|--------------|-----------|-----------|-----------|-----------|
| | | | ø13-ø15 | ø16-ø22 | ø23-ø33 | ø34-ø41 | ø42-ø50 |
| P 低合金鋼 Low-Alloy Steels | RM4025 | 180~260 | 0.06~0.12 | 0.06~0.10 | 0.06~0.12 | 0.12~0.24 | 0.12~0.25 |
| | RM4030 | 180~260 | 0.06~0.12 | 0.06~0.10 | 0.06~0.12 | 0.12~0.24 | 0.12~0.25 |
| P 合金鋼 Alloyed Steels | RM4025 | 140~200 | 0.05~0.08 | 0.08~0.15 | 0.10~0.18 | 0.08~0.15 | 0.10~0.18 |
| | RM4030 | 140~200 | 0.05~0.08 | 0.08~0.15 | 0.10~0.18 | 0.08~0.15 | 0.10~0.18 |
| M 不鏽鋼 Stainless Steels | RM4030 | 120~180 | 0.05~0.10 | 0.06~0.12 | 0.08~0.15 | 0.10~0.17 | 0.12~0.20 |
| K 鑄鐵 Cast Iron | RM3130 | 120~180 | 0.05~0.10 | 0.06~0.12 | 0.08~0.15 | 0.10~0.17 | 0.12~0.20 |
| N 鋁合金 Aluminum&Al | RM5060 | 338~380 | 0.06~0.14 | 0.08~0.18 | 0.12~0.22 | 0.14~0.25 | 0.14~0.28 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)

Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速

Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

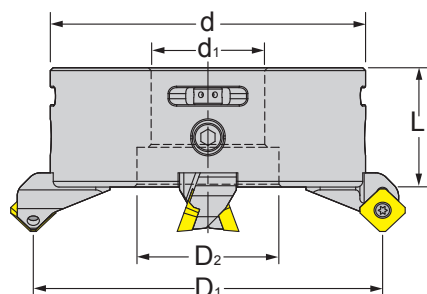
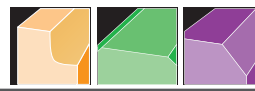
• 長度單位 Unit of Length (mm)



ACM 鋁合金替換式刀頭

ACM ALUMINUM CHANGEABLE MILLING CUTTER

PAT.NO: M373784
ZL 200920267811.2



特點 Feature

- 刀具結合方式採取內包覆式，可降低切削高速迴轉所產生的風阻現象，進而提高切削效率
- 刀具與刀頭定位方式為方型緊配，利於刀具定位
- 利用精密電腦程式計算使其輕量化，減少刀具與刀頭重量
- 刀頭材料採用特殊鋁合金，可提高剛性

- Insert-embedded design reduce wind resistance, improve cutting efficiency.
- Close fit between insert holder and cutter. Insert holder can be well positioned.
- Light weight, reduced weight on insert holder and cutter.
- Made of specific aluminum alloy, enhanced high rigidity.

| 規格 Spec. | L | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | | 刀座 Insert Seat | 螺絲 Screw | 淨量 (KGS) Weight | 重量 (KGS) Weight |
|---------------------|----|----------------|----------------|-----|----------------|----------------|--------------|--|-------------|-----------------------|-----------------------|
| | | | | | | 標準 Standard | 選配 Option | | | | |
| ACM-80-FMB22-S | 42 | 80 | 18 | 66 | 22 | 4 | - | ACM-SE12 ACM-AP16 ACM-RP12 ACM-SE12T3 | SH-M6-20 | 0.62 | 2.60 |
| ACM-80-FMA25.4-S | 42 | 80 | 20 | 66 | 25.4 | 4 | - | | SH-M6-20 | 0.64 | 2.90 |
| ACM-100-FMB22-S | 42 | 100 | 18 | 86 | 22 | 4 | - | | SH-M6-25 | - | 2.86 |
| ACM-100-FMA25.4-S | 42 | 100 | 20 | 86 | 25.4 | 4 | - | | SH-M6-25 | 0.90 | 2.80 |
| ACM-125-FMB32-S | 42 | 125 | 42 | 111 | 32 | 4 | - | | SH-M6-25 | - | 3.62 |
| ACM-125-FMA31.75-S | 42 | 125 | 42 | 111 | 31.75 | 4 | - | | SH-M6-25 | 1.16 | 3.15 |
| ACM-160-FMB40-S | 42 | 160 | 50 | 146 | 40 | 4 | 4 | | SH-M6-25 | 1.74 | 3.79 |
| ACM-160-FMA38.1-S | 42 | 160 | 46 | 146 | 38.1 | 4 | 4 | | SH-M6-25 | 1.76 | 3.60 |
| ACM-200-FS60F-S | 45 | 200 | 60 | 186 | 60 | 4 | 4 | | SH-M6-25 | 2.52 | 6.62 |
| ACM-200-FMA38.1-S | 45 | 200 | 48 | 186 | 38.1 | 4 | 4 | | SH-M6-25 | 2.50 | 7.03 |
| ACM-200-FMA47.625-S | 45 | 200 | 47.625 | 186 | 47.625 | 4 | 4 | | SH-M6-25 | 2.56 | 6.44 |
| ACM-250-FS60F-S | 47 | 250 | 60 | 236 | 60 | 4 | 8 | | SH-M6-25 | 3.86 | 8.40 |
| ACM-250-FMA38.1-S | 47 | 250 | 48 | 236 | 38.1 | 4 | 8 | | SH-M6-25 | 4.06 | 8.26 |
| ACM-250-FMA47.625-S | 47 | 250 | 47.625 | 236 | 47.625 | 4 | 8 | | SH-M6-25 | 4.00 | 7.92 |
| ACM-315-FS60F-S | 47 | 315 | 60 | 301 | 60 | 4 | 12 | | SH-M6-25 | 6.32 | 10.35 |
| ACM-315-FMA38.1-S | 47 | 315 | 48 | 301 | 38.1 | 4 | 12 | | SH-M6-25 | - | 10.24 |
| ACM-315-FMA47.625-S | 47 | 315 | 47.625 | 301 | 47.62 | 4 | 12 | SH-M6-25 | 6.32 | 10.80 | |
| ACM-400-FMA47.625 | 47 | 400 | 47.625 | 386 | 47.625 | 4 | 12 | SH-M6-25 | 10.10 | 21.76 | |

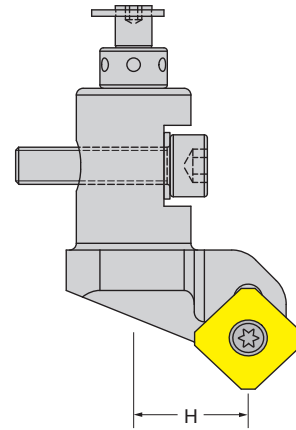
● S- 為雙微調 S: dual micro-adjustment

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--|-------------|--------------|------------------------|
| SE..1204 SE..12T3 AP..1604 RP..1204 | SH-M6-20 | P5 | 6.0 |
| | SH-M6-25 | P5 | 6.0 |



● 長度單位 Unit of Length (mm)



卡式刀座 Cartridges

| 規格 Spec. | H | 刀片 Insert | 重量 (KGS) Weight |
|------------------|----|-----------|-----------------|
| ACM-SE12-S | - | SE..1204 | 0.11 |
| ACM-SE12-A-S | -3 | SE..1204 | 0.11 |
| ACM-SE12-B-S | +3 | SE..1204 | 0.11 |
| ACM-SE12-C-S | -2 | SE..1204 | 0.11 |
| ACM-SE12-D-S | +2 | SE..1204 | 0.11 |
| ACM-SE12-E-S | -1 | SE..1204 | 0.11 |
| ACM-SE12-F-S | +1 | SE..1204 | 0.11 |
| ACM-SE12-L-S(左旋) | - | SE..1204 | 0.11 |
| ACM-AP16-S | - | AP..1604 | 0.13 |
| ACM-RP12-S | - | RP..1204 | 0.13 |
| ACM-SE12T3-S | - | SE..12T3 | - |

配件表 Accessories

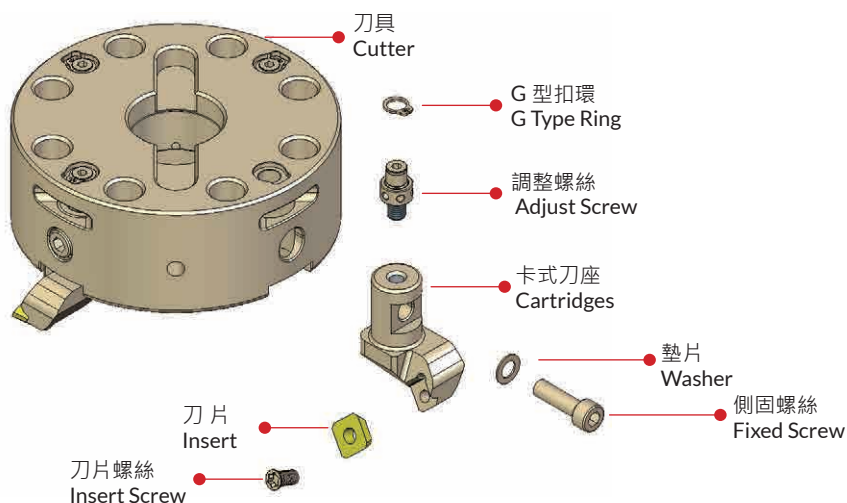
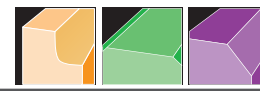
| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------------|-----------|------------------|
| SE..1204 | M5-11-7.0-55 | T20 | 5.0 |
| AP..1604 | M4-10-5.7-60 | T15 | 3.0 |
| RP..1204 | M4-10-5.0-43 | T15 | 3.0 |
| SE..12T3 | M3.5-11.7-5.3-60 | T15 | 3.0 |

標準配件 Standard package

選配特別附件 Optional

| 圖示 Fig. | | | | | | | | 圖示 Fig. | |
|-------------|-----------------------------|----------------------|-------------------------|-------------------|-------------------------|-------------------------|-----------------------|-------------|-------------------------------|
| 名稱 Name | 調整螺絲 Adjust Screw | 側固螺絲 Fixed Screw | G 型扣環 G-Type Ring | 墊片 Shim | 調整扳手 Adjust Wrench | PL 型扳手 PL-Type Wrench | PL 型扳手 PL-Type Wrench | 名稱 Name | 彈簧鉗 Spring Pliers |
| 規格 Spec. | AD-M6 | M6x20 | GTW-6.7 | W-0.5 | ADW-2 | PL3 | PL5 | 規格 Spec. | F-26 |
| 功能 Function | 調整刀具高度 Adjust cutter height | 鎖固卡式刀座 Fix cartridge | 固定調整螺絲 Fix adjust screw | 迫緊螺絲 Fasten screw | 調整卡式刀座 Adjust cartridge | 調整卡式刀座 Adjust cartridge | 鎖固扳手 Fasten | 功能 Function | 安裝 G 型扣環 Assemble G Type Ring |

•長度單位 Unit of Length (mm)

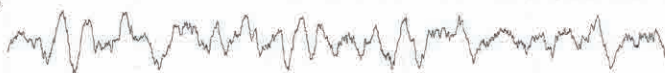


範例 Example

| | |
|-------|----------------------|
| 加工型態: | 精加工切削 |
| 加工機械: | 立式 M/C |
| 銼度種類: | BT40 |
| 加工材料: | si10~si12% 鋁合金 |
| 刀具規格: | ACM125-FMA31.75 |
| 刀片材質: | SEET1204AFFN-F01 PMG |
| 線速度: | V=1500m/min |
| 轉速: | S=3800rpm |
| 床檯進給: | F=4000mm/min |
| 每刃進給: | f=0.25rev |
| 切深: | Ap=0.1mm |
| 冷卻方式: | Water |

Perthometer M1
Object Name
Lt 1.750 mm
Ls Standard 0.250 mm
Lc 0.164 mm
Rc 0.164 mm
Rmax 0.170 mm
RPa(0.5,-0.5) 0.0 / C
R Profile 0.250 mm
UR 0.500 mm

Rz(Max):0.61um Ra0.10um



調整使用說明 Alignment Operation:

以最高刃為基準，將其餘刃微調高度同最高刃，可使切削加工表面粗糙度符合需求。步驟如下：

To let the roughness of machined surface meet the requirement, make a micro-adjustment for each blade at same height. Each step as follows:



1. 用量錶量測每刃高度，以最高刃為基準，將量錶歸零。Use dial indicator to measure each insert height. Zero the dial indicator at 12 on the basis of the highest insert.



2. 使用 P5 扳手，鬆開其他刃固定螺絲。Use the spanner of P5 to loosen the fixed screw for other insert.



3. 使用調整扳手往 ⊕ 的方向微調高度，若調整刃高過高，則使用調整扳手往 ⊖ 的方向微調高度。Use the spanner to make a micro-adjustment at the direction of ⊕. If adjust the insert height over then, please adjust at the direction of ⊖.



4. 待其刃高同最高刃，使用 P5 扳手鎖緊調整螺絲，須再量測一次刃高，查看量錶指針是否指向零，若指針沒有指向零，則重覆上述動作。When all inserts are at the same height, use the spanner of P5 to lock tightly the screws. After that, measure again each insert height. And check if the dial indicator is zero. If no, please repeat above action.

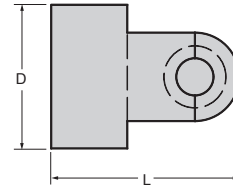


5. 待刃高皆同高時，則調整完畢。Each blade at the same height represents the alignment is ok.



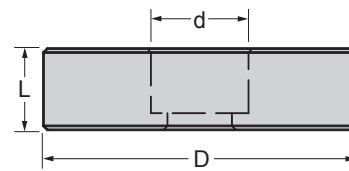
▲ 鋁合金替換式刀頭除了側邊調整外，也可在上面進行調整，若刀具已上主軸，可不用將刀具從主軸拆卸，即可檢測調整。Except for side-alignment, you can also adjust from the top. No need to disassemble the cutter head from the machine spindle, just check the each insert.

• 長度單位 Unit of Length (mm)



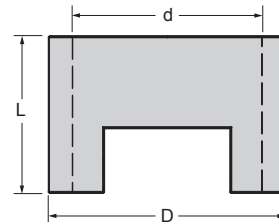
ACM 轉換鍵 Conversion Key

| 規格 Spec. | L | D | 重量 (KGS) Weight |
|---------------|-------|------|-----------------|
| ACM-16.1-25.4 | 33.35 | 25.4 | 0.11 |



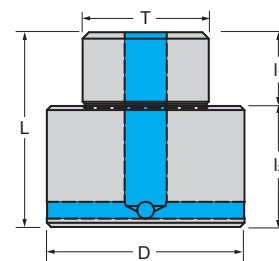
ACM 鋁合金墊圈 Aluminum Washers

| 規格 Spec. | L | D | d | 重量 (KGS) Weight |
|----------|------|----|----|-----------------|
| ACM-AW80 | 20.5 | 80 | 25 | 0.25 |



ACM 轉換套 Conversion Kits

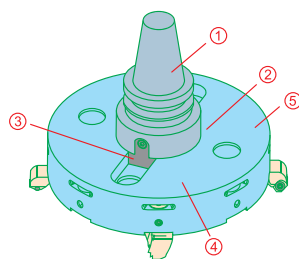
| 規格 Spec. | L | D | d | 重量 (KGS) Weight |
|-----------------|------|--------|------|-----------------|
| ACM-38.1-47.625 | 31.5 | 47.625 | 38.1 | 0.04 |



ACM 給水螺帽 Water Screw

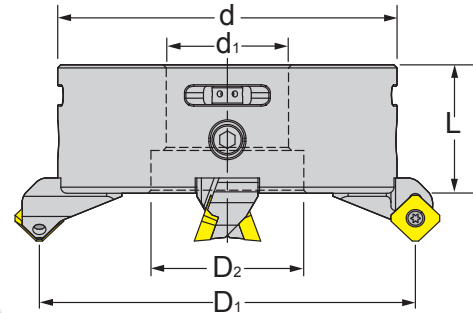
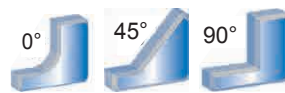
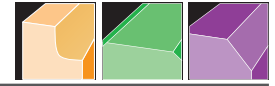
| 規格 Spec. | L | l ₁ | l ₂ | D | T | 重量 (KGS) Weight |
|----------|------|----------------|----------------|----|---------|-----------------|
| ACM-WS47 | 46.4 | 18 | 29 | 47 | M24×2.0 | 0.3 |

ACM 組合圖 Assembly Drawing



| NO | 零件 Part |
|----|-------------------|
| 1 | BT40-FMA38.10-60 |
| 2 | ACM-38.1-47.625 |
| 3 | ACM-16.1-25.4 |
| 4 | ACM-AW80 |
| 5 | ACM-250-FMA47.625 |

•長度單位 Unit of Length (mm)



特點 Feature

- 刀具結合方式採取內包覆式，可降低切削高速迴轉所產生的風阻現象，進而提高切削效率
- 刀具與刀頭定位方式為方型緊配，利於刀具定位
- 利用精密電腦程式計算，減少刀具與刀頭重量輕量化
- 刀頭材料採用特殊合金鋼，可提高剛性
- Insert-embedded design, wind resistance can be reduced.
- Close fit between cartridge and cutter. Cartridge can be well positioned.
- Light weight, reduced weight on cartridge and cutter.
- Cutters are made of specific alloy steel, high rigidity.

| 規格 Spec. | L | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | | 刀座 Insert Seat | 螺絲 Screw | 淨量 (KGS) Weight | 重量 (KGS) Weight |
|---------------------|----|----------------|----------------|-----|----------------|----------------|--------------|----------------------------------|-------------|-----------------------|-----------------------|
| | | | | | | 標準 Standard | 選配 Option | | | | |
| SCM-80-FMB22-S | 42 | 80 | 18 | 66 | 22 | 4 | - | ACM-SE12 ACM-AP16 ACM-RP12 | SH-M6-20 | 1.06 | 2.96 |
| SCM-80-FMA25.4-S | 42 | 80 | 20 | 66 | 25.4 | 4 | - | | SH-M6-20 | 1.02 | 3.00 |
| SCM-100-FMB22-S | 42 | 100 | 18 | 86 | 22 | 4 | - | | SH-M6-25 | 1.76 | 3.72 |
| SCM-100-FMA25.4-S | 42 | 100 | 20 | 86 | 25.4 | 4 | - | | SH-M6-25 | 1.74 | 4.15 |
| SCM-125-FMB32-S | 42 | 125 | 42 | 111 | 32 | 4 | - | | SH-M6-25 | 2.60 | 4.56 |
| SCM-125-FMA31.75-S | 42 | 125 | 42 | 111 | 31.75 | 4 | - | | SH-M6-25 | 2.52 | 4.86 |
| SCM-160-FMB40-S | 42 | 160 | 50 | 146 | 40 | 4 | 4 | | SH-M6-25 | 4.12 | 6.09 |
| SCM-160-FMA38.1-S | 42 | 160 | 46 | 146 | 38.1 | 4 | 4 | | SH-M6-25 | 4.20 | 6.45 |
| SCM-200-FS60F-S | 45 | 200 | 60 | 186 | 60 | 4 | 4 | | SH-M6-25 | 6.06 | 10.50 |
| SCM-200-FMA38.1-S | 45 | 200 | 48 | 186 | 38.1 | 4 | 4 | | SH-M6-25 | 6.46 | 10.40 |
| SCM-200-FMA47.625-S | 45 | 200 | 47.625 | 186 | 47.625 | 4 | 4 | | SH-M6-25 | 6.43 | 14.60 |
| SCM-250-FS60F-S | 47 | 250 | 60 | 236 | 60 | 4 | 8 | | SH-M6-25 | 10.54 | 14.50 |
| SCM-250-FMA38.1-S | 47 | 250 | 48 | 236 | 38.1 | 4 | 8 | | SH-M6-25 | 10.98 | 14.70 |
| SCM-250-FMA47.625-S | 47 | 250 | 47.625 | 236 | 47.625 | 4 | 8 | | SH-M6-25 | 10.70 | 14.66 |

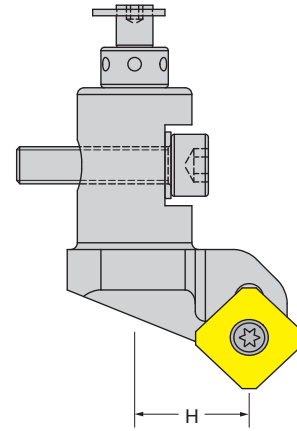
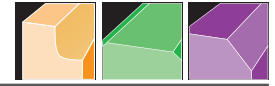
● S- 為雙微調 S: dual micro-adjustment

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--|-------------|--------------|------------------------|
| SE..1204 SE..12T3 AP..1604 RP..1204 | SH-M6-20 | P5 | 6.0 |
| | SH-M6-25 | P5 | 6.0 |



● 長度單位 Unit of Length (mm)



卡式刀座 Cartridges

| 規格 Spec. | H | 刀片 Insert | 重量 (KGS) Weight |
|------------------|----|-----------|-----------------|
| ACM-SE12-S | - | SE..1204 | 0.11 |
| ● ACM-SE12-A-S | -3 | SE..1204 | 0.11 |
| ● ACM-SE12-B-S | +3 | SE..1204 | 0.11 |
| ● ACM-SE12-C-S | -2 | SE..1204 | 0.11 |
| ● ACM-SE12-D-S | +2 | SE..1204 | 0.11 |
| ● ACM-SE12-E-S | -1 | SE..1204 | 0.11 |
| ● ACM-SE12-F-S | +1 | SE..1204 | 0.11 |
| ACM-SE12-L-S(左旋) | - | SE..1204 | 0.11 |
| ACM-AP16-S | - | AP..1604 | 0.13 |
| ACM-RP12-S | - | RP..1204 | 0.13 |
| ● ACM-SE12T3-S | - | SE..12T3 | - |

● - 按訂單生產 - produced order by order.

配件表 Accessories

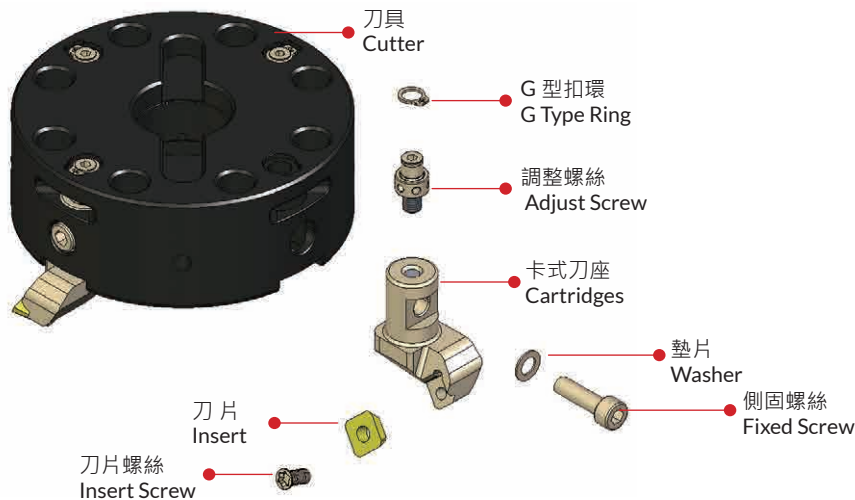
| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------------|-----------|------------------|
| SE..1204 | M5-11-7.0-55 | T20 | 5.0 |
| AP..1604 | M4-10-5.7-60 | T15 | 3.0 |
| RP..1204 | M4-10-5.0-43 | T15 | 3.0 |
| SE..12T3 | M3.5-11.7-5.3-60 | T15 | 3.0 |

標準配件 Standard package

選配特別附件 Optional

| 圖示 Fig. | 調整螺絲 Adjust Screw | 側固螺絲 Fixed Screw | G型扣環 G-Type Ring | 墊片 Shim | 調整扳手 Adjust Wrench | PL型扳手 PL-Type Wrench | PL型扳手 PL-Type Wrench | 圖示 Fig. | 彈簧鉗 Spring Pliers |
|-------------|-----------------------------|----------------------|-------------------------|-------------------|-------------------------|-------------------------|----------------------|-------------|-------------------------------|
| 名稱 Name | 調整螺絲 Adjust Screw | 側固螺絲 Fixed Screw | G型扣環 G-Type Ring | 墊片 Shim | 調整扳手 Adjust Wrench | PL型扳手 PL-Type Wrench | PL型扳手 PL-Type Wrench | 名稱 Name | 彈簧鉗 Spring Pliers |
| 規格 Spec. | AD-M6 | M6x20 | GTW-6.7 | W-0.5 | ADW-2 | PL3 | PL5 | 規格 Spec. | F-26 |
| 功能 Function | 調整刀具高度 Adjust cutter height | 鎖固卡式刀座 Fix cartridge | 固定調整螺絲 Fix adjust screw | 迫緊螺絲 Fasten screw | 調整卡式刀座 Adjust cartridge | 調整卡式刀座 Adjust cartridge | 鎖固扳手 Fasten | 功能 Function | 安裝 G 型扣環 Assemble G Type Ring |

• 長度單位 Unit of Length (mm)



調整使用說明 Alignment Operation:

以最高刃為基準，將其餘刃微調高度同最高刃，可使切削加工表面粗糙度符合需求。步驟如下：

To let the roughness of machined surface meet the requirement, make a micro-adjustment for each blade at same height. Each step as follows:



1. 用量錶量測每刃高度，以最高刃為基準，將量錶歸零。Use dial indicator to measure each insert height. Zero the dial indicator at 12 on the basis of the highest insert.



2. 使用 P5 扳手，鬆開其他刃固定螺絲。Use the spanner of P5 to loosen the fixed screw for other insert.



3. 使用調整扳手往 ⊕ 的方向微調高度，若調整刃高過高，則使用調整扳手往 ⊖ 的方向微調高度。Use the spanner to make a micro-adjustment at the direction of ⊕. If adjust the insert height over then, please adjust at the direction of ⊖.



4. 待其刃高同最高刃，使用 P5 扳手鎖緊調整螺絲，須再量測一次刃高，查看量錶指針是否指向零，若指針沒有指向零，則重覆上述動作。When all inserts are at the same height, use the spanner of P5 to lock tightly the screws. After that, measure again each insert height. And check if the dial indicator is zero. If no, please repeat above action.

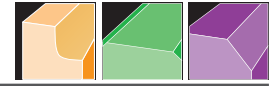


5. 待刃高皆同高時，則調整完畢。Each blade at the same height represents the alignment is ok.



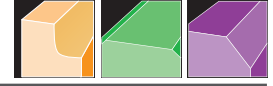
▲ 合金鋼替換式刀頭除了在側邊調整外，也可在上面進行調整，若刀具已上主軸，可不用將刀具從主軸拆卸，即可檢測調整。Except for side-alignment you can also adjust from the top. No need to disassemble the cutter head from the machine spindle, just check the each insert.

• 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | |
|----------|------------------------|------------------------------|--------|--------|--|------------------------------|------|--------|--------|--------|---------|-------|------|---|------------|---|
| | M | 不鏽鋼 Stainless Steels | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | ○ | ● | ■ | | ■ | ■ | ■ | ○ | ■ | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 聚晶鑽石 Polycrystalline diamond | | | | 超硬微粒 Ultra-hard microprogram | | | | | 尺寸 (mm) | | | | 圖形 Drawing | |
| | | DP | | | | HF | | | | | Size | | | | | |
| | | PCD | PCD020 | PCD100 | | GH1 | GH05 | OM5005 | OM5060 | RM5005 | | d | i | s | | r |
| | APEX1604PDFR-701 | | | | | | ● | | | | | 9.525 | 16.4 | 4.76 | 0.2 | |
| | APEX1604PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | |
| | APEX160400PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | - | |
| | APEX160404PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | 0.4 | |
| | APEX160408PDFR-F01 | | | | | | | ● | ● | | | 9.525 | 16.4 | 4.76 | 0.8 | |
| | APGW160404PDFR-F01 | | ● | ● | | | | | | | | 9.525 | 16.5 | 4.76 | - | |
| | APGW1604PDFR-F01 | | ● | ● | | | | | | | | 9.525 | 16.5 | 4.76 | - | |
| | SEET13T3AGFN-F01 | | | | | | | | | ● | | 13.4 | - | 3.97 | 2.55 | |
| | SEHT1204AFFN | | | | | | ● | | | ● | | 12.7 | - | 4.76 | - | |
| | SEGW120404AFFN-F01 | | ● | ● | | | | | | | | 12.7 | - | 4.76 | - | |
| | SEGW1204AFFN-F01 | | ● | ● | | | | | | | | 12.7 | - | 4.76 | - | |
| | RPET1204MOE-M01 | | | | | | | | | ● | | 12 | - | 4.76 | 6 | |

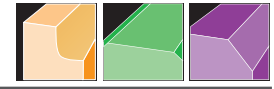
•長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | | | ○ | ○ | ○ | ○ | ○ | ● | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | | | | | |
|----------|------------------------|----------------------|--------|---------------------------------|--------|--------|--------|--------|-----------|---|---------|---|------|-------|------------|--|--|--|
| | M | 不鏽鋼 Stainless Steels | | | ○ | ○ | ○ | ○ | ○ | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | ○ | ○ | ○ | | ○ | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | ● | | ○ | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 氮化硼 BN | | 鍍層超微粒 Layer coating ultra-micro | | | | | 瓷金 Cermet | | 尺寸 (mm) | | | | 圖形 Drawing | | | |
| | | BN | | CHF | | | | | HF | | Size | | | | | | | |
| | | CBN250 | CBN500 | OM4010 | OM4025 | RM2140 | RM4125 | RM4130 | OM1205 | | d | i | s | r | | | | |
| | APGW1604PDER | ● | | | | | | | | | 9.525 | 16.5 | 4.76 | - | | | | |
| | APGW1604PDFR | ● | | | | | | | | | 9.525 | 16.5 | 4.76 | - | | | | |
| | APGW1604PDTR | ● | | | | | | | | | 9.525 | 16.5 | 4.76 | - | | | | |
| | APGW1604PDSR | ● | | | | | | | | | 9.525 | 16.5 | 4.76 | - | | | | |
| | SEGW1204AFSN | ● | | | | | | | | | 12.7 | - | 4.76 | - | | | | |
| | SEGW1204AFTN | ● | | | | | | | | | 12.7 | - | 4.76 | - | | | | |
| | SEGW1204AFEN | ● | | | | | | | | | 12.7 | - | 4.76 | - | | | | |
| | SEGW1204AFFN | ● | | | | | | | | | 12.7 | - | 4.76 | - | | | | |
| | ★ SEHT1204AFEN-M01 | | | ● | ● | | | | | | 12.7 | - | 4.76 | Facet | | | | |
| | | | | | | | | | | | | | | | | | | |
| | SEKW1204AFN | | | | ● | | | | ● | | 12.7 | - | 4.76 | - | | | | |
| | | | | | | | | | | | | | | | | | | |
| | SEMT13T3AGEN-M02 | | | | | ● | ● | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | RPET1204MOE-M01 | | | ● | ● | | | | | | 12 | - | 4.76 | 6 | | | | |
| | | | | | | | | | | | | | | | | | | |
| | RPMT1204MON | | | | | | | | ● | | 12 | - | 4.76 | 6 | | | | |
| | | | | | | | | | | | | | | | | | | |

★ 推薦 Recommended

• 長度單位 Unit of Length (mm)



AP_16 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|------------------------------|------------------------|---------------|-------------------|--------------------|--------------|
| P | 低合金鋼 Low-Alloy Steels | OM4025 | 120~300 | 0.15~0.40 | 3.0~8.0 |
| | | OM4025N | 120~300 | 0.15~0.40 | 3.0~8.0 |
| | | RM4130 | 60~300 | 0.10~0.25 | 3.0~8.0 |
| M | 合金鋼 Alloyed Steels | OM4025 | 80~180 | 0.15~0.35 | 3.0~8.0 |
| | | RM4130 | 60~300 | 0.10~0.25 | 3.0~8.0 |
| M | 不鏽鋼 Stainless Steels | OM4025 | 120~160 | 0.15~0.35 | 3.0~8.0 |
| | | RM4130 | 120~160 | 0.10~0.25 | 3.0~8.0 |
| K | 鑄鐵 Cast Iron | OM4025 | 160~250 | 0.15~0.30 | 3.0~8.0 |
| | | RM3130 | 160~250 | 0.15~0.30 | 3.0~8.0 |
| N | 鋁合金 Aluminum&Al | OM5005 | 400~1000 | 0.04~0.20 | 3.0~8.0 |
| | | OM5060 | 400~1000 | 0.04~0.20 | 3.0~8.0 |
| | | RM5005 | 400~1000 | 0.04~0.20 | 3.0~8.0 |
| | | GH05 | 300~800 | 0.04~0.20 | 3.0~8.0 |
| | | PCD100 | 1200~2000 | 0.04~0.20 | 0.5~1.0 |
| S | 高溫合金 Refractory Alloys | RM535 | 20~40 | 0.10~0.20 | 1.0~3.0 |

SE_12 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|------------------------------|----------------------------------|---------------|-------------------|--------------------|--------------|
| P | 低合金鋼 Low-Alloy Steels | OM4010 | 260~320 | 0.20~0.45 | 1.0~3.0 |
| | | OM4025 | 220~260 | 0.20~0.45 | 1.0~3.0 |
| | | RM4025 | 220~260 | 0.20~0.45 | 1.0~3.0 |
| M | 合金鋼 Alloyed Steels | OM1205 | 100~195 | 0.05~0.15 | 1.0~2.0 |
| | | OM4010 | 130~250 | 0.20~0.35 | 1.0~3.0 |
| | | OM4025 | 100~195 | 0.20~0.35 | 1.0~3.0 |
| | | RM4025 | 100~195 | 0.20~0.35 | 1.0~3.0 |
| M | 不鏽鋼 Stainless Steels | OM4010 | 180~220 | 0.10~0.30 | 1.0~2.0 |
| | | OM4025 | 140~180 | 0.10~0.30 | 1.0~2.0 |
| M | 析出硬化系 Precipitation-Hardening | OM4010 | 90~120 | 0.15~0.20 | 0.2~1.0 |
| | | OM4025 | 70~85 | 0.15~0.20 | 0.2~1.0 |
| K | 鑄鐵 Cast Iron | OM4010 | 160~300 | 0.12~0.35 | 1.0~3.0 |
| | | OM4025 | 180~300 | 0.15~0.35 | 1.0~3.0 |
| | | CBN500 | 700~1500 | 0.06~0.10 | 0.1~0.2 |
| N | 鋁合金 Aluminum&Al | OM5060 | 500~850 | 0.15~0.35 | 3.6~6.0 |
| | | GH1 | 275~450 | 0.15~0.35 | 3.0~6.0 |
| | | PCD100 | 1000~2000 | 0.06~0.10 | 0.05~0.1 |
| S | 高溫合金 Refractory Alloys | CBN250 | 700~1500 | 0.05~0.10 | 0.10~0.50 |



RP_12 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 fz(mm/rev) | 切深 Ap(mm) |
|------------------------------|---------------|-------------------|--------------------|--------------|
| P 低合金鋼 Low-Alloy Steels | OM4010 | 220~300 | 0.08~0.16 | 0.1~6.0 |
| | OM4025 | 180~220 | 0.08~0.16 | 0.1~6.0 |
| | RM4130 | 200~240 | 0.08~0.16 | 0.1~6.0 |
| P 合金鋼 Alloyed Steel | OM4010 | 100~200 | 0.08~0.16 | 0.1~6.0 |
| | OM4025 | 120~140 | 0.08~0.16 | 0.1~6.0 |
| | RM4130 | 140~160 | 0.08~0.16 | 0.1~6.0 |
| M 不鏽鋼 Stainless Steels | OM4010 | 80~140 | 0.08~0.14 | 0.1~3.0 |
| | RM4130 | 100~140 | 0.08~0.14 | 0.1~3.0 |
| K 鑄鐵 Cast Iron | OM4025 | 220~350 | 0.08~0.25 | 0.1~6.0 |
| N 鋁合金 Aluminum&Al | OM5005 | 700~1000 | 0.06~0.12 | 0.1~6.0 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)

Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

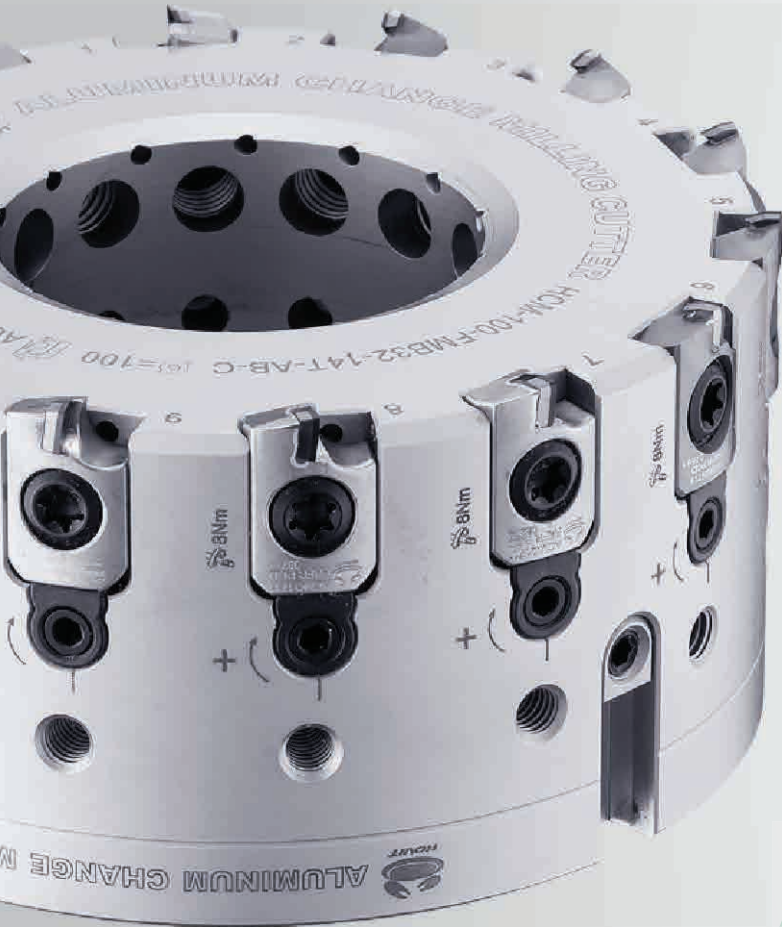
床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速

Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

HCMII 鋁合金密齒型銑刀頭

HCMII ALUMINUM CHANGEABLE MILLING CUTTER

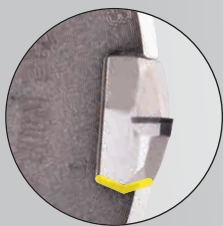
Feature



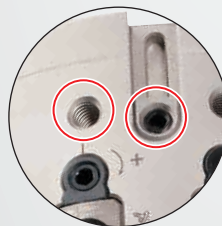
台灣精品 2018
TAIWAN EXCELLENCE

- 輕量化鋁合金本體
Light-weight aluminum body.
- 刀座V槽定位設計，讓加工更穩定
V-groove positioning for superior stability.
- 軸向動平衡及出水結構設計
Axial dynamic balance and through-hole coolant system.
- 可進行 μ 級調整
Adjustable for micrometer.

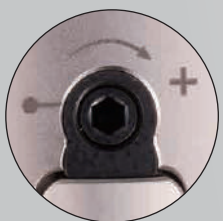
Aluminum



刀座V槽定位設計，可避免高速切削下所產生的震動，讓加工更穩定
V-groove positioning provide superior stability.



利用移動槽中的質量以改變質量所在的平面，藉以減少刀桿與刀頭結合處的力矩，提升刀頭動平衡等級
Special radial and axial dynamic balance adjustments for improving the cutter's dynamic balance.



利用雙圓形的設計，有效吸收刀具切削時所產生的後推力，讓加工表面粗糙度更加細緻
Adjustable wedge with circular arc design provide better surface finish.



免研磨 達鏡面 重環保 愛地球

Grind free Reach mirror Environmental & earth protection

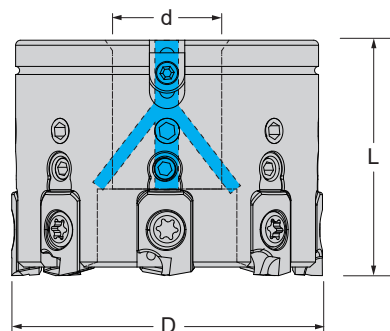
Milling Cutter



HCM 鋁合金密齒型替換式刀頭

HCM ALUMINUM CHANGEABLE MILLING CUTTER

TW PAT. NO: I573644



特點 Feature

- 輕量化鋁合金本體
- 刀座 V 槽定位設計，讓加工更穩定
- 可進行 μ 級調整
- 軸向動平衡及出水結構設計

- Lightweight aluminum body.
- V-groove positioning design and results to stable process.
- μ grade can be adjusted.
- Axial dynamic balance and through-tool coolant system.

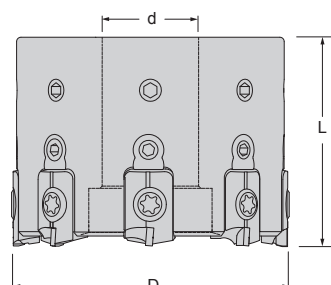
| 規格 Spec. | D | L | d | 刀數 T | 建議最高轉速 Spindle speed n max | 淨重 (KGS) Weight | 重量 (KGS) Weight |
|------------------------|-----|----|----|------|----------------------------|-----------------|-----------------|
| HCM-50-FMB16-6T-AB-C | 50 | 48 | 16 | 6 | max. 33000rpm | 0.20 | 1.26 |
| HCM-63-FMB22-8T-AB-C | 63 | 48 | 22 | 8 | max. 33000rpm | 0.30 | 1.40 |
| HCM-80-FMB27-10T-AB-C | 80 | 50 | 27 | 10 | max. 33000rpm | 0.48 | 1.60 |
| HCM-100-FMB32-14T-AB-C | 100 | 50 | 32 | 14 | max. 29500rpm | 0.81 | 2.02 |
| HCM-125-FMB40-18T-AB-C | 125 | 63 | 40 | 18 | max. 25500rpm | 1.88 | 3.68 |



HCM 鋁合金密齒型替換式刀頭

HCM ALUMINUM CHANGEABLE MILLING CUTTER

TW PAT. NO: M502518
 TW PAT. NO: M502519
 CN PAT. NO: ZL 2015 2 012 5603.4
 CN PAT. NO: ZL 2015 2 012 5605.3
 DE PAT. NO: Nr.20 2015 102 712
 DE PAT. NO: Nr.20 2015 102 713



特點 Feature

- 輕量化鋁合金本體
- 刀座 V 槽定位設計，讓加工更穩定
- 可進行 μ 級調整

- Lightweight aluminum body.
- V-groove positioning design and results to stable process.
- μ grade can be adjusted.

| 規格 Spec. | D | L | d | 刀數 T | 建議最高轉速 Spindle speed n max | 淨重 (KGS) Weight | 重量 (KGS) Weight |
|-------------------|-----|----|----|------|----------------------------|-----------------|-----------------|
| HCM-160-FMB40-24T | 160 | 63 | 40 | 24 | max. 22200rpm | 2.48 | 6.65 |
| HCM-200-FS60F-28T | 200 | 63 | 60 | 28 | max. 18100rpm | 3.42 | 7.56 |
| HCM-250-FS60F-36T | 250 | 63 | 60 | 36 | max. 14500rpm | 6.50 | 10.58 |
| HCM-315-FS60F-46T | 315 | 80 | 60 | 46 | max. 11500rpm | 12.44 | 16.60 |
| HCM-400-FS60F-58T | 400 | 80 | 60 | 58 | max. 9000rpm | 20.76 | 28.22 |



• 長度單位 Unit of Length (mm)

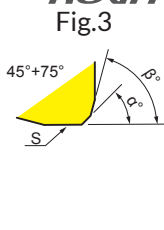
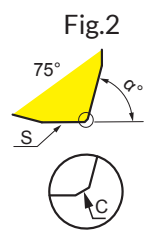
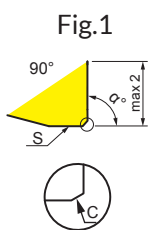
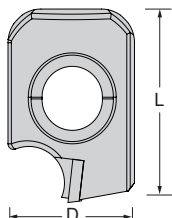


HCM 刀片座 HCM INSERT SEAT



聚晶
PCD

立方
氮化硼
CBN

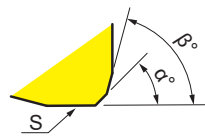
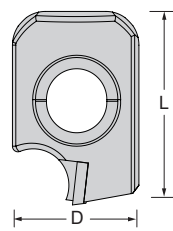


| 適合刀具 Cutting Tool | 規格 Spec. | 聚晶鑽石 Polycrystalline Diamond | | 立方氮化硼 CBN | | 尺寸 (mm) | | | | | | 最大切深 Cutting Max. | Fig. |
|----------------------|--------------|------------------------------------|--|--------------|--|---------|----|----------------|---------------|-----|------|-------------------------|------|
| | | DP | | CBN | | Size | | | | | | mm | |
| | | PCD | | CBN250 | | L | D | α° | β° | S | C | AP | |
| HCM | ACMQ1711PAFR | ● | | ● | | 17 | 11 | 90° | - | 1.2 | 0.15 | 2 | 1 |
| | ACMQ1711EAFR | ● | | ● | | 17 | 11 | 75° | - | 1.2 | 0.15 | 2 | 2 |
| | ACMQ1711AAFR | ● | | ● | | 17 | 11 | 45° | 75° | 1.2 | - | 1.13 | 3 |

※ 如有特殊角度需求，請與我司聯繫 If have the special angle need, please contact us.

聚晶
PCD

立方
氮化硼
CBN

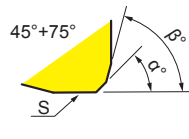
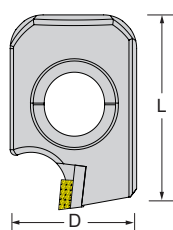


修光刀刀片 Wiper inserts:

| 適合刀具 Cutting Tool | 規格 Spec. | 聚晶鑽石 Polycrystalline Diamond | | 立方氮化硼 CBN | | 尺寸 (mm) | | | | | | 最大切深 Cutting Max. |
|----------------------|-------------------|------------------------------------|--|--------------|--|---------|----|----------------|---------------|-----|---|-------------------------|
| | | DP | | CBN | | Size | | | | | | mm |
| | | PCD | | CBN250 | | L | D | α° | β° | r | C | AP |
| HCM | ACMQ1711AAFR-R300 | ● | | ● | | 17 | 11 | 45° | 75° | 300 | - | 2 |
| | ACMQ1711AAFR-R500 | ● | | ● | | 17 | 11 | 45° | 75° | 500 | - | 1.13 |

※ 如有特殊角度需求，請與我司聯繫 If have the special angle need, please contact us.

單晶
MD



單晶刀片 Single crystal diamond:

| 適合刀具 Cutting Tool | 規格 Spec. | 單晶鑽石 Single crystal diamond | | | | 尺寸 (mm) | | | | | | 最大切深 Cutting Max. |
|----------------------|--------------|--------------------------------|--|--|--|---------|----|----------------|---------------|-----|---|-------------------------|
| | | MD | | | | Size | | | | | | mm |
| | | MD100 | | | | L | D | α° | β° | S | C | AP |
| HCM | ACMQ1711ACFR | ● | | | | 17 | 11 | 45° | 75° | 1.2 | - | 1.13 |

• 長度單位 Unit of Length (mm)

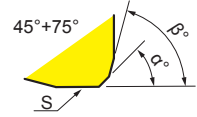
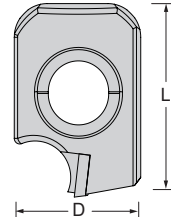


HCM 鎢鋼刀片座

HCM TUNGSTEN STEEL INSERT SEAT



KOVIT

鎢鋼
WC

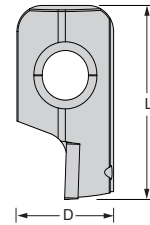
| 規格 Spec. | L | D | α° | β° | S | 重量 (KGS) Weight |
|-----------------|----|----|----------------|---------------|-----|-----------------|
| ACMQ1711AAFR-WC | 17 | 11 | 45° | 75° | 1.2 | 0.02 |



HCM 捨棄式刀片座

HCM INDEXABLE INSERT SEAT

KOVIT



| 規格 Spec. | L | D | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-------|----|-----------|---------------|-----------|------------------|-----------------|
| ACMQ1711-TB06 | 22.13 | 11 | TB.0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.02 |

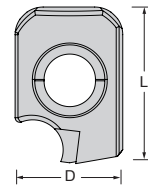
※ 可自行搭配刀片材質 Can collocation insert material.



HCM 刀片基座

HCM INSERT BASE SEAT

KOVIT



| 規格 Spec. | L | D | 重量 (KGS) Weight |
|-------------|----|----|-----------------|
| ACMQ1711-AS | 17 | 11 | 0.02 |

※ 可用於刀頭配重或自行焊接各項材質 Can be used for weight or self-welding head of the material.

標準配件 Standard Accessories:

| | | | | | |
|-------------|---|---|------------------------------|---------------------------|-----------------------------|
| 圖示 Fig. | | | | | |
| 規格 Spec. | HCM-AW-8L | M8-1.25P-M5-0.8P-10L | M5-13.3-7.0-60-T25 | M5-0.5P-LH-RH-17-P2.5 | M5-0.8P-10L |
| 名稱 Name | 調整楔塊 wedge adjustment | 牙套 Flutes sleeve | 刀片座螺絲 insert holder screw | 雙頭螺絲 both headed screw | 動平衡螺絲 balance screw |
| 功能 Function | 調整尺寸精度 Dimension accuracy adjustment | 調整尺寸精度 Dimension accuracy adjustment | 鎖回刀座 fix the holder | 固定調整楔塊 fix the wedge | 平衡配重 mass-balance weight |
| 圖示 Fig. | | | | | |
| 規格 Spec. | TW-80-SB | BIT-T25-50L | PT2.5 | T25 | |
| 名稱 Name | TW 扭力起子 TW torque driver | 50mm 起子頭 50mm bits torx | T 型扳手 T-type wrench | L 型星型扳手 L-type wrench | |
| 功能 Function | | | 鎖固螺絲 lock screws | | |

• 長度單位 Unit of Length (mm)

- 1** 依工件寬度搭配面銑刀具直徑
According to the width of the workpiece with the face milling cutter diameter

| 形式 Form | | | | |
|-----------------------|--|--|--|---|
| | | | | |
| 說明 Description | | | | |
| 零件材質 Part material | 刀具直徑 Cutter Diameter | | 選擇適當刃數 Choice suitable Flutes | |
| | E 建議的切入角 E The Recommended cut-in angle | 建議刀具直徑與工件寬度比 Recommended tool diameter to workpiece width ratio | 按直徑 (mm) 計算 Calculated by diameter (mm) | 結果 result |
| 鋁合金 Aluminum | +40°以上 | 5:3 | $\left(\frac{4}{100} \sim \frac{6}{100}\right) \times \varnothing D$ | 多則易變形；少則易起毛邊 More easily deformed; from less easy to flash |

- 2** 咬合角和刀具壽命
Bite angle and tool life

| 形式 Form | | |
|--|--|---|
| <p>咬合角與銑刀尺寸的關係 Relation to Cutter Diameter</p> <p>銑刀直徑 (大)</p> | <p>咬合角與銑刀位置的關係 Relation to Cutter Position</p> | <p>與刀具壽命的關係 Relation to Tool Life</p> |
| <p>銑刀直徑 (小)</p> | | <p>與刀具壽命的關係 Relation to Tool Life</p> |
| 說明 Description | | |
| | | <p>咬合角是銑刀中心與刀切進點的連線與進給方向所成的夾角。 E 越大刀具壽命越短。改變 E 的方法有：1. 加大銑刀直徑 2. 錯開位置 Engage angle denotes the angle by which the full length of the cutting edge comes in contact with the work material, with reference to the feed direction. The large E is, the shorter the tool life. To change the value of E: 1. increase the cutter size. 2. shift the position of the cutter.</p> |

•長度單位 Unit of Length (mm)

3 切削的刃數與切削力變動的關係

Relation between the number of simultaneously engaged cutting edges and cutting force

| 形式 Form | | | | | | | | | | |
|---|---|---|--|-------------------------------------|---------|----------|-----------|-----------|-----------|-----------|
| A | B | C | D | E | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| 同時參與切削刃數為 0 或者 1 時 0 or 1 edge in contact at same time. | 常態為 1 片切削時 Only 1 edge in contact at any time. | 1 片或 2 片切削時 1 or 2 edges in contact. | 2 片切削時 2 edge in contact at any time. | 2~3 片切削時 2 to 3 edge in contact. | | | | | | |
| 說明 Description | | | | | | | | | | |
| <p>通常切削寬度如 D 的狀態，銑刀直徑在 70%~80% 較為適當，但由於受機台和工件的剛性、機台馬力的影響，無法一概而論 Normally, cutting width is considered to be appropriate with 70 to 80% of the cutter diameter engaged as shown in example D. However, this may not apply due to the actual rigidity of the machine or work piece, and machine horsepower.</p> | | | | | | | | | | |
| 建議使用刀具尺寸規格 Suggest used the cutter spec. | | | | | | | | | | |
| 規格 Spec. | HCM50 | HCM63 | HCM80 | HCM100 | HCM125 | HCM160 | HCM200 | HCM250 | HCM315 | HCM400 |
| 工件寬度範圍 Workpiece width range | 30~40mm | 37~50mm | 48~64mm | 60~80mm | 70~95mm | 96~128mm | 120~160mm | 150~200mm | 189~252mm | 240~320mm |

4 選擇刀片座種類

Choice the insert seat type

| 形式 Form | | | | | |
|---|--|---|---|---|--|
| 90° | 75° | 45° | 12° | $D_c=100 \quad f=0.05 \quad A_p=0.2$ $h = \frac{\sqrt{A_p \times (D_c - A_p)} \times f}{D_c}$ | |
| | | | | | |
| 適用： 1. 加工壁薄件 2. 加工夾持剛性差工件 3. 大切削 General: 1. Processing pi thin pieces. 2. Processing clamping rigid workpiece. 3. Large cutting. | 適用： 1. 加工粗胚 2. 中大切削工件 General: 1. Processing rough embryos. 2. Large cutting parts. | 適用： 1. 加工深腔體工件 2. 中切深 General: 1. Processing of deep cavity workpiece. 2. In the depth of cut. | 適用： 1. 加工大量粗切削 2. 小切深、大進給 General: 1. Processing a large number of rough cutting. 2. Small depth of cut, large feed. | 範例 Example: $h = \frac{\sqrt{0.2 \times (100 - 0.2)}}{100} \times 0.05$ $h = 2.23$ | |
| 說明 Description | | | | | |
| <p>外周切削刃角（主偏角的餘角）越大，則切屑厚度越大，切削阻力增加，刃口強度降低；反之則切屑厚度越薄，切削阻力減少，加工餘量受限。 The larger the chip angle is, the greater the chip thickness is, and the cutting resistance is increased. The cutting edge strength is reduced. General processing selection of cutting force, chip thickness of moderate 45° angle.</p> | | | | | |

•長度單位 Unit of Length (mm)



5 外周切削刃角與切削刃的關係
Relationship between cutting edge angle and cutting edge

| 形式 Form | |
|---|-----------------------|
| <p>90°</p> | <p>主偏角 外周切削刃角</p> |
| <p>Fa: 切削力的軸向分力 Fr: 切削力的徑向分力 Fa: Axial component of cutting force. Fr: Radial component of cutting force.</p> | |
| 說明 Description | |
| <p>刀具外徑切削刃角越大·徑向分力越大；軸向分力越小·適合加工薄壁件·軸向剛性較差的零件加工。 刀具外徑切削刃角越小·軸向分力越大；徑向分力越小·適應於大懸長加工。 The greater the peripheral cutting edge angle, the greater the radial component; axial component of the smaller, to adapt to thin-walled parts, poor rigidity of the axial processing of parts. The smaller the peripheral cutting edge angle, the greater the axial component; radial component of the smaller, adapted to large long-length processing.</p> | |

6 如何正確搭配刀片座類型
How to properly match the insert seat type

| 形式 Form | |
|--|---|
| <p>Ha: 不使用修光刀刀片的粗糙度 Ha: Don't used wiper insert</p> | <p>Hb: 使用修光刀刀片的粗糙度 Hb: Used wiper insert</p> |
| | |
| <p>切削數據: ♦工件: Al7075 ♦刀頭 HCM-63 ♦Vc=700m/min ♦fz=0.1mm/t ♦Ap=0.1mm</p> | |
| <p>h: 修光刀刀片突出量 鋁合金(Al): 0.03mm</p> | <p>f: 每刃進給(mm/rev) Ha: 普通刀片的精加工粗糙度 Hb: 修光刀刀片的精加工粗糙度</p> |
| <p>一般捨棄式刀片</p> | <p>修光刀刀片</p> |
| 說明 Description | |
| <p>- 帶修光刃的刀片: 所有刀片帶有修光刃·相對刀片的跳動高度·利用高度最突出的刀片修光刃刮光表面的方法。 - With wiper insert: All insert have a wiper edge, relative to the beating height of the insert, using the most prominent insert to wiper the surface of the wiper. - 加入修光刀刀片的方式: 在一般刀片中·加入 1~2 片呈圓滑線型的修光刀刀片比其它刀片稍突出。 - Wiper insert to join the way: in the general insert, add 1 to 2 was rounded linear wiper insert than other edge insert slightly prominent.</p> | |

•長度單位 Unit of Length (mm)

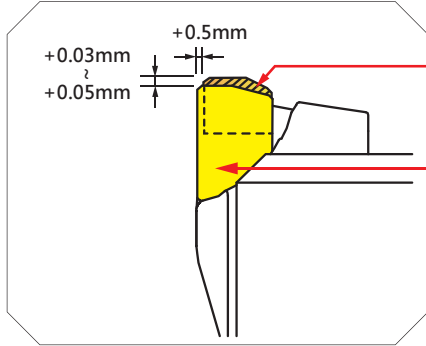
7 調整刀刃的差異性 Adjust the difference between the insert edge



8 切削數據 Cutting Parameter

| | 材料 Materials | 材料編號 Materials examples | 抗拉強度 Strength(N/mm ²) | 線速度 Vc(m/min) | 每刃進給量 f(mm/rev) | |
|---|---|--|--------------------------------------|------------------|-----------------|----------------|
| | | | | | Ap<1mm | Ap:1~2mm |
| N | 鋁合金 (Aluminium) | 鋁合金 (Al99) | | max.6000 | 0.1~0.2mm/rev | 0.05~0.1mm/rev |
| | 鋁合金 (Aluminium) 7% 矽 (Si) | 鑄造鋁合金 (AlSi7) | | | | |
| | 鋁合金 (Aluminium) 7-12% 矽 (Si) | 鋁合金 (AlSi9) 鋁合金 (AlSi9Cu) | | | | |
| | 鋁合金 (Aluminium) 12% 矽 (Si) | 鋁合金 (AlSi12) 鋁合金 (AlSi17) | | max.2000 | | |
| | 銅 (Copper) 非合金銅 (unalloyed) | 銅合金 (SE-Cu) | < 300 | max.6000 | | |
| | 銅 (Copper) | 銅錫合金 (CuSn6) | > 300 | max.2000 | | |
| | 黃銅 (Brass) 青銅 (bronze) 紅銅 (red brass) | 銅錫合金 (CuZn33) 銅合金 (CuAl9Mn3) | < 1.200 | | | |
| | 石墨 (Graphite) | - | | | | |
| | 塑料 (Plastic) 熱可塑性樹脂 (Thermoplastics) | 尼龍 (PA), 塑膠 (PE), 聚碳酸酯 (PC), 聚苯乙烯 (PS), 聚氯乙烯 (PVC), 聚丙烯 (PP), 聚四氟乙烯 (PTFE), 聚甲醛 (POM), 聚甲基丙烯酸甲酯 PMMA | | | | |
| | 塑料 (Plastic) 熱固性塑膠 (Thermoset plastics) | 聚氨酯 (PU), 電木粉 (PF), 環氧樹脂 (EP), 聚酯樹脂 (UP), 塑膠 (VE), 氯丁橡膠 (CR) | | | | |
| C | 塑料 (Plastic matrix) 碳纖維複合材料 (CFRP/GFRP) | 聚酯 (IMS), 高溫合金 (HTA) | | Max.100~500 | 0.1~0.4mm/rev | 0.1~0.2mm/rev |
| | 塑料 (Plastic matrix) 碳纖維複合材料 (CFRP/GFRP) | 玻璃纖維 (GMT-PP), 聚醚醚酮 (PEEK) | | | | |
| | 碳纖維複合材料 Carbon matrix 碳纖維強化碳基複合材料 carbon fibre reinforced (CFC) | 碳纖維 (CF222, CF225, CF226, CF227, CF260) | | Max. 100~300 | 0.1~0.2mm/rev | 0.05~0.1mm/rev |

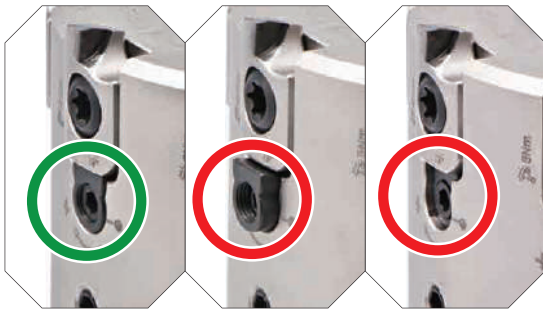
•長度單位 Unit of Length (mm)



修光刃刀片座 Wiper insert

PCD刀片座 PCD insert

⚠ 安裝修光刃刀片(R300、R500)時，應比PCD刀片高出+0.03mm~+0.05mm
 When installing wiper inserts (R300 or R500) be sure they are 0.03 ~ 0.05mm higher than the PCD insert.



請務必使調整楔塊與刀頭外徑平行
 Make sure the wedge and the insert are parallel.

一般精度：0.01mm
 精密精度：0.003mm ~ 0.005mm
 General accuracy: 0.01mm
 Precision accuracy: 0.003mm 0.005mm



每刃皆有一顆動平衡螺絲，可調整每刃不平衡量
 Each insert seat has a dedicated dynamic balance adjustment

| 轉速(min^{-1}) | JIS等級 ISO 1940-1/8821 (JIS B0905) |
|-------------------------|---|
| ~20,000 | G16 |
| ~30,000 | G6.3 |
| 30,000~ | G2.5 |

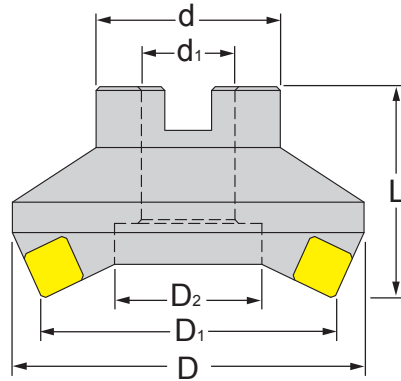
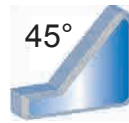


在高速旋轉 (10,000 min^{-1} 以上) 使用時，刀具本體與刀桿的組合，請參考以下數值進行選配

When operating at high rotation speeds (10,000 min^{-1} or more), perform balancing of the tool body and arbor combination according to the reference values listed here.

⚠ 請不要超過建議的最高轉速加工數據，避免造成離心力影響而使刀片或零件的飛散，導致刀頭受損
 Do not use at rotation speeds exceeding the maximum rotation speed stated. Inserts and other parts may fly apart and cause bodily harm due to the high velocity of centrifugal force.

445



| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|--------------|----|-----|----------------|----------------|-----|----------------|-----------|-----------|-----------------|
| ASP-445-3 | 55 | 104 | 80 | 36 | 68 | 25.4 | 5 | SE..1203 | 2.21 |
| ASP-445-4 | 55 | 128 | 100 | 45 | 85 | 31.75 | 5 | SE..1203 | 3.34 |
| ASP-445-5 | 60 | 156 | 125 | 60 | 106 | 38.1 | 6 | SE..1203 | 5.33 |
| ASP-445-6 | 60 | 182 | 160 | 72 | 132 | 50.8 | 8 | SE..1203 | 7.31 |
| ASP-445-8 | 60 | 228 | 200 | 130 | 128 | 47.625 | 10 | SE..1203 | 8.81 |
| ASP-445-10 | 60 | 284 | 250 | 140 | 160 | 47.625 | 12 | SE..1203 | 16.0 |
| ASP-445-12 | 60 | 327 | 300 | 140 | 210 | 47.625 | 14 | SE..1203 | 26.0 |
| ASP-445-8-L | 60 | 228 | 200 | 130 | 128 | 47.625 | 10 | SE..1203 | 8.81 |
| ASP-445-10-L | 60 | 284 | 250 | 140 | 160 | 47.625 | 12 | SE..1203 | 16.0 |

- L : 左撇 Left-handed

配件表 Accessories

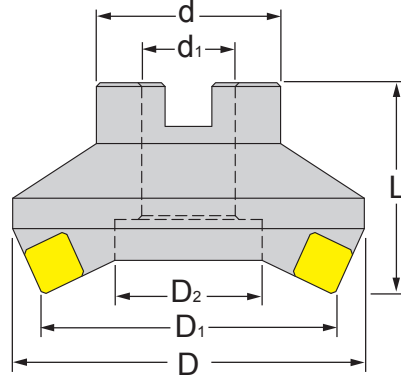
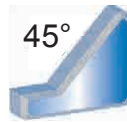
| 刀片 Insert | 雙頭螺絲 Screw | 墊片螺絲 Shim Screw | 壓板 Clamp | 墊片 Shim | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------|-----------------|----------|---------|-----------|------------------|
| SE..1203 | ASP1 | ASP2 | ASP3 | ASP4 | PT4 | 5.0 |

- 左旋用壓板 Left-handed clamp : ASP3-L 左旋用墊片 Left-handed Shim : ASP4-L

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | | | | |
|----------|-------------|----------------------|-------|---|--|--|--|--|--|--|--|--------------|---|---|------|------------|------|---|--|
| | M | 不鏽鋼 Stainless Steels | | | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | ○ | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 硬質合金 Hard alloy | | | | | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | |
| | | HW | | | | | | | | | | d | i | s | r | | | | |
| | | TSP25 | TSK10 | | | | | | | | | | | | | | | | |
| | SEKN1203AFR | ● | ● | | | | | | | | | | | | 12.7 | - | 3.18 | - | |

• 長度單位 Unit of Length (mm)

545



| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|------------|----|-----|----------------|----------------|-----|----------------|-----------|-----------|-----------------|
| ASP-545-3 | 55 | 104 | 80 | 36 | 68 | 25.4 | 5 | SE..1504 | 2.20 |
| ASP-545-4 | 55 | 128 | 100 | 45 | 85 | 31.75 | 5 | SE..1504 | 3.33 |
| ASP-545-5 | 60 | 156 | 125 | 60 | 106 | 38.1 | 6 | SE..1504 | 5.32 |
| ASP-545-6 | 60 | 182 | 160 | 72 | 132 | 50.8 | 8 | SE..1504 | 7.30 |
| ASP-545-8 | 60 | 228 | 200 | 130 | 128 | 47.625 | 10 | SE..1504 | 8.69 |
| ASP-545-10 | 60 | 284 | 250 | 140 | 160 | 47.625 | 12 | SE..1504 | 16.38 |
| ASP-545-12 | 60 | 327 | 300 | 140 | 210 | 47.625 | 14 | SE..1504 | 26.38 |

配件表 Accessories

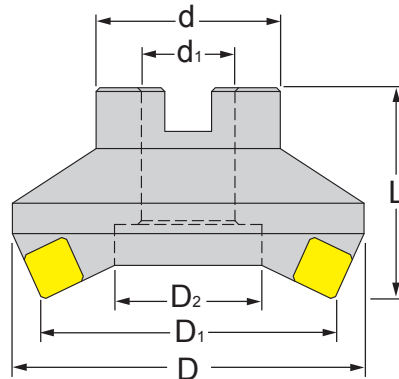
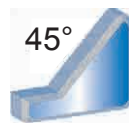
| 刀片 Insert | 雙頭螺絲 Screw | 墊片螺絲 Shim Screw | 壓板 Clamp | 墊片 Shim | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------|-----------------|----------|---------|-----------|------------------|
| SE..1504 | ASP1 | ASP2 | ASP3 | ASP4 | PT4 | 5.0 |

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | |
|----------|-----------------|------------------------|---|---|--|--|--|--|--|--|--|--|--------------|---|--------|---|------|
| | M | 不鏽鋼 Stainless Steels | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | ○ | | | | | | | | | | | | | |
| 形狀 Shape | N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | 圖形 Drawing | |
| | S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | |
| | H | 高硬度材 Hard Material | | | | | | | | | | | | | | | |
| 規格 Spec. | 硬質合金 Hard alloy | | | | | | | | | | | | 尺寸 (mm) Size | | | | |
| | HW | | | | | | | | | | | | d | i | s | r | |
| 規格 Spec. | TSP20 | TSK10 | | | | | | | | | | | | | | | |
| | | SEKN1504AFR | ● | ● | | | | | | | | | | | 15.875 | - | 4.76 |

•長度單位 Unit of Length (mm)



545



FMB 為公制規格 (mm) FMB is mm size

| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|------------------|----|-----|----------------|----------------|-----|----------------|-----------|-----------|-----------------|
| ASP-545-4-FMB32 | 55 | 128 | 100 | 45 | 85 | 32 | 5 | SE..1504 | 3.33 |
| ASP-545-5-FMB40 | 60 | 156 | 125 | 60 | 106 | 40 | 6 | SE..1504 | 5.32 |
| ASP-545-6-FMB40 | 60 | 182 | 160 | 72 | 132 | 40 | 8 | SE..1504 | 7.30 |
| ASP-545-8-FMB60 | 60 | 228 | 200 | 130 | 128 | 60 | 10 | SE..1504 | 8.69 |
| ASP-545-10-FMB60 | 60 | 284 | 250 | 140 | 160 | 60 | 12 | SE..1504 | 16.93 |
| ASP-545-12-FMB60 | 60 | 327 | 300 | 140 | 210 | 60 | 14 | SE..1504 | 26.2 |

配件表 Accessories

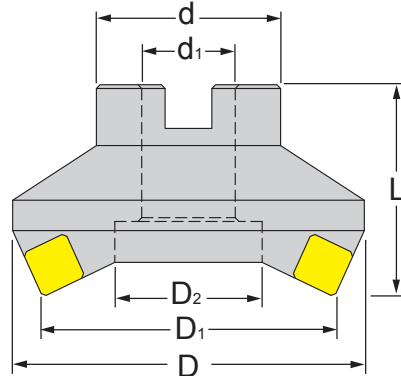
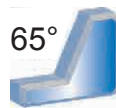
| 刀片 Insert | 雙頭螺絲 Screw | 墊片螺絲 Shim Screw | 壓板 Clamp | 墊片 Shim | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------|-----------------|----------|---------|-----------|------------------|
| SE..1504 | ASP1 | ASP2 | ASP3 | A | PT4 | 5.0 |

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | | | | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | |
|----------|------------------------|----------------------|-------|---|--|--|--|--|--|--|--|--------------|---|---|---|------------|--|--|---|--|
| | M | 不鏽鋼 Stainless Steels | | | | | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | | ○ | | | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 硬質合金 Hard alloy | | | | | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | | |
| | | HW | | | | | | | | | | d | i | s | r | | | | | |
| | | TSP20 | TSK10 | | | | | | | | | | | | | | | | | |
| | SEKN1504AFR | ● | ● | | | | | | | | | | | | | | | | | |

•長度單位 Unit of Length (mm)



435



| 規格 Spec. | L | D | D ₁ | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|------------|----|-----|----------------|----------------|-----|----------------|-----------|----------------------------------|-----------------|
| ASP-435-3 | 55 | 96 | 80 | 36 | 70 | 25.4 | 5 | SPKN1204 (ISO) SPK43C2SR (英制) | 2.16 |
| ASP-435-4 | 55 | 118 | 100 | 45 | 80 | 31.75 | 5 | | 2.96 |
| ASP-435-5 | 60 | 142 | 125 | 55 | 96 | 38.1 | 6 | | 4.80 |
| ASP-435-6 | 60 | 177 | 160 | 72 | 128 | 50.8 | 8 | | 7.24 |
| ASP-435-8 | 60 | 218 | 200 | 130 | 128 | 47.625 | 10 | | 8.90 |
| ASP-435-10 | 60 | 273 | 250 | 130 | 200 | 47.625 | 12 | | 19.0 |
| ASP-435-12 | 60 | 320 | 300 | 130 | 210 | 47.625 | 14 | | 25.0 |

配件表 Accessories

| 刀片 Insert | 雙頭螺絲 Screw | 墊片螺絲 Shim Screw | 壓板 Clamp | 墊片 Shim | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|------------|-----------------|----------|---------|-----------|------------------|
| SPK43C2SR | ASP1 | ASP2 | ASP3 | ASP4 | PT4 | 5.0 |

| ISO 分類 | 合金鋼 Alloyed Steels | | | | | | | | | | 切削狀態 Cutting Condition: ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting | | | | |
|----------|----------------------|-------|-------|--|--|--|--|--|--|--|--|------------|------|---|--|
| | 不鏽鋼 Stainless Steels | | | | | | | | | | | | | | |
| | 鑄鐵 Cast Iron | | | | | | | | | | | | | | |
| 形狀 Shape | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | 尺寸 (mm) Size | 圖形 Drawing | | | |
| | 高硬度材 Hard Material | | | | | | | | | | | | | | |
| | 硬質合金 Hard alloy HW | | | | | | | | | | | | | | |
| 規格 Spec. | | TSP20 | TSK10 | | | | | | | | d | i | s | r | |
| | SPK43C2SR | ● | ● | | | | | | | | 12.7 | - | 4.76 | - | |

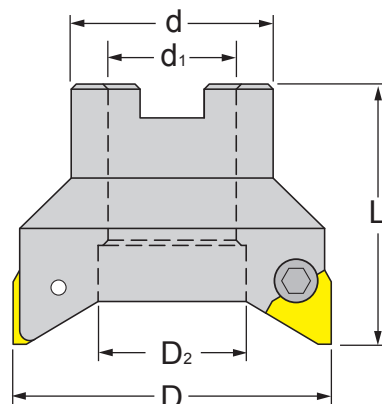
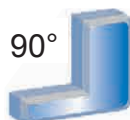
•長度單位 Unit of Length (mm)

TAP 90° 捨棄式平面銑刀

TAP 90° INDEXABLE FACE MILLING CUTTER



KOVIT



| 規格 Spec. | L | D | D ₂ | d | d ₁ | 刃數 Flutes | 刀片 Insert | 重量 (KGS) Weight |
|----------|----|-----|----------------|-----|----------------|-----------|-----------|-----------------|
| TAP-63 | 50 | 63 | 18.5 | 48 | 25.4 | 3 | TP..2204 | 0.56 |
| TAP-80 | 55 | 80 | 36 | 60 | 25.4 | 4 | TP..2204 | 1.02 |
| TAP-100 | 55 | 100 | 45 | 78 | 31.75 | 5 | TP..2204 | 1.80 |
| TAP-125 | 60 | 125 | 55 | 90 | 38.1 | 6 | TP..2204 | 3.21 |
| TAP-150 | 60 | 150 | 72 | 118 | 50.8 | 7 | TP..2204 | 4.76 |
| TAP-200 | 60 | 200 | 60 | 165 | 47.625 | 8 | TP..2204 | 8.69 |
| TAP-250 | 60 | 250 | 162 | 214 | 47.625 | 9 | TP..2204 | 15.03 |
| TAP-300 | 60 | 300 | 162 | 214 | 47.625 | 10 | TP..2204 | 22.48 |

配件表 Accessories

| 刀片 Insert | 傘型螺絲 Screw | 墊片螺絲 Shim Screw | 墊片 Shim | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------------|---------|-----------|------------------|
| TP..2204 | M8-U5/16-24P | TAP2 | TAP3 | PT5 | 6.0 |

| ISO 分類 | <p>P 合金鋼 Alloyed Steels</p> <p>M 不鏽鋼 Stainless Steels</p> <p>K 鑄鐵 Cast Iron</p> <p>N 鋁及鋁合金 Aluminum&Al</p> <p>S 高溫合金 Refractory Alloys</p> <p>H 高硬度材 Hard Material</p> | 硬質合金 Hard alloy | | | | | | | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | |
|--------|--|-----------------|-------|--|--|--|--|--|--|--|--|--------------|---|------|---|------------|-----|--|
| | | HW | | | | | | | | | | Size | | | | | | |
| | | TSP20 | TSK10 | | | | | | | | | d | i | s | r | | | |
| | TPKN2204PDR | ● | ● | | | | | | | | | | | 12.7 | - | 4.76 | - | |
| | | | | | | | | | | | | | | | | | | |
| | TPMN220412 | ● | ● | | | | | | | | | | | 12.7 | - | 4.76 | 1.2 | |
| | | | | | | | | | | | | | | | | | | |

•長度單位 Unit of Length (mm)



SP_12.43.53 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 (mm/rev) |
|------------------------------|------|---------------|-------------------|------------------|
| P | 低合金鋼 | TSP20 | 125~200 | 0.1~0.3 |
| | | TSP25 | 125~200 | 0.1~0.3 |
| | 合金鋼 | TSP20 | 50~100 | 0.1~0.2 |
| | | TSP25 | 50~100 | 0.1~0.2 |
| K | 鑄鐵 | TSK10 | 80~120 | 0.1~0.3 |

SE_12.15 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 (mm/rev) |
|------------------------------|------|---------------|-------------------|------------------|
| P | 低合金鋼 | TSP20 | 125~200 | 0.1~0.3 |
| | | TSP25 | 125~200 | 0.1~0.3 |
| | 合金鋼 | TSP20 | 50~100 | 0.1~0.2 |
| | | TSP25 | 50~100 | 0.1~0.2 |
| K | 鑄鐵 | TSK10 | 80~120 | 0.1~0.3 |

TP_22 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials | | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 (mm/rev) |
|------------------------------|------|---------------|-------------------|------------------|
| P | 低合金鋼 | TSP20 | 125~200 | 0.1~0.3 |
| | 合金鋼 | TSP20 | 50~100 | 0.1~0.2 |
| K | 鑄鐵 | TSK10 | 80~120 | 0.1~0.3 |

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑)
 Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter outer diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速
 Feeding Speed (mm/min) = Feed per Flutes × Flutes × Spindle speed.

| | | | | | | | | | |
|----------|----------|----------|----------|----------|-----------|----------|----------|----------|-----------|
| S | T | F | C | R | 12 | C | A | - | 16 |
| ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | | ⑨ |

| ① STFCR12CA - 16 | | |
|--------------------------------|--------------------|---------------|
| 鎖固方式 Method of Mounting Insert | | |
| | | |
| Top Clamping C | Hole clamping P | Screw on S |

| ② STFCR12CA - 16 | | |
|-------------------|---|---|
| 刀片形狀 Insert Shape | | |
| | | |
| C | S | T |

| ③ STFCR12CA - 16 | | |
|-------------------|---|---|
| 進刀角度 Holder Style | | |
| | | |
| L | S | F |
| | | |
| R | K | G |
| | | |
| W | T | |

| ④ STFCR12CA - 16 | | |
|----------------------------|---|---|
| 離隙角 Relief Angle of Insert | | |
| | | |
| C | P | N |

| ⑤ STFCR12CA - 16 | |
|-------------------|---|
| 進刀方向 Hand of Tool | |
| | |
| R | L |

| ⑥ STFCR12CA - 16 |
|------------------------------|
| 切削刃高度 Height of Cutting Edge |
| |

| ⑦ STFCR12CA - 16 |
|---------------------|
| 刀具類型 Cartridge Code |
| C (Cartridge) |

| ⑧ STFCR12CA - 16 |
|------------------------|
| 設計類型 Type of Cartridge |
| A (ISO5611) |

| ⑨ STFCR12CA - 16 |
|------------------------------|
| 切削刃長度 Length of Cutting Edge |
| |

•長度單位 Unit of Length (mm)



範例 Example



| 圖形 Drawing | 規格 Spec. | L ₁ | L ₂ | L ₈ | F | H | D _{min} | R _e | 刀片 Insert |
|---------------|---------------|----------------|----------------|----------------|----|----|------------------|----------------|--------------|
| STFRCR | STFCR-08CA-09 | 32 | - | 15 | 10 | 8 | 25 | 0.4 | TC..0902 |
| | STFCR-10CA-11 | 50 | - | 30 | 14 | 10 | 40 | 0.4 | TC..1102 |
| | STFCR-12CA-16 | 55 | - | 35 | 20 | 12 | 50 | 0.8 | TC..16T3 |
| STFPR | STFPR-08CA-09 | 32 | - | 15 | 10 | 8 | 25 | 0.4 | TP..0902 |
| | STFPR-10CA-11 | 50 | - | 30 | 14 | 10 | 40 | 0.4 | TP..1103 |
| | STFPR-12CA-16 | 55 | - | 35 | 20 | 12 | 50 | 0.8 | TP..1603 |
| SCFCR | SCFCR-08CA-06 | 32 | - | 15 | 10 | 8 | 25 | 0.4 | CC..0602 |
| | SCFCR-10CA-09 | 50 | - | 30 | 14 | 10 | 40 | 0.4 | CC..09T3 |
| STSPR | STSPR-08CA-09 | 28 | 34.1 | 11 | 10 | 8 | 25 | 0.4 | TP..0902 |
| | STSPR-10CA-11 | 44 | 51.0 | 24 | 14 | 10 | 40 | 0.4 | TP..1103 |
| | STSPR-12CA-16 | 47 | 57.0 | 27 | 20 | 12 | 50 | 0.8 | TP..1603 |
| STSCR | STSCR-08CA-09 | 28 | 34.1 | 11 | 10 | 8 | 25 | 0.4 | TC..0902 |
| | STSCR-10CA-11 | 44 | 51.0 | 24 | 14 | 10 | 40 | 0.4 | TC..1102 |
| | STSCR-12CA-16 | 47 | 57.0 | 27 | 20 | 12 | 50 | 0.8 | TC..16T3 |

•長度單位 Unit of Length (mm)

DR 碳化鎢鋼出水鑽頭

DR TUNGSTEN CARBIDE DRILL

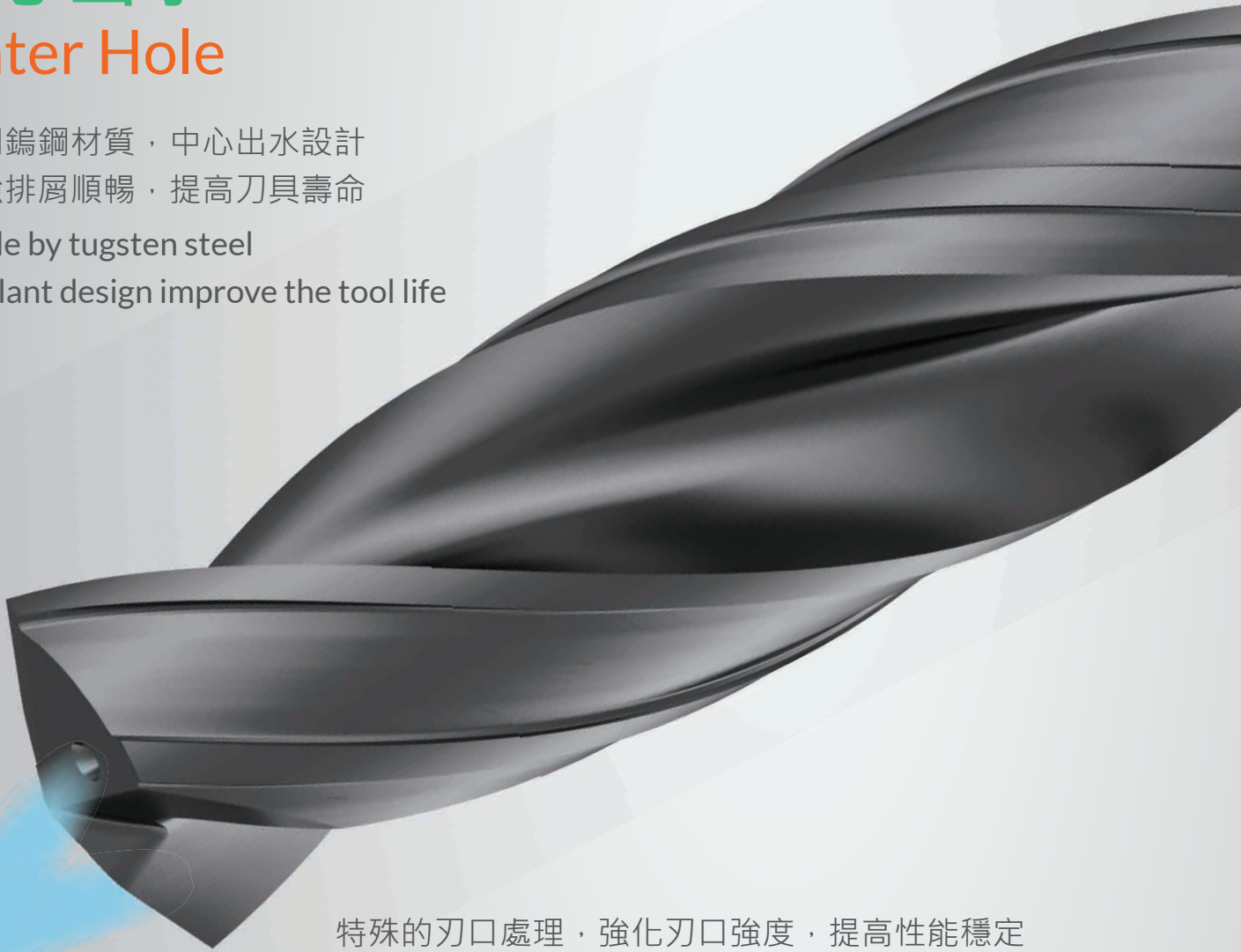
Feature

中心出水 Water Hole

採用鎢鋼材質，中心出水設計
加強排屑順暢，提高刀具壽命

Made by tungsten steel

Coolant design improve the tool life



特殊的刃口處理，強化刃口強度，提高性能穩定
Special treated drill edge has high strength and stability.

採用TiAlN塗層，具有良好的抗氧化性，耐磨性高
TiAlN coating prevent rust and act as a wear resistance.

獨特槽型設計，具有優良的排屑效果
Unique design with excellent chip removal effect.

Carbide Drill

| 記號 Symbol | 被加工材質 Machining Material |
|--------------|-----------------------------|
| DR20P | 一般鋼 P-Alloyed Steels |
| DR30M | 不鏽鋼 M-Stainless Steels |
| DR40K | 鑄鐵 K-Cast Iron |
| DR50N | 非鐵合金 N-Aluminum &Al |
| DR60S | 高溫合金 S-Refractory Alloys |
| DR70H | 高硬度 H-Hard Material |

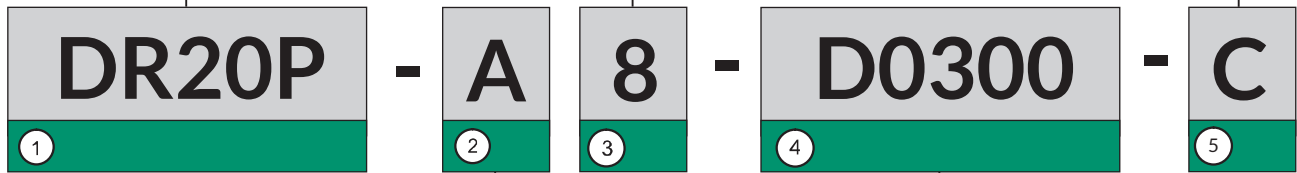
① 類別
Category

| 記號 Symbol | 深度 Depth |
|--------------|-------------|
| 3 | ≤ 3xD |
| 5 | ≤ 5xD |
| 8 | ≤ 8xD |
| 12 | ≤ 12xD |
| 15 | ≤ 15xD |

③ 鑽孔深度
Drilling Depth

| 記號 Symbol | 功能 Function |
|--------------|--------------------------|
| C | 內部給水 Internal Coolant |
| N | 外部給水 External Coolant |

⑤ 冷卻方式
Coolant Way



| ② 柄徑形式 Shank Style | |
|-----------------------|--|
| 記號 Symbol | 形式 STYLE |
| A | 直柄 DIN-6535HA Straight Shank DIN-6535HA |
| B | 削平柄 DIN-6535HB Flatted Shank DIN-6535HB |
| E | 斜削柄 DIN-6535HE Bevel Shank DIN-6535HE |
| M | 莫氏錐度 MT Morse MT |

| ④ 刃徑 EDGE DIAMETER | |
|-----------------------|---------------------|
| 記號 Symbol | 刃徑 EDGE DIAMETER |
| D | |

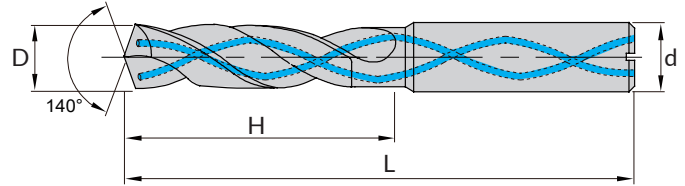
• 長度單位 Unit of Length (mm)

DR20P-A5-C 碳化鎢鋼出水鑽頭 (DX5)

DR SOLID CARBIDE DRILL WITH INTERNAL COOLANT



KOVIT



先端角

140°

Spiral Pointed Angle

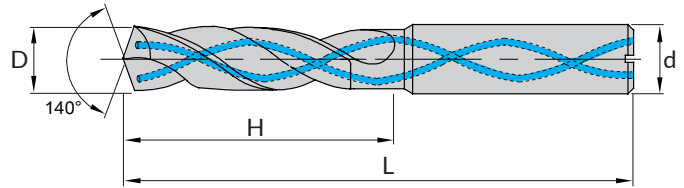
加工類型



Cutting Material

| 規格 Spec. | L | D | d | H | T | 重量 (KGS) Weight |
|------------------|----|------|---|----|---|-----------------------|
| DR20P-A5-D0300-C | 66 | 3 | 6 | 28 | 2 | - |
| DR20P-A5-D0310-C | 66 | 3.1 | 6 | 28 | 2 | - |
| DR20P-A5-D0320-C | 66 | 3.2 | 6 | 28 | 2 | - |
| DR20P-A5-D0330-C | 66 | 3.3 | 6 | 28 | 2 | - |
| DR20P-A5-D0340-C | 66 | 3.4 | 6 | 28 | 2 | 0.02 |
| DR20P-A5-D0350-C | 66 | 3.5 | 6 | 28 | 2 | 0.02 |
| DR20P-A5-D0360-C | 66 | 3.6 | 6 | 28 | 2 | 0.02 |
| DR20P-A5-D0370-C | 66 | 3.7 | 6 | 28 | 2 | 0.02 |
| DR20P-A5-D0380-C | 74 | 3.8 | 6 | 36 | 2 | 0.02 |
| DR20P-A5-D0390-C | 74 | 3.9 | 6 | 36 | 2 | 0.02 |
| DR20P-A5-D0400-C | 74 | 4 | 6 | 36 | 2 | 0.02 |
| DR20P-A5-D0410-C | 74 | 4.1 | 6 | 36 | 2 | 0.02 |
| DR20P-A5-D0420-C | 74 | 4.2 | 6 | 36 | 2 | 0.02 |
| DR20P-A5-D0430-C | 74 | 4.3 | 6 | 36 | 2 | 0.02 |
| DR20P-A5-D0440-C | 74 | 4.4 | 6 | 36 | 2 | 0.02 |
| DR20P-A5-D0450-C | 74 | 4.5 | 6 | 36 | 2 | 0.02 |
| DR20P-A5-D0460-C | 74 | 4.6 | 6 | 36 | 2 | 0.02 |
| DR20P-A5-D0465-C | 74 | 4.65 | 6 | 36 | 2 | 0.02 |
| DR20P-A5-D0470-C | 74 | 4.7 | 6 | 36 | 2 | 0.02 |
| DR20P-A5-D0480-C | 82 | 4.8 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0490-C | 82 | 4.9 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0500-C | 82 | 5 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0510-C | 82 | 5.1 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0520-C | 82 | 5.2 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0530-C | 82 | 5.3 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0540-C | 82 | 5.4 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0550-C | 82 | 5.5 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0555-C | 82 | 5.55 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0560-C | 82 | 5.6 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0570-C | 82 | 5.7 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0580-C | 82 | 5.8 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0590-C | 82 | 5.9 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0600-C | 82 | 6 | 6 | 44 | 2 | 0.03 |
| DR20P-A5-D0610-C | 91 | 6.1 | 6 | 53 | 2 | - |
| DR20P-A5-D0620-C | 91 | 6.2 | 8 | 53 | 2 | 0.04 |

•長度單位 Unit of Length (mm)

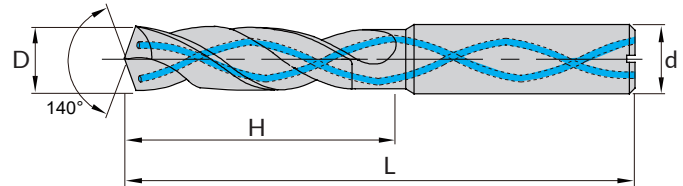


先端角
140°
Spiral Pointed Angle

加工類型
P M K
Cutting Material

| 規格 Spec. | L | D | d | H | T | 重量 (KGS) Weight |
|------------------|-----|------|----|----|---|-----------------------|
| DR20P-A5-D0630-C | 91 | 6.3 | 8 | 53 | 2 | 0.04 |
| DR20P-A5-D0640-C | 91 | 6.4 | 8 | 53 | 2 | 0.04 |
| DR20P-A5-D0650-C | 91 | 6.5 | 8 | 53 | 2 | 0.04 |
| DR20P-A5-D0660-C | 91 | 6.6 | 8 | 53 | 2 | - |
| DR20P-A5-D0670-C | 91 | 6.7 | 8 | 53 | 2 | - |
| DR20P-A5-D0680-C | 91 | 6.8 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0690-C | 91 | 6.9 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0700-C | 91 | 7 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0710-C | 91 | 7.1 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0720-C | 91 | 7.2 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0730-C | 91 | 7.3 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0740-C | 91 | 7.4 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0745-C | 91 | 7.45 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0750-C | 91 | 7.5 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0760-C | 91 | 7.6 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0770-C | 91 | 7.7 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0780-C | 91 | 7.8 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0790-C | 91 | 7.9 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0800-C | 91 | 8 | 8 | 53 | 2 | 0.05 |
| DR20P-A5-D0810-C | 103 | 8.1 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0820-C | 103 | 8.2 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0830-C | 103 | 8.3 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0840-C | 103 | 8.4 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0850-C | 103 | 8.5 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0860-C | 103 | 8.6 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0870-C | 103 | 8.7 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0880-C | 103 | 8.8 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0890-C | 103 | 8.9 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0900-C | 103 | 9 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0910-C | 103 | 9.1 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0920-C | 103 | 9.2 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0930-C | 103 | 9.3 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0935-C | 103 | 9.35 | 10 | 61 | 2 | 0.08 |
| DR20P-A5-D0940-C | 103 | 9.4 | 10 | 61 | 2 | 0.09 |

•長度單位 Unit of Length (mm)



先端角
140°

Spiral Pointed Angle

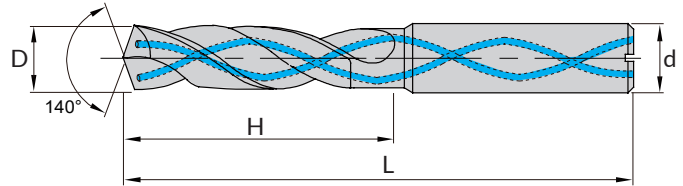
加工類型



Cutting Material

| 規格 Spec. | L | D | d | H | T | 重量 (KGS) Weight |
|------------------|-----|------|----|----|---|-----------------------|
| DR20P-A5-D0950-C | 103 | 9.5 | 10 | 61 | 2 | 0.09 |
| DR20P-A5-D0960-C | 103 | 9.6 | 10 | 61 | 2 | 0.09 |
| DR20P-A5-D0970-C | 103 | 9.7 | 10 | 61 | 2 | 0.09 |
| DR20P-A5-D0980-C | 103 | 9.8 | 10 | 61 | 2 | 0.09 |
| DR20P-A5-D0990-C | 103 | 9.9 | 10 | 61 | 2 | 0.09 |
| DR20P-A5-D1000-C | 103 | 10 | 10 | 61 | 2 | 0.09 |
| DR20P-A5-D1010-C | 118 | 10.1 | 12 | 71 | 2 | - |
| DR20P-A5-D1020-C | 118 | 10.2 | 12 | 71 | 2 | 0.13 |
| DR20P-A5-D1030-C | 118 | 10.3 | 12 | 71 | 2 | 0.13 |
| DR20P-A5-D1040-C | 118 | 10.4 | 12 | 71 | 2 | 0.13 |
| DR20P-A5-D1050-C | 118 | 10.5 | 12 | 71 | 2 | 0.13 |
| DR20P-A5-D1060-C | 118 | 10.6 | 12 | 71 | 2 | 0.13 |
| DR20P-A5-D1070-C | 118 | 10.7 | 12 | 71 | 2 | 0.13 |
| DR20P-A5-D1080-C | 118 | 10.8 | 12 | 71 | 2 | 0.13 |
| DR20P-A5-D1090-C | 118 | 10.9 | 12 | 71 | 2 | 0.13 |
| DR20P-A5-D1100-C | 118 | 11 | 12 | 71 | 2 | 0.13 |
| DR20P-A5-D1110-C | 118 | 11.1 | 12 | 71 | 2 | 0.13 |
| DR20P-A5-D1120-C | 118 | 11.2 | 12 | 71 | 2 | 0.14 |
| DR20P-A5-D1130-C | 118 | 11.3 | 12 | 71 | 2 | 0.14 |
| DR20P-A5-D1140-C | 118 | 11.4 | 12 | 71 | 2 | 0.14 |
| DR20P-A5-D1150-C | 118 | 11.5 | 12 | 71 | 2 | 0.14 |
| DR20P-A5-D1160-C | 118 | 11.6 | 12 | 71 | 2 | 0.14 |
| DR20P-A5-D1170-C | 118 | 11.7 | 12 | 71 | 2 | 0.14 |
| DR20P-A5-D1180-C | 118 | 11.8 | 12 | 71 | 2 | 0.14 |
| DR20P-A5-D1190-C | 118 | 11.9 | 12 | 71 | 2 | 0.14 |
| DR20P-A5-D1200-C | 118 | 12 | 12 | 71 | 2 | - |
| DR20P-A5-D1250-C | 124 | 12.5 | 14 | 77 | 2 | 0.18 |
| DR20P-A5-D1300-C | 124 | 13 | 14 | 77 | 2 | 0.19 |
| DR20P-A5-D1350-C | 124 | 13.5 | 14 | 77 | 2 | 0.2 |
| DR20P-A5-D1400-C | 124 | 14 | 14 | 77 | 2 | 0.2 |
| DR20P-A5-D1450-C | 133 | 14.5 | 16 | 83 | 2 | - |
| DR20P-A5-D1500-C | 133 | 15 | 16 | 83 | 2 | - |
| DR20P-A5-D1550-C | 133 | 15.5 | 16 | 83 | 2 | - |

•長度單位 Unit of Length (mm)



先端角
140°
Spiral Pointed Angle

加工類型
P M K
Cutting Material

| 規格 Spec. | L | D | d | H | T | 重量 (KGS) Weight |
|------------------|-----|-----|---|----|---|-----------------------|
| DR20P-A8-D0300-C | 72 | 3 | 6 | 34 | 2 | - |
| DR20P-A8-D0310-C | 72 | 3.1 | 6 | 34 | 2 | - |
| DR20P-A8-D0320-C | 72 | 3.2 | 6 | 34 | 2 | - |
| DR20P-A8-D0330-C | 72 | 3.3 | 6 | 34 | 2 | - |
| DR20P-A8-D0340-C | 72 | 3.4 | 6 | 34 | 2 | 0.02 |
| DR20P-A8-D0350-C | 72 | 3.5 | 6 | 34 | 2 | 0.02 |
| DR20P-A8-D0360-C | 72 | 3.6 | 6 | 34 | 2 | 0.02 |
| DR20P-A8-D0370-C | 72 | 3.7 | 6 | 34 | 2 | 0.02 |
| DR20P-A8-D0380-C | 81 | 3.8 | 6 | 43 | 2 | 0.02 |
| DR20P-A8-D0390-C | 81 | 3.9 | 6 | 43 | 2 | 0.02 |
| DR20P-A8-D0400-C | 81 | 4 | 6 | 43 | 2 | 0.02 |
| DR20P-A8-D0410-C | 81 | 4.1 | 6 | 43 | 2 | 0.02 |
| DR20P-A8-D0420-C | 81 | 4.2 | 6 | 43 | 2 | 0.02 |
| DR20P-A8-D0430-C | 81 | 4.3 | 6 | 43 | 2 | 0.02 |
| DR20P-A8-D0440-C | 81 | 4.4 | 6 | 43 | 2 | - |
| DR20P-A8-D0450-C | 81 | 4.5 | 6 | 43 | 2 | - |
| DR20P-A8-D0460-C | 81 | 4.6 | 6 | 43 | 2 | - |
| DR20P-A8-D0470-C | 81 | 4.7 | 6 | 43 | 2 | - |
| DR20P-A8-D0480-C | 95 | 4.8 | 6 | 57 | 2 | - |
| DR20P-A8-D0490-C | 95 | 4.9 | 6 | 57 | 2 | - |
| DR20P-A8-D0500-C | 95 | 5 | 6 | 57 | 2 | 0.03 |
| DR20P-A8-D0510-C | 95 | 5.1 | 6 | 57 | 2 | - |
| DR20P-A8-D0520-C | 95 | 5.2 | 6 | 57 | 2 | - |
| DR20P-A8-D0530-C | 95 | 5.3 | 6 | 57 | 2 | - |
| DR20P-A8-D0540-C | 95 | 5.4 | 6 | 57 | 2 | - |
| DR20P-A8-D0550-C | 95 | 5.5 | 6 | 57 | 2 | - |
| DR20P-A8-D0560-C | 95 | 5.6 | 6 | 57 | 2 | - |
| DR20P-A8-D0570-C | 95 | 5.7 | 6 | 57 | 2 | - |
| DR20P-A8-D0580-C | 95 | 5.8 | 6 | 57 | 2 | - |
| DR20P-A8-D0590-C | 95 | 5.9 | 6 | 57 | 2 | - |
| DR20P-A8-D0600-C | 95 | 6 | 6 | 57 | 2 | - |
| DR20P-A8-D0610-C | 114 | 6.1 | 8 | 76 | 2 | - |
| DR20P-A8-D0620-C | 114 | 6.2 | 8 | 76 | 2 | - |

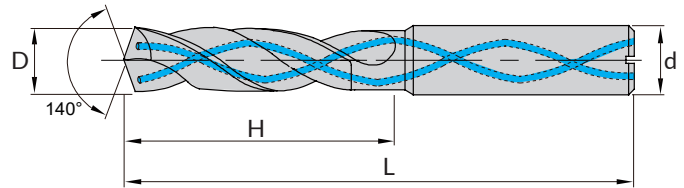
•長度單位 Unit of Length (mm)

DR20P-A8-C 碳化鎢鋼出水鑽頭 (DX8)

DR SOLID CARBIDE DRILL WITH INTERNAL COOLANT



KOVIT



先端角

140°

Spiral Pointed Angle

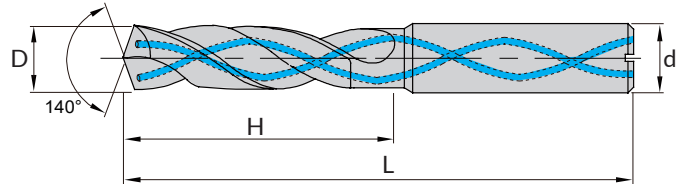
加工類型



Cutting Material

| 規格 Spec. | L | D | d | H | T | 重量 (KGS) Weight |
|------------------|-----|------|----|----|---|-----------------------|
| DR20P-A8-D0630-C | 114 | 6.3 | 8 | 76 | 2 | - |
| DR20P-A8-D0640-C | 114 | 6.4 | 8 | 76 | 2 | - |
| DR20P-A8-D0650-C | 114 | 6.5 | 8 | 76 | 2 | - |
| DR20P-A8-D0660-C | 114 | 6.6 | 8 | 76 | 2 | - |
| DR20P-A8-D0670-C | 114 | 6.7 | 8 | 76 | 2 | - |
| DR20P-A8-D0680-C | 114 | 6.8 | 8 | 76 | 2 | - |
| DR20P-A8-D0690-C | 114 | 6.9 | 8 | 76 | 2 | - |
| DR20P-A8-D0700-C | 114 | 7 | 8 | 76 | 2 | - |
| DR20P-A8-D0710-C | 114 | 7.1 | 8 | 76 | 2 | - |
| DR20P-A8-D0720-C | 114 | 7.2 | 8 | 76 | 2 | - |
| DR20P-A8-D0730-C | 114 | 7.3 | 8 | 76 | 2 | - |
| DR20P-A8-D0740-C | 114 | 7.4 | 8 | 76 | 2 | - |
| DR20P-A8-D0750-C | 114 | 7.5 | 8 | 76 | 2 | - |
| DR20P-A8-D0760-C | 114 | 7.6 | 8 | 76 | 2 | - |
| DR20P-A8-D0770-C | 114 | 7.7 | 8 | 76 | 2 | - |
| DR20P-A8-D0780-C | 114 | 7.8 | 8 | 76 | 2 | - |
| DR20P-A8-D0790-C | 114 | 7.9 | 8 | 76 | 2 | - |
| DR20P-A8-D0800-C | 114 | 8 | 8 | 76 | 2 | - |
| DR20P-A8-D0810-C | 142 | 8.1 | 10 | 95 | 2 | - |
| DR20P-A8-D0820-C | 142 | 8.2 | 10 | 95 | 2 | - |
| DR20P-A8-D0830-C | 142 | 8.3 | 10 | 95 | 2 | 0.09 |
| DR20P-A8-D0840-C | 142 | 8.4 | 10 | 95 | 2 | - |
| DR20P-A8-D0850-C | 142 | 8.5 | 10 | 95 | 2 | - |
| DR20P-A8-D0860-C | 142 | 8.6 | 10 | 95 | 2 | - |
| DR20P-A8-D0870-C | 142 | 8.7 | 10 | 95 | 2 | - |
| DR20P-A8-D0880-C | 142 | 8.8 | 10 | 95 | 2 | - |
| DR20P-A8-D0890-C | 142 | 8.9 | 10 | 95 | 2 | - |
| DR20P-A8-D0900-C | 142 | 9 | 10 | 95 | 2 | - |
| DR20P-A8-D0910-C | 142 | 9.1 | 10 | 95 | 2 | - |
| DR20P-A8-D0920-C | 142 | 9.2 | 10 | 95 | 2 | - |
| DR20P-A8-D0930-C | 142 | 9.3 | 10 | 95 | 2 | - |
| DR20P-A8-D0935-C | 142 | 9.35 | 10 | 95 | 2 | - |
| DR20P-A8-D0940-C | 142 | 9.4 | 10 | 95 | 2 | - |

•長度單位 Unit of Length (mm)



先端角
140°
Spiral Pointed Angle

加工類型

P
M
K

Cutting Material

| 規格 Spec. | L | D | d | H | T | 重量 (KGS) Weight |
|------------------|-----|------|----|-----|---|-----------------------|
| DR20P-A8-D0950-C | 142 | 9.5 | 10 | 95 | 2 | 0.1 |
| DR20P-A8-D0960-C | 142 | 9.6 | 10 | 95 | 2 | 0.1 |
| DR20P-A8-D0970-C | 142 | 9.7 | 10 | 95 | 2 | 0.1 |
| DR20P-A8-D0980-C | 142 | 9.8 | 10 | 95 | 2 | - |
| DR20P-A8-D0990-C | 142 | 9.9 | 10 | 95 | 2 | - |
| DR20P-A8-D1000-C | 142 | 10 | 10 | 95 | 2 | - |
| DR20P-A8-D1010-C | 162 | 10.1 | 12 | 114 | 2 | - |
| DR20P-A8-D1020-C | 162 | 10.2 | 12 | 114 | 2 | - |
| DR20P-A8-D1030-C | 162 | 10.3 | 12 | 114 | 2 | - |
| DR20P-A8-D1050-C | 162 | 10.5 | 12 | 114 | 2 | - |
| DR20P-A8-D1080-C | 162 | 10.8 | 12 | 114 | 2 | - |
| DR20P-A8-D1100-C | 162 | 11 | 12 | 114 | 2 | - |
| DR20P-A8-D1120-C | 162 | 11.2 | 12 | 114 | 2 | - |
| DR20P-A8-D1150-C | 162 | 11.5 | 12 | 114 | 2 | - |
| DR20P-A8-D1160-C | 162 | 11.6 | 12 | 114 | 2 | - |
| DR20P-A8-D1180-C | 162 | 11.8 | 12 | 114 | 2 | - |
| DR20P-A8-D1200-C | 162 | 12 | 12 | 114 | 2 | - |
| DR20P-A8-D1250-C | 182 | 12.5 | 14 | 133 | 2 | - |
| DR20P-A8-D1300-C | 182 | 13 | 14 | 133 | 2 | - |
| DR20P-A8-D1350-C | 182 | 13.5 | 14 | 133 | 2 | - |
| DR20P-A8-D1400-C | 182 | 14 | 14 | 133 | 2 | - |
| DR20P-A8-D1450-C | 203 | 14.5 | 16 | 152 | 2 | - |
| DR20P-A8-D1500-C | 203 | 15 | 16 | 152 | 2 | - |
| DR20P-A8-D1550-C | 203 | 15.5 | 16 | 152 | 2 | - |
| DR20P-A8-D1600-C | 203 | 16 | 16 | 152 | 2 | - |

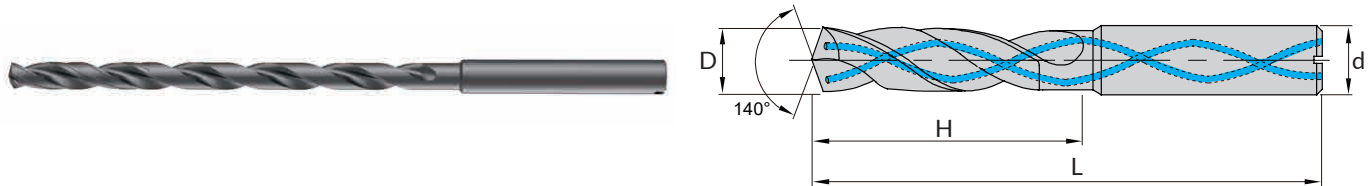
•長度單位 Unit of Length (mm)

DR20P-A12-C 碳化鎢鋼出水鑽頭 (DX12)

DR SOLID CARBIDE DRILL WITH INTERNAL COOLANT



KOVIT



先端角

135°

Spiral Pointed Angle

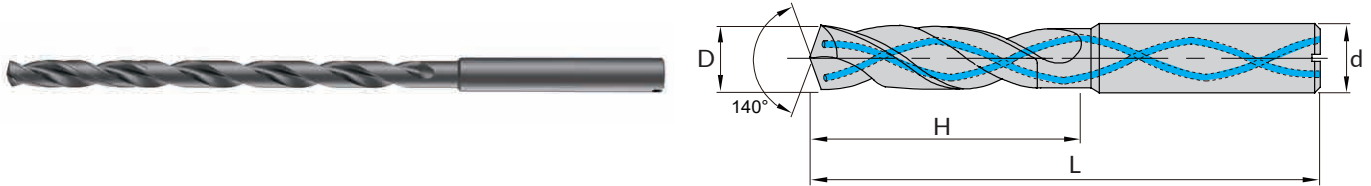
加工類型

P M K

Cutting Material

| 規格 Spec. | L | D | d | H | T | 重量 (KGS) Weight |
|-------------------|-----|-----|----|-----|---|-----------------------|
| DR20P-A12-D0300-C | 90 | 3 | 6 | 50 | 2 | - |
| DR20P-A12-D0350-C | 92 | 3.5 | 6 | 54 | 2 | - |
| DR20P-A12-D0400-C | 102 | 4 | 6 | 64 | 2 | - |
| DR20P-A12-D0450-C | 102 | 4.5 | 6 | 64 | 2 | - |
| DR20P-A12-D0500-C | 121 | 5 | 6 | 83 | 2 | 0.03 |
| DR20P-A12-D0550-C | 121 | 5.5 | 6 | 83 | 2 | - |
| DR20P-A12-D0600-C | 121 | 6 | 6 | 83 | 2 | 0.04 |
| DR20P-A12-D0620-C | 148 | 6.2 | 8 | 110 | 2 | - |
| DR20P-A12-D0650-C | 148 | 6.5 | 8 | 110 | 2 | - |
| DR20P-A12-D0700-C | 148 | 7 | 8 | 110 | 2 | - |
| DR20P-A12-D0750-C | 148 | 7.5 | 8 | 110 | 2 | - |
| DR20P-A12-D0800-C | 148 | 8 | 8 | 110 | 2 | - |
| DR20P-A12-D0830-C | 180 | 8.3 | 10 | 138 | 2 | - |
| DR20P-A12-D0850-C | 180 | 8.5 | 10 | 138 | 2 | - |
| DR20P-A12-D0900-C | 180 | 9 | 10 | 138 | 2 | - |
| DR20P-A12-D0950-C | 180 | 9.5 | 10 | 138 | 2 | - |
| DR20P-A12-D1000-C | 180 | 10 | 10 | 138 | 2 | - |
| DR20P-A12-D1100-C | 206 | 11 | 12 | 158 | 2 | - |
| DR20P-A12-D1200-C | 206 | 12 | 12 | 158 | 2 | - |

•長度單位 Unit of Length (mm)



先端角
140°
Spiral Pointed Angle

加工類型
P M K
Cutting Material

| 規格 Spec. | L | D | d | H | T | 重量 (KGS) Weight |
|-------------------|-----|-----|----|-----|---|-----------------------|
| DR20P-A15-D0300-C | 95 | 3 | 6 | 55 | 2 | - |
| DR20P-A15-D0350-C | 116 | 3.5 | 6 | 76 | 2 | - |
| DR20P-A15-D0400-C | 116 | 4 | 6 | 76 | 2 | - |
| DR20P-A15-D0450-C | 133 | 4.5 | 6 | 93 | 2 | - |
| DR20P-A15-D0500-C | 133 | 5 | 6 | 93 | 2 | - |
| DR20P-A15-D0550-C | 150 | 5.5 | 6 | 110 | 2 | - |
| DR20P-A15-D0600-C | 150 | 6 | 6 | 110 | 2 | - |
| DR20P-A15-D0620-C | 167 | 6.2 | 8 | 127 | 2 | - |
| DR20P-A15-D0650-C | 167 | 6.5 | 8 | 127 | 2 | - |
| DR20P-A15-D0700-C | 167 | 7 | 8 | 127 | 2 | - |
| DR20P-A15-D0750-C | 183 | 7.5 | 8 | 143 | 2 | - |
| DR20P-A15-D0800-C | 183 | 8 | 8 | 143 | 2 | - |
| DR20P-A15-D0830-C | 204 | 8.3 | 10 | 160 | 2 | - |
| DR20P-A15-D0850-C | 204 | 8.5 | 10 | 160 | 2 | - |
| DR20P-A15-D0900-C | 204 | 9 | 10 | 160 | 2 | - |
| DR20P-A15-D0950-C | 221 | 9.5 | 10 | 177 | 2 | - |
| DR20P-A15-D1000-C | 221 | 10 | 10 | 177 | 2 | - |
| DR20P-A15-D1100-C | 247 | 11 | 12 | 198 | 2 | - |
| DR20P-A15-D1200-C | 263 | 12 | 12 | 214 | 2 | - |

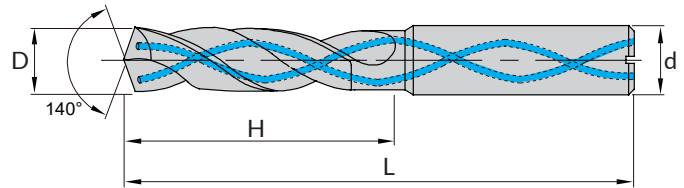
•長度單位 Unit of Length (mm)

DR30M-A5-C 碳化鎢鋼出水鑽頭 (DX5)

DR SOLID CARBIDE DRILL WITH INTERNAL COOLANT



KOVIT



先端角

140°

Spiral Pointed Angle

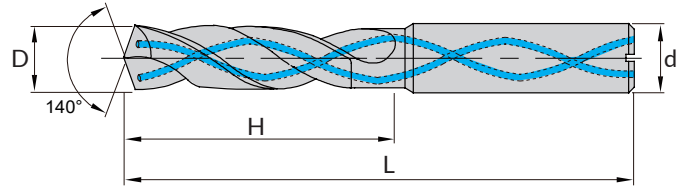
加工類型

M S

Cutting Material

| 規格 Spec. | L | D | d | H | T | 重量 (KGS) Weight |
|------------------|-----|------|----|----|---|-----------------------|
| DR30M-A5-D0500-C | 82 | 5 | 6 | 44 | 2 | - |
| DR30M-A5-D0510-C | 82 | 5.1 | 6 | 44 | 2 | - |
| DR30M-A5-D0520-C | 82 | 5.2 | 6 | 44 | 2 | - |
| DR30M-A5-D0550-C | 82 | 5.5 | 6 | 44 | 2 | - |
| DR30M-A5-D0555-C | 82 | 5.55 | 6 | 44 | 2 | - |
| DR30M-A5-D0580-C | 82 | 5.8 | 6 | 44 | 2 | - |
| DR30M-A5-D0600-C | 82 | 6 | 6 | 44 | 2 | - |
| DR30M-A5-D0610-C | 91 | 6.1 | 6 | 53 | 2 | - |
| DR30M-A5-D0620-C | 91 | 6.2 | 8 | 53 | 2 | - |
| DR30M-A5-D0630-C | 91 | 6.3 | 8 | 53 | 2 | - |
| DR30M-A5-D0650-C | 91 | 6.5 | 8 | 53 | 2 | - |
| DR30M-A5-D0660-C | 91 | 6.6 | 8 | 53 | 2 | - |
| DR30M-A5-D0680-C | 91 | 6.8 | 8 | 53 | 2 | - |
| DR30M-A5-D0690-C | 91 | 6.9 | 8 | 53 | 2 | - |
| DR30M-A5-D0700-C | 91 | 7 | 8 | 53 | 2 | - |
| DR30M-A5-D0710-C | 91 | 7.1 | 8 | 53 | 2 | - |
| DR30M-A5-D0740-C | 91 | 7.4 | 8 | 53 | 2 | - |
| DR30M-A5-D0750-C | 91 | 7.5 | 8 | 53 | 2 | - |
| DR30M-A5-D0780-C | 91 | 7.8 | 8 | 53 | 2 | - |
| DR30M-A5-D0800-C | 91 | 8 | 8 | 53 | 2 | - |
| DR30M-A5-D0810-C | 103 | 8.1 | 10 | 61 | 2 | - |
| DR30M-A5-D0840-C | 103 | 8.4 | 10 | 61 | 2 | - |
| DR30M-A5-D0850-C | 103 | 8.5 | 10 | 61 | 2 | - |
| DR30M-A5-D0860-C | 103 | 8.6 | 10 | 61 | 2 | - |
| DR30M-A5-D0870-C | 103 | 8.7 | 10 | 61 | 2 | - |
| DR30M-A5-D0880-C | 103 | 8.8 | 10 | 61 | 2 | - |
| DR30M-A5-D0900-C | 103 | 9 | 10 | 61 | 2 | - |

•長度單位 Unit of Length (mm)



先端角
140°
Spiral Pointed Angle

加工類型
M S
Cutting Material

| 規格 Spec. | L | D | d | H | T | 重量 (KGS) Weight |
|------------------|-----|-------|----|----|---|-----------------------|
| DR30M-A5-D0930-C | 103 | 9.3 | 10 | 61 | 2 | - |
| DR30M-A5-D0950-C | 103 | 9.5 | 10 | 61 | 2 | - |
| DR30M-A5-D0960-C | 103 | 9.6 | 10 | 61 | 2 | - |
| DR30M-A5-D0980-C | 103 | 9.8 | 10 | 61 | 2 | - |
| DR30M-A5-D1000-C | 103 | 10 | 10 | 61 | 2 | - |
| DR30M-A5-D1025-C | 118 | 10.25 | 12 | 71 | 2 | - |
| DR30M-A5-D1050-C | 118 | 10.5 | 12 | 71 | 2 | - |
| DR30M-A5-D1060-C | 118 | 10.6 | 12 | 71 | 2 | - |
| DR30M-A5-D1080-C | 118 | 10.8 | 12 | 71 | 2 | - |
| DR30M-A5-D1100-C | 118 | 11 | 12 | 71 | 2 | - |
| DR30M-A5-D1120-C | 118 | 11.2 | 12 | 71 | 2 | - |
| DR30M-A5-D1150-C | 118 | 11.5 | 12 | 71 | 2 | - |
| DR30M-A5-D1180-C | 118 | 11.8 | 12 | 71 | 2 | - |
| DR30M-A5-D1190-C | 118 | 11.9 | 12 | 71 | 2 | - |
| DR30M-A5-D1200-C | 118 | 12 | 12 | 71 | 2 | - |
| DR30M-A5-D1250-C | 124 | 12.5 | 14 | 77 | 2 | - |
| DR30M-A5-D1300-C | 124 | 13 | 14 | 77 | 2 | - |
| DR30M-A5-D1350-C | 124 | 13.5 | 14 | 77 | 2 | - |
| DR30M-A5-D1400-C | 124 | 14 | 14 | 77 | 2 | - |
| DR30M-A5-D1450-C | 133 | 14.5 | 16 | 83 | 2 | - |
| DR30M-A5-D1500-C | 133 | 15 | 16 | 83 | 2 | - |
| DR30M-A5-D1550-C | 133 | 15.5 | 16 | 83 | 2 | - |

•長度單位 Unit of Length (mm)



DR20P-A5C

| | 被加工材質 Machining Materials | 切削速度 Speed V _C (m/min) | 進給率 (mm/rev) | | | | | | |
|----------|---------------------------------|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | | Ø3 | Ø4 | Ø6 | Ø8 | Ø10 | Ø12 | Ø16 |
| P | 合金鋼 Alloyed Steels | 80 (60~110) | 0.13 (0.09-0.16) | 0.17 (0.12-0.23) | 0.20 (0.14-0.28) | 0.20 (0.14-0.28) | 0.20 (0.14-0.30) | 0.23 (0.15-0.32) | 0.25 (0.18-0.35) |
| M | 不鏽鋼 Stainless Steels | 50 (40~60) | 0.06 (0.04-0.08) | 0.06 (0.04-0.08) | 0.08 (0.06-0.10) | 0.08 (0.06-0.10) | 0.10 (0.08-0.12) | 0.10 (0.08-0.12) | 0.12 (0.10-0.14) |
| K | 鑄鐵 Cast Iron | 100 (60~140) | 0.15 (0.11-0.18) | 0.17 (0.13-0.20) | 0.20 (0.15-0.25) | 0.25 (0.17-0.32) | 0.28 (0.20-0.36) | 0.30 (0.22-0.42) | 0.35 (0.25-0.45) |

DR20P-A8C

| | 被加工材質 Machining Materials | 切削速度 Speed V _C (m/min) | 進給率 (mm/rev) | | | | | | |
|----------|---------------------------------|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | | Ø3 | Ø4 | Ø6 | Ø8 | Ø10 | Ø12 | Ø16 |
| P | 合金鋼 Alloyed Steels | 80 (60~110) | 0.13 (0.09-0.16) | 0.17(0.12- 0.23) | 0.20 (0.14-0.28) | 0.20 (0.14-0.28) | 0.20 (0.14-0.30) | 0.23 (0.15-0.32) | 0.25 (0.18-0.35) |
| M | 不鏽鋼 Stainless Steels | 50 (40~60) | 0.06 (0.04-0.08) | 0.06(0.04- 0.08) | 0.08 (0.06-0.10) | 0.08 (0.06-0.10) | 0.10 (0.08-0.12) | 0.10 (0.08-0.12) | 0.12 (0.10-0.14) |
| K | 鑄鐵 Cast Iron | 100 (60~140) | 0.15 (0.11-0.18) | 0.17(0.13- 0.20) | 0.20 (0.15-0.25) | 0.25 (0.17-0.32) | 0.28 (0.20-0.36) | 0.30 (0.22-0.42) | 0.35 (0.25-0.45) |

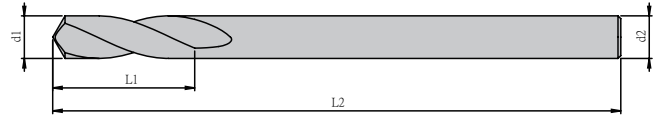
DR20P-A12C/15C

| | 被加工材質 Machining Materials | 切削速度 Speed V _C (m/min) | 進給率 (mm/rev) | | | | | | |
|----------|---------------------------------|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | | Ø3 | Ø4 | Ø6 | Ø8 | Ø10 | Ø12 | Ø16 |
| P | 合金鋼 Alloyed Steels | 80 (60~110) | 0.13 (0.09-0.16) | 0.17 (0.12-0.23) | 0.20 (0.14-0.28) | 0.20 (0.14-0.28) | 0.20 (0.14-0.30) | 0.23 (0.15-0.32) | 0.25 (0.18-0.35) |
| M | 不鏽鋼 Stainless Steels | 50 (40~60) | 0.06 (0.04-0.08) | 0.06 (0.04-0.08) | 0.08 (0.06-0.10) | 0.08 (0.06-0.10) | 0.10 (0.08-0.12) | 0.10 (0.08-0.12) | 0.12 (0.10-0.14) |
| K | 鑄鐵 Cast Iron | 100 (60~140) | 0.15 (0.11-0.18) | 0.17 (0.13-0.20) | 0.20 (0.15-0.25) | 0.25 (0.17-0.32) | 0.28 (0.20-0.36) | 0.30 (0.22-0.42) | 0.35 (0.25-0.45) |

DR30M-A5C

| | 被加工材質 Machining Materials | 切削速度 Speed V _C (m/min) | 進給率 (mm/rev) | | | | | | |
|----------|---------------------------------|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | | Ø3 | Ø4 | Ø6 | Ø8 | Ø10 | Ø12 | Ø16 |
| M | 不鏽鋼 Stainless Steels | 60 (40~80) | 0.08 (0.04-0.10) | 0.08 (0.06-0.10) | 0.08 (0.06-0.12) | 0.10 (0.08-0.14) | 0.12 (0.10-0.18) | 0.14 (0.10-0.18) | 0.25 (0.18-0.35) |
| S | 高溫合金 Refractory Alloys | 35 (20~50) | 0.06 (0.04-0.08) | 0.08 (0.05-0.10) | 0.09 (0.06-0.12) | 0.10 (0.08-0.12) | 0.12 (0.10-0.16) | 0.14 (0.10-0.18) | 0.12 (0.10-0.14) |

•長度單位 Unit of Length (mm)



特點 Feature

- 工件導引孔定位用，兼具倒角功能
- 適用在車床、銑床
- 提供60度、90度、120度，不同選擇

- Ideal for spotting and chamfering.
- Applicable for lathe and milling machines.
- Offer 60°, 90° and 120°.

| 規格 Spec. | D | L1 | L2 | 柄徑 d | 角度 Angle | 加工材質 Materials |
|----------------|----|----|-----|------|----------|----------------|
| DR10U-D030-90 | 3 | 10 | 40 | 3 | 90 | 泛用型 |
| DR10U-D040-90 | 4 | 12 | 50 | 4 | 90 | |
| DR10U-D050-90 | 5 | 15 | 50 | 5 | 90 | |
| DR10U-D060-90 | 6 | 20 | 50 | 6 | 90 | |
| DR10U-D080-90 | 8 | 25 | 60 | 8 | 90 | |
| DR10U-D100-90 | 10 | 25 | 75 | 10 | 90 | |
| DR10U-D120-90 | 12 | 30 | 75 | 12 | 90 | |
| DR10U-D030-120 | 3 | 10 | 40 | 3 | 120 | |
| DR10U-D040-120 | 4 | 12 | 50 | 4 | 120 | |
| DR10U-D050-120 | 5 | 15 | 50 | 5 | 120 | |
| DR10U-D060-120 | 6 | 20 | 50 | 6 | 120 | |
| DR10U-D080-120 | 8 | 25 | 60 | 8 | 120 | |
| DR10U-D100-120 | 10 | 25 | 750 | 10 | 120 | |
| DR10U-D120-120 | 12 | 30 | 75 | 12 | 120 | |
| DR10U-D030-60 | 3 | 10 | 40 | 3 | 60 | |
| DR10U-D040-60 | 4 | 12 | 50 | 4 | 60 | |
| DR10U-D050-60 | 5 | 15 | 50 | 5 | 60 | |
| DR10U-D060-60 | 6 | 20 | 50 | 6 | 60 | |
| DR10U-D080-60 | 8 | 25 | 60 | 8 | 60 | |
| DR10U-D100-60 | 10 | 25 | 750 | 10 | 60 | |
| DR10U-D120-60 | 12 | 30 | 75 | 12 | 60 | |

| 被加工材質 Machining Materials | | 切削速度 Speed V _C (m/min) | 進給率 (mm/rev) | | | | | |
|------------------------------|-----------------------|---|--------------|-----------|-----------|-----------|-----------|-----------|
| | | | ψ3 | ψ4 | ψ6 | ψ8 | ψ10 | ψ12 |
| P | 合金鋼 Alloyed Steels | 40-85 | 0.04~0.08 | 0.05~0.12 | 0.06~0.13 | 0.08~0.16 | 0.1~0.2 | 0.15~0.25 |
| K | 鑄鐵 Cast Iron | 65-100 | 0.05~0.09 | 0.07~0.15 | 0.12~0.2 | 0.15~0.2 | 0.10~0.25 | 0.20~0.30 |
| H (HRC38-48) | 高硬度材 Hard Material | 15-25 | 0.04~0.08 | 0.05~0.12 | 0.06~0.13 | 0.08~0.16 | 0.1~0.2 | 0.15~0.25 |

•長度單位 Unit of Length (mm)

STM

抑震錐固型鎖牙系列



錐型鎖固
無空隙、精度高
Perfect fit, high precision with the tapered locking

T型牙鎖固
鎖固力好
T-type locking strengthens the locking force

制震環支撐
穩定性好
Shock ring support increases the stability.



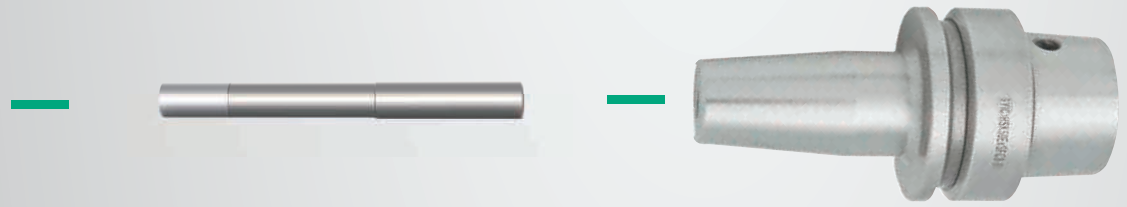
雙面搨束、錐度貼合、軸徑向精度提升
Double-sided truss, taper fit, better Axial and radial direction accuracy



牙底圓弧設計 降低集中應力
Bottom arc design reduces concentrated stress



柔性支撐貼合、有效吸震
Flexible support fit, effective shock absorption



C/TM錐固型鎖牙式鎢鋼延長桿
C/tm Straight Shank Tungsten Carbide Extension Shank

SFC燒結式刀桿
Sintered Shank



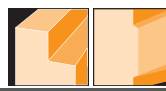
SFS後拉式鎖牙延長桿
Rear Pull Lock Cylinder Extension Shank

SFS後拉式刀桿
Rear Pull shank chuck

Shock Absorption
Tapered Locking System

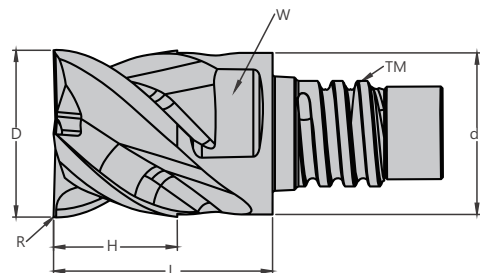


STM 抑震錐固型鎖牙式銑刀 STM INTERCHANGEABLE SOLID CARBIDE ENDMILL HEAD



KOVIT

NEW



| 規格 Spec. | L | D | d | H | r | T | θ | TM | W | 重量 (KGS) Weight |
|-------------------|----|----|-----|---|---|---|----------|-----|-------|-----------------|
| STM45-10-STM6-13L | 13 | 10 | 9.6 | 7 | 0 | 4 | 45° | TM6 | TM6-W | 0.01 |

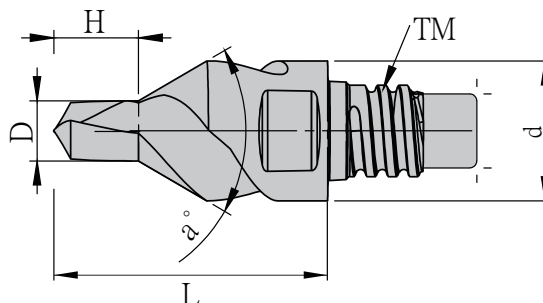
| | 被加工材質 Machining Materials | 切削速度 Speed | 每刃進給 |
|---|------------------------------|---------------|---------------|
| | | V_C (m/min) | F_z (m/rev) |
| P | 合金鋼 Alloyed Steels | 50~140 | 0.05~0.2 |
| M | 不鏽鋼 Stainless Steels | 80~120 | 0.05~0.1 |
| K | 鑄鐵 Cast Iron | 80~250 | 0.1~0.2 |



STM 抑震錐固型鎖牙式中心鑽 STM INTERCHANGEABLE SOLID CARBIDE CENTER DRILL

KOVIT

NEW



| 規格 Spec. | D | d | H | L | TM | ϕ° |
|-------------------|-----|----|-----|----|-----|--------------|
| STM60-41-STM6-19L | 4.1 | 10 | 5.9 | 19 | TM6 | 60 |

| | 被加工材質 Machining Materials | 切削速度 Speed | 每刃進給 |
|---|------------------------------|---------------|---------------|
| | | V_C (m/min) | F_z (m/rev) |
| P | 合金鋼 Alloyed Steels | 50~140 | 0.05~0.12 |
| M | 不鏽鋼 Stainless Steels | 80~120 | 0.05~0.08 |
| K | 鑄鐵 Cast Iron | 80~250 | 0.1~0.15 |

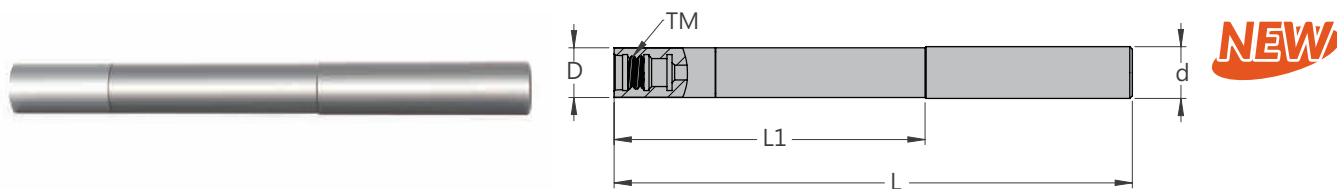
•長度單位 Unit of Length (mm)



C/STM 錐固型鎖牙式鎢鋼延長桿

C/TM STRAIGHT SOILD CARBIDE EXTENSION SHANK

KOVIT



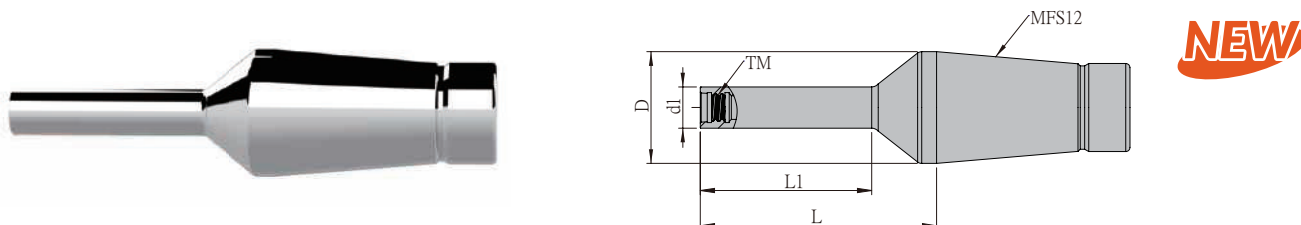
| 規格 Spec. | L | D | d | L1 | TM | 重量 (KGS) Weight |
|--------------|-----|----|-----|----|-----|--------------------|
| C10-STM6-100 | 100 | 10 | 9.6 | 7 | TM6 | 0.1 |



SFS 後拉式鎖牙延長桿

SFS REAR PULL LOCK THREADED EXTENSION SHANK

KOVIT



特點 Feature

- 材質：合金鋼
- 需搭配 SFS 後拉式立銼刀夾頭做使用

- Material: SNCM220
- Need to be used with SFS slim-fit collet chuck.

| 規格 Spec. | L | D | d | L1 | TM | 重量 (KGS) Weight |
|---------------|----|----|-----|----|-----|--------------------|
| SFS12-STM6-55 | 55 | 26 | 9.6 | 40 | TM6 | 0.18 |

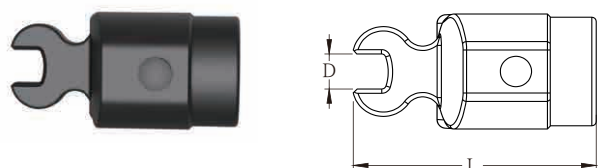


STM6 開口型扭力扳手頭

STM6 SPANNER HEAD

KOVIT

NEW



| 規格 Spec. | L | D | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------|----|---|---------------------|--------------------|
| STM6-LH | 55 | 8 | 10 | 0.12 |

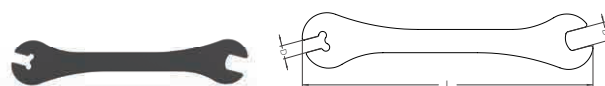


TM6 開口扳手

TM6 SPANNER

KOVIT

NEW



| 規格 Spec. | L | D | 重量 (KGS) Weight |
|----------|-----|---|--------------------|
| TM6-W | 125 | 8 | 0.03 |

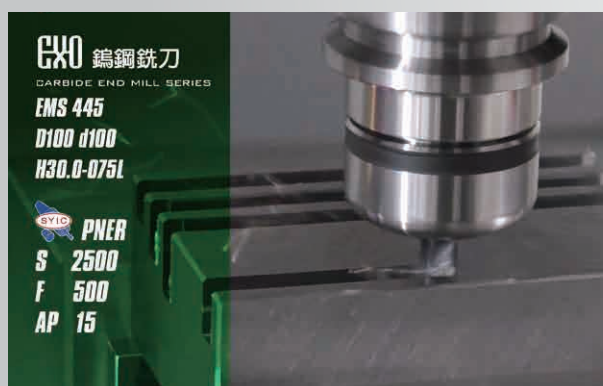
•長度單位 Unit of Length (mm)



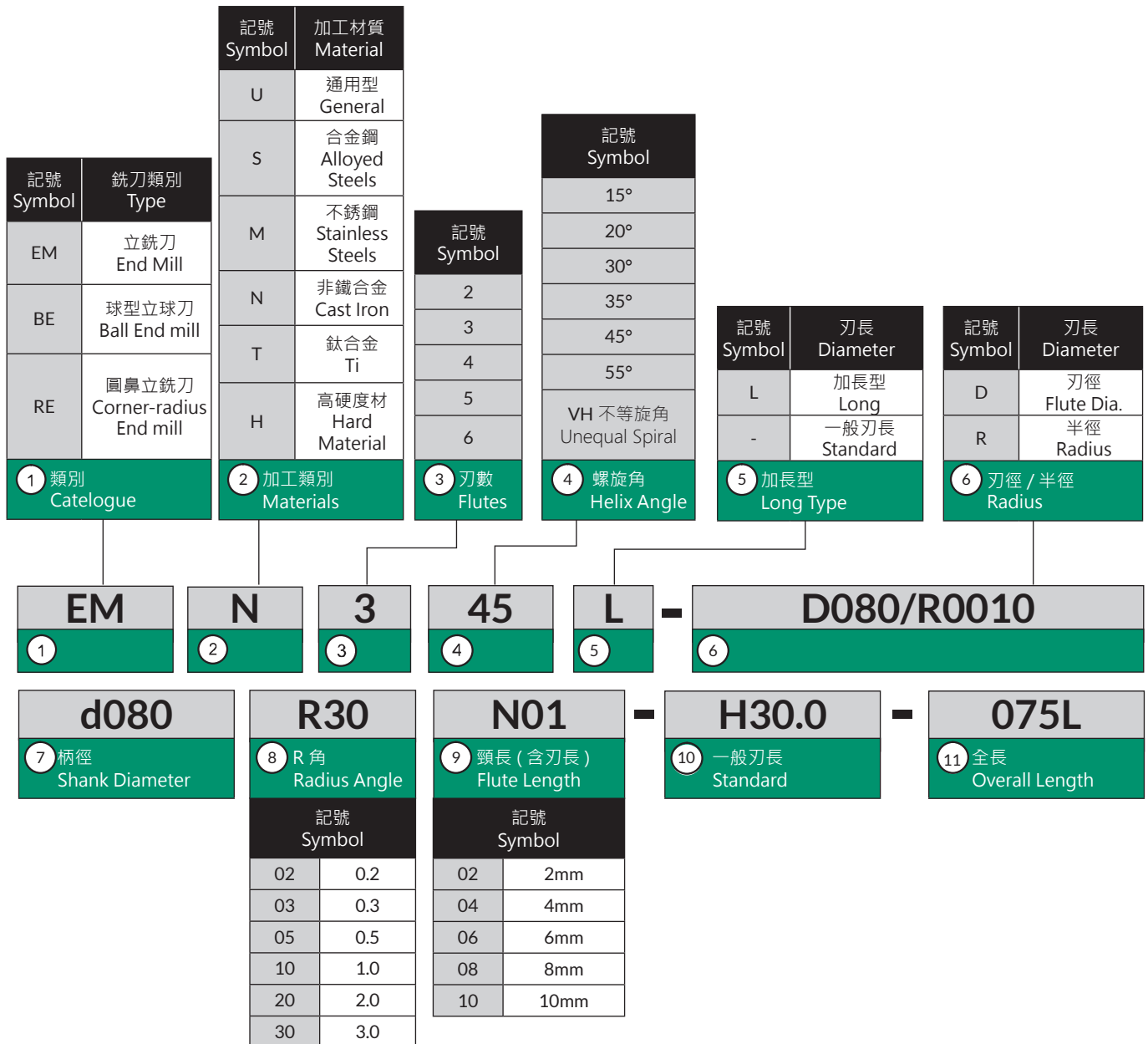
鎢鋼銑刀系列一

Feature

- 原料採用德國進口碳化鎢材料
German strength
- 對特定材料粗加工效率高
精加工表面品質高
Clean finishing
- 穩定的性能加工
Stable processing



Carbide End Mills



銑刀材質

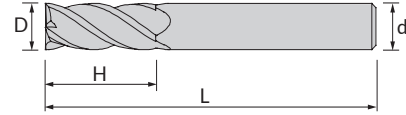
End Mills Material

| 項目 Item | ISO 範圍 ISO Range | 含鈷量 % Cobalt Content | 鎢鋼種類 Tungsten Steel Type | 顆粒大小 Size of Granular | 適用範圍 Scope of Application |
|--|---------------------|-------------------------|-----------------------------|--------------------------|---|
| EMH、BEH、REH 高硬度專用系列銑刀 Specialize for Hard Material End Mills | K20-K30 | 9% | 粉末微粒 Nano Micro Grain | <0.5μ | 高硬度材質 Hard Material 合金鋼 Alloy Steels 鑄鐵 Cast Iron |
| EMS、BES、RES EMN、BEN、EMM 系列銑刀 End Mills Series | K40-K50 | 12% | 超微粒 Ultra-micro | 0.5μ | 合金鋼 Alloyed Steel 不銹鋼 Stainless Steels 鑄鐵 Cast Iron 非鐵合金 Non-ferrous Alloy |
| EMT 抗震型系列 Anti Vibration Series | K40-K50 | 12~13% | 超微粒 Ultra-micro | 0.5-0.6μ | 不銹鋼 Stainless Steels 鈦合金 Titanium Alloy 非鐵合金 Non-ferrous Alloy |

• 長度單位 Unit of Length (mm)



EMH235 高硬度專用 2 刃



| 規格 Spec. | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|---------------------------|----|-----|---|-----|------|-----------|-----------------|--|------------------|
| EMH235-D002d030-H0.5-038L | 38 | 0.2 | 3 | 0.5 | 2 | 35 | - | <p>P : ++</p> <p>M : +</p> <p>K : ++</p> <p>H : ++</p> <p>HRC45°~62°</p> | |
| EMH235-D003d030-H0.6-038L | 38 | 0.3 | 3 | 0.6 | 2 | 35 | - | | |
| EMH235-D004d030-H0.8-038L | 38 | 0.4 | 3 | 0.8 | 2 | 35 | - | | |
| EMH235-D005d030-H1.0-038L | 38 | 0.5 | 3 | 1.0 | 2 | 35 | - | | |
| EMH235-D006d030-H1.2-038L | 38 | 0.6 | 3 | 1.2 | 2 | 35 | - | | |
| EMH235-D007d030-H1.4-038L | 38 | 0.7 | 3 | 1.4 | 2 | 35 | - | | |
| EMH235-D008d030-H1.6-038L | 38 | 0.8 | 3 | 1.6 | 2 | 35 | - | | |
| EMH235-D009d030-H1.8-038L | 38 | 0.9 | 3 | 1.8 | 2 | 35 | - | | |
| EMH235-D010d030-H2.0-038L | 38 | 1.0 | 3 | 2.0 | 2 | 35 | - | | |
| EMH235-D011d030-H2.0-038L | 38 | 1.1 | 3 | 2.0 | 2 | 35 | - | | |
| EMH235-D012d030-H2.5-038L | 38 | 1.2 | 3 | 2.5 | 2 | 35 | - | | |
| EMH235-D013d030-H2.5-038L | 38 | 1.3 | 3 | 2.5 | 2 | 35 | - | | |
| EMH235-D014d030-H3.0-038L | 38 | 1.4 | 3 | 3.0 | 2 | 35 | - | | |
| EMH235-D015d030-H3.0-038L | 38 | 1.5 | 3 | 3.0 | 2 | 35 | - | | |
| EMH235-D016d030-H3.5-038L | 38 | 1.6 | 3 | 3.5 | 2 | 35 | - | | |
| EMH235-D017d030-H3.5-038L | 38 | 1.7 | 3 | 3.5 | 2 | 35 | - | | |
| EMH235-D018d030-H4.0-038L | 38 | 1.8 | 3 | 4.0 | 2 | 35 | - | | |
| EMH235-D019d030-H4.0-038L | 38 | 1.9 | 3 | 4.0 | 2 | 35 | - | | |
| EMH235-D020d030-H4.0-038L | 38 | 2.0 | 3 | 4.0 | 2 | 35 | - | | |
| EMH235-D021d030-H4.0-038L | 38 | 2.1 | 3 | 4.0 | 2 | 35 | - | | |
| EMH235-D022d030-H4.5-038L | 38 | 2.2 | 3 | 4.5 | 2 | 35 | - | | |
| EMH235-D023d030-H4.5-038L | 38 | 2.3 | 3 | 4.5 | 2 | 35 | - | | |
| EMH235-D024d030-H5.0-038L | 38 | 2.4 | 3 | 5.0 | 2 | 35 | - | | |
| EMH235-D025d030-H5.0-038L | 38 | 2.5 | 3 | 5.0 | 2 | 35 | - | | |
| EMH235-D026d030-H5.0-038L | 38 | 2.6 | 3 | 5.0 | 2 | 35 | - | | |
| EMH235-D027d030-H5.5-038L | 38 | 2.7 | 3 | 5.5 | 2 | 35 | - | | |
| EMH235-D028d030-H5.5-038L | 38 | 2.8 | 3 | 5.5 | 2 | 35 | - | | |
| EMH235-D029d030-H6.0-038L | 38 | 2.9 | 3 | 6.0 | 2 | 35 | - | | |
| EMH235-D030d030-H6.0-038L | 38 | 3.0 | 3 | 6.0 | 2 | 35 | - | | |

•長度單位 Unit of Length (mm)



EMH 碳化鎢鋼立銑刀高硬度專用

EMH SOLID CARBIDE END MILL FOR HARDENED STEEL

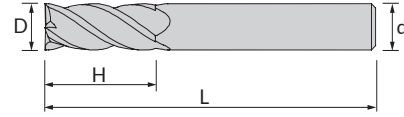


KOVIT

EMH445

高硬度專用

4 刃



| 規格 Spec. | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|----------------------------|----|----|----|-----|------|-----------|-----------------|-------------------------------------|------------------|
| EMH445-D030d040-H7.5-050L | 50 | 3 | 4 | 7.5 | 4 | 45 | - | P : ++ M : + K : ++ H : ++ | HRC45°~62° |
| EMH445-D040d040-H10.0-050L | 50 | 4 | 4 | 10 | 4 | 45 | - | | |
| EMH445-D050d060-H12.0-050L | 50 | 5 | 6 | 12 | 4 | 45 | - | | |
| EMH445-D060d060-H15.0-060L | 60 | 6 | 6 | 15 | 4 | 45 | - | | |
| EMH445-D080d080-H20.0-060L | 60 | 8 | 8 | 20 | 4 | 45 | - | | |
| EMH445-D100d100-H25.0-075L | 75 | 10 | 10 | 25 | 4 | 45 | - | | |
| EMH445-D120d120-H30.0-075L | 75 | 12 | 12 | 30 | 4 | 45 | - | | |



EMS 碳化鎢鋼微小徑立銑刀

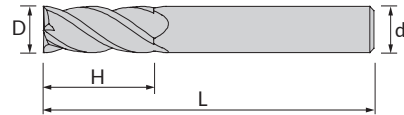
EMS SOLID CARBIDE MINI END MILL



KOVIT

EMS235

2 刃



| 規格 Spec. | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|---------------------------|----|-----|---|-----|------|-----------|-----------------|---------------------------|------------------|
| EMS235-D002d030-H0.6-038L | 38 | 0.2 | 3 | 0.6 | 2 | 35 | - | P : ++ M : + K : ++ | HRC15°~45° |
| EMS235-D003d030-H1.0-038L | 38 | 0.3 | 3 | 1.0 | 2 | 35 | - | | |
| EMS235-D004d030-H1.0-038L | 38 | 0.4 | 3 | 1.0 | 2 | 35 | - | | |
| EMS235-D005d030-H1.5-038L | 38 | 0.5 | 3 | 1.5 | 2 | 35 | - | | |
| EMS235-D006d030-H1.5-038L | 38 | 0.6 | 3 | 1.5 | 2 | 35 | - | | |
| EMS235-D007d030-H2.0-038L | 38 | 0.7 | 3 | 2.0 | 2 | 35 | - | | |
| EMS235-D008d030-H2.0-038L | 38 | 0.8 | 3 | 2.0 | 2 | 35 | - | | |
| EMS235-D009d030-H2.5-038L | 38 | 0.9 | 3 | 2.5 | 2 | 35 | - | | |

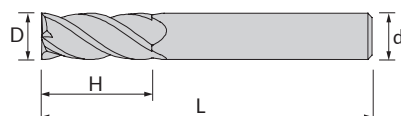
•長度單位 Unit of Length (mm)



EMS 碳化鎢鋼立銑刀 EMS SOLID CARBIDE END MILL



EMS445 4 刃



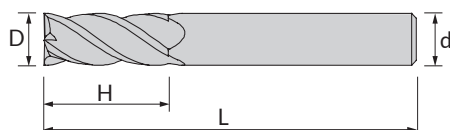
| 規格 Spec. | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|----------------------------|----|----|----|-----|------|-----------|-----------------|---------------------------|------------------|
| EMS445-D010d040-H3.0-050L | 50 | 1 | 4 | 3 | 4 | 45 | - | P : ++ M : + K : ++ | HRC15°~45° |
| EMS445-D020d040-H5.0-050L | 50 | 2 | 4 | 5 | 4 | 45 | - | | |
| EMS445-D030d040-H7.5-050L | 50 | 3 | 4 | 7.5 | 4 | 45 | - | | |
| EMS445-D040d040-H10.0-050L | 50 | 4 | 4 | 10 | 4 | 45 | - | | |
| EMS445-D050d060-H12.0-050L | 50 | 5 | 6 | 12 | 4 | 45 | - | | |
| EMS445-D060d060-H15.0-060L | 60 | 6 | 6 | 15 | 4 | 45 | - | | |
| EMS445-D080d080-H20.0-060L | 60 | 8 | 8 | 20 | 4 | 45 | - | | |
| EMS445-D100d100-H30.0-075L | 75 | 10 | 10 | 30 | 4 | 45 | - | | |
| EMS445-D120d120-H30.0-075L | 75 | 12 | 12 | 30 | 4 | 45 | - | | |



EMN 碳化鎢鋼立銑刀鋁合金專用 EMN SOLID CARBIDE MINI END MILL FOR ALUMINUM



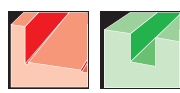
EMN245 鋁合金專用 2 刃



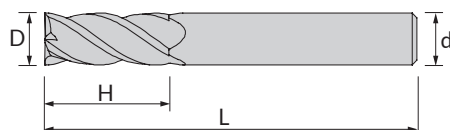
| 規格 Spec. | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|-----------------------------|----|---|---|----|------|-----------|-----------------|-------------------------|------------------|
| EMN245-D010d040-H3.0-050L | 50 | 1 | 4 | 3 | 2 | 45 | - | N : ++ | HRC15°~45° |
| EMN245-D020d040-H6.0-050L | 50 | 2 | 4 | 6 | 2 | 45 | - | | |
| EMN245-D030d040-H9.0-050L | 50 | 3 | 4 | 9 | 2 | 45 | - | | |
| EMN245L-D010d040-H4.0-050L | 50 | 1 | 4 | 4 | 2 | 45 | - | | |
| EMN245L-D020d040-H8.0-050L | 50 | 2 | 4 | 8 | 2 | 45 | - | | |
| EMN245L-D030d040-H12.0-050L | 50 | 3 | 4 | 12 | 2 | 45 | - | | |



EMN 碳化鎢鋼立銑刀鋁合金專用 EMN SOLID CARBIDE MINI END MILL FOR ALUMINUM



EMN345 鋁合金專用 3 刃



| 規格 Spec. | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|-----------------------------|-----|----|----|----|------|-----------|-----------------|-------------------------|------------------|
| EMN345-D040d040-H12.0-050L | 50 | 4 | 4 | 12 | 3 | 45 | - | N : ++ | HRC15°~45° |
| EMN345-D050d060-H15.0-050L | 50 | 5 | 6 | 15 | 3 | 45 | - | | |
| EMN345-D060d060-H18.0-060L | 60 | 6 | 6 | 18 | 3 | 45 | - | | |
| EMN345-D080d080-H20.0-060L | 60 | 8 | 8 | 20 | 3 | 45 | - | | |
| EMN345-D100d100-H26.0-075L | 75 | 10 | 10 | 26 | 3 | 45 | - | | |
| EMN345-D120d120-H30.0-075L | 75 | 12 | 12 | 30 | 3 | 45 | - | | |
| EMN345L-D040d040-H16.0-050L | 50 | 4 | 4 | 16 | 3 | 45 | - | | |
| EMN345L-D050d060-H20.0-060L | 60 | 5 | 6 | 20 | 3 | 45 | - | | |
| EMN345L-D060d060-H24.0-075L | 75 | 6 | 6 | 24 | 3 | 45 | - | | |
| EMN345L-D080d080-H30.0-075L | 75 | 8 | 8 | 30 | 3 | 45 | - | | |
| EMN345L-D100d100-H40.0-100L | 100 | 10 | 10 | 40 | 3 | 45 | - | | |
| EMN345L-D120d120-H45.0-100L | 100 | 12 | 12 | 45 | 3 | 45 | - | | |

•長度單位 Unit of Length (mm)



EMM 碳化鎢鋼立銑刀不銹鋼專用

EMM SOLID CARBIDE END MILL FOR STAINLESS STEEL

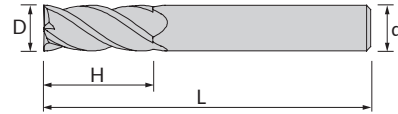


EMM445

不銹鋼專用

4 刃

KOVIT



| 規格 Spec. | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|----------------------------|----|----|----|----|------|-----------|-----------------|---|------------------|
| EMM445-D040d040-L10.0-050L | 50 | 4 | 4 | 10 | 4 | 45 | - | P : + M : ++ K : + | HRC25°~42° |
| EMM445-D060d060-H15.0-060L | 60 | 6 | 6 | 15 | 4 | 45 | - | | |
| EMM445-D080d080-H20.0-060L | 60 | 8 | 8 | 20 | 4 | 45 | - | | |
| EMM445-D100d100-H30.0-075L | 75 | 10 | 10 | 30 | 4 | 45 | - | | |
| EMM445-D120d120-H30.0-075L | 75 | 12 | 12 | 30 | 4 | 45 | - | | |



EMT4VH 碳化鎢鋼立銑刀高溫合金專用

EMT4VH SOLID CARBIDE END MILL FOR REFRACTORY ALLOY



EMT4VH

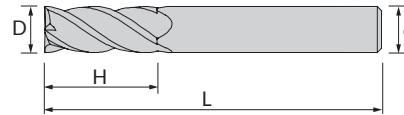
高溫合金專用

不等分割系列

抗震型

4 刃

KOVIT



| 規格 Spec. | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|----------------------------|----|----|----|----|------|-----------|-----------------|---|------------------|
| EMT4VH-D030d060-H8.0-050L | 50 | 3 | 6 | 8 | 4 | 38/41 | - | P : + M : ++ K : + H : ++ S : ++ | <HRC60° |
| EMT4VH-D040d060-H11.0-050L | 50 | 4 | 6 | 11 | 4 | 38/41 | - | | |
| EMT4VH-D050d060-H14.0-050L | 50 | 5 | 6 | 14 | 4 | 38/41 | - | | |
| EMT4VH-D060d060-H16.0-050L | 50 | 6 | 6 | 16 | 4 | 38/41 | - | | |
| EMT4VH-D080d060-H20.0-060L | 60 | 8 | 8 | 20 | 4 | 38/41 | - | | |
| EMT4VH-D100d100-H25.0-075L | 75 | 10 | 10 | 25 | 4 | 38/41 | - | | |
| EMT4VH-D120d120-H30.0-075L | 75 | 12 | 12 | 30 | 4 | 38/41 | - | | |



EMT3VH 碳化鎢鋼立銑刀鋁合金專用

EMT3VH SOLID CARBIDE END MILL FOR ALUMINUM



EMT3VH

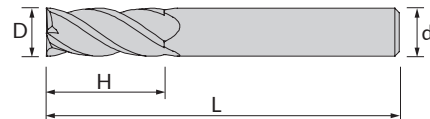
鋁合金專用

不等分割系列

抗震型

3 刃

KOVIT



| 規格 Spec. | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|----------------------------|----|----|----|----|------|-----------|-----------------|-------------------------|------------------|
| EMN3VH-D030d060-H9.0-050L | 50 | 3 | 6 | 9 | 3 | 38/41 | - | N : ++ | - |
| EMN3VH-D040d060-H12.0-050L | 50 | 4 | 6 | 12 | 3 | 38/41 | - | | |
| EMN3VH-D050d060-H14.0-050L | 50 | 5 | 6 | 14 | 3 | 38/41 | - | | |
| EMN3VH-D060d060-H16.0-050L | 50 | 6 | 6 | 16 | 3 | 38/41 | - | | |
| EMN3VH-D080d060-H20.0-060L | 60 | 8 | 8 | 20 | 3 | 38/41 | - | | |
| EMN3VH-D100d100-H25.0-075L | 75 | 10 | 10 | 25 | 3 | 38/41 | - | | |
| EMN3VH-D120d120-H30.0-075L | 75 | 12 | 12 | 30 | 3 | 38/41 | - | | |

•長度單位 Unit of Length (mm)



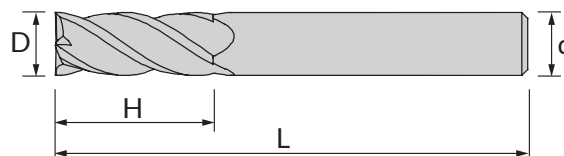
EMU 碳化鎢鋼立銑刀

EMU SOLID CARBIDE END MILL



4 刃

NEW



| 規格 Spec. | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|-----------|-----|----|----|----|------|-----------|-----------------|---------------------------|------------------|
| EMU-0150 | 50 | 1 | 4 | 3 | 4 | 45 | - | P : ++ M : + K : ++ | <HRC50° |
| EMU-0250 | 50 | 2 | 4 | 6 | 4 | 45 | - | | |
| EMU-0350 | 50 | 3 | 3 | 8 | 4 | 45 | - | | |
| EMU-0375 | 75 | 3 | 3 | 8 | 4 | 45 | - | | |
| EMU-0450 | 50 | 4 | 4 | 11 | 4 | 45 | - | | |
| EMU-0475 | 75 | 4 | 4 | 11 | 4 | 45 | - | | |
| EMU-0650 | 50 | 6 | 6 | 15 | 4 | 45 | - | | |
| EMU-0675 | 75 | 6 | 6 | 15 | 4 | 45 | - | | |
| EMU-0860 | 60 | 8 | 8 | 20 | 4 | 45 | - | | |
| EMU-0875 | 75 | 8 | 8 | 20 | 4 | 45 | - | | |
| EMU-1075 | 75 | 10 | 10 | 30 | 4 | 45 | - | | |
| EMU-10100 | 100 | 10 | 10 | 30 | 4 | 45 | - | | |
| EMU-1275 | 75 | 12 | 12 | 30 | 4 | 45 | - | | |
| EMU-12100 | 100 | 12 | 12 | 30 | 4 | 45 | - | | |



EUN 碳化鎢鋼立銑刀鋁合金專用

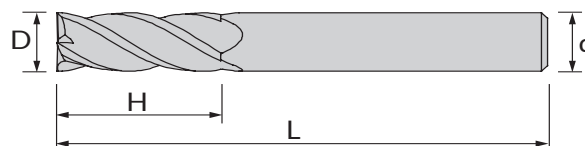
EUN SOLID CARBIDE END MILL FOR ALUMINUM



鋁合金專用

3 刃

NEW



| 規格 Spec. | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|----------|----|----|----|----|------|-----------|-----------------|-------------------------|------------------|
| EUN-0150 | 50 | 1 | 4 | 3 | 3 | 50 | - | N : ++ | - |
| EUN-0250 | 50 | 2 | 4 | 6 | 3 | 50 | - | | |
| EUN-0350 | 50 | 3 | 4 | 9 | 3 | 50 | - | | |
| EUN-0450 | 50 | 4 | 4 | 12 | 3 | 50 | - | | |
| EUN-0650 | 50 | 6 | 6 | 18 | 3 | 50 | - | | |
| EUN-0860 | 60 | 8 | 8 | 24 | 3 | 50 | - | | |
| EUN-1075 | 75 | 10 | 10 | 30 | 3 | 50 | - | | |
| EUN-1275 | 75 | 12 | 12 | 36 | 3 | 50 | - | | |

•長度單位 Unit of Length (mm)



BMU 碳化鎢鋼球型立銑刀

BMU SOLID CARBIDE BALL NOSE END MILL



2 刃

KOVIT

NEW



| 規格 Spec. | R | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|-----------|------|-----|----|----|----|------|-----------|-----------------|---|------------------|
| BMU-0150 | 0.5R | 50 | 1 | 4 | 2 | 2 | 30 | - | <p>P : ++</p> <p>M : +</p> <p>K : ++</p> | <HRC50° |
| BMU-0250 | 1R | 50 | 2 | 4 | 4 | 2 | 30 | - | | |
| BMU-0350 | 1.5R | 50 | 3 | 3 | 6 | 2 | 30 | - | | |
| BMU-0375 | 1.5R | 75 | 3 | 3 | 6 | 2 | 30 | - | | |
| BMU-0450 | 2R | 50 | 4 | 4 | 8 | 2 | 30 | - | | |
| BMU-0475 | 2R | 75 | 4 | 4 | 8 | 2 | 30 | - | | |
| BMU-0650 | 3R | 50 | 6 | 6 | 12 | 2 | 30 | - | | |
| BMU-0675 | 3R | 75 | 6 | 6 | 12 | 2 | 30 | - | | |
| BMU-0860 | 4R | 60 | 8 | 8 | 16 | 2 | 30 | - | | |
| BMU-0875 | 4R | 75 | 8 | 8 | 16 | 2 | 30 | - | | |
| BMU-1075 | 5R | 75 | 10 | 10 | 20 | 2 | 30 | - | | |
| BMU-10100 | 5R | 100 | 10 | 10 | 20 | 2 | 30 | - | | |
| BMU-1275 | 6R | 75 | 12 | 12 | 24 | 2 | 30 | - | | |
| BMU-12100 | 6R | 100 | 12 | 12 | 24 | 2 | 30 | - | | |



RMU 碳化鎢鋼圓鼻立銑刀

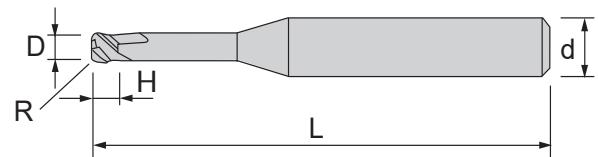
RMU SOLID CARBIDE CORNER RADIUS END MILL



4 刃

KOVIT

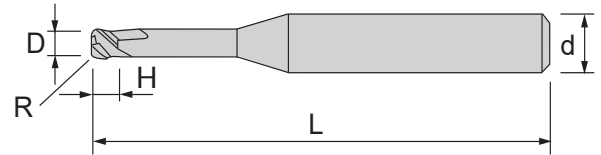
NEW



| 規格 Spec. | R | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|------------|-----|----|---|---|---|------|-----------|-----------------|---|------------------|
| RMU-015002 | 0.2 | 50 | 1 | 4 | 2 | 4 | 45 | - | <p>P : ++</p> <p>M : +</p> <p>K : ++</p> | <HRC50° |
| RMU-025002 | 0.2 | 50 | 2 | 4 | 4 | 4 | 45 | - | | |
| RMU-025005 | 0.5 | 50 | 2 | 4 | 4 | 4 | 45 | - | | |
| RMU-035002 | 0.2 | 50 | 3 | 3 | 6 | 4 | 45 | - | | |
| RMU-035005 | 0.5 | 50 | 3 | 3 | 6 | 4 | 45 | - | | |
| RMU-035010 | 1 | 50 | 3 | 3 | 6 | 4 | 45 | - | | |
| RMU-037502 | 0.2 | 75 | 3 | 3 | 6 | 4 | 45 | - | | |
| RMU-037505 | 0.5 | 75 | 3 | 3 | 6 | 4 | 45 | - | | |
| RMU-045002 | 0.2 | 50 | 4 | 4 | 8 | 4 | 45 | - | | |
| RMU-045005 | 0.5 | 50 | 4 | 4 | 8 | 4 | 45 | - | | |
| RMU-045010 | 1 | 50 | 4 | 4 | 8 | 4 | 45 | - | | |
| RMU-047502 | 0.2 | 75 | 4 | 4 | 8 | 4 | 45 | - | | |
| RMU-047505 | 0.5 | 75 | 4 | 4 | 8 | 4 | 45 | - | | |
| RMU-047510 | 1 | 75 | 4 | 4 | 8 | 4 | 45 | - | | |

•長度單位 Unit of Length (mm)

4 刃

NEW


| 規格 Spec. | R | L | D | d | H | 刃數 T | 螺旋角 Angle | 重量 (KGS) Weight | 工件材質 Workpiece Material | 切削硬度 Cutting HRC |
|-------------|-----|-----|----|----|----|------|-----------|-----------------|---------------------------|------------------|
| RMU-065002 | 0.2 | 50 | 6 | 6 | 12 | 4 | 45 | - | P : ++ M : + K : ++ | <HRC50° |
| RMU-065005 | 0.5 | 50 | 6 | 6 | 12 | 4 | 45 | - | | |
| RMU-065010 | 1 | 50 | 6 | 6 | 12 | 4 | 45 | - | | |
| RMU-065015 | 1.5 | 50 | 6 | 6 | 12 | 4 | 45 | - | | |
| RMU-067502 | 0.2 | 75 | 6 | 6 | 12 | 4 | 45 | - | | |
| RMU-067505 | 0.5 | 75 | 6 | 6 | 12 | 4 | 45 | - | | |
| RMU-067510 | 1 | 75 | 6 | 6 | 12 | 4 | 45 | - | | |
| RMU-086002 | 0.2 | 60 | 8 | 8 | 16 | 4 | 45 | - | | |
| RMU-086005 | 0.5 | 60 | 8 | 8 | 16 | 4 | 45 | - | | |
| RMU-086010 | 1 | 60 | 8 | 8 | 16 | 4 | 45 | - | | |
| RMU-086020 | 2 | 60 | 8 | 8 | 16 | 4 | 45 | - | | |
| RMU-087502 | 0.2 | 75 | 8 | 8 | 16 | 4 | 45 | - | | |
| RMU-087505 | 0.5 | 75 | 8 | 8 | 16 | 4 | 45 | - | | |
| RMU-087510 | 1 | 75 | 8 | 8 | 16 | 4 | 45 | - | | |
| RMU-107505 | 0.5 | 75 | 10 | 10 | 20 | 4 | 45 | - | | |
| RMU-107510 | 1 | 75 | 10 | 10 | 20 | 4 | 45 | - | | |
| RMU-107520 | 2 | 75 | 10 | 10 | 20 | 4 | 45 | - | | |
| RMU-1010005 | 0.5 | 100 | 10 | 10 | 20 | 4 | 45 | - | | |
| RMU-1010010 | 1 | 100 | 10 | 10 | 20 | 4 | 45 | - | | |
| RMU-1010020 | 2 | 100 | 10 | 10 | 20 | 4 | 45 | - | | |
| RMU-127505 | 0.5 | 75 | 12 | 12 | 24 | 4 | 45 | - | | |
| RMU-127510 | 1 | 75 | 12 | 12 | 24 | 4 | 45 | - | | |
| RMU-127520 | 2 | 75 | 12 | 12 | 24 | 4 | 45 | - | | |
| RMU-127530 | 3 | 75 | 12 | 12 | 24 | 4 | 45 | - | | |
| RMU-1210005 | 0.5 | 100 | 12 | 12 | 24 | 4 | 45 | - | | |
| RMU-1210010 | 1 | 100 | 12 | 12 | 24 | 4 | 45 | - | | |
| RMU-1210020 | 2 | 100 | 12 | 12 | 24 | 4 | 45 | - | | |
| RMU-1210030 | 3 | 100 | 12 | 12 | 24 | 4 | 45 | - | | |

•長度單位 Unit of Length (mm)

立銑刀側銑 End Mill Side Milling:

| 立銑刀系列 End mill | 材料硬度 Material hardness | 切削速度 Speed (m/min) | 加工深度 Ap (mm) | 切寬 Ae (mm) | 每刃進給 (mm/rev) |
|------------------------|---------------------------|-----------------------|-----------------|-----------------|------------------|
| EMS、EMN、EMM EMU、EUN | HRC<10 | VC=150-360 | D*0.5~D*2.5 | D*0.01~D*0.10 | D*0.01~0.02 |
| | HRC10-25 | VC=120-210 | D*0.5~D*2.0 | D*0.01~D*0.05 | D*0.01~0.02 |
| | HRC25-40 | VC=90-180 | D*0.5~D*1.5 | D*0.01~D*0.025 | D*0.01~0.02 |
| EMH 系列 | HRC30-40 | VC=120~210 | D*0.5~D*1.5 | D*0.01~D*0.025 | D*0.01~0.02 |
| | HRC40-50 | VC=120-180 | D*0.5~D*1.0 | D*0.005~D*0.015 | D*0.01~0.02 |
| | HRC50-62 | VC=120~150 | D*0.5~D*1.0 | D*0.005~D*0.01 | D*0.01~0.02 |
| EMT 系列 | HRC30-50 | VC=120~200 | D*0.1~D*2.5 | D*0.01~D*0.02 | D*0.01~0.02 |
| EMT 系列 | HRC>50 | VC=100~120 | D*0.1~D*1.0 | D*0.01~D*0.02 | D*0.01~0.02 |

球型立銑刀 Ball End Mill:

| 球型立銑刀系列 Ball End Mill | 材料硬度 Material hardness | 切削速度 Speed (m/min) | 加工深度 Ap (mm) | 切寬 Ae (mm) | 每刃進給 (mm/rev) |
|--------------------------|---------------------------|-----------------------|-----------------|----------------|------------------|
| BES、BEN BMU | HRC<10 | VC=150-390 | D*0.01~D*0.20 | D*0.01~D*0.03 | D*0.01~0.02 |
| | HRC10-25 | VC=120-240 | D*0.01~D*0.05 | D*0.01~D*0.03 | D*0.01~0.02 |
| | HRC25-40 | VC=90-210 | D*0.01~D*0.03 | D*0.01~D*0.025 | D*0.01~0.02 |
| BEH 系列 | HRC30-40 | VC=120~240 | D*0.01~D*0.03 | D*0.01~D*0.025 | D*0.01~0.02 |
| | HRC40-50 | VC=120~210 | D*0.01~D*0.02 | D*0.005~D*0.02 | D*0.01~0.02 |
| | HRC50-62 | VC=120~180 | D*0.005~D*0.01 | D*0.005~D*0.01 | D*0.01~0.02 |

圓鼻立銑刀 Corner-Radius End Mill:

| 圓鼻立銑刀系列 Corner-Radius End Mill | 材料硬度 Material Hardness | 切削速度 Speed (m/min) | 加工深度 Ap (mm) | 底面修平加工深度 Depth | 每刃進給 (mm/rev) |
|-----------------------------------|---------------------------|-----------------------|-----------------|-------------------|------------------|
| RES、RMU | HRC<10 | VC=150-390 | D*0.50 | 視實際加工調整 | D*0.01~0.02 |
| | HRC10-25 | VC=120-240 | D*0.05~D*1.0 | <R 角 | D*0.01~0.02 |
| | HRC25-40 | VC=90-210 | D*0.03~D*0.06 | <R 角 | D*0.01~0.02 |
| REH | HRC30-40 | VC=120~240 | D*0.03~D*0.06 | <R 角 | D*0.01~0.02 |
| | HRC40-50 | VC=120~210 | D*0.02~D*0.04 | <R 角 | D*0.01~0.02 |
| | HRC50-62 | VC=120~180 | D*0.01~D*0.02 | <R 角 | D*0.01~0.02 |

※ 以上建議參數，尚需配合實際加工條件與環境，視工件需求而有所調整。

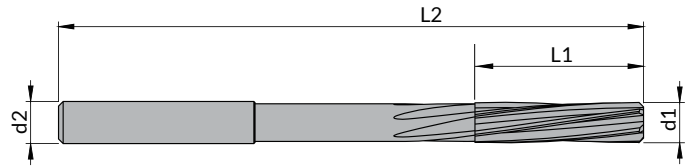


MRU 超微粒鎢鋼機械鉸刀

MRU CARBIDE MACHINE REAMER

KOVIT

NEW



特點 Feature

-歐洲鎢鋼材料、瑞士生產設備，品質把關
-柄徑公差h6，刃徑公差H7

-Europe top tungsten steel materials, produced by the Swiss Machine.
-Shank diameter tolerance h6, edge diameter H7.

| 規格 Spec. | 刃徑 d1 | 刃長 L1 | 全長 L2 | 柄徑 d2 | 刃數 Flutes | 螺旋角 Angle | 工件材質 Workpiece Material |
|---------------|----------|----------|----------|----------|--------------|--------------|--|
| MRU607-020030 | 2 | 11 | 49 | 3 | 6 | 7度 | <div style="display: flex; flex-direction: column; align-items: center; gap: 5px;"> <div style="background-color: #0056b3; color: white; padding: 2px 5px;">P</div> <div style="background-color: #d4c000; color: white; padding: 2px 5px;">M</div> <div style="background-color: #d62728; color: white; padding: 2px 5px;">K</div> <div style="background-color: #2ca02c; color: white; padding: 2px 5px;">N</div> <div style="background-color: #696969; color: white; padding: 2px 5px;">H</div> </div> |
| MRU607-025030 | 2.5 | 14 | 57 | 3 | 6 | 7度 | |
| MRU607-030030 | 3 | 15 | 61 | 3 | 6 | 7度 | |
| MRU607-035035 | 3.5 | 18 | 70 | 3.5 | 6 | 7度 | |
| MRU607-040040 | 4 | 19 | 75 | 4 | 6 | 7度 | |
| MRU607-045045 | 4.5 | 21 | 80 | 4.5 | 6 | 7度 | |
| MRU607-050050 | 5 | 23 | 86 | 5 | 6 | 7度 | |
| MRU607-055055 | 5.5 | 26 | 93 | 5.5 | 6 | 7度 | |
| MRU607-060060 | 6 | 26 | 93 | 6 | 6 | 7度 | |
| MRU607-065065 | 6.5 | 28 | 101 | 6.5 | 6 | 7度 | |
| MRU607-070070 | 7 | 31 | 109 | 7 | 6 | 7度 | |
| MRU607-075075 | 7.5 | 31 | 109 | 7.5 | 6 | 7度 | |
| MRU607-080080 | 8 | 33 | 117 | 8 | 6 | 7度 | |
| MRU607-085085 | 8.5 | 33 | 117 | 8.5 | 6 | 7度 | |
| MRU607-090090 | 9 | 36 | 125 | 9 | 6 | 7度 | |
| MRU607-095095 | 9.5 | 36 | 125 | 9.5 | 6 | 7度 | |
| MRU607-100100 | 10 | 38 | 133 | 10 | 6 | 7度 | |
| MRU607-105105 | 10.5 | 38 | 133 | 10.5 | 6 | 7度 | |
| MRU607-110110 | 11 | 41 | 142 | 11 | 6 | 7度 | |
| MRU607-115115 | 11.5 | 41 | 142 | 11.5 | 6 | 7度 | |
| MRU607-120120 | 12 | 44 | 151 | 12 | 6 | 7度 | |

•長度單位 Unit of Length (mm)

適用加工數據 Applicable Parameter

| 被加工材質 Machining Materials | 切削速度 Vc(m/min) | f 每刃進給率 (mm/min) | | | | | | |
|---|-------------------------------------|------------------|-------------|-------------|-------------|-----------|-------------|------------|
| | | Ø3 | Ø4 | Ø5 | Ø6 | Ø8 | Ø10 | Ø12 |
| P 低合金鋼 Low-Alloy Steels | Vc=10~12 | 0.02~0.03 | 0.025~0.045 | 0.04~0.06 | 0.05~0.09 | 0.06~0.15 | 0.07~0.13 | 0.08~0.15 |
| | 高合金鋼 High-Alloyed Steels | Vc=8~15 | 0.02~0.03 | 0.025~0.045 | 0.04~0.06 | 0.05~0.09 | 0.06~0.15 | 0.07~0.13 |
| M 不鏽鋼 Stainless Steels | Vc=10~20 | 0.018~0.03 | 0.028~0.045 | 0.04~0.06 | 0.05~0.09 | 0.06~0.12 | 0.06~0.12 | 0.08~0.15 |
| K 鑄鐵 Cast Iron | Vc=8~15 | 0.008~0.015 | 0.028~0.045 | 0.04~0.06 | 0.05~0.09 | 0.06~0.12 | 0.07~0.13 | 0.08~0.15 |
| N 鋁合金 Aluminum&Al | Vc=5~10 | 0.018~0.03 | 0.028~0.045 | 0.04~0.06 | 0.06~0.09 | 0.07~0.12 | 0.08~0.17 | 0.08~0.18 |
| | 銅 Copper | Vc=4~10 | 0.018~0.03 | 0.028~0.045 | 0.04~0.06 | 0.05~0.09 | 0.07~0.13 | 0.08~0.15 |
| H 硬化鋼 HRC(30~38) Hardened Steel | Vc=5~10 | 0.02~0.03 | 0.025~0.045 | 0.04~0.06 | 0.05~0.09 | 0.06~0.15 | 0.07~0.13 | 0.08~0.15 |
| | 硬化鋼 HRC(38~48) Hardened Steel | Vc=4~10 | 0.01~0.02 | 0.012~0.03 | 0.015~0.035 | 0.02~0.05 | 0.025~0.055 | 0.025~0.06 |

| 被加工材質 Machining Materials | 切削速度 Vc(m/min) | 切削餘量 (mm) | | | | | | |
|---|-------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | Ø3 | Ø4 | Ø5 | Ø6 | Ø8 | Ø10 | Ø12 |
| P 低合金鋼 Low-Alloy Steels | Vc=10~12 | 0.05~0.15 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 |
| | 高合金鋼 High-Alloyed Steels | Vc=8~15 | 0.05~0.15 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 |
| M 不鏽鋼 Stainless Steels | Vc=10~20 | 0.05~0.15 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 |
| K 鑄鐵 Cast Iron | Vc=8~15 | 0.05~0.1 | 0.05~0.1 | 0.05~0.1 | 0.05~0.1 | 0.05~0.1 | 0.05~0.1 | 0.05~0.1 |
| N 鋁合金 Aluminum&Al | Vc=5~10 | 0.05~0.15 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 |
| | 銅 Copper | Vc=4~10 | 0.05~0.15 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 |
| H 硬化鋼 HRC(30~38) Hardened Steel | Vc=5~10 | 0.05~0.15 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 | 0.1~0.2 |
| | 硬化鋼 HRC(38~48) Hardened Steel | Vc=4~10 | 0.03~0.08 | 0.03~0.08 | 0.03~0.08 | 0.03~0.08 | 0.03~0.08 | 0.03~0.08 |

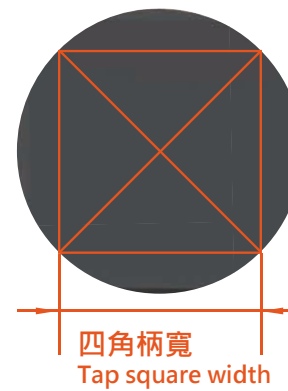
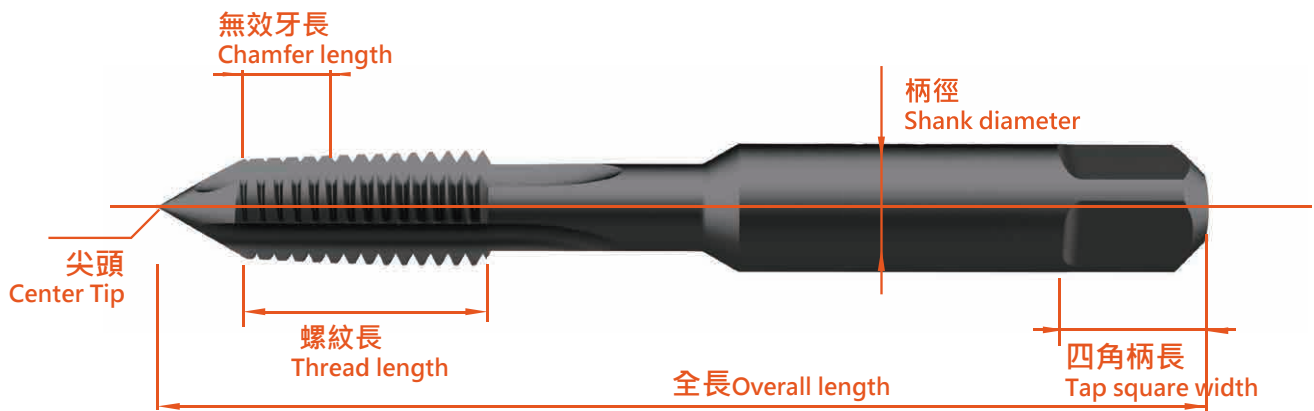
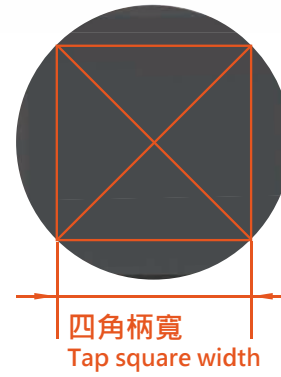
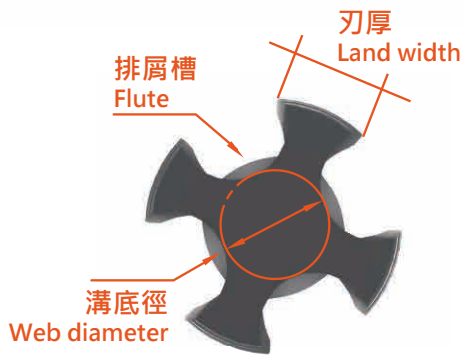
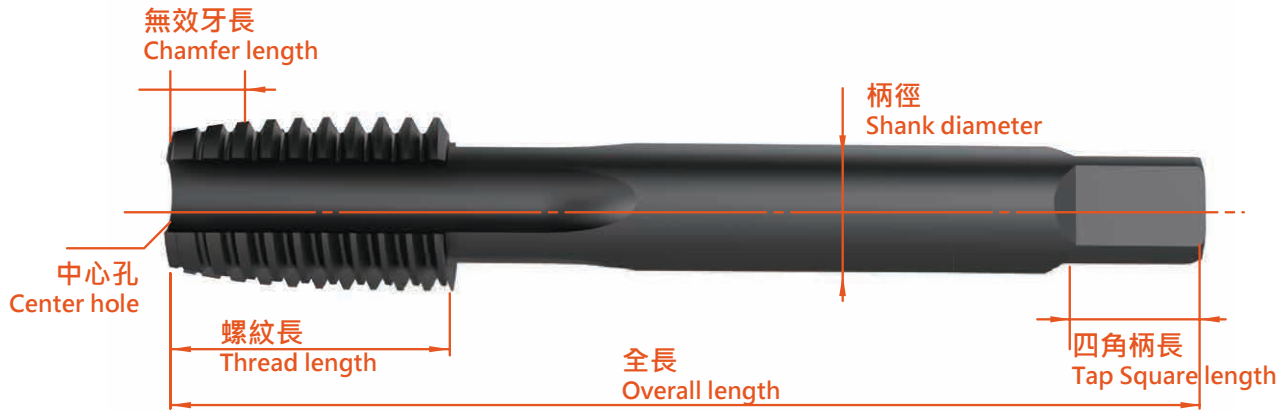
鉸刀的保存 Care of Reamers

鉸刀是表面鉸光的工具，容易受損，為防受損應個別置於塑膠套中以利儲存及運送。
良好的保存刀具有利於後續生產的穩定性以及延長刀具壽命。

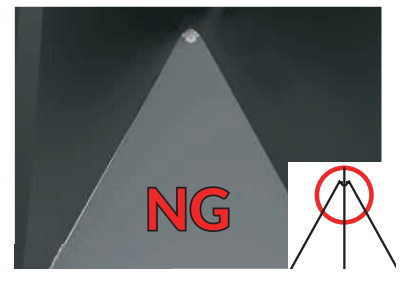
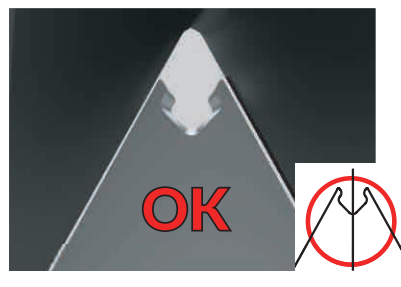
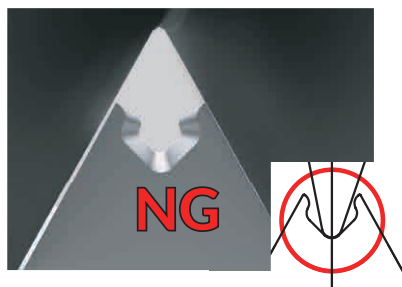
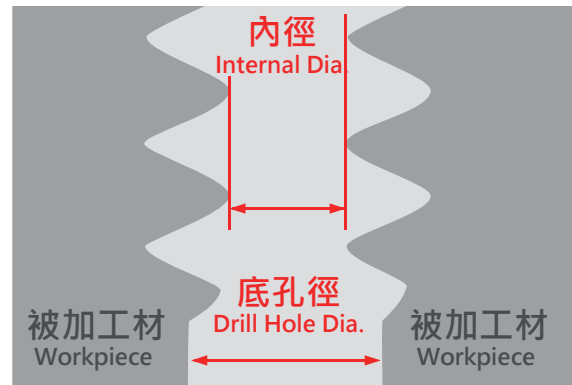
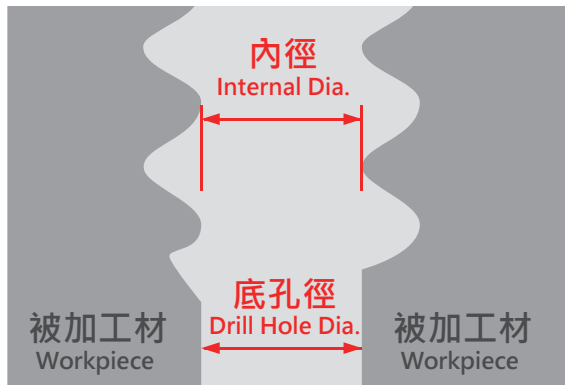
The reamer is a surface reaming tool that is easily damaged. To prevent from the damage, it should be stored with plastic sleeve while delivery.
Storing the reamer well is beneficial to the stable production and extended tool life.

•長度單位 Unit of Length (mm)

| TP | 100 | A | POT | M3 | 0.5P | |
|---|------------------------------|------------------------|-------------------------------------|------------------------------------|-------------|---------------|
| 絲攻材質 Tap Material | 絲攻類型 Tap Type | 塗層方式 Coating Method | 絲攻牙型 Tap Type | 螺牙類型 Thread Type | 牙距 Pitch | 其他備註 Other |
| TP 高速鋼 High Speed Steel | 100: 標準型 Standard Type | A: 氧化 Oxidation | POT: 先端絲攻 Spiral Point Taps | M : 公制螺紋 M Metric Thread M | | 空白: 無備註 |
| TC 粉末高速鋼 Powder Metallurgy High Speed Steel | 200: 短牙型 Short Thread | B:TIN | SFT: 螺旋絲攻 Spiral Flute Taps | W : 英制螺紋 (惠式)W Inch Thread W | | |
| | 300: 長牙型 Long Thread | C:TICN | NRT: 擠壓 / 無屑絲攻 NRT: Forming Taps | U : 美制螺紋 UNC.UN | | |
| TW 鎢鋼 Tungsten Carbide | 400: 尺寸調整 Customized Size | D: 無塗層 No Coating | HT: 手絞絲攻 HT: Hand Taps | PT : 管用錐度螺紋 R.Rc.PT | | |
| | | E: 其他 Others | PT: 管用絲攻 PT: Pipe Thread Taps | RS : 管用錐度平行螺紋 Rp(RS) | | |
| | | | NT: 螺帽絲攻 NT: Nut Taps | NPT : 美制管用錐度螺紋 NPT | | |



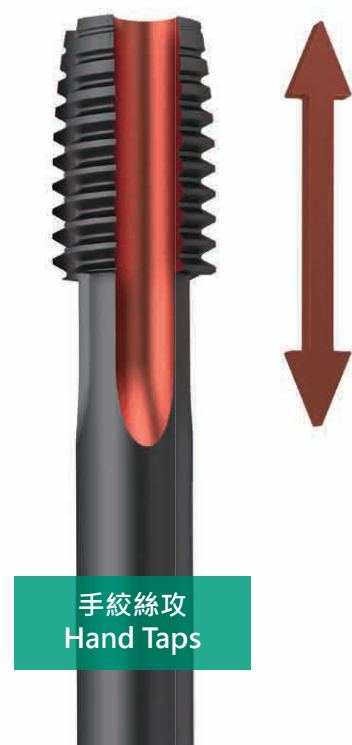
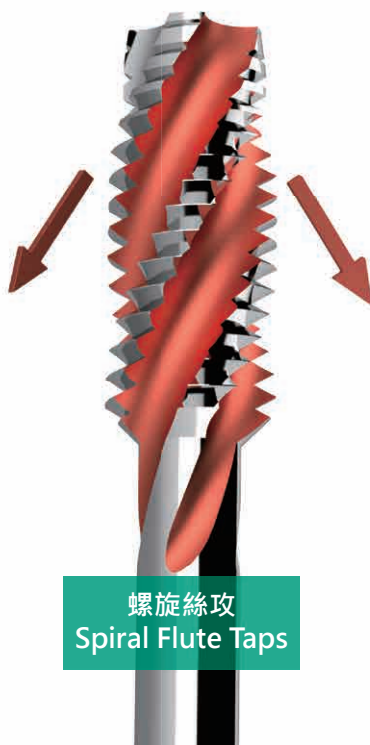
• 長度單位 Unit of Length (mm)



底孔徑大於建議值，
擠壓量不足
Drill Hole Dia. > Suggested Values
Insufficient Forming

螺紋牙行正確
The Correct Form of Thread

底孔徑小於建議值，
擠壓量過多，牙山過飽
Drill Hole Dia. < Suggested Values
Values Over forming



• 長度單位 Unit of Length (mm)

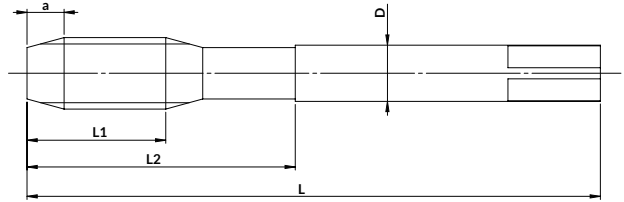


TP100 系列 POT 先端絲攻 -HSS

TP100 SERIES POT SPIRAL POINT TAP - HSS

KOVIT

NEW



| 規格 Spec. | 加工材質 Workpiece Material | 表面處理 Surface Treatment | 精度 Accuracy | a | 全長 L | 螺紋長 L1 | 柄徑 D | 溝數 Flutes | 重量 (KGS) Weight |
|----------------------|--|------------------------------|----------------|----|------|--------|------|--------------|-----------------------|
| TP100A-POT-M3-0.5P | 合金鋼 Alloy Steels 不鏽鋼 Stainless Steels | 氧化 TiCN | 6H | 4P | 46 | 11 | 4 | 3 | 0.005 |
| TP100A-POT-M4-0.7P | | | 6H | 4P | 52 | 13 | 5 | 3 | 0.008 |
| TP100A-POT-M5-0.8P | | | 6H | 4P | 60 | 16 | 5.5 | 3 | 0.01 |
| TP100A-POT-M6-1.0P | | | 6H | 4P | 62 | 19 | 6 | 3 | 0.013 |
| TP100A-POT-M8-1.25P | | | 6H | 4P | 70 | 22 | 6.2 | 3 | 0.019 |
| TP100A-POT-M10-1.5P | | | 6H | 4P | 75 | 24 | 7 | 3 | 0.027 |
| TP100A-POT-M12-1.75P | | | 6H | 4P | 82 | 29 | 8.5 | 3 | 0.043 |

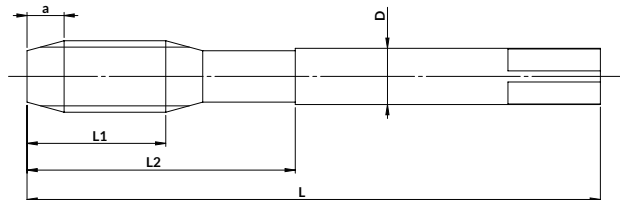


TP100 系列 SFT 螺旋絲攻 -HSS

TP100 SERIES SFT SPIRAL FLUTE TAP - HSS

KOVIT

NEW



| 規格 Spec. | 加工材質 Workpiece Material | 表面處理 Surface Treatment | 精度 Accuracy | a | 全長 L | 螺紋長 L1 | 柄徑 D | 溝數 Flutes | 重量 (KGS) Weight |
|----------------------|--|------------------------------|----------------|------|------|--------|------|--------------|-----------------------|
| TP100A-SFT-M3-0.5P | 合金鋼 Alloy Steels 不鏽鋼 Stainless Steels | 氧化 TiCN | 6H | 2.5P | 46 | 11 | 4 | 3 | 0.004 |
| TP100A-SFT-M4-0.7P | | | 6H | 2.5P | 52 | 13 | 5 | 3 | 0.007 |
| TP100A-SFT-M5-0.8P | | | 6H | 2.5P | 60 | 16 | 5.5 | 3 | 0.01 |
| TP100A-SFT-M6-1.0P | | | 6H | 2.5P | 62 | 19 | 6 | 3 | 0.012 |
| TP100A-SFT-M8-1.25P | | | 6H | 2.5P | 70 | 22 | 6.2 | 3 | 0.018 |
| TP100A-SFT-M10-1.5P | | | 6H | 2.5P | 75 | 24 | 7 | 3 | 0.025 |
| TP100A-SFT-M12-1.75P | | | 6H | 2.5P | 82 | 29 | 8.5 | 3 | 0.039 |

•長度單位 Unit of Length (mm)

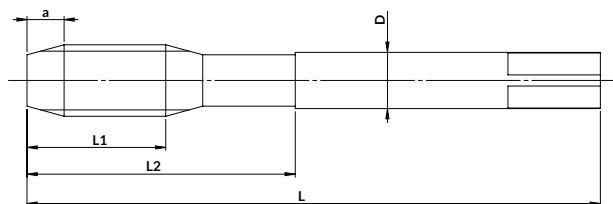


TP200 系列 POT- 短牙型先端絲攻 -HSS

TP200 SERIES POT SPIRAL POINT TAP (SHORT THREAD) - HSS

KOVIT

NEW



| 規格 Spec. | 加工材質 Workpiece Material | 塗層 Surface Treatment | 精度 Accuracy | a | 全長 L | 螺紋長 L1 | 柄徑 D | 溝數 Flutes | 重量 (KGS) Weight |
|----------------------|--|----------------------|-------------|----|------|--------|------|-----------|-----------------|
| TP200A-POT-M3-0.5P | 合金鋼 Alloy Steels 不鏽鋼 Stainless Steels | 氧化 TiCN | 6H | 4P | 46 | 9 | 4 | 3 | 0.004 |
| TP200A-POT-M4-0.7P | | | 6H | 4P | 52 | 10 | 5 | 3 | 0.008 |
| TP200A-POT-M5-0.8P | | | 6H | 4P | 60 | 11 | 5.5 | 3 | 0.01 |
| TP200A-POT-M6-1.0P | | | 6H | 4P | 62 | 12 | 6 | 3 | 0.013 |
| TP200A-POT-M8-1.25P | | | 6H | 4P | 70 | 13 | 6.2 | 3 | 0.019 |
| TP200A-POT-M10-1.5P | | | 6H | 4P | 75 | 15 | 7 | 3 | 0.027 |
| TP200A-POT-M12-1.75P | | | 6H | 4P | 82 | 18 | 8.5 | 3 | 0.042 |

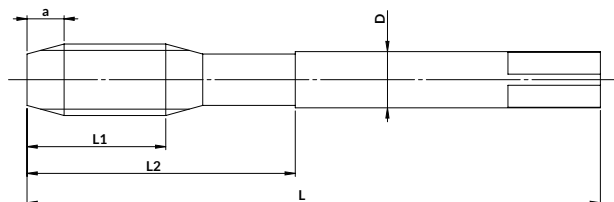


TP200 系列 SFT 短牙型螺旋絲攻 -HSS

TP200 SERIES SFT SPIRAL FLUTE TAP (SHORT THREAD) - HSS

KOVIT

NEW



| 規格 Spec. | 加工材質 Workpiece Material | 塗層 Surface Treatment | 精度 Accuracy | a | 全長 L | 螺紋長 L1 | 柄徑 D | 溝數 Flutes | 重量 (KGS) Weight |
|----------------------|--|----------------------|-------------|------|------|--------|------|-----------|-----------------|
| TP200A-SFT-M3-0.5P | 合金鋼 Alloy Steels 不鏽鋼 Stainless Steels | 氧化 TiCN | 6H | 2.5P | 46 | 5 | 4 | 3 | 0.004 |
| TP200A-SFT-M4-0.7P | | | 6H | 2.5P | 52 | 7 | 5 | 3 | 0.007 |
| TP200A-SFT-M5-0.8P | | | 6H | 2.5P | 60 | 8 | 5.5 | 3 | 0.01 |
| TP200A-SFT-M6-1.0P | | | 6H | 2.5P | 62 | 10 | 6 | 3 | 0.012 |
| TP200A-SFT-M8-1.25P | | | 6H | 2.5P | 70 | 13 | 6.2 | 3 | 0.018 |
| TP200A-SFT-M10-1.5P | | | 6H | 2.5P | 75 | 15 | 7 | 3 | 0.025 |
| TP200A-SFT-M12-1.75P | | | 6H | 2.5P | 82 | 18 | 8.5 | 3 | 0.039 |

•長度單位 Unit of Length (mm)

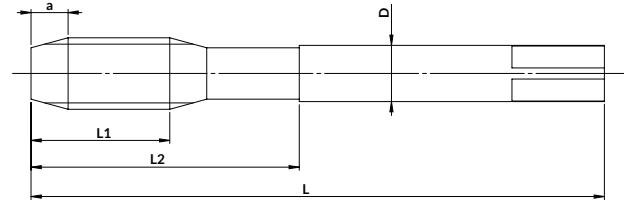


TC100 系列 POT 先端絲攻 -PM

TC100 SERIES POT POINT TAP - PM

KOVIT

NEW



| 規格 Spec. | 加工材質 Workpiece Material | 塗層 Surface Treatment | 精度 Accuracy | a | 全長 L | 螺紋長 L1 | 柄徑 D | 溝數 Flutes | 重量 (KGS) Weight |
|----------------------|--|----------------------|-------------|----|------|--------|------|-----------|-----------------|
| TC100C-POT-M3-0.5P | 合金鋼 Alloy Steels 不鏽鋼 Stainless Steels | TiCN | 6H | 5P | 46 | 11 | 4 | 3 | 0.005 |
| TC100C-POT-M4-0.7P | | | 6H | 5P | 52 | 13 | 5 | 3 | 0.008 |
| TC100C-POT-M5-0.8P | | | 6H | 5P | 60 | 16 | 5.5 | 3 | 0.01 |
| TC100C-POT-M6-1.0P | | | 6H | 5P | 62 | 19 | 6 | 3 | 0.013 |
| TC100C-POT-M8-1.25P | | | 6H | 5P | 70 | 22 | 6.2 | 3 | 0.019 |
| TC100C-POT-M10-1.5P | | | 6H | 5P | 75 | 24 | 7 | 3 | 0.027 |
| TC100C-POT-M12-1.75P | | | 6H | 5P | 82 | 29 | 8.5 | 3 | 0.043 |

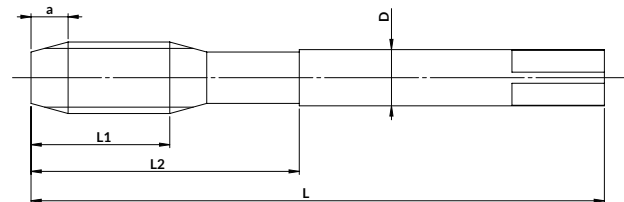


TC100 系列 SFT 螺旋絲攻 -PM

TC100 SERIES SFT SPIRAL FLUTE TAP - PM

KOVIT

NEW



| 規格 Spec. | 加工材質 Workpiece Material | 塗層 Surface Treatment | 精度 Accuracy | a | 全長 L | 螺紋長 L1 | 柄徑 D | 溝數 Flutes | 重量 (KGS) Weight |
|----------------------|--|----------------------|-------------|----|------|--------|------|-----------|-----------------|
| TC100C-SFT-M3-0.5P | 合金鋼 Alloy Steels 不鏽鋼 Stainless Steels | TiCN | 6H | 5P | 46 | 11 | 4 | 3 | 0.005 |
| TC100C-SFT-M4-0.7P | | | 6H | 5P | 52 | 13 | 5 | 3 | 0.008 |
| TC100C-SFT-M5-0.8P | | | 6H | 5P | 60 | 16 | 5.5 | 3 | 0.01 |
| TC100C-SFT-M6-1.0P | | | 6H | 5P | 62 | 19 | 6 | 3 | 0.013 |
| TC100C-SFT-M8-1.25P | | | 6H | 5P | 70 | 22 | 6.2 | 3 | 0.019 |
| TC100C-SFT-M10-1.5P | | | 6H | 5P | 75 | 24 | 7 | 3 | 0.027 |
| TC100C-SFT-M12-1.75P | | | 6H | 5P | 82 | 29 | 8.5 | 3 | 0.043 |

•長度單位 Unit of Length (mm)

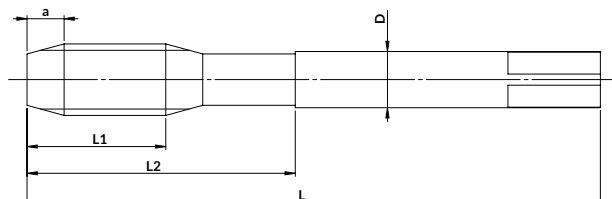


TC200 系列 POT 短牙型先端絲攻 -PM

TC200 SERIES POT POINT TAP(SHORT THREAD) - PM

KOVIT

NEW



| 規格 Spec. | 加工材質 Workpiece Material | 塗層 Surface Treatment | 精度 Accuracy | a | 全長 L | 螺紋長 L1 | 柄徑 D | 溝數 Flutes | 重量 (KGS) Weight |
|----------------------|--|----------------------------|----------------|----|------|--------|------|--------------|-----------------------|
| TC200C-POT-M3-0.5P | 合金鋼 Alloy Steels 不鏽鋼 Stainless Steels | TiCN | 6H | 4P | 46 | 9 | 4 | 3 | 0.004 |
| TC200C-POT-M4-0.7P | | | 6H | 4P | 52 | 10 | 5 | 3 | 0.008 |
| TC200C-POT-M5-0.8P | | | 6H | 4P | 60 | 11 | 5.5 | 3 | 0.01 |
| TC200C-POT-M6-1.0P | | | 6H | 4P | 62 | 12 | 6 | 3 | 0.013 |
| TC200C-POT-M8-1.25P | | | 6H | 4P | 70 | 13 | 6.2 | 3 | 0.019 |
| TC200C-POT-M10-1.5P | | | 6H | 4P | 75 | 15 | 7 | 3 | 0.027 |
| TC200C-POT-M12-1.75P | | | 6H | 4P | 82 | 18 | 8.5 | 3 | 0.042 |

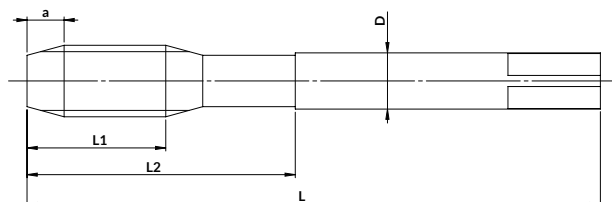


TC200 系列 SFT 短牙型螺旋絲攻 -PM

TC200 SERIES SFT SPIRAL FLUTE TAP (SHORT THREAD) - PM

KOVIT

NEW



| 規格 Spec. | 加工材質 Workpiece Material | 塗層 Surface Treatment | 精度 Accuracy | a | 全長 L | 螺紋長 L1 | 柄徑 D | 溝數 Flutes | 重量 (KGS) Weight |
|----------------------|--|----------------------------|----------------|------|------|--------|------|--------------|-----------------------|
| TC200C-SFT-M3-0.5P | 合金鋼 Alloy Steels 不鏽鋼 Stainless Steels | TiCN | 6H | 2.5P | 46 | 5 | 4 | 3 | 0.004 |
| TC200C-SFT-M4-0.7P | | | 6H | 2.5P | 52 | 7 | 5 | 3 | 0.007 |
| TC200C-SFT-M5-0.8P | | | 6H | 2.5P | 60 | 8 | 5.5 | 3 | 0.01 |
| TC200C-SFT-M6-1.0P | | | 6H | 2.5P | 62 | 10 | 6 | 3 | 0.012 |
| TC200C-SFT-M8-1.25P | | | 6H | 2.5P | 70 | 13 | 6.2 | 3 | 0.018 |
| TC200C-SFT-M10-1.5P | | | 6H | 2.5P | 75 | 15 | 7 | 3 | 0.025 |
| TC200C-SFT-M12-1.75P | | | 6H | 2.5P | 82 | 18 | 8.5 | 3 | 0.039 |

•長度單位 Unit of Length (mm)

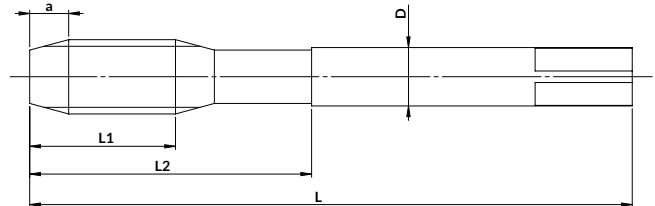


TP100 系列 NRT 擠壓絲攻 -HSS

TP100 SERIES NRT FORMING TAP - HSS

KOVIT

NEW



| 規格 Spec. | 加工材質 Workpiece Material | 塗層 Surface Treatment | a | 全長 L | 螺紋長 L1 | 柄徑 D | 溝數 Flutes | 重量 (KGS) Weight |
|----------------------|-------------------------------|----------------------------|-------|------|--------|------|--------------|-----------------------|
| TP100C-NRT-M3-0.5P | 不鏽鋼 Stainless | TiCN | 2P/4P | 46 | 9 | 4 | - | 0.005 |
| TP100C-NRT-M4-0.7P | | | 2P/4P | 52 | 10 | 5 | - | 0.008 |
| TP100C-NRT-M5-0.8P | | | 2P/4P | 60 | 11 | 5.5 | - | 0.011 |
| TP100C-NRT-M6-1.0P | | | 2P/4P | 62 | 12 | 6 | - | 0.013 |
| TP100C-NRT-M8-1.25P | | | 2P/4P | 70 | 18 | - | - | 0.02 |
| TP100C-NRT-M10-1.5P | | | 2P/4P | 75 | 19 | - | - | 0.03 |
| TP100C-NRT-M12-1.75P | | | 2P/4P | 82 | 23 | 8.5 | - | 0.049 |

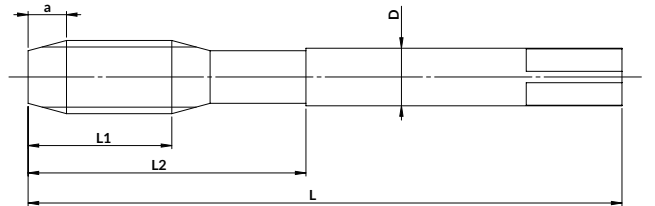


TC100 系列 NRT 擠壓絲攻 -PM

TC100 SERIES NRT FORMING TAP -PM

KOVIT

NEW



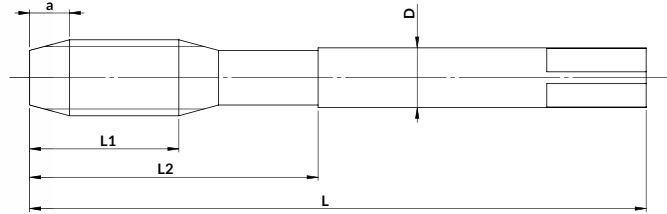
| 規格 Spec. | 加工材質 Workpiece Material | 塗層 Surface Treatment | a | 全長 L | 螺紋長 L1 | 柄徑 D | 溝數 Flutes | 重量 (KGS) Weight |
|----------------------|-------------------------------|----------------------------|-------|------|--------|------|--------------|-----------------------|
| TC100C-NRT-M3-0.5P | 不鏽鋼 Stainless | TiCN | 2P/4P | 46 | 9 | 4 | - | 0.005 |
| TC100C-NRT-M4-0.7P | | | 2P/4P | 52 | 10 | 5 | - | 0.008 |
| TC100C-NRT-M5-0.8P | | | 2P/4P | 60 | 11 | 5.5 | - | 0.011 |
| TC100C-NRT-M6-1.0P | | | 2P/4P | 62 | 12 | 6 | - | 0.013 |
| TC100C-NRT-M8-1.25P | | | 2P/4P | 70 | 18 | - | - | 0.02 |
| TC100C-NRT-M10-1.5P | | | 2P/4P | 75 | 19 | - | - | 0.03 |
| TC100C-NRT-M12-1.75P | | | 2P/4P | 82 | 23 | 8.5 | - | 0.049 |

•長度單位 Unit of Length (mm)

| 被加工材質 Machining Materials | | 切削速度 Vc(m/min) | | |
|------------------------------|----------------------------|-------------------|-------|------|
| | | SFT | POT | NRT |
| P | 低碳鋼 Low Carbon Steel | 7-12 | 10-15 | 5-8 |
| | 中碳鋼 Medium Carbon Steel | 6-9 | 7-10 | - |
| | 合金鋼 Alloy Steels | 5-8 | 8-13 | 5-10 |
| | 工具鋼 Tool Steel | 8-13 | 15-25 | 8-13 |
| M | 不鏽鋼 Stainless Steel | 7-12 | 10-15 | 7-10 |

| 被加工材質 Machining Materials | | 切削油劑 Cutting Fluids | |
|------------------------------|----------------------------|-------------------------|----------------------|
| | | 不水溶性 Water Insoluble | 水溶性 Water Soluble |
| P | 低碳鋼 Low Carbon Steel | ◎ | △ |
| | 中碳鋼 Medium Carbon Steel | ◎ | - |
| | 合金鋼 Alloy Steels | ◎ | ○ |
| | 工具鋼 Tool Steel | ◎ | ○ |
| M | 不鏽鋼 Stainless Steel | ◎ | ○ |

◎ 最適用 Excellent ○ 適用 Good △ 可以使用 Applicable - 不可使用 Not Applicable



| 規格 Spec. | 加工材質 Workpiece material | 表面處理 Surface Treatment | 精度 Accuracy | a | 全長 L | 螺紋長 L1 | 柄徑 D | 溝數 | 重量 (KGS) Weight |
|-----------------------|---|------------------------------|----------------|------|------|--------|------|----|-----------------------|
| TC102C-POT-M1.8-0.35P | 高硬度 High hardness <HRC50° 不鏽鋼 Stainless | TiCN | 6H | 3~5P | 42 | 9 | 2.5 | | 0.01 |
| TC102C-POT-M2-0.4P | | | 6H | | 42 | 9.5 | 3 | | 0.016 |
| TC102C-POT-M2.2-0.45P | | | 6H | | - | - | - | | - |
| TC102C-POT-M2.5-0.45P | | | 6H | | 46 | 9.5 | 3 | | 0.0205 |
| TC102C-POT-M3-0.5P | | | 6H | | 46 | 11 | 4 | | 0.025 |
| TC102C-POT-M3.5-0.6P | | | 6H | | - | - | - | | - |
| TC102C-POT-M4-0.7P | | | 6H | | 52 | 13 | 5 | | 0.033 |
| TC102C-POT-M5-0.8P | | | 6H | | 60 | 16 | 5.5 | | 0.042 |
| TC102C-POT-M6-1.0P | | | 6H | | 62 | 19 | 6 | | 0.05 |

高硬度材適用加工數據 Applicable Parameter

| 材料 Material | 高硬度 <HRC50° High Hardness <HRC50 | 熱處理鋼 Heat Treated Steel | 工具鋼 Tool Steel | 氮化鋼 Nitrided Steel | 不鏽鋼 Stainless | 鑄鋼 Cast Iron |
|----------------|-------------------------------------|----------------------------|-------------------|-----------------------|------------------|-----------------|
| Vc [m/min] | 4-5 | 5-10 | 10-15 | 5-8 | 5-8 | 5-8 |

| 標稱直徑 Nominal/ Diameter | RPM [1/min] | | | | | | | | | | | | |
|------------------------------|--------------------------------------|-----|-----|-----|------|------|------|------|------|------|------|------|------|
| | 切削速度 Vc Cutting speed V [m/min] | | | | | | | | | | | | |
| | 4 | 5 | 6 | 8 | 10 | 12 | 15 | 20 | 22 | 25 | 28 | 30 | 32 |
| M3 | 425 | 530 | 635 | 850 | 1060 | 1270 | 1590 | 2120 | 2330 | 2650 | 2965 | 3180 | 3390 |
| M4 | 319 | 398 | 480 | 635 | 795 | 955 | 1190 | 1590 | 1750 | 1990 | 2230 | 2390 | 2550 |
| M5 | 255 | 318 | 382 | 510 | 635 | 765 | 955 | 1270 | 1400 | 1590 | 1785 | 1910 | 2040 |
| M6 | 212 | 265 | 318 | 425 | 530 | 635 | 795 | 1060 | 1170 | 1325 | 1485 | 1590 | 1700 |
| M8 | 159 | 198 | 238 | 318 | 398 | 478 | 598 | 795 | 875 | 995 | 1115 | 1195 | 1275 |
| M10 | 127 | 159 | 191 | 255 | 318 | 382 | 478 | 636 | 700 | 795 | 892 | 955 | 1020 |
| M12 | 106 | 133 | 159 | 212 | 265 | 318 | 398 | 531 | 584 | 664 | 744 | 795 | 850 |

下孔徑尺寸公差表請至B848參照
Hole diameter tolerance table refer to B848.

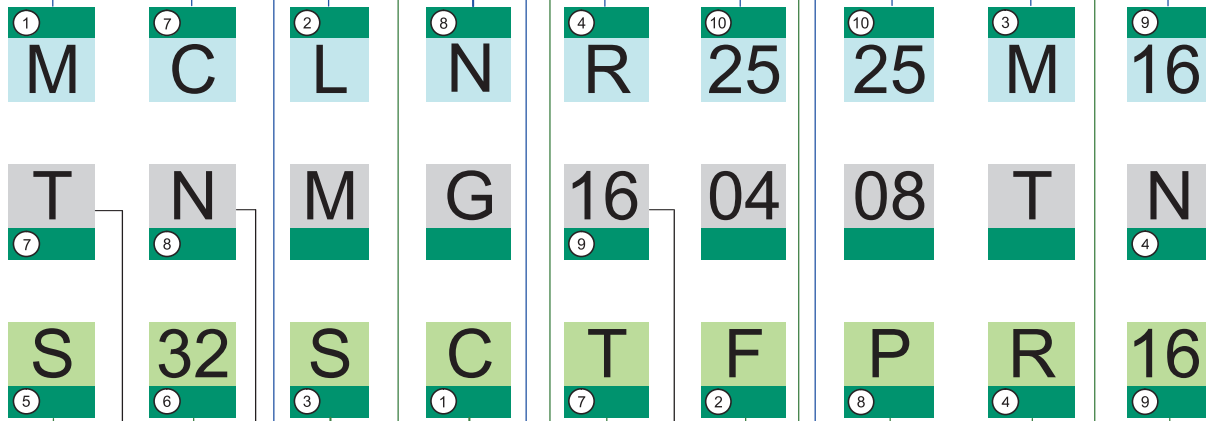
•長度單位 Unit of Length (mm)

| C | 上壓式 Clamp | |
|--------------------------------|-----------------------------|-------------|
| M | 螺銷 上壓式 Pin/ Clamp | |
| W | 楔鉤式 Clamp | |
| S | 壓孔式 Screw | |
| P | 側推式 Pin | |
| D | 雙重 夾緊式 Rigid Clamp | |
| 記號 Symbol | 名稱 Name | 圖形 Shape |
| 1 壓板鎖固方式 Clamp Locking Type | | |

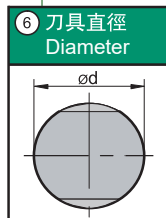
| A | | G | | P | |
|-----------------|-------------|--------------|-------------|--------------|-------------|
| B | | J | | Q | |
| C | | J2 | | S | |
| D | | K | | V | |
| E | | L | | U | |
| F | | L2 | | X | |
| G | | N | | Y | |
| | | N3 | | Z | |
| 記號 Symbol | 圖形 Shape | 記號 Symbol | 圖形 Shape | 記號 Symbol | 圖形 Shape |
| 2 進刀角度 Angle | | | | | |

| A | 32 | N | 160 | |
|----------------------|--------------|--------------|--------------|--|
| B | 40 | P | 170 | |
| C | 50 | Q | 180 | |
| D | 60 | R | 200 | |
| E | 70 | S | 250 | |
| F | 80 | T | 300 | |
| G | 90 | U | 350 | |
| H | 100 | V | 400 | |
| J | 110 | W | 450 | |
| K | 125 | X | 500 | |
| L | 140 | Y | 特殊 | |
| M | 150 | X | 特殊 | |
| 記號 Symbol | 長度 Length | 記號 Symbol | 長度 Length | |
| 3 長度記號(mm) Length | | | | |

| L | |
|---------------------|-------------|
| N | |
| R | |
| 記號 Symbol | 圖形 Shape |
| 4 切削方向 Direction | |



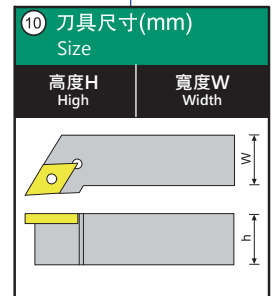
| 5 刀具材質記號 Flutes Material | |
|-----------------------------|--|
| 記號 Symbol | 說明 Description |
| S | 鋼柄 Steel shank |
| A | 鋼柄+中心水孔 Steel shank +coolant hole |
| C | 鑄鋼柄 Cemented carbide shank with steel head |
| E | 鑄鋼柄+中心水孔 Cemented carbide shank with steel head +coolant hole |
| H | 重金屬 Heavy metal shank |



| 7 刀片形狀 Shape | | | |
|-----------------|--------------------|------------------|-------------|
| 記號 Symbol | 形狀 Shape | 角度 Angle | 圖形 Shape |
| C | 菱形 Rhombic | 80° | |
| D | | 55° | |
| E | | 75° | |
| V | 35° | 平行四邊形 Rhombic | |
| K | 55° | | |
| R | 圓形 Round | — | |
| S | 正方形 Square | 90° | |
| T | 正三角形 Triangular | 60° | |
| W | 六角形 Hexagonal | 80° | |

| 8 離隙角 Relief Angle | |
|-----------------------|---------------------|
| 記號 Symbol | 離隙角 Relief Angle |
| B | 5° |
| C | 7° |
| N | 0° |
| P | 11° |
| | |

| 9 刀片邊寬 Width | |
|-----------------|-------------|
| 記號 Symbol | 圖形 Shape |
| S | |
| T | |
| R | |
| L | |
| C D | |
| E V | |
| A B K | |



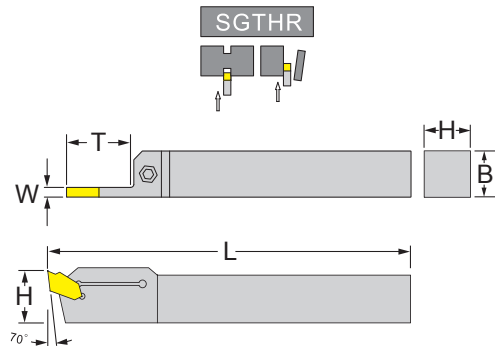
•長度單位 Unit of Length (mm)



SGTHR 切斷刀架

SGTHR CUTTING BLOCK

KOVIT



| 規格 Spec. | H | B | L | W | T | 刀片 Insert | 重量 (KGS) Weight |
|--------------|----|----|-----|---|----|-----------|-----------------|
| SGTHR-1616-2 | 16 | 16 | 110 | 2 | 16 | TGTN2 | 0.24 |
| SGTHR-2020-2 | 20 | 20 | 125 | 2 | 18 | TGTN2 | 0.41 |
| SGTHR-2020-3 | 20 | 20 | 125 | 3 | 20 | TGTN3 | 0.41 |
| SGTHR-2525-3 | 25 | 25 | 150 | 3 | 25 | TGTN3 | 0.67 |
| SGTHR-2525-4 | 25 | 25 | 150 | 4 | 30 | TGTN4 | 0.67 |

配件表 Accessories

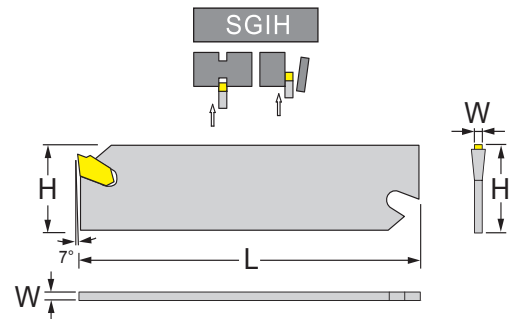
| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|----------|-----------|------------------|
| TGTN2 | SH-M5-21 | PL4 | 5.0 |
| TGTN3 | SH-M6-25 | PL5 | 6.0 |
| TGTN4 | SH-M6-25 | PL5 | 6.0 |



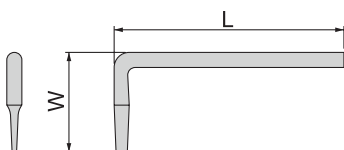
SGIH 切斷刀板

SGIH CUTTING BLOCK

KOVIT

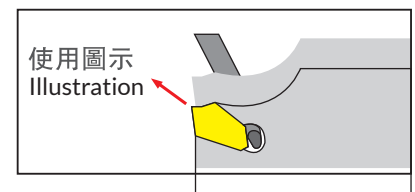


| 規格 Spec. | L | W | H | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|-----|----|-----------|-----------------|
| SGIH-26.3PS-HD | 110 | 2.5 | 26 | TGTN3 | 0.08 |
| SGIH-32.3PS-HD | 150 | 2.5 | 32 | TGTN3 | 0.12 |

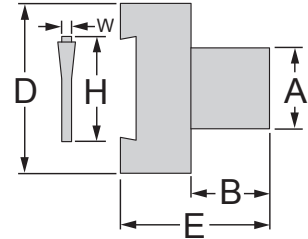
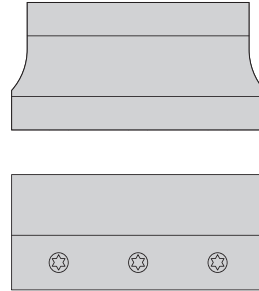


| 規格 Spec. | L | W | 重量 (KGS) Weight |
|----------|----|----|-----------------|
| DW-70 | 70 | 27 | 0.02 |

使用方式：使用拆卸扳手卸下刀片，以免損壞切斷刀具
Instruction: Dismantle insert with a spanner to protect cutters.



•長度單位 Unit of Length (mm)



| 規格 Spec. | A | B | D | E | H | W | 適用刀板 | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-----------|----|----|----|----|----|---|----------------------------------|-----------|------------------|-----------------|
| COH-26×20 | 20 | 20 | 42 | 38 | 26 | - | SGIH-26.3PS-HD SGIH-26.4PS-HD | PL5 | 6.0 | 0.66 |
| COH-32×20 | 20 | 25 | 48 | 42 | 32 | - | SGIH-32.3PS-HD | PL5 | 6.0 | 0.99 |
| COH-32×25 | 25 | 25 | 48 | 42 | 32 | - | SGIH-32.4PS-HD | PL5 | 6.0 | 1.06 |

| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | ○ | ○ | | | | | | | | | | | | | 切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting |
|----------|------------------------|-------------------------------|--------|--------|---|--------------------|--|--|--|--------------|------|-----|------|------------|--|--|--|---|
| | M | 不鏽鋼 Stainless Steels | ○ | ○ | | | | | | | | | | | | | | |
| | K | 鑄鐵 Cast Iron | ○ | ○ | | | | | | | | | | | | | | |
| N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | |
| S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | |
| H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | | |
| 形狀 Shape | 規格 Spec. | 鍍層超微粒 Layer coted micro grain | | | | 超硬微粒 Carbide alloy | | | | 尺寸 (mm) Size | | | | 圖形 Drawing | | | | |
| | | CHF | | | | HF | | | | Size | | | | | | | | |
| | | OM4010 | OM4025 | RM4025 | | OM5005 | | | | d | i | s | r | | | | | |
| | TGTN3 | ● | ● | ● | | ● | | | | - | 11.3 | 3.1 | 0.2 | | | | | |
| | TGTN4 | ● | ● | ● | | ● | | | | - | 11.3 | 4.1 | 0.25 | | | | | |

TGTN_3.4 切削條件數據表 Cutting Parameter

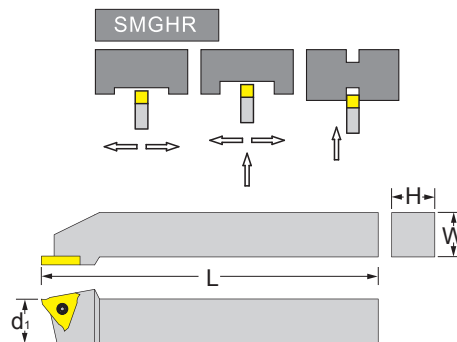
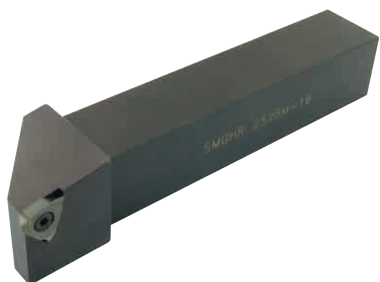
| 被加工材質 Machining Materials | 刀片材質 Grade | 切削速度 Vc(m/min) | 每刃進給 (mm) |
|---------------------------|------------|----------------|-----------------|
| P 合金鋼 Alloyed Steel | OM4010 | 90~250 | 0.08(0.06~0.12) |
| | OM4025 | 90~230 | 0.08(0.06~0.12) |
| | RM4025 | 90~230 | 0.08(0.06~0.12) |
| M 不鏽鋼 Stainless Steels | OM4010 | 55~110 | 0.06(0.06~0.12) |
| | OM4025 | 55~100 | 0.06(0.06~0.12) |
| K 鑄鐵 Cast Iron | OM4025 | 110~275 | 0.08(0.06~0.12) |
| N 鋁合金 Aluminum&Al | OM5005 | 500~700 | 0.15(0.15~0.17) |

•長度單位 Unit of Length (mm)

SMGHR 截溝車牙刀架

SMGHR THREADING TOOL

KOVIT



特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made of anti-vibration tool steel.
- After heat treatment, we will finish the cutter again for better accuracy.

| 規格 Spec. | L | d ₁ | W | H | 刀片 Insert | 重量 (KGS) Weight |
|---------------|-----|----------------|----|----|----------------------------|-----------------|
| SMGHR 2020K16 | 125 | 20 | 20 | 20 | SMGTR16X2 (截溝 Grooving) | 0.43 |
| SMGHR 2525M16 | 150 | 25 | 25 | 25 | SMTTR160360 (車牙 Threading) | 0.74 |

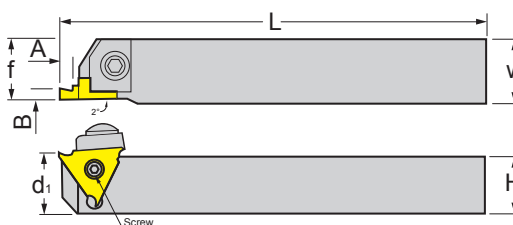
配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|----------------------------|---------------|-----------|------------------|
| SMGTR16X2 (截溝 Grooving) | M4-8.2-6.2-90 | T15 | 3.0 |
| SMTTR160360 (車牙 Threading) | M4-8.2-6.2-90 | T15 | 3.0 |

WGHR 外徑開槽刀架

WGHR EXTERNAL GROOVING TOOL

KOVIT



| 規格 Spec. | H | W | L | f | d ₁ | A | B | 刀片 Insert | 重量 (KGS) Weight |
|-----------------|----|----|-----|----|----------------|-----|----------|---------------------------|-----------------|
| WGHR-1616K-4125 | 16 | 16 | 125 | 20 | 16 | 3 | 1.25~2.3 | TGAR 4125 4400 | 0.29 |
| WGHR-1616K-4235 | 16 | 16 | 125 | 20 | 16 | 4.5 | 2.3~3.3 | | 0.29 |
| WGHR-1616K-4300 | 16 | 16 | 125 | 20 | 16 | 4.5 | 3.3~4.7 | | 0.29 |
| WGHR-1616K-4125 | 20 | 20 | 125 | 25 | 20 | 3 | 1.25~2.3 | | 0.45 |
| WGHR-2020K-4235 | 20 | 20 | 125 | 25 | 20 | 4.5 | 2.3~3.3 | | 0.45 |
| WGHR-2020K-4300 | 20 | 20 | 125 | 25 | 20 | 4.5 | 3.3~4.7 | | 0.45 |
| WGHR-2525M-4125 | 25 | 25 | 150 | 32 | 25 | 3 | 1.25~2.3 | | 0.84 |
| WGHR-2525M-4235 | 25 | 25 | 150 | 32 | 25 | 4.5 | 2.3~3.3 | | 0.84 |
| WGHR-2525M-4300 | 25 | 25 | 150 | 32 | 25 | 4.5 | 3.3~4.7 | | 0.84 |

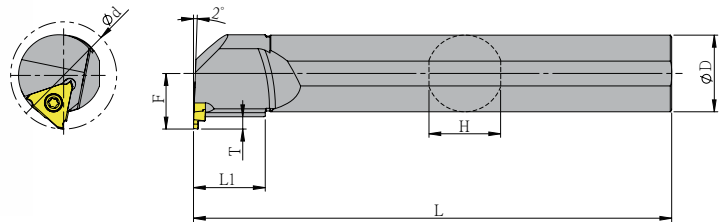
配件表 Accessories

| 刀片 Insert | 彈簧 Spring | 壓板 Clamp | 壓板螺絲 Clamp Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|---------------------------|-----------|----------|------------------|-----------|------------------|
| TGAR 4125 4400 | MES3 | MTK1R | HTR623 | PL4 | 5.0 |

※ 可適用刀片：TGAR/TGER/GB43R ※ Application inserts: TGAR/TGER/GB43R

• 長度單位 Unit of Length (mm)

NEW



| 規格 Spec. | D | d | L | L2 | 刀片 Insert | 重量 (KGS) Weight |
|--------------|----|----|-----|----|---------------------------|-----------------|
| S32S-SGHR-43 | 40 | 32 | 250 | 30 | TGAR 4125 I 4400 | 0.43 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|---------------------------|--------------|-----------|------------------|
| TGAR 4125 I 4400 | M5-11-7.0-55 | TL20 | 5 |



範例 Example

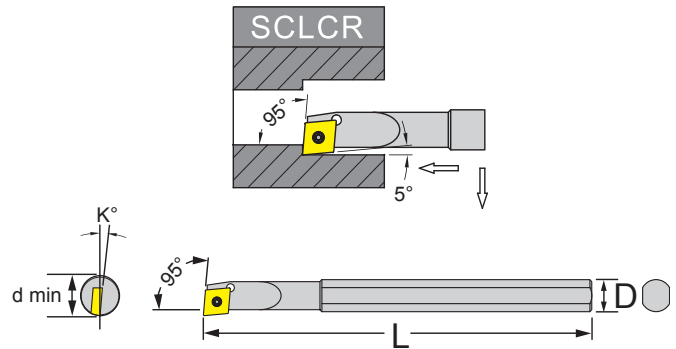
適用加工 O 型環槽
Suitable for processing O-ring grooves.

•長度單位 Unit of Length (mm)

SCLCR 內徑車刀架

SCLCR INTERNAL TURNING TOOL

KOVIT

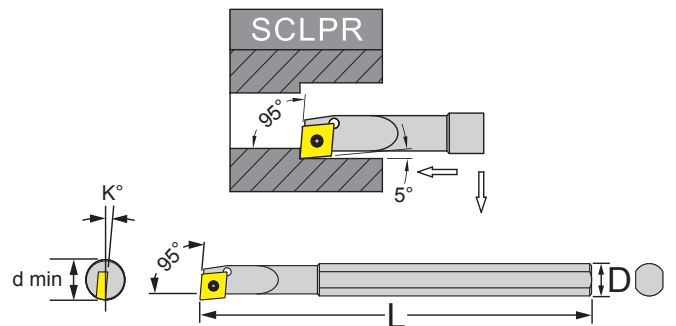


| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------------|-----|----|--------|-----------|-----------------|-----------|------------------|-----------------|
| S08K-SCLCR-06 | 125 | 8 | 10 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.06 |
| S10K-SCLCR-06 | 125 | 10 | 12 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.09 |
| S12M-SCLCR-06 | 150 | 12 | 16 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.14 |
| S16Q-SCLCR-09T | 180 | 16 | 20 | CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 | 0.30 |
| S20R-SCLCR-09T | 200 | 20 | 25 | CC..09T3 | M4-10-5.7-60 | T15 | 3.0 | 0.50 |
| S25S-SCLCR-09T | 250 | 25 | 32 | CC..09T3 | M4-10-5.7-60 | T15 | 3.0 | 0.86 |

SCLPR 內徑車刀架

SCLPR INTERNAL TURNING TOOL

KOVIT



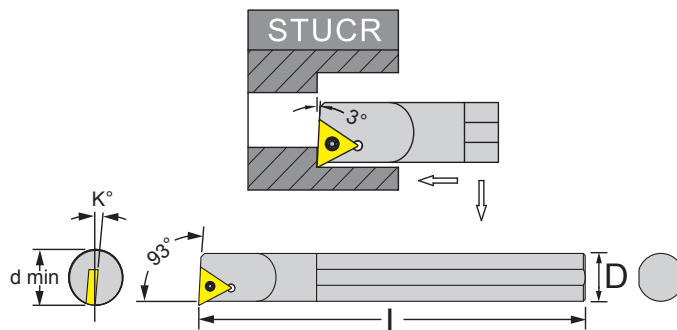
| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|--------|-----------|-----------------|-----------|------------------|-----------------|
| S08H-SCLPR-06 | 100 | 8 | 10 | CP..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.06 |
| S10K-SCLPR-06 | 125 | 10 | 12 | CP..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.09 |
| S12M-SCLPR-06 | 150 | 12 | 16 | CP..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.15 |
| S16Q-SCLPR-09 | 180 | 16 | 20 | CP..0903 | M4-10-5.7-60 | T15 | 3.0 | 0.30 |
| S20R-SCLPR-09 | 200 | 20 | 25 | CP..0903 | M4-10-5.7-60 | T15 | 3.0 | 0.49 |
| S25R-SCLPR-09 | 200 | 25 | 30 | CP..0903 | M4-10-5.7-60 | T15 | 3.0 | 0.93 |

•長度單位 Unit of Length (mm)



STUCR 內徑車刀架 STUCR INTERNAL TURNING TOOL

KOVIT

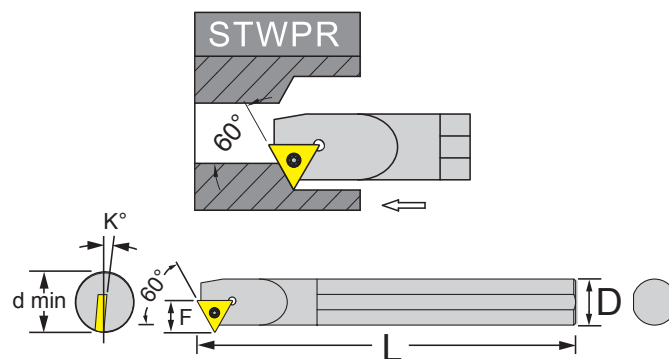


| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|-----------|--------------|-----------------|--------------|------------------------|-----------------------|
| S08H-STUCR-09 | 100 | 8 | 10 | TC..0902 | M2.2-5.5-3.4-60 | T7 | 0.9 | 0.05 |
| S10K-STUCR-11 | 125 | 10 | 12 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.09 |
| S12M-STUCR-11 | 150 | 12 | 16 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.14 |
| S16Q-STUCR-11 | 180 | 16 | 20 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.28 |
| S20R-STUCR-16 | 200 | 20 | 25 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 0.48 |
| S25R-STUCR-16 | 200 | 25 | 30 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 0.86 |



STWPR/STWCR 內徑車刀架 STWPR/STWCR INTERNAL TURNING TOOL

KOVIT



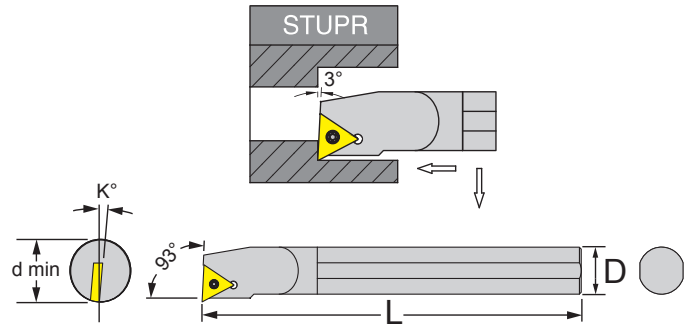
| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|-----------|--------------|-----------------|--------------|------------------------|-----------------------|
| S08K-STWPR-09 | 125 | 8 | 11 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.06 |
| S10K-STWCR-09 | 125 | 10 | 10 | TC..0902 | M2.2-5.5-3.4-60 | T7 | 0.9 | 0.08 |
| S10K-STWCR-11 | 125 | 10 | 13 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.09 |
| S12M-STWCR-11 | 150 | 12 | 16 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.12 |
| S16M-STWPR-09 | 150 | 16 | 16 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.22 |
| S16Q-STWCR-11 | 180 | 16 | 20 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.29 |
| S20R-STWCR-11 | 200 | 20 | 25 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.47 |

•長度單位 Unit of Length (mm)

STUBR/STUPR 內徑車刀架

STUBR/STUPR INTERNAL TURNING TOOL

KOVIT

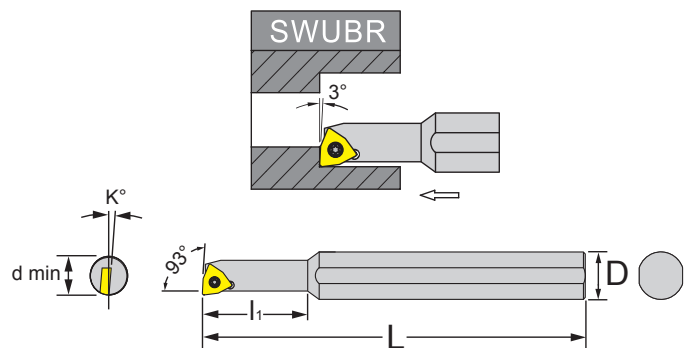


| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-----------------|-----|----|-----------|--------------|-----------------|--------------|------------------------|-----------------------|
| S0806H-STUBR-06 | 100 | 8 | 8 | TB..0601 | M2-3.8-2.68-43 | T6 | 0.6 | 0.05 |
| S08H-STUPR-09 | 100 | 8 | 10 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.05 |
| S10K-STUPR-09 | 125 | 10 | 12 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.11 |
| S10K-STUPR-11 | 125 | 10 | 12 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.09 |
| S12M-STUPR-11 | 150 | 12 | 16 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.14 |
| S16Q-STUPR-11 | 180 | 16 | 20 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.30 |
| S20R-STUPR-11 | 200 | 20 | 25 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.49 |
| S20R-STUPR-1603 | 200 | 20 | 25 | TP..1603 | M4-10-5.7-60 | T15 | 3.0 | 0.48 |
| S25S-STUPR-1603 | 250 | 25 | 32 | TP..1603 | M4-10-5.7-60 | T15 | 3.0 | 0.85 |

SWUBR 內徑車刀架

SWUBR INTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | l ₁ | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-----------------|-----|----------------|----|-----------|--------------|----------------|--------------|------------------------|-----------------------|
| S1005H-SWUBR-06 | 100 | 15 | 10 | 6 | WB..0601 | M2-3.8-2.68-43 | T6 | 0.6 | 0.08 |
| S1006H-SWUBR-06 | 100 | 18 | 10 | 7 | WB..0601 | M2-3.8-2.68-43 | T6 | 0.6 | 0.09 |

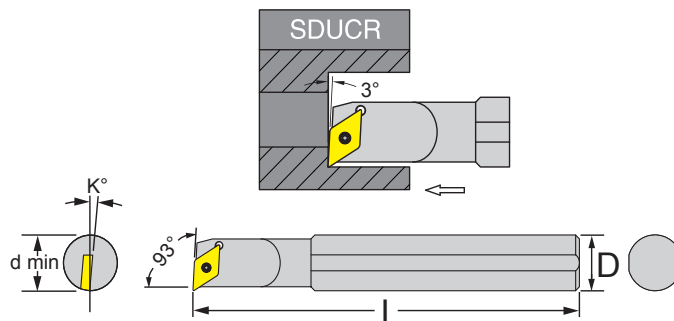
•長度單位 Unit of Length (mm)



SDUCR 內徑車刀架

SDUCR INTERNAL TURNING TOOL

KOVIT



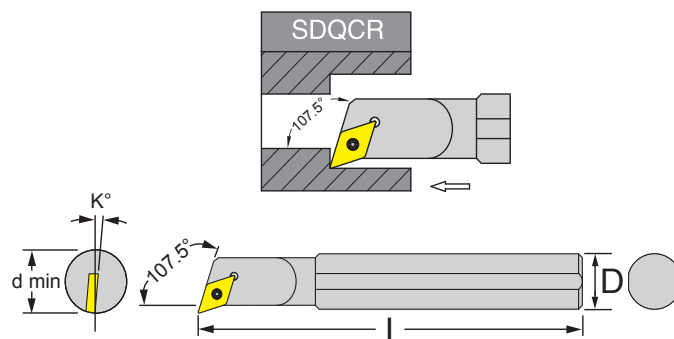
| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|--------|-----------|-----------------|-----------|------------------|-----------------|
| S10K-SDUCR-07 | 125 | 10 | 13 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.09 |
| S12M-SDUCR-07 | 150 | 12 | 16 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.15 |
| S16Q-SDUCR-11 | 180 | 16 | 20 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.30 |
| S20R-SDUCR-11 | 200 | 20 | 25 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.49 |
| S25R-SDUCR-11 | 200 | 25 | 32 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.87 |



SDQCR 內徑車刀架

SDQCR INTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|--------|-----------|-----------------|-----------|------------------|-----------------|
| S10K-SDQCR-07 | 125 | 10 | 13 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.09 |
| S12M-SDQCR-07 | 150 | 12 | 16 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.14 |
| S16Q-SDQCR-07 | 180 | 16 | 20 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.28 |
| S20R-SDQCR-11 | 200 | 20 | 25 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.48 |
| S25R-SDQCR-11 | 200 | 25 | 32 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.84 |

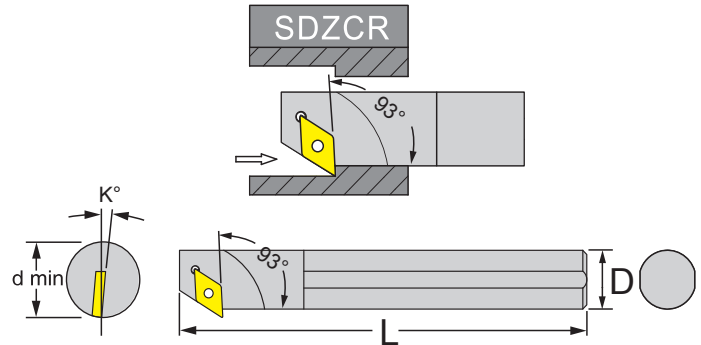
•長度單位 Unit of Length (mm)



SDZCR 內徑車刀架

SDZCR INTERNAL TURNING TOOL

KOVIT



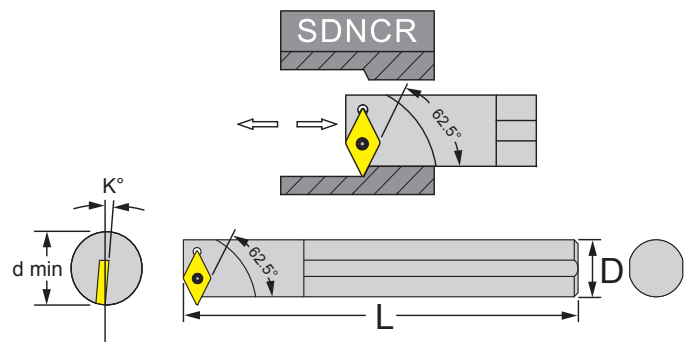
| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|-----------|--------------|-----------------|--------------|------------------------|-----------------------|
| S10M-SDZCR-07 | 150 | 10 | 14 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.10 |
| S12M-SDZCR-07 | 150 | 12 | 17 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.15 |
| S16Q-SDZCR-07 | 180 | 16 | 21 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.29 |
| S20R-SDZCR-11 | 200 | 20 | 26 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.48 |
| S25R-SDZCR-11 | 200 | 25 | 33 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.74 |



SDNCR 內徑車刀架

SDNCR INTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|-----------|--------------|-----------------|--------------|------------------------|-----------------------|
| S16Q-SDNCR-07 | 180 | 16 | 20 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.28 |
| S20R-SDNCR-11 | 200 | 20 | 25 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.49 |
| S25R-SDNCR-11 | 200 | 25 | 32 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.86 |

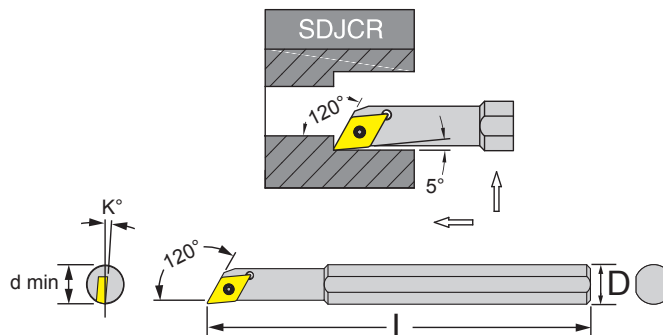
•長度單位 Unit of Length (mm)



SDJCR 內徑車刀架

SDJCR INTERNAL TURNING TOOL

KOVIT



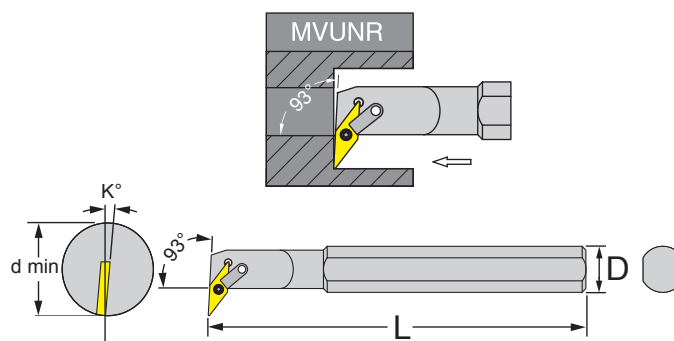
| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|--------|-----------|-----------------|-----------|------------------|-----------------|
| S08H-SDJCR-07 | 100 | 8 | 10 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.07 |
| S10K-SDJCR-07 | 125 | 10 | 12 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.10 |
| S12M-SDJCR-07 | 150 | 12 | 14 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.15 |
| S16Q-SDJCR-07 | 180 | 16 | 19 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.28 |
| S16Q-SDJCR-11 | 180 | 16 | 19 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.29 |
| S20R-SDJCR-11 | 200 | 20 | 23 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.48 |
| S25R-SDJCR-11 | 200 | 25 | 28 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.85 |



MVUNR 內徑車刀架

MVUNR INTERNAL TURNING TOOL

KOVIT



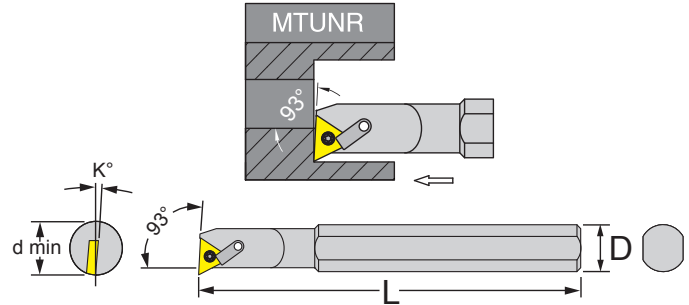
| 規格 Spec. | L | D | d | 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|----|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|-----------------|
| S25R-MVUNR-16 | 200 | 25 | 32 | VN..1604 | - | MLP33L | PL2 | 3.0 | MC515 | MS520 | PL2.5 | 5.0 | 0.86 |
| S32S-MVUNR-16 | 250 | 32 | 40 | | VMS322 | MLP34L | | | MC620 | MS625 | PL3 | | 1.56 |

•長度單位 Unit of Length (mm)

MTUNR 內徑車刀架

MTUNR INTERNAL TURNING TOOL

KOVIT

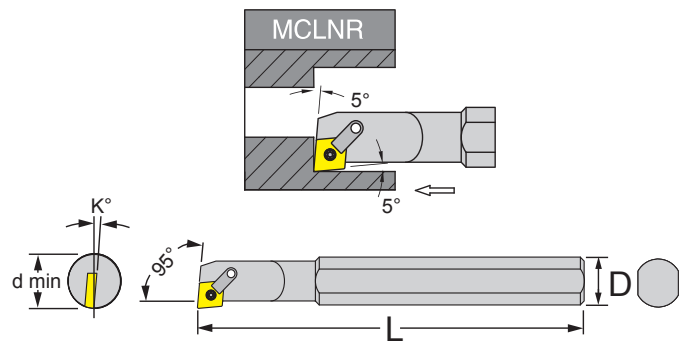


| 規格 Spec. | L | D | d | 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|----|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|-----------------|
| S20R-MTUNR-16 | 200 | 20 | 25 | TN..1604 | - | MLP33L | PL2 | 3.0 | MC515 | MS520 | PL2.5 | 5.0 | 0.48 |
| S25R-MTUNR-16 | 200 | 25 | 30 | TN..1604 | - | MLP33L | PL2 | 3.0 | MC515 | MS520 | PL2.5 | 5.0 | 0.94 |
| S32S-MTUNR-16 | 250 | 32 | 40 | TN..1604 | TMS322 | MLP34L | PL2 | 3.0 | MC620 | MS625 | PL3 | 5.0 | 1.56 |

MCLNR 內徑車刀架

MCLNR INTERNAL TURNING TOOL

KOVIT



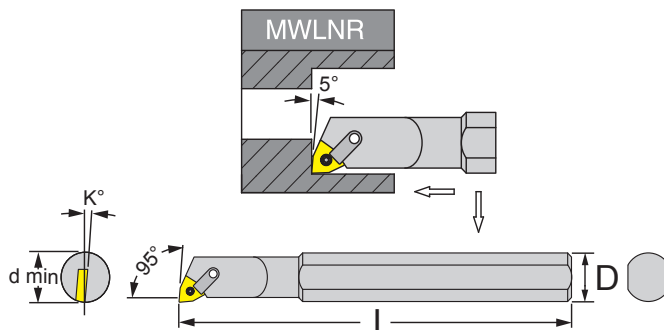
| 規格 Spec. | L | D | d | 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|----|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|-----------------|
| S20R-MCLNR-12 | 200 | 20 | 25 | CN..1204 | - | MLP44 | PL2.5 | 5.0 | MC620 | MS620 | PL3 | 5.0 | 0.48 |
| S25R-MCLNR-12 | 200 | 25 | 30 | CN..1204 | - | MLP44 | PL2.5 | 5.0 | MC620 | MS620 | PL3 | 5.0 | 0.94 |
| S32S-MCLNR-12 | 250 | 32 | 40 | CN..1204 | CMS432 | MLP46 | PL2.5 | 5.0 | MC620 | MS625 | PL3 | 5.0 | 1.56 |

•長度單位 Unit of Length (mm)



MWLNR 內徑車刀架 MWLNR INTERNAL TURNING TOOL

KOVIT

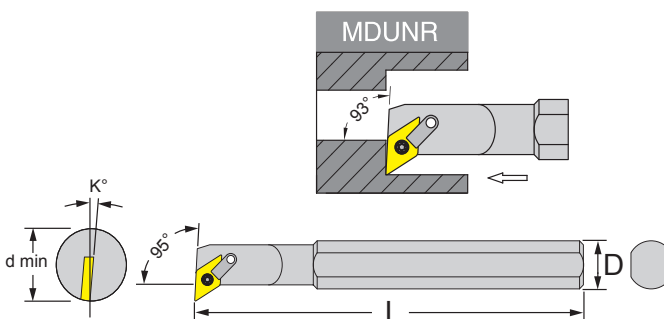


| 規格 Spec. | L | D | d | 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|----|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|-----------------|
| S20R-MWLNR-08 | 200 | 20 | 25 | WN..0804 | - | MLP44 | PL2.5 | 5.0 | MC515 | MS520 | PL2.5 | 5.0 | 0.47 |
| S25R-MWLNR-08 | 200 | 25 | 30 | WN..0804 | - | MLP44 | PL2.5 | 5.0 | MC515 | MS520 | PL2.5 | 5.0 | 0.85 |
| S32S-MWLNR-08 | 250 | 32 | 40 | WN..0804 | WMS432 | MLP46 | PL2.5 | 5.0 | MC515 | MS520 | PL2.5 | 5.0 | 1.54 |



MDUNR 內徑車刀架 MDUNR INTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | D | d | 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|----|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|-----------------|
| S25R-MDUNR-15 | 200 | 25 | 32 | DN..1504 | - | MLP44 | PL2.5 | 5.0 | MC620 | MS620 | PL3 | 5.0 | 0.86 |
| S32S-MDUNR-15 | 250 | 32 | 40 | DN..1504 | - | MLP46 | PL2.5 | 5.0 | MC620 | MS625 | PL3 | 5.0 | 1.6 |

•長度單位 Unit of Length (mm)

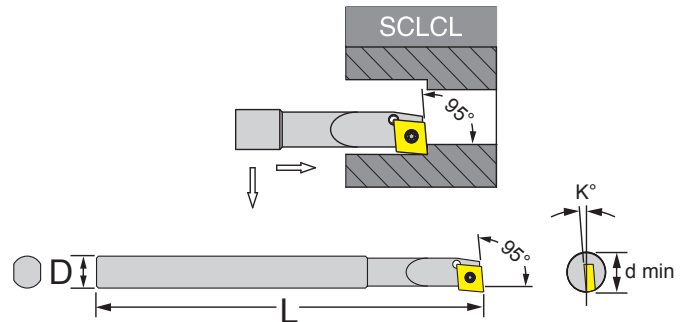


SCLCL 內徑車刀架

SCLCL INTERNAL TURNING TOOL

KOVIT

左旋
Counterclockwise



| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------------|-----|----|-----------|--------------|-----------------|--------------|------------------------|-----------------------|
| S08K-SCLCL-06 | 100 | 8 | 10 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.07 |
| S10K-SCLCL-06 | 125 | 10 | 12 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.01 |
| S12M-SCLCL-06 | 150 | 12 | 16 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.14 |
| S16Q-SCLCL-09T | 180 | 16 | 20 | CC..09T3 | M4-10-5.7-60 | T15 | 3.0 | 0.30 |
| S20R-SCLCL-09T | 200 | 20 | 25 | CC..09T3 | M4-10-5.7-60 | T15 | 3.0 | 0.49 |
| S25R-SCLCL-09T | 200 | 25 | 30 | CC..09T3 | M4-10-5.7-60 | T15 | 3.0 | 0.77 |

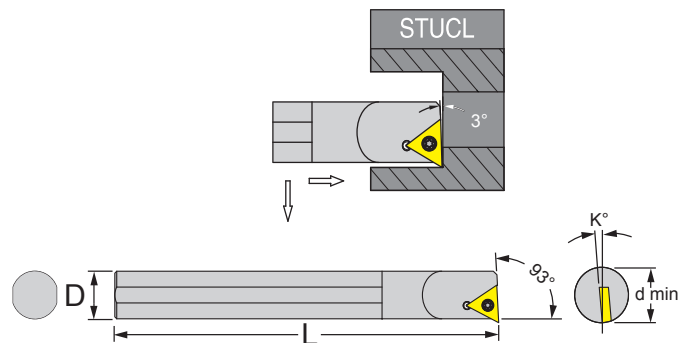


STUCL 內徑車刀架

STUCL INTERNAL TURNING TOOL

KOVIT

左旋
Counterclockwise



| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|-----------|--------------|-----------------|--------------|------------------------|-----------------------|
| S08H-STUCL-09 | 100 | 8 | 10 | TC..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.07 |
| S10K-STUCL-11 | 125 | 10 | 12 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.09 |
| S12M-STUCL-11 | 150 | 12 | 16 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.15 |
| S16Q-STUCL-11 | 180 | 16 | 20 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.29 |
| S20R-STUCL-16 | 200 | 20 | 25 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 0.49 |
| S25R-STUCL-16 | 200 | 25 | 30 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 0.95 |

•長度單位 Unit of Length (mm)

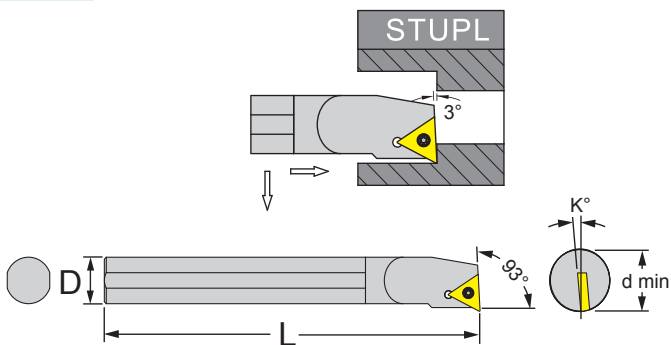


STUBL/STUPL 內徑車刀架

STUBL/STUPL INTERNAL TURNING TOOL

KOVIT

左旋
Counterclockwise



| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-----------------|-----|----|--------|-----------|-----------------|-----------|------------------|-----------------|
| S0806H-STUBL-06 | 100 | 8 | 8 | TB..0601 | M2-3.8-2.68-43 | T6 | 0.6 | 0.06 |
| S08H-STUPL-09 | 125 | 8 | 10 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.06 |
| S10K-STUPL-09 | 125 | 10 | 12 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.06 |
| S10K-STUPL-11 | 125 | 10 | 12 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.10 |
| S12M-STUPL-11 | 150 | 12 | 16 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.14 |
| S16Q-STUPL-11 | 180 | 16 | 20 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.28 |
| S20R-STUPL-11 | 200 | 20 | 25 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.50 |
| S20R-STUPL-1603 | 200 | 20 | 25 | TP..1603 | M4-10-5.7-60 | T15 | 3.0 | 0.48 |
| S25R-STUPL-1603 | 200 | 25 | 30 | TP..1603 | M4-10-5.7-60 | T15 | 3.0 | 0.86 |

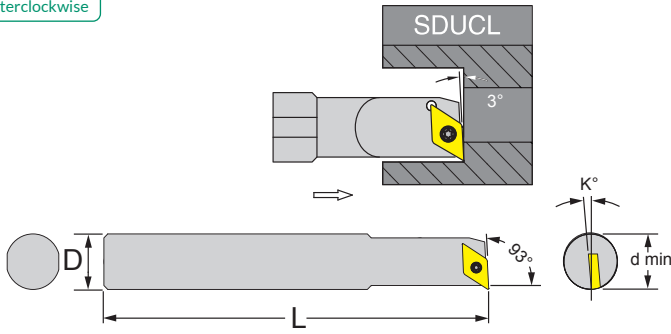


SDUCL 內徑車刀架

SDUCL INTERNAL TURNING TOOL

KOVIT

左旋
Counterclockwise



| 規格 Spec. | L | D | 有效孔徑 d | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|--------|-----------|-----------------|-----------|------------------|-----------------|
| S10K-SDUCL-07 | 125 | 10 | 13 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.09 |
| S12M-SDUCL-07 | 150 | 12 | 16 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.09 |
| S16Q-SDUCL-11 | 180 | 16 | 20 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.30 |
| S20R-SDUCL-11 | 200 | 20 | 25 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.48 |
| S25R-SDUCL-11 | 200 | 25 | 32 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.75 |

•長度單位 Unit of Length (mm)

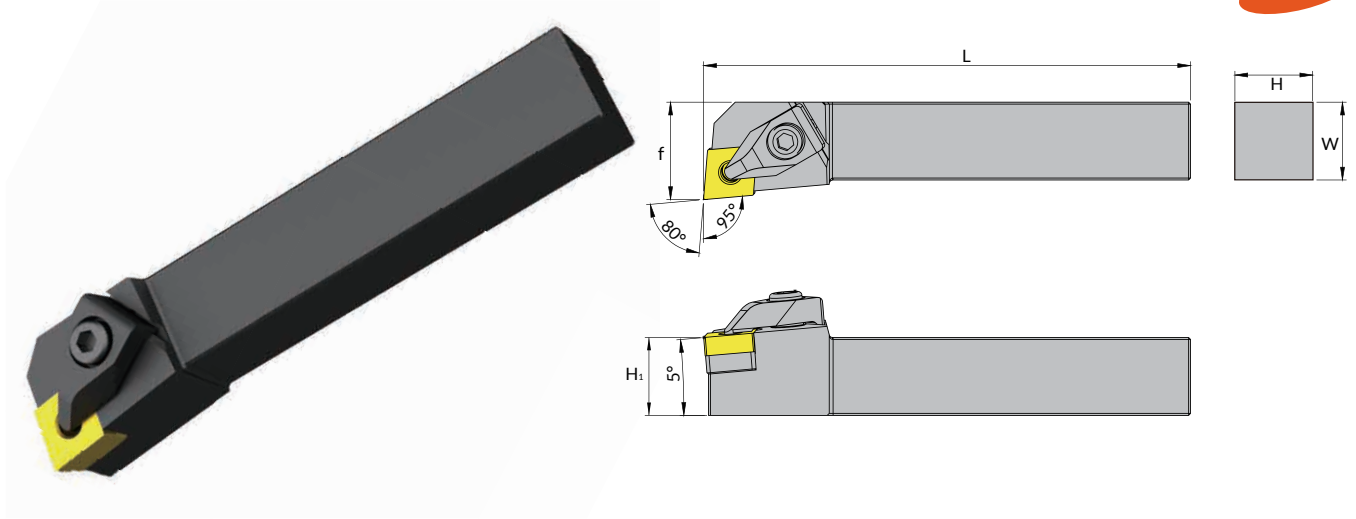
DCLNR 外徑車刀

DCLNR EXTERNAL TURNING TOOL

D 型壓板設計 Type D Clamp Design

KOVIT

NEW



特點 Feature

- 刀片鎖固定位性佳
- 剛性夾持·強力鎖固
- 輕鬆轉位
- 減少換刀校刀時間

- The blade lock has good fixation.
- Rigid clamping and strong locking.
- Easy transposition.
- Reduce tool change and calibration time.

| 規格 Spec. | L | H | W | H1 | f | 刀片 insert | 重量 (KGS) Weight |
|----------------|-----|----|----|----|----|--------------|-----------------------|
| DCLNR-2020K-12 | 125 | 20 | 20 | 20 | 25 | CN..1204 | 0.45 |
| DCLNR-2525M-12 | 150 | 25 | 25 | 25 | 32 | CN..1204 | 0.8 |

配件表 Accessories

| 規格 Spec. | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 彈簧 Spring | 扳手 Wrench | 扭力值 (N.m) Torque |
|----------------|------------|--------------------|--------------|------------------------|-------------|---------------------|--------------|--------------|------------------------|
| DCLNR-2020K-12 | CNS1204 | M4-10-5.7-60 | T15 | 3 | DCP-2 | M5-20-4.9 | DCS-2 | PL4 | 5 |
| DCLNR-2525M-12 | | | | | | | | | |

•長度單位 Unit of Length (mm)

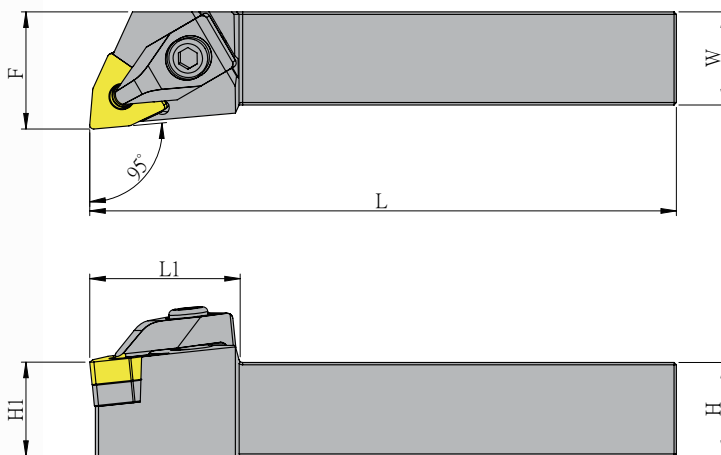


DWLNR 外徑車刀 DWLNR EXTERNAL TURNING TOOL

D 型壓板設計 Type D Clamp Design

KOVIT

NEW



特點 Feature

- 刀片鎖固定位性佳
- 剛性夾持·強力鎖固
- 輕鬆轉位
- 減少換刀校刀時間

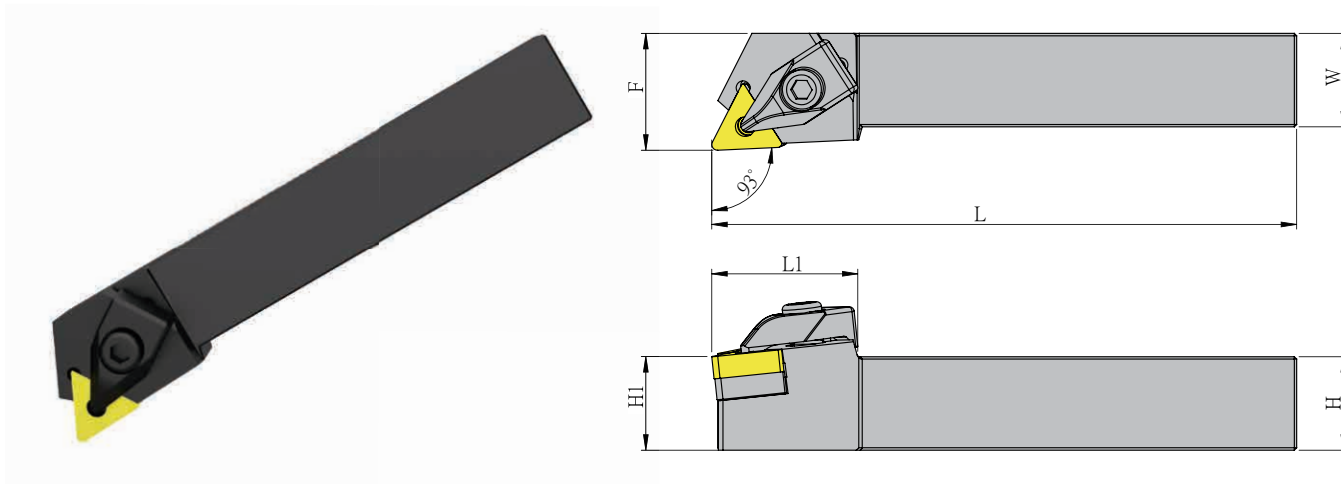
- The blade lock has good fixation.
- Rigid clamping and strong locking.
- Easy transposition.
- Reduce tool change and calibration time.

| 規格 Spec. | L | H | W | H1 | f | 刀片 insert | 重量 (KGS) Weight |
|----------------|-----|----|----|----|----|-----------|-----------------|
| DWLNR-2020K-08 | 125 | 20 | 20 | 20 | 25 | WN..0804 | 0.45 |
| DWLNR-2525M-08 | 150 | 25 | 25 | 25 | 32 | WN..0804 | 0.8 |

配件表 Accessories

| 規格 Spec. | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 彈簧 Spring | 扳手 Wrench | 扭力值 (N.m) Torque |
|----------------|---------|-----------------|-----------|------------------|----------|------------------|-----------|-----------|------------------|
| DWLNR-2020K-08 | WNS0804 | M5-12-7.1-70 | T20 | 3 | DCP-2 | M5-20-4.9 | DCS-2 | PL4 | 5 |
| DWLNR-2525M-08 | | | | | | | | | |

•長度單位 Unit of Length (mm)



特點 Feature

- 刀片鎖固定位性佳
- 剛性夾持·強力鎖固
- 輕鬆轉位
- 減少換刀校刀時間

- The blade lock has good fixation.
- Rigid clamping and strong locking.
- Easy transposition.
- Reduce tool change and calibration time.

| 規格 Spec. | L | H | W | H1 | f | 刀片 insert | 重量 (KGS) Weight |
|----------------|-----|----|----|----|----|-----------|-----------------|
| DTJNR-2020K-16 | 125 | 20 | 20 | 20 | 25 | TN..1604 | 0.45 |
| DTJNR-2525M-16 | 150 | 25 | 25 | 25 | 32 | TN..1604 | 0.8 |

配件表 Accessories

| 規格 Spec. | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 彈簧 Spring | 扳手 Wrench | 扭力值 (N.m) Torque |
|----------------|---------|-----------------|-----------|------------------|----------|------------------|-----------|-----------|------------------|
| DTJNR-2020K-16 | TNS1604 | M4-9-5.15-47 | T15 | 3 | DCP-1 | M5-20-4.9 | DCS-2 | PL4 | 5 |
| DTJNR-2525M-16 | | | | | | | | | |

•長度單位 Unit of Length (mm)



WTJNR/WTJNL 外徑車刀架

WTJNR/WTJNL EXTERNAL TURNING TOOL

KOVIT

Fig.1

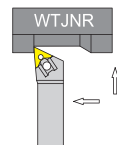


Fig.2



Fig.1

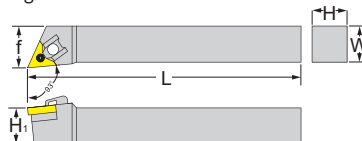
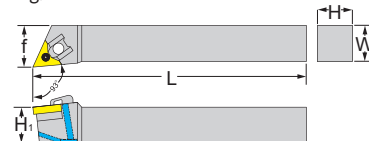


Fig.2



| 規格 Spec. | L | H | W | H ₁ | f | 刀片 Insert | Fig. | 重量 (KGS) Weight |
|--------------------|-----|----|----|----------------|----|-----------|------|-----------------|
| WTJNR-1616K-16 | 125 | 16 | 16 | 16 | 21 | TN..1604 | 1 | 0.31 |
| WTJNL-1616K-16 | 125 | 16 | 16 | 16 | 21 | TN..1604 | 1 | 0.25 |
| WTJNR-2020K-16 | 125 | 20 | 20 | 20 | 25 | TN..1604 | 1 | 0.44 |
| WTJNL-2020K-16 | 125 | 20 | 20 | 20 | 25 | TN..1604 | 1 | 0.45 |
| WTJNR-2525M-16 | 150 | 25 | 25 | 25 | 32 | TN..1604 | 1 | 0.78 |
| WTJNL-2525M-16 | 150 | 25 | 25 | 25 | 32 | TN..1604 | 1 | 0.77 |
| WTJNR-A2020K-16JET | 125 | 20 | 20 | 20 | 25 | TN..1604 | 2 | 0.44 |
| WTJNR-A2525M-16JET | 150 | 25 | 25 | 25 | 32 | TN..1604 | 2 | 0.78 |

• 出水型 Coolant Type

配件表 Accessories

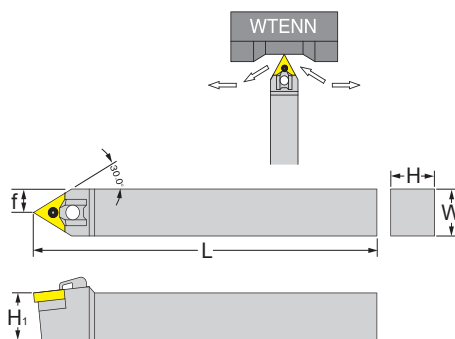
| 規格 Spec. | 螺絲 Screw | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque | C 扣 C Ring | 墊圈 Shim |
|--------------------|----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|------------|---------|
| WTJNR/L-1616K-16 | MCS3S-11 | TWS322 | MCP3 | PL3 | 5.0 | MCW3 | MCS3 | PL4 | 5.0 | E4 | E5 |
| WTJNR/L-2020K-16 | | | | | | | | | | | |
| WTJNR/L-2525M-16 | | | | | | | | | | | |
| WTJNR-A2020K-16JET | | | | | | | | | | | |
| WTJNR-A2525M-16JET | | | | | | | | | | | |



WTENN 外徑車刀架

WTENN EXTERNAL TURNING TOOL

KOVIT



| 規格 Spec.. | L | H | W | H ₁ | f | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----|----|----------------|------|-----------|-----------------|
| WTENN-2020K-16 | 125 | 20 | 20 | 20 | 10 | TN..1604 | 0.42 |
| WTENN-2525M-16 | 150 | 25 | 25 | 25 | 12.5 | TN..1604 | 0.75 |

配件表 Accessories

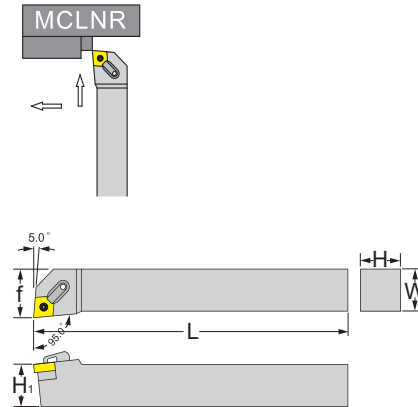
| 規格 Spec.. | 螺絲 Screw | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque | C 扣 C Ring | 墊圈 Shim |
|----------------|----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|------------|---------|
| WTENN-2020K-16 | MCS3S-09 | TWS322 | MCP3 | PL3 | 5.0 | MCW3 | MCS3 | PL4 | 5.0 | E4 | E5 |
| WTENN-2525M-16 | | | | | | | | | | | |

• 長度單位 Unit of Length (mm)

MCLNR/MCLNL 外徑車刀架

MCLNR/MCLNL EXTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | H | W | H ₁ | f | 刀片 Insert | Fig. | 重量 (KGS) Weight |
|----------------|-----|----|----|----------------|----|-----------|------|-----------------|
| MCLNR-2020K-12 | 125 | 20 | 20 | 20 | 25 | CN..1204 | 1 | 0.45 |
| MCLNL-2020K-12 | 125 | 20 | 20 | 20 | 25 | CN..1204 | 1 | 0.44 |
| MCLNR-2525M-12 | 150 | 25 | 25 | 25 | 32 | CN..1204 | 1 | 0.82 |
| MCLNL-2525M-12 | 150 | 25 | 25 | 25 | 32 | CN..1204 | 1 | 0.79 |

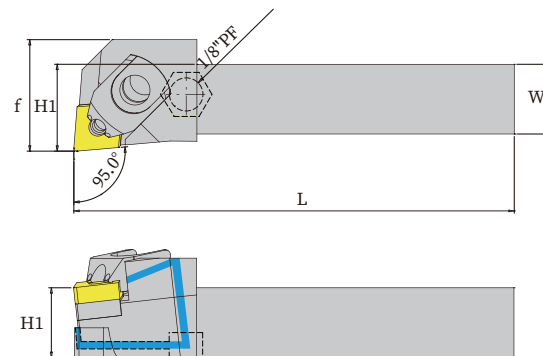
配件表 Accessories

| 規格 Spec. | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|------------------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| MCLNR/L-2020K-12 | CMS432 | MLP46 | PL2.5 | 5.0 | MC620 | MS625 | PL3 | 5.0 |
| MCLNR/L-2525M-12 | CMS432 | MLP46 | PL2.5 | 5.0 | MC620 | MS630 | PL3 | 5.0 |

WCLNR 出水外徑車刀架

WCLNR EXTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | H | W | H ₁ | f | 刀片 Insert | Fig. | 重量 (KGS) Weight |
|--------------------|-----|----|----|----------------|----|-----------|------|-----------------|
| WCLNR-A2020K-12JET | 125 | 20 | 20 | 20 | 25 | CN..1204 | 2 | 0.45 |
| WCLNR-A2525M-12JET | 150 | 25 | 25 | 25 | 32 | CN..1204 | 2 | 0.82 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|--------------------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| WCLNR-A2020K-12JET | CMS432 | MLP46 | PL2.5 | 5.0 | MC620 | MS625 | PL3 | 5.0 |
| WCLNR-A2525M-12JET | | | | | | | | |

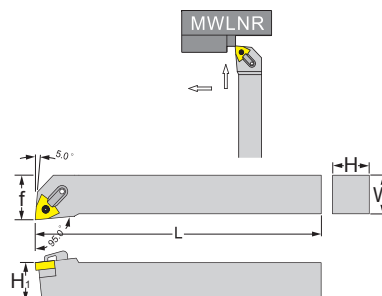
•長度單位 Unit of Length (mm)



MWLNR/MWLNL 外徑車刀架

MWLNR/MWLNL EXTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | H | W | H ₁ | f | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----|----|----------------|----|-----------|-----------------|
| MWLNR-2020K-08 | 125 | 20 | 20 | 20 | 25 | WN..0804 | 0.45 |
| MWLNL-2020K-08 | 125 | 20 | 20 | 20 | 25 | WN..0804 | 0.44 |
| MWLNR-2525M-08 | 150 | 25 | 25 | 25 | 32 | WN..0804 | 0.80 |
| MWLNL-2525M-08 | 150 | 25 | 25 | 25 | 32 | WN..0804 | 0.79 |

配件表 Accessories

| 規格 Spec. | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|------------------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| MWLNR/L-2020K-08 | WMS432 | MLP46 | PL2.5 | 5.0 | MC620 | MS625 | PL3 | 5.0 |
| MWLNR/L-2525M-08 | | | | | | MS630 | | |

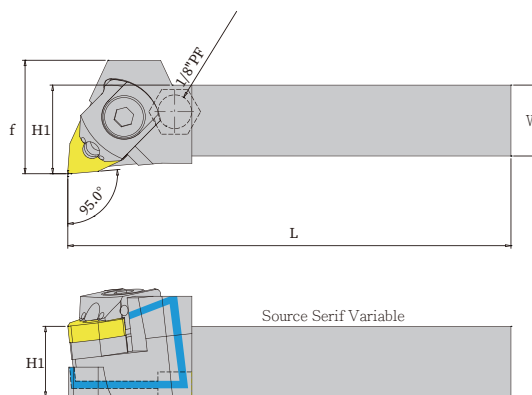


WWLNR 出水外徑車刀架

WWLNR EXTERNAL TURNING TOOL

KOVIT

NEW



| 規格 Spec. | L | H | W | H ₁ | f | 刀片 Insert | 重量 (KGS) Weight |
|--------------------|-----|----|----|----------------|----|-----------|-----------------|
| WWLNR-A2020K-08JET | 125 | 20 | 20 | 20 | 25 | WN..0804 | - |
| WWLNR-A2525M-08JET | 150 | 25 | 25 | 25 | 32 | WN..0804 | - |

配件表 Accessories

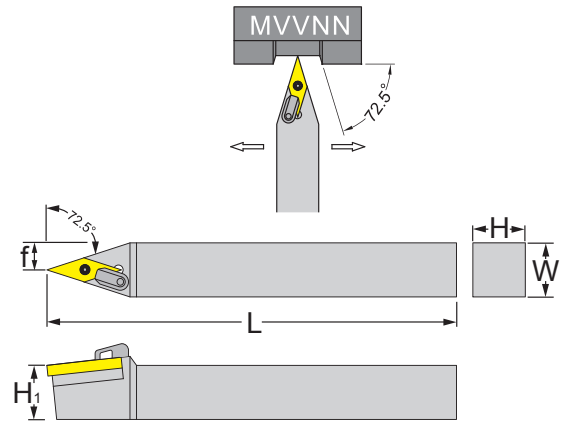
| 規格 Spec. | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|--------------------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| WWLNR-A2020K-08JET | WMS432 | MLP46 | PL2.5 | 5.0 | MC620 | MS625 | PL3 | 5.0 |
| WWLNR-A2525M-08JET | | | | | | | | |

•長度單位 Unit of Length (mm)

MVVNN 外徑車刀架

MVVNN EXTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | H | W | H ₁ | f | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----|----|----------------|------|-----------|-----------------|
| MVVNN-2020K-16 | 125 | 20 | 20 | 20 | 10 | VN..1604 | 0.43 |
| MVVNN-2525M-16 | 150 | 25 | 25 | 25 | 12.5 | VN..1604 | 0.75 |

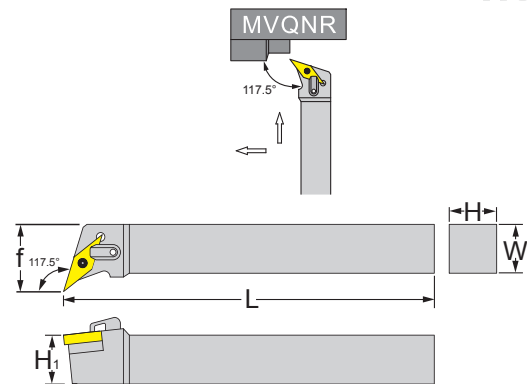
配件表 Accessories

| 規格 Spec. | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|----------------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| MVVNN-2020K-16 | VMS322 | MLP34L | PL2 | 3.0 | MC622 | MS625 | PL3 | 5.0 |
| MVVNN-2525M-16 | | | | | | MS630 | | |

MVQNR 外徑車刀架

MVQNR EXTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | H | W | H ₁ | f | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----|----|----------------|----|-----------|-----------------|
| MVQNR-2020K-16 | 125 | 20 | 20 | 20 | 25 | VN..1604 | 0.45 |
| MVQNR-2525M-16 | 150 | 25 | 25 | 25 | 32 | VN..1604 | 0.79 |

配件表 Accessories

| 規格 Spec. | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|----------------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| MVQNR-2020K-16 | VMS322 | MLP34L | PL2 | 3.0 | MC622 | MS625 | PL3 | 5.0 |
| MVQNR-2525M-16 | | | | | | MS625 | | |

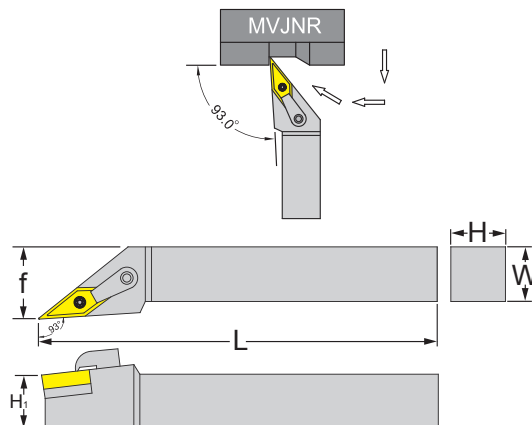
•長度單位 Unit of Length (mm)



MVJNR 外徑車刀架

MVJNR EXTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | H | W | H ₁ | f | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----|----|----------------|----|-----------|-----------------|
| MVJNR-2020K-16 | 125 | 20 | 20 | 20 | 25 | VN..1604 | 0.44 |
| MVJNR-2525M-16 | 150 | 25 | 25 | 25 | 32 | VN..1604 | 0.76 |

配件表 Accessories

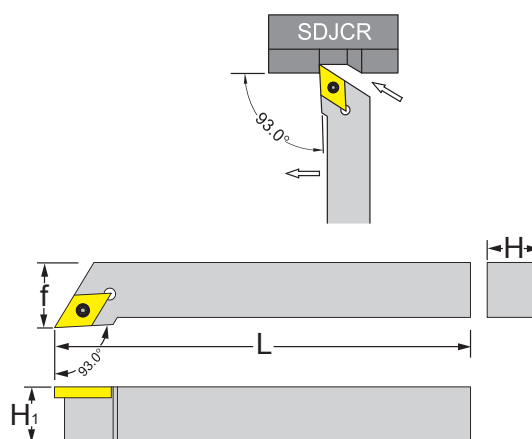
| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|----------------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| MVJNR-2020K-16 | VMS322 | MLP34L | PL2 | 3.0 | MC622 | MS625 | PL3 | 5.0 |
| MVJNR-2525M-16 | | | | | | MS630 | | |



SDJCR 外徑車刀架

SDJCR EXTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | H | H ₁ | f | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------------|-----|----|----------------|----|-----------|--------------|-----------|------------------|-----------------|
| SDJCR-1616K-11 | 120 | 16 | 16 | 20 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.28 |
| SDJCR-2020K-11 | 125 | 20 | 20 | 25 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.41 |

•長度單位 Unit of Length (mm)



SDJ2CR 外徑車刀架

SDJ2CR EXTERNAL TURNING TOOL

KOVIT

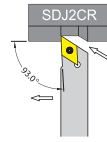


Fig.1

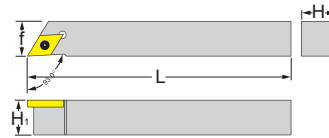
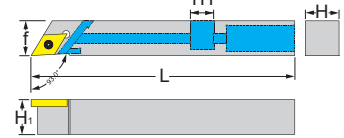


Fig.2



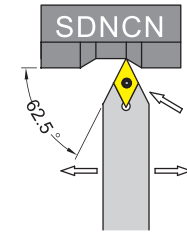
| 規格 Spec. | L | H | H ₁ | f | TH | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-------------------|-----|----|----------------|----|------|--------------|-----------------|--------------|------------------------|------|-----------------------|
| SDJ2CR-1212H-11 | 100 | 12 | 12 | 12 | - | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 1 | 0.13 |
| SDJ2CR-1616K-11 | 125 | 16 | 16 | 16 | - | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 1 | 0.26 |
| ZSDJ2CR-A1212K-11 | 125 | 12 | 12 | 10 | 1/8" | DC..11T3 | M2.5-6.0-3.5-60 | T8 | 3.0 | 2 | 0.13 |
| ZSDJ2CR-A1616K-11 | 125 | 16 | 16 | 14 | 1/8" | DC..11T3 | M2.5-6.0-3.5-60 | T8 | 3.0 | 2 | 0.26 |



SDNCN 外徑車刀架

SDNCN EXTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | H | H ₁ | f | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------------|-----|----|----------------|------|--------------|--------------|--------------|------------------------|-----------------------|
| SDNCN-1212H-11 | 100 | 12 | 12 | 6 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.12 |
| SDNCN-1616K-11 | 125 | 16 | 16 | 8 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.25 |
| SDNCN-2020K-11 | 125 | 20 | 20 | 10 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.40 |
| SDNCN-2525M-11 | 150 | 25 | 25 | 12.5 | DC..11T3 | M4-10-5.7-60 | T15 | 3.0 | 0.72 |

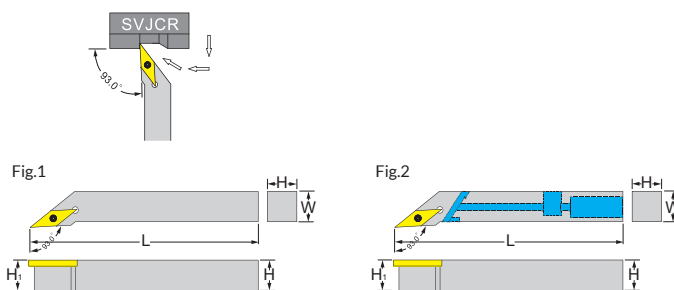
•長度單位 Unit of Length (mm)



SVJCR 外徑車刀架

SVJCR EXTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | H | H ₁ | W | 刀片 Insert | 刀片螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-------------------|-----|----|----------------|----|-----------|------------------|-----------|------------------|-----------------|
| ZSVJ2CR-A1212K-11 | 125 | 12 | 12 | 12 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | - |
| ZSVJ2CR-A1616K-11 | 125 | 16 | 16 | 16 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | - |
| SVJCR-2020K-16 | 125 | 20 | 20 | 20 | VC..1604 | M3.5-11.7-5.3-60 | - | 3.0 | 0.40 |
| SVJCR-2525M-16 | 150 | 25 | 25 | 25 | VC..1604 | M3.5-11.7-5.3-60 | - | 3.0 | 0.70 |

配件表 Accessories

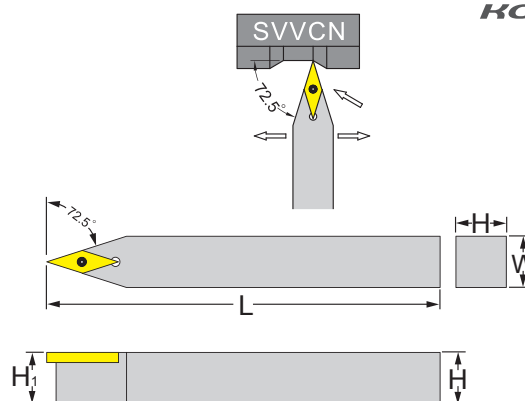
| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 墊片扳手 Shim Wrench | 扭力值 (N.m) Torque |
|-----------|---------|------------------|------------------|------------------|
| VC..1604 | VSS322 | M3.5-11.7-5.3-60 | PL3.5 | 5.0 |



SVVCN 外徑車刀架

SVVCN EXTERNAL TURNING TOOL

KOVIT



| 規格 Spec. | L | H | H ₁ | W | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----|----------------|----|-----------|-----------------|
| SVVCN-2020K-16 | 125 | 20 | 20 | 20 | VC..1604 | 0.39 |
| SVVCN-2525M-16 | 150 | 25 | 25 | 25 | VC..1604 | 0.69 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板螺絲 Clamp Screw | 墊片扳手 Shim Wrench |
|-----------|---------|------------------|-----------|------------------|------------------|------------------|
| VC..1604 | VSS322 | M3.5-11.7-5.3-60 | T15 | 3.0 | MDS05035 | PL3.5 |

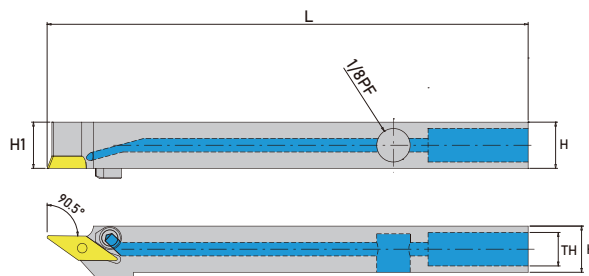
•長度單位 Unit of Length (mm)



ZSVK2CR 走心出水車刀

ZSVK2CR EXTERNAL TURNING TOOL FOR SWISS-TYPE LATHE

NEW



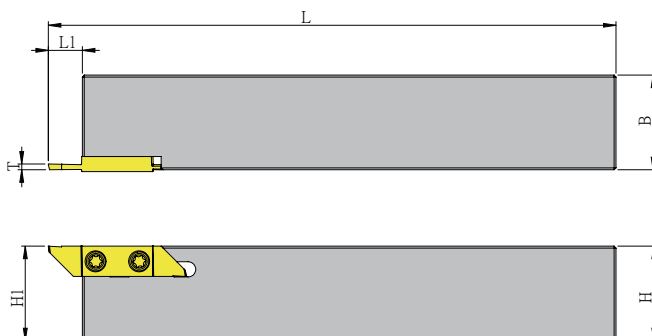
| 規格 Spec. | L | H | H ₁ | f | TH | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-------------------|-----|----|----------------|----|------|-----------|-----------------|-----------|------------------|-----------------|
| ZSVK2CR-A1212K-11 | 125 | 12 | 12 | 10 | 1/8" | VC..1103 | M2.5-6.0-3.5-60 | T8 | 3.0 | - |



SCCI 走心式車刀架

SCCI EXTERNAL TURNING TOOL FOR SWISS-TYPE LATHE

NEW



| 規格 Spec. | B | H (H ₁) | L | L ₁ | T |
|-----------------|----|---------------------|-----|----------------|---|
| SCCIR-1010K-375 | 10 | 10 | 125 | 9 | 4 |
| SCCIR-1212K-375 | 12 | 12 | 125 | 9 | 4 |
| SCCIR-1212M-375 | 12 | 12 | 150 | 9 | 4 |
| SCCIR-1616M-375 | 16 | 16 | 150 | 9 | 4 |
| SCCIR-2020K-375 | 20 | 20 | 125 | 9 | 4 |

SCCI_375 切削條件數據表 Cutting Parameter

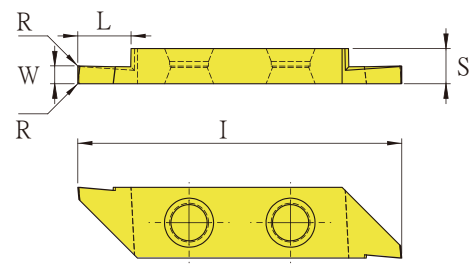
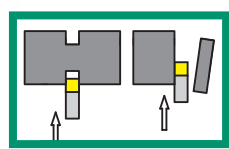
| 被加工材質 Machining Materials | 材質 Grade | 切削速度 Speed V _c (m/min) | 車削 / 開槽 Slotting | | | 材質 Grade | 切削速度 Speed V _c (m/min) | 掃刀 Plunging | |
|------------------------------|-------------|---|---------------------|-----------|--------|-------------|---|--------------|------|
| | | | 每刃進給 Feed | | 開槽 | | | 每刃進給 Feed | 橫向進給 |
| | | | h _m (mm) | | | | | | |
| | | | 開槽 | 橫向進給 | | | | | |
| P 低合金鋼 Low-Alloy Steels | OM4025 | 100-190 | 0.01-0.03 | 0.02-0.15 | OM4025 | 80-180 | 0.02 | 0.02-0.07 | |
| | OM4025 | 90-140 | 0.01-0.03 | 0.02-0.15 | OM4025 | 80-140 | 0.02 | 0.02-0.07 | |
| M 不鏽鋼 Stainless Steels | OM5035 | 70-140 | 0.01-0.02 | 0.01-0.1 | OM4035 | 40-130 | 0.02 | 0.02-0.05 | |
| K 鑄鐵 Cast Iron | OM4025 | 90-200 | 0.01-0.02 | 0.01-0.15 | OM4025 | 90-200 | 0.02 | 0.02-0.05 | |
| N 非鐵合金 Non-Ferrous Metals | OM5005 | 200-500 | 0.01-0.05 | 0.02-0.10 | OM5005 | 100-200 | 0.02 | 0.02-0.10 | |

•長度單位 Unit of Length (mm)



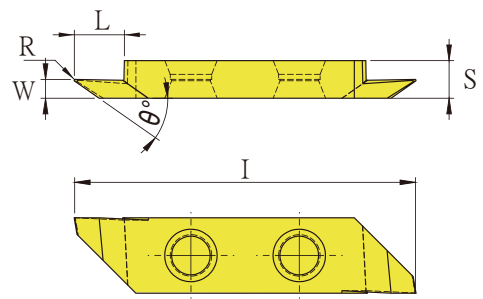
走心式車刀片 THREADING INSERTS FOR SWISS-TYPE LATHE

NEW



切斷 / 切槽 Cut off / Grooving

| 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | 超硬微粒 Micro-grain hard alloy | | | 尺寸 (mm) | | | | | |
|--------------------|--------------------------------------|--------|--------------------------------|--|--|---------|-----|-------------------|----|------|-----|
| | CHF | | HF | | | Size | | | | | |
| | OM4025 | OM5035 | OM5005 | | | W | R | 加工 深度 Depth | L | I | S |
| NEW SCCIL375-41002 | P K | M | N | | | 1 | 0.2 | 6 | 11 | 37.5 | 4.0 |
| NEW SCCIR375-41002 | P K | M | N | | | 1 | 0.2 | 6 | 11 | 37.5 | 4.0 |
| NEW SCCIL375-41502 | P K | M | N | | | 1.5 | 0.2 | 8 | 11 | 37.5 | 4.0 |
| NEW SCCIR375-41502 | P K | M | N | | | 1.5 | 0.2 | 8 | 11 | 37.5 | 4.0 |
| NEW SCCIL375-42002 | P K | M | N | | | 2 | 0.2 | 10 | 11 | 37.5 | 4.0 |
| NEW SCCIR375-42002 | P K | M | N | | | 2 | 0.2 | 10 | 11 | 37.5 | 4.0 |
| NEW SCCIL375-42502 | P K | M | N | | | 2.5 | 0.2 | 10 | 11 | 37.5 | 4.0 |
| NEW SCCIR375-42502 | P K | M | N | | | 2.5 | 0.2 | 10 | 11 | 37.5 | 4.0 |
| NEW SCCIL375-43002 | P K | M | N | | | 3 | 0.2 | 10 | 11 | 37.5 | 4.0 |
| NEW SCCIR375-43002 | P K | M | N | | | 3 | 0.2 | 10 | 11 | 37.5 | 4.0 |



後掃 Back Turning

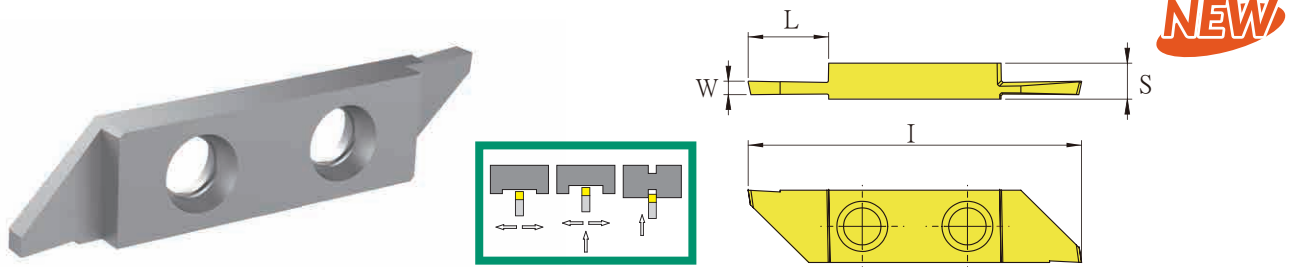
| 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | 超硬微粒 Micro-grain hard alloy | | | 尺寸 (mm) | | | | | | | |
|-------------------------|--------------------------------------|--------|--------------------------------|--|--|---------|-----|-----|-------------------|----|-----|------|-----|
| | CHF | | HF | | | Size | | | | | | | |
| | OM4025 | OM5035 | OM5005 | | | W | HF | R | 加工 深度 Depth | L | θ | I | S |
| NEW SCCIL375-BL40502-60 | P K | M | N | | | 0.5 | 0.5 | 0.2 | 0.1-4.2 | 11 | 60° | 37.5 | 4.0 |
| NEW SCCIR375-BL40502-60 | P K | M | N | | | 0.5 | 0.5 | 0.2 | 0.1-4.2 | 11 | 60° | 37.5 | 4.0 |
| NEW SCCIL375-BL41002-60 | P K | M | N | | | 1 | 0.5 | 0.2 | 0.1-4.2 | 11 | 60° | 37.5 | 4.0 |
| NEW SCCIR375-BL41002-60 | P K | M | N | | | 1 | 0.5 | 0.2 | 0.1-4.2 | 11 | 60° | 37.5 | 4.0 |
| NEW SCCIR375-BL41002-70 | P K | M | N | | | 1 | 0.2 | 0.2 | 0.1-4.2 | 11 | 70° | 37.5 | 4.0 |
| NEW SCCIL375-BL41002-70 | P K | M | N | | | 1 | 0.2 | 0.2 | 0.1-4.2 | 11 | 70° | 37.5 | 4.0 |

NEW 新品 New Product

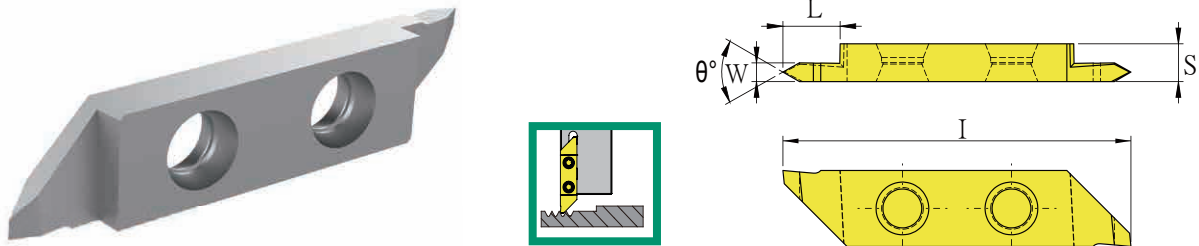
•長度單位 Unit of Length (mm)

走心式車刀片

THREADING INSERTS FOR SWISS-TYPE LATHE


NEW
插掃 / 橫掃 Side Turning

| 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | 超硬微粒 Micro grain carbide alloy | | | 尺寸 (mm) | | | | | |
|-----------------------------|--------------------------------------|----------|--------------------------------------|--|--|---------|-----|----------|----|------|-----|
| | CHF | | HF | | | Size | | | | | |
| | OM4025 | OM5035 | OM5005 | | | W | R | 加工 深度 | L | I | S |
| NEW SCCIL375-AD43002 | P K | M | N | | | 3 | 0.2 | 11 | 11 | 37.5 | 4.0 |


牙刀 Threading

| 規格 Spec. | 鍍層超微粒 Layer coated micro grain | | 超硬微粒 Micro grain carbide alloy | | | 尺寸 (mm) | | | | | |
|--------------------------------|--------------------------------------|----------|--------------------------------------|--|--|---------|-----|---------|----------|------|-----|
| | CHF | | HF | | | Size | | | | | |
| | OM4025 | OM5035 | OM5005 | | | W | R | PITCH | θ | I | S |
| NEW SCCIL375-T42001-A60 | P K | M | N | | | 4 | 0.1 | 0.4-1.5 | 60° | 37.5 | 4.0 |
| NEW SCCIR375-T42001-A60 | P K | M | N | | | 4 | 0.1 | 0.4-1.5 | 60° | 37.5 | 4.0 |
| NEW SCCIR375-T43002-B60 | P K | M | N | | | 6 | 0.2 | 1.5-2.5 | 60° | 37.5 | 4.0 |
| NEW SCCIR375-T43002-B60 | P K | M | N | | | 6 | 0.2 | 1.5-2.5 | 60° | 37.5 | 4.0 |

NEW 新品 New Product

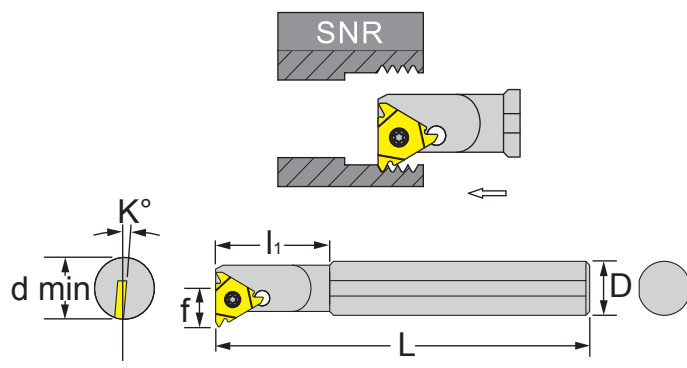
• 長度單位 Unit of Length (mm)



SNR 內徑牙刀架

SNR INTERNAL THREADING TURNING TOOL

KOVIT



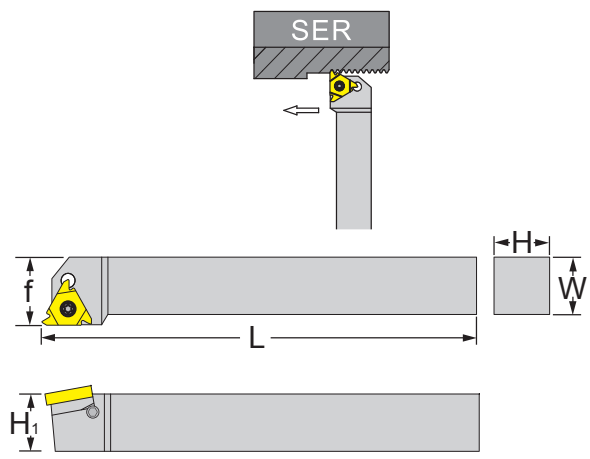
| 規格 Spec. | L | l ₁ | D | d | f | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 墊片 Shim | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------|-----|----------------|----|----|------|-----------|------------------|-----------|------------------|---------|------------------|-------------------|------------------|-----------------|
| SNR-0008K-08 | 125 | 21 | 16 | 11 | 5.5 | 08IR | M2.2-5.5-3.4-60 | T7 | 0.9 | - | - | - | - | 0.18 |
| SNR-0010K-11 | 125 | 25 | 16 | 13 | 6.5 | 11IR | M2.5-7.0-4.5-60 | T8 | 1.2 | - | - | - | - | 0.19 |
| SNR-0013M-11 | 150 | 32 | 16 | 16 | 8 | 11IR | M2.5-7.0-4.5-60 | T8 | 1.2 | - | - | - | - | 0.22 |
| SNR-0013M-16 | 150 | 32 | 16 | 17 | 8.5 | 16IR | M3.5-9.0-5.3-60 | T15 | 3.0 | - | - | - | - | 0.24 |
| SNR-0016Q-16 | 180 | 36 | 16 | 19 | 10 | 16IR | M3.5-9.0-5.3-60 | T15 | 3.0 | - | - | - | - | 0.30 |
| SNR-0020R-16 | 200 | 40 | 20 | 24 | 12 | 16IR | M3.5-11.7-5.3-60 | T15 | 3.0 | GXN16 | HTM309 | PL2.5 | 5.0 | 0.50 |
| SNR-0025R-16 | 200 | 45 | 25 | 29 | 14.5 | 16IR | M3.5-11.7-5.3-60 | T15 | 3.0 | GXN16 | HTM309 | PL2.5 | 5.0 | 0.76 |
| SNR-0032S-16 | 250 | 45 | 32 | 36 | 18.5 | 16IR | M3.5-11.7-5.3-60 | T15 | 3.0 | GXN16 | HTM309 | PL2.5 | 5.0 | 1.60 |



SER 外徑牙刀架

SER EXTERNAL THREADING TURNING TOOL

KOVIT



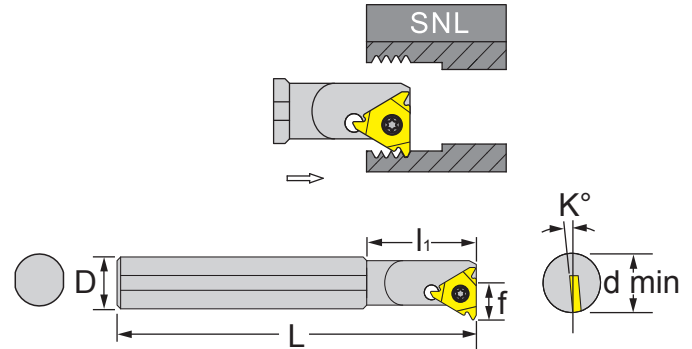
| 規格 Spec. | L | H | H ₁ | W | f | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 墊片 Shim | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------|-----|----|----------------|----|----|-----------|------------------|-----------|------------------|---------|------------------|-------------------|------------------|-----------------|
| SER-1616K-16 | 125 | 16 | 16 | 16 | 20 | 16ER | M3.5-11.7-5.3-60 | T15 | 3.0 | GXE16 | HTM309 | PL2.5 | 5.0 | 0.31 |
| SER-2020K-16 | 125 | 20 | 20 | 20 | 25 | 16ER | M3.5-11.7-5.3-60 | T15 | 3.0 | GXE16 | HTM309 | PL2.5 | 5.0 | 0.45 |
| SER-2525M-16 | 150 | 25 | 25 | 25 | 32 | 16ER | M3.5-11.7-5.3-60 | T15 | 3.0 | GXE16 | HTM309 | PL2.5 | 5.0 | 0.82 |

•長度單位 Unit of Length (mm)



SNL 內徑牙刀架 SNL INTERNAL THREADING TURNING TOOL

KOVIT

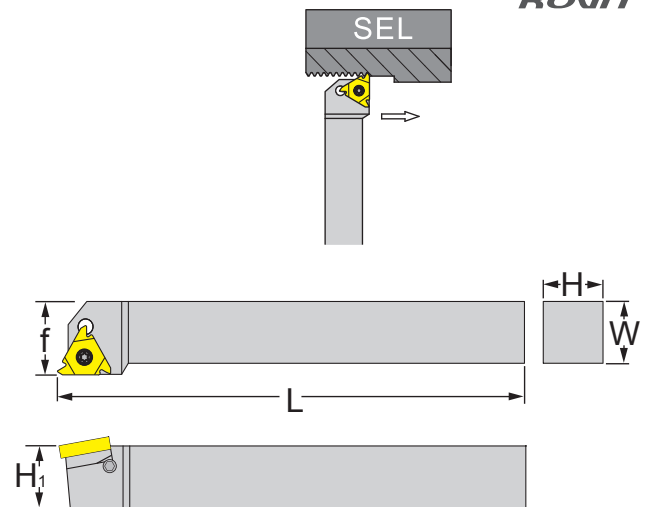


| 規格 Spec. | L | li | D | d | f | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 墊片 Shim | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------|-----|----|----|----|------|-----------|--------------------|-----------|------------------|---------|------------------|-------------------|------------------|-----------------|
| SNL-0008K-08 | 125 | 21 | 16 | 11 | 5.5 | 08ER | M2.2-5.5-3.4-60 | T7 | 0.9 | - | - | - | - | 0.19 |
| SNL-0010K-11 | 125 | 25 | 16 | 13 | 6.5 | 11ER | M2.5-8.0-3.5-60-T8 | T8 | 1.2 | - | - | - | - | 0.19 |
| SNL-0013M-11 | 150 | 32 | 16 | 16 | 8 | 11ER | M2.5-8.0-3.5-60-T8 | T8 | 1.2 | - | - | - | - | 0.24 |
| SNL-0013M-16 | 150 | 32 | 16 | 17 | 8.5 | 16ER | M3.5-9.0-5.3-60 | T15 | 3.0 | - | - | - | - | 0.24 |
| SNL-0016Q-16 | 180 | 36 | 16 | 19 | 10 | 16ER | M3.5-9.0-5.3-60 | T15 | 3.0 | - | - | - | - | 0.30 |
| SNL-0020R-16 | 200 | 40 | 20 | 24 | 12 | 16ER | M3.5-11.7-5.3-60 | T15 | 3.0 | GXN16 | HTM309 | PL2.5 | 5.0 | 0.51 |
| SNL-0025R-16 | 200 | 45 | 25 | 29 | 14.5 | 16ER | M3.5-11.7-5.3-60 | T15 | 3.0 | GXN16 | HTM309 | PL2.5 | 5.0 | 0.77 |
| SNL-0032S-16 | 250 | 45 | 32 | 36 | 18.5 | 16ER | M3.5-11.7-5.3-60 | T15 | 3.0 | GXN16 | HTM309 | PL2.5 | 5.0 | 1.56 |



SEL 外徑牙刀架 SEL EXTERNAL THREADING TURNING TOOL

KOVIT



| 規格 Spec. | L | H | H1 | W | f | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 墊片 Shim | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------|-----|----|----|----|----|-----------|------------------|-----------|------------------|---------|------------------|-------------------|------------------|-----------------|
| SEL-1616K-16 | 125 | 16 | 16 | 16 | 20 | 16IR | M3.5-11.7-5.3-60 | T15 | 3.0 | GXE16 | HTM309 | PL2.5 | 5.0 | 0.31 |
| SEL-2020K-16 | 125 | 20 | 20 | 20 | 25 | 16IR | M3.5-11.7-5.3-60 | T15 | 3.0 | GXE16 | HTM309 | PL2.5 | 5.0 | 0.45 |
| SEL-2525M-16 | 150 | 25 | 25 | 25 | 32 | 16IR | M3.5-11.7-5.3-60 | T15 | 3.0 | GXE16 | HTM309 | PL2.5 | 5.0 | 0.81 |

•長度單位 Unit of Length (mm)

鎢鋼抗震刀具

CARBIDE SHANK

Feature



- 高剛性
- 加工倍率深
- 提高近給率
- 良好的加工面
- 延長刀片壽命
- High rigidity.
- Great multiplied rate of cutting.
- Improved feed rate.
- Good machined surface.
- Extend insert life.

TUNGSTEN CARBIDE SHANK

- 使用碳化鎢鋼刀桿伸長量為直徑的6倍，仍不動如山
- 使用鋼值刀桿伸長量為直徑的4倍時產生難控制的震動率
- Using 6xD of carbide extension shank has a great effect to absorb the vibration, nevertheless, using 4xD of steel extension shank begins to have the vibration control issue.





SCLCR 碳化鎢鋼微小徑內徑車刀架

SCLCR CARBIDE MICRO INTERNAL TURNING TOOL

KOVIT

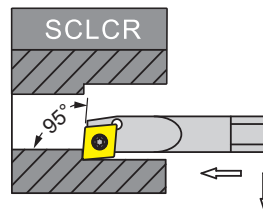


Fig1.

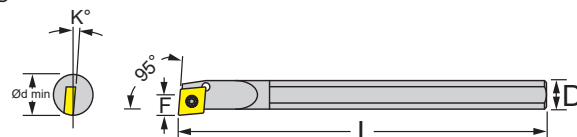
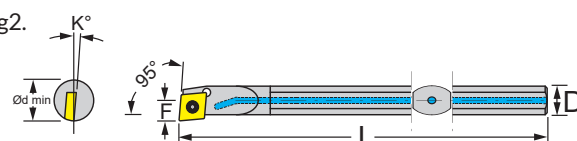


Fig2.



| 規格 Spec. | L | D | 最小加工徑 Ø d min | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-----------------|-----|---|------------------|-----|--------------|-----------------|--------------|------------------------|------|-----------------------|
| C04G-SCLCR03-05 | 90 | 4 | 5 | 2.5 | CC..03S1 | M1.8-4.0-2.5-54 | T6 | 0.6 | 1 | 0.06 |
| C05H-SCLCR03-06 | 100 | 5 | 6 | 3 | CC..03S1 | M1.8-4.0-2.5-54 | T6 | 0.6 | 1 | 0.08 |
| C05H-SCLCR04-06 | 100 | 5 | 6 | 3 | CC..04T0 | M2.2-4.7-3.1-60 | T7 | 0.9 | 1 | 0.06 |
| C06J-SCLCR04-07 | 110 | 6 | 7 | 3.5 | CC..04T0 | M2.2-4.7-3.1-60 | T7 | 0.9 | 1 | 0.07 |
| C07J-SCLCR04-08 | 110 | 7 | 8 | 4 | CC..04T0 | M2.2-4.7-3.1-60 | T7 | 0.9 | 1 | 0.09 |
| E05H-SCLCR03-06 | 100 | 5 | 6 | 3 | CC..03S1 | M1.8-4.0-2.5-54 | T6 | 0.6 | 2 | 0.08 |
| E06J-SCLCR04-07 | 110 | 6 | 7 | 3.5 | CC..04T0 | M2.2-4.7-3.1-60 | T7 | 0.9 | 2 | 0.06 |



STUBR 碳化鎢鋼微小徑內徑車刀架

STUBR CARBIDE MICRO INTERNAL TURNING TOOL

KOVIT

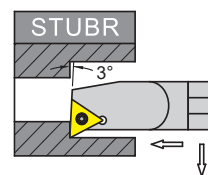


Fig1.

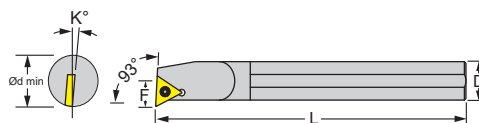
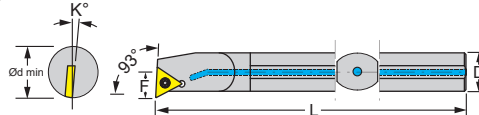


Fig2.



| 規格 Spec. | L | D | 最小加工徑 Ø d min | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-----------------|-----|---|------------------|-----|--------------|---------------|--------------|------------------------|------|-----------------------|
| C06J-STUBR06-07 | 110 | 6 | 7 | 3.5 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.07 |
| C08K-STUBR06-09 | 125 | 8 | 9 | 4.5 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.13 |
| E06J-STUBR06-07 | 110 | 6 | 7 | 3.5 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 2 | 0.07 |
| E08K-STUBR06-09 | 125 | 8 | 9 | 4.5 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 2 | 0.13 |

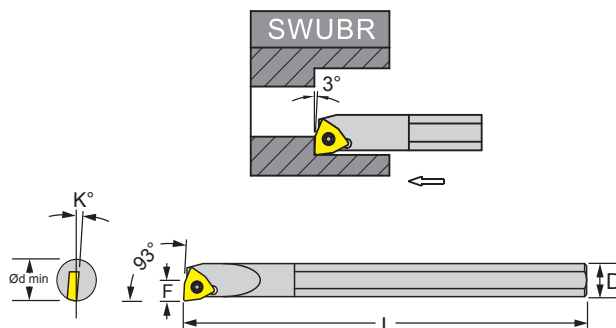
•長度單位 Unit of Length (mm)



SWUBR 碳化鎢鋼微小徑內徑車刀架

SWUBR CARBIDE MICRO INTERNAL TURNING TOOL

KOVIT



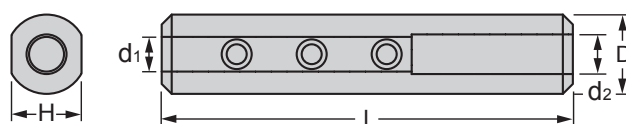
| 規格 Spec. | L | D | 最小加工徑 Ø d min | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------|-----|---|---------------|------|-----------|----------------|-----------|------------------|-----------------|
| C04G-SWUBR06-5.5 | 90 | 4 | 5.5 | 2.75 | WB..0601 | M2-3.8-2.68-43 | T6 | 0.6 | 0.05 |
| C05H-SWUBR06-06 | 100 | 5 | 6 | 3 | WB..0601 | M2-3.8-2.68-43 | T6 | 0.6 | 0.07 |
| C06J-SWUBR06-07 | 110 | 6 | 7 | 3.5 | WB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.09 |
| C07J-SWUBR06-08 | 110 | 7 | 8 | 4 | WB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.11 |
| C08K-SWUBR08-10 | 125 | 8 | 10 | 5 | WB..0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.13 |



SH 小徑套筒

SH MINI COLLET SLEEVE

KOVIT



| 規格 Spec. | L | D | d ₁ | d ₂ | H | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-------------|-----|----|----------------|----------------|----|----------|-----------|------------------|-----------------|
| SH-0416-100 | 100 | 16 | 4 | 5 | 14 | HS4-4 | PL2 | 3.0 | 0.15 |
| SH-0516-100 | 100 | 16 | 5 | 6 | 14 | HS5-5.5 | PL2.5 | 5.0 | 0.15 |
| SH-0616-100 | 100 | 16 | 6 | 7 | 14 | HS6-4 | PL3 | 5.0 | - |
| SH-0716-100 | 100 | 16 | 7 | 8 | 14 | HS6-4 | PL3 | 5.0 | 0.13 |

•長度單位 Unit of Length (mm)

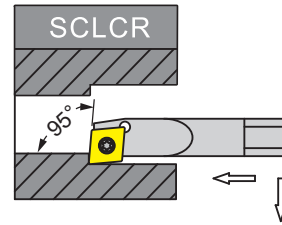
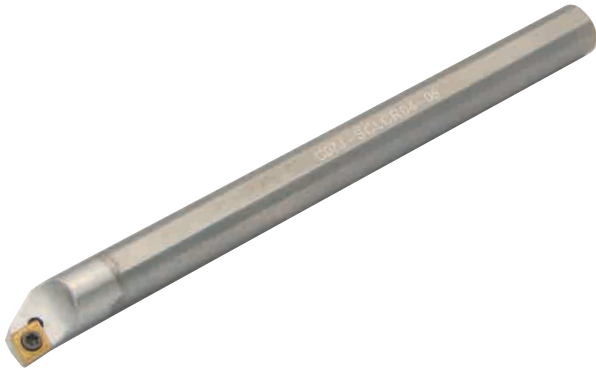


Fig.1.

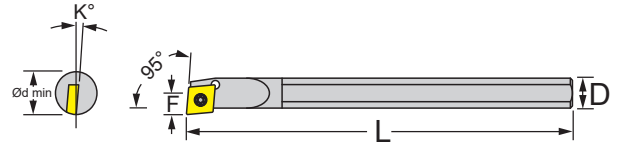
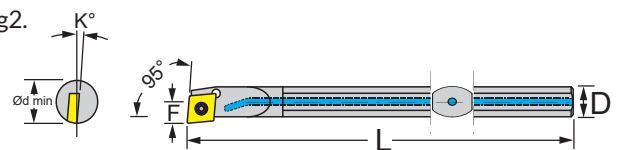


Fig.2.



| 規格 Spec. | L | D | 最小加工徑 Ød min | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-----------------|-----|----|-----------------|-----|--------------|-----------------|--------------|------------------------|------|-----------------------|
| C08K-SCLCR06-10 | 125 | 8 | 10 | 5 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.11 |
| C10M-SCLCR06-12 | 150 | 10 | 12 | 6 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.19 |
| C12M-SCLCR06-14 | 150 | 12 | 14 | 7 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.26 |
| C12Q-SCLCR06-14 | 180 | 12 | 14 | 7 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.32 |
| C12M-SCLCR09-14 | 150 | 12 | 14 | 7 | CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 | 1 | 0.26 |
| C12Q-SCLCR09-14 | 180 | 12 | 14 | 7 | CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 | 1 | 0.32 |
| C16R-SCLCR09-18 | 200 | 16 | 18 | 9 | CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 | 1 | 0.57 |
| C20S-SCLCR09-22 | 250 | 20 | 22 | 11 | CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 | 1 | 1.04 |
| E08K-SCLCR06-10 | 125 | 8 | 10 | 5 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.11 |
| E10M-SCLCR06-12 | 150 | 10 | 12 | 6 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.19 |
| E12M-SCLCR06-14 | 150 | 12 | 14 | 7 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.26 |
| E12Q-SCLCR06-14 | 180 | 12 | 14 | 7 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.32 |
| E14M-SCLCR06-16 | 150 | 14 | 16 | 7.5 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E14Q-SCLCR06-16 | 180 | 14 | 16 | 7.5 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E16R-SCLCR06-18 | 200 | 16 | 18 | 9 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E12M-SCLCR09-14 | 150 | 12 | 14 | 7 | CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | 0.26 |
| E12Q-SCLCR09-14 | 180 | 12 | 14 | 7 | CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | 0.32 |
| E14M-SCLCR09-16 | 150 | 14 | 16 | 7.5 | CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |
| E14Q-SCLCR09-16 | 180 | 14 | 16 | 7.5 | CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |
| E16R-SCLCR09-18 | 200 | 16 | 18 | 9 | CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | 0.57 |
| E20R-SCLCR09-22 | 200 | 20 | 22 | 11 | CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |
| E20S-SCLCR09-22 | 250 | 20 | 22 | 11 | CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | 1.04 |

•長度單位 Unit of Length (mm)

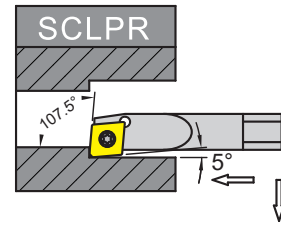


Fig.1

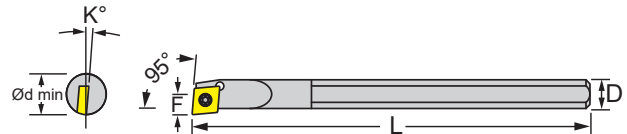
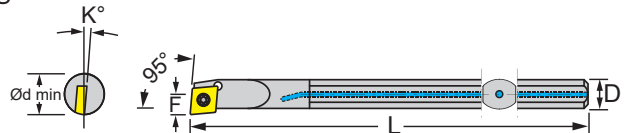


Fig.2



| 規格 Spec. | L | D | 最小加工徑 Ø d min | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-----------------|-----|----|------------------|----|--------------|---------------|--------------|------------------------|------|-----------------------|
| C10M-SCLPR08-12 | 150 | 10 | 12 | 6 | CP.0802 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 0.19 |
| C12M-SCLPR08-14 | 150 | 12 | 14 | 7 | CP.0802 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 0.26 |
| C12Q-SCLPR08-14 | 180 | 12 | 14 | 7 | CP.0802 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | - |
| C12M-SCLPR09-14 | 150 | 12 | 14 | 7 | CP.0903 | M4-8.0-5.7-60 | T15 | 3.0 | 1 | 0.25 |
| C12Q-SCLPR09-14 | 180 | 12 | 14 | 7 | CP.0903 | M4-8.0-5.7-60 | T15 | 3.0 | 1 | 0.31 |
| C16R-SCLPR09-18 | 200 | 16 | 18 | 9 | CP.0903 | M4-8.0-5.7-60 | T15 | 3.0 | 1 | 0.57 |
| C20S-SCLPR09-22 | 250 | 20 | 22 | 11 | CP.0903 | M4-8.0-5.7-60 | T15 | 3.0 | 1 | 1.08 |
| E16R-SCLPR09-18 | 200 | 16 | 18 | 9 | CP.0903 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | 0.57 |
| E20R-SCLPR09-22 | 200 | 20 | 22 | 11 | CP.0903 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |
| E20S-SCLPR09-22 | 250 | 20 | 22 | 11 | CP.0903 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | 1.08 |
| E25R-SCLPR09-28 | 200 | 25 | 28 | 14 | CP.0903 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |

SDUCR 碳化鎢鋼內徑車刀架

SDUCR CARBIDE INTERNAL TURNING TOOL

KOVIT

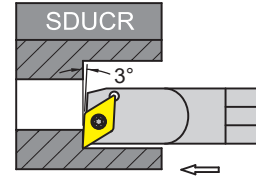


Fig.1

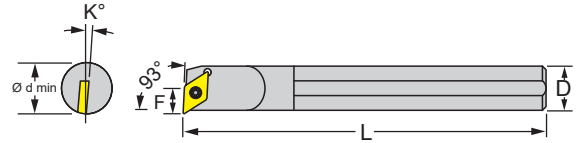
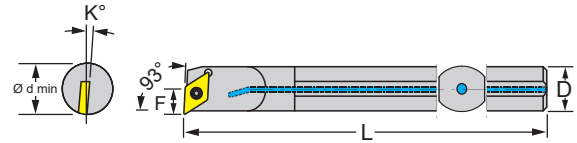


Fig.2



| 規格 Spec. | L | D | 最小加工徑 Ø d min | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-----------------|-----|----|------------------|------|--------------|-----------------|--------------|------------------------|------|-----------------------|
| C10M-SDUCR07-13 | 150 | 10 | 13 | 7 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.19 |
| C12M-SDUCR07-16 | 150 | 12 | 16 | 9 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.26 |
| C12Q-SDUCR07-16 | 180 | 12 | 16 | 9 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.32 |
| C16R-SDUCR07-20 | 200 | 16 | 20 | 11 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.51 |
| C16R-SDUCR11-20 | 200 | 16 | 20 | 11 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 1 | 0.58 |
| C20S-SDUCR11-23 | 250 | 20 | 23 | 12.5 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 1 | 1.08 |
| E10M-SDUCR07-13 | 150 | 10 | 13 | 7 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.19 |
| E12M-SDUCR07-16 | 150 | 12 | 16 | 9 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.26 |
| E12Q-SDUCR07-16 | 180 | 12 | 16 | 9 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.32 |
| E14M-SDUCR07-18 | 150 | 14 | 18 | 10 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E14Q-SDUCR07-18 | 180 | 14 | 18 | 10 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E16M-SDUCR07-20 | 150 | 16 | 20 | 11 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E16R-SDUCR07-20 | 200 | 16 | 20 | 11 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.51 |
| E20R-SDUCR07-25 | 200 | 20 | 25 | 13 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E16M-SDUCR11-20 | 150 | 16 | 20 | 11 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |
| E16R-SDUCR11-20 | 200 | 16 | 20 | 11 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | 0.58 |
| E20R-SDUCR11-23 | 200 | 20 | 23 | 12.5 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |
| E20S-SDUCR11-23 | 250 | 20 | 23 | 12.5 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | 1.08 |
| E25R-SDUCR11-32 | 200 | 25 | 32 | 17 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |
| E25S-SDUCR11-32 | 250 | 25 | 32 | 17 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |

•長度單位 Unit of Length (mm)



SDQCR 碳化鎢鋼內徑車刀架

SDQCR CARBIDE INTERNAL TURNING TOOL

KOVIT

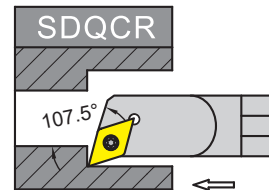
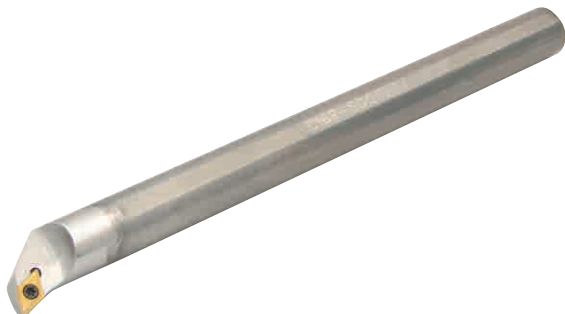


Fig1.

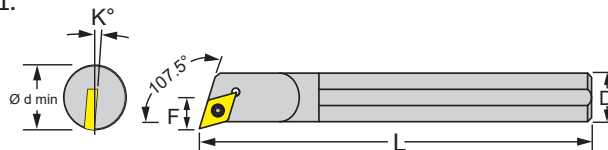
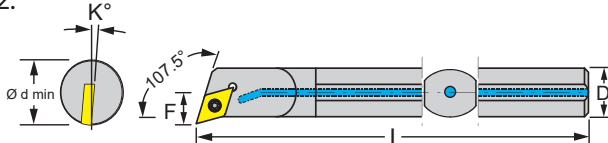


Fig2.



| 規格 Spec. | L | D | 最小加工徑 Ø d min | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-----------------|-----|----|------------------|----|--------------|-----------------|--------------|------------------------|------|-----------------------|
| C10M-SDQCR07-13 | 150 | 10 | 13 | 7 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.20 |
| C12M-SDQCR07-16 | 150 | 12 | 16 | 9 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.25 |
| C12Q-SDQCR07-16 | 180 | 12 | 16 | 9 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.30 |
| C16R-SDQCR07-20 | 200 | 16 | 20 | 11 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.57 |
| C20S-SDQCR11-25 | 250 | 20 | 25 | 13 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 1 | 1.08 |
| E10M-SDQCR07-13 | 150 | 10 | 13 | 7 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.20 |
| E12M-SDQCR07-16 | 150 | 12 | 16 | 9 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.25 |
| E12Q-SDQCR07-16 | 180 | 12 | 16 | 9 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.30 |
| E14M-SDQCR07-18 | 150 | 14 | 18 | 10 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E16M-SDQCR07-20 | 150 | 16 | 20 | 11 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E16R-SDQCR07-20 | 200 | 16 | 20 | 11 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.57 |
| E16M-SDQCR11-20 | 150 | 16 | 20 | 11 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |
| E16R-SDQCR11-20 | 200 | 16 | 20 | 11 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |
| E20R-SDQCR11-25 | 200 | 20 | 25 | 13 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |
| E20S-SDQCR11-25 | 250 | 20 | 25 | 13 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | 1.08 |
| E25R-SDQCR11-32 | 200 | 25 | 32 | 17 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |
| E25S-SDQCR11-32 | 250 | 25 | 32 | 17 | DC..11T3 | M4-8.0-5.7-60 | T15 | 3.0 | 2 | - |

•長度單位 Unit of Length (mm)

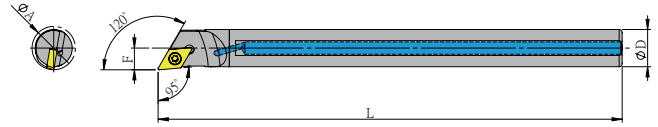


SDXCR 碳化鎢鋼內徑車刀架

SDXCR CARBIDE INTERNAL TURNING TOOL

KOVIT

NEW



| 規格 Spec. | L | D | 最小加工徑 Ø d min | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-----------------|-----|----|------------------|---|--------------|-----------------|--------------|------------------------|-----------------------|
| E08K-SDXCR07-10 | 125 | 8 | 10 | 5 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | |
| E12M-SDXCR07-14 | 150 | 12 | 14 | 7 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | |

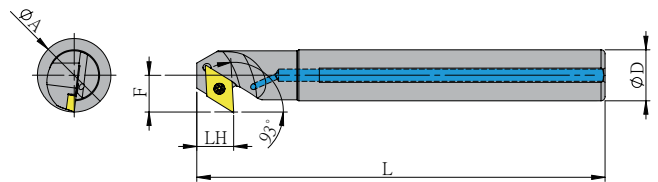


SDZCR 碳化鎢鋼內徑車刀架

SDZCR CARBIDE INTERNAL TURNING TOOL

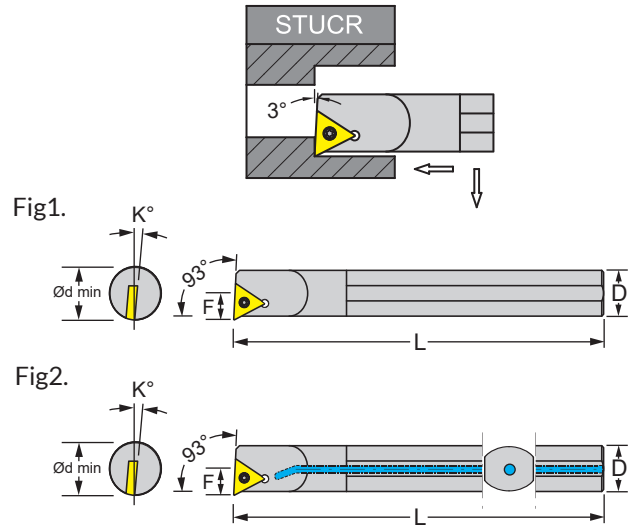
KOVIT

NEW



| 規格 Spec. | L | D | 最小加工徑 Ø d min | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-----------------|-----|----|------------------|------|--------------|-------------------|--------------|------------------------|-----------------------|
| E16R-SDZCR07-21 | 200 | 16 | 21 | 12.5 | DC..0702 | M2.5-6.0-3.5-60 | T8 | 1.2 | |
| E20R-SDZCR11-26 | 200 | 20 | 26 | 15.5 | DC..11T3 | M4-8.75-5.6-60-60 | T15 | | |
| E25R-SDZCR11-33 | 200 | 25 | 33 | 18 | DC..11T3 | M4-8.75-5.6-60-60 | T15 | | |

•長度單位 Unit of Length (mm)



| 規格 Spec. | L | D | 最小加工徑 Ø d min | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-----------------|-----|----|------------------|----|--------------|-----------------|--------------|------------------------|------|-----------------------|
| C08K-STUCR09-10 | 125 | 8 | 10 | 5 | TC..0902 | M2.2-4.7-3.1-60 | T7 | 0.9 | 1 | 0.11 |
| C10M-STUCR09-12 | 150 | 10 | 12 | 6 | TC..0902 | M2.2-4.7-3.1-60 | T7 | 0.9 | 1 | 0.19 |
| C12M-STUCR09-14 | 150 | 12 | 14 | 7 | TC..0902 | M2.2-4.7-3.1-60 | T7 | 0.9 | 1 | 0.19 |
| C12Q-STUCR09-14 | 180 | 12 | 14 | 7 | TC..0902 | M2.2-4.7-3.1-60 | T7 | 0.9 | 1 | 0.16 |
| C10M-STUCR11-12 | 150 | 10 | 12 | 6 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.19 |
| C12M-STUCR11-14 | 150 | 12 | 14 | 7 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.25 |
| C12Q-STUCR11-14 | 180 | 12 | 14 | 7 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.32 |
| C16R-STUCR11-18 | 200 | 16 | 18 | 9 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.56 |
| C20S-STUCR11-22 | 250 | 20 | 22 | 11 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 1.10 |
| E20R-STUCR11-22 | 200 | 20 | 22 | 11 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E20S-STUCR11-22 | 250 | 20 | 22 | 11 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 1.10 |



STUPR 碳化鎢鋼內徑車刀架

STUPR CARBIDE INTERNAL TURNING TOOL

KOVIT

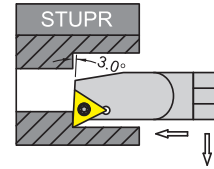


Fig1.

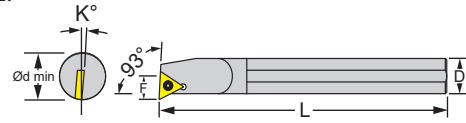
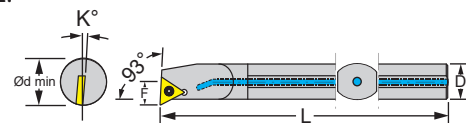


Fig2.



| 規格 Spec. | L | D | 最小加工徑 Ø d min | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-----------------|-----|----|------------------|------|--------------|-----------------|--------------|------------------------|------|-----------------------|
| C08K-STUPR08-10 | 125 | 8 | 10 | 5.5 | TP.0802 | M2.2-4.7-3.1-60 | T7 | 0.9 | 1 | 0.13 |
| C08K-STUPR09-10 | 125 | 8 | 10 | 5.5 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.11 |
| C10M-STUPR09-12 | 150 | 10 | 12 | 6.5 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.19 |
| C12M-STUPR09-14 | 150 | 12 | 14 | 7.5 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.25 |
| C12Q-STUPR09-14 | 180 | 12 | 14 | 7.5 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.32 |
| C10M-STUPR11-12 | 150 | 10 | 12 | 6.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 0.19 |
| C12M-STUPR11-14 | 150 | 12 | 14 | 7.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 0.26 |
| C12Q-STUPR11-14 | 180 | 12 | 14 | 7.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 0.32 |
| C16R-STUPR11-18 | 200 | 16 | 18 | 9.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 0.56 |
| C20S-STUPR11-22 | 250 | 20 | 22 | 11.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 1.09 |
| C20S-STUPR16-25 | 250 | 20 | 25 | 12.5 | TP.1603 | M4-8.0-5.7-60 | T15 | 3.0 | 1 | 1.10 |
| E08K-STUPR09-10 | 125 | 8 | 10 | 5.5 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.11 |
| E10M-STUPR09-12 | 150 | 10 | 12 | 6.5 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.19 |
| E12M-STUPR09-14 | 150 | 12 | 14 | 7.5 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.25 |
| E10M-STUPR11-12 | 150 | 10 | 12 | 6.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 2 | 0.19 |
| E12M-STUPR11-14 | 150 | 12 | 14 | 7.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 2 | 0.26 |
| E12Q-STUPR11-14 | 180 | 12 | 14 | 7.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 2 | 0.32 |
| E14M-STUPR11-16 | 150 | 14 | 16 | 8.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 2 | - |
| E16R-STUPR11-18 | 200 | 16 | 18 | 9.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 2 | 0.56 |
| E20R-STUPR11-22 | 200 | 20 | 22 | 11.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 2 | - |
| E20S-STUPR11-22 | 250 | 20 | 22 | 11.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 2 | 1.09 |

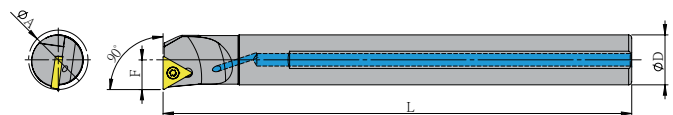


STFCR 碳化鎢鋼內徑車刀架

STFCR CARBIDE INTERNAL TURNING TOOL

KOVIT

NEW



| 規格 Spec. | L | D | 最小加工徑 Ø d min | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-----------------|-----|----|------------------|-----|--------------|-----------------|--------------|------------------------|-----------------------|
| E16R-STFCR11-18 | 200 | 16 | 18 | 9.5 | TC.1102 | M2.5-6.0-3.5-60 | T8 | | |
| E20R-STFCR11-22 | 200 | 20 | 22 | 11 | TC.1102 | M2.5-6.0-3.5-60 | T8 | | |

•長度單位 Unit of Length (mm)



Fig.1

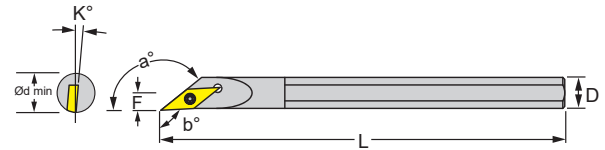
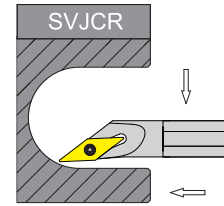
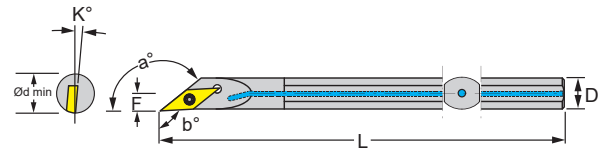


Fig.2



| 規格 Spec. | L | D | 最小加工徑 Ø d min | F | a° | b° | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|------------------|-----|----|------------------|------|------|-----|--------------|------------------|--------------|------------------------|------|-----------------------|
| C06J-SVJCR08-8.5 | 110 | 6 | 8.5 | 3.25 | 143° | 92° | VC..0802 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.08 |
| C08K-SVJCR08-10 | 125 | 8 | 10 | 5 | 142° | 93° | VC..0802 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 1.13 |
| C10M-SVJCR08-12 | 150 | 10 | 12 | 6 | 142° | 93° | VC..0802 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.20 |
| C10M-SVJCR11-12 | 150 | 10 | 12 | 6 | 142° | 93° | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | - |
| C12M-SVJCR11-14 | 150 | 12 | 14 | 7 | 142° | 93° | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.26 |
| C12Q-SVJCR11-14 | 180 | 12 | 14 | 7 | 142° | 93° | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | - |
| C16R-SVJCR11-18 | 200 | 16 | 18 | 9 | 142° | 93° | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.56 |
| C20S-SVJCR11-22 | 250 | 20 | 22 | 11 | 142° | 93° | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 1.08 |
| E06J-SVJCR08-085 | 110 | 6 | 8.5 | 3.25 | - | - | VC..0802 | M2-5.0-2.7-60 | T6 | 0.6 | 2 | - |
| E08K-SVJCR08-10 | 125 | 8 | 10 | 5 | - | - | VC..0802 | M2-5.0-2.7-60 | T6 | 0.6 | 2 | - |
| E10M-SVJCR08-12 | 150 | 10 | 12 | 6 | - | - | VC..0802 | M2-5.0-2.7-60 | T6 | 0.6 | 2 | - |
| E12M-SVJCR08-14 | 150 | 12 | 14 | 7 | - | - | VC..0802 | M2-5.0-2.7-60 | T6 | 0.6 | 2 | - |
| E10M-SVJCR11-12 | 150 | 10 | 12 | 6 | - | - | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E12M-SVJCR11-14 | 150 | 12 | 14 | 7 | - | - | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E12Q-SVJCR11-14 | 180 | 12 | 14 | 7 | - | - | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.33 |
| E16R-SVJCR11-18 | 200 | 16 | 18 | 9 | - | - | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E20R-SVJCR11-22 | 200 | 20 | 22 | 11 | - | - | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E20S-SVJCR11-22 | 250 | 20 | 22 | 11 | - | - | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | - |
| E16M-SVJCR16-18 | 150 | 16 | 18 | 9 | - | - | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 2 | - |
| E16R-SVJCR16-18 | 200 | 16 | 18 | 9 | - | - | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 2 | - |
| E20R-SVJCR16-23 | 200 | 20 | 23 | 11.5 | - | - | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 2 | - |
| E25R-SVJCR16-28 | 200 | 25 | 28 | 14 | - | - | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 2 | - |

•長度單位 Unit of Length (mm)

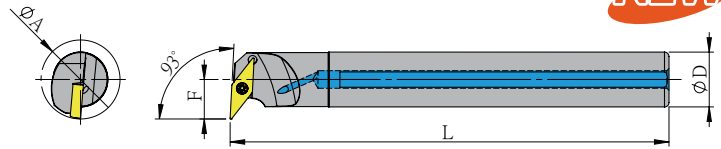


SVUCR 碳化鎢鋼內徑車刀架

SVUCR CARBIDE INTERNAL TURNING TOOL

KOVIT

NEW



| 規格 Spec. | L | D | 最小加工徑 $\phi d \text{ min}$ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-----------------|-----|----|-------------------------------|----|--------------|------------------|--------------|------------------------|-----------------------|
| E16R-SVUCR11-22 | 200 | 16 | 22 | 13 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | |
| E20R-SVUCR11-27 | 200 | 20 | 27 | 15 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | |
| E25R-SVUCR11-30 | 250 | 25 | 30 | 17 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | |
| E20R-SVUCR16-31 | 200 | 20 | 31 | 19 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | |
| E25R-SVUCR16-33 | 200 | 25 | 33 | 18 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | |
| E25S-SVUCR16-33 | 250 | 25 | 33 | 18 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | |
| E25R-SVUCR16-35 | 200 | 25 | 35 | 20 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | |
| E25S-SVUCR16-35 | 250 | 25 | 35 | 20 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | |

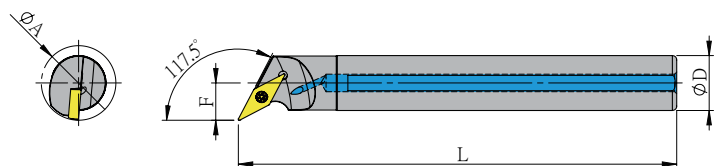


SVQCR 碳化鎢鋼內徑車刀架

SVQCR CARBIDE INTERNAL TURNING TOOL

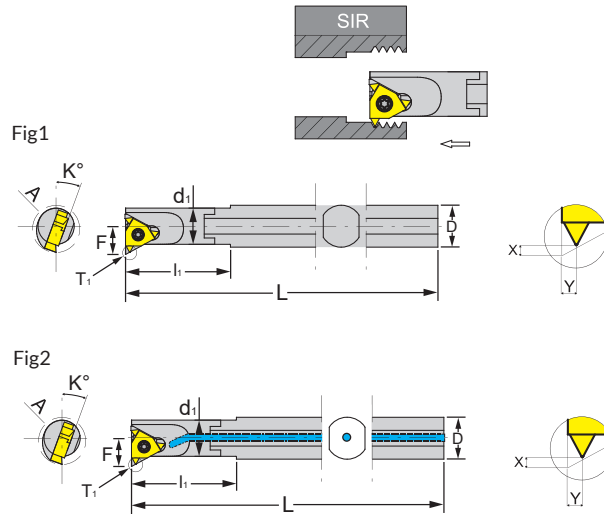
KOVIT

NEW



| 規格 Spec. | L | D | 最小加工徑 $\phi d \text{ min}$ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-----------------|-----|----|-------------------------------|------|--------------|-----------------|--------------|------------------------|-----------------------|
| E16M-SVQCR11-22 | 150 | 16 | 22 | 12.5 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | |
| E16R-SVQCR11-22 | 200 | 16 | 22 | 12.5 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | |
| E20R-SVQCR11-25 | 200 | 20 | 25 | 13 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | |
| E25R-SVQCR16-32 | 200 | 25 | 32 | 17 | VC..1604 | M4-8.75-5.6-60 | T15 | 3.0 | |

•長度單位 Unit of Length (mm)



T1 部 .X.Y 尺寸參考刀片規格

| 規格 Spec. | L | li | D | di | 最小加工徑 A | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------------|-----|----|----|-----|------------|------|--------------|-----------------|--------------|------------------------|-----------------------|
| CSIR-0005H-06-6.4 | 100 | - | 5 | - | 6.4 | 4.3 | 06IR | M2-5.0-2.6-60 | T6 | 0.6 | 0.05 |
| CSIR-0008K-08-09-20 | 125 | 20 | 8 | 6.4 | 9 | 5 | 08IR | M2.2-4.7-3.1-60 | T7 | 0.9 | 0.10 |
| CSIR-0008K-08-10-20 | 125 | 20 | 8 | 7.4 | 10 | 5.5 | 08IR | M2.2-4.7-3.1-60 | T7 | 0.9 | 1.08 |
| CSIR-0010M-11-12 | 150 | - | 10 | - | 12 | 7.4 | 11IR | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.18 |
| CSIR-0012M-11-15 | 150 | - | 12 | - | 15 | 8.5 | 11IR | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.26 |
| CSIR-0016M-16-19 | 150 | - | 16 | - | 19 | 11.7 | 16IR | M3.5-7.6-5.1-60 | T15 | 3.0 | - |
| ESIR-0005H-06-6.4 | 100 | - | 5 | - | 6.4 | 4.3 | 06IR | M2-5.0-2.7-60 | T6 | 0.6 | - |
| ESIR-0006J-06-7.6 | 110 | - | 6 | - | 7.6 | 4.48 | 06IR | M2-5.0-2.7-60 | T6 | 0.6 | - |
| ESIR-0008K-08-10 | 125 | - | 8 | - | 10 | 5.9 | 08IR | M2.2-4.7-3.1-60 | T7 | 0.9 | - |
| ESIR-0010M-11-12 | 150 | - | 10 | - | 12 | 7.4 | 11IR | M2.5-6.0-3.5-60 | T8 | 1.2 | - |
| ESIR-0012M-11-15 | 150 | - | 12 | - | 15 | 8.5 | 11IR | M2.5-6.0-3.5-60 | T8 | 1.2 | - |
| ESIR-0016R-16-19 | 200 | - | 16 | - | 19 | 11.7 | 16IR | M3.5-7.6-5.1-60 | T15 | 3.0 | - |



Fig.1

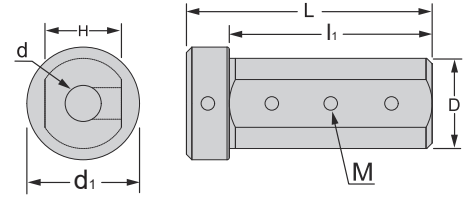
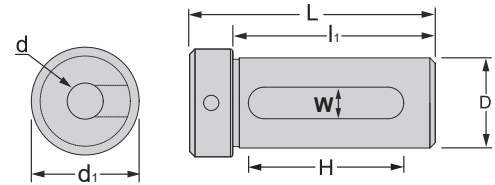


Fig.2



| 規格 Spec. | L | l ₁ | D | d | d ₁ | H | M | W | Fig | 重量 (KGS) Weight |
|--------------|-----|----------------|----|----|----------------|------|----|----|-----|-----------------------|
| NC16-06-62L | 62 | 55 | 16 | 6 | 19 | 14.5 | M5 | - | 1 | 0.08 |
| NC16-08-62L | 62 | 55 | 16 | 8 | 19 | 14.5 | M6 | - | 1 | 0.08 |
| NC16-10-62L | 62 | 55 | 16 | 10 | 19 | 14.5 | M6 | - | 1 | 0.07 |
| NC16-12-62L | 62 | 55 | 16 | 12 | 19 | 14.5 | - | 9 | 2 | 0.05 |
| NC20-06-67L | 67 | 60 | 20 | 6 | 27 | 17.5 | M6 | - | 1 | 0.16 |
| NC20-08-67L | 67 | 60 | 20 | 8 | 27 | 17.5 | M6 | - | 1 | 0.14 |
| NC20-10-67L | 67 | 60 | 20 | 10 | 27 | 17.5 | M6 | - | 1 | 0.14 |
| NC20-12-67L | 67 | 60 | 20 | 12 | 27 | 17.5 | M6 | - | 1 | 0.12 |
| NC20-16-67L | 67 | 60 | 20 | 16 | 27 | 55 | - | 13 | 2 | 0.08 |
| NC32-06-85L | 85 | 70 | 32 | 6 | 38 | 29.5 | M6 | - | 1 | 0.55 |
| NC32-08-85L | 85 | 70 | 32 | 8 | 38 | 29.5 | M6 | - | 1 | 0.50 |
| NC32-10-100L | 100 | 85 | 32 | 10 | 38 | 29.5 | M8 | - | 1 | 0.58 |
| NC32-12-100L | 100 | 85 | 32 | 12 | 38 | 29.5 | M8 | - | 1 | 0.58 |
| NC32-16-100L | 100 | 85 | 32 | 16 | 38 | 29.5 | M8 | - | 1 | 0.48 |
| NC32-18-100L | 100 | 85 | 32 | 18 | 38 | 77 | - | 14 | 2 | 0.47 |
| NC32-20-100L | 100 | 85 | 32 | 20 | 38 | 77 | - | 14 | 2 | 0.40 |
| NC32-25-100L | 100 | 85 | 32 | 25 | 38 | 77 | - | 14 | 2 | 0.27 |
| NC40-06-100L | 100 | 85 | 40 | 6 | 46 | 38 | M8 | - | 1 | 1.01 |
| NC40-08-100L | 100 | 85 | 40 | 8 | 46 | 38 | M8 | - | 1 | 0.99 |
| NC40-10-100L | 100 | 85 | 40 | 10 | 46 | 38 | M8 | - | 1 | 0.98 |
| NC40-12-100L | 100 | 85 | 40 | 12 | 46 | 38 | M8 | - | 1 | 0.94 |
| NC40-16-100L | 100 | 85 | 40 | 16 | 46 | 38 | M8 | - | 1 | 0.88 |
| NC40-18-100L | 100 | 85 | 40 | 18 | 46 | 77 | - | 14 | 2 | 0.84 |
| NC40-20-100L | 100 | 85 | 40 | 20 | 46 | 77 | - | 14 | 2 | 0.72 |
| NC40-25-100L | 100 | 85 | 40 | 25 | 46 | 77 | - | 14 | 2 | 0.60 |
| NC40-32-100L | 100 | 85 | 40 | 32 | 46 | 77 | - | 14 | 2 | 0.39 |

•長度單位 Unit of Length (mm)



Fig.1

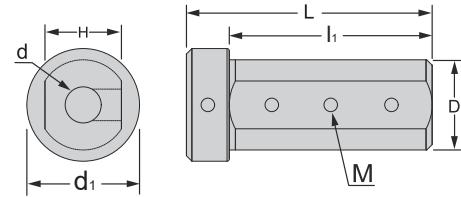
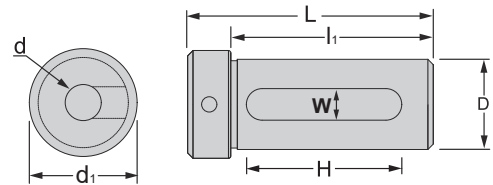


Fig.2



| 規格 Spec. | L | l ₁ | D | d | d ₁ | H | M | W | Fig | 重量 (KGS) Weight |
|----------------|-----|----------------|----|----|----------------|------|----|----|-----|-----------------------|
| NC25-06-64L-C | 64 | 58 | 25 | 6 | 35 | 23.5 | M6 | - | 1 | 0.22 |
| NC25-08-64L-C | 64 | 58 | 25 | 8 | 35 | 23.5 | M6 | - | 1 | 0.20 |
| NC25-10-64L-C | 64 | 58 | 25 | 10 | 35 | 23.5 | M6 | - | 1 | 0.20 |
| NC25-12-64L-C | 64 | 58 | 25 | 12 | 35 | 23.5 | M6 | - | 1 | 0.20 |
| NC25-16-64L-C | 64 | 58 | 25 | 16 | 35 | 51 | - | 12 | 2 | 0.16 |
| NC25-20-64L-C | 64 | 58 | 25 | 20 | 35 | 51 | - | 12 | 2 | 0.11 |
| NC32-06-85L-C | 85 | 70 | 32 | 6 | 38 | 29.5 | M6 | - | 1 | 0.55 |
| NC32-08-85L-C | 85 | 70 | 32 | 8 | 38 | 29.5 | M6 | - | 1 | 0.50 |
| NC32-10-100L-C | 100 | 85 | 32 | 10 | 38 | 29.5 | M8 | - | 1 | 0.58 |
| NC32-12-100L-C | 100 | 85 | 32 | 12 | 38 | 29.5 | M8 | - | 1 | 0.58 |
| NC32-16-100L-C | 100 | 85 | 32 | 16 | 38 | 29.5 | M8 | - | 1 | 0.48 |
| NC32-18-100L-C | 100 | 85 | 32 | 18 | 38 | 77 | - | 14 | 2 | 0.47 |
| NC32-20-100L-C | 100 | 85 | 32 | 20 | 38 | 77 | - | 14 | 2 | 0.40 |
| NC32-25-100L-C | 100 | 85 | 32 | 25 | 38 | 77 | - | 14 | 2 | 0.27 |
| NC40-06-100L-C | 100 | 85 | 40 | 6 | 46 | 38 | M8 | - | 1 | 1.01 |
| NC40-08-100L-C | 100 | 85 | 40 | 8 | 46 | 38 | M8 | - | 1 | 0.99 |
| NC40-10-100L-C | 100 | 85 | 40 | 10 | 46 | 38 | M8 | - | 1 | 0.98 |
| NC40-12-100L-C | 100 | 85 | 40 | 12 | 46 | 38 | M8 | - | 1 | 0.94 |
| NC40-16-100L-C | 100 | 85 | 40 | 16 | 46 | 38 | M8 | - | 1 | 0.88 |
| NC40-18-100L-C | 100 | 85 | 40 | 18 | 46 | 77 | - | 14 | 2 | 0.84 |
| NC40-20-100L-C | 100 | 85 | 40 | 20 | 46 | 77 | - | 14 | 2 | 0.72 |
| NC40-25-100L-C | 100 | 85 | 40 | 25 | 46 | 77 | - | 14 | 2 | 0.60 |
| NC40-32-100L-C | 100 | 85 | 40 | 32 | 46 | 77 | - | 14 | 2 | 0.39 |

•長度單位 Unit of Length (mm)



Damping

減震模組化示意圖

Modular combination

車削TURNING

一體式
Integrated



DP/STUPR一體式減震車刀架
Vibration -damped Boring Bar With Coolant

BM 模組化系列
BM Modular Series



BM模組化高硬度減震車刀柄
Modular Vibration-damped Boring Bar



BM模組化高硬度大柄徑減震車刀柄
Modular Vibration-damped Boring Bar



BM模組化鎢鋼減震車刀柄
Modular Vibration-damped Carbide Boring Bar



BM/SCLCR, STUCR, SNR
BM/SDUCR, STUPR, SVUCR
BM/MCLNR, MTUNR

DPFCK 模組化系列
DPFCK Modular Series



DPFCK 模組化減震車刀柄
Modular Vibration -damped Boring Bar Shank



FSCK/SCLC, SCLP, SCKC, SDZC
FSCK/SDUC, STFC, STUC, STUP
FSCK/SVJC, MCLN, MTUN, SDQC
FSCK/SSSC, SVUC, SIR, DGIR

平面銑削FACE MILLING



FDP減震銑刀桿
Damping Face Mill Arbor



HR圓刃殼型銑刀
Round Corner End Milling Cutter



BGP迷你殼型銑刀
Face Milling Cutter



IFM殼型銑刀
Face Milling Cutter



GR圓刃殼型銑刀
Round Corner End Milling Cutter



SFM殼型銑刀
Face Milling Cutter



KM45°殼型銑刀
Face Milling Cutter



KFM殼型銑刀
Face Milling Cutter

搪孔 Boring

樣式1 Type1

(DX6)



MCK 搪孔頭刀柄
Boring Head Shank



CK 搪孔頭刀柄
Boring Head Shank



SCK/DP 減震延長桿
Damping Extension



SMB 超微米精搪頭
SMB Super Micron Exchangeable
Finish Boring Head

樣式2 Type2

(DX6)



CK / DP 搪孔頭刀柄
Boring Head Shank



SMB 超微米精搪頭
SMB Super Micron Exchangeable
Finish Boring Head

樣式3 Type3

(DX8)



MCK 搪孔頭刀柄
Boring Head Shank



CK 搪孔頭刀柄
Boring Head Shank



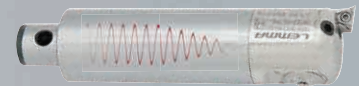
SBT/MLK 法蘭加厚型(雙面拘束)
強力銑削夾頭
Dual DRIVE Force Collet Chuck



SCK 延長桿
Anti-Vibration Extension



SCK 直柄碳化鎢鋼搪孔頭刀桿
Straight Carbide Boring Shank



CBH / DP 減震精搪頭
Damping Finish Boring Head

樣式4 Type4

(DX8)



HSK/PSC 套筒
HSK/PSC Adapter



SBT/PSC 套筒
SBT/PSC Adapter



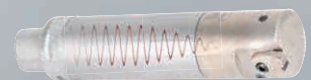
DAT/PSC 套筒
DAT/PSC Adapter



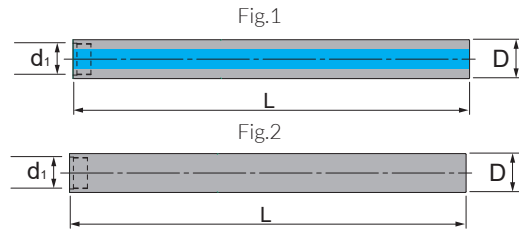
PSC 等徑套筒
PSC Adapter For Same Dia.



PSC 異徑套筒
Adapter For Different Dia.



PSC/PMB 減震精密微調搪頭
Submicron Finish Boring Head



特點 Feature

- 適用市面上所有通用銑刀盤
- 更快的切削進給及良好的加工表面精度

- Suitable for every generic milling cutter on market.
- Higher cutting feed rate and better surface accuracy.

6 倍長 6 Times Longer

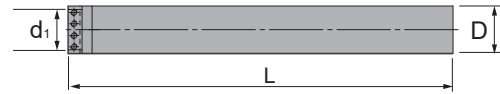
| 規格 Spec. | L | d ₁ | D | 重量 (KGS) Weight | Fig. |
|-----------------|-----|----------------|----|-----------------|------|
| DPH16-BM16-150L | 150 | M13X0.5 | 16 | 0.28 | 2 |
| DPH20-BM20-180L | 180 | M16X0.75 | 20 | 0.55 | 2 |
| DPH25-BM25-210L | 210 | M20X0.75 | 25 | 0.97 | 2 |
| DPH32-BM32-260L | 260 | 18 | 32 | 1.93 | 1 |
| DPH40-BM40-320L | 320 | 22 | 40 | 2.87 | 1 |
| DPH50-BM50-420L | 420 | 28 | 50 | 7.10 | 1 |

8 倍長 8 Times Longer

| 規格 Spec. | L | d ₁ | D | 重量 (KGS) Weight | Fig. |
|-----------------|-----|----------------|----|-----------------|------|
| DPH16-BM16-180L | 180 | M13X0.5 | 16 | 0.33 | 2 |
| DPH20-BM20-220L | 220 | M16X0.75 | 20 | 0.65 | 2 |
| DPH25-BM25-260L | 260 | M20X0.75 | 25 | 1.16 | 2 |
| DPH32-BM32-320L | 320 | 18 | 32 | 2.28 | 1 |
| DPH40-BM40-400L | 400 | 22 | 40 | 3.92 | 1 |
| DPH50-BM50-520L | 520 | 28 | 50 | 8.39 | 1 |
| DPH60-BM50-600L | 600 | 28 | 60 | 11.53 | 1 |

10 倍長 10 Times Longer

| 規格 Spec. | L | d ₁ | D | 重量 (KGS) Weight | Fig. |
|-----------------|-----|----------------|----|-----------------|------|
| DPH40-BM40-480L | 480 | 22 | 40 | | |
| DPH50-BM50-620L | 620 | 28 | 50 | 9.68 | 1 |
| DPH60-BM50-720L | 720 | 28 | 60 | 13.24 | 1 |



特點 Feature

- 適用市面上所有通用銑刀盤
- 更快的切削進給及良好的加工表面精度

- Suitable for every generic milling cutter on market.
- Higher cutting feed rate and better surface accuracy.

8 倍長 8 Times Longer

| 規格 Spec. | L | d ₁ | D | 重量 (KGS) Weight |
|------------------|------|----------------|----|-----------------|
| DPH80-BM50-1100L | 1100 | 28 | 80 | 35.0 |

10 倍長 10 Times Longer

| 規格 Spec. | L | d ₁ | D | 重量 (KGS) Weight |
|-------------------|------|----------------|-----|-----------------|
| DPH80-BM50-1250L | 1250 | 28 | 80 | 39.0 |
| DPH100-BM50-1400L | 1400 | 28 | 100 | 62.0 |
| DPH120-BM50-1800L | 1800 | 28 | 120 | 110.0 |
| DPH150-BM50-2500L | 2500 | 28 | 150 | 180.0 |
| DPH180-BM50-2800L | 2800 | 28 | 180 | 288.0 |
| DPH200-BM50-3000L | 3000 | 28 | 200 | 370.0 |

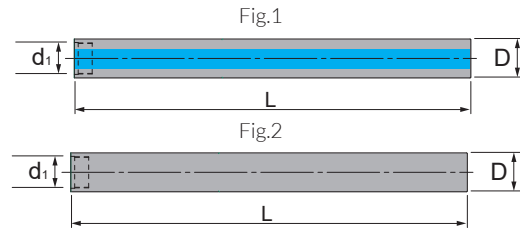
12 倍長 12 Times Longer

| 規格 Spec. | L | d ₁ | D | 重量 (KGS) Weight |
|-------------------|------|----------------|-----|-----------------|
| DPH80-BM50-1450L | 1450 | 28 | 80 | 43.0 |
| DPH100-BM50-1600L | 1600 | 28 | 100 | 69.0 |
| DPH120-BM50-2000L | 2000 | 28 | 120 | 125.0 |
| DPH150-BM50-2800L | 2800 | 28 | 150 | 200.0 |
| DPH180-BM50-3200L | 3200 | 28 | 180 | 320.0 |
| DPH200-BM50-3500L | 3500 | 28 | 200 | 420.0 |

• 長度單位 Unit of Length (mm)

BM 模組化鎢鋼減震車刀柄

BM MODULAR VIBRATION-DAMPED CARBIDE BORING BAR



特點 Feature

- 適用市面上所有通用銑刀盤
- 更快的切削進給及良好的加工表面精度

- Suitable for every generic milling cutter on market
- Higher cutting feed rate and better surface accuracy

10 倍長 10 Times Longer

| 規格 Spec. | L | d ₁ | D | 重量 (KGS) Weight | Fig. |
|-----------------|-----|----------------|----|-----------------|------|
| DPC16-BM16-220L | 220 | M13X0.5 | 16 | 0.50 | 2 |
| DPC20-BM20-250L | 250 | M16X0.75 | 20 | 1.29 | 2 |
| DPC25-BM25-300L | 300 | M20X0.75 | 25 | 2.05 | 2 |
| DPC32-BM32-400L | 400 | 18 | 32 | | |

12 倍長 12 Times Longer

| 規格 Spec. | L | d ₁ | D | 重量 (KGS) Weight | Fig. |
|-----------------|-----|----------------|----|-----------------|------|
| DPC20-BM20-295L | 295 | M16X0.75 | 20 | 1.49 | 1 |
| DPC25-BM25-350L | 350 | M20X0.75 | 25 | 2.38 | 1 |
| DPC32-BM32-450L | 450 | 18 | 32 | 4.04 | 1 |

13 倍長 13 Times Longer

| 規格 Spec. | L | d ₁ | D | 重量 (KGS) Weight | Fig. |
|-----------------|-----|----------------|----|-----------------|------|
| DPC16-BM16-270L | 270 | M13X0.5 | 16 | 0.60 | 2 |
| DPC40-BM40-610L | 610 | 22 | 40 | 9.00 | 1 |

14 倍長 14 Times Longer

| 規格 Spec. | L | d ₁ | D | 重量 (KGS) Weight | Fig. |
|-----------------|-----|----------------|----|-----------------|------|
| DPC20-BM20-350L | 350 | M16X0.75 | 20 | | |
| DPC25-BM25-400L | 400 | M20X0.75 | 25 | 2.71 | 2 |
| DPC32-BM32-500L | 500 | 18 | 32 | 4.64 | 1 |
| DPC50-BM50-820L | 820 | 28 | 50 | 15.40 | 1 |
| DPC60-BM50-960L | 960 | 28 | 60 | 31.50 | 1 |

15 倍長 15 Times Longer

| 規格 Spec. | L | d ₁ | D | 重量 (KGS) Weight | Fig. |
|-----------------|-----|----------------|----|-----------------|------|
| DPC40-BM40-690L | 690 | 22 | 40 | 9.60 | 1 |

16 倍長 16 Times Longer

| 規格 Spec. | L | d ₁ | D | 重量 (KGS) Weight | Fig. |
|------------------|------|----------------|----|-----------------|------|
| DPC50-BM50-920L | 920 | 28 | 50 | 17.40 | 1 |
| DPC60-BM50-1080L | 1080 | 28 | 60 | 35.01 | 1 |

• 長度單位 Unit of Length (mm)

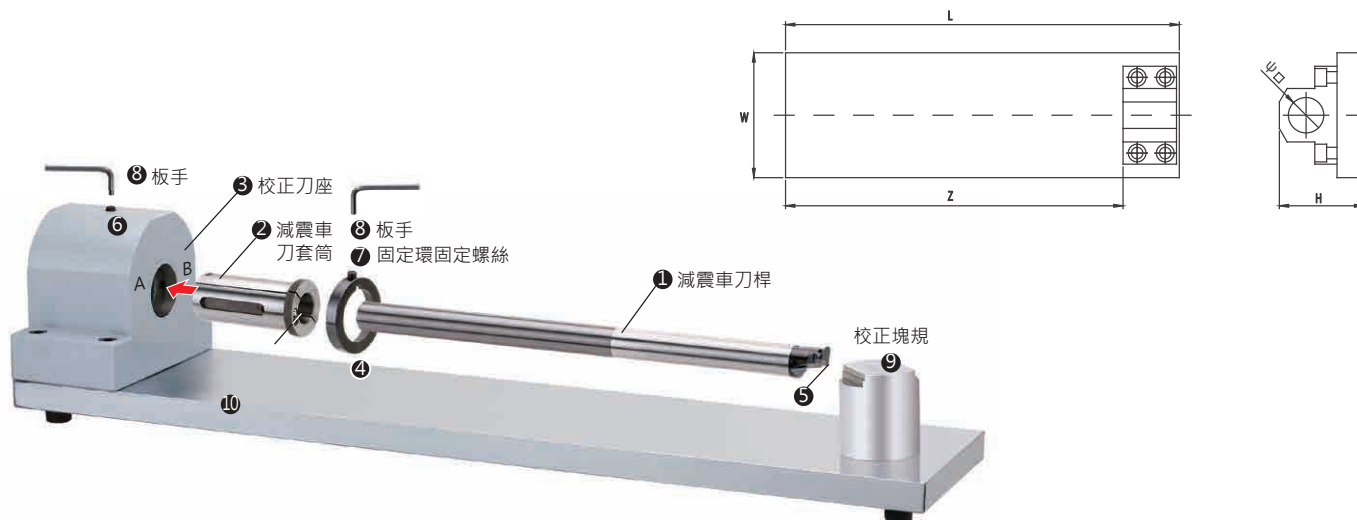


減震車刀中心校正台

TOOL PRESETTER FOR VIBRATION-DAMPED TURNING TOOL

KOVIT

NEW



- | | | | |
|-----------------------------|-------------------------------|------------|-----------------------------------|
| ① 減震車刀桿 | ① Damped turning tool | ⑥ 校正刀座固定螺絲 | ⑥ Set screw for tool holding seat |
| ② 減震車刀套筒 | ② Damped turning tool sleeve | ⑦ 固定環固定螺絲 | ⑦ Set screw for retaining ring |
| ③ 校正刀座 (Ø32, Ø40, Ø50, Ø60) | ③ Tool holding seat | ⑧ 六角扳手 | ⑧ Hex wrench |
| ④ 固定環 | ④ Retaining ring | ⑨ 校正塊規 | ⑨ Block gauge |
| ⑤ BM車刀頭刀尖 | ⑤ Tool tip of LT turning head | ⑩ 中心校正台本體 | ⑩ Tool setter table |

特點 Feature

- 減震車刀中心校正台專為快速校正減震內孔車刀而設計
- 減震車刀中心校正台需搭配減震內孔車刀套筒使用
- 可依不同內孔車刀的伸出長度與車刀桿直徑的比值 L/D，而選擇不同的中心高
- The shock absorber knife center correction station is designed for quick correction of shock-absorbing inner hole lathe tool.
- The center correction table of the shock-absorbing vehicle knife should be used with the shock-absorbing inner hole lathe tool sleeve.
- Depending on the extended length of the lathe tool and the diameter ratio of the lathe tool L/D, the different center height can be selected.

| 規格 Spec. | 有效校正長 Z | 全長 L | 寬 W | 高 H | 重量 Weight (KGS) | 搭配減徑專用套筒 sleeve |
|----------|---------|------|-----|-----|-----------------|-----------------|
| CRT-C32 | 600 | 700 | 150 | 150 | 26 | RSC32-ψ □ |
| CRT-C40 | | | | | | RSC40-ψ □ |
| CRT-C50 | | | | | | RSC50-ψ □ |
| CRT-C60 | | | | | | RSC60-ψ □ |

⚠ □ : 車刀柄徑
10、12、14、16、18、20、28
所有規格均含有附件：校正塊規 ×1PCS、固定環 ×1PCS、4mm 六角扳手 ×1PCS

⚠ □ : Car knife shank diameter
10、12、14、16、18、20、28
All Specs contain accessories: correction block gauge x 1PCS, fixed ring x 1PCS, 4mm hexagonal wrench x 1PCS

•長度單位 Unit of Length (mm)

BM/SCLCR 模組化內徑車刀

BM/SCLCR MODULAR BORING BAR HEAD



KOVIT

NEW

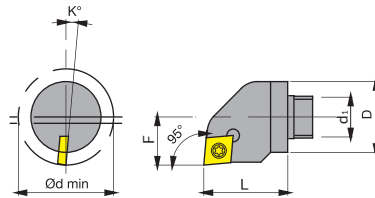


Fig.1

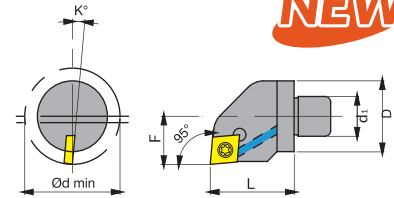


Fig.2

| 規格 Spec. | L | D | d | d1 | F | K° | 刀片 Insert | Fig. | 重量 (KGS) Weight |
|---------------|----|----|----|----------|----|----|-----------|------|-----------------|
| BM16-SCLCR-09 | 25 | 16 | 20 | M13X0.5 | 10 | 7 | CC..09T3 | 1 | - |
| BM20-SCLCR-09 | 30 | 20 | 25 | M16X0.75 | 13 | 7 | CC..09T3 | 1 | - |
| BM25-SCLCR-09 | 30 | 25 | 30 | M20X0.75 | 15 | 5 | CC..09T3 | 1 | - |
| BM32-SCLCR-09 | 35 | 32 | 40 | 18 | 20 | 5 | CC..09T3 | 2 | - |
| BM40-SCLCR-12 | 40 | 40 | 52 | 22 | 26 | 3 | CC..1204 | 2 | - |
| BM50-SCLCR-12 | 40 | 50 | 64 | 28 | 32 | 3 | CC..1204 | 2 | - |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 Torque |
|-----------|---------------|-----------|------------|
| CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 N.m |
| CC..1204 | M5-11-7.5-60 | T20 | 5.0 N.m |

BM/STUCR 模組化內徑車刀

BM/STUCR MODULAR BORING BAR HEAD



KOVIT

NEW

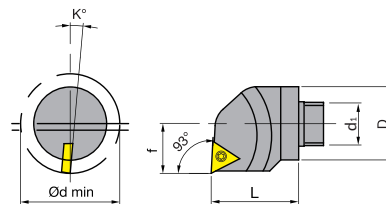


Fig.1

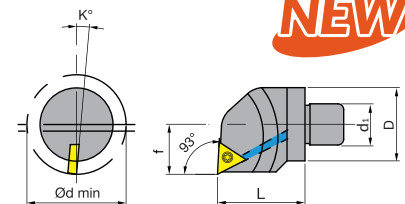


Fig.2

| 規格 Spec. | L | D | d | d1 | F | K° | 刀片 Insert | Fig. | 重量 (KGS) Weight |
|---------------|----|----|----|----------|------|----|-----------|------|-----------------|
| BM16-STUCR-11 | 25 | 16 | 20 | M13X0.5 | 10 | 8 | TC..1102 | 1 | - |
| BM20-STUCR-11 | 30 | 20 | 25 | M16X0.75 | 13 | 6 | TC..1102 | 1 | - |
| BM25-STUCR-11 | 30 | 25 | 30 | M20X0.75 | 15 | 4 | TC..1102 | 1 | - |
| BM32-STUCR-16 | 35 | 32 | 39 | 18 | 19.5 | 5 | TC..16T3 | 2 | - |
| BM40-STUCR-16 | 40 | 40 | 51 | 22 | 5.5 | 5 | TC..16T3 | 2 | - |
| BM50-STUCR-16 | 40 | 50 | 61 | 28 | 30.4 | 5 | TC..16T3 | 2 | - |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 Torque |
|-----------|-----------------|-----------|------------|
| TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 N.m |
| TC..16T3 | M4-8.0-5.7-60 | T15 | 3.0 N.m |

•長度單位 Unit of Length (mm)

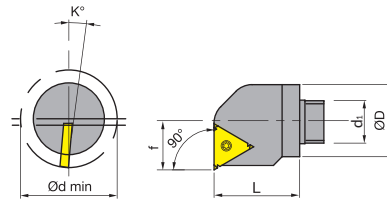


Fig.1

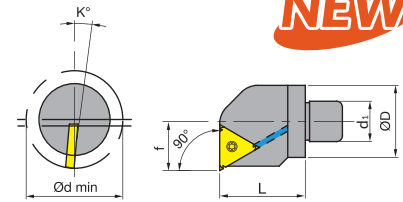


Fig.2

| 規格 Spec. | L | D | d | d1 | F | K° | 刀片 Insert | Fig. | 重量 (KGS) Weight |
|-------------|----|----|----|----------|----|----|-----------|------|-----------------|
| BM16-SNR-16 | 25 | 16 | 20 | M13X0.5 | 10 | 15 | 16IR | 1 | - |
| BM20-SNR-16 | 30 | 20 | 26 | M16X0.75 | 13 | 15 | 16IR | 1 | - |
| BM25-SNR-16 | 30 | 25 | 32 | M20X0.75 | 17 | 15 | 16IR | 1 | - |
| BM32-SNR-16 | 35 | 32 | 40 | 18 | 20 | - | 16IR | 2 | - |
| BM40-SNR-16 | 40 | 40 | 52 | 22 | 26 | - | 16IR | 2 | - |
| BM50-SNR-16 | 40 | 50 | 64 | 28 | 23 | - | 16IR | 2 | - |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 Torque |
|-----------|------------------|-----------|------------|
| 16IR | M3.5-11.7-5.3-60 | T15 | 3.0 N.m |

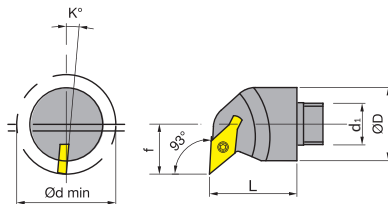


Fig.1

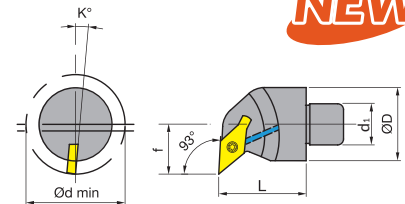


Fig.2

| 規格 Spec. | L | D | d | d1 | F | K° | 刀片 Insert | Fig. | 重量 (KGS) Weight |
|---------------|----|----|----|----------|----|----|-----------|------|-----------------|
| BM16-SDUCR-11 | 25 | 16 | 20 | M13X0.5 | 11 | 6 | DC..11T3 | 1 | - |
| BM20-SDUCR-11 | 30 | 20 | 26 | M16X0.75 | 13 | 6 | DC..11T3 | 1 | - |
| BM25-SDUCR-11 | 30 | 25 | 32 | M20X0.75 | 16 | 6 | DC..11T3 | 1 | - |
| BM32-SDUCR-11 | 35 | 32 | 40 | 18 | 20 | 6 | DC..11T3 | 2 | - |
| BM40-SDUCR-11 | 40 | 40 | 52 | 22 | 26 | 6 | DC..11T3 | 2 | - |
| BM50-SDUCR-11 | 40 | 50 | 64 | 28 | 32 | 6 | DC..11T3 | 2 | - |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 Torque |
|-----------|--------------|-----------|------------|
| DC..11T3 | M4-10-5.7-60 | T15 | 3.0 N.m |

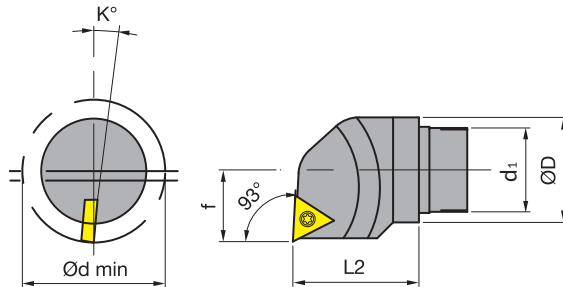
•長度單位 Unit of Length (mm)

BM/STUPR 模組化內徑車刀

BM/STUPR MODULAR BORING BAR HEAD



NEW



| 規格 Spec. | L | D | d | d1 | F | K° | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 Torque | 重量 (KGS) Weight |
|---------------|----|----|----|----------|----|----|-----------|---------------|-----------|------------|-----------------|
| BM16-STUPR-11 | 25 | 16 | 20 | M13X0.5 | 10 | 6 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 N.m | - |
| BM20-STUPR-11 | 30 | 20 | 25 | M16X0.75 | 13 | 4 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 N.m | - |
| BM25-STUPR-11 | 30 | 25 | 30 | M20X0.75 | 15 | 2 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 N.m | - |

配件表 Accessories

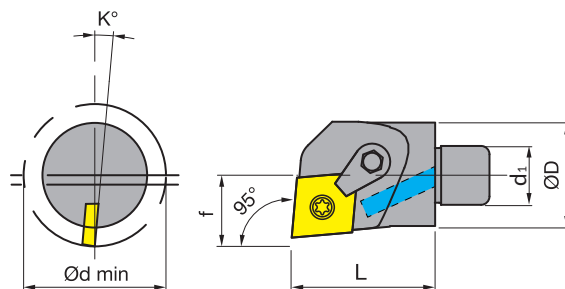
| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 Torque |
|-----------|---------------|-----------|------------|
| TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 |

BM/MCLNR 模組化內徑車刀

BM/MCLNR MODULAR BORING BAR HEAD



NEW

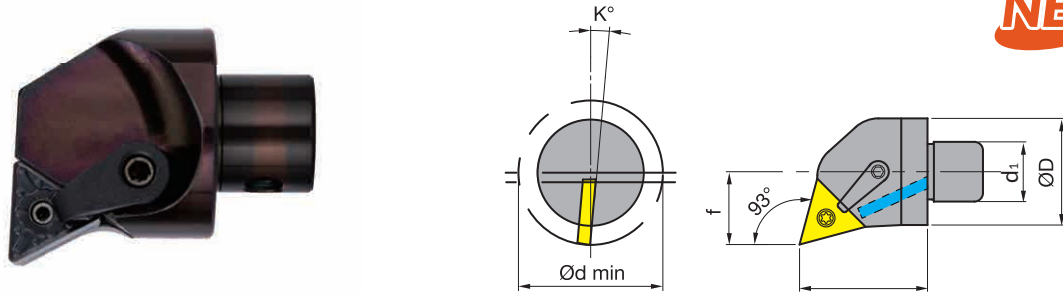


| 規格 Spec. | L | D | d | d1 | F | K° | 刀片 Insert | 重量 (KGS) Weight |
|---------------|----|----|----|----|----|----|-----------|-----------------|
| BM32-MCLNR-12 | 35 | 32 | 40 | 18 | 20 | 12 | CN..1204 | - |
| BM40-MCLNR-12 | 40 | 40 | 48 | 22 | 24 | 12 | CN..1204 | - |
| BM50-MCLNR-12 | 40 | 50 | 64 | 28 | 32 | 12 | CN..1204 | - |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench |
|-----------|---------|-----------------|-----------|----------|------------------|-------------------|
| CN..1204 | CMS432 | MLP46 | PL2.5 | MC620 | MS625 | PL3 |

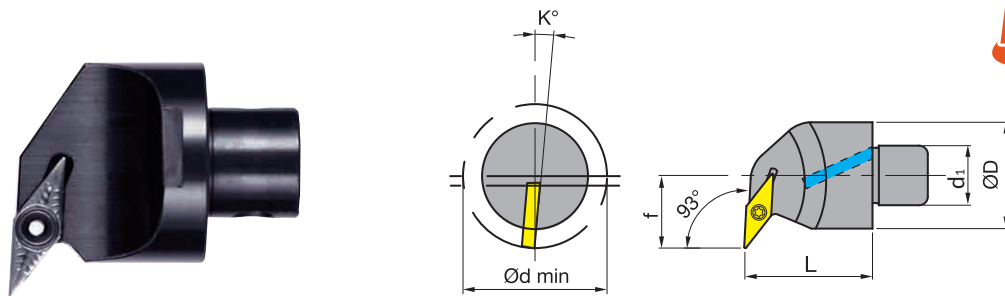
•長度單位 Unit of Length (mm)



| 規格 Spec. | L | D | d | d1 | F | K° | 刀片 Insert | 重量 (KGS) Weight |
|---------------|----|----|----|----|------|-----------|-----------|-----------------|
| BM32-MTUNR-16 | 35 | 32 | 40 | 18 | 19.5 | 13 | TN..1604 | - |
| BM40-MTUNR-16 | 40 | 40 | 52 | 22 | 25.5 | 13 | TN..1604 | - |
| BM50-MTUNR-16 | 40 | 50 | 64 | 28 | 30.4 | 13 | TN..1604 | - |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench |
|-----------|---------|-----------------|-----------|----------|------------------|-------------------|
| TN..1604 | TWS322 | MLP34L | PL2 | MC620 | MS625 | PL3 |
| TN..1604 | TWS322 | MLP34L | PL2 | MC620 | MS625 | PL3 |
| TN..1604 | TWS322 | MLP34L | PL2 | MC620 | MS625 | PL3 |



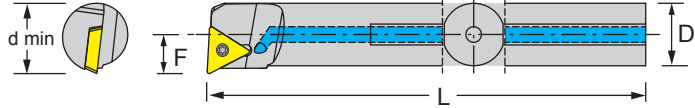
| 規格 Spec. | L | D | d | d1 | F | K° | 刀片 Insert | 重量 (KGS) Weight |
|---------------|----|----|----|----|----|-----------|-----------|-----------------|
| BM32-SVUCR-16 | 35 | 32 | 40 | 18 | 20 | 5 | VC..1604 | - |
| BM40-SVUCR-16 | 40 | 40 | 52 | 22 | 26 | 5 | VC..1604 | - |
| BM50-SVUCR-16 | 40 | 50 | 64 | 28 | 32 | 5 | VC..1604 | - |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 Torque |
|-----------|-----------------|-----------|------------|
| VC..1604 | M3.5-8.0-5.0-60 | T15 | 3.0N.m |

DPSTUPR 一體式減震車刀架 - 出水型

DPSTUPR VIBRATION-DAMPED BORING BAR WITH COOLANT



8 倍長 8 Times Longer

| 規格 Spec. | L | D | d | F | 使用刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------------------|-----|----|----|-----|-------------|-----------------|-----------|------------------|-----------------|
| DPS12-STUPR-09-14-196L-C | 196 | 12 | 14 | 7.5 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | - |
| DPS12-STUPR-11-14-196L-C | 196 | 12 | 14 | 7.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | - |
| DPS16-STUPR-11-18-228L-C | 228 | 16 | 18 | 9.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | - |

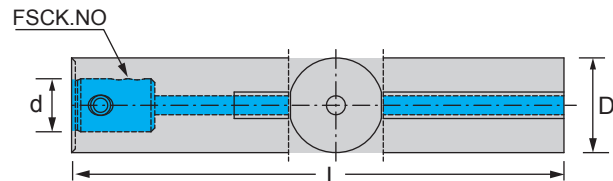
10 倍長 10 Times Longer

| 規格 Spec. | L | D | d | F | 使用刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------------------|-----|----|----|-----|-------------|-----------------|-----------|------------------|-----------------|
| DPC12-STUPR-09-14-220L-C | 220 | 12 | 14 | 7.5 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.32 |
| DPC12-STUPR-11-14-220L-C | 220 | 12 | 14 | 7.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.32 |
| DPC16-STUPR-11-18-260L-C | 260 | 16 | 18 | 9.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | - |



DPFSCK 模組化減震車刀柄 - 出水型

DPFSCK MODULAR VIBRATION-DAMPED BORING BAR SHANK



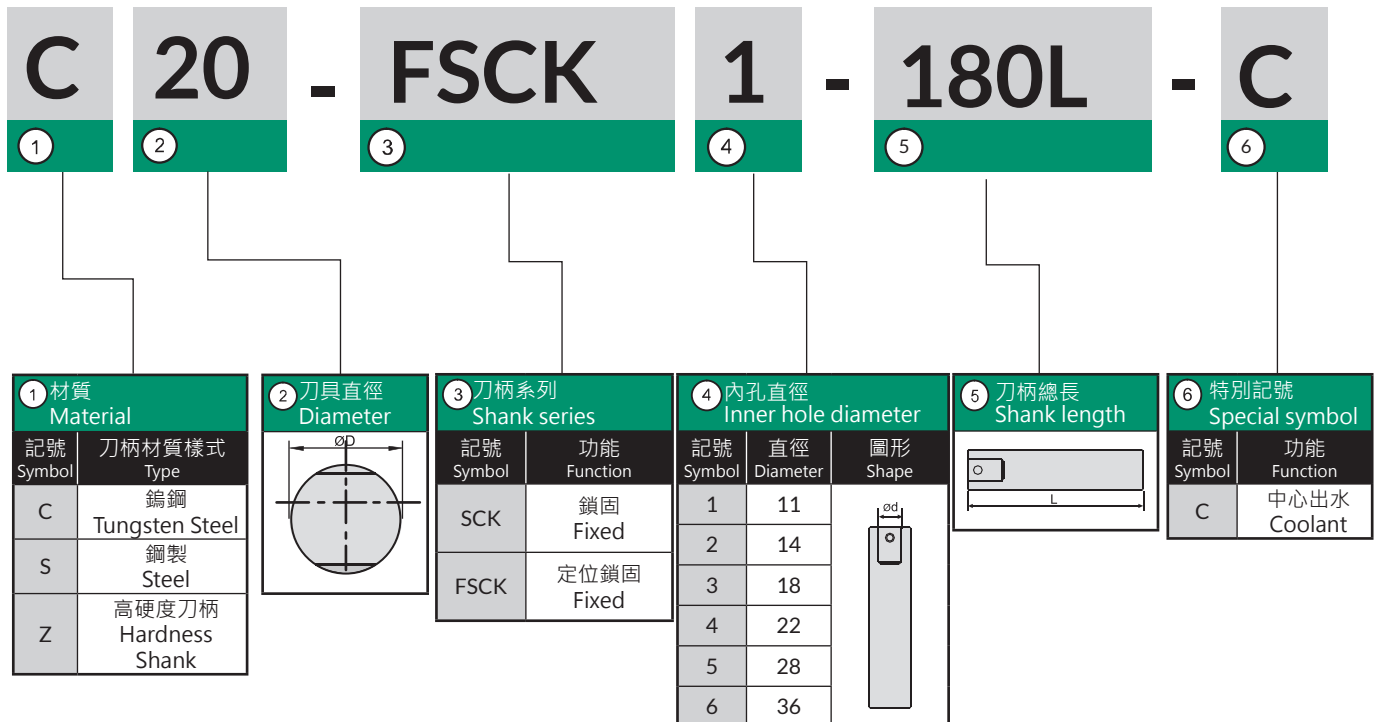
8 倍長 8 Times Longer

| 規格 Spec. | L | D | d | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------------|-----|----|----|-----------|-----------|------------------|-----------------|
| DPS20-FSCK1-240L-C | 240 | 20 | 11 | FSCCK1-M5 | PL2.5 | 5.0 | - |
| DPS25-FSCK2-275L-C | 275 | 25 | 14 | FSCCK2-M6 | PL3 | 5.0 | 1.16 |
| DPS32-FSCK3-326L-C | 326 | 32 | 18 | FSCCK3-M6 | PL3 | 5.0 | 2.23 |
| DPS40-FSCK4-410L-C | 410 | 40 | 22 | FSCCK4-M8 | PL4 | 6.0 | - |

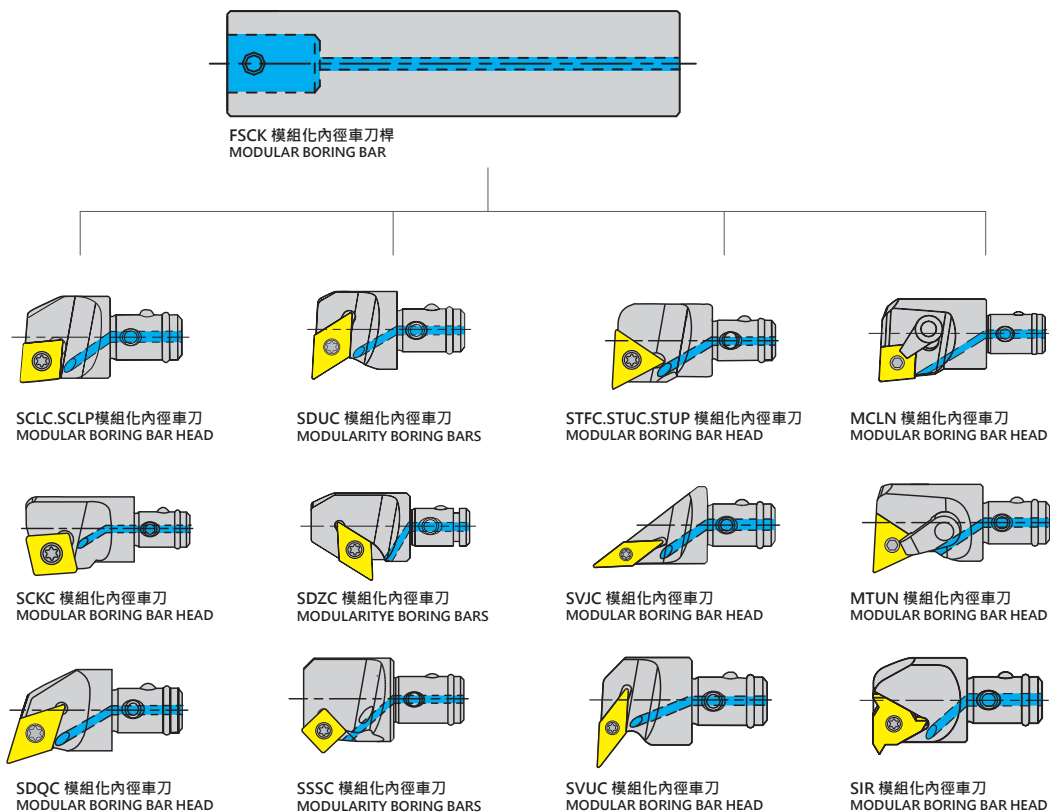
10 倍長 10 Times Longer

| 規格 Spec. | L | D | d | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------------|-----|----|----|-----------|-----------|------------------|-----------------|
| DPC20-FSCK1-280L-C | 280 | 20 | 11 | FSCCK1-M5 | PL2.5 | 5.0 | 1.08 |
| DPC25-FSCK2-325L-C | 325 | 25 | 14 | FSCCK2-M6 | PL3 | 5.0 | 1.9 |
| DPC32-FSCK3-390L-C | 390 | 32 | 18 | FSCCK3-M6 | PL3 | 5.0 | 3.76 |
| DPC40-FSCK4-490L-C | 490 | 40 | 22 | FSCCK4-M8 | PL4 | 6.0 | - |

•長度單位 Unit of Length (mm)



FSCK 組合圖 Combination Icon

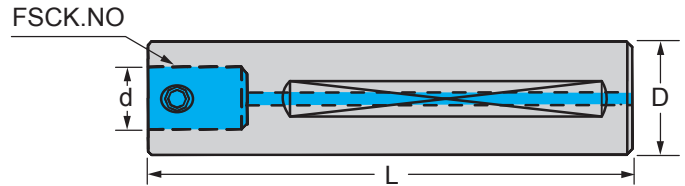


• 長度單位 Unit of Length (mm)

FSCK 定位高硬度內徑車刀柄

FSCK FIXED STRAIGHT TURNING TOOLS

KOVIT



特點 Feature

- 抗震係數 4~5 倍

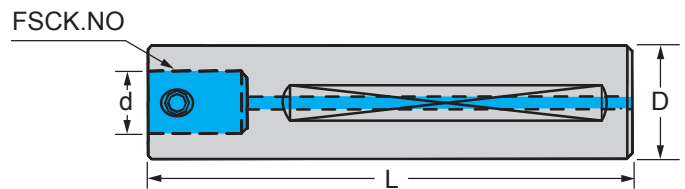
-Vibration resistance ratio: 4~5.

| 規格 Spec. | 組合刀柄 NO. | L | D | d | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------|-------------|-----|----|----|-------------|--------------|------------------------|-----------------------|
| Z20-FSCK1-180L-C | FSCK1 | 180 | 20 | 11 | FSCK1-M5 | PL2.5 | 5.0 | 0.43 |
| Z25-FSCK2-175L-C | FSCK2 | 175 | 25 | 14 | FSCK2-M6 | PL3 | 5.0 | 0.66 |
| Z25-FSCK2-225L-C | FSCK2 | 225 | 25 | 14 | FSCK2-M6 | PL3 | 5.0 | 0.84 |
| Z32-FSCK3-220L-C | FSCK3 | 220 | 32 | 18 | FSCK3-M6 | PL3 | 5.0 | 1.30 |
| Z32-FSCK3-270L-C | FSCK3 | 270 | 32 | 18 | FSCK3-M6 | PL3 | 5.0 | 2.90 |
| Z40-FSCK4-267L-C | FSCK4 | 267 | 40 | 22 | FSCK4-M8 | PL4 | 5.0 | - |
| Z50-FSCK5-290L-C | FSCK5 | 290 | 50 | 28 | FSCK5-M10 | PL5 | 6.0 | - |

FSCK 定位鎢鋼內徑車刀柄

FSCK FIXED TUNGSTEN TURNING TOOLS

KOVIT



特點 Feature

- 抗震係數 5~6 倍

-Vibration resistance ratio: 5~6

| 規格 Spec. | 組合刀柄 NO. | L | D | d | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------|-------------|-----|----|----|-------------|--------------|------------------------|-----------------------|
| C20-FSCK1-180L-C | FSCK1 | 180 | 20 | 11 | FSCK1-M5 | PL2.5 | 5.0 | 0.8 |
| C20-FSCK1-230L-C | FSCK1 | 230 | 20 | 11 | FSCK1-M5 | PL2.5 | 5.0 | 0.98 |
| C25-FSCK2-175L-C | FSCK2 | 175 | 25 | 14 | FSCK2-M6 | PL3 | 5.0 | 1.18 |
| C25-FSCK2-225L-C | FSCK2 | 225 | 25 | 14 | FSCK2-M6 | PL3 | 5.0 | 1.50 |
| C32-FSCK3-170L-C | FSCK3 | 170 | 32 | 18 | FSCK3-M6 | PL3 | 5.0 | 1.80 |
| C32-FSCK3-220L-C | FSCK3 | 220 | 32 | 18 | FSCK3-M6 | PL3 | 5.0 | 2.33 |
| C32-FSCK3-270L-C | FSCK3 | 270 | 32 | 18 | FSCK3-M6 | PL3 | 5.0 | 2.86 |

• 長度單位 Unit of Length (mm)

| 1 材質 Material | | 3 刀柄系列 Series | | 6 刀片形狀 Shape | | | | 8 離隙角 Relief Angle | | 9 切削方向 Direction | | 11 最小加工徑 Min. Dia. |
|---------------|------------------------|---------------|---------------|--------------|------------|----------|----------|--------------------|------------------|------------------|----------|--------------------|
| 記號 Symbol | 刀柄材質樣式 Type | 記號 Symbol | 功能 Function | 記號 Symbol | 形狀 Shape | 角度 Angle | 圖形 Shape | 記號 Symbol | 離隙角 Relief Angle | 記號 Symbol | 圖形 Shape | |
| C | 鎢鋼 Tungsten | SCK | 鎖固 Fixed | C | 菱形 Rhombic | 80° | | B | 5° | L | | |
| S | 鋼製 Steel | FSCK | 定位鎖固 Fixed | D | 菱形 Rhombic | 55° | | C | 7° | N | | |
| Z | 高硬度刀柄 Hardness Shank | | | J | | 70° | | D | 15° | R | | |
| SC | 鎢鋼焊接式 Tungsten Welding | | | V | | 35° | | E | 20° | | | |
| | | | | R | 圓形 Round | - | 0° | | | | | |
| | | S | 正方形 Square | 90° | | P | 11° | | | | | |
| | | T | 正三角形 Triangle | 60° | | | | | | | | |
| | | W | 六角形 Hexagonal | 80° | | | | | | | | |

S 20 - FSCK 1 - S T L C R 09 - 16 - C

1 2 3 4 5 6 7 8 9 10 11 12

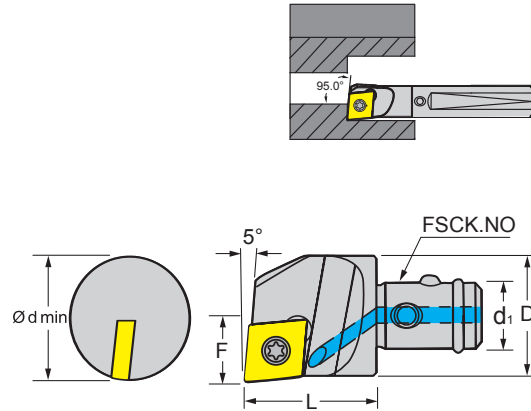
| 2 刀具直徑 Diameter | | | 4 內孔直徑 Inner hole | | | 5 壓板鎖固方式 Locking Type | | | 7 切刃形狀 Shape | | | | 10 刀片邊寬 Width | | 12 特別記號 Specialize | |
|-----------------|-------------|----------|-------------------|-------------|----------|-----------------------|-----------------|----------|--------------|-----------|-----------|----------|---------------|----------|--------------------|--------------|
| 記號 Symbol | 直徑 Diameter | 圖形 Shape | 記號 Symbol | 直徑 Diameter | 圖形 Shape | 記號 Symbol | 名稱 Name | 圖形 Shape | 記號 Symbol | 圖形 Shape | 記號 Symbol | 圖形 Shape | 記號 Symbol | 圖形 Shape | 記號 Symbol | 功能 Function |
| | 11 | | 1 | 11 | | C | 上壓式 Clamp | | A | | L2 | | S | | C | 中心出水 Coolant |
| | 14 | | 2 | 14 | | M | 螺銷上壓式 Pin/Clamp | | B | | N | | T | | | |
| | 18 | | 3 | 18 | | | | | C | 90° | N3 | | R | | | |
| | 22 | | 4 | 22 | | W | 楔鉤式 Clamp | | D | | P | | L | | | |
| | 28 | | 5 | 28 | | | | | S | 壓孔式 Screw | | E | | Q | | CD |
| | 36 | | 6 | 36 | | P | 側推式 Pin | | F | | S | | EV | | | |
| | | | | | | | | | G | | V | | A | | | |
| | | | | | | | | | G | | U | | BK | | | |
| | | | | | | | | | J | | X | | | | | |
| | | | | | | | | | J2 | | Y | | | | | |
| | | | | | | | | | K | | Z | | | | | |
| | | | | | | | | | L | | | | | | | |

•長度單位 Unit of Length (mm)



SCLC 模組化內徑車刀 SCLC MODULAR TURNING TOOL HEAD

KOVIT

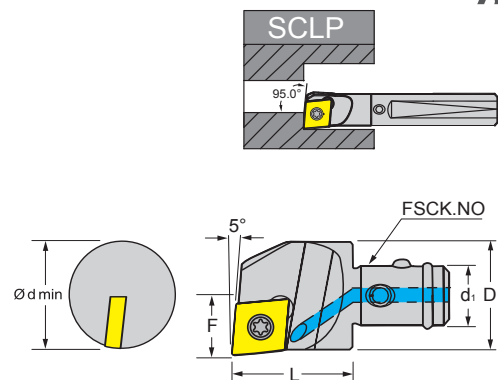


| 規格 Spec. | L | D | 最小加工徑 d | d ₁ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|----|----|------------|----------------|------|--------------|---------------|--------------|------------------------|-----------------------|
| S20-FSCK1-SCLCR09-22-C | 22 | 20 | 22 | 11 | 11 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-SCLCL09-22-C | 22 | 20 | 22 | 11 | 11 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-SCLCR09-28-C | 25 | 25 | 28 | 14 | 14.5 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-SCLCL09-28-C | 25 | 25 | 28 | 14 | 14.5 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-SCLCR09-38-C | 30 | 32 | 38 | 18 | 17.5 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.20 |
| S32-FSCK3-SCLCL09-38-C | 30 | 32 | 38 | 18 | 17.5 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.20 |
| S40-FSCK4-SCLCR09-43-C | 33 | 40 | 43 | 22 | 21 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S40-FSCK4-SCLCL09-43-C | 33 | 40 | 43 | 22 | 21 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S50-FSCK5-SCLCR09-60-C | 35 | 50 | 60 | 28 | 30 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.54 |
| S50-FSCK5-SCLCL09-60-C | 35 | 50 | 60 | 28 | 30 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.54 |



SCLP 模組化內徑車刀 SCLP MODULAR TURNING TOOL HEAD

KOVIT



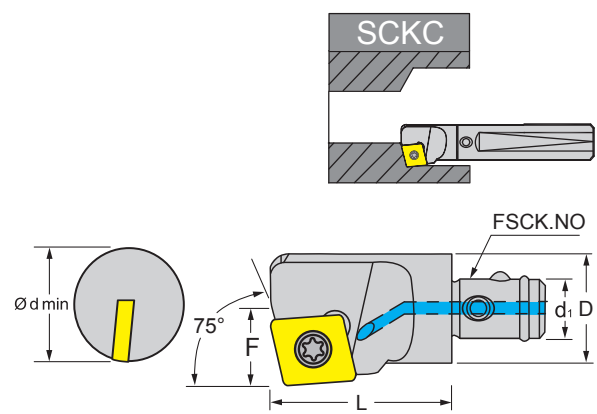
| 規格 Spec. | L | D | 最小加工徑 d | d ₁ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|----|----|------------|----------------|------|--------------|---------------|--------------|------------------------|-----------------------|
| S20-FSCK1-SCLPR09-22-C | 22 | 20 | 22 | 11 | 11 | CP.0903 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-SCLPL09-22-C | 22 | 20 | 22 | 11 | 11 | CP.0903 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-SCLPR09-28-C | 25 | 25 | 28 | 14 | 14 | CP.0903 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-SCLPL09-28-C | 25 | 25 | 28 | 14 | 14 | CP.0903 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-SCLPR09-35-C | 24 | 32 | 35 | 18 | 17.5 | CP.0903 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S32-FSCK3-SCLPL09-35-C | 24 | 32 | 35 | 18 | 17.5 | CP.0903 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |

•長度單位 Unit of Length (mm)



SCKC 模組化內徑車刀 SCKC MODULAR TURNING TOOL HEAD

KOVIT

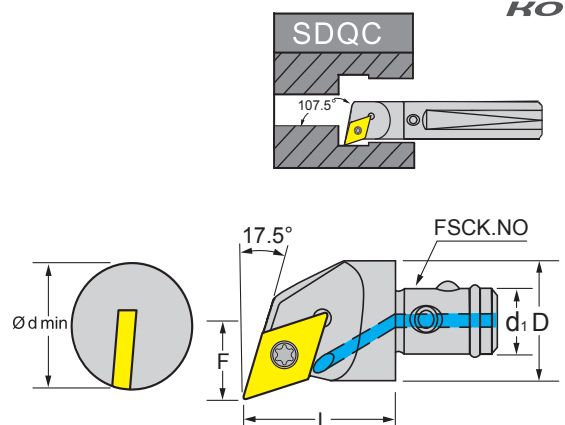


| 規格 Spec. | L | D | 最小加工徑 d | d ₁ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|----|----|---------|----------------|------|-----------|---------------|-----------|------------------|-----------------|
| S20-FSCK1-SCKCR09-24-C | 22 | 20 | 24 | 11 | 11.5 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-SCKCL09-24-C | 22 | 20 | 24 | 11 | 11.5 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-SCKCR09-30-C | 25 | 25 | 30 | 14 | 15 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-SCKCL09-30-C | 25 | 25 | 30 | 14 | 15 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-SCKCR09-38-C | 30 | 32 | 38 | 18 | 17.5 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S32-FSCK3-SCKCL09-38-C | 30 | 32 | 38 | 18 | 17.5 | CC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |



SDQC 模組化內徑車刀 SDQC MODULAR TURNING TOOL HEAD

KOVIT



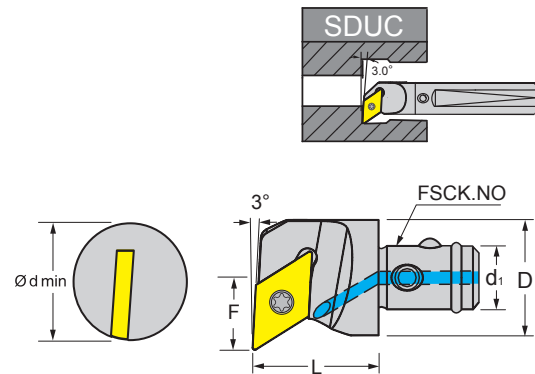
| 規格 Spec. | L | D | 最小加工徑 d | d ₁ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|----|----|---------|----------------|----|-----------|---------------|-----------|------------------|-----------------|
| S20-FSCK1-SDQCR11-25-C | 22 | 20 | 25 | 11 | 13 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-SDQCL11-25-C | 22 | 20 | 25 | 11 | 13 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-SDQCR11-32-C | 27 | 25 | 31 | 14 | 17 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-SDQCL11-32-C | 27 | 25 | 31 | 14 | 17 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-SDQCR11-40-C | 30 | 32 | 40 | 18 | 20 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S32-FSCK3-SDQCL11-40-C | 30 | 32 | 40 | 18 | 20 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S40-FSCK4-SDQCR11-50-C | 33 | 40 | 50 | 22 | 25 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S40-FSCK4-SDQCL11-50-C | 33 | 40 | 50 | 22 | 25 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S50-FSCK5-SDQCR11-56-C | 35 | 50 | 56 | 28 | 30 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |
| S50-FSCK5-SDQCL11-56-C | 35 | 50 | 56 | 28 | 30 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |

•長度單位 Unit of Length (mm)

SDUC 模組化內徑車刀

SDUC MODULAR TURNING TOOL HEAD

KOVIT

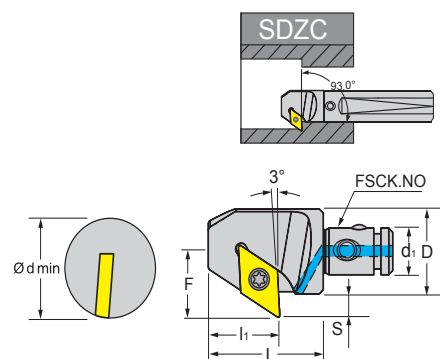


| 規格 Spec. | L | D | 最小加工徑 d | d ₁ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|----|----|------------|----------------|------|--------------|---------------|--------------|------------------------|-----------------------|
| S20-FSCK1-SDUCR11-23-C | 22 | 20 | 23 | 11 | 12.5 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.07 |
| S20-FSCK1-SDUCL11-23-C | 22 | 20 | 23 | 11 | 12.5 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-SDUCR11-25-C | 22 | 20 | 25 | 11 | 13 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-SDUCL11-25-C | 22 | 20 | 25 | 11 | 13 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-SDUCR11-32-C | 25 | 25 | 32 | 14 | 17 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-SDUCL11-32-C | 25 | 25 | 32 | 14 | 17 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-SDUCR11-40-C | 30 | 32 | 40 | 18 | 20 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.20 |
| S32-FSCK3-SDUCL11-40-C | 30 | 32 | 40 | 18 | 20 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S40-FSCK4-SDUCR11-46-C | 33 | 40 | 46 | 22 | 25 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S40-FSCK4-SDUCL11-46-C | 33 | 40 | 46 | 22 | 25 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S50-FSCK5-SDUCR11-56-C | 35 | 50 | 56 | 28 | 30 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |
| S50-FSCK5-SDUCL11-56-C | 35 | 50 | 56 | 28 | 30 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |

SDZC 模組化內徑車刀

SDZC MODULAR TURNING TOOL HEAD

KOVIT



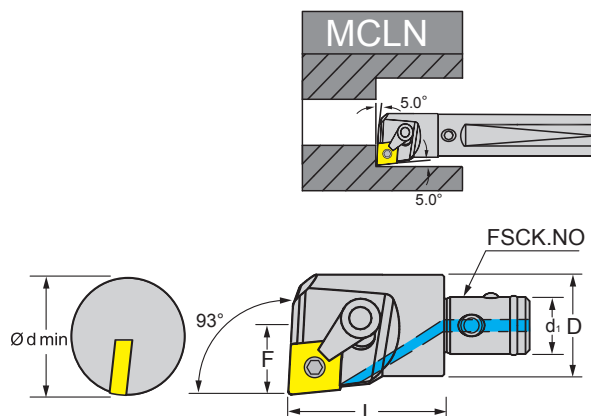
| 規格 Spec. | L | l ₁ | D | 最小加工徑 d | d ₁ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|----|----------------|----|------------|----------------|------|--------------|---------------|--------------|------------------------|-----------------------|
| S20-FSCK1-SDZCR11-26-C | 29 | 18 | 20 | 26 | 11 | 15.5 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.10 |
| S20-FSCK1-SDZCL11-26-C | 29 | 18 | 20 | 26 | 11 | 15.5 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-SDZCR11-33-C | 34 | 18 | 25 | 33 | 14 | 18 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.14 |
| S25-FSCK2-SDZCL11-33-C | 34 | 18 | 25 | 33 | 14 | 18 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-SDZCR11-40-C | 35 | 18 | 32 | 40 | 18 | 21.5 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S32-FSCK3-SDZCL11-40-C | 35 | 18 | 32 | 40 | 18 | 21.5 | DC..11T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |

•長度單位 Unit of Length (mm)



MCLN 模組化內徑車刀 MCLN MODULAR TURNING TOOL HEAD

KOVIT

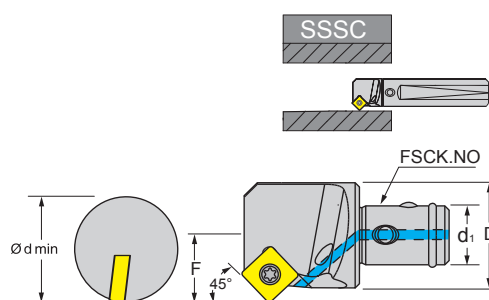


| 規格 Spec. | L | D | 最小加工徑 d | d ₁ | F | 刀片 Insert | 墊片 Shim | 墊片螺絲 Screw | 扳手 Wrench | 壓板 Clamp | 壓板螺絲 Screw | 扳手 Wrench | 重量 (KGS) Weight |
|------------------------|----|----|---------|----------------|----|-----------|---------|------------|-----------|----------|------------|-----------|-----------------|
| S20-FSCK1-MCLNR12-25-C | 33 | 20 | 25 | 11 | 13 | CN..1204 | - | MLP44 | PL2.5 | MC515 | MS520 | P2.5 | 0.08 |
| S20-FSCK1-MCLNL12-25-C | 33 | 20 | 25 | 11 | 13 | CN..1204 | - | MLP44 | PL2.5 | MC515 | MS520 | P2.5 | 0.08 |
| S25-FSCK2-MCLNR12-32-C | 34 | 25 | 32 | 14 | 15 | CN..1204 | - | MLP44 | PL2.5 | MC620 | MS620 | P3.0 | 0.12 |
| S25-FSCK2-MCLNL12-32-C | 34 | 25 | 32 | 14 | 15 | CN..1204 | - | MLP44 | PL2.5 | MC620 | MS620 | P3.0 | 0.12 |
| S32-FSCK3-MCLNR12-40-C | 35 | 32 | 40 | 18 | 20 | CN..1204 | CMS432 | MLP46 | PL2.5 | MC620 | MS620 | P3.0 | 0.22 |
| S32-FSCK3-MCLNL12-40-C | 35 | 32 | 40 | 18 | 20 | CN..1204 | CMS432 | MLP46 | PL2.5 | MC620 | MS620 | P3.0 | 0.22 |
| S40-FSCK4-MCLNR12-46-C | 35 | 40 | 46 | 22 | 25 | CN..1204 | CMS432 | MLP46 | PL2.5 | MC620 | MS625 | P3.0 | 0.38 |
| S40-FSCK4-MCLNL12-46-C | 35 | 40 | 46 | 22 | 25 | CN..1204 | CMS432 | MLP46 | PL2.5 | MC620 | MS625 | P3.0 | 0.38 |
| S50-FSCK5-MCLNR12-60-C | 36 | 50 | 60 | 28 | 30 | CN..1204 | CMS432 | MLP46 | PL2.5 | MC620 | MS625 | P3.0 | 0.50 |
| S50-FSCK5-MCLNL12-60-C | 36 | 50 | 60 | 28 | 30 | CN..1204 | CMS432 | MLP46 | PL2.5 | MC620 | MS625 | P3.0 | 0.50 |



SSSC 模組化內徑車刀 SSSC MODULAR TURNING TOOL HEAD

KOVIT



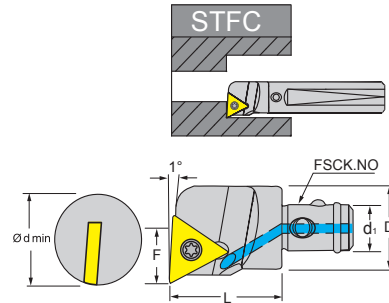
| 規格 Spec. | L | D | 最小加工徑 d | d ₁ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|----|----|---------|----------------|------|-----------|---------------|-----------|------------------|-----------------|
| S20-FSCK1-SSSCR09-26-C | 22 | 20 | 26 | 11 | 13.5 | SC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-SSSCL09-26-C | 22 | 20 | 26 | 11 | 13.5 | SC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-SSSCR09-31-C | 27 | 25 | 31 | 14 | 16 | SC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-SSSCL09-31-C | 27 | 25 | 31 | 14 | 16 | SC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-SSSCR09-40-C | 30 | 32 | 40 | 18 | 19.5 | SC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S32-FSCK3-SSSCL09-40-C | 30 | 32 | 40 | 18 | 19.5 | SC..09T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |

•長度單位 Unit of Length (mm)



STFC 模組化內徑車刀 STFC MODULAR TURNING TOOL HEAD

KOVIT

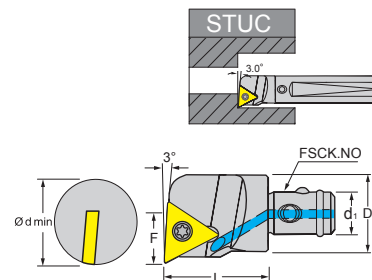


| 規格 Spec. | L | D | 最小加工徑 d | d ₁ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|----|----|------------|----------------|------|--------------|-----------------|--------------|------------------------|-----------------------|
| S20-FSCK1-STFCR11-22-C | 22 | 20 | 22 | 11 | 11 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.08 |
| S20-FSCK1-STFCL11-22-C | 22 | 20 | 22 | 11 | 11 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.08 |
| S20-FSCK1-STFCR16-22-C | 22 | 20 | 22 | 11 | 11.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-STFCL16-22-C | 22 | 20 | 22 | 11 | 11.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-STFCR11-28-C | 25 | 25 | 28 | 14 | 14 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.12 |
| S25-FSCK2-STFCL11-28-C | 25 | 25 | 28 | 14 | 14 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.12 |
| S25-FSCK2-STFCR16-28-C | 27 | 32 | 28 | 14 | 14 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-STFCL16-28-C | 27 | 32 | 28 | 14 | 14 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-STFCR16-38-C | 30 | 32 | 38 | 18 | 17.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S32-FSCK3-STFCL16-38-C | 30 | 32 | 38 | 18 | 17.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S40-FSCK4-STFCR16-50-C | 33 | 40 | 50 | 22 | 21.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S40-FSCK4-STFCL16-50-C | 33 | 40 | 50 | 22 | 21.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S50-FSCK5-STFCR16-60-C | 35 | 50 | 60 | 28 | 26.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |
| S50-FSCK5-STFCL16-60-C | 35 | 50 | 60 | 28 | 26.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |



STUC 模組化內徑車刀 STUC MODULAR TURNING TOOL HEAD

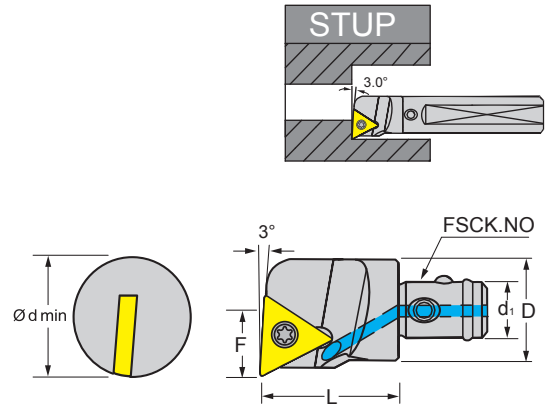
KOVIT



| 規格 Spec. | L | D | 最小加工徑 d | d ₁ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|----|----|------------|----------------|------|--------------|-----------------|--------------|------------------------|-----------------------|
| S20-FSCK1-STUCR11-22-C | 22 | 20 | 22 | 11 | 11 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.08 |
| S20-FSCK1-STUCL11-22-C | 22 | 20 | 22 | 11 | 11 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.08 |
| S25-FSCK2-STUCR11-28-C | 25 | 25 | 28 | 14 | 14 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.12 |
| S25-FSCK2-STUCL11-28-C | 25 | 25 | 28 | 14 | 14 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.12 |
| S20-FSCK1-STUCR16-22-C | 22 | 20 | 22 | 11 | 11 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-STUCL16-22-C | 22 | 20 | 22 | 11 | 11 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-STUCR16-28-C | 27 | 25 | 28 | 14 | 14 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-STUCL16-28-C | 27 | 25 | 28 | 14 | 14 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-STUCR16-38-C | 30 | 32 | 38 | 18 | 17.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S32-FSCK3-STUCL16-38-C | 30 | 32 | 38 | 18 | 17.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S40-FSCK4-STUCR16-50-C | 33 | 40 | 50 | 22 | 21.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S40-FSCK4-STUCL16-50-C | 33 | 40 | 50 | 22 | 21.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S50-FSCK5-STUCR16-60-C | 35 | 50 | 60 | 28 | 26.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |
| S50-FSCK5-STUCL16-60-C | 35 | 50 | 60 | 28 | 26.5 | TC..16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |

•長度單位 Unit of Length (mm)

KOVIT



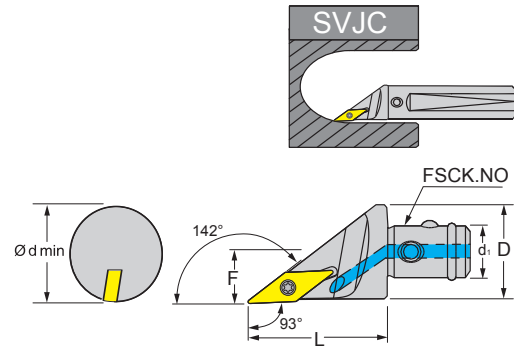
| 規格 Spec. | L | D | 最小加工徑 d | d ₁ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------------------|----|----|------------|----------------|------|--------------|---------------|--------------|------------------------|-----------------------|
| S20-FSCK1-STUPR11-22-C | 22 | 20 | 22 | 11 | 11.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.08 |
| S20-FSCK1-STUPL11-22-C | 22 | 20 | 22 | 11 | 11.5 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.08 |
| S25-FSCK2-STUPR11-30-C | 25 | 25 | 30 | 14 | 15 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.12 |
| S25-FSCK2-STUPL11-30-C | 25 | 25 | 30 | 14 | 15 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.12 |
| S20-FSCK1-STUPR1603-25-C | 22 | 20 | 25 | 11 | 13 | TP.1603 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-STUPL1603-25-C | 22 | 20 | 25 | 11 | 13 | TP.1603 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-STUPR1603-28-C | 27 | 25 | 28 | 14 | 14 | TP.1603 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-STUPL1603-28-C | 27 | 25 | 28 | 14 | 14 | TP.1603 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-STUPR1603-38-C | 30 | 32 | 38 | 18 | 17.5 | TP.1603 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S32-FSCK3-STUPL1603-38-C | 30 | 32 | 38 | 18 | 17.5 | TP.1603 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S40-FSCK4-STUPR1603-43-C | 33 | 40 | 43 | 22 | 21.5 | TP.1603 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S40-FSCK4-STUPL1603-43-C | 33 | 40 | 43 | 22 | 21.5 | TP.1603 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S50-FSCK5-STUPR1603-60-C | 35 | 50 | 60 | 28 | 26.5 | TP.1603 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |
| S50-FSCK5-STUPL1603-60-C | 35 | 50 | 60 | 28 | 26.5 | TP.1603 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |
| S20-FSCK1-STUPR16-25-C | 22 | 20 | 25 | 11 | 13 | TP.16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-STUPL16-25-C | 22 | 20 | 25 | 11 | 13 | TP.16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-STUPR16-28-C | 27 | 25 | 28 | 14 | 14 | TP.16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-STUPL16-28-C | 27 | 25 | 28 | 14 | 14 | TP.16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-STUPR16-38-C | 30 | 32 | 38 | 18 | 17.5 | TP.16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S32-FSCK3-STUPL16-38-C | 30 | 32 | 38 | 18 | 17.5 | TP.16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S40-FSCK4-STUPR16-50-C | 33 | 40 | 50 | 22 | 21.5 | TP.16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S40-FSCK4-STUPL16-50-C | 33 | 40 | 50 | 22 | 21.5 | TP.16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S50-FSCK5-STUPR16-53-C | 35 | 50 | 53 | 28 | 26.5 | TP.16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |
| S50-FSCK5-STUPL16-53-C | 35 | 50 | 53 | 28 | 26.5 | TP.16T3 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |
| S20-FSCK1-STUPR1604-25-C | 22 | 20 | 25 | 11 | 13 | TP.1604 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-STUPL1604-25-C | 22 | 20 | 25 | 11 | 13 | TP.1604 | M4-7.8-5.6-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-STUPR1604-28-C | 27 | 25 | 28 | 14 | 14 | TP.1604 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-STUPL1604-28-C | 27 | 25 | 28 | 14 | 14 | TP.1604 | M4-7.8-5.6-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-STUPR1604-38-C | 30 | 32 | 38 | 18 | 17.5 | TP.1604 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S32-FSCK3-STUPL1604-38-C | 30 | 32 | 38 | 18 | 17.5 | TP.1604 | M4-7.8-5.6-60 | T15 | 3.0 | 0.22 |
| S40-FSCK4-STUPR1604-43-C | 33 | 40 | 43 | 22 | 21.5 | TP.1604 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S40-FSCK4-STUPL1604-43-C | 33 | 40 | 43 | 22 | 21.5 | TP.1604 | M4-7.8-5.6-60 | T15 | 3.0 | 0.38 |
| S50-FSCK5-STUPR1604-60-C | 35 | 50 | 60 | 28 | 26.5 | TP.1604 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |
| S50-FSCK5-STUPL1604-60-C | 35 | 50 | 60 | 28 | 26.5 | TP.1604 | M4-7.8-5.6-60 | T15 | 3.0 | 0.50 |

•長度單位 Unit of Length (mm)



SVJC 模組化內徑車刀 SVJC MODULAR TURNING TOOL HEAD

KOVIT

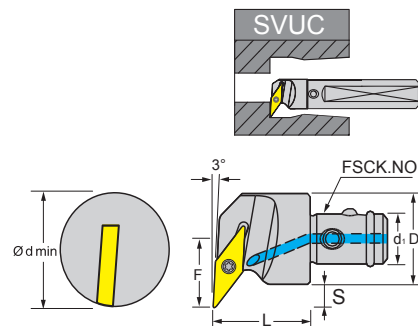


| 規格 Spec. | L | D | 最小 加工徑 d | d ₁ | F | 車圓弧 最小加工徑 | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|----|----|----------------|----------------|------|--------------|--------------|------------------|--------------|------------------------|-----------------------|
| S20-FSCK1-SVJCR11-22-C | 29 | C | 22 | 11 | 11 | 43 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.08 |
| S20-FSCK1-SVJCL11-22-C | 29 | C | 22 | 11 | 11 | 43 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.08 |
| S20-FSCK1-SVJCR16-23-C | 33 | 11 | 23 | 11 | 11.5 | 43 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-SVJCL16-23-C | 33 | 11 | 23 | 11 | 11.5 | 43 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-SVJCR16-28-C | 35 | 25 | 28 | 14 | 14 | 49 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-SVJCL16-28-C | 35 | 25 | 28 | 14 | 14 | 49 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-SVJCR16-35-C | 39 | 32 | 35 | 18 | 17.5 | 67 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.22 |
| S32-FSCK3-SVJCL16-35-C | 39 | 32 | 35 | 18 | 17.5 | 67 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.22 |



SVUC 模組化內徑車刀 SVUC MODULAR TURNING TOOL HEAD

KOVIT



| 規格 Spec. | L | D | 最小 加工徑 d | d ₁ | F | S | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|----|----|----------------|----------------|----|-----|--------------|------------------|--------------|------------------------|-----------------------|
| S20-FSCK1-SVUCR11-27-C | 22 | 20 | 27 | 11 | 15 | 5 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.08 |
| S20-FSCK1-SVUCL11-27-C | 22 | 20 | 27 | 11 | 15 | 5 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.08 |
| S25-FSCK2-SVUCR11-30-C | 25 | 25 | 30 | 14 | 17 | 4.5 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.12 |
| S25-FSCK2-SVUCL11-30-C | 25 | 25 | 30 | 14 | 17 | 4.5 | VC..1103 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.12 |
| S20-FSCK1-SVUCR16-31-C | 27 | 20 | 31 | 11 | 19 | 9 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.08 |
| S20-FSCK1-SVUCL16-31-C | 27 | 20 | 31 | 11 | 19 | 9 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.08 |
| S25-FSCK2-SVUCR16-33-C | 27 | 25 | 33 | 14 | 18 | 5.5 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.12 |
| S25-FSCK2-SVUCL16-33-C | 27 | 25 | 33 | 14 | 18 | 5.5 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.12 |
| S32-FSCK3-SVUCR16-40-C | 30 | 32 | 40 | 18 | 22 | 6 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.22 |
| S32-FSCK3-SVUCL16-40-C | 30 | 32 | 40 | 18 | 22 | 6 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.22 |
| S40-FSCK4-SVUCR16-48-C | 33 | 40 | 48 | 22 | 27 | 7 | VC..1604 | M3.5-11.7-5.3-60 | T15 | 3.0 | 0.38 |
| S40-FSCK4-SVUCL16-48-C | 33 | 40 | 48 | 22 | 27 | 7 | VC..1604 | M3.5-7.6-5.1-60 | T15 | 3.0 | 0.38 |

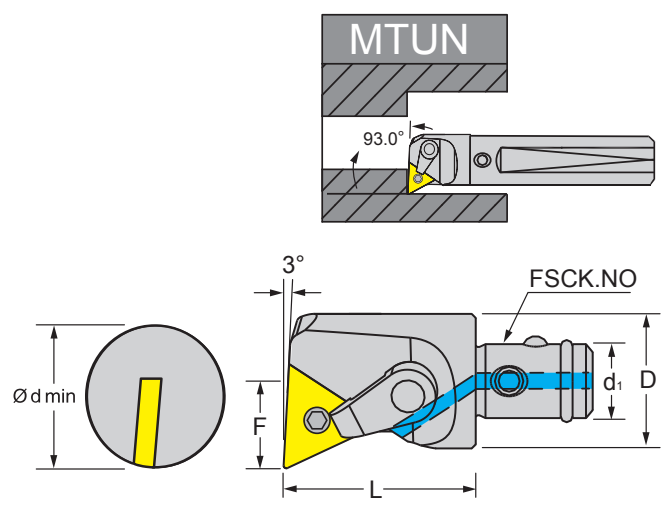
•長度單位 Unit of Length (mm)



MTUN 模組化內徑車刀

MTUN MODULAR TURNING TOOL HEAD

KOVIT



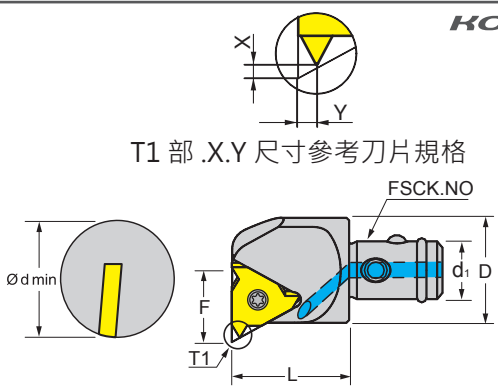
| 規格 Spec. | L | D | 最小加工徑 d | d ₁ | F | 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 壓板 Clamp | 壓板螺絲 Screw | 扳手 Wrench | 重量 (KGS) Weight |
|------------------------|----|----|---------|----------------|----|-----------|---------|-----------------|-----------|----------|------------|-----------|-----------------|
| S20-FSCK1-MTUNR16-25-C | 29 | 20 | 25 | 11 | 13 | TN..1604 | - | MLP33L | PL2 | MC515 | MS520 | PL2.5 | 0.08 |
| S20-FSCK1-MTUNL16-25-C | 29 | 20 | 25 | 11 | 13 | TN..1604 | - | MLP33L | PL2 | MC515 | MS520 | PL2.5 | 0.08 |
| S25-FSCK2-MTUNR16-32-C | 30 | 25 | 32 | 14 | 17 | TN..1604 | - | MLP33L | PL2 | MC620 | MS620 | PL3 | 0.12 |
| S25-FSCK2-MTUNL16-32-C | 30 | 25 | 32 | 14 | 17 | TN..1604 | - | MLP33L | PL2 | MC620 | MS620 | PL3 | 0.12 |
| S32-FSCK3-MTUNR16-40-C | 34 | 32 | 40 | 18 | 20 | TN..1604 | TMS322 | MLP34L | PL2 | MC620 | MS625 | PL3 | 0.22 |
| S32-FSCK3-MTUNL16-40-C | 34 | 32 | 40 | 18 | 20 | TN..1604 | TMS322 | MLP34L | PL2 | MC620 | MS625 | PL3 | 0.22 |
| S40-FSCK4-MTUNR16-47-C | 35 | 40 | 47 | 22 | 26 | TN..1604 | TMS322 | MLP34L | PL2 | MC620 | MS625 | PL3 | 0.38 |
| S40-FSCK4-MTUNL16-47-C | 35 | 40 | 47 | 22 | 26 | TN..1604 | TMS322 | MLP34L | PL2 | MC620 | MS625 | PL3 | 0.38 |
| S50-FSCK5-MTUNR16-57-C | 36 | 50 | 57 | 28 | 31 | TN..1604 | TMS322 | MLP34L | PL2 | MC620 | MS625 | PL3 | 0.50 |
| S50-FSCK5-MTUNL16-57-C | 36 | 50 | 57 | 28 | 31 | TN..1604 | TMS322 | MLP34L | PL2 | MC620 | MS625 | PL3 | 0.50 |



SIR 模組化內徑車刀

SIR MODULAR TURNING TOOL HEAD

KOVIT



T1 部 .X.Y 尺寸參考刀片規格

| 規格 Spec. | L | D | d | d ₁ | F | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 墊片 Shim | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------------------|----|----|----|----------------|------|-----------|-----------------|-----------|------------------|---------|----------|-----------|------------------|-----------------|
| S20-FSCK1-SIR16-24-C | 22 | 20 | 24 | 11 | 13.7 | 16IR | M3.5-7.6-5.1-60 | T15 | 3.0 | - | - | - | - | 0.78 |
| S25-FSCK2-SIR16-29-C | 27 | 25 | 29 | 14 | 16.2 | 16IR | M3.5-12-5.4-67 | T15 | 3.0 | GXN16 | HTM3 | P2.5 | 5.0 | 0.14 |

•長度單位 Unit of Length (mm)



扳手模組化示意圖

Wrench Modular combination

TW扭力起子
Torque Screwdriver



0.5~5 Nm
(固定式Fixed)

BIT延長接桿
Extension



起子頭 ^(14°)
Bits Torx



螺絲
Screw



TW扭力起子
Torque Screwdriver

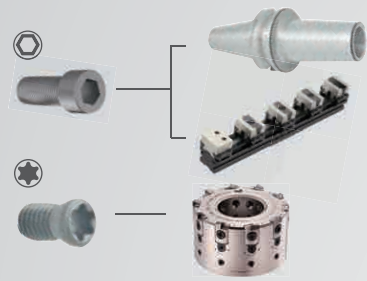


6~12 Nm
(固定式Fixed)

起子頭 ^(14°)
Bits Torx



螺絲
Screw



(後拉螺絲)
(Slim-Fit Screw)

LM-TW 扭力扳手
Torque Spanner



LM-DTW 多功能扭力扳手
Multi-Function Torque Spanner



螺帽扳手
Nut Spanner



替換式拉頭扳手
Indexable Spanner For Pull Stud



螺帽
Nuts



軸承扳手
Spanner



(ER16M-WH)
(適用走心式機台)
(Applicable Threading Machines)

勾扳手
Spanner



ER扳手
Spanner



拉頭專用扳手
Spanner For Pull Stud
(BT30-BT50)



扳手
Spanner
(T5-T20)



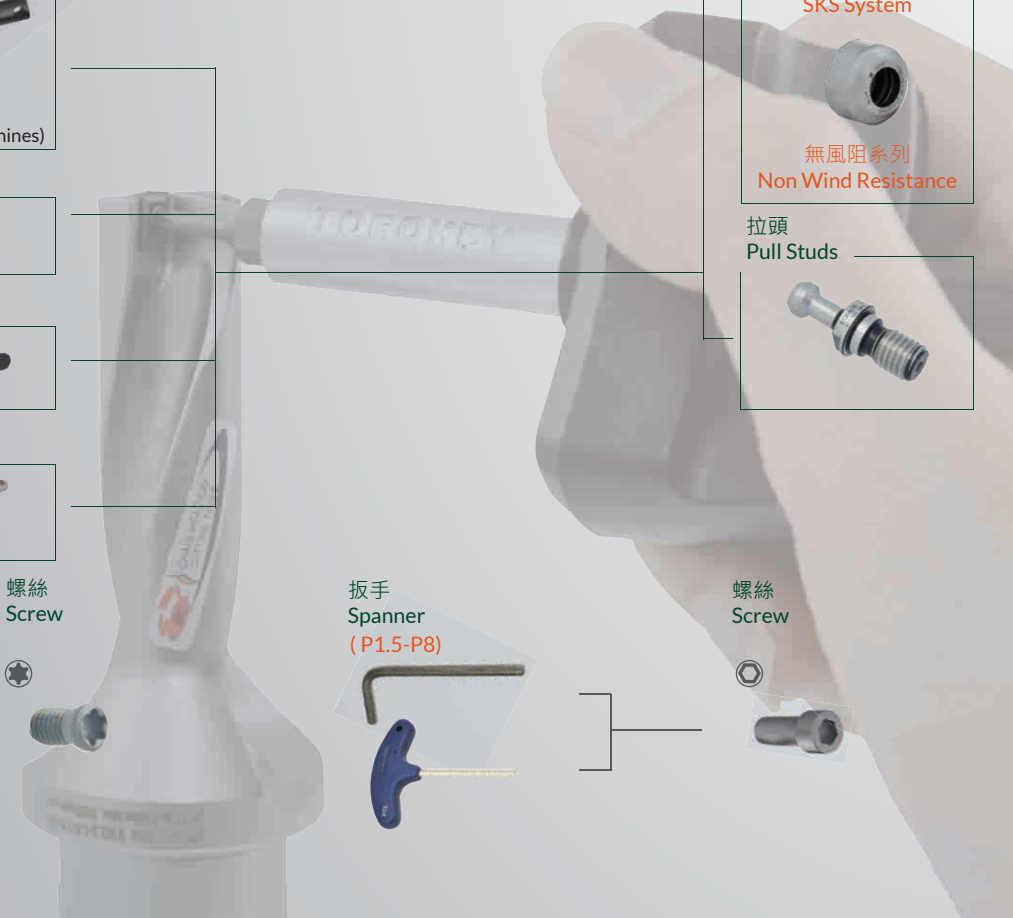
螺絲
Screw



扳手
Spanner
(P1.5-P8)

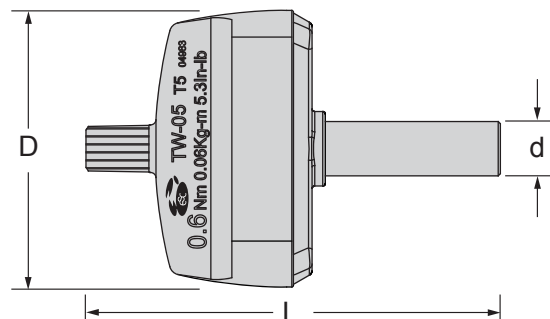


螺絲
Screw





TW 扭力起子 1PC 套裝組
Torque Screwdriver 1PC Set

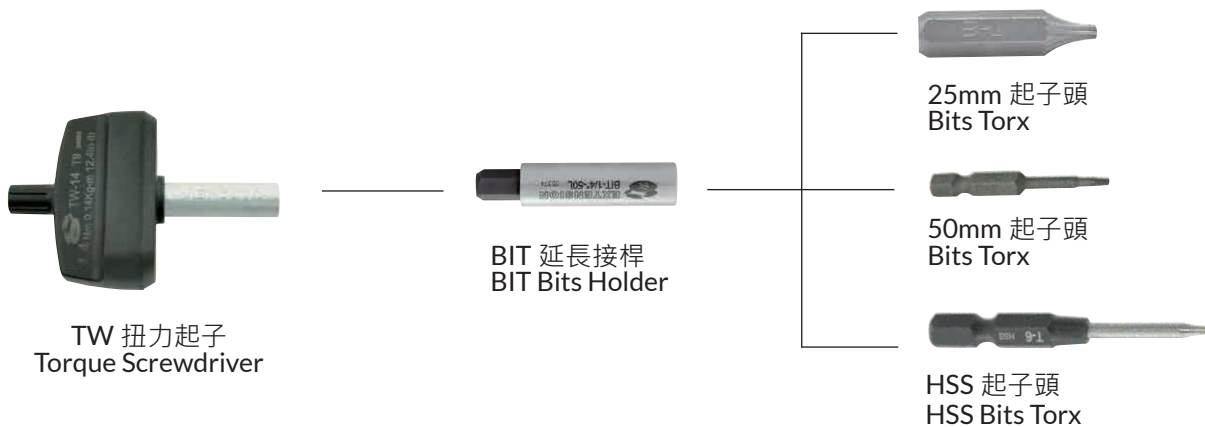


特點 Feature

- 適用於需要固定扭力設定要求的工業和工作
- 符合人體工學的 T 型握把設計，操作容易，使用安全
- 更換式接桿，方便使用者依不同使用場合而調整
- 當施力到達固定扭力時，握把會有一回轉力及 "喀擦" 聲來提醒使用者，以避免超過扭力值而造成物件損壞

- Ideal for tasks required specific torque.
- Ergonomic T-Handle. Easy and safe to operate.
- Indexable, can be used under different occasions.
- There will be a "Clicking sound" when reach the specific torque as a reminder to user from damaging workpiece.

| 規格 Spec. | L | D | d | 建議使用起子頭 Bits torx | 扭力值 Torque | | 重量 (KGS) Weight |
|-------------|-------|------|----|----------------------|------------|-------|-----------------------|
| | | | | | N.m | In-lb | |
| TW-05 | 76.25 | 52 | 10 | T5 | 0.6 | 5.3 | 0.05 |
| TW-06 | 76.25 | 52 | 10 | T6 | 0.6 | 5.3 | 0.05 |
| TW-09 | 76.25 | 52 | 10 | T7 | 0.9 | 8.0 | 0.05 |
| TW-12 | 76.25 | 52 | 10 | T8 | 1.2 | 10.6 | 0.05 |
| TW-14 | 76.25 | 52 | 10 | T9 | 1.4 | 12.4 | 0.05 |
| TW-20 | 76.25 | 52 | 10 | T10 | 2.0 | 17.7 | 0.05 |
| TW-30 | 76.25 | 52 | 10 | T15 | 3.0 | 26.6 | 0.05 |
| TW-50 | 76.25 | 52 | 10 | T20 | 5.0 | 44.3 | 0.05 |
| TW-60-SB | 64.5 | 80.5 | 12 | P5 | 6.0 | 53 | 0.08 |
| TW-80-SB | 64.5 | 80.5 | 12 | T25/P6 | 8.0 | 70.8 | 0.08 |
| TW-120-SB | 64.5 | 80.5 | 12 | P8 | 12.0 | 106.2 | 0.08 |



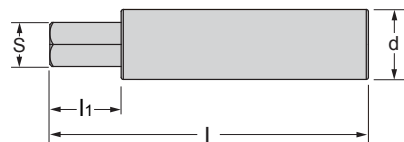
• 長度單位 Unit of Length (mm)



BIT 延長桿 EXTENSION BIT



KOVIT



特點 Feature

- DIN 7427 Form D
- 六方驅動 E6.3(1/4") · 符合 DIN3126 · 磁性 · 及內方驅動 D6.3(1/4") 符合 DIN3126

- DIN 7427 Form D.
- Hexagon driver E6.3(1/4"), conforming to DIN3126 standard, magnetic; Square drive D6.3(1/4"), Conforming to DIN3126.

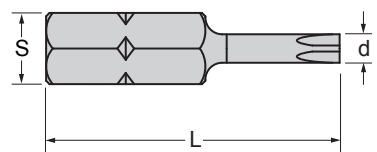
| 規格 Spec. | L | l1 | d | S | 重量 (KGS) Weight |
|--------------|----|----|----|------|-----------------|
| BIT-1/4"-50L | 45 | 10 | 10 | 1/4" | 0.02 |



25mm、50 起子頭 25mm、50mm SCREWDRIVE BITS



KOVIT



| 規格 Spec. | L | d | S | 重量 (KGS) Weight |
|-------------|----|-----|------|-----------------|
| BIT-T5-25L | 25 | T5 | 1/4" | 0.004 |
| BIT-T6-25L | 25 | T6 | 1/4" | 0.004 |
| BIT-T7-25L | 25 | T7 | 1/4" | 0.004 |
| BIT-T8-25L | 25 | T8 | 1/4" | 0.004 |
| BIT-T9-25L | 25 | T9 | 1/4" | 0.004 |
| BIT-T10-25L | 25 | T10 | 1/4" | 0.004 |
| BIT-T15-25L | 25 | T15 | 1/4" | 0.004 |
| BIT-T20-25L | 25 | T20 | 1/4" | 0.004 |

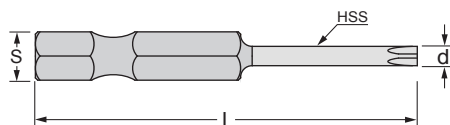
| 規格 Spec. | L | d | S | 重量 (KGS) Weight |
|-------------|----|-----|------|-----------------|
| BIT-T5-50L | 50 | T5 | 1/4" | 0.01 |
| BIT-T6-50L | 50 | T6 | 1/4" | 0.01 |
| BIT-T7-50L | 50 | T7 | 1/4" | 0.01 |
| BIT-T8-50L | 50 | T8 | 1/4" | 0.01 |
| BIT-T9-50L | 50 | T9 | 1/4" | 0.01 |
| BIT-T10-50L | 50 | T10 | 1/4" | 0.01 |
| BIT-T15-50L | 50 | T15 | 1/4" | 0.01 |
| BIT-T20-50L | 50 | T20 | 1/4" | 0.01 |



HSS 起子頭 HSS SCREWDRIVE BITS



KOVIT



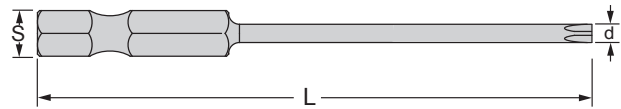
| 規格 Spec. | L | d | S | 重量 (KGS) Weight |
|-----------------|----|-----|------|-----------------|
| BIT-T5-55L-HSS | 55 | T5 | 1/4" | 0.01 |
| BIT-T6-55L-HSS | 55 | T6 | 1/4" | 0.01 |
| BIT-T7-55L-HSS | 55 | T7 | 1/4" | 0.01 |
| BIT-T8-55L-HSS | 55 | T8 | 1/4" | 0.01 |
| BIT-T9-55L-HSS | 55 | T9 | 1/4" | 0.01 |
| BIT-T10-56L-HSS | 56 | T10 | 1/4" | 0.01 |
| BIT-T15-56L-HSS | 56 | T15 | 1/4" | 0.01 |
| BIT-T20-56L-HSS | 56 | T20 | 1/4" | 0.01 |



100mm 起子頭 100mm SCREWDRIVE BITS



KOVIT



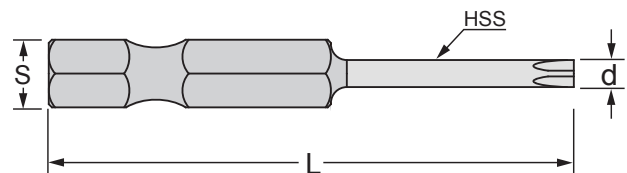
| 規格 Spec. | L | d | S | 重量 (KGS) Weight |
|--------------|-----|-----|------|-----------------------|
| BIT-T10-100L | 100 | T10 | 1/4" | 0.2 |
| BIT-T15-100L | 100 | T15 | 1/4" | 0.2 |
| BIT-T20-100L | 100 | T20 | 1/4" | 0.2 |
| BIT-P4-100L | 100 | P4 | 1/4" | 0.2 |
| BIT-P5-100L | 100 | P5 | 1/4" | 0.2 |
| BIT-P6-100L | 100 | P6 | 1/4" | 0.2 |
| BIT-P8-100L | 100 | P8 | 1/4" | 0.2 |
| BIT-P10-100L | 100 | P10 | 1/4" | 0.2 |



HSS 起子頭套裝組 HSS SCREWDRIVE BIT SET



KOVIT



| 規格 Spec. | 內容物 Contents | | 重量 (KGS) Weight |
|----------------|-----------------|-----------|-----------------------|
| | 起子頭 Bits | 數量 Qty | |
| BIT-HSS-8P-SET | BIT-T5-55L-HSS | 1 | 0.08 |
| | BIT-T6-55L-HSS | | |
| | BIT-T7-55L-HSS | | |
| | BIT-T8-55L-HSS | | |
| | BIT-T9-55L-HSS | | |
| | BIT-T10-56L-HSS | | |
| | BIT-T15-56L-HSS | | |
| | BIT-T20-56L-HSS | | |

•長度單位 Unit of Length (mm)



TW 扭力起子 / 國旗扳手收納架 TW TORQUE SCREWDRIVE / WRENCH STORAGE RACK

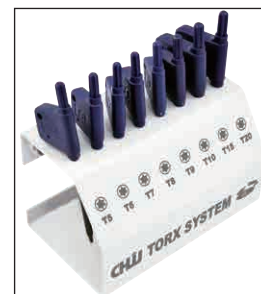
KOVIT

範例 Example



Fig.1

Fig.2



特點 Feature

- 收納方便

- Conveniently storing all the screw drivers.

| 規格 Spec. | L | W | H | Fig. | 重量 (KGS) Weight |
|-----------|-----|-----|----|------|-----------------|
| TW-SR-225 | 225 | 100 | 89 | 1 | 0.56 |
| T-SR-100 | 100 | 60 | 58 | 2 | 0.15 |



TW 扭力起子 / 國旗扳手收納架套裝組 TW TORQUE SCREWDRIVER/WRENCH STORAGE RACK SET

KOVIT



Fig.1



Fig.2

| 規格 Spec. | 內容物 Contents | | | | | Fig. | 重量 (KGS) Weight |
|------------------|------------------|-------------|------------------|---------------|--------|------|-----------------|
| | 收納架 Storage Rack | 扭力起子 Torque | 延長接桿 Bits Holder | 起子頭 Bits Torx | 數量 Qty | | |
| TW-SR-225-8P-SET | TW-SR-225 | TW-05 | BIT-1/4"-50L | BIT-T5-25L | 1 | 1 | 1.00 |
| | | TW-06 | | BIT-T6-25L | | | |
| | | TW-09 | | BIT-T7-25L | | | |
| | | TW-12 | | BIT-T8-25L | | | |
| | | TW-14 | | BIT-T9-25L | | | |
| | | TW-20 | | BIT-T10-25L | | | |
| | | TW-30 | | BIT-T15-25L | | | |
| | | TW-50 | | BIT-T20-25L | | | |

| 規格 Spec. | 內容物 Contents | | | Fig. | 重量 (KGS) Weight |
|--------------|------------------|-------------|---------|------|-----------------|
| | 收納架 Storage Rack | 國旗扳手 Wrench | 數量 Qty. | | |
| T-SR-100-SET | T-SR-100 | T5 | 1 | 2 | 0.3 |
| | | T6 | | | |
| | | T7 | | | |
| | | T8 | | | |
| | | T9 | | | |
| | | T10 | | | |
| | | T15 | | | |
| T20 | | | | | |

TORX-8PCS 扳手

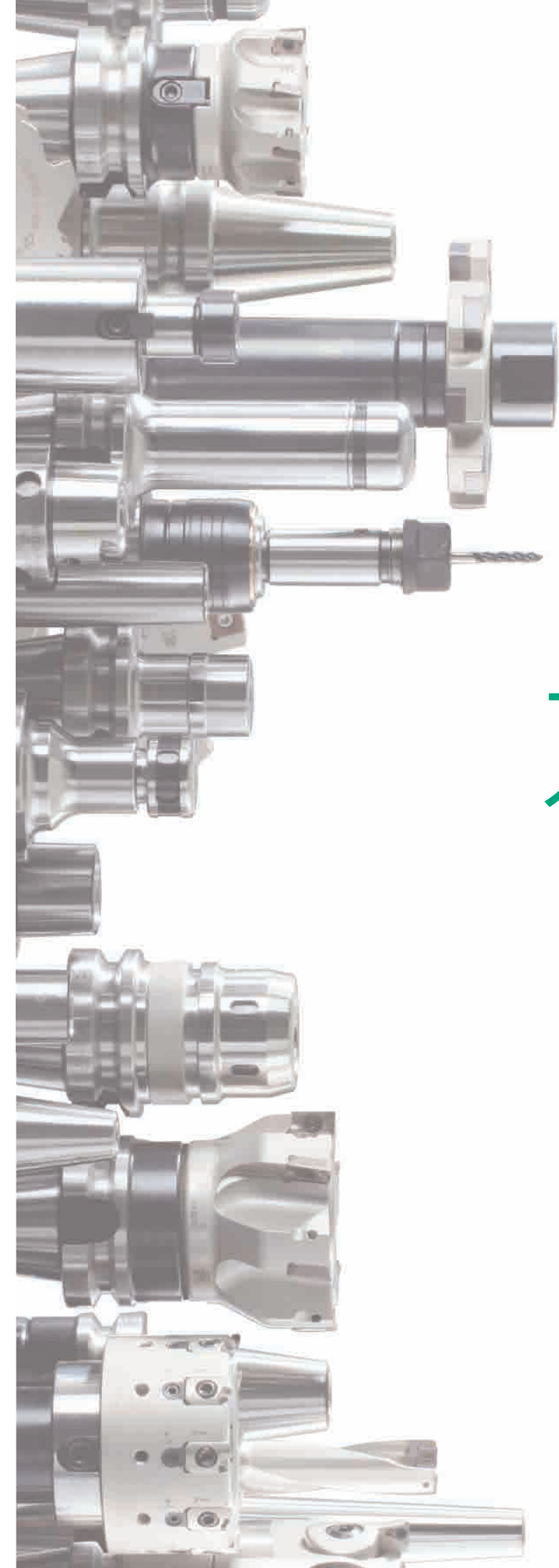
TORX-8PCS WRENCH SET

KOVIT



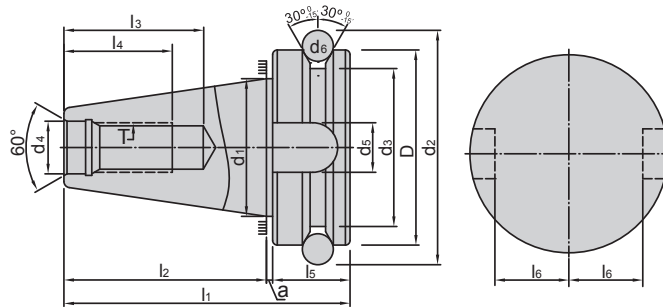
| 規格 Spec. | 内容物 Contents | | | 重量 (KGS) Weight |
|-------------|--------------|------------------------|-----------|-----------------------|
| | 扳手 Wrench | 扭力值 Torque (N.m) | 數量 Qty | |
| TORX 8P-SET | T5K | 0.6 | 1 | 0.82 |
| | T6K | 0.6 | | |
| | T7K | 0.9 | | |
| | T8K | 1.2 | | |
| | T9K | 1.4 | | |
| | T10K | 2.0 | | |
| | T15K | 3.0 | | |
| | T20K | 5.0 | | |

•長度單位 Unit of Length (mm)

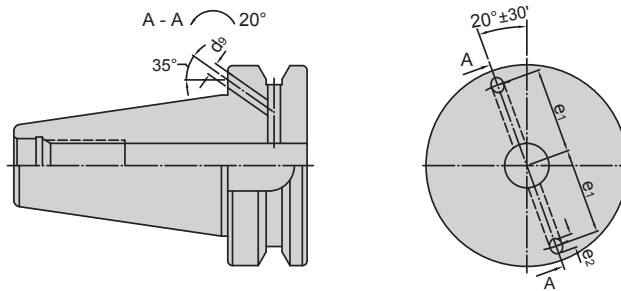


刀桿系列 Tooling System

MAS403/BT A



MAS403/BT AD+B



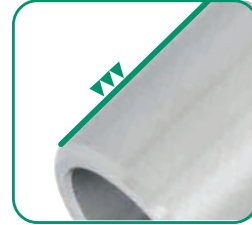
| 規格 Spec. | D h8 | d ₁ | d ₂ | d ₃ | d ₄ H8 | d ₅ H12 | d ₆ | d ₉ H12 | a ±0.4 |
|-------------|---------|----------------|----------------|----------------|----------------------|-----------------------|----------------|-----------------------|-----------|
| BT30 | 46 | 31.75 | 56.14 | 38 | 12.5 | 16.1 | 8 | - | 2 |
| BT40 | 63 | 44.45 | 75.679 | 53 | 17 | 16.1 | 10 | 4 | 2 |
| BT50 | 100 | 69.85 | 119.02 | 83 | 25 | 25.7 | 15 | 6 | 3 |

| 規格 Spec. | l ₁ | l ₂ ±0.2 | l ₃ min | l ₄ min | l ₅ | l ₆ 0 -0.2 | e ₁ ±0.1 | e ₂ Max | T 6H |
|-------------|----------------|------------------------|-----------------------|-----------------------|----------------|-----------------------------|------------------------|-----------------------|-----------|
| BT30 | 70.4 | 48.4 | 34 | 24 | 20 | 16.3 | - | - | M12×1.75P |
| BT40 | 92.4 | 65.4 | 43 | 30 | 25 | 22.6 | 27 | 5 | M16×2.0P |
| BT50 | 139.8 | 101.8 | 62 | 45 | 35 | 35.4 | 42 | 7 | M24×3.0P |

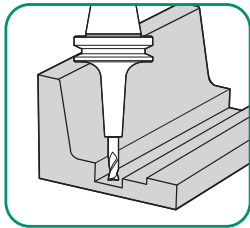
1. 錐度精度 : <AT3
2. 硬度 : >HRC 56°
3. 滲碳深度 : >0.8mm
4. 真圓度 : < 0.8μm
5. 表面粗糙度 : Ra < 0.25μm
6. 本體規範 : JIS MAS 403

1. Taper tolerance < AT3.
2. Hardness > HRC 56°
3. Carbon depth > 0.8mm.
4. Roundness < 0.8μm.
5. Surface roughness : Ra < 0.25μm.
6. Shank body standard : JIS MAS 403.

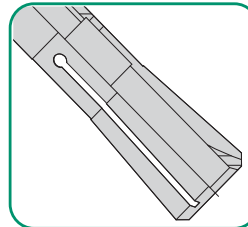
• 長度單位 Unit of Length (mm)



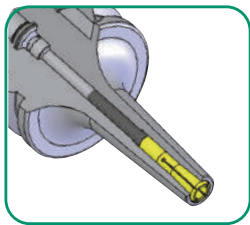
刀桿全研磨·標準動平衡G2.5 25000rpm
Tool holder with polishing and fully balanced is up to G2.5 36000 rpm.



前端小徑設計·
降低干涉的情形。
The slim design reduces interference while machining.



內孔4°錐角設計·
方便刀具鬆脫並加大夾持力·
提高穩定性。
Inner hole coning angle design for a strong clamping force that could increase the stability and quick tool change.



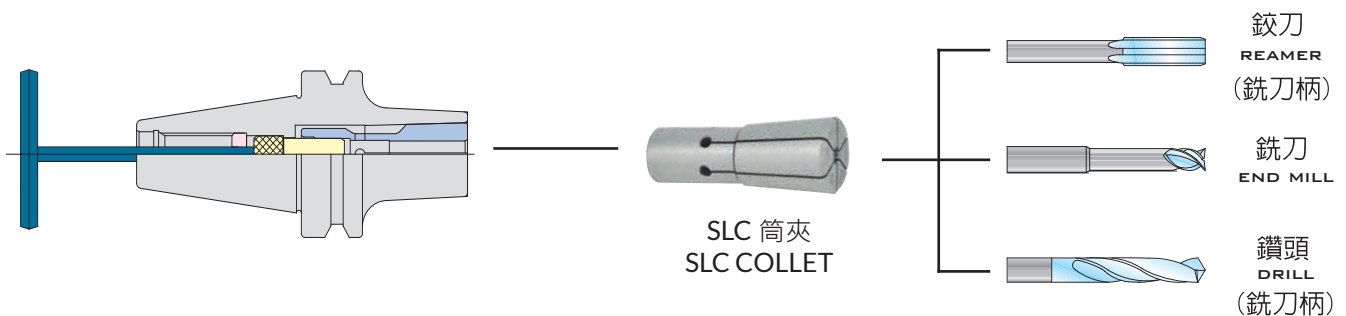
內藏式筒夾設計·無需使用螺帽·
更適合高速加工。
The built-in collet does not need a clamping nut and is perfect for high speed processing.



標準動平衡 G2.5 25000rpm。
Standard balance of G2.5 at 25000 rpm.

SBL 後拉式使用方式：

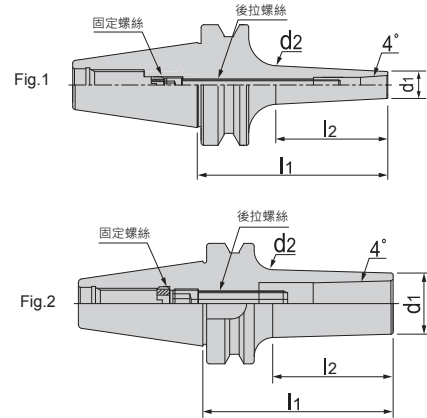
SBL Slim-fit Application Method:



- 本體規格 : BT、DAT、CAT、HSK、C
- 筒夾規格 : SLC6、SLC12、SLC20

- Spindle Taper : BT、DAT、CAT、HSK、C.
- Collet type : SLC6、SLC12、SLC20.

• 長度單位 Unit of Length (mm)



特點 Feature

- 偏擺精度: 5 μ m(4D)
- 標準動平衡 G2.5 25000rpm

- Precision 5 μ m up to 4D length.
- Dynamic balancing G2.5 at 25000rpm.

| 規格 Spec. | 夾持範圍 Clamping Range | 筒夾 Collet | l ₁ | l ₂ | d ₁ | d ₂ | 後拉螺絲 Slim-Fit Screw | 固定螺絲 Fixed Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|------------------|---------------------|-----------|----------------|----------------|----------------|----------------|---------------------|------------------|-----------|------------------|------|-----------------|
| BT30 x SBL6-70 | 2~6 | SLC6 | 70 | 38 | 14 | 18.1 | SBL6-M6-40L | SBL6-M12 | PT5 | 6.0 | 1 | 1.00 |
| BT30 x SBL6-100 | 2~6 | SLC6 | 100 | 68 | 14 | 21.2 | SBL6-M6-70L | SBL6-M12 | PT5 | 6.0 | 1 | 0.60 |
| BT30 x SBL12-70 | 3~12 | SLC12 | 70 | 47 | 26 | 33.4 | SBL12-M10-25L | SBL12-M15 | PT6 | 10.0 | 2 | 0.63 |
| BT30 x SBL12-100 | 3~12 | SLC12 | 100 | 77 | 26 | 38.1 | SBL12-M10-25L | SBL12-M15 | PT6 | 10.0 | 2 | 0.84 |
| BT30 x SBL20-80 | 3~20 | SLC20 | 80 | 55 | 34 | 37.7 | SBL20-M12-30L | SBL20-M18 | PT8 | 12.0 | 2 | 0.68 |
| BT30 x SBL20-100 | 3~20 | SLC20 | 100 | 77 | 34 | 39.2 | SBL20-M12-30L | SBL20-M18 | PT8 | 12.0 | 2 | 0.85 |
| BT40 x SBL6-70 | 2~6 | SLC6 | 70 | 28 | 14 | 17.1 | SBL6-M6-50L | SBL6-M16 | PT5 | 6.0 | 1 | 1.20 |
| BT40 x SBL6-100 | 2~6 | SLC6 | 100 | 58 | 14 | 20.1 | SBL6-M6-75L | SBL6-M16 | PT5 | 6.0 | 1 | 1.20 |
| BT40 x SBL12-70 | 3~12 | SLC12 | 70 | 33 | 26 | 31 | SBL12-M10-25L | SBL12-M16 | PT6 | 10.0 | 2 | 1.30 |
| BT40 x SBL12-100 | 3~12 | SLC12 | 100 | 63 | 26 | 31.6 | SBL12-M10-55L | SBL12-M16 | PT6 | 10.0 | 2 | 1.38 |
| BT40 x SBL20-70 | 3~20 | SLC20 | 70 | 33 | 35 | 38.1 | SBL20-M12-30L | SBL20-M16 | PT8 | 12.0 | 2 | 1.50 |
| BT40 x SBL20-100 | 3~20 | SLC20 | 100 | 68 | 35 | 41 | SBL20-M12-52L | SBL20-M16 | PT8 | 12.0 | 2 | 1.45 |
| BT50 x SBL6-70 | 2~6 | SLC6 | 70 | 17 | 14 | 15.9 | SBL6-M6-50L | SBL6-M16 | PT5-S | 6.0 | 1 | 4.00 |
| BT50 x SBL6-100 | 2~6 | SLC6 | 100 | 47 | 14 | 19.1 | SBL6-M6-40L | SBL6-M16 | PT5-S | 6.0 | 1 | 3.93 |
| BT50 x SBL12-70 | 3~12 | SLC12 | 70 | 22 | 26 | 28.1 | SBL12-M10-25L | SBL12-M16 | PT6-S | 10.0 | 2 | 4.00 |
| BT50 x SBL12-100 | 3~12 | SLC12 | 100 | 52 | 26 | 30.6 | SBL12-M10-55L | SBL12-M16 | PT6-S | 10.0 | 2 | 4.30 |
| BT50 x SBL20-70 | 3~20 | SLC20 | 70 | 22 | 35 | 36.9 | SBL20-M12-30L | SBL20-M16 | PT8-S | 12.0 | 2 | 3.90 |
| BT50 x SBL20-100 | 3~20 | SLC20 | 100 | 52 | 35 | 39.6 | SBL20-M12-52L | SBL20-M16 | PT8-S | 12.0 | 2 | 4.70 |

PT 型扳手 PT-Type Wrench



| 規格 Spec. | S | L | 扭力值 (N.m) Torque |
|----------|---|-----|------------------|
| PT5 | 5 | 70 | 6.0 |
| PT5-S | | 130 | |
| PT6 | 6 | 70 | 10.0 |
| PT6-S | | 130 | |
| PT8 | 8 | 140 | 12.0 |

止動螺帽 Stop Nut



| 規格 Spec. | L |
|----------|----|
| SBL6-SN | 17 |

固定螺絲 Fixed Screw



| 規格 Spec. | 規格 Spec. |
|-----------|-----------|
| SBL6-M12 | SBL12-M16 |
| SBL6-M16 | SBL20-M16 |
| SBL12-M15 | SBL20-M18 |

後拉螺絲 Slim-Fit Screw



| 規格 Spec. | L | 規格 Spec. | L |
|-------------|----|---------------|-----|
| SBL6-M6-30L | 30 | SBL6-M6-80L | 80 |
| SBL6-M6-35L | 35 | SBL6-M6-95L | 95 |
| SBL6-M6-40L | 40 | SBL6-M6-127L | 127 |
| SBL6-M6-50L | 50 | SBL12-M10-25L | 25 |
| SBL6-M6-65L | 65 | SBL12-M10-55L | 55 |
| SBL6-M6-70L | 70 | SBL20-M12-30L | 30 |
| SBL6-M6-72L | 72 | SBL20-M12-52L | 52 |
| SBL6-M6-75L | 75 | | |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet |
|--------------|-----------|
| | |
| B645-B647 | B630 |

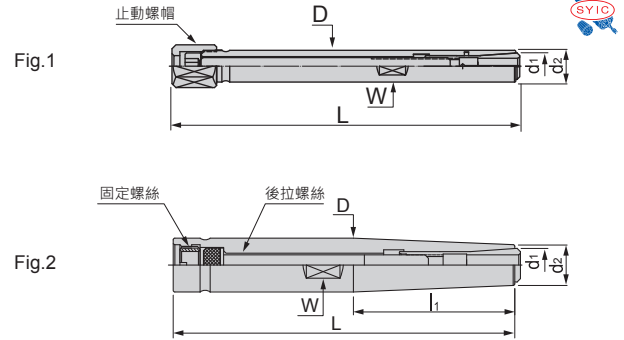


• 長度單位 Unit of Length (mm)



直柄 SBL 小徑延長桿 STRAIGHT SHANK SBL COLLET CHUCK

JIS
MAS 403



| 規格 Spec. | L | l ₁ | D | d ₁ | d ₂ | W | 後拉螺絲 Slim-Fit Screw | 固定螺絲 Fixed Screw | 止動螺帽 Stop Nut | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-----------------|-----|----------------|----|----------------|----------------|----|---------------------|------------------|---------------|-----------|------------------|------|-----------------|
| C12 x SBL6-120 | 120 | - | 12 | 9.93 | 12 | 10 | SBL6-M6-95 | - | SBL6-SN | PT5 | 6 | 1 | 0.12 |
| C12 x SBL6-150 | 150 | - | 12 | 9.93 | 12 | 10 | SBL6-M6-127 | - | SBL6-SN | PT5 | 6 | 1 | 0.14 |
| C16 x SBL6-120 | 120 | 48 | 16 | 9.93 | 12 | 14 | SBL6-M6-70 | M11X1.0P | - | PT5 | 6 | 2 | 0.16 |
| C16 x SBL6-150 | 150 | 48 | 16 | 9.93 | 12 | 14 | SBL6-M6-40 | M11X1.0P | - | PT5-S | 6 | 2 | 0.2 |
| C16 x SBL6-200 | 200 | 48 | 16 | 9.93 | 12 | 14 | SBL6-M6-80 | M11X1.0P | - | PT5-S | 6 | 2 | 0.24 |
| C20 x SBL6-120 | 120 | 76.5 | 20 | 9.93 | 12 | 17 | SBL6-M6-70 | M11X1.0P | - | PT5 | 6 | 2 | 0.19 |
| C20 x SBL6-150 | 150 | 86 | 20 | 9.93 | 12 | 17 | SBL6-M6-40 | M11X1.0P | - | PT5-S | 6 | 2 | 0.25 |
| C20 x SBL6-200 | 200 | 76.5 | 20 | 9.93 | 12 | 17 | SBL6-M6-72 | M11X1.0P | - | PT5-S | 6 | 2 | 0.35 |
| C25 x SBL6-120 | 120 | 60 | 25 | 9.93 | 14 | 22 | SBL6-M6-30 | M11X1.0P | - | PT5 | 6 | 2 | 0.38 |
| C25 x SBL6-150 | 150 | 60 | 25 | 9.93 | 14 | 22 | SBL6-M6-35 | M11X1.0P | - | PT5-S | 6 | 2 | 0.44 |
| C25 x SBL6-200 | 200 | 60 | 25 | 9.93 | 14 | 22 | SBL6-M6-75 | M11X1.0P | - | PT5-S | 6 | 2 | 0.6 |
| C25 x SBL12-120 | 120 | 50 | 25 | 18 | 22 | 22 | SBL12-M10-25 | M16X2.0P | - | PT6 | 10 | 2 | 0.28 |
| C25 x SBL12-150 | 150 | 50 | 25 | 18 | 22 | 22 | SBL12-M10-55 | M16X2.0P | - | PT6 | 10 | 2 | 0.39 |
| C25 x SBL12-200 | 200 | 50 | 25 | 18 | 22 | 22 | SBL12-M10-55 | 5/8"-11UNC | - | PT6-S | 10 | 2 | 0.55 |

- 附扳手 Comes with a spanner.



直柄 SBL 小徑延長桿套裝組 STRAIGHT SHANK SBL COLLET CHUCK SET



| 規格 Spec. | 內容物 Contents | | | | | | 重量 (KGS) Weight |
|-------------------|----------------|---------------|-----------|-----------|------------------|--------|-----------------|
| | 延長桿 Chuck | 止動螺帽 Stop Nut | 筒夾 Collet | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | |
| C12 x SBL6-120-3P | C12 x SBL6-120 | SBL6-SN | SLC6-3 | PT5 | 6.0 | 1 | 0.60 |
| | | | SLC6-4 | | | | |
| | | | SLC6-6 | | | | |
| C16 x SBL6-150-3P | C16 x SBL6-150 | - | SLC6-3 | PT5-S | 6.0 | 1 | 0.66 |
| | | | SLC6-4 | | | | |
| | | | SLC6-6 | | | | |



• 長度單位 Unit of Length (mm)

燒結系統化示意圖

Modular Shrink-Fit System Illustration

不鏽鋼熱膨脹刀桿專用 For Stainless Shrink-Fit Chuck

加熱設備 Heater



LM-HM-12400
熱風式加熱器
Hot-Air Heater



LM-HM-12400-TC
熱風式加熱器-自動計時型
Hot Air Heater - Auto Timer Type

刀桿 Chuck



HSK-SFW不鏽鋼熱膨脹刀桿
HSK-SFW Shrink-Fit Chuck



C-SFW不鏽鋼熱膨脹延長桿
C-SFW Straight Shank of
Shrink-Fit Chuck



MFS熱膨脹延長桿
MFS Shrink-Fit Extension

結合SFS後拉式刀桿使用
With SFS Slim-Fit Collet Chuck

刀具 Cutting Tool



EM碳化鎢鋼立銑刀
Tungsten Carbide End Mills



BE碳化鎢鋼球型立銑刀
Tungsten Carbide Ball End Mills



RE碳化鎢鋼圓鼻立銑刀
Tungsten Carbide Ball End Mills

工具鋼熱膨脹刀桿專用 For Hot Work Steel Shrink-Fit Chuck



SFC-300電磁誘導加熱器
Shrink-Fit Machine



SFC-1000電磁誘導加熱器
Shrink-Fit Machine



BT/SFCT熱膨脹刀桿
BT/SFCT Shrink-Fit Chuck



SBT/SFCT 法蘭加厚型熱膨脹刀桿
DualDRIVE+ SBT/SFCT
Shrink Fit Chuck



HSK/SFCT熱膨脹刀桿
HSK/SFCT Shrink-Fit Chuck
(FOR TYPE E)



C-SFC不鏽鋼熱膨脹延長桿
C-SFC Straight Shank of
Shrink-Fit Chuck



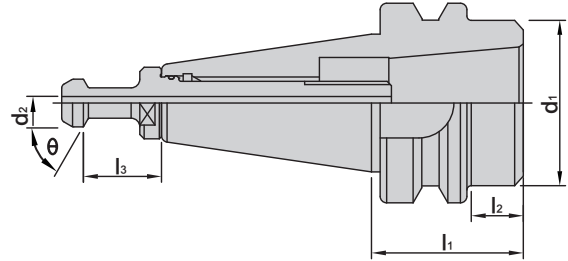
PSC/SFC熱膨脹刀桿
PSC/SFC Shrink Fit Chuck



SFC熱膨脹刀桿(出水孔型)
SFC Shrink Fit Chuck
(With CP Coolant Hole)



SFC熱膨脹刀桿(威力曲線型)
SFC Shrink Fit Chuck
(CUL Type)



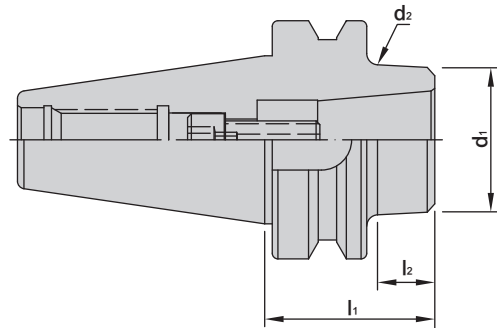
特點 Feature

- 需搭配 MFS 熱膨脹刀桿做使用

-Need to be used with MFS shrink-fit extension.

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | θ | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-------|----------|-----------------|
| BT30 x SFS12-35-A | 35 | 12 | 18 | 38.1 | 3 | 45° | 0.4 |
| BT30 x SFS12-35-B | 35 | 12 | 18 | 38.1 | 3 | 60° | 0.4 |

※ 含拉頭 With pull studs



| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | 重量 (KGS) Weight |
|--------------------|-------|-------|-------|-------|-----------------|
| BT40 x SFS12 - 45 | 45 | 15.1 | 38.1 | 39.6 | 1.1 |
| BT40 x SFS12 - 75 | 75 | 60.1 | 38.1 | 42.8 | 1.4 |
| BT40 x SFS12 - 90 | 90 | 45.1 | 38.1 | 44.4 | 1.6 |
| BT40 x SFS12 - 135 | 135 | 105.1 | 38.1 | 49.1 | 2.2 |
| BT50 x SFS12 - 75 | 75 | 34.1 | 38.1 | 41.6 | 4.0 |
| BT50 x SFS12 - 105 | 105 | 64.1 | 38.1 | 44.8 | 4.4 |
| BT50 x SFS12 - 135 | 135 | 94.1 | 38.1 | 47.9 | 4.7 |
| BT50 x SFS12 - 225 | 225 | 184.1 | 38.1 | 57.4 | 6.4 |
| BT50 x SFS12 - 315 | 315 | 274.1 | 38.1 | 66.8 | 11 |

※ 不含拉頭 Not included pull studs

選配表 Option

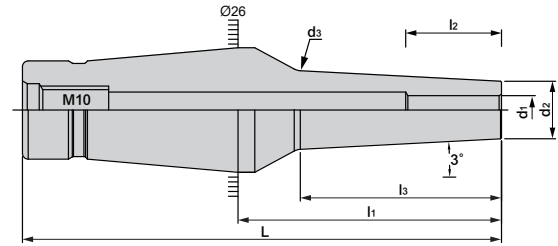
| 拉頭 Pull Stud | |
|--------------|-----------|
| | |
| B645 | B645-B647 |

• 長度單位 Unit of Length (mm)

燒結式 Shrink-Fit

壁薄型 Thin

BT



特點 Feature

- 材質：不鏽鋼
- 需搭配 SFS 後拉式立銼刀夾頭做使用

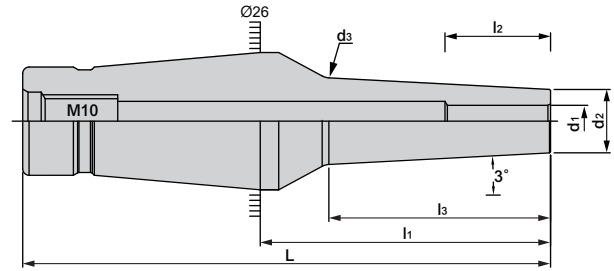
- Material: Heat-resistant stainless steel.
- Need to be used with SFS slim-fit collet chuck.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | d ₃ | 重量 (KGS) Weight |
|------------------------|-----|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------|
| MFS12S x 3mm - 35 | 80 | 35 | 10 | 22 | 3 | 6 | 8.3 | 0.16 |
| MFS12S x 3mm - 55 | 100 | 55 | 10 | 42 | 3 | 6 | 10.4 | 0.17 |
| MFS12S x 3mm - 80 | 125 | 80 | 10 | 67 | 3 | 6 | 13.0 | 0.20 |
| MFS12S x 3mm - 110 | 155 | 110 | 10 | 97 | 3 | 6 | 16.2 | 0.23 |
| MFS12S x 3.175mm - 35 | 80 | 35 | 10 | 22 | 3.175 | 6.175 | 8.5 | 0.16 |
| MFS12S x 3.175mm - 55 | 100 | 55 | 10 | 42 | 3.175 | 6.175 | 10.6 | 0.17 |
| MFS12S x 3.175mm - 80 | 125 | 80 | 10 | 67 | 3.175 | 6.175 | 13.2 | 0.19 |
| MFS12S x 3.175mm - 110 | 155 | 110 | 10 | 97 | 3.175 | 6.175 | 16.3 | 0.23 |
| MFS12S x 4mm - 35 | 80 | 35 | 10 | 22 | 4 | 7 | 9.3 | 0.16 |
| MFS12S x 4mm - 55 | 100 | 55 | 10 | 42 | 4 | 7 | 11.4 | 0.18 |
| MFS12S x 4mm - 80 | 125 | 80 | 10 | 67 | 4 | 7 | 14.0 | 0.20 |
| MFS12S x 4mm - 110 | 155 | 110 | 10 | 97 | 4 | 7 | 17.2 | 0.24 |
| MFS12S x 6mm - 35 | 80 | 35 | 20 | 22 | 6 | 9 | 11.3 | 0.17 |
| MFS12S x 6mm - 55 | 100 | 55 | 20 | 42 | 6 | 9 | 13.4 | 0.18 |
| MFS12S x 6mm - 80 | 125 | 80 | 20 | 67 | 6 | 9 | 16.2 | 0.21 |
| MFS12S x 6mm - 110 | 155 | 110 | 20 | 97 | 6 | 9 | 19.2 | 0.26 |
| MFS12S x 8mm - 35 | 80 | 35 | 26 | 22 | 8 | 11 | 13.3 | 0.17 |
| MFS12S x 8mm - 55 | 100 | 55 | 26 | 42 | 8 | 11 | 15.4 | 0.19 |
| MFS12S x 8mm - 80 | 125 | 80 | 26 | 67 | 8 | 11 | 18.0 | 0.23 |
| MFS12S x 8mm - 110 | 155 | 110 | 26 | 97 | 8 | 11 | 21.2 | 0.29 |
| MFS12S x 10mm - 35 | 80 | 35 | 32 | 22 | 10 | 13 | 15.3 | 0.17 |
| MFS12S x 10mm - 55 | 100 | 55 | 32 | 42 | 10 | 13 | 17.4 | 0.20 |
| MFS12S x 10mm - 80 | 125 | 80 | 32 | 67 | 10 | 13 | 20.0 | 0.24 |
| MFS12S x 10mm - 110 | 155 | 110 | 32 | 97 | 10 | 13 | 23.2 | 0.32 |
| MFS12S x 12mm - 35 | 80 | 35 | 37 | 22 | 12 | 15 | 17.3 | 0.17 |
| MFS12S x 12mm - 55 | 100 | 55 | 37 | 42 | 12 | 15 | 19.4 | 0.20 |
| MFS12S x 12mm - 80 | 125 | 80 | 37 | 67 | 12 | 15 | 22.0 | 0.26 |
| MFS12S x 12mm - 110 | 155 | 110 | 37 | 97 | 12 | 15 | 25.2 | 0.35 |

選配表 Option



• 長度單位 Unit of Length (mm)



特點 Feature

- 材質：不鏽鋼
- 需搭配 SFS 後拉式立銑刀夾頭做使用

- Material: Heat-resistant stainless steel.
- Need to be used with SFS slim-fit collet chuck.

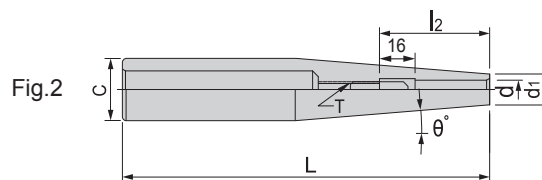
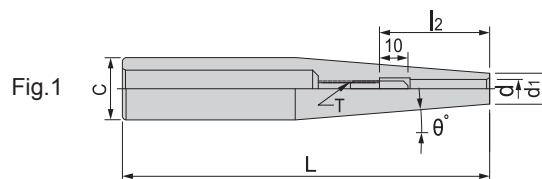
| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | d ₃ | 重量 (KGS) Weight |
|--------------------|-----|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| MFS12R x 3mm - 35 | 80 | 35 | 10 | 22 | 3 | 7.5 | 9.8 | 0.2 |
| MFS12R x 3mm - 55 | 100 | 55 | 10 | 42 | 3 | 7.5 | 11.9 | 0.2 |
| MFS12R x 3mm - 80 | 125 | 80 | 10 | 67 | 3 | 7.5 | 14.5 | 0.2 |
| MFS12R x 4mm - 35 | 80 | 35 | 10 | 22 | 4 | 10 | 12.3 | 0.2 |
| MFS12R x 4mm - 55 | 100 | 55 | 10 | 42 | 4 | 10 | 14.4 | 0.2 |
| MFS12R x 4mm - 80 | 125 | 80 | 10 | 67 | 4 | 10 | 17 | 0.2 |
| MFS12R x 6mm - 35 | 80 | 35 | 20 | 22 | 6 | 12 | 14.3 | 0.2 |
| MFS12R x 6mm - 55 | 100 | 55 | 20 | 42 | 6 | 12 | 16.4 | 0.2 |
| MFS12R x 6mm - 80 | 125 | 80 | 20 | 67 | 6 | 12 | 19 | 0.2 |
| MFS12R x 8mm - 35 | 80 | 35 | 26 | 22 | 8 | 14 | 16.3 | 0.2 |
| MFS12R x 8mm - 55 | 100 | 55 | 26 | 42 | 8 | 14 | 18.4 | 0.2 |
| MFS12R x 8mm - 80 | 125 | 80 | 26 | 67 | 8 | 14 | 21 | 0.3 |
| MFS12R x 10mm - 35 | 80 | 35 | 32 | 22 | 10 | 16 | 18.3 | 0.2 |
| MFS12R x 10mm - 55 | 100 | 55 | 32 | 42 | 10 | 16 | 20.4 | 0.2 |
| MFS12R x 10mm - 80 | 125 | 80 | 32 | 67 | 10 | 16 | 23 | 0.3 |
| MFS12R x 12mm - 35 | 80 | 35 | 37 | 22 | 12 | 20 | 22.3 | 0.2 |
| MFS12R x 12mm - 55 | 100 | 55 | 37 | 42 | 12 | 20 | 24.4 | 0.2 |
| MFS12R x 12mm - 80 | 125 | 80 | 37 | 51.5 | 12 | 20 | 25.4 | 0.3 |

選配表 Option



• 長度單位 Unit of Length (mm)

燒結式 Shrink-Fit



特點 Feature

- 搭配任何筒夾式刀桿使用，應用廣泛且便利
- 精度 5 μ

- Compatible with all collet type tool holder. Wide application and economical
- Precision 5 μ .

| 規格 Spec. | C | L | l ₂ | d | d ₁ | θ | T | Fig. | 重量 (KGS) Weight |
|---------------|----|-----|----------------|----|----------------|----------|---------|------|-----------------|
| C10-SFW4-120 | 10 | 120 | 20 | 3 | 7 | 3° | - | 1 | 0.06 |
| C12-SFW6-120 | 10 | 120 | 20 | 4 | 10 | 3° | - | 1 | 0.12 |
| C20-SFW10-150 | 12 | 150 | 36 | 6 | 14 | 3° | M5x0.8P | 2 | 0.12 |
| C20-SFW8-150 | 16 | 150 | 10 | 4 | 12 | 3° | M6x1.0P | 1 | 0.18 |
| C20-SFW6-150 | 16 | 150 | 36 | 6 | 10 | 3° | M5x0.8P | 2 | 0.20 |
| C16-SFW4-150 | 20 | 150 | 26 | 6 | 7 | 3° | - | 2 | 0.25 |
| C16-SFW6-150 | 20 | 150 | 20 | 8 | 9 | 3° | - | 1 | 0.28 |
| C20-SFW4-200 | 20 | 200 | 42 | 10 | 7 | 3° | - | 1 | 0.24 |
| C20-SFW6-200 | 25 | 200 | 26 | 6 | 10 | 3° | - | 2 | 0.64 |
| C20-SFW8-200 | 25 | 200 | 26 | 8 | 12 | 3° | - | 1 | 0.66 |

選配表 Option



• 長度單位 Unit of Length (mm)

不鏽鋼刀桿專用
For Stainless Steels Tool Holder



- 適用刀桿 : MFS - Applicable chuck: MFS

| 規格 Spec. | LM-HM-12400 |
|----------------------------------|---------------------------------------|
| 尺寸 (長 x 寬 x 高) Size(DxWxH) | 527.7x329x656(mm) |
| 輸出電源 Power output | 200V AC, 50/60 Hz 15A |
| 瞬間輸出最大功率 Maximum output | 3000 瓦 (W) |
| 建議使用範圍 Tool size range | 適用於 $\phi 3(1/8") \sim \phi 12(1/2")$ |
| 使用氣壓壓力範圍 Pneumatic requirements | 0.4~0.6(Mpa) |
| 加熱時間 Heating time | 以 3mm(1/8") 約 90(Sec) |
| 加熱刀桿材質 Shrink-fit chuck material | 不鏽鋼材質 stainless steel |
| 重量 (kg)Weight | 17.26(kg) |

標準配備 Standard Equipment

| 圖示 Pic. | 規格 Spec. | 名稱 Description | 用途 Use |
|---------|-------------------------|-------------------------------------|--|
| | LM-HM-12400-031 | 電子式倒數計時器 Digital Countdown Timer | 計時加熱及冷卻時間 Countdown the heating and cooling time |
| | LM-HM-12400-030 | 鑷子 Tweezer | 夾取待安裝或拆卸下之刀具 Used for grabbing tool |
| | LM-HM-12400-BT50/HSK100 | 刀桿放置座 Tool Holder Plate | 適合放置 BT50 和 HSK100 之刀桿 · 以及轉換其他規格之變徑刀桿座 Applicable for placing BT50 and HSK100 holders, as well as for changing different base holders |
| | LM-HM-12400-003-2 | 加熱罩蓋 Heating Mantle | 加熱過程中包覆刀桿，使刀桿有效受熱 · 適用刀具柄徑 $\phi 3 \sim \phi 6$ $\phi 6$ · To heat the holders evenly. Applicable for tools from $\phi 3\text{mm} \sim \phi 6\text{mm}$ |
| | LM-HM-12400-003-3 | | 加熱過程中包覆刀桿，使刀桿有效受熱 · 適用刀具柄徑 $\phi 8 \sim \phi 12$ $\phi 12$ · To heat the holders evenly. Applicable for tools from $\phi 8\text{mm} \sim \phi 8\text{mm}$ |
| | LM-HM-12400-032 | AC 轉換插頭 Universal Adaptor | 轉換插頭型式 Power converter |

選配配件 Option Accesories

| 圖示 Pic. | 規格 Spec. | 名稱 Description | 用途 Use |
|---------|---------------------------------------|------------------------------|---|
| | LM-HM-12400-035 | 耐熱手套 Heat resistant glove | 有效阻絕熱源，保護操作者誤觸到高溫 Protection from high temperatures |
| | LM-HM-12400-034 | 銑刀放置盤 Tool cooling tray | 放置從熱伸長導桿上拆卸下來的刀具用置放台 For placing the tools that have been removed from the shrink-fit chuck |
| | BT30、BT40、HSK25、HSK32、 HSK40、HSK63 | 變徑刀桿座 Base holder | 用於固定刀桿之變徑刀桿座 Used for fixing different types of base holders |

• 長度單位 Unit of Length (mm)

不鏽鋼刀桿專用
For Stainless Steels Tool Holder

自動時間控制
Auto Timer (Stop Automatically
Through A Cycle-Heating/Cool Down)



- 適用刀桿 : MFS - Applicable chuck: MFS

| 規格 Spec. | LM-HM-12400-TC |
|----------------------------------|---------------------------------------|
| 尺寸 (長 x 寬 x 高) Size(DxWxH) | 527.7x329x656(mm) |
| 輸出電源 Power output | 200V AC, 50/60 Hz 15A |
| 瞬間輸出最大功率 Maximum output | 3000 瓦 (W) |
| 建議使用範圍 Tool size range | 適用於 $\phi 3(1/8") \sim \phi 12(1/2")$ |
| 使用氣壓壓力範圍 Pneumatic requirements | 0.4~0.6(Mpa) |
| 加熱時間 Heating time | 以 3mm(1/8") 約 90(Sec) |
| 加熱刀桿材質 Shrink-fit chuck material | 不鏽鋼材質 stainless steel |
| 重量 (kg)Weight | 17.26(kg) |

標準配備 Standard Equipment

| 圖示 Pic. | 規格 Spec. | 名稱 Description | 用途 Use |
|---------|-------------------------|-------------------------------------|--|
| | LM-HM-12400-031 | 電子式倒數計時器 Digital Countdown Timer | 計時加熱及冷卻時間 Countdown the heating and cooling time |
| | LM-HM-12400-030 | 鑷子 Tweezer | 夾取待安裝或拆卸下之刀具 Used for grabbing tool |
| | LM-HM-12400-BT50/HSK100 | 刀桿放置座 Tool Holder Plate | 適合放置 BT50 和 HSK100 之刀桿， 以及轉換其他規格之變徑刀桿座 Applicable for placing BT50 and HSK100 holders, as well as for changing different base holders |
| | LM-HM-12400-003-2 | 加熱罩蓋 Heating Mantle | 加熱過程中包覆刀桿，使刀桿有效受熱。 適用刀具柄徑 $\phi 3 \sim \phi 6$ $\phi 6$ · To heat the holders evenly. Applicable for tools from $\phi 3\text{mm} \sim \phi 6\text{mm}$ |
| | LM-HM-12400-003-3 | | 加熱過程中包覆刀桿，使刀桿有效受熱。 適用刀具柄徑 $\phi 8 \sim \phi 12$ $\phi 12$ · To heat the holders evenly. Applicable for tools from $\phi 8\text{mm} \sim \phi 12\text{mm}$ |
| | LM-HM-12400-032 | AC 轉換插頭 Universal Adaptor | 轉換插頭型式 Power converter |

選配配件 Option Accessories

| 圖示 Pic. | 規格 Spec. | 名稱 Description | 用途 Use |
|---------|---------------------------------------|------------------------------|---|
| | LM-HM-12400-035 | 耐熱手套 Heat resistant glove | 有效阻絕熱源，保護操作者誤觸到高溫 Protection from high temperatures |
| | LM-HM-12400-034 | 銑刀放置盤 Tool cooling tray | 放置從熱伸長導桿上拆卸下來的刀具用置放台 For placing the tools that have been removed from the shrink-fit chuck |
| | BT30、BT40、HSK25、HSK32、 HSK40、HSK63 | 變徑刀桿座 Base holder | 用於固定刀桿之變徑刀桿座 Used for fixing different types of base holders |

• 長度單位 Unit of Length (mm)

| 快速加熱原理 Rapid Heating Principle:

由加熱器內之感應線圈，產生高頻電磁波使刀桿感應渦電流而生熱，加熱迅速，提升換刀效率

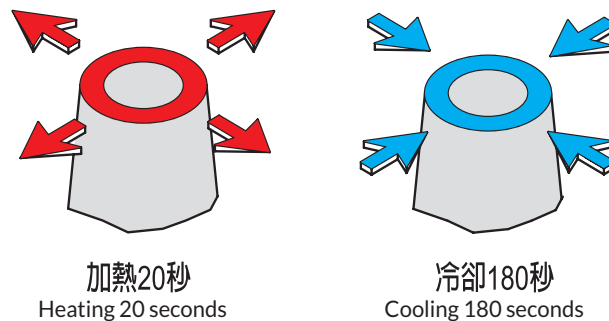
With the induction coil of the Shrink-fit machine, high frequency electro-magnetic waves rapidly to heat the arbor. It leads to quick clamping and unclamping of the tools.

| 冷卻原理 Cooling Principle:

利用空壓機之風力強制降溫冷卻，使刀桿能迅速到達常溫狀態。(冷卻時間與空壓機馬力大小成反比)

Using the wind of air compressor to make the tool holder cool down quickly. (Cooling time and air compressor power are in inverse proportion.)

例 Example: BT40xSFC12-90



| | | | |
|--|---|---|---|
| | | | |
| <p>加熱</p> <p>將刀桿置加熱器加熱， 時間約 20 秒</p> <p>Heating: Heat the arbor for about 20 seconds.</p> | <p>置入刀具</p> <p>將刀具置入加熱膨脹 後之刀桿</p> <p>Placing the cutting tool into the expanded arbor on your required height.</p> | <p>固定夾持</p> <p>溫度冷卻收縮後之刀 桿，刀具即強力的挾 持住</p> <p>Fixed clamping: The tool is clamped firmly when the arbor contracts after it has cooled down.</p> | <p>取出</p> <p>在加熱刀桿膨脹後， 即可輕易取出刀具</p> <p>Removing: Expand the arbor by heating it to easily remove the tool.</p> |

| 操作便利安全 Convenient safety instruction:

刀桿被加熱至換刀溫度後，約五秒後自動開啟送風裝置冷卻刀桿，不必移動加熱器，提高操作之安全性

After heating the arbor to the desired temp for changing the tool, the air compressor will automatically turn on after 5 seconds and blow the cool air to cool down for clamping the tool.

• 長度單位 Unit of Length (mm)



| 規格 Spec. | SFC-300 | SFC-1000 |
|--------------------------------|---|--|
| 尺寸 (寬 x 深 x 高) Size(WxDxH) | 300X300x685(mm) | 650X410X820(mm) |
| 輸出電源 Power output | 單相 SINGLE-PHASE 220V、50/60HZ 15 安培 AMP | 三相 3-PHASE 220V 50/60HZ 25 安培 AMP |
| 瞬間輸出最大功率 Maximum output | 2000~3000 瓦 (watts) | 6000~9000 瓦 (watts) |
| 建議使用範圍 Tool size range | Ø3~Ø20mm、大型加熱罩 Ø25~Ø32mm (另購) Ø3~Ø20mm、large heating mantle、Ø25~Ø32mm (optional) | 適用於 Ø3~Ø32mm 刀具 Suitable for Ø3~Ø32mm Tool |
| 加熱時間 Heating time | - | 3~18 秒 (視刀桿尺寸、形狀而定) 3-18 seconds. (It depends on the arbor size and shape) |
| 使用刀具 Cutting tools | 限用鎢鋼刀具 Only tungsten steel tools | 可使用在 HSS 刀具或一般捨棄式刀具 (Ø10 以上) HSS tools and garden-variety abandon cutting tools |
| 加熱刀桿 Shrink-fit tool holder | 合金鋼材質 (不建議加熱不鏽鋼材質) Alloy steel(stainless steel is not recommended for heating) | |
| 重量 (KGS) Weight | 18.75(KGS) | 63.2(KGS) |

選配配件 Optional Accessories

| 圖示 Pic. | 規格 Spec. | 名稱 Description | 用途 Usage |
|---------|---|--|---|
| | HSK25、HSK32、HSK40、 HSK50、HSK63、HSK80 | HSK 變徑刀桿座 HSK Arbor Base | 用於固定不同規格刀桿尺寸上 For different types of arbor specifications. |
| | BT30、BT40、 PSC-63A、BT50 | BT 變徑刀桿座 BT Arbor Base | |
| | Ø3~Ø5、Ø6~Ø12、 Ø14~Ø20、Ø25~Ø32 | 導熱環 Thermal Conductive Ring Housing | 有效阻絕熱源、冷空氣與外界接觸 Thermal housing prevents and ensures during heating and cooling the exact place of the arbor. |
| | Ø84x101 | HSK 變徑刀桿座 HSK - Arbor Base | 用於固定不同規格刀桿尺寸上 For different types of arbor specifications. |
| | Ø3、Ø4、Ø6、Ø8、Ø10、Ø12 | 刀具夾持器 (需另購) Cutting tool holder(Optional) | 用於置入、取出刀具使用，並可設定刀具長度 To hold the cutting tool at any height during clamp and easily remove during unclamp. |

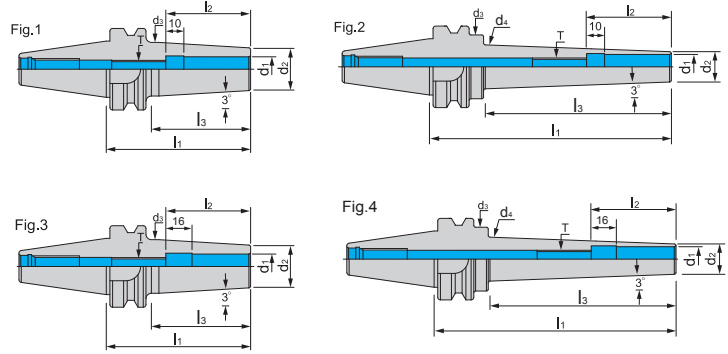


• 長度單位 Unit of Length (mm)

燒結式 Shrink-Fit



BT



特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | d_4 | T | Fig. | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-----------|------|-----------------|
| BT30 x SFCT4-80 | 80 | 20 | 48 | 4 | 10 | 15 | - | M6x1.0P | 1 | 0.40 |
| BT30 x SFCT4-135 | 135 | 20 | 102 | 4 | 10 | 26 | 20.6 | - | 2 | 0.60 |
| BT30 x SFCT5-80 | 80 | 20 | 53 | 5 | 16 | 19 | - | M6x1.0P | 1 | 0.42 |
| BT30 x SFCT5-135 | 135 | 20 | 102 | 5 | 11 | 26 | 21.6 | - | 2 | 0.62 |
| BT30 x SFCT6-80 | 80 | 36 | 53 | 6 | 21 | 26 | - | M5x0.8P | 3 | 0.44 |
| BT30 x SFCT6-135 | 135 | 36 | 101 | 6 | 12 | 26 | 22.6 | M5x0.8P | 4 | 0.64 |
| BT30 x SFCT8-80 | 80 | 36 | 53 | 8 | 21 | 26 | - | M6x1.0P | 1 | 0.45 |
| BT30 x SFCT8-135 | 135 | 36 | 103 | 8 | 14 | 26 | 24.7 | M6x1.0P | 2 | 0.65 |
| BT30 x SFCT10-80 | 80 | 42 | 53 | 10 | 24 | 29 | - | M8x1.25P | 2 | 0.65 |
| BT30 x SFCT10-135 | 135 | 42 | 108 | 10 | 16 | 26 | - | M8x1.25P | 2 | 0.70 |
| BT30 x SFCT12-80 | 80 | 52 | 53 | 12 | 24 | 29 | - | M10x1.5P | 1 | 0.50 |
| BT30 x SFCT12-135 | 135 | 52 | 108 | 12 | 18 | 26 | - | M10x1.5P | 2 | 0.70 |
| BT30 x SFCT14-80 | 80 | 52 | 46 | 14 | 24 | 32 | - | M10x1.5P | 2 | 0.52 |
| BT30 x SFCT14-135 | 135 | 52 | 102 | 14 | 20 | 36 | 30.6 | M10x1.5P | 2 | 0.72 |
| BT30 x SFCT16-80 | 80 | 52 | 55 | 16 | 27 | 32 | - | M12x1.75P | 1 | 0.54 |
| BT30 x SFCT16-135 | 135 | 52 | 101 | 16 | 22 | 36 | 32.6 | M12x1.75P | 2 | 0.74 |
| BT30 x SFCT18-90 | 90 | 52 | 66 | 18 | 33 | 38 | - | M12x1.75P | 2 | 0.56 |
| BT30 x SFCT18-135 | 135 | 52 | 102 | 18 | 24 | 36 | 34.7 | M12x1.75P | 2 | 0.75 |
| BT30 x SFCT20-90 | 90 | 52 | 66 | 20 | 33 | 38 | - | M16x2.0P | 1 | 0.80 |
| BT30 x SFCT20-135 | 135 | 52 | 111 | 20 | 26 | 36 | - | M16x2.0P | 2 | 0.78 |
| BT30 x SFCT25-100 | 100 | 58 | 78 | 25 | 44 | 49 | - | M20x2.0P | 2 | 0.60 |
| BT30 x SFCT25-160 | 160 | 58 | 136 | 25 | 31 | 36 | - | M20x2.0P | 2 | 0.80 |

選配表 Option

| 拉頭 Pull Stud | 加熱器 Heater |
|--------------|------------|
| | |
| B645-B647 | B400 |



• 長度單位 Unit of Length (mm)



BT/SFCT 熱膨脹刀桿 BT/SFCT SHRINK-FIT CHUCK

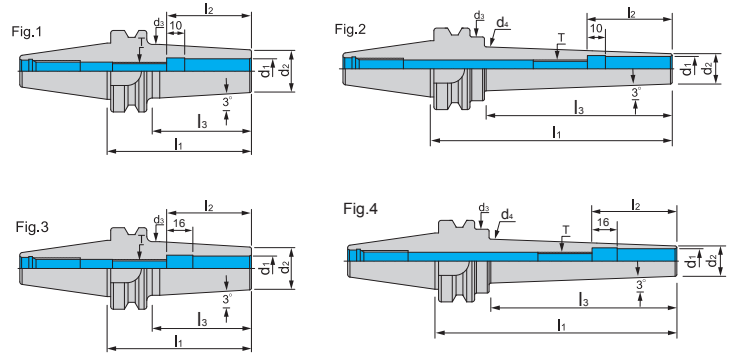
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JIS
MAS 403



燒結式 Shrink-Fit

BT



特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | d_4 | T | Fig. | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-------|-------|-------|----------|------|-----------------|
| BT40 x SFCT4-90 | 90 | 20 | 53 | 4 | 10 | 15.6 | - | M6x1.0P | 1 | 1.10 |
| BT40 x SFCT4-135 | 135 | 20 | 97 | 4 | 10 | 26 | 20 | - | 2 | 1.20 |
| BT40 x SFCT5-90 | 90 | 20 | 58 | 5 | 16 | 21 | - | M6x1.0P | 1 | 1.00 |
| BT40 x SFCT5-135 | 135 | 20 | 97 | 5 | 11 | 26 | 21 | - | 2 | 1.20 |
| BT40 x SFCT5-165 | 165 | 20 | 127 | 5 | 11 | 26 | 24 | - | 2 | 1.40 |
| BT40 x SFCT5-200 | 200 | 20 | 168 | 5 | 11 | 26 | - | - | 2 | 1.80 |
| BT40 x SFCT6-90 | 90 | 36 | 58 | 6 | 21 | 26 | - | M5x0.8P | 3 | 1.22 |
| BT40 x SFCT6-135 | 135 | 36 | 96 | 6 | 12 | 26 | 22 | M5x0.8P | 4 | 1.30 |
| BT40 x SFCT6-165 | 165 | 36 | 127 | 6 | 12 | 26 | 22 | M5x0.8P | 4 | 1.50 |
| BT40 x SFCT6-200 | 200 | 36 | 168 | 6 | 12 | 26 | - | M5x0.8P | 4 | 2.00 |
| BT40 x SFCT8-90 | 90 | 36 | 58 | 8 | 21 | 26 | - | M6x1.0P | 1 | 1.21 |
| BT40 x SFCT8-135 | 135 | 36 | 97 | 8 | 14 | 36 | 24 | M6x1.0P | 2 | 1.30 |
| BT40 x SFCT8-165 | 165 | 36 | 127 | 8 | 14 | 36 | 27 | M6x1.0P | 2 | 1.50 |
| BT40 x SFCT8-200 | 200 | 36 | 162 | 8 | 14 | 36 | 30 | M6x1.0P | 2 | 1.59 |
| BT40 x SFCT10-90 | 90 | 42 | 58 | 10 | 24 | 29 | - | M8x1.25P | 1 | 1.28 |
| BT40 x SFCT10-135 | 135 | 42 | 97 | 10 | 16 | 36 | 26 | M8x1.25P | 2 | 1.30 |
| BT40 x SFCT10-165 | 165 | 42 | 127 | 10 | 16 | 36 | - | M8x1.25P | 2 | 1.50 |
| BT40 x SFCT10-200 | 200 | 42 | 161 | 10 | 16 | 36 | 32 | M8x1.25P | 2 | 2.00 |
| BT40 x SFCT12-90 | 90 | 52 | 58 | 12 | 24 | 29 | - | M10x1.5P | 1 | 3.94 |
| BT40 x SFCT12-135 | 135 | 52 | 97 | 12 | 18 | 36 | 28 | M10x1.5P | 2 | 1.30 |
| BT40 x SFCT12-165 | 165 | 52 | 125 | 12 | 18 | 36 | 31 | M10x1.5P | 2 | 1.50 |
| BT40 x SFCT12-200 | 200 | 52 | 162 | 12 | 18 | 36 | 35 | M10x1.5P | 2 | 1.69 |

選配表 Option

| 拉頭 Pull Stud | 加熱器 Heater |
|--------------|------------|
| | |
| B645-B647 | B400 |

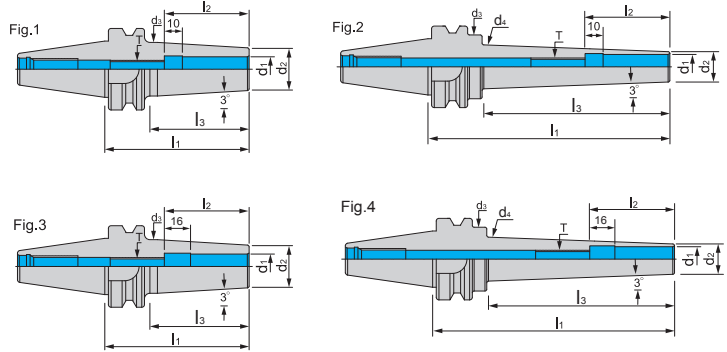


• 長度單位 Unit of Length (mm)

燒結式 Shrink-Fit



BT



特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | d_4 | T | Fig. | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-----------|------|-----------------|
| BT40 x SFCT14-90 | 90 | 52 | 58 | 14 | 27 | 32 | - | M10x1.5P | 1 | 1.20 |
| BT40 x SFCT14-135 | 135 | 52 | 97 | 14 | 20 | 36 | 30 | M10x1.5P | 2 | 1.40 |
| BT40 x SFCT14-165 | 165 | 52 | 126 | 14 | 20 | 36 | 33 | M10x1.5P | 2 | 1.50 |
| BT40 x SFCT14-200 | 200 | 52 | 168 | 14 | 20 | 36 | - | M10x1.5P | 2 | 2.00 |
| BT40 x SFCT16-90 | 90 | 52 | 58 | 16 | 27 | 32 | - | M12x1.75P | 1 | 1.28 |
| BT40 x SFCT16-135 | 135 | 52 | 96 | 16 | 22 | 36 | 32 | M12x1.75P | 2 | 1.40 |
| BT40 x SFCT16-165 | 165 | 52 | 127 | 16 | 22 | 36 | 35 | M12x1.75P | 2 | 1.50 |
| BT40 x SFCT16-200 | 200 | 52 | 168 | 16 | 22 | 36 | - | M12x1.75P | 2 | 2.00 |
| BT40 x SFCT18-100 | 100 | 52 | 68 | 18 | 33 | 38 | - | M12x1.75P | 1 | 1.30 |
| BT40 x SFCT18-135 | 135 | 52 | 97 | 18 | 24 | 36 | 34 | M12x1.75P | 2 | 1.50 |
| BT40 x SFCT18-165 | 165 | 52 | 133 | 18 | 24 | 36 | - | M12x1.75P | 2 | 2.00 |
| BT40 x SFCT18-200 | 200 | 52 | 133 | 2 | 24 | 36 | - | M12x1.75P | 2 | 2.10 |
| BT40 x SFCT19-90 | 90 | 52 | 168 | 2 | 24 | 36 | - | M12x1.75P | 2 | 1.80 |
| BT40 x SFCT20-100 | 100 | 60 | 58 | 19 | 33 | 38 | - | M16x2.0P | 1 | 1.42 |
| BT40 x SFCT20-135 | 135 | 52 | 68 | 20 | 33 | 38 | - | M16x2.0P | 1 | 1.50 |
| BT40 x SFCT20-165 | 165 | 52 | 103 | 20 | 26 | 36 | - | M16x2.0P | 2 | 1.64 |
| BT40 x SFCT20-200 | 200 | 52 | 133 | 20 | 26 | 36 | - | M16x2.0P | 2 | 2.10 |
| BT40 x SFCT24-90 | 90 | 52 | 168 | 20 | 26 | 36 | - | M16x2.0P | 2 | 1.86 |
| BT40 x SFCT25-100 | 100 | 72 | 61 | 24 | 44 | 49 | - | M20x2.0P | 1 | 1.78 |
| BT40 x SFCT25-135 | 135 | 58 | 71 | 25 | 44 | 49 | - | M20x2.0P | 1 | 1.90 |
| BT40 x SFCT25-165 | 165 | 58 | 97 | 25 | 31 | 49 | 41 | M20x2.0P | 2 | 2.10 |
| BT40 x SFCT25-200 | 200 | 58 | 127 | 25 | 31 | 49 | 44 | M20x2.0P | 2 | 2.20 |
| BT40 x SFCT32-100 | 100 | 58 | 162 | 25 | 31 | 49 | 48 | M20x2.0P | 2 | 1.55 |
| BT40 x SFCT32-135 | 135 | 58 | 71 | 32 | 44 | 49 | - | M20x2.0P | 1 | 1.90 |
| BT40 x SFCT32-165 | 165 | 58 | 97 | 32 | 38 | 49 | 48 | M20x2.0P | 2 | 2.22 |
| BT40 x SFCT32-200 | 200 | 58 | 136 | 32 | 38 | 49 | - | M20x2.0P | 2 | 2.20 |

選配表 Option

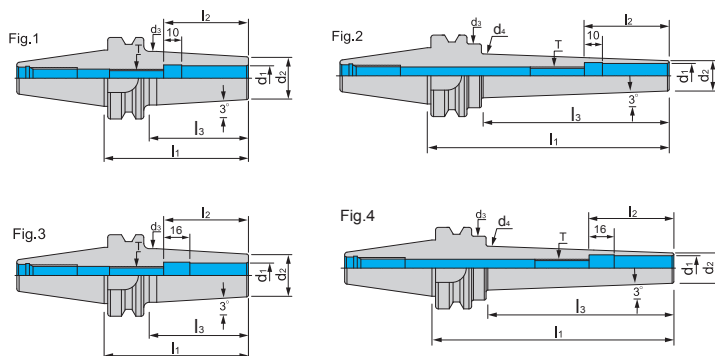
| 拉頭 Pull Stud | 加熱器 Heater |
|--------------|------------|
| | |
| B645-B647 | B400 |



• 長度單位 Unit of Length (mm)

燒結式 Shrink-Fit

BT



特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | d_4 | T | Fig. | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-------|-------|-------|----------|------|-----------------|
| BT50 x SFCT4-100 | 100 | 20 | 52 | 4 | 10 | 15.5 | - | M6x1.0P | 1 | 3.86 |
| BT50 x SFCT4-135 | 135 | 20 | 86 | 4 | 10 | 26 | 19 | - | 2 | 3.56 |
| BT50 x SFCT5-100 | 100 | 20 | 57 | 5 | 16 | 21 | - | M6x1.0P | 1 | 3.86 |
| BT50 x SFCT5-135 | 135 | 20 | 86 | 5 | 11 | 26 | 20 | - | 2 | 3.56 |
| BT50 x SFCT5-165 | 165 | 20 | 115 | 5 | 11 | 26 | 23 | - | 2 | 3.73 |
| BT50 x SFCT5-200 | 200 | 20 | 157 | 5 | 11 | 26 | - | - | 2 | 3.86 |
| BT50 x SFCT6-100 | 100 | 36 | 57 | 6 | 21 | 26 | - | M5x0.8P | 3 | 3.92 |
| BT50 x SFCT6-135 | 135 | 36 | 86 | 6 | 12 | 26 | 21 | M5x0.8P | 4 | 3.62 |
| BT50 x SFCT6-165 | 165 | 36 | 116 | 6 | 12 | 26 | 24 | M5x0.8P | 4 | 3.76 |
| BT50 x SFCT6-200 | 200 | 36 | 157 | 6 | 12 | 26 | - | M5x0.8P | 4 | 3.89 |
| BT50 x SFCT8-100 | 100 | 36 | 57 | 8 | 21 | 26 | - | M6x1.0P | 1 | 3.92 |
| BT50 x SFCT8-135 | 135 | 36 | 86 | 8 | 14 | 36 | 23 | M6x1.0P | 2 | 3.74 |
| BT50 x SFCT8-165 | 165 | 36 | 116 | 8 | 14 | 36 | 26 | M6x1.0P | 2 | 3.85 |
| BT50 x SFCT8-200 | 200 | 36 | 151 | 8 | 14 | 36 | 29 | M6x1.0P | 2 | 4.02 |
| BT50 x SFCT10-100 | 100 | 42 | 58 | 10 | 24 | 29 | - | M8x1.25P | 1 | 3.90 |
| BT50 x SFCT10-135 | 135 | 42 | 86 | 10 | 16 | 36 | 25 | M8x1.25P | 2 | 3.68 |
| BT50 x SFCT10-165 | 165 | 42 | 116 | 10 | 16 | 36 | 28 | M8x1.25P | 2 | 3.86 |
| BT50 x SFCT10-200 | 200 | 42 | 151 | 10 | 16 | 36 | 31 | M8x1.25P | 2 | 4.02 |
| BT50 x SFCT12-100 | 100 | 52 | 52 | 12 | 24 | 29 | - | M10x1.5P | 1 | 3.94 |
| BT50 x SFCT12-135 | 135 | 52 | 86 | 12 | 18 | 36 | 27 | M10x1.5P | 2 | 3.77 |
| BT50 x SFCT12-165 | 165 | 52 | 116 | 12 | 18 | 36 | 30 | M10x1.5P | 2 | 3.89 |
| BT50 x SFCT12-200 | 200 | 52 | 150 | 12 | 18 | 36 | 33 | M10x1.5P | 2 | 4.07 |

選配表 Option

| 拉頭 Pull Stud | 加熱器 Heater |
|--------------|------------|
| | |
| B645-B647 | B400 |

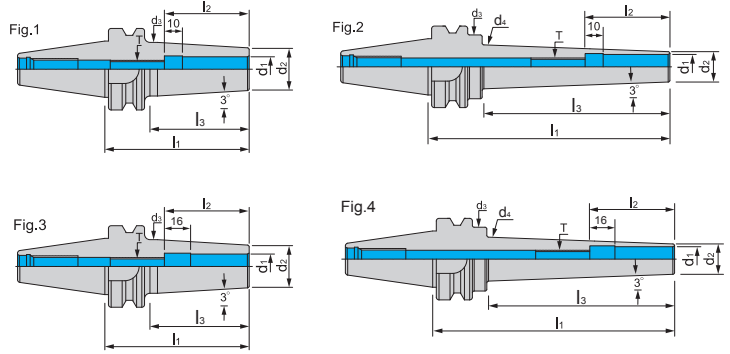


• 長度單位 Unit of Length (mm)

燒結式 Shrink-Fit



BT



特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 2500rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 2500rpm

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | d_4 | T | Fig. | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-----------|------|-----------------|
| BT50 x SFCT14-100 | 100 | 52 | 57 | 14 | 27 | 32 | - | M10x1.5P | 1 | 3.86 |
| BT50 x SFCT14-135 | 135 | 52 | 86 | 14 | 20 | 36 | 29 | M10x1.5P | 2 | 3.81 |
| BT50 x SFCT14-165 | 165 | 52 | 116 | 14 | 20 | 36 | 32 | M10x1.5P | 2 | 3.86 |
| BT50 x SFCT14-200 | 200 | 52 | 157 | 14 | 20 | 36 | - | M10x1.5P | 2 | 4.16 |
| BT50 x SFCT16-100 | 100 | 52 | 52 | 16 | 27 | 32 | - | M12x1.75P | 1 | 3.96 |
| BT50 x SFCT16-135 | 135 | 52 | 86 | 16 | 22 | 36 | 31 | M12x1.75P | 2 | 3.82 |
| BT50 x SFCT16-165 | 165 | 52 | 116 | 16 | 22 | 36 | 34 | M12x1.75P | 2 | 3.97 |
| BT50 x SFCT16-200 | 200 | 52 | 157 | 16 | 22 | 36 | - | M12x1.75P | 2 | 4.19 |
| BT50 x SFCT18-110 | 110 | 52 | 62 | 18 | 33 | 38 | - | M12x1.75P | 1 | 4.18 |
| BT50 x SFCT18-135 | 135 | 52 | 85 | 18 | 24 | 36 | 32 | M12x1.75P | 2 | 3.88 |
| BT50 x SFCT18-165 | 165 | 52 | 122 | 18 | 24 | 36 | - | M12x1.75P | 2 | 4.06 |
| BT50 x SFCT18-200 | 200 | 52 | 157 | 18 | 24 | 36 | - | M12x1.75P | 2 | 4.30 |
| BT50 x SFCT20-110 | 110 | 52 | 67 | 20 | 33 | 38 | - | M16x2.0P | 1 | 4.14 |
| BT50 x SFCT20-135 | 135 | 52 | 86 | 20 | 26 | 36 | 35 | M16x2.0P | 2 | 3.86 |
| BT50 x SFCT20-165 | 165 | 52 | 117 | 20 | 26 | 36 | - | M16x2.0P | 2 | 4.03 |
| BT50 x SFCT20-200 | 200 | 52 | 152 | 20 | 26 | 36 | - | M16x2.0P | 2 | 4.22 |
| BT50 x SFCT25-110 | 110 | 58 | 67 | 25 | 44 | 49 | - | M20x2.0P | 1 | 4.46 |
| BT50 x SFCT25-135 | 135 | 58 | 86 | 25 | 31 | 49 | 40 | M20x2.0P | 2 | 4.03 |
| BT50 x SFCT25-165 | 165 | 58 | 116 | 25 | 31 | 49 | 43 | M20x2.0P | 2 | 4.30 |
| BT50 x SFCT25-200 | 200 | 58 | 150 | 25 | 31 | 49 | 46 | M20x2.0P | 2 | 4.67 |
| BT50 x SFCT32-110 | 110 | 58 | 67 | 32 | 44 | 49 | - | M20x2.0P | 1 | 4.30 |
| BT50 x SFCT32-135 | 135 | 58 | 86 | 32 | 38 | 49 | 47 | M20x2.0P | 2 | 4.18 |
| BT50 x SFCT32-165 | 165 | 58 | 122 | 32 | 38 | 49 | - | M20x2.0P | 2 | 4.56 |
| BT50 x SFCT32-200 | 200 | 58 | 157 | 32 | 38 | 49 | - | M20x2.0P | 2 | 5.01 |

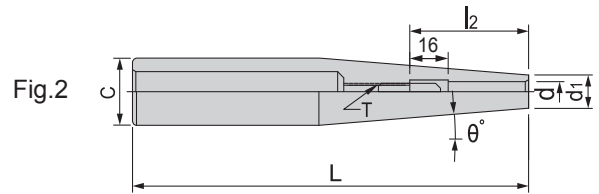
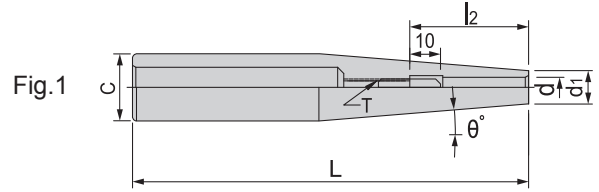
選配表 Option

| 拉頭 Pull Stud | 加熱器 Heater |
|--------------|------------|
| | |
| B645-B647 | B400 |



• 長度單位 Unit of Length (mm)

燒結式 Shrink-Fit



特點 Feature

- 搭配任何筒夾式刀桿使用，應用廣泛且便利
- 精度 5 μ

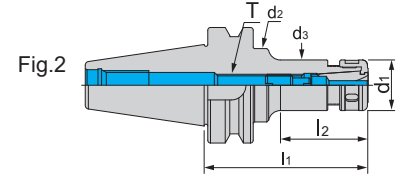
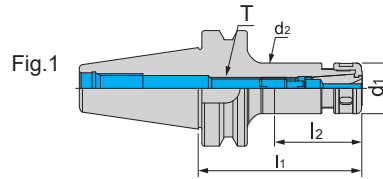
- Compatible with all collet type tool holder. Wide application and economical
- Precision 5 μ .

| 規格 Spec. | C | L | l ₂ | d | d ₁ | θ | T | Fig. | 重量 (KGS) Weight |
|-----------------|----|-----|----------------|----|----------------|----------|---------|------|-----------------|
| C10 x SFC3-120 | 10 | 120 | 20 | 3 | 7 | 4.5° | - | 1 | 0.06 |
| C10 x SFC4-120 | 10 | 120 | 20 | 4 | 7 | 4.5° | - | 1 | 0.12 |
| C12 x SFC6-120 | 12 | 120 | 36 | 6 | 10 | 4.5° | M5x0.8P | 2 | 0.12 |
| C16 x SFC4-150 | 16 | 150 | 10 | 4 | 7 | 3° | M6x1.0P | 1 | 0.18 |
| C16 x SFC6-150 | 16 | 150 | 36 | 6 | 9 | 3° | M5x0.8P | 2 | 0.20 |
| C20 x SFC6-150 | 20 | 150 | 26 | 6 | 10 | 3° | - | 2 | 0.25 |
| C20 x SFC8-150 | 20 | 150 | 20 | 8 | 14 | 3° | - | 1 | 0.28 |
| C20 x SFC10-150 | 20 | 150 | 42 | 10 | 14 | 3° | - | 1 | 0.24 |
| C25 x SFC6-250 | 25 | 250 | 26 | 6 | 10 | 3° | - | 2 | 0.64 |
| C25 x SFC8-250 | 25 | 250 | 26 | 8 | 12 | 3° | - | 1 | 0.66 |
| C25 x SFC10-250 | 25 | 250 | 32 | 10 | 14 | 3° | - | 1 | 0.68 |
| C25 x SFC12-250 | 25 | 250 | 37 | 12 | 16 | 3° | - | 1 | 0.62 |

選配表 Option



• 長度單位 Unit of Length (mm)



特點 Feature

- 偏擺精度 :5 μ 以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 μ .
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Dynamic balancing G2.5 at 25000rpm.

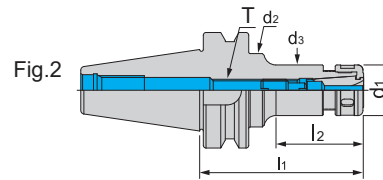
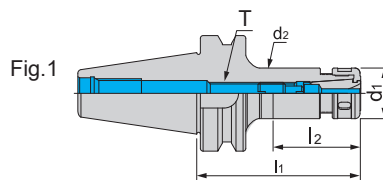
| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | d_3 | T | Fig. | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-------|-------|-----------|------|-----------------|
| BT30 x SKS6-45 | 45 | 22 | 18 | 20 | - | M8x1.25P | 1 | 0.80 |
| BT30 x SKS6-60 | 60 | 33 | 18 | 20 | - | M8x1.25P | 1 | 0.90 |
| BT30 x SKS6-90 | 90 | 55 | 18 | 20 | - | M8x1.25P | 1 | 0.52 |
| BT30 x SKS10-45 | 45 | 22 | 30 | 27.6 | - | M12x1.75P | 1 | 0.80 |
| BT30 x SKS10-60 | 60 | 33 | 30 | 27.6 | - | M12x1.75P | 1 | 0.90 |
| BT30 x SKS10-90 | 90 | 63 | 30 | 27.6 | - | M12x1.75P | 1 | 1.00 |
| BT30 x SKS13-60 | 60 | 35 | 35 | 33 | - | M12x1.75P | 1 | 0.84 |
| BT30 x SKS13-90 | 90 | 65 | 35 | 33 | - | M12x1.75P | 1 | 0.74 |
| BT30 x SKS13-120 | 120 | 95 | 35 | 33 | - | M12x1.75P | 1 | 1.60 |
| BT30 x SKS16-60 | 60 | 37 | 40 | 40 | - | M18x1.5P | 1 | 0.59 |
| BT30 x SKS16-90 | 90 | 67 | 40 | 40 | - | M18x1.5P | 1 | 0.82 |
| BT30 x SKS20-60 | 60 | 33 | 48.5 | 48.5 | - | M22x1.5P | 1 | 0.64 |
| BT30 x SKS20-90 | 90 | 60 | 48.5 | 48.5 | - | M22x1.5P | 1 | 0.98 |
| BT40 x SKS6-90 | 90 | 44 | 18 | 32 | 18 | M8x1.25P | 2 | 1.20 |
| BT40 x SKS6-120 | 120 | 74 | 18 | 32 | 18 | M8x1.25P | 2 | 1.21 |
| BT40 x SKS10-60 | 60 | 30 | 30 | 40 | 27.6 | M12x1.75P | 2 | 1.14 |
| BT40 x SKS10-90 | 90 | 45 | 30 | 40 | 27.6 | M12x1.75P | 2 | 1.20 |
| BT40 x SKS10-120 | 120 | 74 | 30 | 40 | 27 | M12x1.75P | 2 | 1.40 |
| BT40 x SKS13-60 | 60 | 30 | 35 | 33 | - | M12x1.75P | 1 | 1.12 |
| BT40 x SKS13-90 | 90 | 60 | 35 | 33 | - | M12x1.75P | 1 | 1.28 |
| BT40 x SKS13-120 | 120 | 90 | 35 | 33 | - | M12x1.75P | 1 | 1.44 |
| BT40 x SKS13-150 | 150 | 120 | 35 | 33 | - | M12x1.75P | 1 | 1.70 |
| BT40 x SKS13-200 | 200 | 170 | 35 | 33 | - | M12x1.75P | 1 | 2.00 |
| BT40 x SKS16-60 | 60 | 23.2 | 40 | 40 | - | M18x1.5P | 1 | 1.10 |
| BT40 x SKS16-90 | 90 | 58 | 40 | 40 | - | M18x1.5P | 1 | 1.30 |
| BT40 x SKS16-120 | 120 | 88 | 40 | 40 | - | M18x1.5P | 1 | 1.70 |
| BT40 x SKS16-150 | 150 | 118 | 40 | 40 | - | M18x1.5P | 1 | 1.90 |
| BT40 x SKS16-200 | 200 | 168 | 40 | 40 | - | M18x1.5P | 1 | 2.10 |
| BT40 x SKS20-60 | 60 | 32 | 48.5 | 48.5 | - | M22x1.5P | 1 | 1.14 |
| BT40 x SKS20-90 | 90 | 60 | 48.5 | 48.5 | - | M22x1.5P | 1 | 0.46 |
| BT40 x SKS20-120 | 120 | 88 | 48.5 | 48.5 | - | M22x1.5P | 1 | 1.90 |
| BT40 x SKS20-150 | 150 | 118 | 48.5 | 48.5 | - | M22x1.5P | 1 | 2.10 |
| BT40 x SKS20-200 | 200 | 168 | 48.5 | 48.5 | - | M22x1.5P | 1 | 2.20 |
| BT40 x SKS25-90 | 90 | 61 | 55.1 | 55 | - | M28x2.0P | 1 | 1.70 |
| BT40 x SKS25-120 | 120 | 91 | 55.1 | 55 | - | M28x2.0P | 1 | 1.80 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B627 | B639 | B651 |



• 長度單位 Unit of Length (mm)



特點 Feature

- 偏擺精度 :5 μ 以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 μ .
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Dynamic Balancing G2.5 at 25000rpm.

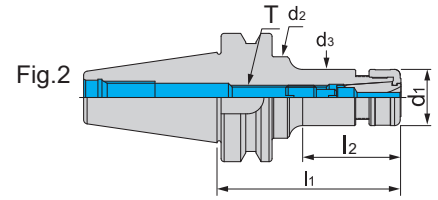
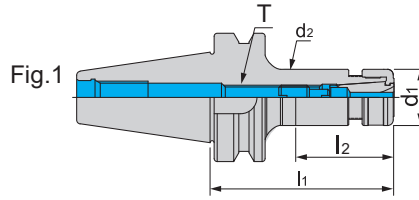
| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | d_3 | T | Fig. | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-------|-------|-----------|------|-----------------------|
| BT50 x SKS6-90 | 90 | 42 | 18 | 18 | - | M8x1.25P | 1 | 4.00 |
| BT50 x SKS6-120 | 120 | 60 | 18 | 32 | 18 | M8x1.25P | 2 | 4.20 |
| BT50 x SKS10-105 | 105 | 57 | 30 | 27.6 | - | M12x1.75P | 1 | 4.50 |
| BT50 x SKS10-150 | 150 | 94 | 30 | 40 | 27 | M12x1.75P | 2 | 4.17 |
| BT50 x SKS10-165 | 165 | 108 | 30 | 40 | 27 | M12x1.75P | 2 | 4.30 |
| BT50 x SKS10-200 | 200 | 145 | 30 | 36 | 27 | M12x1.75P | 2 | 5.20 |
| BT50 x SKS10-250 | 250 | 193 | 30 | 40 | 27 | M12x1.75P | 2 | 5.60 |
| BT50 x SKS13-105 | 105 | 62 | 35 | 33 | - | M12x1.75P | 1 | 4.11 |
| BT50 x SKS13-135 | 135 | 92 | 35 | 33 | - | M12x1.75P | 1 | 4.18 |
| BT50 x SKS13-150 | 150 | 77 | 35 | 33 | 45 | M12x1.75P | 2 | 4.80 |
| BT50 x SKS13-165 | 165 | 92 | 35 | 45 | 33 | M12x1.75P | 2 | 4.55 |
| BT50 x SKS13-200 | 200 | 157 | 35 | 45 | 33 | M12x1.75P | 2 | 4.74 |
| BT50 x SKS13-250 | 250 | 207 | 35 | 45 | 33 | M12x1.75P | 2 | 5.16 |
| BT50 x SKS16-105 | 105 | 57 | 40 | 40 | - | M18x1.5P | 1 | 4.18 |
| BT50 x SKS16-150 | 150 | 93 | 40 | 52 | 40 | M18x1.5P | 2 | 4.70 |
| BT50 x SKS16-165 | 165 | 108 | 40 | 52 | 40 | M18x1.5P | 2 | 4.50 |
| BT50 x SKS16-200 | 200 | 157 | 40 | 52 | 40 | M18x1.5P | 2 | 5.12 |
| BT50 x SKS16-250 | 250 | 207 | 40 | 52 | 40 | M18x1.5P | 2 | 5.66 |
| BT50 x SKS20-105 | 105 | 62 | 48.5 | 48.5 | - | M22x1.5P | 1 | 4.32 |
| BT50 x SKS20-135 | 135 | 92 | 48.5 | 48.5 | - | M22x1.5P | 1 | 4.66 |
| BT50 x SKS20-165 | 165 | 122 | 48.5 | 48.5 | - | M22x1.5P | 1 | 5.00 |
| BT50 x SKS20-200 | 200 | 157 | 48.5 | 48.5 | - | M22x1.5P | 1 | 5.45 |
| BT50 x SKS20-250 | 250 | 207 | 48.5 | 48.5 | - | M22x1.5P | 1 | 6.05 |
| BT50 x SKS25-105 | 105 | 62 | 55.1 | 55 | - | M28x2.0P | 1 | 4.50 |
| BT50 x SKS25-150 | 150 | 107 | 55.1 | 55 | - | M22x1.5P | 1 | 4.80 |
| BT50 x SKS25-200 | 200 | 157 | 55.1 | 55 | - | M22x1.5P | 1 | 6.00 |
| BT50 x SKS25-250 | 250 | 207 | 55.1 | 55 | - | M22x1.5P | 1 | 6.68 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B627 | B639 | B651 |



• 長度單位 Unit of Length (mm)



特點 Feature

- 偏擺精度 :5 μ 以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力 · 提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 μ .
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Dynamic Balance of G2.5 at 25000rpm.

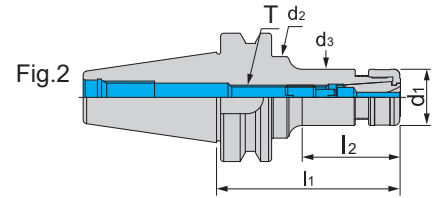
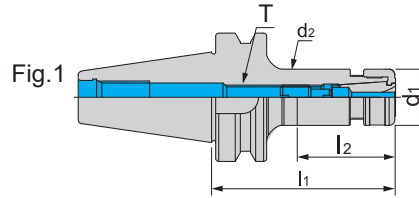
| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | d ₃ | T | Fig. | 重量 (KGS) Weight |
|---------------------|----------------|----------------|----------------|----------------|----------------|-----------|------|-----------------|
| BT30 x SKS6-45-HS | 45 | 22 | 18 | 20 | - | M8x1.25P | 1 | 0.80 |
| BT30 x SKS6-60-HS | 60 | 33 | 18 | 20 | - | M8x1.25P | 1 | 0.90 |
| BT30 x SKS6-90-HS | 90 | 55 | 18 | 20 | - | M8x1.25P | 1 | 0.52 |
| BT30 x SKS10-45-HS | 45 | 22 | 30 | 27.6 | - | M12x1.75P | 1 | 0.80 |
| BT30 x SKS10-60-HS | 60 | 33 | 30 | 27.6 | - | M12x1.75P | 1 | 0.90 |
| BT30 x SKS10-90-HS | 90 | 63 | 30 | 27.6 | - | M12x1.75P | 1 | 1.00 |
| BT30 x SKS13-60-HS | 60 | 35 | 35 | 33 | - | M12x1.75P | 1 | 0.84 |
| BT30 x SKS13-90-HS | 90 | 65 | 35 | 33 | - | M12x1.75P | 1 | 0.74 |
| BT30 x SKS13-120-HS | 120 | 95 | 35 | 33 | - | M12x1.75P | 1 | 1.60 |
| BT30 x SKS16-60-HS | 60 | 37 | 40 | 40 | - | M18x1.5P | 1 | 0.59 |
| BT30 x SKS16-90-HS | 90 | 67 | 40 | 40 | - | M18x1.5P | 1 | 0.82 |
| BT30 x SKS20-60-HS | 60 | 33 | 48.5 | 48.5 | - | M22x1.5P | 1 | 0.64 |
| BT30 x SKS20-90-HS | 90 | 60 | 48.5 | 48.5 | - | M22x1.5P | 1 | 0.98 |
| BT40 x SKS6-90-HS | 90 | 44 | 18 | 32 | 18 | M8x1.25P | 2 | 1.20 |
| BT40 x SKS6-120-HS | 120 | 74 | 18 | 32 | 18 | M8x1.25P | 2 | 1.21 |
| BT40 x SKS10-60-HS | 60 | 30 | 30 | 40 | 27.6 | M12x1.75P | 2 | 1.14 |
| BT40 x SKS10-90-HS | 90 | 45 | 30 | 40 | 27.6 | M12x1.75P | 2 | 1.20 |
| BT40 x SKS10-120-HS | 120 | 74 | 30 | 40 | 27 | M12x1.75P | 2 | 1.40 |
| BT40 x SKS13-60-HS | 60 | 30 | 35 | 33 | - | M12x1.75P | 1 | 1.12 |
| BT40 x SKS13-90-HS | 90 | 60 | 35 | 33 | - | M12x1.75P | 1 | 1.28 |
| BT40 x SKS13-120-HS | 120 | 90 | 35 | 33 | - | M12x1.75P | 1 | 1.44 |
| BT40 x SKS13-150-HS | 150 | 120 | 35 | 33 | - | M12x1.75P | 1 | 1.70 |
| BT40 x SKS13-200-HS | 200 | 170 | 35 | 33 | - | M12x1.75P | 1 | 2.00 |
| BT40 x SKS16-60-HS | 60 | 23.2 | 40 | 40 | - | M18x1.5P | 1 | 1.10 |
| BT40 x SKS16-90-HS | 90 | 58 | 40 | 40 | - | M18x1.5P | 1 | 1.30 |
| BT40 x SKS16-120-HS | 120 | 88 | 40 | 40 | - | M18x1.5P | 1 | 1.70 |
| BT40 x SKS16-150-HS | 150 | 118 | 40 | 40 | - | M18x1.5P | 1 | 1.90 |
| BT40 x SKS16-200-HS | 200 | 168 | 40 | 40 | - | M18x1.5P | 1 | 2.10 |
| BT40 x SKS20-60-HS | 60 | 32 | 48.5 | 48.5 | - | M22x1.5P | 1 | 1.14 |
| BT40 x SKS20-90-HS | 90 | 60 | 48.5 | 48.5 | - | M22x1.5P | 1 | 0.46 |
| BT40 x SKS20-120-HS | 120 | 88 | 48.5 | 48.5 | - | M22x1.5P | 1 | 1.90 |
| BT40 x SKS20-150-HS | 150 | 118 | 48.5 | 48.5 | - | M22x1.5P | 1 | 2.10 |
| BT40 x SKS20-200-HS | 200 | 168 | 48.5 | 48.5 | - | M22x1.5P | 1 | 2.20 |
| BT40 x SKS25-90-HS | 90 | 61 | 55.1 | 55 | - | M28x2.0P | 1 | 1.70 |
| BT40 x SKS25-120-HS | 120 | 91 | 55.1 | 55 | - | M28x2.0P | 1 | 1.80 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B627 | B639 | B651 |



• 長度單位 Unit of Length (mm)



特點 Feature

- 偏擺精度 :5 μ 以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 μ .
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Dynamic Balancing G2.5 at 25000rpm.

| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | d_3 | T | Fig. | 重量 (KGS) Weight |
|---------------------|-------|-------|-------|-------|-------|-----------|------|-----------------|
| BT50 x SKS6-90-HS | 90 | 42 | 18 | 18 | - | M8x1.25P | 1 | 4.00 |
| BT50 x SKS6-120-HS | 120 | 60 | 18 | 32 | 18 | M8x1.25P | 2 | 4.20 |
| BT50 x SKS10-105-HS | 105 | 57 | 30 | 27.6 | - | M12x1.75P | 1 | 4.50 |
| BT50 x SKS10-150-HS | 150 | 94 | 30 | 40 | 27 | M12x1.75P | 2 | 4.17 |
| BT50 x SKS10-165-HS | 165 | 108 | 30 | 40 | 27 | M12x1.75P | 2 | 4.30 |
| BT50 x SKS10-200-HS | 200 | 145 | 30 | 36 | 27 | M12x1.75P | 2 | 5.20 |
| BT50 x SKS10-250-HS | 250 | 193 | 30 | 40 | 27 | M12x1.75P | 2 | 5.60 |
| BT50 x SKS13-105-HS | 105 | 62 | 35 | 33 | - | M12x1.75P | 1 | 4.11 |
| BT50 x SKS13-135-HS | 135 | 92 | 35 | 33 | - | M12x1.75P | 1 | 4.18 |
| BT50 x SKS13-150-HS | 150 | 77 | 35 | 33 | 45 | M12x1.75P | 2 | 4.80 |
| BT50 x SKS13-165-HS | 165 | 92 | 35 | 45 | 33 | M12x1.75P | 2 | 4.55 |
| BT50 x SKS13-200-HS | 200 | 157 | 35 | 45 | 33 | M12x1.75P | 2 | 4.74 |
| BT50 x SKS13-250-HS | 250 | 207 | 35 | 45 | 33 | M12x1.75P | 2 | 5.16 |
| BT50 x SKS16-105-HS | 105 | 57 | 40 | 40 | - | M18x1.5P | 1 | 4.18 |
| BT50 x SKS16-150-HS | 150 | 93 | 40 | 52 | 40 | M18x1.5P | 2 | 4.70 |
| BT50 x SKS16-165-HS | 165 | 108 | 40 | 52 | 40 | M18x1.5P | 2 | 4.50 |
| BT50 x SKS16-200-HS | 200 | 157 | 40 | 52 | 40 | M18x1.5P | 2 | 5.12 |
| BT50 x SKS16-250-HS | 250 | 207 | 40 | 52 | 40 | M18x1.5P | 2 | 5.66 |
| BT50 x SKS20-105-HS | 105 | 62 | 48.5 | 48.5 | - | M22x1.5P | 1 | 4.32 |
| BT50 x SKS20-135-HS | 135 | 92 | 48.5 | 48.5 | - | M22x1.5P | 1 | 4.66 |
| BT50 x SKS20-165-HS | 165 | 122 | 48.5 | 48.5 | - | M22x1.5P | 1 | 5.00 |
| BT50 x SKS20-200-HS | 200 | 157 | 48.5 | 48.5 | - | M22x1.5P | 1 | 5.45 |
| BT50 x SKS20-250-HS | 250 | 207 | 48.5 | 48.5 | - | M22x1.5P | 1 | 6.05 |
| BT50 x SKS25-105-HS | 105 | 62 | 55.1 | 55 | - | M28x2.0P | 1 | 4.50 |
| BT50 x SKS25-150-HS | 150 | 107 | 55.1 | 55 | - | M22x1.5P | 1 | 4.80 |
| BT50 x SKS25-200-HS | 200 | 157 | 55.1 | 55 | - | M22x1.5P | 1 | 6.00 |
| BT50 x SKS25-250-HS | 250 | 207 | 55.1 | 55 | - | M22x1.5P | 1 | 6.68 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B627 | B639 | B651 |



• 長度單位 Unit of Length (mm)

LHC

液壓刀桿系列

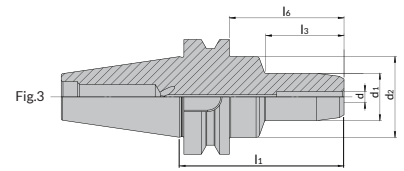
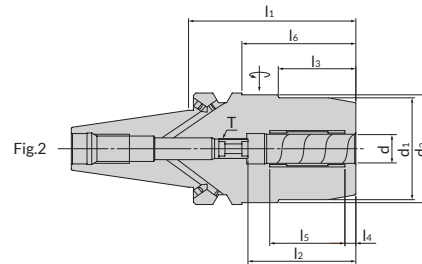
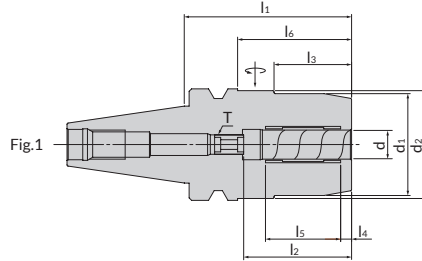
Hydraulic

- 提高刀具100%的壽命
- 加工表面無振紋
- 適合高精度加工
- 一般六角扳手快速換刀
- Increase up to 100% tool life
- Excellent vibration damping that effectively reduces the chatter mark of the workpiece surface
- Ideal for machining high accuracy operations
- Using hex key wrench for quick tool change



GERMANY

同心度和重覆精度在 0.003mm 以內 (2.5D)



特點 Feature

- 小徑液壓刀桿：外徑降低干涉，無需使用減壓徑套筒
- 直徑為 20mm 時，最大夾持扭矩高達 900Nm 最小扭矩 520Nm 以上。
- 直徑為 32mm 時，最大夾持扭矩高達 2000Nm 最小扭矩 900Nm 以上。
- Small-diameter hydraulic shank: Prevent interference from shank, no need to use collet reducer.
- Diameter 20mm, maximum clamping torque up to 900Nm, minimum torque above 520Nm.
- Diameter 32mm, maximum clamping torque up to 2000Nm, minimum torque above 900Nm.

| 規格 Spec. | l ₁ | l ₂ | l ₃ | l ₄ | l ₅ | l ₆ | d | d ₁ | d ₂ | T | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----|----------------|----------------|---------|-----------|------------------|------|-----------------|
| BT30-LHC12-69 | 69 | 46 | 32 | 4.5 | 47 | 23 | 12 | 42 | 44.5 | M8X1.0P | PT5 | 110 | 1 | 0.60 |
| BT30-LHC20-90 | 90 | 51 | 50 | 5 | 68 | 39 | 20 | 42 | 44.5 | M8X1.0P | PT5 | 400 | 1 | 0.90 |
| NEW BT40-LHC6-90 | 90.5 | 37 | 43 | 3.6 | 20.5 | 63 | 6 | 26 | 44.5 | M5X1.0P | PT5 | - | 3 | 1.40 |
| NEW BT40-LHC8-90 | 90.5 | 37 | 44.5 | 3.6 | 20.5 | 63 | 8 | 28 | 44.5 | M6X1.0P | PT5 | - | 3 | 1.40 |
| NEW BT40-LHC10-90 | 90.5 | 41 | 44.5 | 3.6 | 20.5 | 63 | 10 | 30 | 44.5 | M8X1.0P | PT5 | - | 3 | 1.40 |
| BT40-LHC12-58 | 58 | 46 | - | 4.5 | 31 | 31 | 12 | 42 | - | M8X1.0P | PT5 | 110 | 2 | 1.20 |
| BT40-LHC16-72 | 72.5 | 51 | - | 5 | 37 | 45.5 | 16 | 49.25 | - | M8X1.0P | PT5 | 350 | 2 | 1.30 |
| BT40-LHC20-72 | 72.5 | 51 | - | 5 | 37 | 45.5 | 20 | 49.25 | - | M8X1.0P | PT5 | 520 | 2 | 1.40 |
| BT40-LHC32-120 | 120 | 61 | - | 6 | 44 | 80 | 32 | 62.5 | - | M8X1.0P | PT6 | 900 | 2 | 2.38 |
| BT50-LHC20-83 | 83.5 | 51 | - | 5 | 37 | 45.5 | 20 | 49.25 | - | M8X1.0P | PT5 | 520 | 2 | 4.10 |
| BT50-LHC32-90 | 90 | 61 | - | 6 | 44 | 52 | 32 | 72 | - | M8X1.0P | PT6 | 900 | 2 | 4.60 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet |
|--------------|-----------|
| | |
| B645-B647 | B632 |

• 長度單位 Unit of Length (mm)



BT/OHER 油路刀把

BT/OHER OIL HOLE COLLET CHUCK

PAT.NO: M298033
 PAT.NO: M311791
 PAT.NO: 3128766
 PAT.NO: 3200356

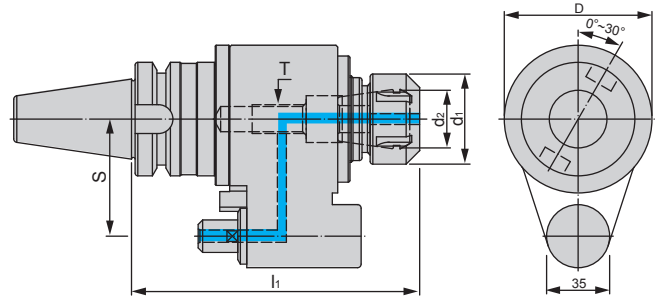
PAT.NO: 20-0433603
 PAT.NO: ZL200620132661.0
 PAT.NO: 696550
 PAT.NO: TR 2007 02942 Y
 PAT.NO: N.0000266731

JIS
 MAS 403

水壓 Water pressure : 7bar



BT



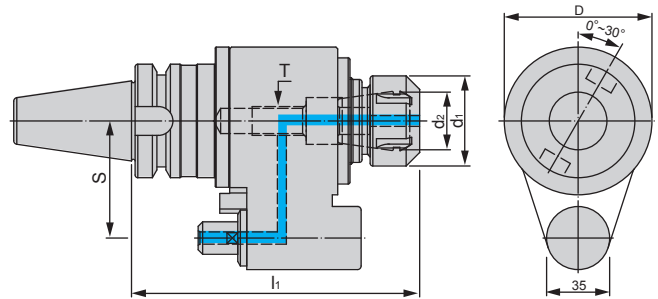
| 規格 Spec. | l ₁ | D | d ₁ | d ₂ ER | S | T | 重量 (KGS) Weight |
|-----------------|----------------|----|----------------|-------------------|----|-----|-----------------|
| BT40xOHER16-160 | 160 | 82 | 28 | 16 | 65 | M10 | 3.80 |
| BT40xOHER20-160 | 160 | 82 | 34 | 20 | 65 | M12 | 4.10 |
| BT40xOHER25-160 | 160 | 82 | 42 | 25 | 65 | M16 | 4.30 |
| BT40xOHER32-160 | 160 | 82 | 50 | 32 | 65 | M16 | 4.50 |
| BT50xOHER16-160 | 160 | 98 | 28 | 16 | 80 | M10 | 7.00 |
| BT50xOHER20-160 | 160 | 98 | 34 | 20 | 80 | M12 | 7.10 |
| BT50xOHER25-160 | 160 | 98 | 42 | 25 | 80 | M16 | 7.20 |
| BT50xOHER32-160 | 160 | 98 | 50 | 32 | 80 | M16 | 7.30 |
| BT50xOHER40-160 | 160 | 98 | 63 | 40 | 80 | M20 | 7.50 |



BT/OHER 油路刀把

BT/OHER OIL HOLE COLLET CHUCK

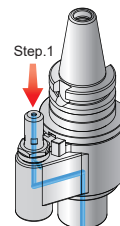
水壓 Water pressure : 20bar



| 規格 Spec. | l ₁ | D | d ₁ | d ₂ ER | S | T | 重量 (KGS) Weight |
|-----------------------|----------------|----|----------------|-------------------|----|-----|-----------------|
| BT40xOHER32-160-20BAR | 160 | 82 | 50 | 32 | 65 | M16 | 4.50 |
| BT50xOHER32-160-20BAR | 160 | 98 | 50 | 32 | 80 | M16 | 7.30 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner | 定位塊 Fix block |
|--------------|-----------|--------|------------|---------------|
| | | | | |
| B645-B647 | B612-B624 | B636 | B650 | B417 |

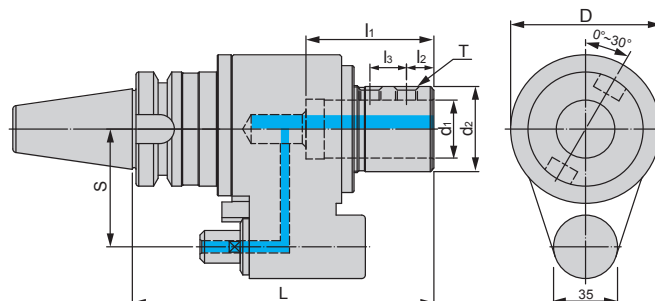


⚠ 使用注意事項 Notice

使用前應先進行給水動作，再進行運轉，以提升產品壽命。

Water supply before running for a better product life extended.

• 長度單位 Unit of Length (mm)



特點 Feature

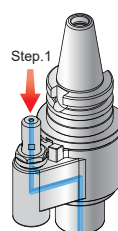
- 訂購前請先確認 "S" 尺寸 (中心距離)
- 使用前請先確認中心切削機的高壓裝置
- 承受 7kgf/cm² 水壓
- 最高轉速限制 :3000rpm

- Please confirm the "S" size before ordering.
- Please confirm the machining center with installation high pressure pump before use.
- Powerful 7 kgf/cm² water pressure.
- Max. spindle : 3000rpm.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d ₁ | d ₂ | S | T | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|----------------|-----|----------------|----------------|----|-----------|-----------------|
| BT40xOSL16-165 | 165 | 48 | 25 | - | 82 | 16 | 46.5 | 65 | M12x1.75P | 3.10 |
| BT40xOSL20-165 | 165 | 50 | 25 | - | 82 | 20 | 46.5 | 65 | M12x1.75P | 3.50 |
| BT40xOSL25-165 | 165 | 56 | 15 | 20 | 82 | 25 | 46.5 | 65 | M12x1.75P | 3.50 |
| BT40xOSL32-165 | 165 | 60 | 15 | 20 | 82 | 32 | 47 | 65 | M12x1.75P | 5.20 |
| BT50xOSL16-165 | 165 | 48 | 25 | - | 98 | 16 | 56 | 80 | M14x2.0P | 7.00 |
| BT50xOSL20-165 | 165 | 50 | 25 | - | 98 | 20 | 56 | 80 | M12x1.75P | 7.50 |
| BT50xOSL25-165 | 165 | 56 | 15 | 20 | 98 | 25 | 56 | 80 | M16x2.0P | 7.50 |
| BT50xOSL32-165 | 165 | 60 | 15 | 20 | 98 | 32 | 56 | 80 | M16x2.0P | 7.80 |
| BT50xOSL40-170 | 170 | 62 | 15 | 25 | 105 | 40 | 56 | 80 | M14x2.0P | 8.50 |

選配表 Option

| 拉頭 Pull Stud | 套筒 Sleeve | 定位塊 Fix block |
|--------------|-----------|---------------|
| | | |
| B645-B647 | B665 | B417 |

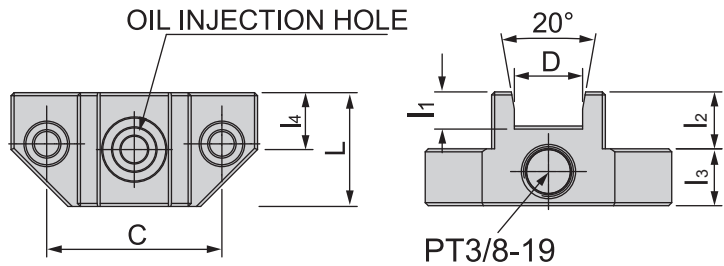
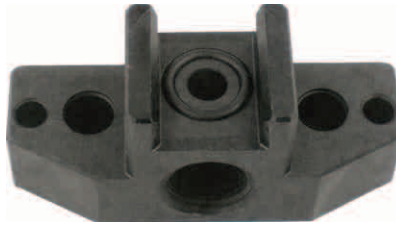


⚠ 使用注意事項 Notice

使用前應先進行給水動作，再進行運轉，以提升產品壽命。

Water supply before running for a better product life extended.

• 長度單位 Unit of Length (mm)



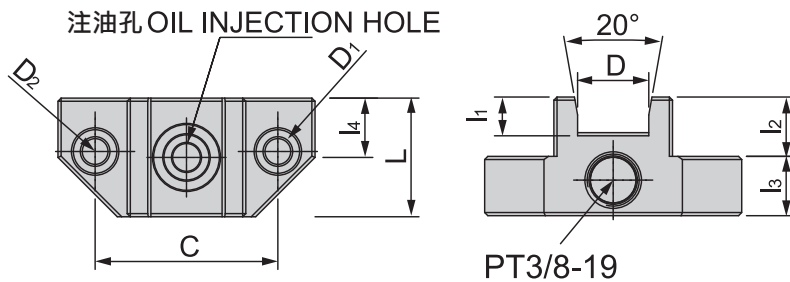
| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | l ₄ | C | D | 重量 (KGS) Weight |
|-------------|----|----------------|----------------|----------------|----------------|------|----|-----------------------|
| ST-18 | 27 | 9 | 18.1 | 17.2 | 18 | 46.2 | 18 | 0.29 |

訂製產品圖面

- 接受特殊規格，請在下單之前告知詳細尺寸。
- 如果想要訂製，請注意主軸中心和定位塊中心的距離，並且請小心主軸法蘭上固定螺絲的尺寸和位置

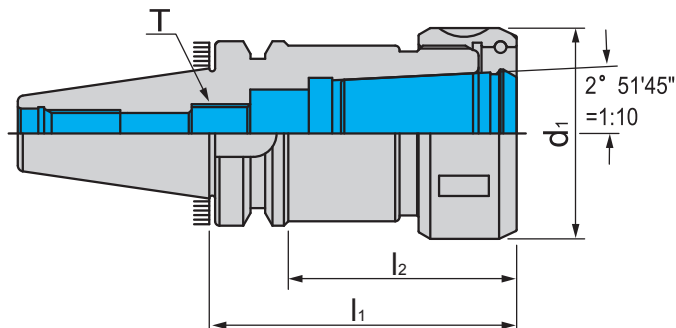
Drawing of custom-made products

- Special type is accepted. Please inform detailed dimensions before making a purchase order.
- If you'd like custom-made, please beware of the distance between spindle center and Fixed Block center. Also, please indicate the dimension and position of the Fixed Screw on the flange of spindle.



UNIT:mm

| L | l ₁ | l ₂ | l ₃ | l ₄ | C | D | D ₁ | D ₂ |
|---|----------------|----------------|----------------|----------------|---|---|----------------|----------------|
| | | | | | | | | |



特點 Feature

- 筒夾樣式有 OZ 型以及 B 型
- 整支通孔，利於出水及抗震
- 如需擋刀螺絲可另外指定
- 裝置時筒夾必須先置入螺帽，再裝入刀具，接著鎖固入本體
- 刀具置入筒夾內孔，必須超出筒夾內孔有效夾持長度，避免不當鎖固，造成損壞
- 務必使用正確扳手來裝置不可任意改變，避免不當鎖固，造成損壞

- Compatible with OZ and B type collets.
- Through coolant design increase the tool life and vibration resistance.
- A special stop screw is available for purchase to prevent the tool from being inserted too deep.
- Place the collet first into the clamping nut, then install both on to the chuck.
- Install the cutting tool to its proper length before tightening the clamping nut to avoid damaging the tool.
- Do not use other spanners, it might cause damage the nut during tightening

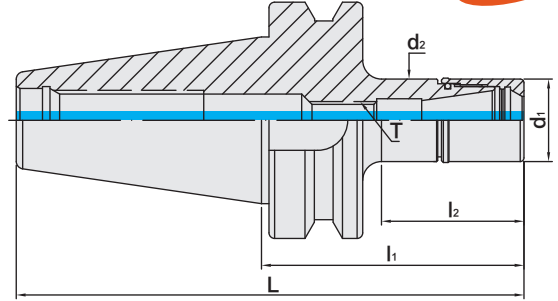
| 規格 Spec. | l_1 | l_2 | d_1 | T | 夾持範圍 Clamping Range | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-----------|---------------------|-----------------|
| BT30 x EOC25-70 | 70 | 48 | 60 | M12x1.75P | Ø3~Ø25 | 0.88 |
| BT40 x EOC25-70 | 70 | 40.5 | 60 | M16x2.0P | Ø3~Ø25 | 1.78 |
| BT40 x EOC25-100 | 100 | 70.5 | 60 | M16x2.0P | Ø3~Ø25 | 2.25 |
| BT40 x EOC25-120 | 120 | 88 | 60 | M16x2.0P | Ø3~Ø25 | 1.83 |
| BT40 x EOC32-90 | 90 | 63 | 72 | M20x2.0P | Ø4~Ø32 | 2.00 |
| BT40 x EOC32-105 | 105 | 78 | 72 | M20x2.0P | Ø4~Ø32 | 2.20 |
| BT40 x EOC32-120 | 120 | 93 | 72 | M20x2.0P | Ø4~Ø32 | 2.60 |
| BT50 x EOC25-85 | 85 | 44.5 | 60 | M16x2.0P | Ø3~Ø25 | 4.40 |
| BT50 x EOC25-100 | 100 | 59.5 | 60 | M16x2.0P | Ø3~Ø25 | 4.76 |
| BT50 x EOC25-120 | 120 | 77 | 60 | M16x2.0P | Ø3~Ø25 | 5.20 |
| BT50 x EOC32-90 | 90 | 44 | 72 | M24x2.0P | Ø4~Ø32 | 4.63 |
| BT50 x EOC32-105 | 105 | 59 | 72 | M24x2.0P | Ø4~Ø32 | 4.85 |
| BT50 x EOC32-120 | 120 | 74 | 72 | M24x2.0P | Ø4~Ø32 | 5.35 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B633 | B640 | B653 |

• 長度單位 Unit of Length (mm)

範例 Example



特點 Feature

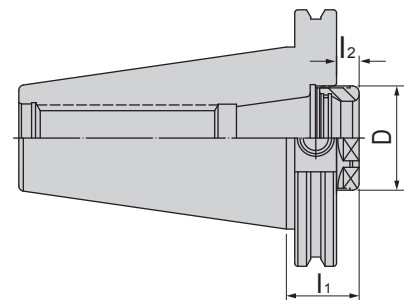
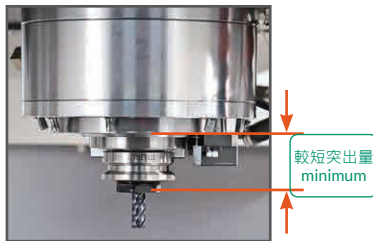
- 主軸符合日本小型工具機協會 JBS 標準
- 夾持刀具精度 5 μ m · 附動平衡 G2.5 RPM40000
- 應用產業 - 珠寶 / 醫療 / 鐘錶 / 電子 / 模具加工等

- The spindle meets JBS standard of Japanese small model machine tool.
- Clamping accuracy is within 5 μ m and balancing G2.5 RPM40000.
- Application to Jewelry / Medical / Electron/Watches / mold machining industries etc.

| 規格 Spec. | L | l ₁ | d ₁ | d ₂ |
|------------------------------|----|----------------|----------------|----------------|
| BT15-PTER11-34 G2.5 RPM40000 | 61 | 34 | 16 | 16 |
| BT15-PTER16-37 G2.5 RPM40000 | 64 | 37 | 22 | 22 |
| BT20-PTER11-40 G2.5 RPM40000 | 73 | 40 | 16 | 16 |
| BT20-PTER16-45 G2.5 RPM40000 | 78 | 45 | 22 | 22 |



範例 Example



特點 Feature

- 用於加工件太高 · 無空間時使用
- Z 軸長度不足時 · 可以使用
- 突出量少 · 剛性較佳

- Short length ER collet chuck.
- Shorten length leads less vibration and runout.

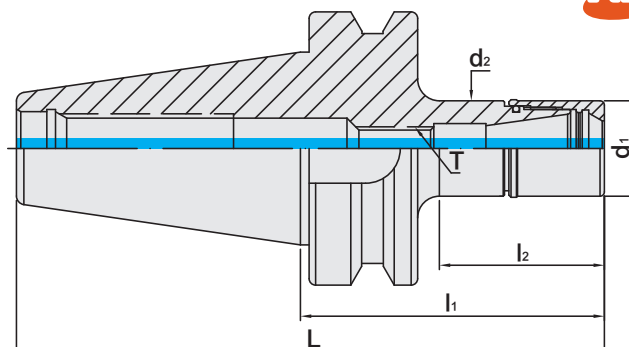
| 規格 Spec | l ₁ | l ₂ | D | T | 重量 (KGS) Weight |
|--------------|----------------|----------------|----|----------|-----------------|
| BT40 x ER16S | 31.1 | 4.1 | 19 | M24x1.0P | 1.01 |
| BT40 x ER20S | 31.1 | 4.1 | 22 | M28x1.5P | 0.98 |
| BT40 x ER25S | 32.6 | 5.6 | 25 | M32x1.5P | 0.91 |
| BT40 x ER32S | 32.4 | 5.4 | 36 | M40x1.5P | 0.83 |
| BT50 x ER16S | 42.1 | 4.1 | 19 | M24x1.0P | 3.95 |
| BT50 x ER20S | 42.1 | 4.1 | 22 | M28x1.5P | 3.91 |
| BT50 x ER25S | 43.6 | 5.6 | 25 | M32x1.5P | 3.84 |
| BT50 x ER32S | 43.6 | 5.4 | 36 | M40x1.5P | 3.80 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B625-B626 | B637 | B651 |

• 長度單位 Unit of Length (mm)

精度 Accuracy : <5 μ m



特點 Feature

- 螺帽外徑較小，減少加工物件干涉。
- PTER 刀桿前端螺紋上下直部設計，使公差更為精準，加上搭配的 PN 筒夾，置入刀桿後包覆性佳，提升整體偏擺精度及加工穩定性。
- 搭配使用 PN 筒夾，偏擺精度：有 3 μ m 和 5 μ m 兩種供選擇。
- 刀桿前端 O 型環設計，達到良好的防塵及防水效果。
- Mini type of clamping nut, decreasing interference.
- PN collet well covered in PTER collet chuck and the two straight parts above and below the thread of tool holder improve the runout accuracy and machining stability.
- Used with PN collets. Runout accuracy: 3 μ m and 5 μ m two options to choose from.
- The front part of the tool holder has an O-ring to achieve anti-dust and waterproof.

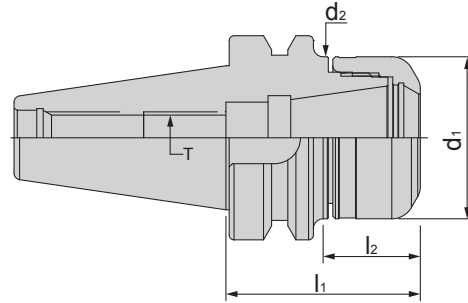
| 規格 Spec. | L | l ₁ | l ₂ | d ₁ | d ₂ | T | 夾持範圍 Clamping Range | 重量 (KGS) Weight |
|-----------------------|-------|----------------|----------------|----------------|----------------|------------|---------------------|-----------------|
| BT30 x PTER11 - 70 | 118.4 | 70 | 43 | 16 | 16 | M6 x 1.0P | 3 ~ 7 | 0.43 |
| BT30 x PTER11 - 100 | 148.4 | 100 | 73 | 16 | 16 | M6 x 1.0P | 3 ~ 7 | 0.47 |
| BT30 x PTER11 - 120 | 168.4 | 120 | 93 | 16 | 16 | M6 x 1.0P | 3 ~ 7 | 0.49 |
| BT30 x PTER16 - 70 | 118.4 | 70 | 43 | 22 | 22 | M10 x 1.5P | 3 ~ 10 | 0.46 |
| BT30 x PTER16 - 100 | 148.4 | 100 | 73 | 22 | 22 | M10 x 1.5P | 3 ~ 10 | 0.53 |
| BT30 x PTER16 - 120 | 168.4 | 120 | 93 | 22 | 22 | M10 x 1.5P | 3 ~ 10 | 0.58 |
| BT40 x PTER11 - 70 | 135.4 | 70 | 38 | 16 | 16 | M6 x 1.0P | 3 ~ 7 | 0.98 |
| BT40 x PTER11 - 100 | 165.4 | 100 | 63 | 16 | 16 | M6 x 1.0P | 3 ~ 7 | 1.03 |
| BT40 x PTER11 - 125 | 190.4 | 125 | 83 | 16 | 16 | M6 x 1.0P | 3 ~ 7 | 1.08 |
| BT40 x PTER11 - 150 | 215.4 | 150 | 108 | 16 | 16 | M6 x 1.0P | 3 ~ 7 | 1.11 |
| BT40 x PTER16 - 70 | 135.4 | 70 | 38 | 22 | 22 | M10 x 1.5P | 3 ~ 10 | 1.02 |
| BT40 x PTER16 - 100 | 165.4 | 100 | 63 | 22 | 22 | M10 x 1.5P | 3 ~ 10 | 1.1 |
| BT40 x PTER16 - 125 | 190.4 | 125 | 88 | 22 | 22 | M10 x 1.5P | 3 ~ 10 | 1.16 |
| BT40 x PTER16 - 150 | 215.4 | 150 | 113 | 22 | 22 | M10 x 1.5P | 3 ~ 10 | 1.22 |
| HSK63A x PTER11 - 70 | 102 | 70 | 39 | 16 | 16 | M6 x 1.0P | 3 ~ 7 | 0.68 |
| HSK63A x PTER11 - 100 | 132 | 100 | 64 | 16 | 16 | M6 x 1.0P | 3 ~ 7 | 0.73 |
| HSK63A x PTER11 - 125 | 157 | 125 | 84 | 16 | 16 | M6 x 1.0P | 3 ~ 7 | 0.77 |
| HSK63A x PTER11 - 150 | 182 | 150 | 109 | 16 | 16 | M6 x 1.0P | 3 ~ 7 | 0.81 |
| HSK63A x PTER16 - 70 | 102 | 70 | 39 | 22 | 22 | - | 3 ~ 10 | 0.71 |
| HSK63A x PTER16 - 100 | 132 | 100 | 69 | 22 | 22 | M10 x 1.5P | 3 ~ 10 | 0.79 |
| HSK63A x PTER16 - 125 | 157 | 125 | 89 | 22 | 22 | M10 x 1.5P | 3 ~ 10 | 0.86 |
| HSK63A x PTER16 - 150 | 182 | 150 | 114 | 22 | 22 | M10 x 1.5P | 3 ~ 10 | 0.92 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B625-B626 | B637 | B651 |

• 長度單位 Unit of Length (mm)

精度 Accuracy : <3μm



BT

特點 Feature

- 標準動平衡 :G2.5 25000rpm

- Dynamic balancing G2.5 at 25000rpm.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-----------------|----------------|----------------|----------------|----------------|-----------|------------------|-----------------|
| BT30xPNER20-60 | 60 | 37 | 32 | 32 | M12x1.75P | 3.0~13 | 0.80 |
| BT30xPNER20-100 | 100 | 77 | 32 | 32 | M12x1.75P | 3.0~13 | 0.80 |
| BT30xPNER25-60 | 60 | 37 | 40 | 40 | M16x2.0P | 3.0~16 | 0.90 |
| BT30xPNER25-100 | 100 | 77 | 40 | 40 | M16x2.0P | 3.0~16 | 0.90 |
| BT30xPNER32-60 | 60 | 33 | 50 | 50 | - | 3.0~20 | 1.00 |
| BT30xPNER32-100 | 100 | 73 | 50 | 50 | M16x2.0P | 3.0~20 | 1.00 |
| BT40xPNER16-70 | 70 | 40 | 30 | 30 | M10x1.5P | 3.0~10 | 1.12 |
| BT40xPNER16-100 | 100 | 70 | 30 | 30 | M10x1.5P | 3.0~10 | 1.12 |
| BT40xPNER16-130 | 130 | 100 | 30 | 30 | M10x1.5P | 3.0~10 | 1.14 |
| BT40xPNER16-160 | 160 | 130 | 30 | 30 | M10x1.5P | 3.0~10 | 1.14 |
| BT40xPNER20-70 | 70 | 40 | 32 | 32 | M12x1.75P | 3.0~13 | 1.14 |
| BT40xPNER20-100 | 100 | 70 | 32 | 32 | M12x1.75P | 3.0~13 | 1.14 |
| BT40xPNER20-130 | 130 | 100 | 32 | 32 | M12x1.75P | 3.0~13 | 1.16 |
| BT40xPNER20-160 | 160 | 130 | 32 | 32 | M12x1.75P | 3.0~13 | 1.16 |
| BT40xPNER25-70 | 70 | 40 | 40 | 40 | M16x2.0P | 3.0~16 | 1.19 |
| BT40xPNER25-100 | 100 | 70 | 40 | 40 | M16x2.0P | 3.0~16 | 1.54 |
| BT40xPNER25-130 | 130 | 100 | 40 | 40 | M16x2.0P | 3.0~16 | 2.00 |
| BT40xPNER25-160 | 160 | 130 | 40 | 40 | M16x2.0P | 3.0~16 | 2.00 |
| BT40xPNER32-70 | 70 | 40 | 50 | 50 | M16x2.0P | 3.0~20 | 1.20 |
| BT40xPNER32-100 | 100 | 70 | 50 | 50 | M16x2.0P | 3.0~20 | 1.80 |
| BT40xPNER32-130 | 130 | 100 | 50 | 50 | M16x2.0P | 3.0~20 | 1.40 |
| BT40xPNER32-160 | 160 | 130 | 50 | 50 | M16x2.0P | 3.0~20 | 1.40 |
| BT50xPNER16-100 | 100 | 59 | 30 | 30 | M10x1.5P | 3.0~10 | 4.28 |
| BT50xPNER16-130 | 130 | 82 | 30 | 30 | M10x1.5P | 3.0~10 | 4.40 |
| BT50xPNER16-160 | 160 | 112 | 30 | 30 | M10x1.5P | 3.0~10 | 4.52 |
| BT50xPNER20-100 | 100 | 59 | 32 | 32 | M12x1.75P | 3.0~13 | 4.42 |
| BT50xPNER20-130 | 130 | 82 | 32 | 32 | M12x1.75P | 3.0~13 | 4.60 |
| BT50xPNER20-160 | 160 | 112 | 32 | 32 | M12x1.75P | 3.0~13 | 4.14 |
| BT50xPNER25-100 | 100 | 59 | 40 | 40 | M16x2.0P | 3.0~16 | 4.36 |
| BT50xPNER25-130 | 130 | 82 | 40 | 40 | M16x2.0P | 3.0~16 | 4.64 |
| BT50xPNER25-160 | 160 | 112 | 40 | 40 | M16x2.0P | 3.0~16 | 4.84 |
| BT50xPNER32-100 | 100 | 61 | 50 | 50 | M16x2.0P | 3.0~20 | 5.00 |
| BT50xPNER32-130 | 130 | 82 | 50 | 50 | M16x2.0P | 3.0~20 | 5.02 |
| BT50xPNER32-160 | 160 | 112 | 50 | 50 | M16x2.0P | 3.0~20 | 5.40 |
| BT50xPNER40-100 | 100 | 59 | 63 | 63 | M20x2.0P | 6.0~26 | 4.88 |
| BT50xPNER40-130 | 130 | 82 | 63 | 63 | M20x2.0P | 6.0~26 | 5.56 |
| BT50xPNER40-160 | 160 | 112 | 63 | 63 | M20x2.0P | 6.0~26 | 6.22 |

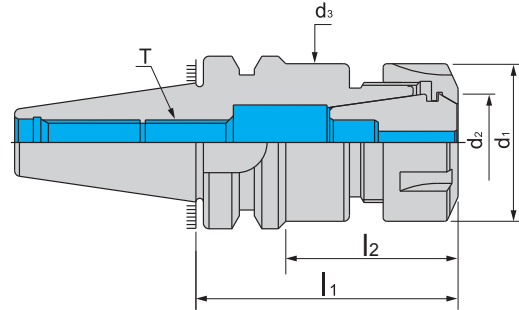
※DAT-PNER 可接單生產 DAT-PNER made to order.

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|-----------|------------|
| | | | |
| B645-B647 | B625-B626 | B637-B638 | B651 |



• 長度單位 Unit of Length (mm)

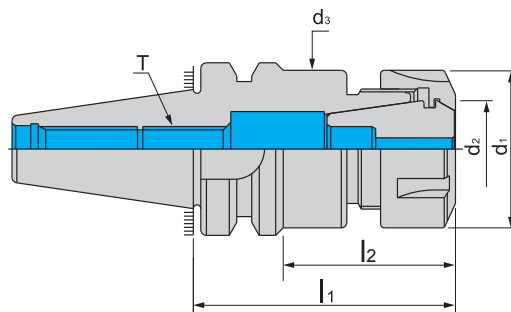


| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | d_3 | T | 夾持範圍 Clamping Range | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-------|-------|-----------|---------------------------|-----------------------|
| BT30 x ER16A-70 | 70 | 40 | 28 | 16 | 28 | M10x1.5P | Ø1-Ø10 | 0.57 |
| BT30 x ER16A-100 | 100 | 70 | 28 | 16 | 28 | M10x1.5P | Ø1-Ø10 | 0.70 |
| BT30 x ER16A-120 | 120 | 93 | 28 | 16 | 28 | M10x1.5P | Ø1-Ø10 | 0.95 |
| BT30 x ER20A-70 | 70 | 45 | 34 | 20 | 34 | M12x1.75P | Ø1-Ø13 | 0.61 |
| BT30 x ER20A-100 | 100 | 63 | 34 | 20 | 34 | M12x1.75P | Ø1-Ø13 | 0.80 |
| BT30 x ER20A-135 | 135 | 110 | 34 | 20 | 34 | M12x1.75P | Ø1-Ø13 | 1.15 |
| BT30 x ER25-70 | 70 | 46 | 42 | 25 | 42 | M16x2.0P | Ø1-Ø16 | 0.68 |
| BT30 x ER25-100 | 100 | 70 | 42 | 25 | 42 | M16x2.0P | Ø1-Ø16 | - |
| BT30 x ER25-135 | 135 | 111 | 42 | 25 | 42 | M16x2.0P | Ø1-Ø16 | 1.47 |
| BT30 x ER32-70 | 70 | 48 | 50 | 32 | 45 | M16x2.0P | Ø2-Ø20 | 0.69 |
| BT30 x ER32-100 | 100 | 78 | 50 | 32 | 45 | M16x2.0P | Ø2-Ø20 | 1.04 |
| BT30 x ER40-80 | 80 | 58 | 63 | 40 | 53 | M16x2.0P | Ø3-Ø26 | 0.94 |
| BT40 x ER16A-70 | 70 | 40 | 28 | 16 | 28 | M10x1.5P | Ø1-Ø10 | 1.16 |
| BT40 x ER16A-100 | 100 | 63 | 28 | 16 | 28 | M10x1.5P | Ø1-Ø10 | 1.29 |
| BT40 x ER16A-125 | 125 | 88 | 28 | 16 | 28 | M10x1.5P | Ø1-Ø10 | 1.36 |
| BT40 x ER16A-150 | 150 | 113 | 28 | 16 | 28 | M10x1.5P | Ø1-Ø10 | 1.57 |
| BT40 x ER16A-180 | 180 | 143 | 28 | 16 | 28 | M10x1.5P | Ø1-Ø10 | 1.54 |
| BT40 x ER20A-70 | 70 | 40 | 34 | 20 | 34 | M12x1.75P | Ø1-Ø13 | 1.19 |
| BT40 x ER20A-100 | 100 | 63 | 34 | 20 | 34 | M12x1.75P | Ø1-Ø13 | 1.40 |
| BT40 x ER20A-135 | 135 | 98 | 34 | 20 | 34 | M12x1.75P | Ø1-Ø13 | 1.69 |
| BT40 x ER20A-150 | 150 | 113 | 34 | 20 | 34 | M12x1.75P | Ø1-Ø13 | 1.78 |
| BT40 x ER25-70 | 70 | 40 | 42 | 25 | 42 | M16x2.0P | Ø1-Ø16 | 1.24 |
| BT40 x ER25-100 | 90 | 70 | 42 | 25 | 42 | M16x2.0P | Ø1-Ø16 | 1.52 |
| BT40 x ER25-125 | 125 | 95 | 42 | 25 | 42 | M16x2.0P | Ø1-Ø16 | 1.86 |
| BT40 x ER25-150 | 150 | 115 | 42 | 25 | 42 | M16x2.0P | Ø1-Ø16 | 2.11 |
| BT40 x ER32-70 | 70 | 40 | 50 | 32 | 50 | M16x2.0P | Ø2-Ø20 | 1.28 |
| BT40 x ER32-100 | 100 | 70 | 50 | 32 | 50 | M16x2.0P | Ø2-Ø20 | 1.70 |
| BT40 x ER32-150 | 150 | 118 | 50 | 32 | 50 | M16x2.0P | Ø2-Ø20 | 2.49 |
| BT40 x ER40-80 | 80 | 53 | 63 | 40 | 60 | - | Ø3-Ø26 | 1.49 |
| BT40 x ER40-100 | 100 | 73 | 63 | 40 | 60 | M20x2.0P | Ø3-Ø26 | 1.90 |
| BT40 x ER40-120 | 120 | 93 | 63 | 40 | 60 | M20x2.0P | Ø3-Ø26 | 2.45 |
| BT40 x ER40-150 | 150 | 123 | 63 | 40 | 60 | M20x2.0P | Ø3-Ø26 | 3.05 |
| BT40 x ER50-85 | 85 | 58 | 78 | 50 | 60 | M24x2.0P | Ø5-Ø34 | 1.70 |
| BT40 x ER50-100 | 100 | 73 | 78 | 50 | 60 | M24x2.0P | Ø5-Ø34 | 2.01 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B612 | B634 | B650 |

• 長度單位 Unit of Length (mm)

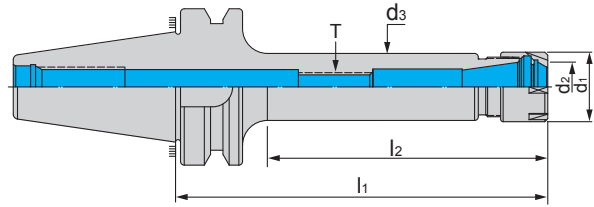


| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | d_3 | T | 夾持範圍 Clamping Range | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-------|-------|-----------|---------------------|-----------------|
| BT50 x ER16A-70 | 70 | 29 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 4.10 |
| BT50 x ER16A-90 | 90 | 47 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 4.16 |
| BT50 x ER16A-105 | 105 | 57 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 4.19 |
| BT50 x ER16A-135 | 135 | 87 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 4.19 |
| BT50 x ER16A-150 | 150 | 102 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 4.46 |
| BT50 x ER16A-165 | 165 | 117 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 4.36 |
| BT50 x ER20A-70 | 70 | 29 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.09 |
| BT50 x ER20A-90 | 90 | 47 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.18 |
| BT50 x ER20A-105 | 105 | 57 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.28 |
| BT50 x ER20A-135 | 135 | 87 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.37 |
| BT50 x ER20A-150 | 150 | 102 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.47 |
| BT50 x ER20A-165 | 165 | 117 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.55 |
| BT50 x ER20A-200 | 200 | 152 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.74 |
| BT50 x ER25-70 | 70 | 29 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 4.16 |
| BT50 x ER25-105 | 105 | 57 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 4.45 |
| BT50 x ER25-135 | 135 | 87 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 4.57 |
| BT50 x ER25-165 | 165 | 117 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 4.89 |
| BT50 x ER25-200 | 200 | - | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 5.22 |
| BT50 x ER32-80 | 80 | 39 | 50 | 32 | 50 | M16x2.0P | Ø2~Ø20 | 4.21 |
| BT50 x ER32-100 | 100 | 57 | 50 | 32 | 50 | M16x2.0P | Ø2~Ø20 | 4.47 |
| BT50 x ER32-120 | 120 | 72 | 50 | 32 | 50 | M16x2.0P | Ø2~Ø20 | 4.90 |
| BT50 x ER32-150 | 150 | 102 | 50 | 32 | 50 | M16x2.0P | Ø2~Ø20 | 5.01 |
| BT50 x ER32-200 | 200 | 152 | 50 | 32 | 50 | M16x2.0P | Ø2~Ø20 | 5.71 |
| BT50 x ER32-250 | 250 | - | 50 | 32 | 50 | M16x2.0P | Ø2~Ø20 | 5.80 |
| BT50 x ER40-80 | 80 | 39 | 63 | 40 | 63 | M20x2.0P | Ø3~Ø26 | 4.26 |
| BT50 x ER40-100 | 100 | 57 | 63 | 40 | 63 | M20x2.0P | Ø3~Ø26 | 4.71 |
| BT50 x ER40-120 | 120 | 72 | 63 | 40 | 63 | M20x2.0P | Ø3~Ø26 | 5.05 |
| BT50 x ER40-135 | 135 | 87 | 63 | 40 | 63 | M20x2.0P | Ø3~Ø26 | 5.36 |
| BT50 x ER40-150 | 150 | - | 63 | 40 | 63 | M20x2.0P | Ø3~Ø26 | 5.68 |
| BT50 x ER40-200 | 200 | - | 63 | 40 | 63 | M20x2.0P | Ø3~Ø26 | 7.00 |
| BT50 x ER50-90 | 90 | 49 | 78 | 50 | 78 | M24x2.0P | Ø5~Ø34 | 4.45 |
| BT50 x ER50-120 | 120 | 79 | 78 | 50 | 78 | M24x2.0P | Ø5~Ø34 | 5.40 |
| BT50 x ER50-165 | 165 | 124 | 78 | 50 | 78 | M24x2.0P | Ø5~Ø34 | 7.10 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B612 | B634 | B650 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 前端採用小徑螺帽·避免干涉
- 本體與螺帽皆已預設定動平衡 G6.3 10000rpm

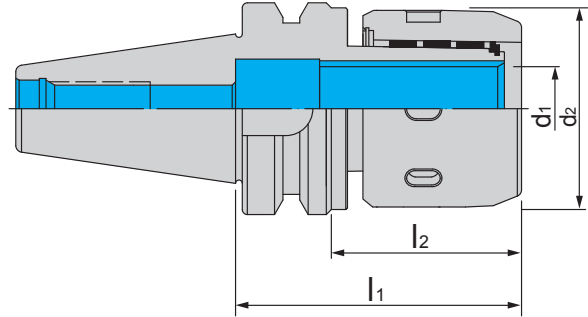
- M type with small diameter can avoid to interfere during machining.
- Dynamic balancing G6.3 at 10000rpm.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | d ₃ | T | 夾持範圍 Clamping Range | 重量 (KGS) Weight |
|------------------|----------------|----------------|----------------|----------------|----------------|-------------|---------------------|-----------------|
| BT30 x ER11M-70 | 70 | 40 | 16 | 11 | 15 | M6 x 1.0P | Ø1~Ø7 | 0.50 |
| BT30 x ER11M-100 | 100 | 70 | 16 | 11 | 15 | M6 x 1.0P | Ø1~Ø7 | 0.51 |
| BT30 x ER11M-120 | 120 | 88 | 16 | 11 | 15 | M6 x 1.0P | Ø1~Ø7 | 0.56 |
| BT30 x ER16M-70 | 70 | 43 | 22 | 16 | 21 | M10 x 1.5P | Ø1~Ø10 | 0.50 |
| BT30 x ER16M-100 | 100 | 68 | 22 | 16 | 21 | M10 x 1.5P | Ø1~Ø10 | 0.57 |
| BT30 x ER16M-120 | 120 | 88 | 22 | 16 | 21 | M10 x 1.5P | Ø1~Ø10 | 0.61 |
| BT30 x ER20M-70 | 70 | 45 | 28 | 20 | 27 | M12 x 1.75P | Ø1~Ø13 | 0.53 |
| BT30 x ER20M-100 | 100 | 71 | 28 | 20 | 27 | M12 x 1.75P | Ø1~Ø13 | 0.65 |
| BT30 x ER20M-120 | 120 | 91 | 28 | 20 | 27 | M12 x 1.75P | Ø1~Ø13 | 0.74 |
| BT30 x ER20M-150 | 150 | 121 | 28 | 20 | 27 | M12 x 1.75P | Ø1~Ø13 | 0.96 |
| BT40 x ER11M-70 | 70 | 33 | 16 | 11 | 15 | M6 x 1.0P | Ø1~Ø7 | 1.07 |
| BT40 x ER11M-100 | 100 | 63 | 16 | 11 | 15 | M6 x 1.0P | Ø1~Ø7 | 1.09 |
| BT40 x ER11M-125 | 125 | 88 | 16 | 11 | 15 | M6 x 1.0P | Ø1~Ø7 | 1.40 |
| BT40 x ER11M-150 | 150 | 113 | 16 | 11 | 15 | M6 x 1.0P | Ø1~Ø7 | 1.34 |
| BT40 x ER16M-70 | 70 | 38 | 22 | 16 | 21 | M10 x 1.5P | Ø1~Ø10 | 1.10 |
| BT40 x ER16M-100 | 100 | 63 | 22 | 16 | 21 | M10 x 1.5P | Ø1~Ø10 | 1.17 |
| BT40 x ER16M-125 | 125 | 88 | 22 | 16 | 21 | M10 x 1.5P | Ø1~Ø10 | 1.50 |
| BT40 x ER16M-150 | 150 | 113 | 22 | 16 | 21 | M10 x 1.5P | Ø1~Ø10 | 1.43 |
| BT40 x ER20M-70 | 70 | 38 | 28 | 20 | 27 | M12 x 1.75P | Ø1~Ø13 | 1.16 |
| BT40 x ER20M-100 | 100 | 63 | 28 | 20 | 27 | M12 x 1.75P | Ø1~Ø13 | 1.24 |
| BT40 x ER20M-125 | 125 | 88 | 28 | 20 | 27 | M12 x 1.75P | Ø1~Ø13 | 1.38 |
| BT40 x ER20M-150 | 150 | 113 | 28 | 20 | 27 | M12 x 1.75P | Ø1~Ø13 | 1.80 |
| BT50 x ER11M-70 | 70 | 22 | 16 | 11 | 15 | M6 x 1.0P | Ø1~Ø7 | 3.80 |
| BT50 x ER11M-90 | 90 | 42 | 16 | 11 | 15 | M6 x 1.0P | Ø1~Ø7 | 3.90 |
| BT50 x ER11M-105 | 105 | 57 | 16 | 11 | 15 | M6 x 1.0P | Ø1~Ø7 | 4.00 |
| BT50 x ER11M-135 | 135 | 87 | 16 | 11 | 15 | M6 x 1.0P | Ø1~Ø7 | 4.10 |
| BT50 x ER11M-165 | 165 | 92 | 16 | 11 | 15 | M6 x 1.0P | Ø1~Ø7 | 4.15 |
| BT50 x ER16M-70 | 70 | 29 | 22 | 16 | 21 | M10 x 1.5P | Ø1~Ø10 | 3.90 |
| BT50 x ER16M-90 | 90 | 42 | 22 | 16 | 21 | M10 x 1.5P | Ø1~Ø10 | 4.00 |
| BT50 x ER16M-105 | 105 | 57 | 22 | 16 | 21 | M10 x 1.5P | Ø1~Ø10 | 4.10 |
| BT50 x ER16M-135 | 135 | 87 | 22 | 16 | 21 | M10 x 1.5P | Ø1~Ø10 | 4.20 |
| BT50 x ER16M-165 | 165 | 117 | 22 | 16 | 21 | M10 x 1.5P | Ø1~Ø10 | 4.30 |
| BT50 x ER20M-90 | 90 | 42 | 28 | 20 | 27 | M12x 1.75P | Ø1~Ø13 | 4.10 |
| BT50 x ER20M-105 | 105 | 57 | 28 | 20 | 27 | M12x 1.75P | Ø1~Ø13 | 4.20 |
| BT50 x ER20M-135 | 135 | 87 | 28 | 20 | 27 | M12x 1.75P | Ø1~Ø13 | 4.40 |
| BT50 x ER20M-165 | 165 | 117 | 28 | 20 | 27 | M12x 1.75P | Ø1~Ø13 | 4.60 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B612 | B634 | B650 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 開槽：此款刀桿內孔分割 6 槽以防止滑動並加大夾持力
- 另有套裝可選購

- Slotting-the inner hole of the tool holder has 6 slots to prevent slipping and to increase the clamping power.
- Available in a set.

| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | 夾持範圍 Clamping Range | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-------|------------------------|-----------------------|
| BT30 x MLC20-75 | 75 | 70 | 20 | 55 | Ø6~Ø20 | 1.18 |
| BT30 x MLC20-90 | 90 | 70 | 20 | 55 | Ø6~Ø20 | 1.37 |
| BT40 x MLC20-80 | 80 | 70 | 20 | 55 | Ø6~Ø20 | 1.78 |
| BT40 x MLC20-100 | 100 | 70 | 20 | 55 | Ø6~Ø20 | 2.00 |
| BT40 x MLC20-135 | 135 | 70 | 20 | 55 | Ø6~Ø20 | 2.41 |
| BT40 x MLC32-90 | 90 | 75 | 32 | 73 | Ø6~Ø32 | 2.18 |
| BT40 x MLC32-105 | 105 | 75 | 32 | 73 | Ø6~Ø32 | 2.60 |
| BT40 x MLC32-135 | 135 | 75 | 32 | 73 | Ø6~Ø32 | 3.21 |
| BT50 x MLC20-105 | 105 | 70 | 20 | 55 | Ø6~Ø20 | 4.50 |
| BT50 x MLC20-150 | 150 | 70 | 20 | 55 | Ø6~Ø20 | 4.90 |
| BT50 x MLC32-110 | 110 | 75 | 32 | 73 | Ø6~Ø32 | 5.17 |
| BT50 x MLC32-135 | 135 | 75 | 32 | 73 | Ø6~Ø32 | 5.64 |
| BT50 x MLC32-165 | 165 | 75 | 32 | 73 | Ø6~Ø32 | 6.26 |
| BT50 x MLC32-200 | 200 | 75 | 32 | 73 | Ø6~Ø32 | 6.98 |
| BT50 x MLC42-110 | 110 | 90 | 42 | 95 | Ø6~Ø42 | 5.74 |
| BT50 x MLC42-130 | 130 | 90 | 42 | 95 | Ø6~Ø42 | 6.30 |
| BT50 x MLC42-165 | 165 | 90 | 42 | 95 | Ø6~Ø42 | 7.31 |

- 附扳手 Attaches the spanner.

※ 注意：銑刀裝入筒夾需超過筒夾有效夾持長度，以避免因非完全夾持，導致筒夾損壞、變形

Note: To avoid the improper clamping (no clamp at all) & damage and deformation for collect, it should exceed the effective length of collet when installing the cutter on to collet.

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 扳手 Spanner |
|--------------|-----------|------------|
| | | |
| B645-B647 | B631 | B653 |

• 長度單位 Unit of Length (mm)

MLD

直式筒夾銑床夾頭



重切削加工
HEAVY DUTY
MACHINING

高穩定性
HIGH
STABILITY

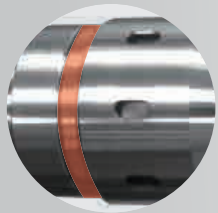
5 μ m

高剛性及最佳防塵效果 High Rigidity And Dust Proof

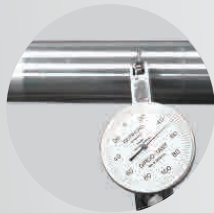
- 夾持刀具後 (柄徑公差尺寸需小於h6) · 螺帽及法蘭端面緊貼 · 可預防軸承網變形 · 提升剛性及達到防塵效果。
- 具高精度及易於操作的特性 · 高轉速或重切削加工情況下不易產生振動。
- After clamping tools (the requirement of shank tolerance is less than h6), the nut and the flange contact firmly to prevent the needle bearing cage from deforming, rigidity is increased and achieves the function of dust proof.
- Featured with high precision and easy-to-fasten, vibrations do not occur in high speed machining or heavy duty machining



偏擺精度 5 μ m內 Runout Accuracy Within 5 μ m



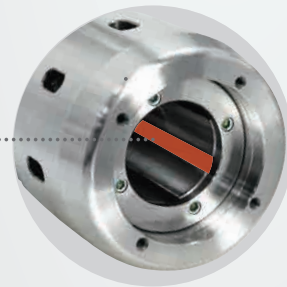
鎖固螺帽後 · 螺帽與刀桿端面貼合 · 增加切削剛性 · 達到良好的防塵效果。
After fastening, the nuts and tool holders contact tight to enhance the cutting rigidity and achieve dustproof purposes.



MLD 本體：四倍長的偏擺精度於5 μ m內。
Runout accuracy within 5 μ m at 4D length.

軸承網 Needle Bearing Cage

內孔特殊溝槽設計提升夾持力及降低震刀 · 適用於重切削加工。
Special slotted design of internal hole increases the clamping force and decreases vibration. Suitable for heavy-duty machining.



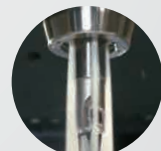
MLD系列 MLD System



筒夾
Collet



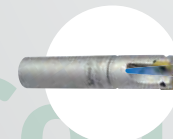
一般刀具
General Tool



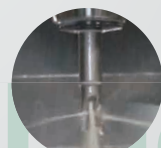
止水端蓋
Sealed Cap



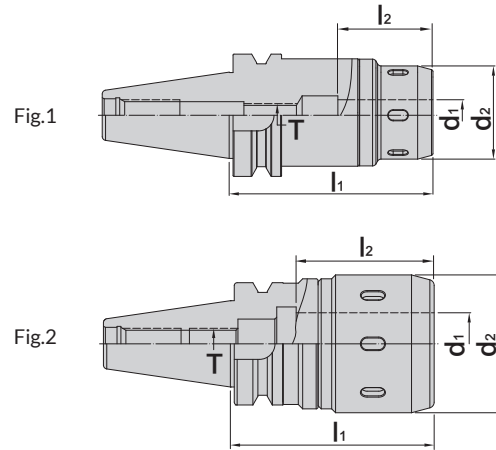
筒夾
Collet



出水型刀具
Coolant
Through Tool



Multilock Collet Chuck



特點 Feature

- 開槽 - 此款刀桿內孔分割 6 槽以防止滑動並加大夾持力
- 另有套裝可選購
- MLD20、MLD-3/4、MLK20 扳手共用
- MLD25、EOC25、MLK25 扳手共用
- MLD32、MLD-1-1/4、MLK32 扳手共用

- Slotting-the inner hole of the tool holder has 6 slots to prevent slipping and to increase the clamping power.
- Available in a set.
- MLD20 and MLD-3/4、MLK20 spanner can be used in common.
- MLD25 and EOC25、MLK25 spanner can be used in common.
- MLD32 and MLD-1-1/4、MLK32 spanner can be used in common.

| 規格 Spec. | l_1 | d_1 | d_2 | T | Fig. | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-----------|------|-----------------|
| BT30 x MLD12-80 | 80 | 12 | 42 | M12x1.75P | 2 | 1.00 |
| BT30 x MLD16-75 | 75 | 16 | 48 | M12x1.75P | 1 | 1.20 |
| BT30 x MLD20-80 | 80 | 20 | 56.5 | M12x1.75P | 2 | 1.90 |
| BT30 x MLD20-90 | 90 | 20 | 56.5 | M16x2.0P | 2 | 2.10 |
| BT30 x MLD25-90 | 90 | 25 | 60 | M16x2.0P | 2 | 1.34 |
| BT40 x MLD12-75 | 75 | 12 | 42 | M12x1.75P | 1 | 2.10 |
| BT40 x MLD12-105 | 105 | 12 | 42 | M12x1.75P | 1 | 2.10 |
| BT40 x MLD12-135 | 135 | 12 | 42 | M12x1.75P | 1 | 2.20 |
| BT40 x MLD16-75 | 75 | 16 | 48 | M12x1.75P | 1 | 2.20 |
| BT40 x MLD16-105 | 105 | 16 | 48 | M12x1.75P | 1 | 2.30 |
| BT40 x MLD16-135 | 135 | 16 | 48 | M12x1.75P | 1 | 2.30 |
| BT40 x MLD20-80 | 80 | 20 | 56.5 | M16x2.0P | 1 | 2.30 |
| BT40 x MLD20-100 | 100 | 20 | 56.5 | M16x2.0P | 1 | 2.50 |
| BT40 x MLD20-135 | 135 | 20 | 56.5 | M16x2.0P | 1 | 2.40 |
| BT40 x MLD25-85 | 85 | 25 | 60 | M16x2.0P | 1 | 2.40 |
| BT40 x MLD25-100 | 100 | 25 | 60 | M16x2.0P | 1 | 2.40 |
| BT40 x MLD32-95 | 95 | 32 | 71 | M16x2.0P | 2 | 2.70 |
| BT40 x MLD32-105 | 105 | 32 | 71 | M16x2.0P | 2 | 2.70 |
| BT40 x MLD32-135 | 135 | 32 | 71 | M16x2.0P | 2 | 3.00 |

- 附扳手 Attaches the spanner.

※ 注意：銑刀裝置入筒夾需超過筒夾有效夾持長度，以避免因非完全夾持，導致筒夾損壞、變形

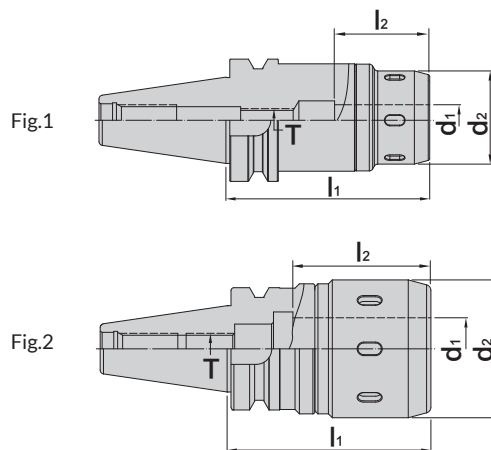
Note: To avoid the improper clamping (no clamp at all) & damage and deformation for collect, it should exceed the effective length of collet when installing the cutter onto collet.

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 筒夾 Collet | 扳手 Spanner | 止水端蓋 Sealed Cap |
|--------------|-----------|-----------|------------|-----------------|
| | | | | |
| B645-B647 | B631 | B632 | B653 | B640 |



• 長度單位 Unit of Length (mm)



特點 Feature

- 開槽 - 此款刀桿內孔分割 6 槽以防止滑動並加大夾持力
- 另有套裝可選購
- MLD20、MLD-3/4、MLK20 扳手共用
- MLD25、EOC25、MLK25 扳手共用
- MLD32、MLD-1-1/4、MLK32 扳手共用

- Slotting-the inner hole of the tool holder has 6 slots to prevent slipping and to increase the clamping power.
- Available in a set.
- MLD20 and MLD-3/4、MLK20 spanner can be used in common.
- MLD25 and EOC25、MLK25 spanner can be used in common.
- MLD32 and MLD-1-1/4、MLK32 spanner can be used in common.

| 規格 Spec. | l_1 | d_1 | d_2 | T | Fig. | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-----------|------|-----------------------|
| BT50 x MLD12-105 | 105 | 12 | 42 | M12x1.75P | 1 | 4.60 |
| BT50 x MLD12-135 | 135 | 12 | 42 | M12x1.75P | 1 | 5.10 |
| BT50 x MLD12-165 | 165 | 12 | 42 | M12x1.75P | 1 | 5.80 |
| BT50 x MLD16-105 | 105 | 16 | 48 | M12x1.75P | 1 | 4.90 |
| BT50 x MLD16-135 | 135 | 16 | 48 | M12x1.75P | 1 | 5.60 |
| BT50 x MLD16-165 | 165 | 16 | 48 | M12x1.75P | 1 | 6.50 |
| BT50 x MLD20-105 | 105 | 20 | 56.5 | M16x2.0P | 1 | 4.50 |
| BT50 x MLD20-150 | 150 | 20 | 56.5 | M16x2.0P | 1 | 4.90 |
| BT50 x MLD25-100 | 100 | 25 | 60 | M16x2.0P | 1 | 4.80 |
| BT50 x MLD25-130 | 130 | 25 | 60 | M16x2.0P | 1 | 5.70 |
| BT50 x MLD32-105 | 105 | 32 | 71 | M24x3.0P | 1 | 5.00 |
| BT50 x MLD32-135 | 135 | 32 | 71 | M24x3.0P | 1 | 5.20 |
| BT50 x MLD32-165 | 165 | 32 | 71 | M24x3.0P | 1 | 6.70 |
| BT50 x MLD42-115 | 115 | 42 | 90 | M24x3.0P | 1 | 5.50 |
| BT50 x MLD42-130 | 130 | 42 | 90 | M24x3.0P | 1 | 6.50 |
| BT50 x MLD42-165 | 165 | 42 | 90 | M24x3.0P | 1 | 7.70 |

- 附扳手 Attaches the spanner.

※ 注意：銑刀裝置入筒夾需超過筒夾有效夾持長度，以避免因非完全夾持，導致筒夾損壞、變形

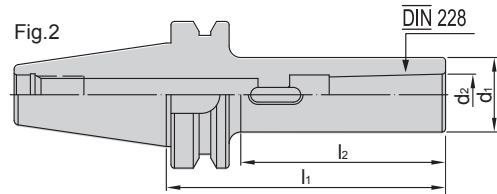
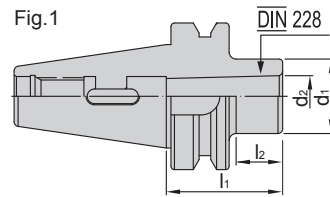
Note: To avoid the improper clamping (no clamp at all) & damage and deformation for collect, it should exceed the effective length of collet when installing the cutter onto collet.

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 扳手 Spanner | 止水螺帽 Sealed Cap |
|--------------|-----------|------------|-----------------|
| | | | |
| B645-B647 | B631 | B653 | B640 |



• 長度單位 Unit of Length (mm)

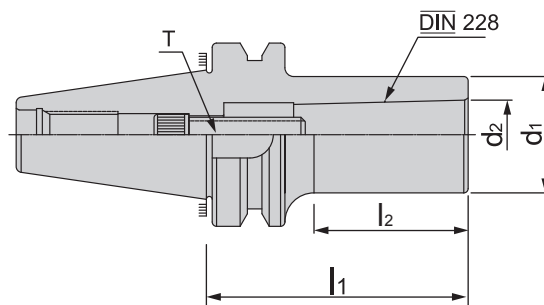


| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | Fig. | 重量 (KGS) Weight |
|-----------------|-------|-------|-------|--------|------|-----------------|
| BT30 x MTA1-45 | 45 | 20 | 25 | 12.065 | 1 | 0.48 |
| BT30 x MTA1-105 | 105 | 78 | 25 | 12.065 | 2 | 0.80 |
| BT30 x MTA2-60 | 60 | 35 | 32 | 17.78 | 1 | 0.55 |
| BT30 x MTA2-120 | 120 | 95 | 32 | 17.78 | 2 | 0.90 |
| BT30 x MTA3-80 | 80 | 56 | 40 | 23.825 | 1 | 0.73 |
| BT40 x MTA1-45 | 45 | 15 | 25 | 12.065 | 1 | 1.07 |
| BT40 x MTA1-120 | 120 | 83 | 25 | 12.065 | 2 | 1.41 |
| BT40 x MTA2-50 | 50 | 20 | 32 | 17.78 | 1 | 1.10 |
| BT40 x MTA2-120 | 120 | 88 | 32 | 17.78 | 2 | 1.80 |
| BT40 x MTA3-70 | 70 | 38 | 40 | 23.825 | 1 | 1.20 |
| BT40 x MTA3-135 | 135 | 102 | 40 | 23.825 | 2 | 1.85 |
| BT40 x MTA4-95 | 95 | 63 | 48 | 31.267 | 1 | 1.42 |
| BT40 x MTA4-165 | 165 | 133 | 48 | 31.267 | 2 | 2.41 |
| BT50 x MTA1-45 | 45 | 2 | 25 | 12.065 | 1 | 3.95 |
| BT50 x MTA1-120 | 120 | 74 | 25 | 12.065 | 2 | 4.06 |
| BT50 x MTA1-180 | 180 | 132 | 25 | 12.065 | 2 | 4.32 |
| BT50 x MTA2-60 | 60 | 17 | 32 | 17.78 | 1 | 3.98 |
| BT50 x MTA2-135 | 135 | 89 | 32 | 17.78 | 2 | 4.24 |
| BT50 x MTA2-180 | 180 | 132 | 32 | 17.78 | 2 | 5.00 |
| BT50 x MTA3-65 | 65 | 22 | 40 | 23.825 | 1 | 4.02 |
| BT50 x MTA3-150 | 150 | 107 | 40 | 23.825 | 2 | 4.61 |
| BT50 x MTA3-180 | 180 | 132 | 40 | 23.825 | 2 | 4.91 |
| BT50 x MTA4-95 | 95 | 52 | 48 | 31.267 | 1 | 4.20 |
| BT50 x MTA4-180 | 180 | 132 | 48 | 31.267 | 2 | 5.50 |
| BT50 x MTA5-105 | 105 | 62 | 63 | 44.399 | 1 | 4.30 |

選配表 Option

| 拉頭 Pull Stud | 退鑽器 Hand Drift |
|--------------|----------------|
| | |
| B645-B647 | B683 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 用於夾持莫式錐度、尾端附內螺紋的切削刀具或是延長桿

- For screw-on the cutting tools or extension tools with morse taper.

| 規格 Spec. | 莫式錐度 MT | l_1 | l_2 | d_1 | d_2 | T | 適用鑽頭 | 重量 (KGS) Weight |
|---------------------|---------|-------|-------|-------|--------|-----------|---------|-----------------|
| BT30 x MTB1-45 | 1 | 45 | 20 | 25 | 12.065 | M6x1.0P | Ø10~Ø14 | 0.50 |
| BT30 x MTB2-60 | 2 | 60 | 36 | 32 | 17.78 | M10x1.5P | Ø16~Ø22 | 0.58 |
| BT40 x MTB1-45 | 1 | 45 | 13 | 25 | 12.065 | M6x1.0P | Ø10~Ø14 | 1.10 |
| BT40 x MTB2-45 | 2 | 45 | 13 | 32 | 17.78 | M10x1.5P | Ø15~Ø22 | 1.10 |
| BT40 x MTB2-185 | 2 | 185 | 148 | 32 | 17.78 | M10x1.5P | Ø15~Ø22 | 1.90 |
| BT40 x MTB3-75 | 3 | 75 | 45 | 40 | 23.825 | M12x1.75P | Ø24~Ø32 | 1.30 |
| BT40 x MTB3-90 | 3 | 90 | 53 | 40 | 23.825 | M12x1.75P | Ø24~Ø32 | 1.40 |
| BT40 x MTB3-120 | 3 | 120 | 83 | 40 | 23.825 | M12x1.75P | Ø24~Ø32 | 1.80 |
| BT40 x MTB3-180 | 3 | 180 | 143 | 40 | 23.825 | M12x1.75P | Ø24~Ø32 | 2.40 |
| BT40 x MTB4-100 | 4 | 100 | 67 | 48 | 31.267 | M16x2.0P | Ø32~Ø50 | 1.59 |
| BT40 x MTB4-120 | 4 | 120 | 87 | 48 | 31.267 | M16x2.0P | Ø32~Ø50 | 1.80 |
| BT40 x MTB4-180 | 4 | 180 | 147 | 48 | 31.267 | M16x2.0P | Ø32~Ø50 | 2.60 |
| BT50 x MTB1-45 | 1 | 45 | 6 | 25 | 12.065 | M6x1.0P | Ø10~Ø14 | 4.05 |
| BT50 x MTB2-45 | 2 | 45 | 5 | 32 | 17.78 | M10x1.5P | Ø16~Ø22 | 4.02 |
| BT50 x MTB3-60 | 3 | 60 | 12 | 40 | 23.825 | M12x1.75P | Ø24~Ø32 | 4.11 |
| BT50 x MTB3-250 | 3 | 250 | - | 34 | 23.825 | M12x1.75P | Ø24~Ø32 | 6.70 |
| BT50 x MTB3-300 | 3 | 300 | - | 34 | 23.825 | M12x1.75P | Ø24~Ø32 | 7.60 |
| BT50 x MTB3-350 | 3 | 350 | - | 34 | 23.825 | M12x1.75P | Ø24~Ø32 | 8.38 |
| BT50 x MTB3-400 | 3 | 400 | - | 34 | 23.825 | M12x1.75P | Ø24~Ø32 | 9.30 |
| BT50 x MTB4-75 | 4 | 75 | 32 | 48 | 31.267 | M16x2.0P | Ø32~Ø50 | 4.20 |
| BT50 x MTB5-120-M20 | 5 | 120 | 77 | 63 | 44.399 | M20x2.5P | Ø40 | 4.57 |
| BT50 x MTB5-120-M24 | 5 | 120 | 77 | 63 | 44.399 | M24x3.0P | Ø40 | 4.60 |

• 長度單位 Unit of Length (mm)

GPH

齒驅式鑽夾頭

內部傘型齒輪與傳動齒輪六角孔設計，夾持力達到40~75N·m，可輕鬆夾緊鑽頭、絲攻及絞刀。

The inside bevel gear and hexagonal hole for driving gear make the clamping power achieve 40~75N·m. Easy to tighten drills, taps and reamers.

可正反轉

Clockwise and anticlockwise rotations are workable.

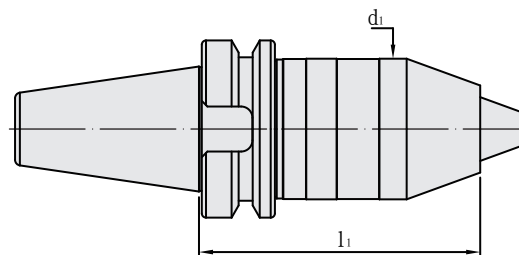
側邊的六角孔鎖固設計可快速換刀，無須再從機台上卸除刀桿。

The design of fastening from side hexagonal hole allows quick tool change, no need to dismount the chuck from the machine.

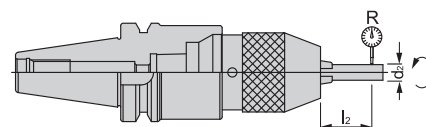
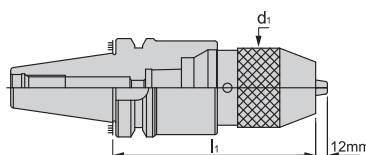
鍍鈦夾爪設計，提升耐磨性。Titanium-coating jaws improve abrasion resistance.



Gear Driving Drill Chuck Holder



| 規格 Spec. | l_1 | d_1 | 夾持範圍 Clamping Capacity | 重量 (KGS) Weight |
|----------------|-------|-------|---------------------------|-----------------------|
| BT40-GPH13-98 | 98 | 50 | 1 ~ 13 mm | 1.70 |
| BT50-GPH13-109 | 109 | 50 | 1 ~ 13 mm | 4.10 |



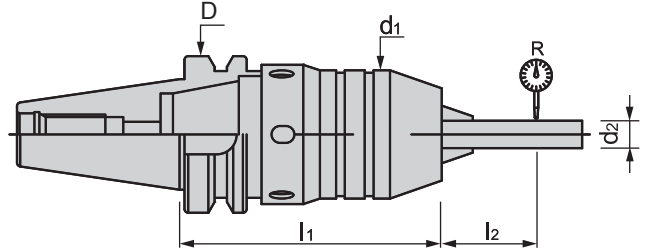
| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | 夾持範圍 Clamping Capacity | R | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-------|---------------------------|------|-----------------------|
| BT30 x SPU8 -80 | 80 | 55 | 37 | 6 | 1~8mm | 0.04 | 0.87 |
| BT30 x SPU13-110 | 110 | 75 | 50 | 13 | 1~13mm | 0.04 | 1.61 |
| BT40 x SPU8-85 | 85 | 55 | 37 | 6 | 1~8mm | 0.04 | 1.56 |
| BT40 x SPU13-100 | 100 | 75 | 50 | 13 | 1~13mm | 0.04 | 2.04 |
| BT40 x SPU13-130 | 130 | 75 | 50 | 13 | 1~13mm | 0.04 | 2.76 |
| BT40 x SPU16-105 | 105 | 80 | 57 | 16 | 3~16mm | 0.04 | 2.21 |
| BT50 x SPU8-90 | 90 | 55 | 37 | 6 | 1~8mm | 0.04 | 4.16 |
| BT50 x SPU13-100 | 100 | 75 | 50 | 13 | 1~13mm | 0.04 | 4.74 |
| BT50 x SPU13-120 | 120 | 75 | 50 | 13 | 1~13mm | 0.04 | 5.12 |
| BT50 x SPU13-180 | 180 | 75 | 50 | 13 | 1~13mm | 0.04 | 6.31 |
| BT50 x SPU16-105 | 105 | 80 | 57 | 16 | 3~16mm | 0.04 | 4.98 |
| BT50 x SPU16-130 | 130 | 80 | 57 | 16 | 3~16mm | 0.04 | 5.45 |
| BT50 x SPU16-190 | 190 | 80 | 57 | 16 | 3~16mm | 0.04 | 7.25 |

- 附扳手 Attaches the spanner.

選配表 Option



• 長度單位 Unit of Length (mm)



特點 Feature

- 能增加鑽夾頭的堅固性及精準性，於使用綜合加工中心機的換刀系統
- 刀柄和鑽夾頭結合為一體，即使是作重切削的加工，鑽夾頭也不會脫落
- 即使機器主軸立即停止，刀具也不會因此脫落
- 超過長時間的使用，此夾頭仍保持高精度

- Designed to maximize drill chuck rigidity and precision on machine centers with automatic tool changer.
- The Shank and Universal Drill Chuck are combined as one body, so that the Drill Chuck will not be fallen out when heavy cutting is being performed.
- The drill will not be dropped out when the main spindle of machine instantly stops.
- High precision can be maintained over a long period of time.

| 規格 Spec. | l ₁ | l ₂ | D | d ₁ | d ₂ | 夾持範圍 Clamping Range | | R | 重量 (KGS) Weight |
|------------------|----------------|----------------|-----|----------------|----------------|------------------------|-----------|------|-----------------------|
| | | | | | | mm | inch | | |
| BT30 x SPH08-80 | 83 | 55 | 46 | 38 | 6 | 1~8 | 1/24~5/16 | 0.04 | 2.20 |
| BT30 x SPH13-100 | 102 | 80 | 46 | 50 | 8 | 1~13 | 1/24~1/2 | 0.04 | 2.50 |
| BT40 x SPH08-85 | 87 | 55 | 63 | 38 | 6 | 1~8 | 1/24~5/16 | 0.04 | 2.40 |
| BT40 x SPH13-105 | 102 | 80 | 63 | 50 | 8 | 1~13 | 1/24~1/2 | 0.04 | 2.18 |
| BT40 x SPH16-110 | 119 | 80 | 63 | 57 | 10 | 3~16 | 1/8~5/8 | 0.04 | 3.00 |
| BT50 x SPH13-115 | 115 | 80 | 100 | 50 | 8 | 1~13 | 1/24~1/2 | 0.04 | 4.88 |
| BT50 x SPH16-120 | 120 | 80 | 100 | 57 | 10 | 3~16 | 1/8~5/8 | 0.04 | 6.00 |

- 附扳手 Attaches the spanner.

注意事項 Notice

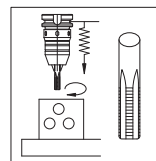
本產品之最大優點為簡單容易操作、快速方便、安全性極高，當使用本產品時，為了減少意外事故發生，延長產品壽命，必須遵守以下列舉的基本事項：夾持長度 (l₁) 應將鑽頭柄插入到底或至少爪長 (L) 的 2/3。

The most advantage for this product is easy to operate, item saving and high safety. Please abide by following to avoid the accidents & extend the product life when in use. The shank of drill (clamping length L₁) should be inserted into the bottom fully. Or at least 2/3 length of L.

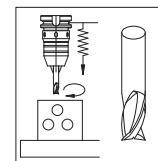
以下為各種規格爪長度及夾持量

Following table is the specification for clamping length & volume

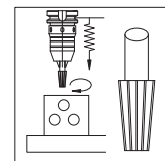
| 規格 Spec. | 夾爪長度 L(mm) | 夾持量 L ₁ (mm) 至少 |
|--------------|---------------|-------------------------------|
| 3mm (1/8") | 14 | 9 |
| 6.5mm (1/4") | 20 | 13 |
| 8mm (5/16") | 26 | 17 |
| 10mm (3/8") | 26 | 17 |
| 13mm (1/2") | 28 | 19 |
| 16mm (5/8") | 30 | 20 |



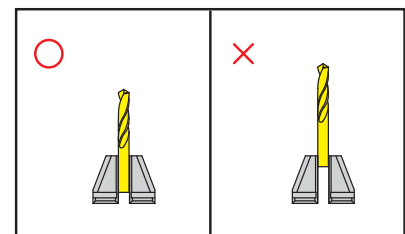
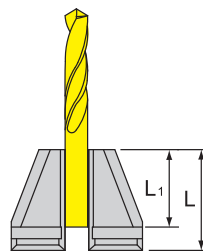
◎可攻牙
◎ Able to tap



◎可銼
◎ Able to mill



◎可絞孔
◎ Able to ream



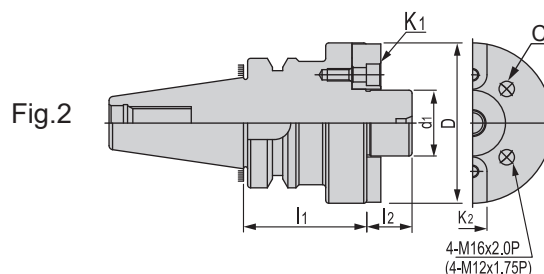
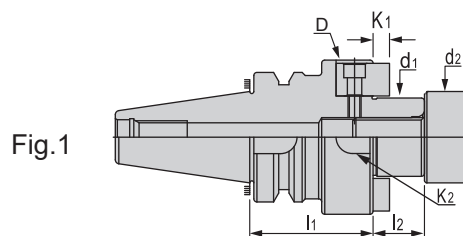
選配表 Option

拉頭 Pull Stud



B645-B647

• 長度單位 Unit of Length (mm)



特點 Feature

- 平面銑刀配合部位 (d1) · 軸系公差 h6
- 整支通孔 · 利於出水及抗震

- d1 tolerance is h6.
- The tool holder with through coolant design is better for water to get through vibration resistance.

FMA 為英制規格 FMA is INCH Size

| 規格 Spec. | l_1 | l_2 | D | d_1 | d_2 | K_1 | K_2 | C | Fig. | 重量 (KGS) Weight |
|---------------------|-------|-------|--------|--------|-------|-------|-------|------------|------|-----------------|
| BT30 x FMA25.4-45 | 45 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 1.10 |
| BT30 x FMA25.4-60 | 60 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 1.10 |
| BT30 x FMA31.75-45 | 45 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | - | 1 | 1.16 |
| BT40 x FMA25.4-45 | 45 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 1.44 |
| BT40 x FMA25.4-60 | 60 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 1.66 |
| BT40 x FMA25.4-90 | 90 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 2.18 |
| BT40 x FMA25.4-105 | 105 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 2.39 |
| BT40 x FMA31.75-45 | 45 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | - | 1 | 1.68 |
| BT40 x FMA31.75-75 | 75 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | - | 1 | 2.33 |
| BT40 x FMA31.75-90 | 90 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | - | 1 | 2.72 |
| BT40 x FMA38.1-60 | 60 | 25 | 75 | 38.1 | 44.5 | 8.87 | 15.87 | - | 1 | 2.60 |
| BT40 x FMA50.8-60 | 60 | 36 | 98 | 50.8 | 65 | 9.75 | 19.05 | - | 1 | 3.82 |
| BT40 x FMA47.625-65 | 65 | 32 | 128.75 | 47.625 | - | 12.5 | 25.4 | PCD Ø101.6 | 2 | 6.50 |
| BT50 x FMA25.4-45 | 45 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 4.21 |
| BT50 x FMA25.4-90 | 90 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 4.71 |
| BT50 x FMA25.4-150 | 150 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 5.54 |
| BT50 x FMA31.75-45 | 45 | 22 | 60 | 31.75 | 41 | 6.2 | 12.7 | - | 1 | 4.39 |
| BT50 x FMA31.75-75 | 75 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | - | 1 | 4.89 |
| BT50 x FMA31.75-105 | 105 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | - | 1 | 5.70 |
| BT50 x FMA38.1-45 | 45 | 25 | 80 | 38.1 | 44.5 | 8.87 | 15.87 | - | 1 | 4.68 |
| BT50 x FMA38.1-75 | 75 | 25 | 80 | 38.1 | 44.5 | 8.87 | 15.87 | - | 1 | 5.80 |
| BT50 x FMA50.8-45 | 45 | 36 | 98 | 50.8 | 65 | 9.75 | 19.05 | - | 1 | 5.70 |
| BT50 x FMA50.8-75 | 75 | 36 | 98 | 50.8 | 65 | 9.75 | 19.05 | - | 1 | 6.82 |
| BT50 x FMA47.62-75 | 75 | 32 | 128.75 | 47.62 | - | 12.5 | 25.4 | PCD Ø101.6 | 2 | 8.82 |

選配表 Option

拉頭 Pull Stud



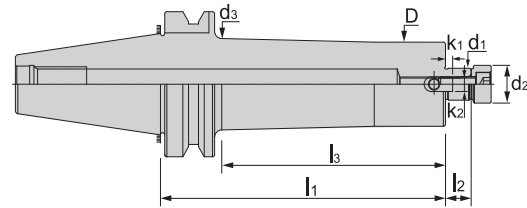
B645-B647

• 長度單位 Unit of Length (mm)

BT/FMA 平面銑刀柄 (加長斜度柄)

BT/FMA FACE MILL ARBOR(EXTENSION TYPE)

JIS
MAS 403



BT

特點 Feature

- 平面銑刀配合部位 (d1) · 軸系公差 h6
- 整支通孔 · 利於出水及抗震

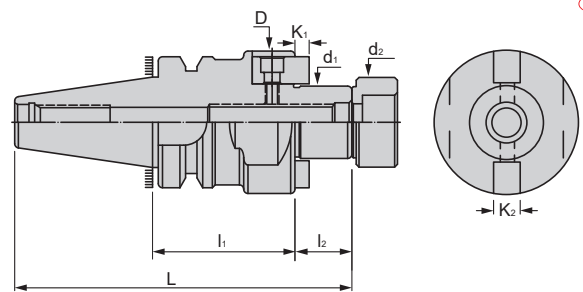
- d1 tolerance is h6.
- The tool holder with through coolant design is better for water to get through vibration resistance

FMA 為英制規格 FMA is INCH Size

| 規格 Spec. | l ₁ | l ₂ | l ₃ | D | d ₁ | d ₂ | d ₃ | K ₁ | K ₂ | 重量 (KGS) Weight |
|-----------------------|----------------|----------------|----------------|----|----------------|----------------|----------------|----------------|----------------|-----------------|
| BT50 x FMA25.4-125BG | 125 | 20 | 79 | 48 | 25.4 | 31.5 | 60 | 4.25 | 9.52 | 5.36 |
| BT50 x FMA25.4-150BG | 150 | 20 | 102 | 48 | 25.4 | 31.5 | 60 | 4.25 | 9.52 | 6.40 |
| BT50 x FMA25.4-200BG | 200 | 20 | 152 | 58 | 25.4 | 31.5 | 63 | 4.25 | 9.52 | 7.40 |
| BT50 x FMA25.4-250BG | 250 | 20 | 202 | 58 | 25.4 | 31.5 | 63 | 4.25 | 9.52 | 8.60 |
| BT50 x FMA25.4-300BG | 300 | 20 | 252 | 58 | 25.4 | 31.5 | 63 | 4.25 | 9.52 | 9.70 |
| BT50 x FMA25.4-350BG | 350 | 20 | 302 | 58 | 25.4 | 31.5 | 66 | 4.25 | 9.52 | 10.8 |
| BT50 x FMA25.4-400BG | 400 | 20 | 352 | 58 | 25.4 | 31.5 | 66 | 4.25 | 9.52 | 11.9 |
| BT50 x FMA31.75-125BG | 125 | 22 | 82 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 5.60 |
| BT50 x FMA31.75-150BG | 150 | 22 | 107 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 7.34 |
| BT50 x FMA31.75-175BG | 175 | 22 | 132 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 8.30 |
| BT50 x FMA31.75-200BG | 200 | 22 | 157 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 9.10 |
| BT50 x FMA31.75-250BG | 250 | 22 | 207 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 10.6 |
| BT50 x FMA31.75-300BG | 300 | 22 | 252 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 12.1 |
| BT50 x FMA31.75-350BG | 350 | 22 | 302 | 70 | 31.75 | 41 | 75 | 6.7 | 12.7 | 13.7 |

BT 平面銑刀柄 (削平兩端輕量型)

BT FACE MILL ARBOR(LIGHTWEIGHT TYPE WITH TWO FLAT SIDES)

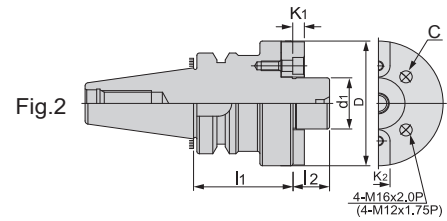
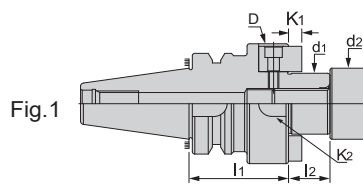


| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | d ₂ | k ₁ | k ₂ | 重量 (KGS) Weight |
|----------------------------|-------|----------------|----------------|----|----------------|----------------|----------------|----------------|-----------------|
| BT30 x FMA25.4-50-BROTHER | 118.4 | 50 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | 0.94 |
| BT30 x FMA31.75-50-BROTHER | 120.4 | 50 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | 1.22 |
| BT30 x FMB22-50-BROTHER | 117.7 | 50 | 19 | 48 | 22 | 26 | 4.8 | 10 | 0.90 |
| BT30 x FMB27-50-BROTHER | 118.4 | 50 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | 1.00 |

選配表 Option



• 長度單位 Unit of Length (mm)



FMB 為公制規格 FMB is METRIC size

| 規格 Spec. | l ₁ | l ₂ | D | d ₁ | d ₂ | k ₁ | k ₂ | C | Fig. | 重量 (KGS) Weight |
|------------------|----------------|----------------|-----|----------------|----------------|----------------|----------------|------------|------|-----------------------|
| BT30 x FMB16-50 | 50 | 16 | 46 | 16 | - | 5 | 8 | - | 1 | 0.68 |
| BT30 x FMB22-45 | 45 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 0.82 |
| BT30 x FMB22-60 | 60 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 1.00 |
| BT30 x FMB27-45 | 45 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 1.05 |
| BT30 x FMB27-60 | 60 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 1.30 |
| BT30 x FMB32-60 | 60 | 22 | 78 | 32 | 41 | 6.8 | 14 | - | 1 | 1.58 |
| BT40 x FMB16-50 | 50 | 16 | 63 | 16 | - | 5 | 8 | - | 1 | 1.22 |
| BT40 x FMB16-90 | 90 | 16 | 63 | 16 | - | 5 | 8 | - | 1 | 1.48 |
| BT40 x FMB22-45 | 45 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 1.38 |
| BT40 x FMB22-60 | 60 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 1.57 |
| BT40 x FMB22-100 | 100 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 2.17 |
| BT40 x FMB22-150 | 150 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 2.86 |
| BT40 x FMB22-200 | 200 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 3.58 |
| BT40 x FMB27-45 | 45 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 1.58 |
| BT40 x FMB27-60 | 60 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 1.89 |
| BT40 x FMB27-90 | 90 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 2.61 |
| BT40 x FMB27-105 | 105 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 2.93 |
| BT40 x FMB32-60 | 60 | 22 | 78 | 32 | 41 | 6.8 | 14 | - | 1 | 2.10 |
| BT40 x FMB40-60 | 60 | 25 | 80 | 40 | 48 | 8.3 | 16 | - | 1 | 2.80 |
| BT50 x FMB16-50 | 50 | 16 | 100 | 16 | - | 5 | 8 | - | 1 | 4.02 |
| BT50 x FMB16-90 | 90 | 16 | 100 | 16 | - | 5 | 8 | - | 1 | 4.14 |
| BT50 x FMB22-45 | 45 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 4.15 |
| BT50 x FMB22-90 | 90 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 4.68 |
| BT50 x FMB22-150 | 150 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 5.35 |
| BT50 x FMB22-200 | 200 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 6.02 |
| BT50 x FMB22-250 | 250 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 6.64 |
| BT50 x FMB22-300 | 300 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 9.40 |
| BT50 x FMB22-350 | 350 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 10.5 |
| BT50 x FMB22-400 | 400 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 10.88 |
| BT50 x FMB27-50 | 50 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 4.41 |
| BT50 x FMB27-90 | 90 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 5.09 |
| BT50 x FMB27-150 | 150 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 6.30 |
| BT50 x FMB27-200 | 200 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 7.42 |
| BT50 x FMB27-250 | 250 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 8.43 |
| BT50 x FMB32-50 | 50 | 22 | 78 | 32 | 41 | 6.8 | 14 | - | 1 | 4.69 |
| BT50 x FMB32-90 | 90 | 22 | 78 | 32 | 41 | 6.8 | 14 | - | 1 | 5.96 |
| BT50 x FMB40-50 | 50 | 25 | 89 | 40 | 48 | 8.3 | 16 | - | 1 | 5.20 |
| BT50 x FMB40-90 | 90 | 25 | 89 | 40 | 48 | 8.3 | 16 | - | 1 | 6.00 |
| BT50 x FMB40-105 | 105 | 25 | 89 | 40 | 48 | 8.3 | 16 | - | 1 | 7.20 |
| BT50 x FS40F-75 | 75 | 26 | 110 | 40 | - | 8.3 | 16 | PCD Ø66.7 | 2 | 6.00 |
| BT50 x FS60F-75 | 75 | 25 | 138 | 60 | - | 12.5 | 25.4 | PCD Ø101.6 | 2 | 8.49 |

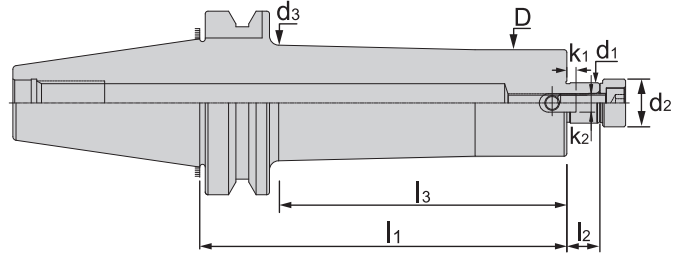
選配表 Option

拉頭 Pull Stud



B645-B647

• 長度單位 Unit of Length (mm)



特點 Feature

- 平面銑刀配合部位 (d1) · 軸系公差 h6
- 整支通孔 · 利於出水及抗震

- d1 tolerance is h6.
- The tool holder with through coolant design is better for water to get through vibration resistance

FMB 為公制規格 FMB is METRIC size

| 規格 Spec. | l ₁ | l ₂ | l ₃ | D | d ₁ | d ₂ | d ₃ | k ₁ | k ₂ | 重量 (KGS) Weight |
|--------------------|----------------|----------------|----------------|----|----------------|----------------|----------------|----------------|----------------|-----------------------|
| BT40 x FMB22-150BG | 150 | 19 | 118 | 48 | 22 | 31.75 | 51 | 4.25 | 10 | 2.95 |
| BT40 x FMB22-200BG | 200 | 19 | 168 | 48 | 22 | 31.75 | 51 | 4.25 | 10 | 3.68 |
| BT40 x FMB22-250BG | 250 | 19 | 218 | 48 | 22 | 31.75 | 51 | 4.25 | 10 | 4.38 |
| BT40 x FMB22-300BG | 300 | 19 | - | 48 | 22 | 31.75 | 51 | 4.25 | 10 | 5.40 |
| BT50 x FMB22-100BG | 100 | 19 | - | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 6.00 |
| BT50 x FMB22-150BG | 150 | 19 | 107 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 6.17 |
| BT50 x FMB22-200BG | 200 | 19 | 157 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 7.30 |
| BT50 x FMB22-250BG | 250 | 19 | 207 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 9.40 |
| BT50 x FMB22-300BG | 300 | 19 | 257 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 10.24 |
| BT50 x FMB22-350BG | 350 | 19 | 307 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 10.3 |
| BT50 x FMB22-400BG | 400 | 19 | 352 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 11.4 |
| BT50 x FMB22-450BG | 450 | 19 | 402 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 12.3 |
| BT50 x FMB22-500BG | 500 | 19 | 452 | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 13.7 |
| BT50 x FMB22-600BG | 600 | 19 | - | 58 | 22 | 31.75 | 62.5 | 4.25 | 10 | 17.2 |
| BT50 x FMB27-150BG | 150 | 20 | 107 | 60 | 27 | 31.5 | 78 | 5.8 | 12 | 6.82 |
| BT50 x FMB27-200BG | 200 | 20 | 157 | 60 | 27 | 31.5 | 78 | 5.8 | 12 | 8.50 |
| BT50 x FMB27-250BG | 250 | 20 | 207 | 60 | 27 | 31.5 | 78 | 5.8 | 12 | 9.50 |
| BT50 x FMB27-300BG | 300 | 20 | 257 | 60 | 27 | 31.5 | 78 | 5.8 | 12 | 10.4 |
| BT50 x FMB27-350BG | 350 | 20 | 307 | 60 | 27 | 31.5 | 78 | 5.8 | 12 | 11.4 |
| BT50 x FMB27-400BG | 400 | 20 | 352 | 60 | 27 | 31.5 | 78 | 5.8 | 12 | 12.4 |
| BT50 x FMB27-450BG | 450 | 20 | 402 | 60 | 27 | 31.5 | 78 | 5.8 | 12 | 13.4 |
| BT50 x FMB27-500BG | 500 | 20 | 452 | 60 | 27 | 31.5 | 78 | 5.8 | 12 | 14.4 |
| BT50 x FMB32-150BG | 150 | 22 | 107 | 78 | 32 | 41 | 85 | 6.8 | 14 | 7.00 |
| BT50 x FMB32-200BG | 200 | 22 | 157 | 78 | 32 | 41 | 85 | 6.8 | 14 | 8.50 |
| BT50 x FMB32-250BG | 250 | 22 | 207 | 78 | 32 | 41 | 85 | 6.8 | 14 | 9.50 |
| BT50 x FMB32-300BG | 300 | 22 | 257 | 78 | 32 | 41 | 85 | 6.8 | 14 | 10.5 |
| BT50 x FMB32-350BG | 350 | 22 | 307 | 78 | 32 | 41 | 85 | 6.8 | 14 | 11.5 |
| BT50 x FMB32-400BG | 400 | 22 | 352 | 78 | 32 | 41 | 85 | 6.8 | 14 | 12.5 |
| BT50 x FMB32-450BG | 450 | 22 | 402 | 78 | 32 | 41 | 85 | 6.8 | 14 | 13.5 |
| BT50 x FMB32-500BG | 500 | 22 | 460 | 80 | 32 | 41 | 96 | 6.8 | 14 | 14.5 |

選配表 Option



• 長度單位 Unit of Length (mm)



BT/SCA 側銑刀柄

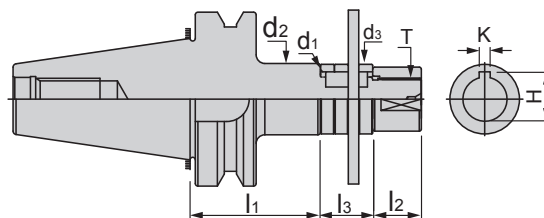
BT/SCA SIDE CUTTER ADAPTER

螺帽類型 DIN-2082-1 NUT FORM DIN-2082-1
 軸襯類型 DIN-2084-B BUSH FORM DIN-2084-B

JIS
 MAS 403



BT



| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | K | H | T | 重量 (KGS) Weight |
|---------------------|-------|-------|-------|-------|-------|-------|-------|------|------------|-----------------|
| BT30 x SCA10-60 | 60 | 12 | 35 | 10 | 18 | 18 | - | - | M8 x 1.25P | 0.80 |
| BT30 x SCA16-60 | 60 | 16 | 30 | 16 | 26 | 26 | 4 | 17.7 | M14 x 1.5P | 0.78 |
| BT30 x SCA22-60 | 60 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20 x 1.5P | 1.20 |
| BT30 x SCA22-75 | 75 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20 x 1.5P | 1.18 |
| BT40 x SCA16-60 | 60 | 16 | 30 | 16 | 26 | 26 | 4 | 17.7 | M14 x 1.5P | 1.42 |
| BT40 x SCA22-60 | 60 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20 x 1.5P | 1.60 |
| BT40 x SCA22-75 | 75 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20 x 1.5P | 1.83 |
| BT40 x SCA22-120 | 120 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20 x 1.5P | 2.19 |
| BT40 x SCA27-75 | 75 | 28 | 30 | 27 | 41 | 40 | 7 | 30 | M24 x 1.5P | 2.10 |
| BT40 x SCA27-120 | 120 | 28 | 30 | 27 | 41 | 40 | 7 | 30 | M24 x 1.5P | 2.50 |
| BT40 x SCA32-90 | 90 | 32 | 30 | 32 | 47 | 46 | 8 | 35.5 | M30 x 1.5P | 2.72 |
| BT40 x SCA22.22-75 | 75 | 22 | 30 | 22.22 | 34 | 34 | 3.18 | 24.6 | M20 x 1.5P | 1.70 |
| BT40 x SCA22.22-120 | 120 | 22 | 30 | 22.22 | 34 | 34 | 3.18 | 24.6 | M20 x 1.5P | 2.00 |
| BT40 x SCA25.4-75 | 75 | 28 | 30 | 25.4 | 41 | 40 | 6.35 | 28.4 | M24 x 1.5P | 2.17 |
| BT40 x SCA25.4-120 | 120 | 28 | 30 | 25.4 | 41 | 40 | 6.35 | 28.4 | M24 x 1.5P | 2.67 |
| BT40 x SCA31.75-90 | 90 | 32 | 30 | 31.75 | 47 | 47 | 7.93 | 34.8 | M30 x 1.5P | 2.60 |
| BT50 x SCA22-90 | 90 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20 x 1.5P | 4.40 |
| BT50 x SCA22-135 | 135 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20 x 1.5P | 4.70 |
| BT50 x SCA27-90 | 90 | 28 | 30 | 27 | 41 | 40 | 7 | 30 | M24 x 1.5P | 4.60 |
| BT50 x SCA27-135 | 135 | 28 | 30 | 27 | 41 | 40 | 7 | 30 | M24 x 1.5P | 5.00 |
| BT50 x SCA32-90 | 90 | 32 | 30 | 32 | 47 | 46 | 8 | 35.5 | M30 x 1.5P | 5.44 |
| BT50 x SCA32-135 | 135 | 32 | 30 | 32 | 47 | 46 | 8 | 35.5 | M30 x 1.5P | 6.16 |
| BT50 x SCA40-90 | 90 | 40 | 30 | 40 | 55 | 55 | 10 | 43.7 | M36 x 2.0P | 5.00 |
| BT50 x SCA40-135 | 135 | 40 | 30 | 40 | 55 | 55 | 10 | 43.7 | M36 x 2.0P | 6.00 |
| BT50 x SCA22.22-90 | 90 | 22 | 30 | 22.22 | 34 | 34 | 3.18 | 24.6 | M20 x 1.5P | 4.40 |
| BT50 x SCA22.22-135 | 135 | 22 | 30 | 22.22 | 34 | 34 | 3.18 | 24.6 | M20 x 1.5P | 4.70 |
| BT50 x SCA25.4-90 | 90 | 28 | 30 | 25.4 | 41 | 40 | 6.35 | 28.4 | M24 x 1.5P | 5.05 |
| BT50 x SCA25.4-135 | 135 | 28 | 30 | 25.4 | 41 | 40 | 6.35 | 28.4 | M24 x 1.5P | 5.58 |
| BT50 x SCA31.75-90 | 90 | 32 | 30 | 31.75 | 47 | 46 | 7.93 | 34.8 | M30 x 1.5P | 4.70 |
| BT50 x SCA31.75-135 | 135 | 32 | 30 | 31.75 | 47 | 46 | 7.93 | 34.8 | M30 x 1.5P | 5.20 |
| BT50 x SCA38.1-90 | 90 | 40 | 30 | 38.1 | 55 | 55 | 9.525 | 42.4 | M36 x 2.0P | 4.90 |
| BT50 x SCA38.1-135 | 135 | 40 | 30 | 38.1 | 55 | 55 | 9.525 | 42.4 | M36 x 2.0P | 5.90 |

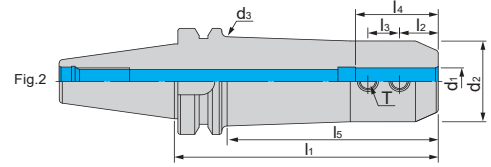
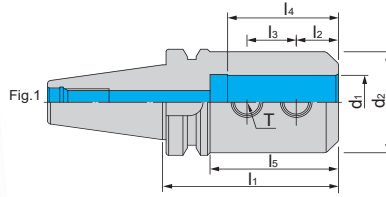
選配表 Option

拉頭 Pull Stud



B645-B647

• 長度單位 Unit of Length (mm)



特點 Feature

- 預設定動平衡 G6.3 8000rpm(削平處理)
- 不分孔徑皆為兩只鎖固螺絲

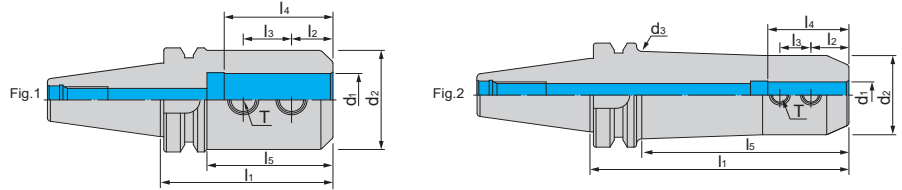
- The pre-balance can reach G6.3 8000rpm.
- With two side-lock screw.

| 規格 Spec. | l ₁ | l ₂ | l ₃ | l ₄ | l ₅ | d ₁ | d ₂ | d ₃ | T | Fig. | 重量 (KGS) Weight |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------|------|-----------------|
| BT30xSLN6-60JIS | 60 | 12 | 10 | 35 | | 6 | 25 | - | M6 x 1.0P | 1 | - |
| BT30xSLN8-60JIS | 60 | 14 | 12 | 35 | | 8 | 28 | - | M8 x 1.25P | 1 | - |
| BT30xSLN10-60JIS | 60 | 15 | 14 | 39 | | 10 | 35 | - | M10 x 1.5P | 1 | - |
| BT30xSLN12-60JIS | 60 | 20 | 16 | 44 | | 12 | 40 | - | M10 x 1.5P | 1 | - |
| BT30xSLN16-75JIS | 75 | 22 | 18 | 47 | | 16 | 45 | - | M10 x 1.5P | 1 | - |
| BT30xSLN20-75JIS | 75 | 25 | 20 | 55 | | 20 | 50 | - | M12 x 1.75P | 1 | - |
| BT30xSLN25-90JIS | 90 | 24 | 25 | 58 | 68 | 25 | 50 | - | M12 x 1.75P | 1 | 1.70 |
| BT30xSLN32-90JIS | 90 | 24 | 28 | 63 | | 32 | 60 | - | M16 x 2.0P | 1 | - |
| BT30 x SLN25-90JIS | 90 | 24 | 25 | 58 | 68 | 25 | 50 | - | M12 x 1.75P | 1 | 1.70 |
| BT40 x SLN 6-75JIS | 75 | 12 | 10 | 35 | 45 | 6 | 25 | - | M6 x 1.0P | 1 | 1.17 |
| BT40 x SLN 6-150JIS | 150 | 12 | 10 | 35 | 113 | 6 | 25 | 30 | M6 x 1.0P | 2 | 1.50 |
| BT40 x SLN 8-75JIS | 75 | 14 | 12 | 35 | 45 | 8 | 28 | - | M8 x 1.25P | 1 | 1.21 |
| BT40 x SLN 8-150JIS | 150 | 14 | 12 | 35 | 113 | 8 | 28 | 33 | M8 x 1.25P | 2 | 1.50 |
| BT40 x SLN10-75JIS | 75 | 15 | 14 | 39 | 45 | 10 | 35 | - | M10 x 1.5P | 1 | 1.35 |
| BT40 x SLN10-150JIS | 150 | 15 | 14 | 39 | 118 | 10 | 35 | 40 | M10 x 1.5P | 2 | 1.50 |
| BT40 x SLN12-75JIS | 75 | 20 | 16 | 44 | 45 | 12 | 42 | - | M10 x 1.5P | 1 | 1.50 |
| BT40 x SLN12-150JIS | 150 | 20 | 16 | 44 | 118 | 12 | 42 | 47 | M10 x 1.5P | 2 | 1.70 |
| BT40 x SLN16-75JIS | 75 | 22 | 18 | 47 | 45 | 16 | 48 | - | M10 x 1.5P | 1 | 1.58 |
| BT40 x SLN16-150JIS | 150 | 22 | 18 | 47 | 120 | 16 | 48 | 53 | M10 x 1.5P | 2 | 2.75 |
| BT40 x SLN20-90JIS | 90 | 25 | 20 | 55 | 60 | 20 | 50 | - | M12 x 1.75P | 1 | 1.77 |
| BT40 x SLN20-150JIS | 150 | 25 | 20 | 55 | 120 | 20 | 52 | 57 | M12 x 1.75P | 2 | 1.80 |
| BT40 x SLN25-90JIS | 90 | 24 | 25 | 58 | 60 | 25 | 50 | - | M12 x 1.75P | 1 | 1.72 |
| BT40 x SLN32-100JIS | 100 | 24 | 28 | 63 | 73 | 32 | 60 | - | M16 x 2.0P | 1 | 2.08 |
| BT40 x SLN40-105JIS | 105 | 28 | 28 | 68 | 78 | 40 | 72 | 62.6 | M16 x 2.0P | 2 | - |

選配表 Option



• 長度單位 Unit of Length (mm)



特點 Feature

- 預設定動平衡 G6.3 8000rpm(削平處理)
- 不分孔徑皆為兩只鎖固螺絲

- The pre-balance can reach G6.3 8000rpm.
- With two side-lock screw.

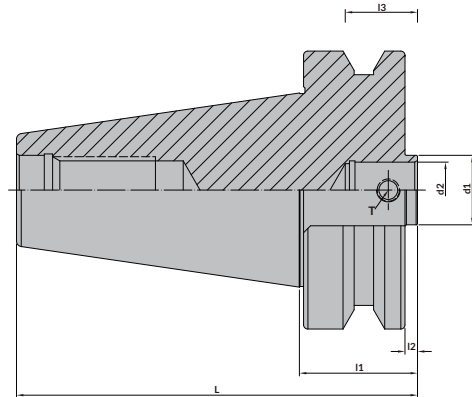
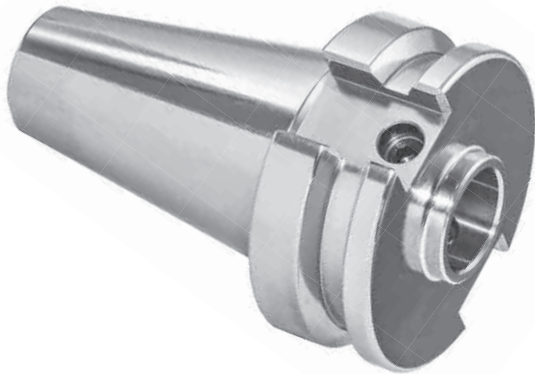
| 規格 Spec. | l_1 | l_2 | l_3 | l_4 | l_5 | d_1 | d_2 | d_3 | T | Fig. | 重量 (KGS) Weight |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|------|-----------------|
| BT50 x SLN 6-75JIS | 75 | 12 | 10 | 35 | 27 | 6 | 25 | - | M6 x 1.0P | 1 | 4.04 |
| BT50 x SLN 8-75JIS | 75 | 14 | 12 | 35 | 27 | 8 | 28 | - | M8 x 1.25P | 1 | 4.06 |
| BT50 x SLN10-75JIS | 75 | 15 | 14 | 39 | 32 | 10 | 35 | - | M10 x 1.5P | - | 3.90 |
| BT50 x SLN12-90JIS | 90 | 20 | 16 | 44 | 42 | 12 | 42 | - | M10 x 1.5P | - | 4.35 |
| BT50 x SLN12-165JIS | 165 | 20 | 16 | 44 | 124 | 12 | 42 | 47 | M10 x 1.5P | 2 | 5.05 |
| BT50 x SLN16-90JIS | 90 | 22 | 18 | 47 | 42 | 16 | 48 | - | M10 x 1.5P | 1 | 4.53 |
| BT50 x SLN16-150JIS | 150 | 22 | 18 | 47 | 102 | 16 | 48 | 53 | M10 x 1.5P | 2 | 4.98 |
| BT50 x SLN16-165JIS | 165 | 22 | 18 | 47 | 117 | 16 | 48 | 53 | M10 x 1.5P | 2 | 5.50 |
| BT50 x SLN20-90JIS | 90 | 25 | 20 | 55 | 49 | 20 | 50 | - | M12 x 1.75P | 1 | 4.53 |
| BT50 x SLN20-150JIS | 150 | 25 | 20 | 55 | 102 | 20 | 50 | 57 | M12 x 1.75P | 2 | 5.98 |
| BT50 x SLN20-165JIS | 165 | 25 | 20 | 55 | 117 | 20 | 50 | 57 | M12 x 1.75P | 2 | 5.67 |
| BT50 x SLN20-210JIS | 210 | 25 | 20 | 55 | 162 | 20 | 50 | 57 | M12 x 1.75P | 2 | 6.40 |
| BT50 x SLN25-100JIS | 100 | 24 | 25 | 58 | 59 | 25 | 50 | - | M12 x 1.75P | 1 | 4.58 |
| BT50 x SLN25-150JIS | 150 | 24 | 25 | 58 | 102 | 25 | 50 | 57 | M12 x 1.75P | 2 | 5.48 |
| BT50 x SLN25-165JIS | 165 | 24 | 25 | 58 | 117 | 25 | 50 | 57 | M12 x 1.75P | 2 | 5.55 |
| BT50 x SLN25-210JIS | 210 | 24 | 25 | 58 | 169 | 25 | 50 | 57 | M12 x 1.75P | 2 | 6.25 |
| BT50 x SLN25-250JIS | 250 | 24 | 25 | 58 | 202 | 25 | 50 | 60 | M12 x 1.75P | 2 | 7.10 |
| BT50 x SLN32-105JIS | 105 | 24 | 28 | 63 | 64 | 32 | 60 | - | M16 x 2.0P | 1 | 4.89 |
| BT50 x SLN32-150JIS | 150 | 24 | 28 | 63 | 102 | 32 | 50 | 60 | M16 x 2.0P | 2 | 7.48 |
| BT50 x SLN32-165JIS | 165 | 24 | 28 | 63 | 117 | 32 | 60 | 65 | M16 x 2.0P | 1 | 6.22 |
| BT50 x SLN32-210JIS | 210 | 24 | 28 | 63 | 162 | 32 | 50 | 60 | M16 x 2.0P | 2 | 6.34 |
| BT50 x SLN32-250JIS | 250 | 24 | 28 | 63 | 207 | 32 | 50 | 60 | M16 x 2.0P | 2 | 7.50 |
| BT50 x SLN32-300JIS | 300 | 24 | 28 | 63 | 257 | 32 | 60 | 65 | M16 x 2.0P | 2 | 9.30 |
| BT50 x SLN40-115JIS | 115 | 30 | 32 | 85 | 74 | 40 | 90 | - | M20 x 2.0P | 1 | 6.60 |
| BT50 x SLN42-120JIS | 120 | 30 | 32 | 85 | 79 | 42 | 90 | - | M20 x 2.0P | 1 | 6.73 |
| BT50 x SLN42-210JIS | 210 | 30 | 32 | 85 | - | 42 | 70 | 75 | M20 x 2.0P | 2 | 7.80 |
| BT50 x SLN50-120JIS | 120 | 35 | 35 | 90 | 82 | 50 | 90 | - | M20 x 2.0P | 1 | 5.28 |
| ● BT50 x SLN50.8-120JIS | 120 | 33.9 | 35.78 | 90 | 82 | 50.8 | 90 | - | M20 x 2.0P | 1 | 6.61 |

●有插梢 With pin

選配表 Option



● 長度單位 Unit of Length (mm)



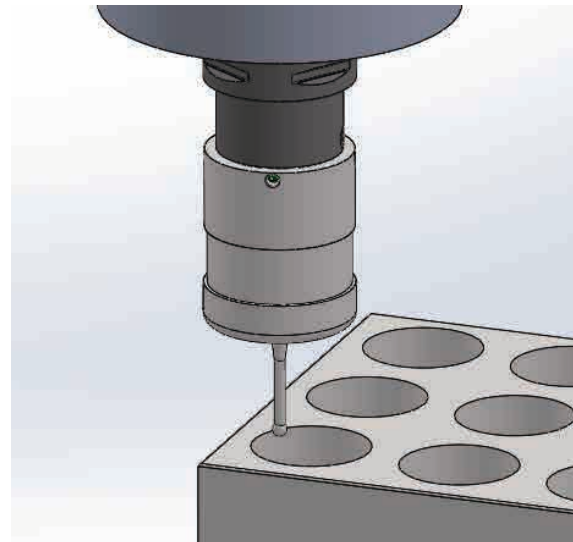
特點 Feature

- 依據探針設計，探針刀把可做中心出水，以利清潔工件後進行量測
- 依客戶需求，客製探針刀桿

- Coolant through holders can be made according to touch probe designs, capable of cleaning workpiece directly before measuring.
- Attached to customer's needs, we provide custom optional.

| 規格 Spec. | 探頭型號 Probe |
|---------------------|---|
| BT30-PSD11.2-27.6 | OMP40 OMP400 MP20 |
| BT40-PSD11.2-27.6 | |
| BT50-PSD11.2-37.6 | |
| HSK63A-PSD11.2-43.6 | |
| BT40-PSD20.1-31.5 | OMP60 RMP60 MP11 MP12 MP700 |
| BT50-PSD20.1-42.5 | |
| HSK63A-PSD20.1-46.5 | |
| PSC63-PSD20.1-50 | |
| HSK100A-PSD20.1-79 | |
| | |

範例 Example



探針刀把內建校正偏擺微調機構，簡易、快速調整探針的偏擺精度。
Built-in mechanism for accuracy compensation makes adjusting probe accuracy easy.

• 長度單位 Unit of Length (mm)



Fig.1

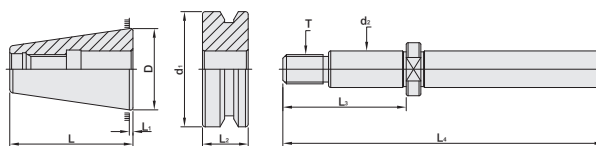


Fig.2

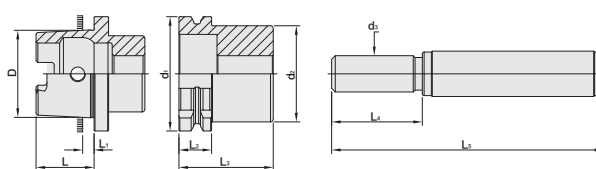
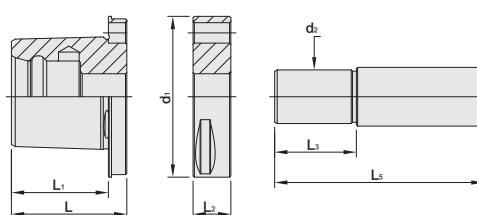


Fig.3



範例 Example

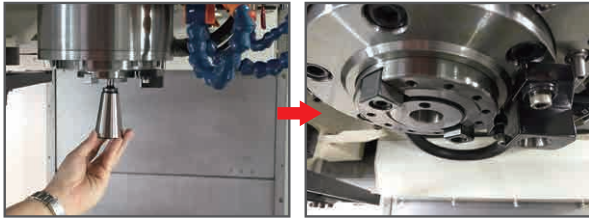


| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | l ₄ | l ₅ | D | d ₁ | d ₂ | d ₃ | T | Fig. |
|-----------------|-------|----------------|----------------|----------------|----------------|----------------|--------|----------------|----------------|----------------|-------------|------|
| BT30 - A.T.C | 50.4 | 2 | 20 | 50.4 | 158.4 | - | 31.75 | 46 | 16 | - | M12 x 1.75P | 1 |
| BT40 - A.T.C | 67.4 | 2 | 25 | 67.5 | 175.5 | - | 44.45 | 63 | 20 | - | M16 x 2.0P | 1 |
| BT50 - A.T.C | 104.8 | 3 | 35 | 120 | 320 | - | 69.85 | 100 | 25 | - | M24 x 3.0P | 1 |
| HSK32A - A.T.C | 16 | 3.2 | 14 | 30 | 50 | 100 | 24.007 | 32 | 26 | 8 | - | 2 |
| HSK40A - A.T.C | 20 | 4 | 14 | 37 | 61 | 141 | 30.007 | 40 | 34 | 12 | - | 2 |
| HSK50A - A.T.C | 25 | 5 | 18 | 43 | 74 | 174 | 38.009 | 50 | 42 | 15 | - | 2 |
| HSK63A - A.T.C | 32 | 6.3 | 18 | 52 | 90 | 190 | 48.010 | 63 | 53 | 20 | - | 2 |
| HSK80A - A.T.C | 40 | 8 | 18 | 54.5 | 100.5 | 200.5 | 60.012 | 80 | 68 | 20 | - | 2 |
| HSK100A - A.T.C | 50 | 10 | 19 | 67 | 125 | 275 | 75.013 | 100 | 88 | 24 | - | 2 |
| HSK125A - A.T.C | 63 | 12.5 | 19 | 74 | 145 | 295 | 95.016 | 125 | 111 | 30 | - | 2 |
| PSC32-A.T.C | 22 | 19 | 12 | 20 | - | 60 | - | 32 | - | 24 | - | 3 |
| PSC40-A.T.C | 28 | 24 | 16 | 28 | - | 78 | - | 40 | - | 12 | - | 3 |
| PSC50-A.T.C | 35 | 30 | 15 | 29 | - | 79 | - | 50 | - | 16 | - | 3 |
| PSC63-A.T.C | 45.2 | 38 | 14.8 | 32 | - | 82 | - | 63 | - | 21 | - | 3 |

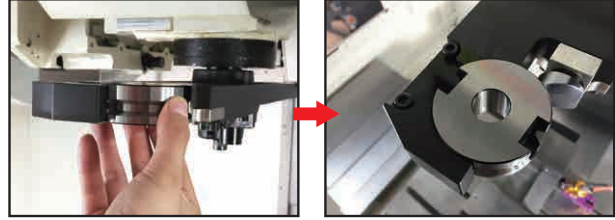
• 長度單位 Unit of Length (mm)

操作說明 Instructions

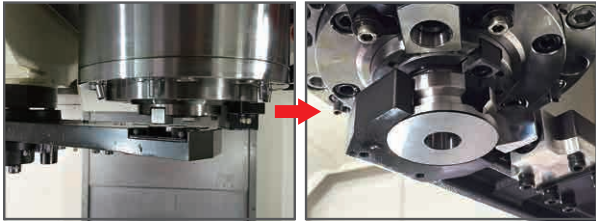
1. 錐度套筒端鎖上拉頭，置入主軸內
The taper adapter with pull stud inserts into spindle.



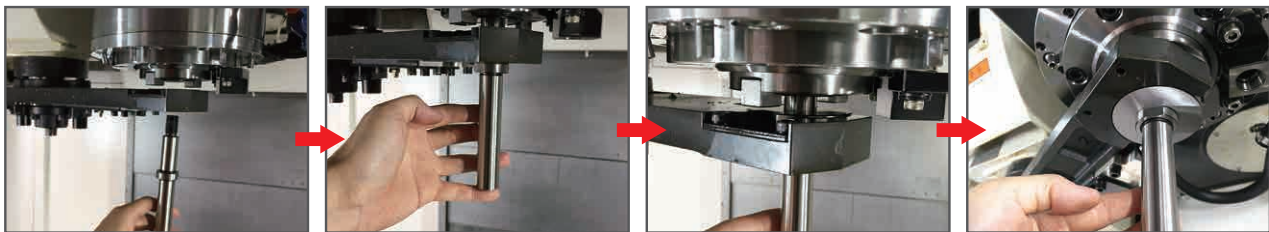
2. 換刀槽零件置入換刀臂內
Install the flange adapter into gripper of ATC arm.



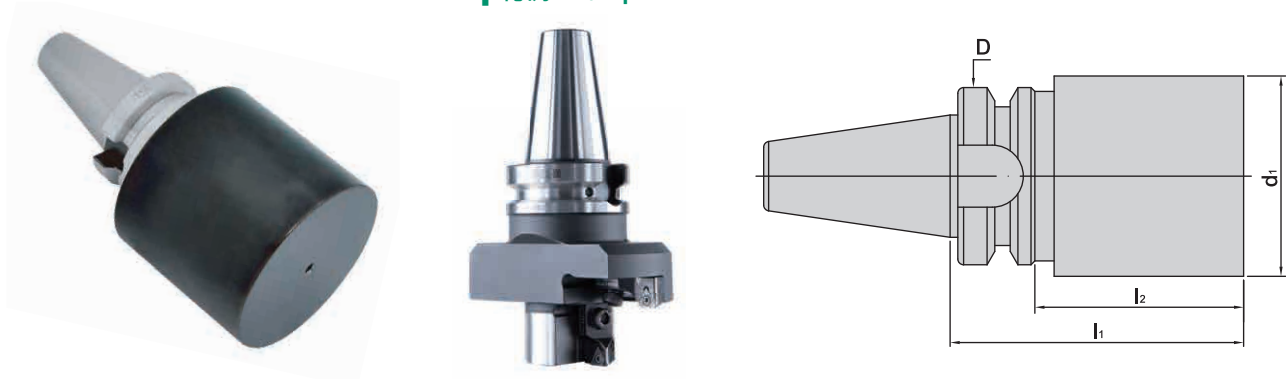
3. 將換刀槽旋轉到主軸中心
Press machine controller button to move ATC arm to align with machine spindle.



4. 將測試圓棒插入錐度套筒及換刀槽的中心孔，如能同時穿過，代表換刀臂與主軸有同心
Insert alignment plug into the holes of flange adapter and taper adapter for alignment. If alignment plug can be inserted with ease and the movement is smooth, the alignment is done.

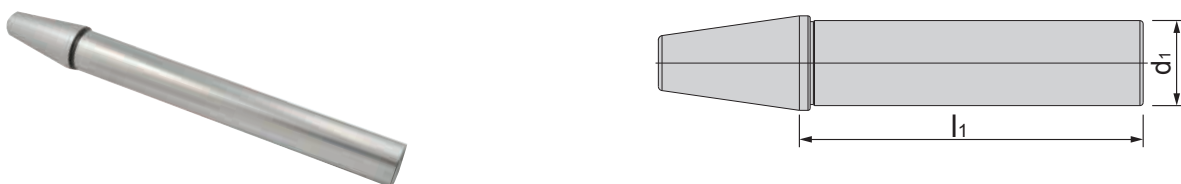


範例 Example



| 規格 Spec. | l_1 | l_2 | D | d_1 | 重量 (KGS) Weight |
|------------------|-------|-------|-----|-------|-----------------|
| BT30 x Ø50-200 | 200 | 173 | 46 | 50 | 3.3 |
| BT40 x Ø40.5-160 | 160 | 133 | 63 | 40.5 | 2.30 |
| BT40 x Ø63.5-160 | 160 | 133 | 63 | 63.5 | 4.21 |
| BT40 x Ø63.5-250 | 250 | 223 | 63 | 63.5 | 6.41 |
| BT50 x Ø50-300 | 300 | 262 | 100 | 50 | 7.53 |
| BT50 x Ø80-160 | 160 | 122 | 100 | 80 | 8.29 |
| BT50 x Ø80-200 | 200 | 162 | 100 | 80 | 9.84 |
| BT50 x Ø80-300 | 300 | 262 | 100 | 80 | 13.71 |

標準型 Standard



特點 Feature

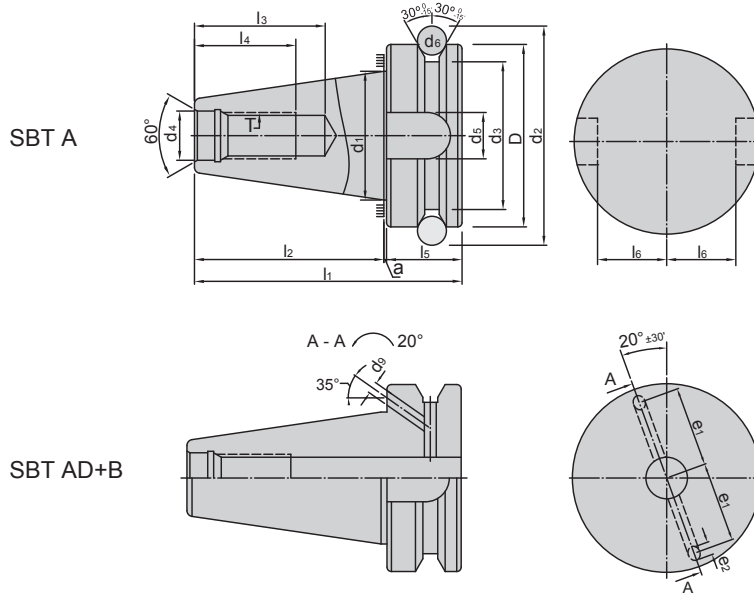
- 皆通過真圓度測試機，精確檢驗通過
- 附精度檢驗表

- Have passed by the roundness testing machine.
- With precision test table.

| | | |
|--|-------------------------|---------|
| | 錐度精度 Taper Precision | AT2 |
| | 真圓度 Roundness | 0.001mm |
| | 表面粗造度 Surface Roughness | Ra<0.4 |
| | 同心度 Concentricity | 0.005mm |

| 規格 Spec. | l_1 | d_1 | 同心度 Concentricity | 真圓度 Roundness | 重量 (KGS) Weight |
|---------------|-------|-------|-------------------|---------------|-----------------|
| BT30 - TS250L | 250 | 32 | 0.005 | 0.001 | 3.59 |
| BT40 - TS300L | 300 | 40 | 0.005 | 0.001 | 3.64 |
| BT50 - TS300L | 300 | 40 | 0.005 | 0.001 | 5.44 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | D h8 | d ₁ | d ₂ | d ₃ | d ₄ H8 | d ₅ H12 | d ₆ | d ₇ H12 |
|-------------|---------|----------------|----------------|----------------|----------------------|-----------------------|----------------|-----------------------|
| SBT30 | 46 | 31.75 | 56.14 | 38 | 12.5 | 16.1 | 8 | - |
| SBT40 | 63 | 44.45 | 75.679 | 53 | 17 | 16.1 | 10 | 4 |
| SBT50 | 100 | 69.85 | 119.02 | 83 | 25 | 25.7 | 15 | 6 |

| 規格 Spec. | a 0 -0.005 | l ₁ | l ₂ ±0.2 | l ₃ min | l ₄ min | l ₅ | l ₆ 0 -0.2 | e ₁ ±0.1 | e ₂ MAX | T 6H |
|-------------|------------------|----------------|------------------------|-----------------------|-----------------------|----------------|-----------------------------|------------------------|-----------------------|-----------|
| SBT30 | 1 | 70.4 | 48.4 | 34 | 24 | 21 | 16 | - | - | M12×1.75P |
| SBT40 | 1 | 92.4 | 65.4 | 43 | 30 | 26 | 22.6 | 27 | 5 | M16×2.0P |
| SBT50 | 1.5 | 139.8 | 101.8 | 62 | 45 | 36.5 | 35.4 | 42 | 7 | M24×3.0P |

1. 錐度精度 : <AT3
2. 硬度 : >HRC 56°
3. 滲碳深度 : >0.8mm
4. 真圓度 : < 0.8μm
5. 表面粗糙度 : Ra < 0.25μm

- 1.Taper tolerance < AT3.
- 2.Hardness > HRC 56°
- 3.Carbon depth > 0.8mm.
- 4.Roundness < 0.8μm.
- 5.Surface roughness : Ra < 0.25μm

• 長度單位 Unit of Length (mm)

SBT

法蘭加厚型(雙面拘束)系列

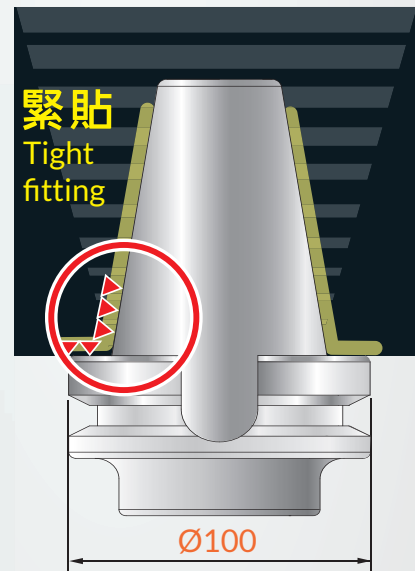
SBT DUAL DRIVE Tool Holder System

可在高速加工時，增加刀桿的穩定性。降低刀桿在高速切削時，所造成主軸的擴孔及精度不佳的現象；接觸直徑加大，有助於延伸倍數增加。刀具穩定性提升，可增加刀具使用壽命，確保在換刀後，重覆定位精度，並且提高搪孔切削時的真圓度。

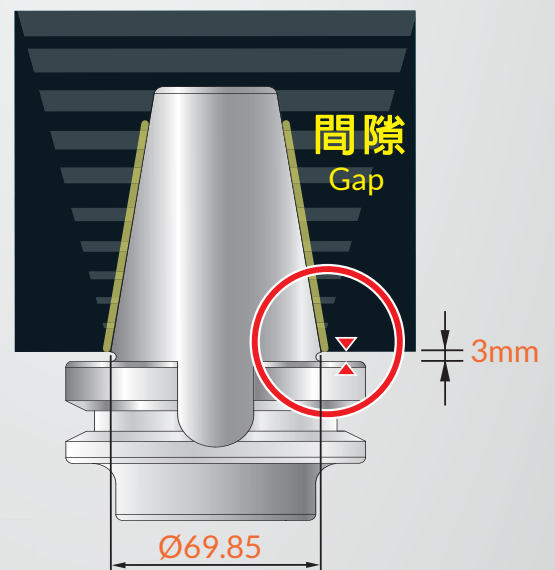
Dual DRIVE + SBT Tool Holders features a dual contact with 3mm gap between the machine tool spindle face and the tool holder flange, which improves rigidity and reduce vibration during the high-speed machining. After replacing the cutting tool, the SBT Tool Holder remain the same repeatability and roundness that improves the surface finish, stability, and accuracy, as well as extend the overall tool life.



SBT50 DualDRIVE+

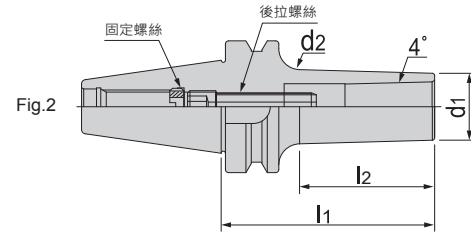
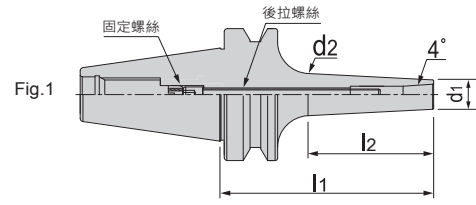


BT50 Tool Holder



DualDRIVE+

雙面拘束 Dual Contact



SBT

特點 Feature

- 標準動平衡 G2.5 25000rpm

- Dynamic balancing G2.5 at 25000rpm.

| 規格 Spec. | l_1 | 夾持範圍 Clamping Range | 筒夾 Collet | l_2 | d_1 | d_2 | 後拉螺絲 Slim-Fit Screw | 固定螺絲 Fixed Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-------------------|-------|---------------------|-----------|-------|-------|-------|---------------------|------------------|-----------|------------------|------|-----------------|
| SBT30 x SBL6-70 | 70 | 2~6 | SLC6 | 38 | 14 | 18 | SBL6-M6-40L | SBL6-M12 | PT5 | 6 | 1 | 0.60 |
| SBT30 x SBL6-100 | 100 | 2~6 | SLC6 | 68 | 14 | 21 | SBL6-M6-70L | SBL6-M12 | PT5 | 6 | 1 | 1.25 |
| SBT30 x SBL12-70 | 70 | 3~12 | SLC12 | 47 | 26 | 33 | SBL12-M10-25L | SBL12-M15 | PT6 | 10 | 2 | 1.20 |
| SBT30 x SBL12-100 | 100 | 3~12 | SLC12 | 77 | 26 | 38 | SBL12-M10-25L | SBL12-M15 | PT6 | 10 | 2 | 1.45 |
| SBT30 x SBL20-80 | 80 | 3~20 | SLC20 | 54 | 34 | 37 | SBL20-M12-30L | SBL20-M18 | PT8-S | 12 | 2 | 1.20 |
| SBT30 x SBL20-100 | 100 | 3~20 | SLC20 | 76 | 34 | 39 | SBL20-M12-30L | SBL20-M18 | PT8-S | 12 | 2 | 1.45 |
| SBT40 x SBL6-70 | 70 | 2~6 | SLC6 | 28 | 14 | 17 | SBL6-M6-50L | SBL6-M16 | PT5 | 6 | 1 | 1.20 |
| SBT40 x SBL6-100 | 100 | 2~6 | SLC6 | 58 | 14 | 20 | SBL6-M6-75L | SBL6-M16 | PT5 | 6 | 1 | 1.26 |
| SBT40 x SBL12-70 | 70 | 3~12 | SLC12 | 33 | 26 | 31 | SBL12-M10-25L | SBL12-M16 | PT6 | 10 | 2 | 1.30 |
| SBT40 x SBL12-100 | 100 | 3~12 | SLC12 | 63 | 26 | 31 | SBL12-M10-55L | SBL12-M16 | PT6 | 10 | 2 | 1.70 |
| SBT40 x SBL20-70 | 70 | 3~20 | SLC20 | 33 | 35 | 38 | SBL20-M12-30L | SBL20-M16 | PT8-S | 12 | 2 | 1.50 |
| SBT40 x SBL20-100 | 100 | 3~20 | SLC20 | 68 | 35 | 40 | SBL20-M12-52L | SBL20-M16 | PT8-S | 12 | 2 | 1.62 |
| SBT40 x SBL20-130 | 130 | 3~20 | SLC20 | 106 | 35 | 41 | SBL20-M12-52L | SBL20-M16 | PT8-S | 12 | 2 | 2.10 |
| SBT50 x SBL6-70 | 70 | 2~6 | SLC6 | 17 | 14 | 15 | SBL6-M6-50L | SBL6-M16 | PT5-S | 6 | 1 | 4.00 |
| SBT50 x SBL6-100 | 100 | 2~6 | SLC6 | 47 | 14 | 19 | SBL6-M6-40L | SBL6-M16 | PT5-S | 6 | 1 | 4.10 |
| SBT50 x SBL12-70 | 70 | 3~12 | SLC12 | 22 | 26 | 28 | SBL12-M10-25L | SBL12-M16 | PT6-S | 10 | 2 | 4.00 |
| SBT50 x SBL12-100 | 100 | 3~12 | SLC12 | 52 | 26 | 30 | SBL12-M10-55L | SBL12-M16 | PT6-S | 10 | 2 | 4.30 |
| SBT50 x SBL12-125 | 125 | 3~12 | SLC12 | 77 | 26 | 32 | SBL12-M10-55L | SBL12-M16 | PT6-S | 10 | 2 | 4.50 |
| SBT50 x SBL20-70 | 70 | 3~20 | SLC20 | 22 | 35 | 36 | SBL20-M12-30L | SBL20-M16 | PT8-S | 12 | 2 | 4.60 |
| SBT50 x SBL20-100 | 100 | 3~20 | SLC20 | 52 | 35 | 39 | SBL20-M12-52L | SBL20-M16 | PT8-S | 12 | 2 | 4.70 |
| SBT50 x SBL20-125 | 125 | 3~20 | SLC20 | 77 | 35 | 41 | SBL20-M12-52L | SBL20-M16 | PT8-S | 12 | 2 | 4.90 |

選配表 Option

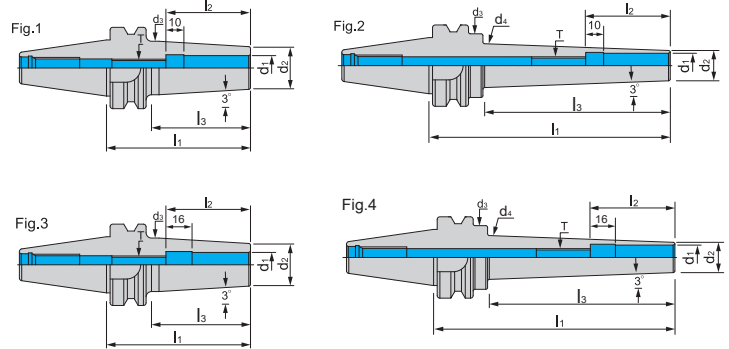
| 拉頭 Pull Stud | 筒夾 Collet |
|--------------|-----------|
| | |
| B645-B647 | B630 |

• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact 燒結式 Shrink-Fit



SBT



特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | d_4 | T | Fig. | 重量 (KGS) Weight |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-----------|------|-----------------|
| SBT30 x SFCT4-80 | 80 | 20 | 48 | 4 | 10 | 15 | - | M6x1.0P | 1 | 0.40 |
| SBT30 x SFCT5-80 | 80 | 20 | 53 | 5 | 16 | 19 | - | M6x1.0P | 1 | 0.42 |
| SBT30 x SFCT6-80 | 80 | 36 | 53 | 6 | 21 | 26 | - | M5x0.8P | 3 | 0.44 |
| SBT30 x SFCT8-80 | 80 | 36 | 53 | 8 | 21 | 26 | - | M6x1.0P | 1 | 0.45 |
| SBT30 x SFCT10-80 | 80 | 42 | 53 | 10 | 24 | 29 | - | M8x1.25P | 2 | 0.50 |
| SBT30 x SFCT12-80 | 80 | 47 | 53 | 12 | 24 | 29 | - | M10x1.5P | 1 | 0.50 |
| SBT30 x SFCT14-80 | 80 | 47 | 46 | 14 | 24 | 32 | - | M10x1.5P | 2 | 0.52 |
| SBT30 x SFCT16-80 | 80 | 50 | 55 | 16 | 27 | 32 | - | M12x1.75P | 1 | 0.54 |
| SBT30 x SFCT18-90 | 90 | 50 | 66 | 18 | 33 | 38 | - | M12x1.75P | 2 | 0.56 |
| SBT30 x SFCT20-90 | 90 | 52 | 66 | 20 | 33 | 38 | - | M16x2.0P | 1 | 0.58 |
| SBT30 x SFCT25-100 | 100 | 58 | 78 | 25 | 44 | 49 | - | M20x2.0P | 2 | 0.60 |
| SBT40 x SFCT3-90 | 90 | 18 | 53 | 3 | 9 | 14.6 | - | M6x1.0P | 1 | 0.99 |
| SBT40 x SFCT4-90 | 90 | 20 | 53 | 4 | 10 | 15.6 | - | M6x1.0P | 1 | 1.10 |
| SBT40 x SFCT5-90 | 90 | 20 | 58 | 5 | 16 | 21 | - | M6x1.0P | 1 | 1.00 |
| SBT40 x SFCT6-90 | 90 | 36 | 58 | 6 | 21 | 26 | - | M5x0.8P | 3 | 1.24 |
| SBT40 x SFCT8-90 | 90 | 36 | 58 | 8 | 21 | 26 | - | M6x1.0P | 1 | 1.23 |
| SBT40 x SFCT10-90 | 90 | 42 | 58 | 10 | 24 | 29 | - | M8x1.25P | 1 | 1.28 |
| SBT40 x SFCT12-90 | 90 | 47 | 58 | 12 | 24 | 29 | - | M10x1.5P | 1 | 1.28 |
| SBT40 x SFCT14-90 | 90 | 47 | 58 | 14 | 27 | 32 | - | M10x1.5P | 1 | 1.20 |
| SBT40 x SFCT16-90 | 90 | 50 | 58 | 16 | 27 | 32 | - | M12x1.75P | 1 | 1.30 |
| SBT40 x SFCT18-100 | 100 | 50 | 68 | 18 | 33 | 38 | - | M12x1.75P | 1 | 1.30 |
| SBT40 x SFCT20-100 | 100 | 52 | 68 | 20 | 33 | 38 | - | M16x2.0P | 1 | 1.40 |
| SBT40 x SFCT25-100 | 100 | 58 | 71 | 25 | 44 | 49 | - | M20x2.0P | 1 | 1.78 |
| SBT40 x SFCT32-100 | 100 | 58 | 71 | 32 | 44 | 49 | - | M20x2.0P | 1 | 1.70 |

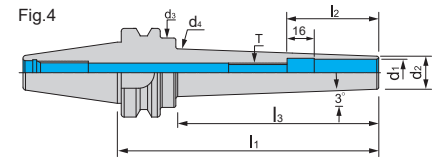
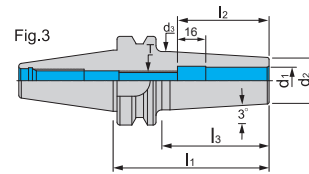
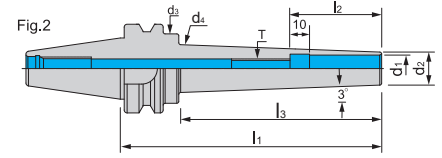
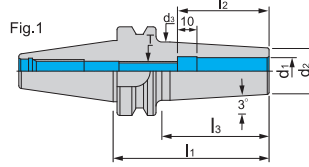
選配表 Option

| 拉頭 Pull Stud | 加熱器 Hot-Air |
|--------------|-------------|
| | |
| B645-B647 | B400 |

• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact

燒結式 Shrink-Fit



SBT

特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | d_4 | T | Fig. | 重量 (KGS) Weight |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-----------|------|-----------------|
| SBT50 x SFCT4-100 | 100 | 20 | 52 | 4 | 10 | 15.5 | - | M6x1.0P | 1 | 3.86 |
| SBT50 x SFCT5-100 | 100 | 20 | 57 | 5 | 16 | 21 | - | M6x1.0P | 1 | 3.86 |
| SBT50 x SFCT6-100 | 100 | 36 | 57 | 6 | 21 | 26 | - | M5x0.8P | 3 | 3.92 |
| SBT50 x SFCT8-100 | 100 | 36 | 57 | 8 | 21 | 26 | - | M6x1.0P | 1 | 3.92 |
| SBT50 x SFCT10-100 | 100 | 42 | 58 | 10 | 24 | 29 | - | M8x1.25P | 1 | 3.90 |
| SBT50 x SFCT12-100 | 100 | 47 | 52 | 12 | 24 | 29 | - | M10x1.5P | 1 | 3.94 |
| SBT50 x SFCT14-100 | 100 | 47 | 57 | 14 | 27 | 32 | - | M10x1.5P | 1 | 4.20 |
| SBT50 x SFCT16-100 | 100 | 50 | 52 | 16 | 27 | 32 | - | M12x1.75P | 1 | 3.96 |
| SBT50 x SFCT18-110 | 110 | 50 | 62 | 18 | 33 | 38 | - | M12x1.75P | 1 | 4.18 |
| SBT50 x SFCT20-110 | 110 | 52 | 67 | 20 | 33 | 38 | - | M16x2.0P | 1 | 4.14 |
| SBT50 x SFCT25-110 | 110 | 58 | 67 | 25 | 44 | 49 | - | M20x2.0P | 1 | 4.46 |
| SBT50 x SFCT32-110 | 110 | 58 | 67 | 32 | 44 | 49 | - | M20x2.0P | 1 | 4.30 |

選配表 Option

| 拉頭 Pull Stud | 加熱器 Hot-Air |
|--------------|-------------|
| | |
| B645-B647 | B400 |

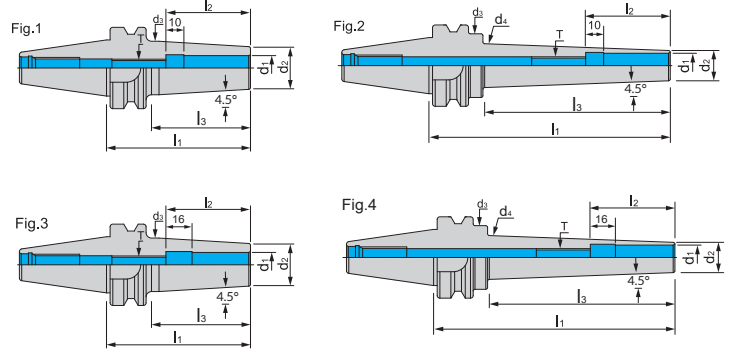
• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact

燒結式 Shrink-Fit



SBT



特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

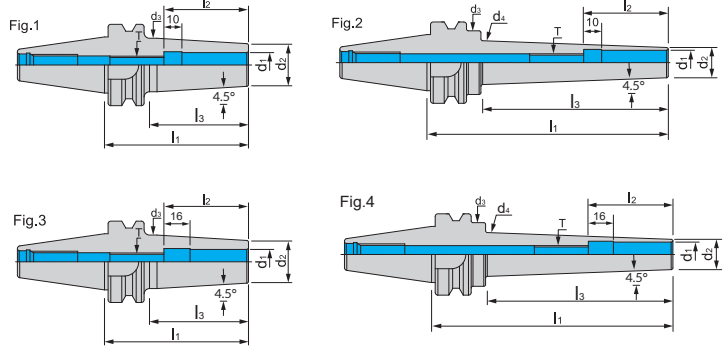
| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | d_4 | T | Fig. | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-----------|------|-----------------|
| SBT40 x SFC6-130 | 130 | 36 | 93 | 6 | 21 | 27 | - | M5x0.8P | 4 | 1.41 |
| SBT40 x SFC6-160 | 160 | 36 | 93 | 6 | 21 | 27 | - | M5x0.8P | 4 | 1.54 |
| SBT40 x SFC6-200 | 200 | 36 | 133 | 6 | 21 | 27 | - | M5x0.8P | 4 | 1.72 |
| SBT40 x SFC8-130 | 130 | 36 | 93 | 8 | 21 | 27 | - | M6x1.0P | 2 | 1.41 |
| SBT40 x SFC8-160 | 160 | 36 | 93 | 8 | 21 | 27 | - | M6x1.0P | 2 | 1.54 |
| SBT40 x SFC8-200 | 200 | 36 | 133 | 8 | 21 | 27 | - | M6x1.0P | 2 | 1.72 |
| SBT40 x SFC10-130 | 130 | 42 | 93 | 10 | 24 | 32 | - | M8x1.25P | 2 | 1.66 |
| SBT40 x SFC10-160 | 160 | 42 | 93 | 10 | 24 | 32 | - | M8x1.25P | 2 | 1.79 |
| SBT40 x SFC10-200 | 200 | 42 | 133 | 10 | 24 | 32 | - | M8x1.25P | 2 | 1.97 |
| SBT40 x SFC12-130 | 130 | 47 | 93 | 12 | 27 | 32 | - | M10x1.5P | 2 | 1.86 |
| SBT40 x SFC12-160 | 160 | 47 | 93 | 12 | 27 | 32 | - | M10x1.5P | 2 | 1.99 |
| SBT40 x SFC12-200 | 200 | 47 | 133 | 12 | 27 | 32 | - | M10x1.5P | 2 | 2.17 |
| SBT40 x SFC14-130 | 130 | 47 | 93 | 14 | 27 | 34 | - | M10x1.5P | 2 | 1.94 |
| SBT40 x SFC14-160 | 160 | 47 | 93 | 14 | 27 | 34 | - | M10x1.5P | 2 | 2.07 |
| SBT40 x SFC14-200 | 200 | 47 | 133 | 14 | 27 | 34 | - | M10x1.5P | 2 | 2.25 |
| SBT40 x SFC16-130 | 130 | 50 | 93 | 16 | 27 | 34 | - | M12x1.75P | 2 | 1.75 |
| SBT40 x SFC16-160 | 160 | 50 | 93 | 16 | 27 | 34 | - | M12x1.75P | 2 | 1.91 |
| SBT40 x SFC16-200 | 200 | 50 | 133 | 16 | 27 | 34 | - | M12x1.75P | 2 | 2.06 |
| SBT40 x SFC18-130 | 130 | 50 | 98 | 18 | 33 | 42 | - | M12x1.75P | 2 | 2.31 |
| SBT40 x SFC18-160 | 160 | 50 | 98 | 18 | 33 | 42 | - | M12x1.75P | 2 | 2.46 |
| SBT40 x SFC18-200 | 200 | 50 | 138 | 18 | 33 | 42 | - | M12x1.75P | 2 | 2.61 |
| SBT40 x SFC20-130 | 130 | 52 | 98 | 20 | 33 | 42 | - | M16x2.0P | 2 | 2.28 |
| SBT40 x SFC20-160 | 160 | 52 | 98 | 20 | 33 | 42 | - | M16x2.0P | 2 | 2.43 |
| SBT40 x SFC20-200 | 200 | 52 | 138 | 20 | 33 | 42 | - | M16x2.0P | 2 | 2.57 |

選配表 Option

| 拉頭 Pull Stud | 加熱器 Hot-Air |
|---|---|
|  |  |
| B645-B647 | B400 |

• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact 燒結式 Shrink-Fit



SBT

特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | d_4 | T | Fig. | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-----------|------|-----------------|
| SBT40 x SFC25-130 | 130 | 58 | 101 | 25 | 44 | 53 | - | M20x2.0P | 2 | 2.34 |
| SBT40 x SFC25-160 | 160 | 58 | 131 | 25 | 44 | 53 | - | M20x2.0P | 2 | 2.85 |
| SBT40 x SFC25-200 | 200 | 58 | 171 | 25 | 44 | 53 | - | M20x2.0P | 2 | 3.53 |
| SBT40 x SFC32-130 | 130 | 58 | 101 | 32 | 44 | 53 | -- | M20x2.0P | 2 | 2.21 |
| SBT40 x SFC32-160 | 160 | 58 | 131 | 32 | 44 | 53 | - | M20x2.0P | 2 | 2.71 |
| SBT40 x SFC32-200 | 200 | 58 | 171 | 32 | 44 | 53 | - | M20x2.0P | 2 | 3.39 |
| SBT50 x SFC6-130 | 130 | 36 | 82 | 6 | 21 | 27 | - | M5x0.8P | 4 | 3.94 |
| SBT50 x SFC6-160 | 160 | 36 | 82 | 6 | 21 | 27 | - | M5x0.8P | 4 | 4.07 |
| SBT50 x SFC6-200 | 200 | 36 | 122 | 6 | 21 | 27 | - | M5x0.8P | 4 | 4.24 |
| SBT50 x SFC8-130 | 130 | 36 | 82 | 8 | 21 | 27 | - | M6x1.0P | 2 | 3.93 |
| SBT50 x SFC8-160 | 160 | 36 | 82 | 8 | 21 | 27 | - | M6x1.0P | 2 | 4.06 |
| SBT50 x SFC8-200 | 200 | 36 | 122 | 8 | 21 | 27 | - | M6x1.0P | 2 | 4.23 |
| SBT50 x SFC10-130 | 130 | 42 | 82 | 10 | 24 | 32 | - | M8x1.25P | 2 | 4.05 |
| SBT50 x SFC10-160 | 160 | 42 | 82 | 10 | 24 | 32 | - | M8x1.25P | 2 | 4.18 |
| SBT50 x SFC10-200 | 200 | 42 | 122 | 10 | 24 | 32 | - | M8x1.25P | 2 | 4.35 |
| SBT50 x SFC12-130 | 130 | 47 | 82 | 12 | 24 | 32 | - | M10x1.5P | 2 | 4.04 |
| SBT50 x SFC12-160 | 160 | 47 | 82 | 12 | 24 | 32 | - | M10x1.5P | 2 | 4.17 |
| SBT50 x SFC12-200 | 200 | 47 | 122 | 12 | 24 | 32 | - | M10x1.5P | 2 | 4.34 |
| SBT50 x SFC14-130 | 130 | 47 | 82 | 14 | 27 | 34 | - | M10x1.5P | 2 | 4.11 |
| SBT50 x SFC14-160 | 160 | 47 | 82 | 14 | 27 | 34 | - | M10x1.5P | 2 | 4.24 |
| SBT50 x SFC14-200 | 200 | 47 | 122 | 14 | 27 | 34 | - | M10x1.5P | 2 | 4.41 |
| SBT50 x SFC16-130 | 130 | 50 | 82 | 16 | 27 | 34 | - | M12x1.75P | 2 | 4.09 |
| SBT50 x SFC16-160 | 160 | 50 | 82 | 16 | 27 | 34 | - | M12x1.75P | 2 | 4.26 |
| SBT50 x SFC16-200 | 200 | 50 | 122 | 16 | 27 | 34 | - | M12x1.75P | 2 | 4.43 |

選配表 Option

| 拉頭 Pull Stud | 加熱器 Hot-Air |
|--------------|-------------|
| | |
| B645-B647 | B400 |

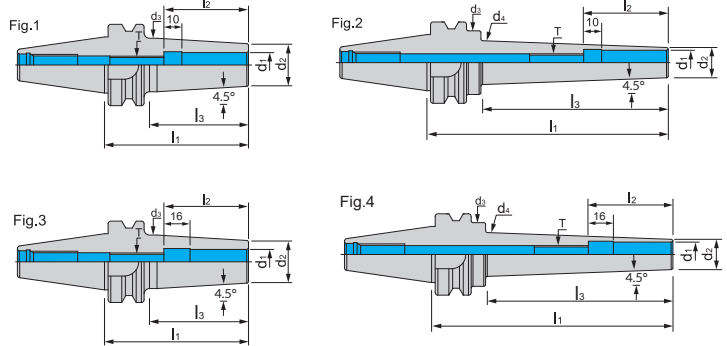
• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact

燒結式 Shrink-Fit



SBT



特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | d_4 | T | Fig. | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-----------|------|-----------------|
| SBT50 x SFC18-130 | 130 | 50 | 82 | 18 | 33 | 42 | - | M12x1.75P | 2 | 4.34 |
| SBT50 x SFC18-160 | 160 | 50 | 82 | 18 | 33 | 42 | - | M12x1.75P | 2 | 4.51 |
| SBT50 x SFC18-200 | 200 | 50 | 122 | 18 | 33 | 42 | - | M12x1.75P | 2 | 4.30 |
| SBT50 x SFC20-130 | 130 | 52 | 82 | 20 | 33 | 42 | - | M16x2.0P | 2 | 4.32 |
| SBT50 x SFC20-160 | 160 | 52 | 82 | 20 | 33 | 42 | - | M16x2.0P | 2 | 4.53 |
| SBT50 x SFC20-200 | 200 | 52 | 122 | 20 | 33 | 42 | - | M16x2.0P | 2 | 4.70 |
| SBT50 x SFC25-130 | 130 | 58 | 82 | 25 | 44 | 53 | - | M20x2.0P | 2 | 4.78 |
| SBT50 x SFC25-160 | 160 | 58 | 82 | 25 | 44 | 53 | - | M20x2.0P | 2 | 4.99 |
| SBT50 x SFC25-200 | 200 | 58 | 122 | 25 | 44 | 53 | - | M20x2.0P | 2 | 5.16 |
| SBT50 x SFC32-130 | 130 | 58 | 82 | 32 | 44 | 53 | - | M20x2.0P | 2 | 4.63 |
| SBT50 x SFC32-160 | 160 | 58 | 82 | 32 | 44 | 53 | - | M20x2.0P | 2 | 4.84 |
| SBT50 x SFC32-200 | 200 | 58 | 122 | 32 | 44 | 53 | - | M20x2.0P | 2 | 5.01 |

選配表 Option

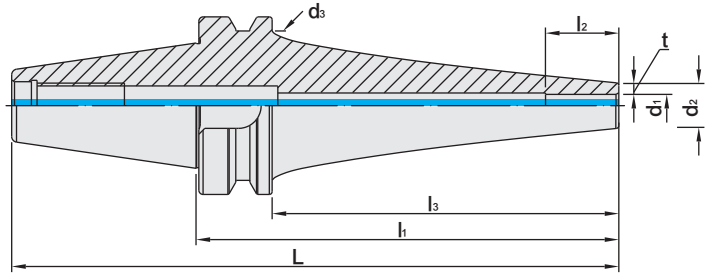
| 拉頭 Pull Stud | 加熱器 Hot-Air |
|---|---|
|  |  |
| B645-B647 | B400 |

• 長度單位 Unit of Length (mm)

燒結式 Shrink-Fit 雙面拘束 Dual Contact



NEW



SBT

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | d ₃ | t | 重量 (KGS) Weight |
|----------------------|-------|----------------|----------------|----------------|----------------|----------------|----------------|-----|-----------------|
| SBT40-SFC4 - 150CUL | 215.4 | 150 | 10 | 123 | 4 | 10 | 53 | 3 | 1.4 |
| SBT40-SFC4 - 200CUL | 265.4 | 200 | 10 | 173 | 4 | 10 | 53 | 3 | 1.7 |
| SBT40-SFC4 - 250CUL | 315.4 | 250 | 10 | 223 | 4 | 10 | 53 | 3 | 2.2 |
| SBT40-SFC6 - 150CUL | 215.4 | 150 | 26 | 123 | 6 | 13 | 53 | 3.5 | 1.5 |
| SBT40-SFC6 - 200CUL | 265.4 | 200 | 26 | 173 | 6 | 13 | 53 | 3.5 | 1.7 |
| SBT40-SFC8 - 150CUL | 215.4 | 250 | 26 | 123 | 8 | 16 | 53 | 4 | 1.6 |
| SBT40-SFC8 - 200CUL | 265.4 | 200 | 26 | 173 | 8 | 16 | 53 | 4 | 1.8 |
| SBT40-SFC8 - 250CUL | 315.4 | 250 | 26 | 223 | 8 | 16 | 53 | 4 | 2.0 |
| SBT40-SFC10 - 150CUL | 215.4 | 150 | 32 | 123 | 10 | 19 | 53 | 4.5 | 1.6 |
| SBT40-SFC10 - 200CUL | 265.4 | 200 | 32 | 173 | 10 | 19 | 53 | 4.5 | 1.8 |
| SBT40-SFC10 - 250CUL | 315.4 | 250 | 32 | 223 | 10 | 19 | 53 | 4.5 | 2.0 |
| SBT40-SFC12 - 150CUL | 215.4 | 150 | 37 | 123 | 12 | 22 | 53 | 5 | 1.7 |
| SBT40-SFC12 - 200CUL | 265.4 | 200 | 37 | 173 | 12 | 22 | 53 | 5 | 1.8 |
| SBT40-SFC12 - 250CUL | 315.4 | 250 | 37 | 223 | 12 | 22 | 53 | 5 | 2.0 |
| SBT50-SFC4 - 150CUL | 215.8 | 150 | 10 | 112 | 4 | 10 | 85 | 3 | 5.3 |
| SBT50-SFC4 - 200CUL | 301.8 | 200 | 10 | 162 | 4 | 10 | 85 | 3 | 5.8 |
| SBT50-SFC4 - 250CUL | 351.8 | 250 | 10 | 212 | 4 | 10 | 85 | 3 | 6.3 |
| SBT50-SFC4 - 300CUL | 401.8 | 300 | 10 | 262 | 4 | 10 | 85 | 3 | 6.7 |
| SBT50-SFC6 - 150CUL | 215.8 | 150 | 26 | 112 | 6 | 13 | 85 | 3.5 | 5.3 |
| SBT50-SFC6 - 200CUL | 301.8 | 200 | 26 | 162 | 6 | 13 | 85 | 3.5 | 5.9 |
| SBT50-SFC6 - 250CUL | 351.8 | 250 | 26 | 212 | 6 | 13 | 85 | 3.5 | 6.4 |
| SBT50-SFC6 - 300CUL | 401.8 | 300 | 26 | 262 | 6 | 13 | 85 | 3.5 | 6.8 |
| SBT50-SFC8 - 150CUL | 215.8 | 150 | 26 | 112 | 8 | 16 | 85 | 4 | 4.9 |
| SBT50-SFC8 - 200CUL | 301.8 | 200 | 26 | 162 | 8 | 16 | 85 | 4 | 5.5 |
| SBT50-SFC8 - 250CUL | 351.8 | 250 | 26 | 212 | 8 | 16 | 85 | 4 | 5.8 |
| SBT50-SFC8 - 300CUL | 401.8 | 300 | 26 | 262 | 8 | 16 | 85 | 4 | 6.1 |
| SBT50-SFC10 - 150CUL | 215.8 | 150 | 32 | 112 | 10 | 19 | 85 | 4.5 | 5.1 |
| SBT50-SFC10 - 200CUL | 301.8 | 200 | 32 | 162 | 10 | 19 | 85 | 4.5 | 5.4 |
| SBT50-SFC10 - 250CUL | 351.8 | 250 | 32 | 212 | 10 | 19 | 85 | 4.5 | 6.1 |
| SBT50-SFC10 - 300CUL | 401.8 | 300 | 32 | 262 | 10 | 19 | 85 | 4.5 | 6.4 |
| SBT50-SFC12 - 150CUL | 215.8 | 150 | 37 | 112 | 12 | 22 | 85 | 5 | 5.1 |
| SBT50-SFC12 - 200CUL | 301.8 | 200 | 37 | 162 | 12 | 22 | 85 | 5 | 5.6 |
| SBT50-SFC12 - 250CUL | 351.8 | 250 | 37 | 212 | 12 | 22 | 85 | 5 | 5.8 |
| SBT50-SFC12 - 300CUL | 401.8 | 300 | 37 | 262 | 12 | 22 | 85 | 5 | 6.3 |

• 搭配熱風式加熱器 B399-B400

• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact



SBT



Fig.1

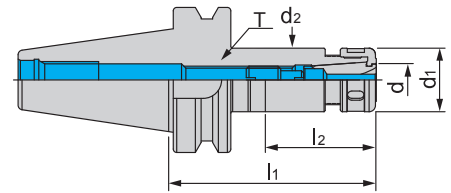
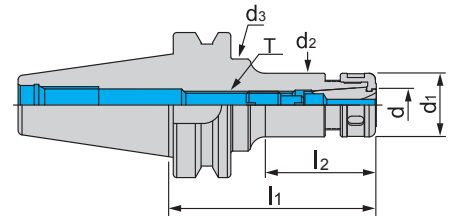


Fig.2



特點 Feature

- 偏擺精度 :5 μ 以下 (延伸 4D 長度處)
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 μ .
- Dynamic balancing G2.5 at 25000rpm.

| 規格 Spec. | l_1 | l_2 | d | d_1 | d_2 | d_3 | T | Fig. | 重量 (KGS) Weight |
|-------------------|-------|-------|---------------------------------------|-------|-------|-------|-----------|------|-----------------|
| SBT30 x SKS6-45 | 45 | 22 | $\varnothing 3 \sim \varnothing 6$ | 18 | 18 | - | M8x1.25P | 1 | 0.80 |
| SBT30 x SKS6-60 | 60 | 33 | $\varnothing 3 \sim \varnothing 6$ | 18 | 18 | - | M8x1.25P | 1 | 0.90 |
| SBT30 x SKS10-45 | 45 | 22 | $\varnothing 3 \sim \varnothing 10$ | 30 | 27.6 | - | M12x1.75P | 1 | 0.80 |
| SBT30 x SKS10-60 | 60 | 33 | $\varnothing 3 \sim \varnothing 10$ | 30 | 27.6 | - | M12x1.75P | 1 | 0.90 |
| SBT30 x SKS10-90 | 90 | 63 | $\varnothing 3 \sim \varnothing 10$ | 30 | 27.6 | - | M12x1.75P | 1 | 1.00 |
| SBT30 x SKS13-60 | 60 | 35 | $\varnothing 3 \sim \varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 1.10 |
| SBT30 x SKS13-90 | 90 | 65 | $\varnothing 3 \sim \varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 0.78 |
| SBT30 x SKS13-120 | 120 | 95 | $\varnothing 3 \sim \varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 1.20 |
| SBT30 x SKS16-60 | 60 | 36 | $\varnothing 3 \sim \varnothing 16$ | 40 | 40 | - | M18x1.5P | 1 | 0.76 |
| SBT30 x SKS16-90 | 90 | 66 | $\varnothing 3 \sim \varnothing 16$ | 40 | 40 | - | M18x1.5P | 1 | 1.02 |
| SBT30 x SKS20-60 | 60 | 37 | $\varnothing 3 \sim \varnothing 20$ | 48.5 | 48.5 | 45 | M12x1.75P | 2 | 0.68 |
| SBT30 x SKS20-90 | 90 | 67 | $\varnothing 3 \sim \varnothing 20$ | 48.5 | 48.5 | 45 | M12x1.75P | 2 | 1.02 |
| SBT40 x SKS6-90 | 90 | 44 | $\varnothing 3 \sim \varnothing 6$ | 18 | 18 | 32 | M8x1.25P | 2 | 1.20 |
| SBT40 x SKS6-120 | 120 | 74 | $\varnothing 3 \sim \varnothing 6$ | 18 | 18 | 32 | M8x1.25P | 2 | 1.21 |
| SBT40 x SKS10-60 | 60 | 22 | $\varnothing 3 \sim \varnothing 10$ | 30 | 27.6 | - | M12x1.75P | 1 | 1.36 |
| SBT40 x SKS10-90 | 90 | 45 | $\varnothing 3 \sim \varnothing 10$ | 30 | 27.6 | 40 | M12x1.75P | 2 | 1.20 |
| SBT40 x SKS10-120 | 120 | 74 | $\varnothing 3 \sim \varnothing 10$ | 30 | 27.6 | 40 | M12x1.75P | 2 | 1.40 |
| SBT40 x SKS13-60 | 60 | 30 | $\varnothing 3 \sim \varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 1.16 |
| SBT40 x SKS13-90 | 90 | 60 | $\varnothing 3 \sim \varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 1.32 |
| SBT40 x SKS13-120 | 120 | 90 | $\varnothing 3 \sim \varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 1.56 |
| SBT40 x SKS16-60 | 60 | 23.2 | $\varnothing 3 \sim \varnothing 16$ | 40 | 40 | - | M18x1.5P | 1 | 1.14 |
| SBT40 x SKS16-90 | 90 | 58 | $\varnothing 3 \sim \varnothing 16$ | 40 | 40 | - | M18x1.5P | 1 | 1.60 |
| SBT40 x SKS16-120 | 120 | 90 | $\varnothing 3 \sim \varnothing 16$ | 40 | 40 | - | M18x1.5P | 1 | 1.70 |
| SBT40 x SKS20-60 | 60 | 32 | $\varnothing 3 \sim \varnothing 20$ | 48.5 | 48.5 | - | M22x1.5P | 1 | 1.18 |
| SBT40 x SKS20-90 | 90 | 60 | $\varnothing 3 \sim \varnothing 20$ | 48.5 | 48.5 | - | M22x1.5P | 1 | 1.56 |
| SBT40 x SKS20-120 | 120 | 88 | $\varnothing 3 \sim \varnothing 20$ | 48.5 | 48.5 | - | M22x1.5P | 1 | 1.96 |
| SBT40 x SKS25-90 | 90 | 61 | $\varnothing 3 \sim \varnothing 25.4$ | 55.1 | 55 | - | M28x2.0P | 1 | 1.70 |
| SBT40 x SKS25-120 | 120 | 91 | $\varnothing 3 \sim \varnothing 25.4$ | 55.1 | 55 | - | M28x2.0P | 1 | 1.80 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B627 | B639 | B651 |

• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact



Fig.1

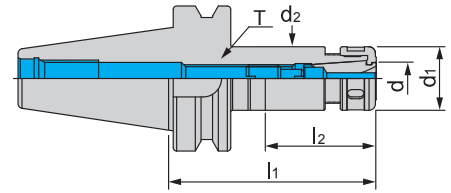
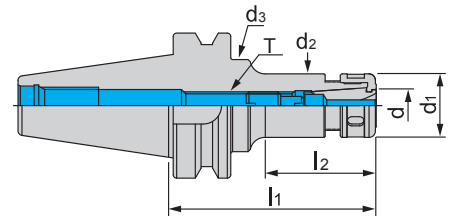


Fig.2



SBT

特點 Feature

- 偏擺精度 :5 μ 以下 (延伸 4D 長度處)
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 μ .
- Balance of G2.5 at 25000rpm.

| 規格 Spec. | l_1 | l_2 | d | d_1 | d_2 | d_3 | T | Fig. | 重量 (KGS) Weight |
|-------------------|-------|-------|-------------------------------------|-------|-------|-------|-----------|------|-----------------|
| SBT50 x SKS6-90 | 90 | 42 | $\varnothing 3\sim\varnothing 6$ | 18 | 18 | - | M8x1.25P | 1 | 4.00 |
| SBT50 x SKS6-120 | 120 | 59 | $\varnothing 3\sim\varnothing 6$ | 18 | 18 | 32 | M8x1.25P | 2 | 4.20 |
| SBT50 x SKS10-105 | 105 | 57 | $\varnothing 3\sim\varnothing 10$ | 30 | 27.6 | - | M12x1.75P | 1 | 4.50 |
| SBT50 x SKS10-150 | 150 | 94 | $\varnothing 3\sim\varnothing 10$ | 30 | 27 | 40 | M12x1.75P | 2 | 4.60 |
| SBT50 x SKS10-165 | 165 | 108 | $\varnothing 3\sim\varnothing 10$ | 30 | 27 | 40 | M12x1.75P | 2 | 4.30 |
| SBT50 x SKS10-200 | 200 | 143 | $\varnothing 3\sim\varnothing 10$ | 30 | 27 | 36 | M12x1.75P | 2 | 5.20 |
| SBT50 x SKS10-250 | 250 | 193 | $\varnothing 3\sim\varnothing 10$ | 30 | 27 | 40 | M12x1.75P | 2 | 5.60 |
| SBT50 x SKS13-105 | 105 | 62 | $\varnothing 3\sim\varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 4.12 |
| SBT50 x SKS13-135 | 135 | 92 | $\varnothing 3\sim\varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 4.70 |
| SBT50 x SKS13-165 | 165 | 92 | $\varnothing 3\sim\varnothing 13$ | 35 | 33 | 45 | M12x1.75P | 2 | 4.46 |
| SBT50 x SKS13-200 | 200 | 92 | $\varnothing 3\sim\varnothing 13$ | 35 | 33 | 45 | M12x1.75P | 2 | 5.20 |
| SBT50 x SKS13-250 | 250 | 92 | $\varnothing 3\sim\varnothing 13$ | 35 | 33 | 45 | M12x1.75P | 2 | 5.70 |
| SBT50 x SKS16-105 | 105 | 57 | $\varnothing 3\sim\varnothing 16$ | 40 | 40 | - | M18x1.5P | 1 | 4.15 |
| SBT50 x SKS16-150 | 150 | 98 | $\varnothing 3\sim\varnothing 16$ | 40 | 40 | 52 | M18x1.5P | 2 | 4.70 |
| SBT50 x SKS16-165 | 165 | 108 | $\varnothing 3\sim\varnothing 16$ | 40 | 40 | 52 | M18x1.5P | 2 | 4.50 |
| SBT50 x SKS16-200 | 200 | 92 | $\varnothing 3\sim\varnothing 16$ | 40 | 40 | 52 | M18x1.5P | 2 | 5.22 |
| SBT50 x SKS16-250 | 250 | 92 | $\varnothing 3\sim\varnothing 16$ | 40 | 40 | 52 | M18x1.5P | 2 | 6.00 |
| SBT50 x SKS20-105 | 105 | 62 | $\varnothing 3\sim\varnothing 20$ | 48.5 | 48.5 | - | M22x1.5P | 1 | 4.40 |
| SBT50 x SKS20-135 | 135 | 92 | $\varnothing 3\sim\varnothing 20$ | 48.5 | 48.5 | - | M22x1.5P | 1 | 4.60 |
| SBT50 x SKS20-165 | 165 | 122 | $\varnothing 3\sim\varnothing 20$ | 48.5 | 48.5 | - | M22x1.5P | 1 | 5.16 |
| SBT50 x SKS20-200 | 200 | 157 | $\varnothing 3\sim\varnothing 20$ | 48.5 | 48.5 | - | M22x1.5P | 1 | 5.40 |
| SBT50 x SKS20-250 | 250 | 207 | $\varnothing 3\sim\varnothing 20$ | 48.5 | 48.5 | - | M22x1.5P | 1 | 6.10 |
| SBT50 x SKS25-105 | 105 | 62 | $\varnothing 3\sim\varnothing 25.4$ | 55.1 | 55 | - | M28x2.0P | 1 | 4.50 |
| SBT50 x SKS25-150 | 150 | 107 | $\varnothing 3\sim\varnothing 25.4$ | 55.1 | 55 | - | M28x2.0P | 1 | 4.80 |
| SBT50 x SKS25-200 | 200 | 157 | $\varnothing 3\sim\varnothing 25.4$ | 55.1 | 55 | - | M28x2.0P | 1 | 6.00 |
| SBT50 x SKS25-250 | 250 | 207 | $\varnothing 3\sim\varnothing 25.4$ | 55.1 | 55 | - | M28x2.0P | 1 | 6.70 |

選配表 Option

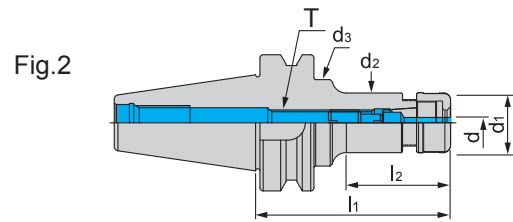
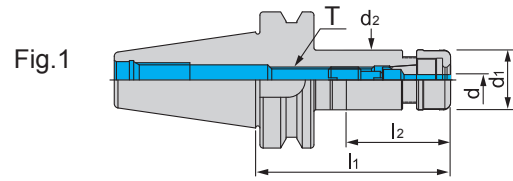
| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B627 | B639 | B651 |

• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact



SBT



特點 Feature

- 偏擺精度 :5 μ 以下 (延伸 4D 長度處)
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 μ .
- Balance of G2.5 at 25000rpm.

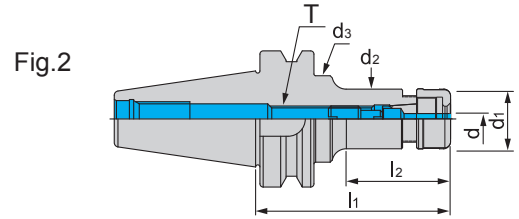
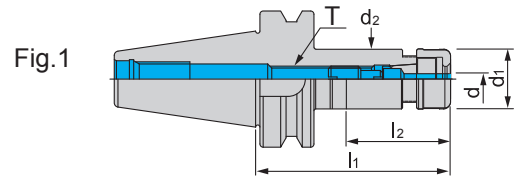
| 規格 Spec. | l_1 | l_2 | d | d_1 | d_2 | d_3 | T | Fig. | 重量 (KGS) Weight |
|----------------------|-------|--------|---------------------------------------|-------|-------|-------|-----------|------|-----------------|
| SBT30 x SKS6-45-HS | 45 | 14.5 | $\varnothing 3 \sim \varnothing 6$ | 18 | 18 | - | M8x1.25P | 1 | 0.80 |
| SBT30 x SKS6-60-HS | 60 | 25 | $\varnothing 3 \sim \varnothing 6$ | 18 | 18 | - | M8x1.25P | 1 | 0.90 |
| SBT30 x SKS10-45-HS | 45 | 14.5 | $\varnothing 3 \sim \varnothing 10$ | 30 | 27.6 | - | M12x1.75P | 1 | 0.80 |
| SBT30 x SKS10-60-HS | 60 | 25 | $\varnothing 3 \sim \varnothing 10$ | 30 | 27.6 | - | M12x1.75P | 1 | 0.90 |
| SBT30 x SKS10-90-HS | 90 | 55 | $\varnothing 3 \sim \varnothing 10$ | 30 | 27.6 | - | M12x1.75P | 1 | 0.84 |
| SBT30 x SKS13-60-HS | 60 | 35 | $\varnothing 3 \sim \varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 1.10 |
| SBT30 x SKS13-90-HS | 90 | 65 | $\varnothing 3 \sim \varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 0.70 |
| SBT30 x SKS13-120-HS | 120 | 95 | $\varnothing 3 \sim \varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 1.20 |
| SBT30 x SKS16-60-HS | 60 | 27.7 | $\varnothing 3 \sim \varnothing 16$ | 40 | 40 | - | M18x1.75P | 1 | 1.00 |
| SBT30 x SKS16-90-HS | 90 | 57.7 | $\varnothing 3 \sim \varnothing 16$ | 40 | 40 | - | M18x1.75P | 1 | 1.20 |
| SBT30 x SKS20-60-HS | 60 | 37 | $\varnothing 3 \sim \varnothing 20$ | 48.5 | 48.5 | - | M12x1.75P | 1 | 0.70 |
| SBT30 x SKS20-90-HS | 90 | 67 | $\varnothing 3 \sim \varnothing 20$ | 48.5 | 48.5 | - | M12x1.75P | 1 | 1.20 |
| SBT30 x SKS25-90-HS | 90 | 57.2 | $\varnothing 3 \sim \varnothing 25.4$ | 55.1 | 45 | - | M28x2.0P | 1 | 1.40 |
| SBT40 x SKS6-90-HS | 90 | 36.352 | $\varnothing 3 \sim \varnothing 6$ | 18 | 18 | 32 | M8x1.25P | 2 | 1.20 |
| SBT40 x SKS6-120-HS | 120 | 68.476 | $\varnothing 3 \sim \varnothing 6$ | 18 | 18 | 32 | M8x1.25P | 2 | 1.42 |
| SBT40 x SKS10-60-HS | 60 | 22 | $\varnothing 3 \sim \varnothing 10$ | 30 | 27.6 | - | M12x1.75P | 1 | 1.40 |
| SBT40 x SKS10-90-HS | 90 | 37.721 | $\varnothing 3 \sim \varnothing 10$ | 30 | 27.6 | 40 | M12x1.75P | 2 | 1.50 |
| SBT40 x SKS10-120-HS | 120 | 68.499 | $\varnothing 3 \sim \varnothing 10$ | 30 | 27.6 | 40 | M12x1.75P | 2 | 1.60 |
| SBT40 x SKS13-60-HS | 60 | 28 | $\varnothing 3 \sim \varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 1.20 |
| SBT40 x SKS13-90-HS | 90 | 58 | $\varnothing 3 \sim \varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 1.32 |
| SBT40 x SKS13-120-HS | 120 | 88 | $\varnothing 3 \sim \varnothing 13$ | 35 | 33 | - | M12x1.75P | 1 | 1.60 |
| SBT40 x SKS16-60-HS | 60 | 23.2 | $\varnothing 3 \sim \varnothing 16$ | 40 | 40 | - | M18x1.5P | 1 | 1.40 |
| SBT40 x SKS16-90-HS | 90 | 48.7 | $\varnothing 3 \sim \varnothing 16$ | 40 | 40 | - | M18x1.5P | 1 | 1.64 |
| SBT40 x SKS16-120-HS | 120 | 78.876 | $\varnothing 3 \sim \varnothing 16$ | 40 | 40 | - | M18x1.5P | 1 | 1.70 |
| SBT40 x SKS20-60-HS | 60 | 32 | $\varnothing 3 \sim \varnothing 20$ | 48.5 | 48.5 | - | M22x1.5P | 1 | 1.30 |
| SBT40 x SKS20-90-HS | 90 | 60 | $\varnothing 3 \sim \varnothing 20$ | 48.5 | 48.5 | - | M22x1.5P | 1 | 1.60 |
| SBT40 x SKS20-120-HS | 120 | 90 | $\varnothing 3 \sim \varnothing 20$ | 48.5 | 48.5 | - | M22x1.5P | 1 | 2.00 |
| SBT40 x SKS25-90-HS | 90 | 50.7 | $\varnothing 3 \sim \varnothing 25.4$ | 55.1 | 55 | - | M28x2.0P | 1 | 1.70 |
| SBT40 x SKS25-120-HS | 120 | 80.7 | $\varnothing 3 \sim \varnothing 25.4$ | 55.1 | 55 | - | M28x2.0P | 1 | 2.26 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B627 | B639 | B651 |

• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact



SBT

特點 Feature

- 偏擺精度 :5 μ 以下 (延伸 4D 長度處)
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 μ .
- Balance of G2.5 at 25000rpm.

| 規格 Spec. | l ₁ | l ₂ | d | d ₁ | d ₂ | d ₃ | T | Fig. | 重量 (KGS) Weight |
|----------------------|----------------|----------------|----------|----------------|----------------|----------------|-----------|------|-----------------|
| SBT50 x SKS6-90-HS | 90 | 42 | Ø3~Ø6 | 18 | 18 | - | M8x1.25P | 1 | 4.00 |
| SBT50 x SKS6-120-HS | 120 | 59 | Ø3~Ø6 | 18 | 18 | 32 | M8x1.25P | 2 | 4.20 |
| SBT50 x SKS10-105-HS | 105 | 57 | Ø3~Ø10 | 30 | 27.6 | - | M12x1.75P | 1 | 4.50 |
| SBT50 x SKS10-150-HS | 150 | 94 | Ø3~Ø10 | 30 | 27 | 40 | M12x1.75P | 2 | 4.60 |
| SBT50 x SKS10-165-HS | 165 | 108 | Ø3~Ø10 | 30 | 27 | 40 | M12x1.75P | 2 | 5.00 |
| SBT50 x SKS10-200-HS | 200 | 143 | Ø3~Ø10 | 30 | 27 | 36 | M12x1.75P | 2 | 5.20 |
| SBT50 x SKS10-250-HS | 250 | 193 | Ø3~Ø10 | 30 | 27 | 40 | M12x1.75P | 2 | 5.60 |
| SBT50 x SKS13-105-HS | 105 | 62 | Ø3~Ø13 | 35 | 33 | - | M12x1.75P | 1 | 4.50 |
| SBT50 x SKS13-135-HS | 135 | 92 | Ø3~Ø13 | 35 | 33 | - | M12x1.75P | 1 | 4.70 |
| SBT50 x SKS13-165-HS | 165 | 92 | Ø3~Ø13 | 35 | 33 | 45 | M12x1.75P | 2 | 4.90 |
| SBT50 x SKS13-200-HS | 200 | 92 | Ø3~Ø13 | 35 | 33 | 45 | M12x1.75P | 2 | 5.20 |
| SBT50 x SKS13-250-HS | 250 | 92 | Ø3~Ø13 | 35 | 33 | 45 | M12x1.75P | 2 | 5.70 |
| SBT50 x SKS16-105-HS | 105 | 57 | Ø3~Ø16 | 40 | 40 | - | M18x1.5P | 1 | 4.50 |
| SBT50 x SKS16-150-HS | 150 | 98 | Ø3~Ø16 | 40 | 40 | 52 | M18x1.5P | 2 | 4.70 |
| SBT50 x SKS16-165-HS | 165 | 108 | Ø3~Ø16 | 40 | 40 | 52 | M18x1.5P | 2 | 5.00 |
| SBT50 x SKS16-200-HS | 200 | 92 | Ø3~Ø16 | 40 | 40 | 52 | M18x1.5P | 2 | 5.50 |
| SBT50 x SKS16-250-HS | 250 | 92 | Ø3~Ø16 | 40 | 40 | 52 | M18x1.5P | 2 | 6.00 |
| SBT50 x SKS20-105-HS | 105 | 62 | Ø3~Ø20 | 48.5 | 48.5 | - | M22x1.5P | 1 | 4.30 |
| SBT50 x SKS20-135-HS | 135 | 92 | Ø3~Ø20 | 48.5 | 48.5 | - | M22x1.5P | 1 | 4.60 |
| SBT50 x SKS20-165-HS | 165 | 122 | Ø3~Ø20 | 48.5 | 48.5 | - | M22x1.5P | 1 | 5.00 |
| SBT50 x SKS20-200-HS | 200 | 157 | Ø3~Ø20 | 48.5 | 48.5 | - | M22x1.5P | 1 | 5.40 |
| SBT50 x SKS20-250-HS | 250 | 207 | Ø3~Ø20 | 48.5 | 48.5 | - | M22x1.5P | 1 | 6.10 |
| SBT50 x SKS25-105-HS | 105 | 62 | Ø3~Ø25.4 | 55.1 | 55 | - | M28x2.0P | 1 | 4.50 |
| SBT50 x SKS25-150-HS | 150 | 107 | Ø3~Ø25.4 | 55.1 | 55 | - | M28x2.0P | 1 | 5.28 |
| SBT50 x SKS25-200-HS | 200 | 157 | Ø3~Ø25.4 | 55.1 | 55 | - | M28x2.0P | 1 | 6.00 |
| SBT50 x SKS25-250-HS | 250 | 207 | Ø3~Ø25.4 | 55.1 | 55 | - | M28x2.0P | 1 | 6.70 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B627 | B639 | B651 |

• 長度單位 Unit of Length (mm)



SBT/MLK 法蘭加厚型強力銑削夾頭

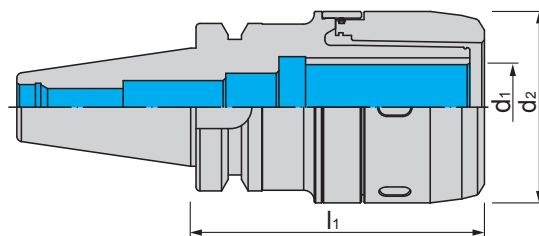
SBT/MLK DUAL DRIVE FORCE COLLET CHUCK

雙面拘束 Dual Contact

防塵設計 Dust-proof design

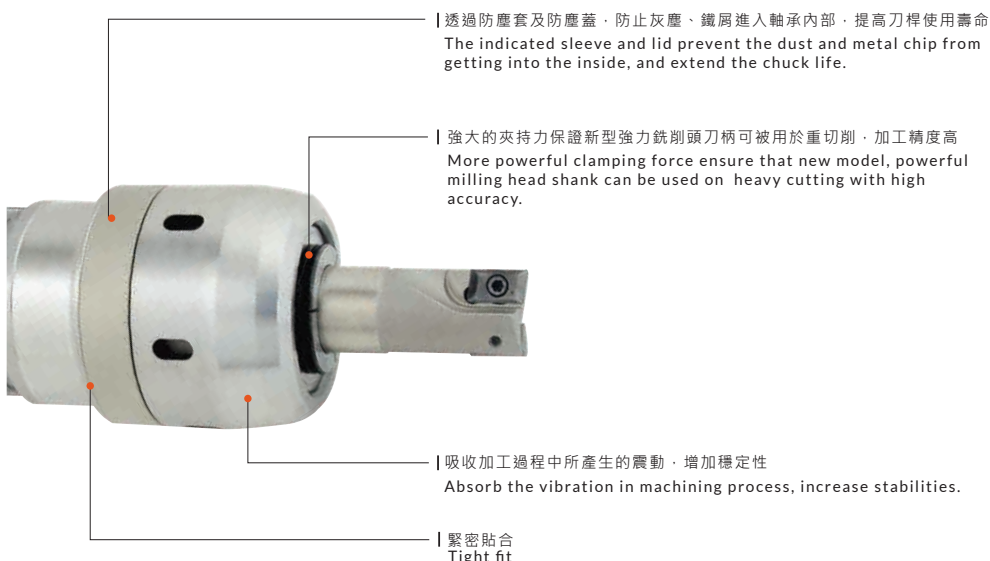


SBT



| 規格 Spec. | l_1 | d_1 | d_2 | 重量 (KGS) Weight |
|-----------------|-------|-------|-------|-----------------|
| SBT30-MLK12-70 | 70 | 12 | 42 | 1.03 |
| SBT30-MLK16-85 | 85 | 16 | 48 | 1.31 |
| SBT30-MLK20-90 | 90 | 20 | 56.5 | 1.58 |
| SBT30-MLK25-90 | 90 | 25 | 60 | - |
| SBT40-MLK12-80 | 80 | 12 | 42 | 1.72 |
| SBT40-MLK16-80 | 80 | 16 | 48 | 1.86 |
| SBT40-MLK20-90 | 90 | 20 | 56.5 | 2.00 |
| SBT40-MLK25-95 | 95 | 25 | 60 | 2.28 |
| SBT40-MLK32-105 | 105 | 32 | 72 | 3.00 |
| SBT40-MLK32-135 | 135 | 32 | 72 | 2.70 |
| SBT50-MLK12-100 | 100 | 12 | 42 | 4.56 |
| SBT50-MLK16-100 | 100 | 16 | 48 | 4.72 |
| SBT50-MLK20-100 | 100 | 20 | 56.5 | 4.87 |
| SBT50-MLK25-100 | 100 | 25 | 60 | 4.88 |
| SBT50-MLK32-110 | 110 | 32 | 72 | 5.64 |
| SBT50-MLK32-165 | 165 | 32 | 72 | 7.10 |
| SBT50-MLK42-115 | 115 | 42 | 90 | 6.19 |

-MLK32 扳手與 EOC32 扳手、MLD32 扳手共用
-MLK32 and MLK32、MLD32 spanner can be used in common.



選配表 Option

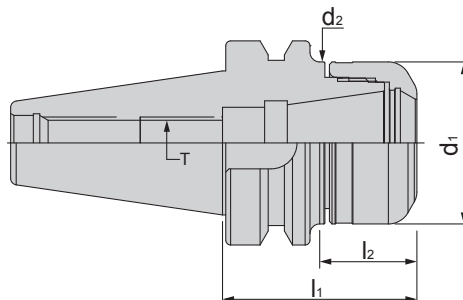
| 拉頭 Pull Stud | 筒夾 Collet | 扳手 Spanner |
|--------------|-----------|------------|
| | | |
| B645-B647 | B631 | B651 |



• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact

精度 Accuracy : <3μm



SBT

特點 Feature

- 標準動平衡 :G2.5 25000rpm

- Dynamical balancing G2.5 at 25000rpm.

| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-------|-----------|------------------|-----------------|
| SBT30xPNER16-50 | 50 | 25 | 30 | 30 | M10x1.5P | 3.0~10 | 0.70 |
| SBT30xPNER16-100 | 100 | 75 | 30 | 30 | M10x1.5P | 3.0~10 | 0.87 |
| SBT30xPNER20-60 | 60 | 37 | 32 | 32 | M12x1.75P | 3.0~13 | 0.74 |
| SBT30xPNER20-100 | 100 | 77 | 32 | 32 | M12x1.75P | 3.0~13 | 0.95 |
| SBT30xPNER25-60 | 60 | 37 | 40 | 40 | M16x2.0P | 3.0~16 | 0.90 |
| SBT30xPNER25-100 | 100 | 77 | 40 | 40 | M16x2.0P | 3.0~16 | 1.17 |
| SBT30xPNER32-60 | 60 | 33 | 50 | 50 | M16x2.0P | 3.0~20 | 1.00 |
| SBT30xPNER32-100 | 100 | 73 | 50 | 50 | M16x2.0P | 3.0~20 | 1.40 |
| SBT40xPNER16-70 | 70 | 40 | 30 | 30 | M10x1.5P | 3.0~10 | 1.40 |
| SBT40xPNER16-100 | 100 | 70 | 30 | 30 | M10x1.5P | 3.0~10 | 1.59 |
| SBT40xPNER16-130 | 130 | 100 | 30 | 30 | M10x1.5P | 3.0~10 | 1.76 |
| SBT40xPNER16-160 | 160 | 130 | 30 | 30 | M10x1.5P | 3.0~10 | 1.88 |
| SBT40xPNER20-70 | 70 | 40 | 32 | 32 | M12x1.75P | 3.0~13 | 1.42 |
| SBT40xPNER20-100 | 100 | 70 | 32 | 32 | M12x1.75P | 3.0~13 | 1.58 |
| SBT40xPNER20-130 | 130 | 100 | 32 | 32 | M12x1.75P | 3.0~13 | 1.78 |
| SBT40xPNER20-160 | 160 | 130 | 32 | 32 | M12x1.75P | 3.0~13 | 1.92 |
| SBT40xPNER25-70 | 70 | 40 | 40 | 40 | M16x2.0P | 3.0~16 | 1.52 |
| SBT40xPNER25-100 | 100 | 70 | 40 | 40 | M16x2.0P | 3.0~16 | 1.78 |
| SBT40xPNER25-130 | 130 | 100 | 40 | 40 | M16x2.0P | 3.0~16 | 2.04 |
| SBT40xPNER25-160 | 160 | 130 | 40 | 40 | M16x2.0P | 3.0~16 | 2.30 |
| SBT40xPNER32-70 | 70 | 40 | 50 | 50 | M16x2.0P | 3.0~20 | 1.62 |
| SBT40xPNER32-100 | 100 | 70 | 50 | 50 | M16x2.0P | 3.0~20 | 2.04 |
| SBT40xPNER32-130 | 130 | 100 | 50 | 50 | M16x2.0P | 3.0~20 | 2.46 |
| SBT40xPNER32-160 | 160 | 130 | 50 | 50 | M16x2.0P | 3.0~20 | 2.90 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|-----------|------------|
| | | | |
| B645-B647 | B625-B626 | B637-B638 | B651 |



• 長度單位 Unit of Length (mm)



SBT/PNER 法蘭加厚型立銑刀夾頭

SBT/PNER DUAL DRIVE COLLET CHUCK

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PAT.NO:M311791
PAT.NO:M501316
PAT.NO:3128766
PAT.NO:20-0433603

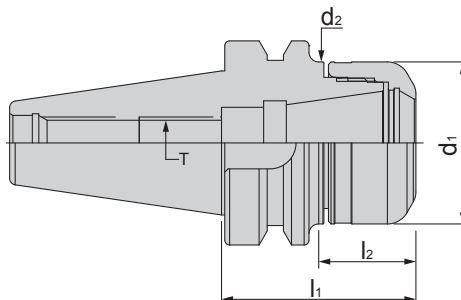
PAT.NO:ZL200620132661.0
PAT.NO:696550
PAT.NO:TR 2007 02942 Y
PAT.NO:N.000266731
PAT.NO:Nr.202015005621

雙面拘束 Dual Contact

精度 Accuracy : <3 μ m



SBT



特點 Feature

- 標準動平衡 :G2.5 25000rpm

- Dynamic balancing G2.5 at 25000rpm.

| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-------|-----------|------------------|-----------------|
| SBT40xPNER40-70 | 70 | 40 | 63 | 63 | M20x2.0P | 6.0~26 | 1.80 |
| SBT40xPNER40-100 | 100 | 70 | 63 | 63 | M20x2.0P | 6.0~26 | 2.40 |
| SBT50xPNER16-70 | 70 | 29 | 30 | 30 | M10x1.5P | 3.0~10 | 3.00 |
| SBT50xPNER16-100 | 100 | 59 | 30 | 30 | M10x1.5P | 3.0~10 | 4.28 |
| SBT50xPNER16-130 | 130 | 82 | 30 | 30 | M10x1.5P | 3.0~10 | 4.40 |
| SBT50xPNER16-160 | 160 | 112 | 30 | 30 | M10x1.5P | 3.0~10 | 4.52 |
| SBT50xPNER20-70 | 70 | 29 | 32 | 32 | M12x1.75P | 3.0~13 | 4.13 |
| SBT50xPNER20-100 | 100 | 59 | 32 | 32 | M12x1.75P | 3.0~13 | 4.21 |
| SBT50xPNER20-130 | 130 | 82 | 32 | 32 | M12x1.75P | 3.0~13 | 4.42 |
| SBT50xPNER20-160 | 160 | 112 | 32 | 32 | M12x1.75P | 3.0~13 | 4.60 |
| SBT50xPNER25-70 | 70 | 29 | 40 | 40 | M16x2.0P | 3.0~16 | 4.14 |
| SBT50xPNER25-100 | 100 | 59 | 40 | 40 | M16x2.0P | 3.0~16 | 4.36 |
| SBT50xPNER25-130 | 130 | 82 | 40 | 40 | M16x2.0P | 3.0~16 | 4.64 |
| SBT50xPNER25-160 | 160 | 112 | 40 | 40 | M16x2.0P | 3.0~16 | 4.84 |
| SBT50xPNER32-70 | 70 | 31 | 50 | 50 | M16x2.0P | 3.0~20 | 4.20 |
| SBT50xPNER32-100 | 100 | 61 | 50 | 50 | M16x2.0P | 3.0~20 | 4.56 |
| SBT50xPNER32-130 | 130 | 82 | 50 | 50 | M16x2.0P | 3.0~20 | 5.02 |
| SBT50xPNER32-160 | 160 | 112 | 50 | 50 | M16x2.0P | 3.0~20 | 5.40 |
| SBT50xPNER40-80 | 80 | 39 | 63 | 63 | M20x2.0P | 6.0~26 | 4.42 |
| SBT50xPNER40-100 | 100 | 52 | 63 | 63 | M20x2.0P | 6.0~26 | 4.88 |
| SBT50xPNER40-130 | 130 | 82 | 63 | 63 | M20x2.0P | 6.0~26 | 5.56 |
| SBT50xPNER40-160 | 160 | 112 | 63 | 63 | M20x2.0P | 6.0~26 | 6.22 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|-----------|------------|
| | | | |
| B645-B647 | B625-B626 | B637-B638 | B651 |

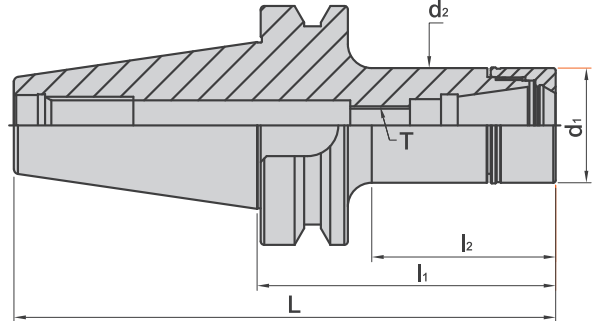


• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact



NEW



SBT

特點 Feature

- 標準動平衡 :G2.5 25000rpm

- Dynamic balancing G2.5 at 25000rpm.

| 規格 Spec. | L | l ₁ | l ₂ | d ₁ | d ₂ | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------------|-------|----------------|----------------|----------------|----------------|-----------|------------------|-----------------|
| SBT30xPro.E16-70 | 118.4 | 70 | 43 | 30 | 30 | M10x1.5P | 1~10 | 0.58 |
| SBT30xPro.E16-100 | 148.4 | 100 | 73 | 30 | 30 | M10x1.5P | 1~10 | 0.73 |
| SBT30xPro.E16-125 | 173.4 | 125 | 98 | 30 | 30 | M10x1.5P | 1~10 | 0.85 |
| SBT30xPro.E16-150 | 198.4 | 150 | 123 | 30 | 30 | M10x1.5P | 1~10 | 0.97 |
| SBT30xPro.E20-70 | 118.4 | 70 | 44 | 35 | 35 | M12x1.75P | 1~13 | 0.65 |
| SBT30xPro.E20-100 | 148.4 | 100 | 74 | 35 | 35 | M12x1.75P | 1~13 | 0.85 |
| SBT30xPro.E20-125 | 173.4 | 125 | 99 | 35 | 35 | M12x1.75P | 1~13 | 1.02 |
| SBT30xPro.E20-150 | 198.4 | 150 | 124 | 35 | 35 | M12x1.75P | 1~13 | 1.19 |
| SBT30xPro.E25-70 | 118.4 | 70 | 47.5 | 42 | 42 | M16x2.0P | 1~16 | 0.73 |
| SBT30xPro.E25-100 | 148.4 | 100 | 77.5 | 42 | 42 | M16x2.0P | 1~16 | 1.03 |
| SBT30xPro.E25-125 | 173.4 | 125 | 102.5 | 42 | 42 | M16x2.0P | 1~16 | 1.28 |
| SBT30xPro.E25-150 | 198.4 | 150 | 127.5 | 42 | 42 | M16x2.0P | 1~16 | 1.53 |
| SBT30xPro.E32-70 | 118.4 | 70 | 47.5 | 50 | 50 | M16x2.0P | 2~20 | 0.75 |
| SBT30xPro.E32-100 | 148.4 | 100 | 77.5 | 50 | 50 | M16x2.0P | 2~20 | 1.14 |
| SBT30xPro.E32-125 | 173.4 | 125 | 102.5 | 50 | 50 | M16x2.0P | 2~20 | 1.47 |
| SBT30xPro.E32-150 | 198.4 | 150 | 127.5 | 50 | 50 | M16x2.0P | 2~20 | 1.80 |
| SBT40xPro.E16-70 | 135.4 | 70 | 38 | 30 | 30 | M10x1.5P | 1~10 | 1.14 |
| SBT40xPro.E16-100 | 165.4 | 100 | 63 | 30 | 30 | M10x1.5P | 1~10 | 1.28 |
| SBT40xPro.E16-125 | 190.4 | 125 | 88 | 30 | 30 | M10x1.5P | 1~10 | 1.38 |
| SBT40xPro.E16-150 | 215.4 | 150 | 113 | 30 | 30 | M10x1.5P | 1~10 | 1.49 |
| SBT40xPro.E16-200 | 265.4 | 200 | 163 | 30 | 30 | M10x1.5P | 1~10 | 1.70 |
| SBT40xPro.E20-70 | 135.4 | 70 | 35 | 35 | 35 | M12x1.75P | 1~13 | 1.19 |
| SBT40xPro.E20-100 | 165.4 | 100 | 65 | 35 | 35 | M12x1.75P | 1~13 | 1.38 |
| SBT40xPro.E20-125 | 190.4 | 125 | 90 | 35 | 35 | M12x1.75P | 1~13 | 1.54 |
| SBT40xPro.E20-150 | 215.4 | 150 | 115 | 35 | 35 | M12x1.75P | 1~13 | 1.69 |
| SBT40xPro.E20-200 | 265.4 | 200 | 165 | 35 | 35 | M12x1.75P | 1~13 | 2.00 |
| SBT40xPro.E25-70 | 135.4 | 70 | 40 | 42 | 42 | M16x2.0P | 1~16 | 1.26 |
| SBT40xPro.E25-100 | 165.4 | 100 | 70 | 42 | 42 | M16x2.0P | 1~16 | 1.54 |
| SBT40xPro.E25-125 | 190.4 | 125 | 95 | 42 | 42 | M16x2.0P | 1~16 | 1.78 |
| SBT40xPro.E25-150 | 215.4 | 150 | 120 | 42 | 42 | M16x2.0P | 1~16 | 2.02 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B625-B626 | B638 | B651 |

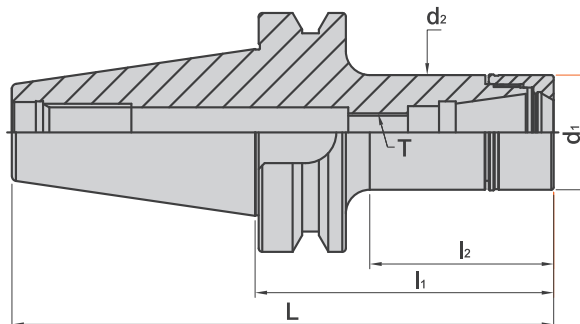
• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact



NEW

SBT



特點 Feature

- 標準動平衡 :G2.5 25000rpm

- Dynamic balancing G2.5 at 25000rpm.

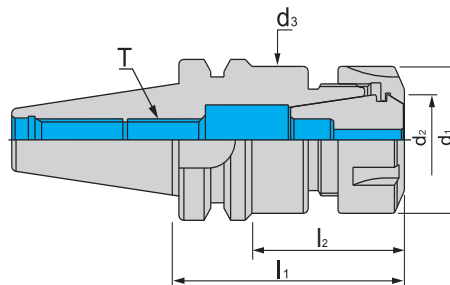
| 規格 Spec. | L | l ₁ | l ₂ | d ₁ | d ₂ | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------------|-------|----------------|----------------|----------------|----------------|-----------|------------------|-----------------|
| SBT40xPro.E25-200 | 265.4 | 200 | 170 | 42 | 42 | M16x2.0P | 1~16 | 2.49 |
| SBT40xPro.E32-70 | 135.4 | 70 | 40 | 50 | 50 | M16x2.0P | 2~20 | 1.27 |
| SBT40xPro.E32-100 | 165.4 | 100 | 70 | 50 | 50 | M16x2.0P | 2~20 | 1.65 |
| SBT40xPro.E32-125 | 190.4 | 125 | 95 | 50 | 50 | M16x2.0P | 2~20 | 1.97 |
| SBT40xPro.E32-150 | 215.4 | 150 | 120 | 50 | 50 | M16x2.0P | 2~20 | 2.29 |
| SBT50xPro.E16-70 | 171.8 | 70 | 29 | 30 | 30 | M10x1.5P | 1~10 | 3.68 |
| SBT50xPro.E16-100 | 201.8 | 100 | 52 | 30 | 30 | M10x1.5P | 1~10 | 3.78 |
| SBT50xPro.E16-125 | 226.8 | 125 | 77 | 30 | 30 | M10x1.5P | 1~10 | 3.92 |
| SBT50xPro.E16-150 | 251.8 | 150 | 102 | 30 | 30 | M10x1.5P | 1~10 | 4.03 |
| SBT50xPro.E16-200 | 301.8 | 200 | 147 | 30 | 30 | M10x1.5P | 1~10 | 4.27 |
| SBT50xPro.E16-250 | 351.8 | 250 | 197 | 30 | 30 | M10x1.5P | 1~10 | 4.48 |
| SBT50xPro.E20-70 | 171.8 | 70 | 29 | 35 | 35 | M12x1.75P | 1~13 | 3.70 |
| SBT50xPro.E20-100 | 201.8 | 100 | 52 | 35 | 35 | M12x1.75P | 1~13 | 3.86 |
| SBT50xPro.E20-125 | 226.8 | 125 | 77 | 35 | 35 | M12x1.75P | 1~13 | 4.06 |
| SBT50xPro.E20-150 | 251.8 | 150 | 102 | 35 | 35 | M12x1.75P | 1~13 | 4.22 |
| SBT50xPro.E20-200 | 301.8 | 200 | 147 | 35 | 35 | M12x1.75P | 1~13 | 4.56 |
| SBT50xPro.E20-250 | 351.8 | 250 | 197 | 35 | 35 | M12x1.75P | 1~13 | 4.87 |
| SBT50xPro.E25-70 | 171.8 | 70 | 31 | 42 | 42 | M16x2.0P | 1~16 | 3.74 |
| SBT50xPro.E25-100 | 201.8 | 100 | 52 | 42 | 42 | M16x2.0P | 1~16 | 4.00 |
| SBT50xPro.E25-125 | 226.8 | 125 | 77 | 42 | 42 | M16x2.0P | 1~16 | 4.20 |
| SBT50xPro.E25-150 | 251.8 | 150 | 102 | 42 | 42 | M16x2.0P | 1~16 | 4.40 |
| SBT50xPro.E25-200 | 301.8 | 200 | 152 | 42 | 42 | M16x2.0P | 1~16 | 4.80 |
| SBT50xPro.E25-250 | 351.8 | 250 | 197 | 42 | 42 | M16x2.0P | 1~16 | 5.24 |
| SBT50xPro.E32-70 | 171.8 | 70 | 31 | 50 | 50 | M16x2.0P | 2~20 | 3.74 |
| SBT50xPro.E32-100 | 201.8 | 100 | 52 | 50 | 50 | M16x2.0P | 2~20 | 4.10 |
| SBT50xPro.E32-125 | 226.8 | 125 | 77 | 50 | 50 | M16x2.0P | 2~20 | 4.38 |
| SBT50xPro.E32-150 | 251.8 | 150 | 102 | 50 | 50 | M16x2.0P | 2~20 | 4.66 |
| SBT50xPro.E32-200 | 301.8 | 200 | 152 | 50 | 50 | M16x2.0P | 2~20 | 5.23 |
| SBT50xPro.E32-250 | 351.8 | 250 | 197 | 50 | 50 | M10x1.5P | 2~20 | 5.83 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B625-B626 | B638 | B651 |

• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact



SBT

| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | d_3 | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-------|-----------|------------------|-----------------|
| SBT30 x ER16A-50 | 50 | 27 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 0.45 |
| SBT30 x ER16A-60 | 60 | 35 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 0.50 |
| SBT30 x ER16A-70 | 70 | 40 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 0.55 |
| SBT30 x ER16A-100 | 100 | 70 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 0.57 |
| SBT30 x ER16A-120 | 120 | 93 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 0.70 |
| SBT30 x ER20A-50 | 50 | 28 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 0.95 |
| SBT30 x ER20A-70 | 70 | 45 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 0.61 |
| SBT30 x ER20A-100 | 100 | 75 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 0.80 |
| SBT30 x ER20A-135 | 135 | 110 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 1.15 |
| SBT30 x ER25-70 | 70 | 46 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 0.68 |
| SBT30 x ER25-135 | 135 | 111 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 1.47 |
| SBT30 x ER32-70 | 70 | 48 | 50 | 32 | 45 | M16x2.0P | Ø2~Ø20 | 0.69 |
| SBT30 x ER32-100 | 100 | 78 | 50 | 32 | 45 | M16x2.0P | Ø2~Ø20 | 1.04 |
| SBT30 x ER40-80 | 80 | 58 | 63 | 40 | 53 | M16x2.0P | Ø3~Ø26 | 0.94 |
| SBT40 x ER16A-70 | 70 | 40 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 1.16 |
| SBT40 x ER16A-100 | 100 | 63 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 1.29 |
| SBT40 x ER16A-125 | 125 | 88 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 1.36 |
| SBT40 x ER16A-150 | 150 | 103 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 1.50 |
| SBT40 x ER16A-180 | 180 | 143 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 2.00 |
| SBT40 x ER20A-70 | 70 | 40 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 1.19 |
| SBT40 x ER20A-100 | 100 | 63 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 1.40 |
| SBT40 x ER20A-135 | 135 | 98 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 1.69 |
| SBT40 x ER20A-150 | 150 | 113 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 1.78 |
| SBT40 x ER25-70 | 70 | 40 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 1.24 |
| SBT40 x ER25-100 | 100 | 70 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 1.52 |
| SBT40 x ER25-125 | 125 | 95 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 1.76 |
| SBT40 x ER25-150 | 150 | 115 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 2.11 |
| SBT40 x ER32-70 | 70 | 40 | 50 | 32 | 45 | M16x2.0P | Ø2~Ø20 | 1.92 |
| SBT40 x ER32-100 | 100 | 70 | 50 | 32 | 45 | M16x2.0P | Ø2~Ø20 | 1.70 |
| SBT40 x ER32-150 | 150 | 118 | 50 | 32 | 45 | M16x2.0P | Ø2~Ø20 | 2.49 |
| SBT40 x ER40-80 | 80 | 53 | 63 | 40 | 53 | - | Ø3~Ø26 | 1.49 |
| SBT40 x ER40-100 | 100 | 73 | 63 | 40 | 53 | M20x2.0P | Ø3~Ø26 | 1.90 |
| SBT40 x ER40-120 | 120 | 93 | 63 | 40 | 53 | M20x2.0P | Ø3~Ø26 | 2.45 |
| SBT40 x ER40-150 | 150 | 123 | 63 | 40 | 53 | M20x2.0P | Ø3~Ø26 | 3.05 |
| SBT40 x ER50-85 | 85 | 58 | 78 | 50 | 60 | M24x2.0P | Ø5~Ø34 | 1.70 |
| SBT40 x ER50-100 | 100 | 73 | 78 | 50 | 60 | M24x2.0P | Ø5~Ø34 | 2.01 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B612 | B634 | B650 |

• 長度單位 Unit of Length (mm)

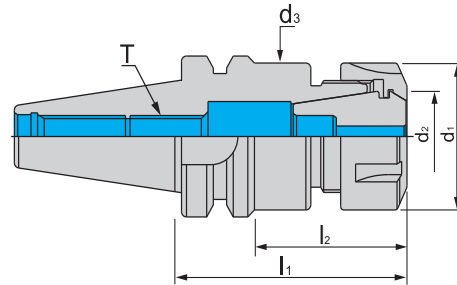


SBT/ER 法蘭加厚型立銑刀夾頭

SBT/ER DUAL DRIVE COLLET CHUCK

PAT.NO: M298033 PAT.NO: ZL200620132261.0
 PAT.NO: M311791 PAT.NO: 696550
 DIN-6388 PAT.NO: 3128766 PAT.NO: TR 2007 02945 Y
 DIN-ISO-10897 PAT.NO: 20-0433603 PAT.NO: N.0000266731

雙面拘束 Dual Contact



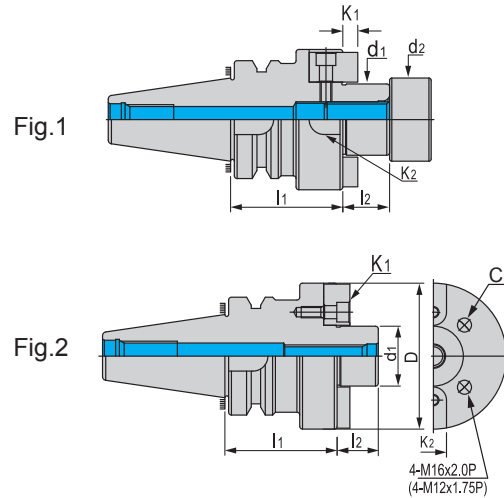
SBT

| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | d_3 | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-------|-----------|------------------|-----------------|
| SBT50 x ER16A-70 | 70 | 28 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 4.10 |
| SBT50 x ER16A-90 | 90 | 47 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 4.16 |
| SBT50 x ER16A-105 | 105 | 57 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 4.19 |
| SBT50 x ER16A-135 | 135 | 87 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 4.40 |
| SBT50 x ER16A-150 | 150 | 102 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 4.50 |
| SBT50 x ER16A-165 | 165 | 117 | 28 | 16 | 28 | M10x1.5P | Ø1~Ø10 | 4.36 |
| SBT50 x ER20A-70 | 70 | 29 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.09 |
| SBT50 x ER20A-90 | 90 | 47 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.18 |
| SBT50 x ER20A-105 | 105 | 57 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.22 |
| SBT50 x ER20A-135 | 135 | 87 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.52 |
| SBT50 x ER20A-150 | 150 | 102 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.47 |
| SBT50 x ER20A-165 | 165 | 117 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.55 |
| SBT50 x ER20A-200 | 200 | 152 | 34 | 20 | 34 | M12x1.75P | Ø1~Ø13 | 4.90 |
| SBT50 x ER25-70 | 70 | 29 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 4.16 |
| SBT50 x ER25-105 | 105 | 57 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 4.45 |
| SBT50 x ER25-135 | 135 | 87 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 4.57 |
| SBT50 x ER25-165 | 165 | 117 | 42 | 25 | 42 | M16x2.0P | Ø1~Ø16 | 4.89 |
| SBT50 x ER32-80 | 80 | 39 | 50 | 32 | 50 | M16x2.0P | Ø2~Ø20 | 4.21 |
| SBT50 x ER32-100 | 100 | 57 | 50 | 32 | 50 | M16x2.0P | Ø2~Ø20 | 4.46 |
| SBT50 x ER32-120 | 120 | 72 | 50 | 32 | 50 | M16x2.0P | Ø2~Ø20 | 4.66 |
| SBT50 x ER32-150 | 150 | 102 | 50 | 32 | 50 | M16x2.0P | Ø2~Ø20 | 5.01 |
| SBT50 x ER32-200 | 200 | 152 | 50 | 32 | 50 | M16x2.0P | Ø2~Ø20 | 5.71 |
| SBT50 x ER40-80 | 80 | 39 | 63 | 40 | 63 | M20x2.0P | Ø3~Ø26 | 4.26 |
| SBT50 x ER40-100 | 100 | 57 | 63 | 40 | 63 | M20x2.0P | Ø3~Ø26 | 4.71 |
| SBT50 x ER40-120 | 120 | 72 | 63 | 40 | 63 | M20x2.0P | Ø3~Ø26 | 5.05 |
| SBT50 x ER40-135 | 135 | 87 | 63 | 40 | 63 | M20x2.0P | Ø3~Ø26 | 5.36 |
| SBT50 x ER40-150 | 150 | 102 | 63 | 40 | 63 | M20x2.0P | Ø3~Ø26 | 5.76 |
| SBT50 x ER50-90 | 90 | 49 | 78 | 50 | 78 | M24x2.0P | Ø5~Ø34 | 4.45 |
| SBT50 x ER50-120 | 120 | 79 | 78 | 50 | 78 | M24x2.0P | Ø5~Ø34 | 5.40 |
| SBT50 x ER50-165 | 165 | 124 | 78 | 50 | 78 | M24x2.0P | Ø5~Ø34 | 7.10 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B612 | B634 | B650 |

• 長度單位 Unit of Length (mm)



SBT

| 規格 Spec. | l ₁ | l ₂ | D | d ₁ | d ₂ | K ₁ | K ₂ | C | Fig. | 重量 (KGS) Weight |
|----------------------|----------------|----------------|--------|----------------|----------------|----------------|----------------|------------|------|-----------------|
| SBT30 x FMA25.4-45 | 45 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 1.10 |
| SBT30 x FMA25.4-60 | 60 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 1.30 |
| SBT30 x FMA31.75-45 | 45 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | - | 1 | 1.16 |
| SBT40 x FMA25.4-45 | 45 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 1.44 |
| SBT40 x FMA25.4-60 | 60 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 1.66 |
| SBT40 x FMA25.4-90 | 90 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 2.18 |
| SBT40 x FMA25.4-105 | 105 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 2.39 |
| SBT40 x FMA31.75-45 | 45 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | - | 1 | 1.52 |
| SBT40 x FMA31.75-75 | 75 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | - | 1 | 2.45 |
| SBT40 x FMA31.75-90 | 90 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | - | 1 | 2.72 |
| SBT40 x FMA38.10-60 | 60 | 25 | 75 | 38.1 | 44.5 | 8.87 | 15.87 | - | 1 | 2.50 |
| SBT40 x FMA50.80-60 | 60 | 36 | 98 | 50.8 | 65 | 9.75 | 19.05 | - | 1 | 2.25 |
| SBT40 x FMA47.625-65 | 65 | 32 | 128.75 | 47.62 | - | 12.5 | 25.4 | PCD Ø101.6 | 2 | 6.50 |
| SBT50 x FMA25.4-45 | 45 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 4.21 |
| SBT50 x FMA25.4-90 | 90 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 4.71 |
| SBT50 x FMA25.4-150 | 150 | 20 | 50 | 25.4 | 31.5 | 4.52 | 9.52 | - | 1 | 5.54 |
| SBT50 x FMA31.75-45 | 45 | 22 | 60 | 31.75 | 41 | 6.2 | 12.7 | - | 1 | 4.39 |
| SBT50 x FMA31.75-75 | 75 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | - | 1 | 4.89 |
| SBT50 x FMA31.75-105 | 105 | 22 | 60 | 31.75 | 41 | 6.7 | 12.7 | - | 1 | 5.70 |
| SBT50 x FMA38.10-45 | 45 | 25 | 80 | 38.1 | 44.5 | 8.87 | 15.87 | - | 1 | 5.20 |
| SBT50 x FMA38.10-75 | 75 | 25 | 80 | 38.1 | 44.5 | 8.87 | 15.87 | - | 1 | 5.78 |
| SBT50 x FMA50.80-45 | 45 | 36 | 98 | 50.8 | 65 | 9.75 | 19.05 | - | 1 | 5.70 |
| SBT50 x FMA50.80-75 | 75 | 36 | 98 | 50.8 | 65 | 9.75 | 19.05 | - | 1 | 6.80 |
| SBT50 x FMA47.62-75 | 75 | 32 | 128.75 | 47.62 | - | 12.5 | 25.4 | PCD Ø101.6 | 2 | 8.82 |

選配表 Option



• 長度單位 Unit of Length (mm)



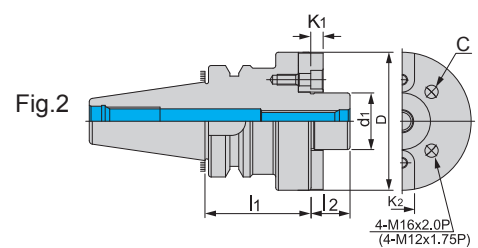
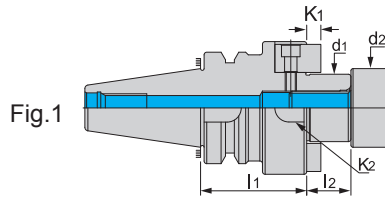
SBT/FMB 法蘭加厚型平面銑刀柄

SBT/FMB DUAL DRIVE FACE MILL ARBOR

雙面拘束 Dual Contact



SBT



| 規格 Spec. | l ₁ | l ₂ | D | d ₁ | d ₂ | k ₁ | k ₂ | C | Fig. | 重量 (KGS) Weight |
|-------------------|----------------|----------------|-----|----------------|----------------|----------------|----------------|------------|------|-----------------------|
| SBT30 x FMB22-45 | 45 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 0.82 |
| SBT30 x FMB22-60 | 60 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 1.00 |
| SBT30 x FMB27-60 | 60 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 1.30 |
| SBT30 x FMB32-60 | 60 | 22 | 78 | 32 | 41 | 6.8 | 14 | - | 1 | 1.62 |
| SBT40 x FMB22-45 | 45 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 1.37 |
| SBT40 x FMB22-60 | 60 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 1.57 |
| SBT40 x FMB22-100 | 100 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 2.19 |
| SBT40 x FMB22-150 | 150 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 2.87 |
| SBT40 x FMB22-200 | 200 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 3.58 |
| SBT40 x FMB27-60 | 60 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 1.87 |
| SBT40 x FMB27-90 | 90 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 2.61 |
| SBT40 x FMB27-105 | 105 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 2.93 |
| SBT40 x FMB32-60 | 60 | 22 | 78 | 32 | 41 | 6.8 | 14 | - | 1 | 2.10 |
| SBT40 x FMB40-60 | 60 | 25 | 80 | 40 | 48 | 8.3 | 16 | - | 1 | 2.80 |
| SBT50 x FMB22-45 | 45 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 4.15 |
| SBT50 x FMB22-90 | 90 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 4.68 |
| SBT50 x FMB22-150 | 150 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 5.31 |
| SBT50 x FMB22-200 | 200 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 6.06 |
| SBT50 x FMB22-250 | 250 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 8.00 |
| SBT50 x FMB22-300 | 300 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 10.0 |
| SBT50 x FMB22-350 | 350 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 10.5 |
| SBT50 x FMB22-400 | 400 | 19 | 48 | 22 | 26 | 4.8 | 10 | - | 1 | 12.5 |
| SBT50 x FMB27-50 | 50 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 4.41 |
| SBT50 x FMB27-90 | 90 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 5.40 |
| SBT50 x FMB27-150 | 150 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 6.30 |
| SBT50 x FMB27-200 | 200 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 7.42 |
| SBT50 x FMB27-250 | 250 | 20 | 60 | 27 | 31.5 | 5.8 | 12 | - | 1 | 8.43 |
| SBT50 x FMB32-50 | 50 | 22 | 78 | 32 | 41 | 6.8 | 14 | - | 1 | 4.69 |
| SBT50 x FMB32-90 | 90 | 22 | 78 | 32 | 41 | 6.8 | 14 | - | 1 | 5.96 |
| SBT50 x FMB40-50 | 50 | 25 | 89 | 40 | 48 | 8.3 | 16 | - | 1 | 5.04 |
| SBT50 x FMB40-90 | 90 | 25 | 89 | 40 | 48 | 8.3 | 16 | - | 1 | 6.00 |
| SBT50 x FMB40-105 | 105 | 25 | 89 | 40 | 48 | 8.3 | 16 | - | 1 | 7.20 |
| SBT50 x FS40F-75 | 75 | 26 | 110 | 40 | - | 8.3 | 16 | PCD Ø66.7 | 2 | 6.00 |
| SBT50 x FS60F-75 | 75 | 25 | 138 | 60 | - | 12.5 | 25.4 | PCD Ø101.6 | 2 | 8.49 |

選配表 Option

拉頭 Pull Stud



B645-B647

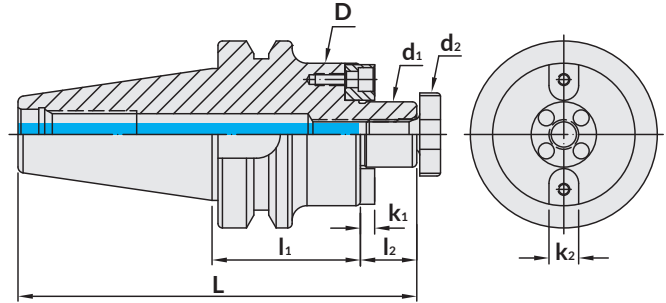
• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact



NEW

SBT



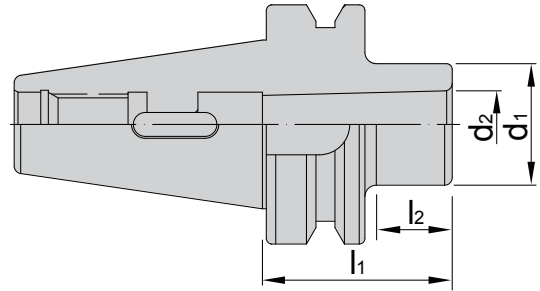
| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | d ₂ | k ₁ | k ₂ | 重量 (KGS) Weight |
|-------------------------|-------|----------------|----------------|----|----------------|----------------|----------------|----------------|-----------------------|
| SBT30 x FMC16-35 | 100.4 | 35 | 17 | 40 | 16 | 20 | 5 | 8 | 0.72 |
| SBT30 x FMC22-40 | 107.4 | 40 | 19 | 45 | 22 | 28 | 4.8 | 10 | 0.80 |
| SBT30 x FMC27 - 40 | 109.4 | 40 | 21 | 60 | 27 | 35 | 5.8 | 12 | 1.06 |
| SBT40 x FMC16 - 45 | 127.4 | 45 | 17 | 38 | 16 | 20 | 5 | 8 | 1.20 |
| SBT40 x FMC22 - 45 | 129.4 | 45 | 19 | 50 | 22 | 28 | 4.8 | 10 | 1.34 |
| SBT40 x FMC27 - 45 | 131.4 | 45 | 21 | 60 | 27 | 35 | 5.8 | 12 | 1.56 |
| SBT40 x FMC32 - 50 | 139.4 | 50 | 24 | 78 | 32 | 42 | 6.8 | 14 | 1.96 |
| SBT50 x FMC16 - 50 | 168.8 | 50 | 17 | 40 | 16 | 20 | 5 | 8 | 4.00 |
| SBT50 x FMC22 - 60 | 180.8 | 60 | 19 | 50 | 22 | 28 | 4.8 | 10 | 4.10 |
| SBT50 x FMC27 - 60 | 182.8 | 60 | 21 | 60 | 27 | 35 | 5.8 | 12 | 4.30 |
| SBT50 x FMC32 - 60 | 185.8 | 60 | 24 | 78 | 32 | 42 | 6.8 | 14 | 4.60 |
| SBT50 x FMC40 - 70 | 198.8 | 70 | 27 | 89 | 40 | 52 | 8.3 | 16 | 5.20 |
| SBT40 x FMC22.225 - 45 | 127.4 | 45 | 17 | 47 | 22.225 | 28 | 3.5 | 8 | 1.50 |
| SBT40 x FMC22.225 - 60 | 142.4 | 60 | 17 | 47 | 22.225 | 28 | 3.5 | 8 | 1.80 |
| SBT40 x FMC22.225 - 90 | 172.4 | 90 | 17 | 47 | 22.225 | 28 | 3.5 | 8 | 2.50 |
| SBT40 x FMC25.4 - 60 | 147.4 | 60 | 22 | 70 | 25.4 | 35 | 5 | 9.525 | 2.00 |
| SBT40 x FMC25.4 - 90 | 177.4 | 90 | 22 | 70 | 25.4 | 35 | 5 | 9.525 | 2.70 |
| SBT40 x FMC25.4 - 105 | 192.4 | 105 | 22 | 70 | 25.4 | 35 | 5 | 9.525 | 3.40 |
| SBT40 x FMC31.75 - 60 | 155.4 | 60 | 30 | 76 | 31.75 | 42 | 7 | 12.7 | 2.50 |
| SBT40 x FMC31.75 - 90 | 185.4 | 90 | 30 | 76 | 31.75 | 42 | 7 | 12.7 | 3.20 |
| SBT50 x FMC22.225 - 90 | 208.8 | 90 | 17 | 47 | 22.225 | 28 | 3.5 | 8 | 4.40 |
| SBT50 x FMC22.225 - 105 | 223.8 | 105 | 17 | 47 | 22.225 | 28 | 3.5 | 8 | 4.70 |
| SBT50 x FMC22.225 - 150 | 268.8 | 150 | 17 | 47 | 22.225 | 28 | 3.5 | 8 | 5.30 |
| SBT50 x FMC22.225 - 200 | 318.8 | 200 | 17 | 47 | 22.225 | 28 | 3.5 | 8 | 6.00 |
| SBT50 x FMC22.225 - 250 | 368.8 | 250 | 17 | 47 | 22.225 | 28 | 3.5 | 8 | 6.60 |
| SBT50 x FMC22.225 - 300 | 418.8 | 300 | 17 | 47 | 22.225 | 28 | 3.5 | 8 | 7.70 |
| SBT50 x FMC22.225 - 350 | 468.8 | 350 | 17 | 47 | 22.225 | 28 | 3.5 | 8 | 8.90 |
| SBT50 x FMC25.4 - 45 | 168.8 | 45 | 22 | 70 | 25.4 | 35 | 5 | 9.525 | 4.00 |
| SBT50 x FMC25.4 - 60 | 183.8 | 60 | 22 | 70 | 25.4 | 35 | 5 | 9.525 | 4.50 |
| SBT50 x FMC25.4 - 90 | 213.8 | 90 | 22 | 70 | 25.4 | 35 | 5 | 9.525 | 5.40 |
| SBT50 x FMC25.4 - 150 | 273.8 | 150 | 22 | 70 | 25.4 | 35 | 5 | 9.525 | 7.20 |
| SBT50 x FMC25.4 - 200 | 232.8 | 200 | 22 | 70 | 25.4 | 35 | 5 | 9.525 | 8.70 |
| SBT50 x FMC25.4 - 250 | 373.8 | 250 | 22 | 70 | 25.4 | 35 | 5 | 9.525 | 10.3 |
| SBT50 x FMC25.4 - 300 | 423.8 | 300 | 22 | 70 | 25.4 | 35 | 5 | 9.525 | 11.8 |

• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact



SBT



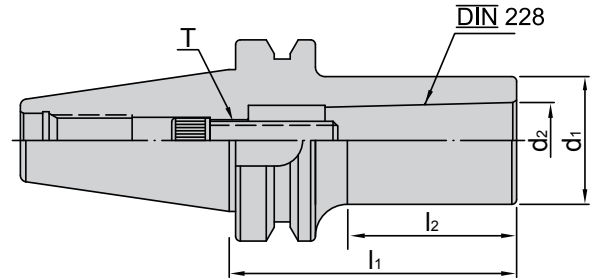
| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | 重量 (KGS) Weight |
|------------------|-------|-------|-------|--------|-----------------------|
| SBT30 x MTA1-45 | 45 | 20 | 25 | 12.065 | 0.55 |
| SBT30 x MTA1-105 | 105 | 78 | 25 | 12.065 | 0.80 |
| SBT30 x MTA2-60 | 60 | 35 | 32 | 17.78 | 0.60 |
| SBT30 x MTA2-120 | 120 | 95 | 25 | 12.065 | 0.90 |
| SBT30 x MTA3-80 | 80 | 56 | 40 | 23.825 | 0.80 |
| SBT40 x MTA1-45 | 45 | 15 | 25 | 12.065 | 1.05 |
| SBT40 x MTA1-120 | 120 | 83 | 25 | 12.065 | 1.32 |
| SBT40 x MTA2-50 | 50 | 20 | 32 | 17.78 | 1.10 |
| SBT40 x MTA2-120 | 120 | 88 | 32 | 17.78 | 1.42 |
| SBT40 x MTA3-70 | 70 | 38 | 40 | 23.825 | 1.70 |
| SBT40 x MTA3-135 | 135 | 102 | 40 | 23.825 | 1.40 |
| SBT40 x MTA4-95 | 95 | 63 | 48 | 31.267 | 2.00 |
| SBT40 x MTA4-165 | 165 | 133 | 48 | 31.267 | 2.50 |
| SBT50 x MTA1-45 | 45 | 2 | 25 | 12.065 | 3.80 |
| SBT50 x MTA1-120 | 120 | 74 | 25 | 12.065 | 4.30 |
| SBT50 x MTA1-180 | 180 | 132 | 25 | 12.065 | 5.00 |
| SBT50 x MTA2-60 | 60 | 17 | 32 | 17.78 | 4.00 |
| SBT50 x MTA2-135 | 135 | 89 | 32 | 17.78 | 4.70 |
| SBT50 x MTA2-180 | 180 | 132 | 32 | 17.78 | 5.00 |
| SBT50 x MTA3-65 | 65 | 22 | 40 | 23.825 | 3.90 |
| SBT50 x MTA3-150 | 150 | 107 | 40 | 23.825 | 5.00 |
| SBT50 x MTA3-180 | 180 | 132 | 40 | 23.825 | 5.50 |
| SBT50 x MTA4-95 | 95 | 52 | 48 | 31.267 | 4.20 |
| SBT50 x MTA4-180 | 180 | 132 | 48 | 31.267 | 5.50 |
| SBT50 x MTA5-105 | 105 | 62 | 63 | 44.399 | 4.30 |

選配表 Option

| 拉頭 Pull Stud | 退鑽器 Hand Drift |
|--------------|----------------|
| | |
| B645-B647 | B683 |

• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact



SBT

| 規格 Spec. | T | l ₁ | l ₂ | d ₁ | d ₂ | 重量 (KGS) Weight |
|------------------|----------------------------|----------------|----------------|----------------|----------------|-----------------|
| SBT30 x MTB1-45 | M6x1.0P | 45 | 20 | 25 | 12.065 | 0.55 |
| | 1/4"-20 | 45 | 20 | 25 | 12.065 | 0.55 |
| SBT30 x MTB2-60 | M10x1.5P | 60 | 36.5 | 32 | 17.78 | 0.60 |
| | 3/8"-16 | 60 | 36.5 | 32 | 17.78 | 0.60 |
| SBT40 x MTB1-45 | M6x1.0P | 45 | 13 | 25 | 12.065 | 1.10 |
| | 1/4"-20 | 45 | 13 | 25 | 12.065 | 1.10 |
| SBT40 x MTB2-45 | M10x1.5P | 45 | 13 | 32 | 17.78 | 1.10 |
| | 3/8"-16 | 45 | 13 | 32 | 17.78 | 1.10 |
| SBT40 x MTB2-185 | M10x1.5P | 185 | 148 | 32 | 17.78 | 1.90 |
| | 3/8"-16 | 185 | 148 | 32 | 17.78 | 1.90 |
| SBT40 x MTB3-75 | M12x1.75P or 1/2"-12 | 75 | 45 | 40 | 23.825 | 1.30 |
| SBT40 x MTB3-90 | | 90 | 53 | 40 | 23.825 | 1.40 |
| SBT40 x MTB3-120 | | 120 | 83 | 40 | 23.825 | 1.80 |
| SBT40 x MTB3-180 | | 180 | 143 | 40 | 23.825 | 2.40 |
| SBT40 x MTB4-100 | M16x2.0P or 5/8"-10 | 100 | 67 | 48 | 31.267 | 1.60 |
| SBT40 x MTB4-120 | | 120 | 87 | 48 | 31.267 | 1.80 |
| SBT40 x MTB4-180 | | 180 | 147 | 48 | 31.267 | 2.60 |
| SBT50 x MTB1-45 | M6x1.0P | 45 | 6 | 25 | 12.065 | 3.80 |
| | 1/4"-20 | 45 | 6 | 25 | 12.065 | 3.80 |
| SBT50 x MTB2-45 | M10x1.5P | 45 | 5 | 32 | 17.78 | 3.90 |
| | 3/8"-16 | 45 | 5 | 32 | 17.78 | 3.90 |
| SBT50 x MTB3-60 | M12x1.75P | 60 | 12 | 40 | 23.825 | 3.90 |
| | 1/2"-12 | 60 | 12 | 40 | 23.825 | 3.90 |
| SBT50 x MTB4-75 | M16x2.0P | 75 | 32 | 48 | 31.267 | 4.20 |
| | 5/8"-11 | 75 | 32 | 48 | 31.267 | 4.20 |
| SBT50 x MTB5-120 | M24x3.0P | 120 | 77 | 63 | 44.399 | 4.30 |
| | 1"-8 | 120 | 77 | 63 | 44.399 | 4.30 |

選配表 Option

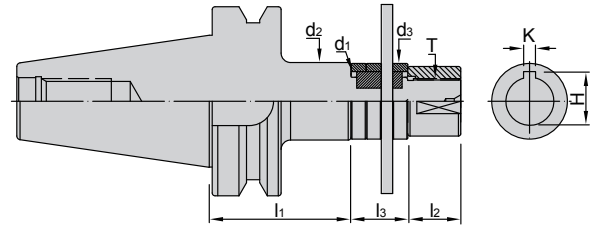
拉頭 Pull Stud



B645-B647

• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact



SBT

特點 Feature

- 螺帽標準：DIN-2082-1
- 間隔環標準：DIN-2084-B

- Nut standard: DIN-2082-1
- Bush standard: DIN-2084-B

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | K | H | T | 重量 (KGS) Weight |
|----------------------|-------|-------|-------|-------|-------|-------|-------|------|----------|-----------------------|
| SBT30 x SCA10-60 | 60 | 12 | 35 | 10 | 18 | 18 | - | - | M8x1.25P | 0.80 |
| SBT30 x SCA16-60 | 60 | 16 | 30 | 16 | 26 | 26 | 4 | 17.7 | M14x1.5P | 1.00 |
| SBT30 x SCA22-60 | 60 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20x1.5P | 1.20 |
| SBT30 x SCA22-75 | 75 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20x1.5P | 1.40 |
| SBT40 x SCA16-60 | 60 | 16 | 30 | 16 | 26 | 26 | 4 | 17.7 | M14x1.5P | 1.50 |
| SBT40 x SCA22-60 | 60 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20x1.5P | 1.60 |
| SBT40 x SCA22-75 | 75 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20x1.5P | 1.70 |
| SBT40 x SCA22-120 | 120 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20x1.5P | 2.00 |
| SBT40 x SCA27-75 | 75 | 28 | 30 | 27 | 41 | 40 | 7 | 30 | M24x1.5P | 2.10 |
| SBT40 x SCA27-120 | 120 | 28 | 30 | 27 | 41 | 40 | 7 | 30 | M24x1.5P | 2.50 |
| SBT40 x SCA32-90 | 90 | 32 | 30 | 32 | 47 | 47 | 8 | 35 | M30x1.5P | 2.60 |
| SBT40 x SCA22.22-75 | 75 | 22 | 30 | 22.22 | 34 | 34 | 3.18 | 24.6 | M20x1.5P | 2.70 |
| SBT40 x SCA22.22-120 | 120 | 22 | 30 | 22.22 | 34 | 34 | 3.18 | 24.6 | M20x1.5P | 2.00 |
| SBT40 x SCA25.4-75 | 75 | 28 | 30 | 25.4 | 41 | 40 | 6.35 | 28.4 | M24x1.5P | 2.00 |
| SBT40 x SCA25.4-120 | 120 | 28 | 30 | 25.4 | 41 | 40 | 6.35 | 28.4 | M24x1.5P | 2.40 |
| SBT40 x SCA31.75-90 | 90 | 32 | 30 | 31.75 | 47 | 47 | 7.93 | 34.8 | M30x1.5P | 2.60 |
| SBT50 x SCA22-90 | 90 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20x1.5P | 4.40 |
| SBT50 x SCA22-135 | 135 | 22 | 30 | 22 | 34 | 34 | 6 | 24.3 | M20x1.5P | 4.70 |
| SBT50 x SCA27-90 | 90 | 28 | 30 | 27 | 41 | 40 | 7 | 30 | M24x1.5P | 4.60 |
| SBT50 x SCA27-135 | 135 | 28 | 30 | 27 | 41 | 40 | 7 | 30 | M24x1.5P | 5.00 |
| SBT50 x SCA32-90 | 90 | 32 | 30 | 32 | 47 | 47 | 8 | 35 | M30x1.5P | 4.70 |
| SBT50 x SCA32-135 | 135 | 32 | 30 | 32 | 47 | 47 | 8 | 35 | M30x1.5P | 5.20 |
| SBT50 x SCA40-90 | 90 | 40 | 30 | 40 | 55 | 55 | 10 | 43.7 | M36x2.0P | 5.00 |
| SBT50 x SCA40-135 | 135 | 40 | 30 | 40 | 55 | 55 | 10 | 43.7 | M36x2.0P | 6.00 |
| SBT50 x SCA22.22-90 | 90 | 22 | 30 | 22.22 | 34 | 34 | 3.18 | 24.6 | M20x1.5P | 4.40 |
| SBT50 x SCA22.22-135 | 135 | 22 | 30 | 22.22 | 34 | 34 | 3.18 | 24.6 | M20x1.5P | 4.70 |
| SBT50 x SCA25.4-90 | 90 | 28 | 30 | 25.4 | 41 | 40 | 6.35 | 28.4 | M24x1.5P | 4.50 |
| SBT50 x SCA25.4-135 | 135 | 28 | 30 | 25.4 | 41 | 40 | 6.35 | 28.4 | M24x1.5P | 4.90 |
| SBT50 x SCA31.75-90 | 90 | 32 | 30 | 31.75 | 47 | 47 | 7.93 | 34.8 | M30x1.5P | 4.70 |
| SBT50 x SCA31.75-135 | 135 | 32 | 30 | 31.75 | 47 | 47 | 7.93 | 34.8 | M30x1.5P | 5.20 |
| SBT50 x SCA38.1-90 | 90 | 40 | 30 | 38.1 | 55 | 55 | 9.525 | 42.4 | M36x2.0P | 4.90 |
| SBT50 x SCA38.1-135 | 135 | 40 | 30 | 38.1 | 55 | 55 | 9.525 | 42.4 | M36x2.0P | 5.90 |

選配表 Option



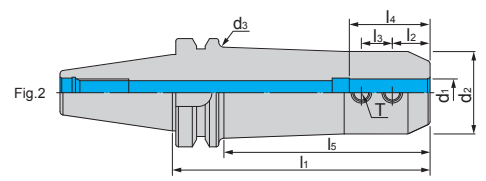
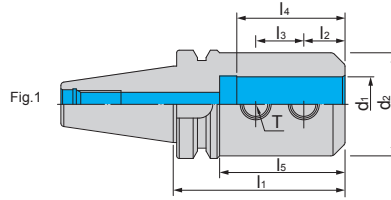
• 長度單位 Unit of Length (mm)



SBT/SLN 法蘭加厚型側固式銑刀柄 (JIS 型)

SBT/SLN DUAL DRIVE SIDE LOCK END MILL HOLDERS(JIS TYPE)

雙面拘束 Dual Contact



SBT

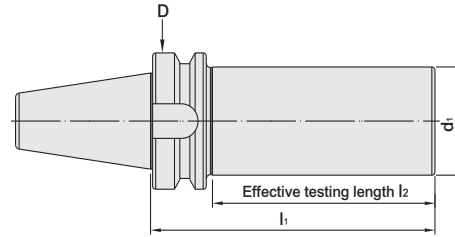
| 規格 Spec. | l_1 | l_2 | l_3 | l_4 | l_5 | d_1 | d_2 | d_3 | T | Fig. | 重量 (KGS) Weight |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|------|-----------------|
| SBT40 x SLN 6-75JIS | 75 | 12 | 10 | 35 | 45 | 6 | 25 | - | M6 x 1.0P | 1 | 1.17 |
| SBT40 x SLN 6-150JIS | 150 | 12 | 10 | 35 | 113 | 6 | 25 | 30 | M6 x 1.0P | 2 | 1.50 |
| SBT40 x SLN 8-75JIS | 75 | 14 | 12 | 35 | 45 | 8 | 28 | - | M8 x 1.25P | 1 | 1.21 |
| SBT40 x SLN 8-150JIS | 150 | 14 | 12 | 35 | 113 | 8 | 28 | 33 | M8 x 1.25P | 2 | 1.50 |
| SBT40 x SLN10-75JIS | 75 | 15 | 14 | 39 | 45 | 10 | 35 | - | M10 x 1.5P | 1 | 1.35 |
| SBT40 x SLN10-150JIS | 150 | 15 | 14 | 39 | 118 | 10 | 35 | 40 | M10 x 1.5P | 2 | 1.50 |
| SBT40 x SLN12-75JIS | 75 | 20 | 16 | 44 | 45 | 12 | 42 | - | M10 x 1.5P | 1 | 1.50 |
| SBT40 x SLN12-150JIS | 150 | 20 | 16 | 44 | 118 | 12 | 42 | 47 | M10 x 1.5P | 2 | 1.70 |
| SBT40 x SLN16-75JIS | 75 | 22 | 18 | 47 | 45 | 16 | 48 | - | M10 x 1.5P | 1 | 1.58 |
| SBT40 x SLN16-150JIS | 150 | 22 | 18 | 47 | 120 | 16 | 48 | 53 | M10 x 1.5P | 2 | 2.75 |
| SBT40 x SLN20-90JIS | 90 | 25 | 20 | 55 | 60 | 20 | 50 | - | M12 x 1.75P | 1 | 1.77 |
| SBT40 x SLN20-150JIS | 150 | 25 | 20 | 55 | 120 | 20 | 52 | 57 | M12 x 1.75P | 2 | 1.80 |
| SBT40 x SLN25-90JIS | 90 | 24 | 25 | 58 | 60 | 25 | 50 | - | M12 x 1.75P | 1 | 1.92 |
| SBT40 x SLN32-100JIS | 100 | 24 | 28 | 63 | 73 | 32 | 60 | - | M16 x 2.0P | 1 | 2.30 |
| SBT50 x SLN 6-75JIS | 75 | 12 | 10 | 35 | 31 | 6 | 25 | - | M6 x 1.0P | 1 | 4.04 |
| SBT50 x SLN 8-75JIS | 75 | 14 | 12 | 35 | 27 | 8 | 28 | - | M8 x 1.25P | 1 | 4.06 |
| SBT50 x SLN10-75JIS | 75 | 15 | 14 | 39 | 32 | 10 | 35 | - | M10 x 1.5P | - | 3.90 |
| SBT50 x SLN12-90JIS | 90 | 20 | 16 | 44 | 42 | 12 | 42 | - | M10 x 1.5P | - | 4.35 |
| SBT50 x SLN12-165JIS | 165 | 20 | 16 | 44 | 124 | 12 | 42 | 47 | M10 x 1.5P | 2 | 5.05 |
| SBT50 x SLN16-90JIS | 90 | 22 | 18 | 47 | 42 | 16 | 48 | - | M10 x 1.5P | 1 | 4.53 |
| SBT50 x SLN16-165JIS | 165 | 22 | 18 | 47 | 117 | 16 | 48 | 53 | M10 x 1.5P | 2 | 5.50 |
| SBT50 x SLN20-90JIS | 90 | 25 | 20 | 55 | 49 | 20 | 50 | - | M12 x 1.75P | 1 | 4.53 |
| SBT50 x SLN20-165JIS | 165 | 25 | 20 | 55 | 117 | 20 | 50 | 57 | M12 x 1.75P | 2 | 5.67 |
| SBT50 x SLN20-210JIS | 210 | 25 | 20 | 55 | 162 | 20 | 50 | 57 | M12 x 1.75P | 2 | 6.40 |
| SBT50 x SLN25-100JIS | 100 | 24 | 25 | 68 | 59 | 25 | 50 | 57 | M12 x 1.75P | 1 | 4.58 |
| SBT50 x SLN25-165JIS | 165 | 24 | 25 | 68 | 117 | 25 | 50 | 57 | M12 x 1.75P | 2 | 5.55 |
| SBT50 x SLN25-210JIS | 210 | 24 | 25 | 68 | 169 | 25 | 50 | 57 | M12 x 1.75P | 2 | 6.25 |
| SBT50 x SLN25-250JIS | 250 | 24 | 25 | 68 | 202 | 25 | 50 | 60 | M12 x 1.75P | 2 | 7.10 |
| SBT50 x SLN32-105JIS | 105 | 24 | 28 | 73 | 64 | 32 | 60 | - | M16 x 2.0P | 1 | 4.89 |
| SBT50 x SLN32-165JIS | 165 | 24 | 28 | 73 | 117 | 32 | 60 | 65 | M16 x 2.0P | 1 | 6.33 |
| SBT50 x SLN32-210JIS | 210 | 24 | 28 | 73 | 162 | 32 | 60 | 60 | M16 x 2.0P | 2 | 6.34 |
| SBT50 x SLN32-250JIS | 250 | 24 | 28 | 73 | 207 | 32 | 50 | 60 | M16 x 2.0P | 2 | 7.50 |
| SBT50 x SLN32-300JIS | 300 | 24 | 28 | 73 | 257 | 32 | 60 | 65 | M16 x 2.0P | 2 | 8.00 |
| SBT50 x SLN40-115JIS | 115 | 30 | 32 | 85 | 74 | 40 | 90 | - | M20 x 2.0P | 1 | 6.60 |
| SBT50 x SLN42-120JIS | 120 | 30 | 32 | 85 | 79 | 42 | 90 | - | M20 x 2.0P | 1 | 6.73 |
| SBT50 x SLN42-210JIS | 210 | 30 | 32 | 85 | - | 42 | 70 | 75 | M20 x 2.0P | 2 | 7.80 |
| SBT50 x SLN50-120JIS | 120 | 35 | 35 | 90 | 82 | 50 | 90 | - | M20 x 2.0P | 1 | 5.28 |
| ● SBT50 x SLN50.8-120JIS | 120 | 33.9 | 35.78 | 90 | 82 | 50.8 | 90 | - | M20 x 2.0P | 1 | 6.61 |

● 有插梢 With pin

選配表 Option



● 長度單位 Unit of Length (mm)



| | | |
|--|-------------------------|-----------|
| | 錐度精度 Taper Precision | AT2 |
| | 真圓度 Roundness | 0.8um |
| | 表面粗糙度 Surface Roughness | Ra<0.15um |
| | 偏擺精度 Runout | 3um |
| | 圓柱度 Cylindrical | 5um |

| 規格 Spec. | l1 | l2 | D | d1 | 重量 (KGS) Weight |
|-----------------|-----|--------|--------|----|-----------------|
| SBT30-TS250L-P | 250 | 225 | 46 | 25 | 0.91 |
| SBT30-TS150L-P | 150 | 125 | 46 | 32 | 1.09 |
| SBT30-TS235L-P | 235 | 210 | 46 | 32 | 1.57 |
| SBT40-TS200L-P | 200 | 170 | 63 | 50 | 2.94 |
| SBT40-TS350L-P | 350 | 320 | 63 | 50 | 4.64 |
| SBT50-TS200L-P | 200 | 159 | 100 | 50 | 5.28 |
| SBT50-TS360L-P | 360 | 319 | 100 | 50 | 7.1 |
| SCAT40-TS300L-P | 300 | 277.95 | 44.45 | 50 | 4.03 |
| SCAT50-TS300L-P | 300 | 280 | 98.425 | 50 | 6.88 |



SBT/SOM
螺紋鎖固式刀桿
Screwed End
Mill Holder



直柄C/M螺紋鎖固式
鎢鋼延長桿
C/M Straight Shank
Tungsten Carbide
Extension Shank



CAT/SOM
鎖牙式刀桿
Screwed-on End
Mill Holder



SOM鎖牙式延長桿
SOM Screwed-on End
Mill Extension Shank



MAS 鎖牙式迷你銑刀
MAS Screwed-on
End Mill Cutter



STR鎖牙式切削刀具
STR Screwed-on
End Mill Cutter



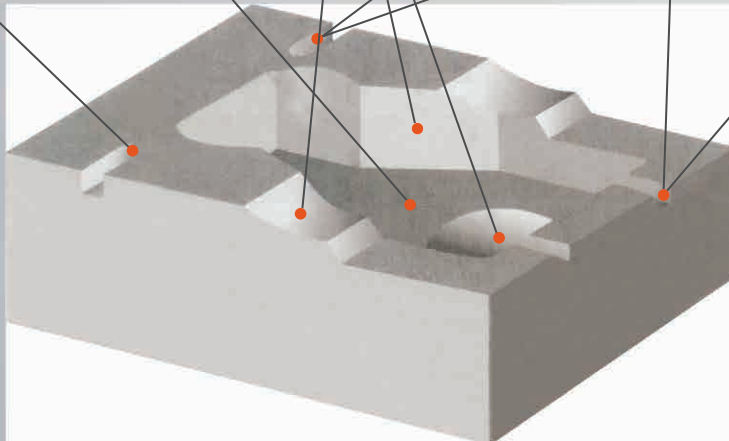
BR鎖牙式球型銑刀
Screwed-on Rounded Corner
End Mill Cutter



NHF 高進給鎖牙銑刀
High Feed Screwed-on
End mill Cutter

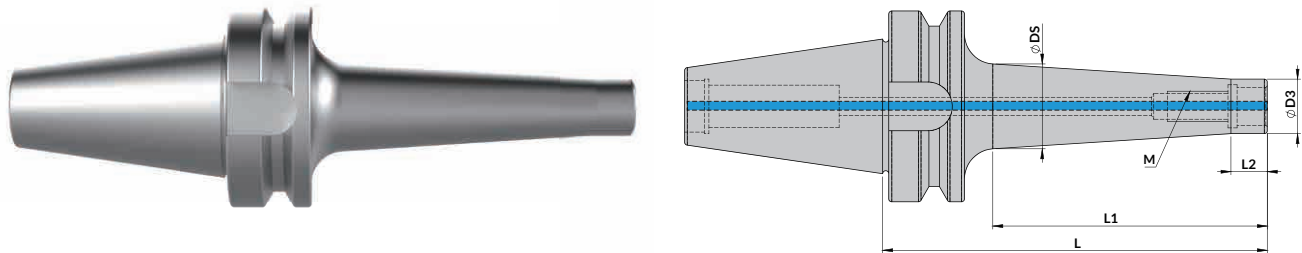


HAS鎖牙式大進給切削刀具
Screwed-on High
Speed Mill Cutter



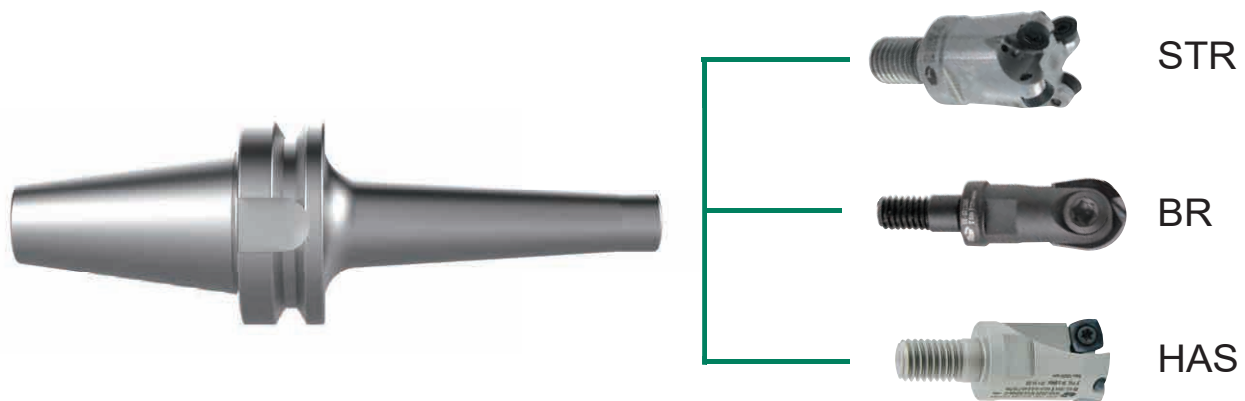
※ 刀桿通孔，利於出水及抗震。

Through-hole design for better water coolant and anti-vibration



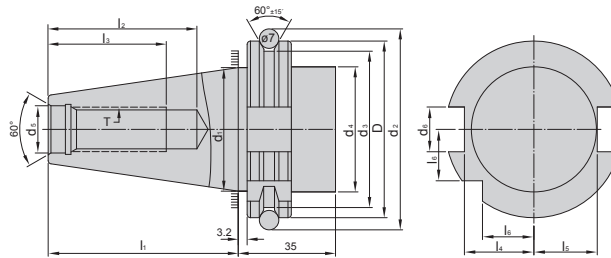
| 規格 Spec. | M | Ds | D ₃ | L | L ₁ | L ₂ |
|-----------------|-----|------|----------------|-----|----------------|----------------|
| SBT40-SOM6-110 | M6 | 25 | 9.7 | 110 | 80 | 10 |
| SBT40-SOM8-105 | M8 | 30 | 15 | 105 | 75 | 10 |
| SBT40-SOM10-100 | M10 | 35 | 18 | 100 | 70 | 10 |
| SBT40-SOM10-130 | M10 | 35 | 18 | 130 | 100 | 10 |
| SBT40-SOM12-95 | M12 | 40 | 21 | 95 | 65 | 10 |
| SBT40-SOM12-130 | M12 | 40 | 21 | 130 | 100 | 10 |
| SBT40-SOM16-90 | M16 | 48 | 28 | 90 | 60 | 10 |
| SBT40-SOM16-140 | M16 | 48 | 28 | 140 | 110 | 10 |
| SBT50-SOM12-150 | M12 | 41 | 21 | 150 | 105 | 30 |
| SBT50-SOM12-200 | M12 | 42.5 | 21 | 200 | 155 | 30 |
| SBT50-SOM16-150 | M16 | 49 | 28 | 150 | 105 | 30 |
| SBT50-SOM16-200 | M16 | 50 | 28 | 200 | 155 | 35 |

範例 Example

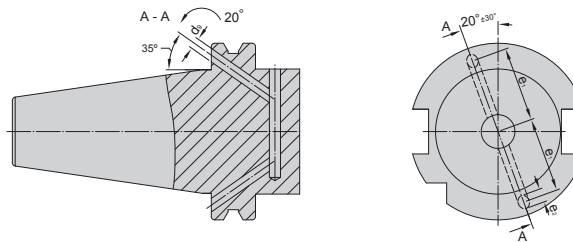


• 長度單位 Unit of Length (mm)

DIN69871/DAT A



DIN 69871/DAT AD+B

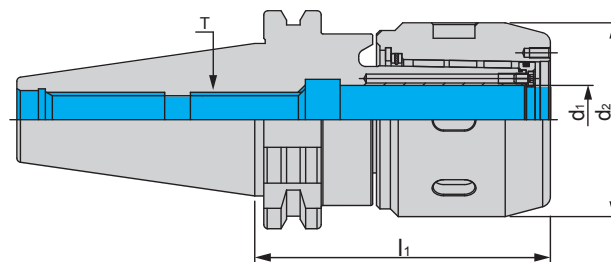


DAT

| 規格 Spec. | D 0 -0.1 | d ₁ | d ₂ ±0.05 | d ₃ 0 -0.5 | d ₄ Max. | d ₅ H7 | d ₆ H12 | d ₉ | l ₁ 0 -0.3 | l ₂ min. | l ₃ min. | l ₄ 0 -0.4 | l ₅ 0 -0.5 | l ₆ 0 -0.3 | e ₁ ±0.1 | e ₂ max. | T |
|-------------|----------------|----------------|-------------------------|-----------------------------|------------------------|----------------------|-----------------------|----------------|-----------------------------|------------------------|------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------|------------------------|-----|
| DAT30 | 50 | 31.75 | 59.30 | 44.30 | 45 | 13 | 16.1 | 4 | 47.8 | 33.5 | 24 | 19 | 16.4 | 15 | 21 | 5 | M12 |
| DAT40 | 63.55 | 44.45 | 72.30 | 56.25 | 50 | 17 | 16.1 | 4 | 68.4 | 42.5 | 32 | 25 | 22.8 | 18.5 | 27 | 5 | M16 |
| DAT50 | 97.50 | 69.85 | 107.25 | 91.25 | 80 | 25 | 25.7 | 6 | 101.75 | 61.5 | 47 | 37.7 | 35.5 | 30 | 42 | 7 | M24 |

1. 錐度精度 : <AT3
2. 硬度 : >HRC 56°
3. 滲碳深度 : >0.8mm
4. 真圓度 : < 0.8μm
5. 表面粗糙度 : Ra < 0.25μm

1. Taper tolerance < AT3.
2. Hardness > HRC 56°
3. Carbon depth > 0.8mm.
4. Roundness < 0.8μm.
5. Surface roughness : Ra < 0.25μm



特點 Feature

- 內孔特殊溝槽設計，防止所夾持刀具脫刀滑落，可以割斷附著油膜，不會有脫刀現象產生，提高了使用的安全性
- 刀桿本體厚，可產生充分的夾持力。採用滾針軸承原理設計，滾動摩擦及脫落減到最小，裝置操作省力便捷
- 螺帽與刀桿端面鎖固後，緊貼牢靠，提高剛性並徹底的防塵
- 偏擺精度 :0.001~0.005 以內，真圓度 :0.02mm
- MLD20、MLD-3/4、MLK20 扳手共用
- MLD25、EOC25、MLK25 扳手共用
- MLD32、MLD-1-1/4、MLK32 扳手共用

- There is a special design for the slots of internal hole. It prevents the cutting tools from slipping and increases the clamping power.
- The body of the tool holder is thick, so it has good clamping power. It adopts the needle bearing design to prevent the slipping. The operation is convenient and easy.
- After locking the cutting tool (The tolerance of the cutting tool must be less than h6), it is more contacted with the flange while locking the clamping nut and tool holder. It can prevent the bearing cage from deformation easily. Also, rigidity and dust-proof function is improved.
- Run-out: Within 0.001~0.005mm. Concentricity: 0.02mm.
- MLD20 and MLD-3/4、MLK20 spanner can be used in common.
- MLD25 and EOC25、MLK25 spanner can be used in common.
- MLD32 and MLD-1-1/4、MLK32 spanner can be used in common.



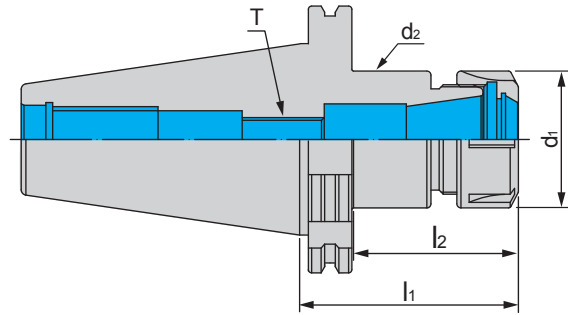
使用 MLD 止水環可使冷卻液從刀具排出，利於散熱及有效排屑
When using MLD sealed cap, the coolant fluid discharges from the cutting tool. It's good for heat dissipation and metal chips removal.

| 規格 Spec. | l_1 | d_1 | d_2 | T | 重量 (KGS) Weight |
|---------------------|-------|-------|-------|-----------|-----------------|
| DAT30 x MLD20 - 85 | 85 | 20 | 56.5 | M12x1.75P | 1.90 |
| DAT30 x MLD20 - 100 | 100 | 20 | 56.5 | M12x1.75P | 2.10 |
| DAT40 x MLD20 - 85 | 85 | 20 | 56.5 | M16x2.0P | 2.40 |
| DAT40 x MLD20 - 135 | 135 | 20 | 56.5 | M16x2.0P | 2.50 |
| DAT40 x MLD32 - 105 | 105 | 32 | 71 | M16x2.0P | 2.70 |
| DAT40 x MLD32 - 135 | 135 | 32 | 71 | M16x2.0P | 3.00 |
| DAT50 x MLD20 - 105 | 105 | 20 | 56.5 | M24x3.0P | 4.50 |
| DAT50 x MLD20 - 150 | 150 | 20 | 56.5 | M16x2.0P | 4.90 |
| DAT50 x MLD32 - 105 | 105 | 32 | 71 | M24x3.0P | 5.10 |
| DAT50 x MLD32 - 135 | 135 | 32 | 71 | M16x2.0P | 5.90 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 扳手 Spanner | 止水端蓋 Sealed Cap |
|--------------|-----------|------------|-----------------|
| | | | |
| B648 | B631 | B651 | B640 |

• 長度單位 Unit of Length (mm)



DAT

特點 Feature

- 筒夾樣式有彈性、止水、剛性攻牙、伸縮攻牙、極小內孔、燒結式熱膨脹可供選擇
- 彈性筒夾偏擺精度有標準級 (0.02mm 以內) · A 級 (0.01mm 以內) · UP (0.005mm 以內)
- 螺帽預設動平衡設計 · 可在 RPM10,000 下使用
- 整支通孔 · 利於出水及抗震
- 如需擋刀螺絲可另外指定
- 裝置時筒夾必須先置入螺帽 · 再裝入刀具 · 接著鎖固入本體
- 刀具置入筒夾內孔 · 必須超出筒夾內孔有效夾持長度 · 避免不當鎖固 · 造成損壞
- 務必使用正確扳手來裝置不可任意改變 · 避免不當鎖固 · 造成損壞

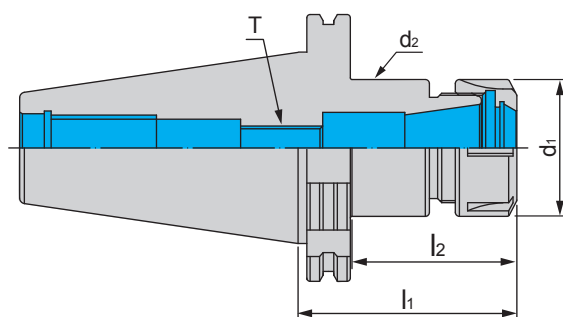
- There are various features for collet, like flexibility, water sealed, rigid tapping, extend tapping, minimized inner hole, shrink-fitting for your selection.
- The ER collet has three kinds of classes for precision : general class 0.02mm, A class 0.01mm, and UP class 0.05mm.
- The pre-balance can reach 10000rpm.
- The tool holder with through coolant design is better for water to get through vibration resistance
- Additional selection if stop screw is needed.
- When using, please put the nut into the collet and then put them into the body together.
- It must exceed the effective clamping length of collet when inserting the cutter into collet to avoid the improper lock & damage.
- Please use the right wrench on installation to avoid the improper lock & damage.

| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | T | 使用筒夾 Collet | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|---------------------|-------|-------|-------|-------|-----------|-------------|------------------|-----------------|
| DAT40 x ER11A - 80 | 80 | 50 | 19 | 19 | M6x1.0P | ER11 | 1~7 | 1.05 |
| DAT40 x ER11A - 125 | 125 | 95 | 19 | 19 | M6x1.0P | ER11 | 1~7 | 1.15 |
| DAT40 x ER16A - 70 | 70 | 40 | 28 | 28 | M10x1.5P | ER16 | 1~10 | 1.30 |
| DAT40 x ER16A - 100 | 100 | 70 | 28 | 28 | M10x1.5P | ER16 | 1~10 | 1.40 |
| DAT40 x ER16A - 125 | 125 | 95 | 28 | 28 | M10x1.5P | ER16 | 1~10 | 1.60 |
| DAT40 x ER16A - 150 | 150 | 120 | 28 | 28 | M10x1.5P | ER16 | 1~10 | 1.65 |
| DAT40 x ER16A - 180 | 180 | 150 | 28 | 28 | M10x1.5P | ER16 | 1~10 | 1.85 |
| DAT40 x ER20A - 70 | 70 | 47 | 34 | 34 | M12x1.75P | ER20 | 1~13 | 1.40 |
| DAT40 x ER20A - 100 | 100 | 70 | 34 | 34 | M12x1.75P | ER20 | 1~13 | 1.50 |
| DAT40 x ER20A - 135 | 135 | 105 | 34 | 34 | M12x1.75P | ER20 | 1~13 | 1.95 |
| DAT40 x ER20A - 160 | 160 | 130 | 34 | 34 | M12x1.75P | ER20 | 1~13 | 2.20 |
| DAT40 x ER25 - 70 | 70 | 50 | 42 | 42 | M16x2.0P | ER25 | 1~16 | 1.60 |
| DAT40 x ER25 - 100 | 100 | 80 | 42 | 42 | M16x2.0P | ER25 | 1~16 | 1.85 |
| DAT40 x ER25 - 150 | 150 | 130 | 42 | 42 | M16x2.0P | ER25 | 1~16 | 2.25 |
| DAT40 x ER25 - 180 | 180 | 160 | 42 | 42 | M16x2.0P | ER25 | 1~16 | 2.45 |
| DAT40 x ER25 - 200 | 200 | 180 | 42 | 42 | M16x2.0P | ER25 | 1~16 | 2.55 |
| DAT40 x ER32 - 70 | 70 | 50 | 50 | 49.7 | M16x2.0P | ER32 | 2~20 | 1.22 |
| DAT40 x ER32 - 100 | 100 | 80 | 50 | 49.5 | M16x2.0P | ER32 | 2~20 | 1.64 |
| DAT40 x ER32 - 135 | 135 | 115 | 50 | 49.7 | M16x2.0P | ER32 | 2~20 | 2.15 |
| DAT40 x ER32 - 150 | 150 | 130 | 50 | 49.7 | M16x2.0P | ER32 | 2~20 | 2.65 |
| DAT40 x ER40 - 70 | 70 | 50 | 63 | 50 | M20x2.0P | ER40 | 3~26 | 1.50 |
| DAT40 x ER40 - 100 | 100 | 80 | 63 | 50 | M20x2.0P | ER40 | 3~26 | 2.00 |
| DAT40 x ER40 - 135 | 135 | 115 | 63 | 50 | M20x2.0P | ER40 | 3~26 | 3.30 |
| DAT40 x ER50 - 100 | 100 | 80 | 78 | 64 | M24x2.0P | ER50 | 5~34 | 1.70 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B648 | B612 | B637 | B650 |

• 長度單位 Unit of Length (mm)



DAT

特點 Feature

- 筒夾樣式有彈性、止水、剛性攻牙、伸縮攻牙、極小內孔、燒結式熱膨脹可供選擇
- 彈性筒夾偏擺精度有標準級 (0.02mm 以內) · A 級 (0.01mm 以內) · UP(0.005mm 以內)
- 螺帽預設動平衡設計 · 可在 RPM10,000 下使用
- 整支通孔 · 利於出水及抗震
- 如需擋刀螺絲可另外指定
- 裝置時筒夾必須先置入螺帽 · 再裝入刀具 · 接著鎖固入本體
- 刀具置入筒夾內孔 · 必須超出筒夾內孔有效夾持長度 · 避免不當鎖固 · 造成損壞
- 務必使用正確扳手來裝置不可任意改變 · 避免不當鎖固 · 造成損壞

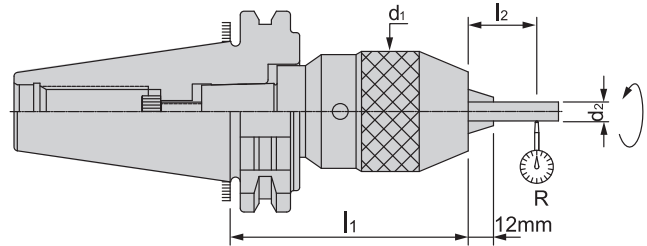
- There are various features for collet, like flexibility, water sealed, rigid tapping, extend tapping, minimized inner hole, shrink-fitting for your selection.
- The ER collet has three kinds of classes for precision : general class 0.02mm, A class 0.01mm, and UP class 0.05mm.
- The pre-balance can reach 10000rpm.
- The tool holder with through coolant design is better for water to get through vibration resistance
- Additional selection if stop screw is needed.
- When using, please put the nut into collet and then put them into the body together.
- It must exceed the effective clamping length of collet when inserting the cutter into collet to avoid the improper lock & damage.
- Please use the right wrench on installation to avoid the improper lock & damage.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | T | 使用筒夾 Collet | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|---------------------|----------------|----------------|----------------|----------------|-----------|-------------|------------------|-----------------|
| DAT50 x ER16A - 100 | 100 | 70 | 28 | 28 | M10x1.5P | ER16 | 1~10 | 3.20 |
| DAT50 x ER16A - 135 | 135 | 105 | 28 | 28 | M10x1.5P | ER16 | 1~10 | 4.30 |
| DAT50 x ER16A - 160 | 160 | 130 | 28 | 28 | M10x1.5P | ER16 | 1~10 | 4.50 |
| DAT50 x ER16A - 180 | 180 | 150 | 28 | 28 | M10x1.5P | ER16 | 1~10 | 4.80 |
| DAT50 x ER20A - 100 | 100 | 70 | 34 | 34 | M12x1.75P | ER20 | 1~13 | 3.40 |
| DAT50 x ER20A - 135 | 135 | 105 | 34 | 34 | M12x1.75P | ER20 | 1~13 | 3.60 |
| DAT50 x ER20A - 160 | 160 | 130 | 34 | 34 | M12x1.75P | ER20 | 1~13 | 3.80 |
| DAT50 x ER25 - 70 | 70 | 40 | 42 | 42 | M16x2.0P | ER25 | 1~16 | 3.40 |
| DAT50 x ER25 - 100 | 100 | 70 | 42 | 42 | M16x2.0P | ER25 | 1~16 | 4.15 |
| DAT50 x ER25 - 150 | 150 | 120 | 42 | 42 | M16x2.0P | ER25 | 1~16 | 4.50 |
| DAT50 x ER25 - 200 | 200 | 170 | 42 | 42 | M16x2.0P | ER25 | 1~16 | 4.70 |
| DAT50 x ER32 - 80 | 80 | 50 | 50 | 50 | M20x2.0P | ER32 | 2~20 | 3.60 |
| DAT50 x ER32 - 120 | 120 | 90 | 50 | 50 | M20x2.0P | ER32 | 2~20 | 3.93 |
| DAT50 x ER32 - 160 | 160 | 130 | 50 | 50 | M20x2.0P | ER32 | 2~20 | 4.75 |
| DAT50 x ER32 - 200 | 200 | 170 | 50 | 50 | M20x2.0P | ER32 | 2~20 | 4.90 |
| DAT50 x ER40 - 80 | 80 | 50 | 63 | 60 | M20x2.0P | ER40 | 3~26 | 3.65 |
| DAT50 x ER40 - 120 | 120 | 90 | 63 | 60 | M20x2.0P | ER40 | 3~26 | 4.80 |
| DAT50 x ER40 - 160 | 160 | 130 | 63 | 60 | M20x2.0P | ER40 | 3~26 | 5.20 |
| DAT50 x ER40 - 200 | 200 | 170 | 63 | 60 | M20x2.0P | ER40 | 3~26 | 5.40 |
| DAT50 x ER50 - 80 | 80 | 57 | 78 | - | M24x2.0P | ER50 | 5~34 | 4.85 |
| DAT50 x ER50 - 120 | 120 | 99 | 78 | 78 | M24x2.0P | ER50 | 5~34 | 5.45 |
| DAT50 x ER50 - 160 | 160 | 139 | 78 | 78 | M24x2.0P | ER50 | 5~34 | 5.55 |
| DAT50 x ER50 - 200 | 200 | 179 | 78 | 78 | M24x2.0P | ER50 | 5~34 | 5.70 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B648 | B612 | B634 | B650 |

• 長度單位 Unit of Length (mm)



DAT

特點 Feature

- 直結式設計 · 提高使用後工件的效果
- SPU 偏精度為 0.04mm · 如需更高精度要求 · 請使用 ER 或 SKS 系列

- The series type design, enhances the use effect.
- The SPU leaning precision is 0.04mm. To request higher degree of accuracy, please use ER or SKS series

| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | 夾持範圍 Clamp Range | | R | 重量 (KGS) Weight |
|-------------------|----------------|----------------|----------------|----------------|------------------|-----------|------|-----------------------|
| | | | | | mm | inch | | |
| DAT40 x SPU8-75 | 75 | 55 | 37 | 6 | 1~8 | 1/24~5/16 | 0.04 | 1.35 |
| DAT40 x SPU13-100 | 100 | 75 | 50 | 13 | 1~13 | 1/24~1/2 | 0.04 | 1.94 |
| DAT40 x SPU16-115 | 115 | 80 | 57 | 16 | 3~16 | 1/8~5/8 | 0.04 | 2.33 |
| DAT50 x SPU8-75 | 75 | 55 | 37 | 6 | 1~8 | 1/24~5/16 | 0.04 | 3.43 |
| DAT50 x SPU13-100 | 100 | 75 | 50 | 13 | 1~13 | 1/24~1/2 | 0.04 | 4.40 |
| DAT50 x SPU16-105 | 105 | 80 | 57 | 16 | 3~16 | 1/8~5/8 | 0.04 | 4.73 |

- 附扳手 Attaches the spanner.

選配表 Option



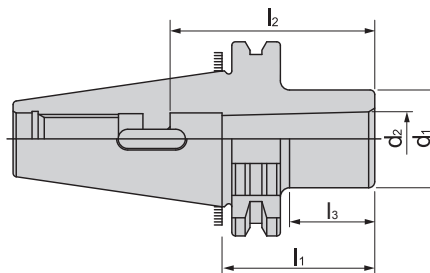
• 長度單位 Unit of Length (mm)



DAT 斜柄鑽頭套筒 DAT MORSE TAPER ADAPTER

DIN 228-2
DIN 6383

DIN
69871



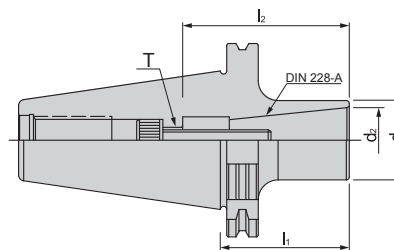
DAT

| 規格 Spec. | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | 重量 (KGS) Weight |
|--------------------|----------------|----------------|----------------|----------------|----------------|-----------------------|
| DAT40 x MTA1 - 50 | 50 | 56 | 22 | 25 | 12.065 | 1.20 |
| DAT40 x MTA2 - 50 | 50 | 67 | 27 | 32 | 17.78 | 1.00 |
| DAT40 x MTA3 - 70 | 70 | 84 | 47 | 40 | 23.825 | 1.10 |
| DAT40 x MTA4 - 95 | 95 | 107 | 74 | 48 | 31.267 | 1.35 |
| DAT50 x MTA1 - 45 | 45 | 56 | 22 | 25 | 12.065 | 3.00 |
| DAT50 x MTA2 - 60 | 60 | 67 | 35 | 32 | 17.78 | 3.10 |
| DAT50 x MTA2-135 | 135 | 67 | - | 32 | 17.78 | 4.70 |
| DAT50 x MTA3 - 65 | 65 | 84 | 40 | 40 | 23.825 | 3.20 |
| DAT50 x MTA3-150 | 150 | 84 | - | 40 | 23.825 | 5.00 |
| DAT50 x MTA4 - 95 | 95 | 107 | 70 | 48 | 31.267 | 3.40 |
| DAT50 x MTA5 - 105 | 105 | 133 | 80 | 63 | 44.399 | 3.60 |



DAT 斜柄鑽頭套筒 DAT MORSE TAPER ADAPTER

DIN 228-2
DIN 6383



特點 Feature

- 高精密的運作過程，即使長時間鑽孔，同心圓仍然在 0.015mm 之內

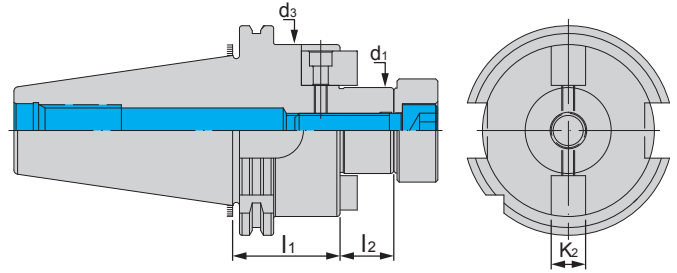
-High accurate working process. Even though using prolonged drill, the concentricity is still within 0.015mm.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | T | 重量 (KGS) Weight |
|--------------------|----------------|----------------|----------------|----------------|-----------|-----------------------|
| DAT40 x MTB2 - 45 | 45 | 67 | 32 | 17.78 | M10X1.5P | 0.96 |
| DAT40 x MTB3 - 75 | 75 | 84 | 40 | 23.825 | M12X1.75P | 1.30 |
| DAT40 x MTB4 - 100 | 100 | 107 | 48 | 31.267 | M16X2.0P | 1.50 |
| DAT50 x MTB2 - 45 | 45 | 67 | 32 | 17.78 | M10X1.5P | 3.90 |
| DAT50 x MTB3 - 65 | 65 | 84 | 40 | 23.825 | M12X1.75P | 4.02 |
| DAT50 x MTB4 - 75 | 75 | 107 | 48 | 31.267 | M16X2.0P | 4.20 |
| DAT50 x MTB4 - 95 | 95 | 107 | 48 | 31.267 | M16X2.0P | 4.40 |
| DAT50 x MTB5 - 105 | 105 | 135 | 63 | 44.399 | M24X3.0P | 4.25 |

選配表 Option

| 拉頭 Pull Stud | 退鑽器 Hand Drift |
|---|---|
|  |  |
| B648 | B683 |

• 長度單位 Unit of Length (mm)



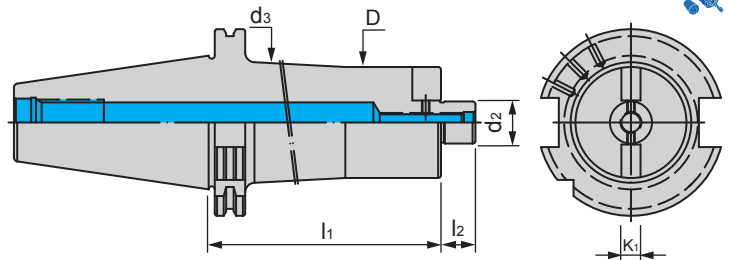
DAT

特點 Feature

- 平面銑刀配合部位 (d1) · 軸系公差 h6
- 預設動平衡達 G6.3 8000rpm · 不含檢測報告
- 若需更好的動平衡 · 須另外加價

- d1 tolerance is h6.
- Dynamic pre-balancing G6.3 at 8000rpm, without an inspection report.
- The balancing grade and revolution can be done according to customer request but the additional charge is needed.

| 規格 Spec. | l_1 | l_2 | d_1 | d_3 | k_2 | 重量 (KGS) Weight |
|---------------------|-------|-------|-------|-------|--------|-----------------|
| DAT50 x FMA31.75-50 | 50 | 22 | 31.75 | 60 | 12.7 | 4.80 |
| DAT50 x FMA38.1-100 | 100 | 25 | 38.1 | 80 | 15.875 | 6.70 |



特點 Feature

- 平面銑刀配合部位 (d1) · 軸系公差 h6
- 預設動平衡達 G6.3 8000rpm · 不含檢測報告
- 若需更好的動平衡 · 須另外加價

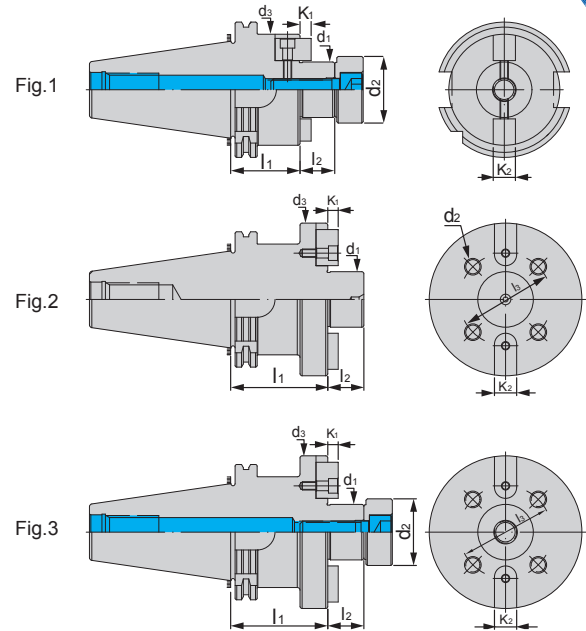
- d1 tolerance is h6.
- Dynamic pre-balancing G6.3 at 8000rpm, without an inspection report.
- The balancing grade and revolution can be done according to customer request but the additional charge is needed.

| 規格 Spec. | l_1 | l_2 | D | d_1 | d_2 | d_3 | k_1 | 重量 (KGS) Weight |
|---------------------|-------|-------|----|-------|-------|-------|-------|-----------------|
| DAT50 x FMB22-100BG | 100 | 19 | 58 | 22 | 23 | 62.5 | 10 | 2.50 |
| DAT50 x FMB22-150BG | 150 | 19 | 58 | 22 | 23 | 62.5 | 10 | 2.90 |
| DAT50 x FMB22-200BG | 200 | 19 | 58 | 22 | 23 | 62.5 | 10 | 6.74 |
| DAT50 x FMB22-250BG | 250 | 19 | 58 | 22 | 23 | 62.5 | 10 | 7.30 |
| DAT50 x FMB22-300BG | 300 | 19 | 58 | 22 | 23 | 62.5 | 10 | 5.40 |

選配表 Option



• 長度單位 Unit of Length (mm)



特點 Feature

- 平面銑刀配合部位 (d1) · 軸系公差 h6
- 預設動平衡達 G6.3 8000rpm · 不含檢測報告
- 若需更好的動平衡 · 須另外加價

- d1 tolerance is h6.
- The Dynamic pre-balance can reach G6.3 8,000 rpm, without an inspection report.
- The balancing grade and revolution can be done according to customer request but the additional charge is needed.

| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | d_3 | k_1 | k_2 | Fig. | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-------|-------|-------|------|-----------------------|
| DAT40 x FMB22-35 | 35 | 19 | 22 | 26 | 48 | 4.8 | 10 | 1 | 1.20 |
| DAT40 x FMB22-60 | 60 | 19 | 22 | 26 | 48 | 4.8 | 10 | 1 | 1.50 |
| DAT40 x FMB22-100 | 100 | 19 | 22 | 26 | 48 | 4.8 | 10 | 1 | 2.12 |
| DAT40 x FMB22-150 | 150 | 19 | 22 | 26 | 48 | 4.8 | 10 | 1 | 1.80 |
| DAT40 x FMB27-60 | 60 | 20 | 27 | 31.5 | 58 | 5.8 | 12 | 1 | 1.80 |
| DAT40 x FMB32-60 | 60 | 22 | 32 | 41 | 66 | 6.8 | 14 | 1 | 2.30 |
| DAT40 x FMB40-60 | 60 | 25 | 40 | 48 | 80 | 8.3 | 16 | 1 | 2.80 |
| DAT50 x FMB22-35 | 35 | 19 | 22 | 26 | 48 | 4.8 | 10 | 1 | 3.40 |
| DAT50 x FMB22-75 | 75 | 19 | 22 | 26 | 48 | 4.8 | 10 | 1 | 3.72 |
| DAT50 x FMB22-90 | 90 | 19 | 22 | 26 | 48 | 4.8 | 10 | 1 | 3.86 |
| DAT50 x FMB22-150 | 150 | 19 | 22 | 26 | 48 | 4.8 | 10 | 1 | 4.90 |
| DAT50 x FMB22-200 | 200 | 19 | 22 | 26 | 48 | 4.8 | 10 | 1 | 5.30 |
| DAT50 x FMB27-35 | 35 | 20 | 27 | 31.5 | 60 | 5.8 | 12 | 1 | 3.50 |
| DAT50 x FMB32-35 | 35 | 22 | 32 | 41 | 66 | 6.8 | 14 | 1 | 3.70 |
| DAT50 x FMB40-50 | 50 | 25 | 40 | 48 | 80 | 8.3 | 16 | 1 | 4.63 |
| DAT50 x FMB50-60 | 60 | 30 | 50 | 68 | 95 | 9.7 | 19 | 1 | 5.80 |
| DAT40 x FMB40F-60 | 60 | 30 | 40 | M12 | 89 | 8.3 | 16 | 2 | 2.90 |
| DAT50 x FMB40F-70 | 70 | 30 | 40 | M12 | 89 | 8.3 | 16 | 2 | 5.50 |
| DAT50 x FMB60F-70 | 70 | 40 | 60 | M16 | 129 | 12.5 | 25.4 | 2 | 5.70 |
| DAT40 x FS40 -60 | 60 | 26 | 40 | 50 | 110 | 8.3 | 16 | 3 | 3.20 |
| DAT50 x FS40 -70 | 70 | 26 | 40 | 50 | 110 | 8.3 | 16 | 3 | 5.70 |
| DAT50 x FS60 -70 | 70 | 25 | 60 | M16 | 140 | 12.5 | 25.4 | 3 | 5.50 |

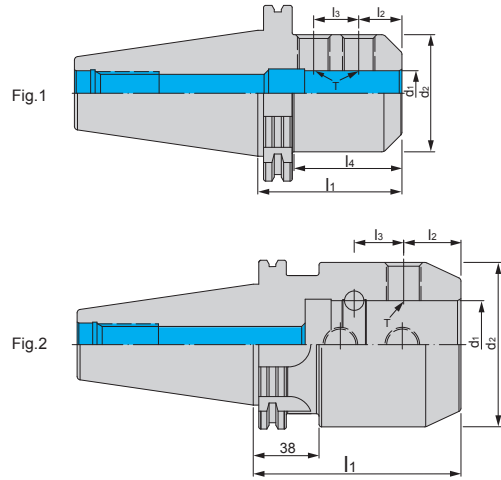
選配表 Option

拉頭 Pull Stud



B648

• 長度單位 Unit of Length (mm)



DAT

特點 Feature

- 孔徑公差 H5
- 預設動平衡達 G6.3 8000rpm · 不含檢測報告
- 若需更好的動平衡 · 須另外加價

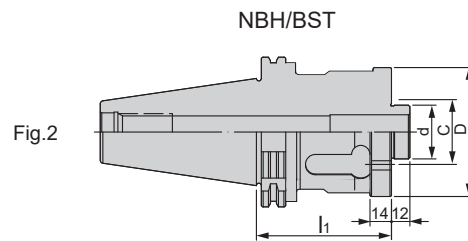
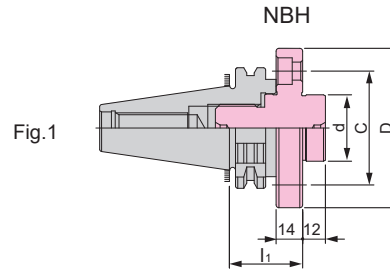
- Internal hole tolerance is H5.
- Dynamic pre-balancing G6.3 at 8000rpm, without an inspection report.
- The balancing grade and revolution can be done according to customer request but the additional charge is needed.

| 規格 Spec. | l ₁ | l ₂ | l ₃ | l ₄ | d ₁ | d ₂ | T | Fig. | 重量 (KGS) Weight |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------|------|-----------------|
| DAT40 x SLN6-50 | 50 | 18 | - | 27 | 6 | 25 | M6x1.0P | 1 | 0.97 |
| DAT40 x SLN8-50 | 50 | 18 | - | 27 | 8 | 28 | M8x1.25P | 1 | 1.00 |
| DAT40 x SLN10-50 | 50 | 20 | - | 27 | 10 | 35 | M10x1.5P | 1 | 1.04 |
| DAT40 x SLN12-50 | 50 | 22.5 | - | 30 | 12 | 42 | M12x1.75P | 1 | 1.15 |
| DAT40 x SLN16-63 | 63 | 24 | - | 43 | 16 | 48 | M14x2.0P | 1 | 1.40 |
| DAT40 x SLN20-63 | 63 | 25 | - | 43 | 20 | 52 | M16x2.0P | 1 | 1.30 |
| DAT40 x SLN25-100 | 100 | 24 | 25 | 80 | 25 | 65 | M18x2.0P | 1 | 2.40 |
| DAT40 x SLN32-100 | 100 | 24 | 28 | 80 | 32 | 72 | M20x2.0P | 1 | 2.70 |
| DAT50 x SLN6-63 | 63 | 18 | - | 33 | 6 | 25 | M6x1.0P | 1 | 3.10 |
| DAT50 x SLN8-63 | 63 | 18 | - | 33 | 8 | 28 | M8x1.25P | 1 | 3.10 |
| DAT50 x SLN10-63 | 63 | 20 | - | 33 | 10 | 35 | M10x1.5P | 1 | 3.30 |
| DAT50 x SLN12-63 | 63 | 22.5 | - | 40 | 12 | 42 | M12x1.75P | 1 | 3.35 |
| DAT50 x SLN16-63 | 63 | 24 | - | 40 | 16 | 48 | M14x2.0P | 1 | 3.45 |
| DAT50 x SLN20-63 | 63 | 25 | - | 40 | 20 | 52 | M16x2.0P | 1 | 3.47 |
| DAT50 x SLN25-80 | 80 | 24 | 25 | 59 | 25 | 65 | M18x2.0P | 1 | 4.20 |
| DAT50 x SLN32-100 | 100 | 24 | 28 | 78 | 32 | 72 | M20x2.0P | 1 | 4.88 |
| DAT50 x SLN40-100 | 100 | 30 | 32 | 80 | 40 | 90 | M20x2.0P | 1 | 5.60 |
| DAT50 x SLN42-100 | 100 | 30 | 32 | 80 | 42 | 90 | M20x2.0P | 1 | 5.70 |
| DAT50 x SLN50-125 | 125 | 35 | 35 | 105 | 50 | 100 | M24x2.0P | 1 | 5.90 |
| DAT50 x SLN63-150 | 150 | 40 | 40 | 130 | 63 | 125 | M20x2.0P | 1 | 6.20 |
| DAT50 x SLN63-150 | 150 | 40 | 24 | 130 | 63 | 125 | M16x2.0P | 2 | 6.20 |

選配表 Option



• 長度單位 Unit of Length (mm)



特點 Feature

- 孔徑公差 H5
- 預設動平衡達 G6.3 8000rpm · 不含檢測報告
- 若需更好的動平衡 · 須另外加價

- Internal hole tolerance is H5.
- Dynamic pre-balancing G6.3 at 8000rpm, without an inspection report.
- The balancing grade and revolution can be done according to customer request but the additional charge is needed.

| 規格 Spec. | l_1 | D | d | C | Fig. | 重量 (KGS) Weight |
|--------------------|-------|----|----|-------------------------|------|-----------------|
| DAT40xNBH2084A | 35 | 84 | 35 | PCD,Ø60 4-M8 x 1.25P | 1 | 1.70 |
| DAT50xNBH2084A | 35 | 84 | 35 | | 1 | 3.50 |
| FR60xNBH2084 | 14 | 84 | 35 | PCD,Ø60 | - | - |
| DAT40xNBH2084B-100 | 100 | 84 | 35 | PCD,Ø60 4-M8 x 1.25P | 2 | 2.00 |
| DAT50xNBH2084B-100 | 100 | 84 | 35 | | 2 | 4.00 |
| DAT50xNBH2084B-200 | 200 | 84 | 35 | | 2 | 11.00 |
| DAT50xBST-100 | 100 | 95 | 50 | PCD,Ø72 4-Ø13 | 2 | 5.60 |
| DAT50xBST-150 | 150 | 95 | 50 | | 2 | 4.00 |
| DAT50xBST-200 | 200 | 95 | 50 | | 2 | 8.75 |
| DAT50xBST-250 | 250 | 95 | 50 | | 2 | 9.76 |
| DAT50xBST-350 | 350 | 95 | 50 | | 2 | 12.8 |
| DAT50xBST-400 | 400 | 95 | 50 | | 2 | 14.0 |

選配表 Option

| 拉頭 Pull Stud | 搪頭 Boring Head | | |
|--------------|----------------|------|------|
| | | | |
| B648 | B728 | B731 | B753 |

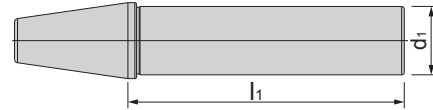
• 長度單位 Unit of Length (mm)



主軸檢測棒 SPINDLE MASTER BAR

DIN
69871

標準型 Standard



特點 Feature

- 皆通過真圓度測試機，精確檢驗通過
- 附精度檢驗表

- Have passed the roundness testing machine, exact test passed.
- With precision test table.

| | | |
|--|-------------------------|---------|
| | 錐度精度 Taper Precision | AT2 |
| | 真圓度 Roundness | 0.001mm |
| | 表面粗造度 Surface Roughness | Ra<0.4 |
| | 同心度 Concentricity | 0.005mm |

| 規格 Spec. | l_1 | d_1 | 同心度 Concentricity | 真圓度 Roundness | 重量 (KGS) Weight |
|----------------|-------|-------|-------------------|---------------|-----------------|
| DAT40 - TS300L | 300 | 40 | 0.005 | 0.001 | 3.00 |

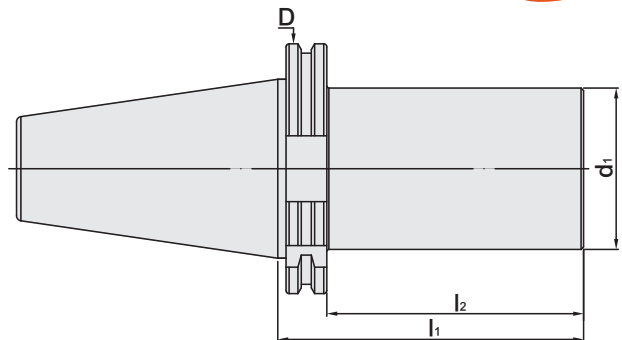
※ DAT30 與 BT30 共用；DAT50 與 BT50 共用 DAT30 and BT30 can be used in common. DAT50 and BT50 can be used in common.



DAT 素材 DAT BLANK



NEW



| 規格 Spec. | l_1 | l_2 | D | d_2 | 重量 (KGS) Weight |
|-------------------------------|-------|-------|------|-------|-----------------|
| DAT50 x ψ 2.75" - 4.734" | 4.734 | 3.982 | 3.84 | 2.75 | 5.56 |
| DAT50 x ψ 4.5" - 3.324" | 3.324 | 2.572 | 3.84 | 4.5 | 7.09 |

選配表 Option

| |
|--------------|
| 拉頭 Pull Stud |
| |
| B648 |

• 長度單位 Unit of Length (mm)

| | | | |
|--|--|--|---|
| <p>CAT/EOC</p>  | <p>CAT/ER</p>  | <p>M 型 CAT/ER</p>  | <p>CAT/SPU</p>  |
| <p>CAT/SPH</p>  | <p>CAT/JTA</p>  | <p>CAT/MTA</p>  | <p>CAT/FMA</p>  |
| <p>CAT/SLN</p>  | <p>CAT/TG</p>  | <p>CAT/ETP</p>  | <p>CAT/MLD</p>  |
| <p>CAT/SBL</p>  | <p>CAT/SKS</p>  | <p>CAT/OSL</p>  | <p>CAT/OHER</p>  |
| <p>CAT/SOM</p>  | <p>CAT 套筒</p>  | | |

※ 詳細規格歡迎來電洽詢

Please feel free to contact us for more detailed spec.

• 長度單位 Unit of Length (mm)

NT/MLC 直式筒夾銑床夾具組

STRAIGHT COLLET MULTI-LOCK COLLET CHUCK SET



NT30-MLC20-5 PCS
NT40-MLC32-7 PCS
NT50-MLC32-7 PCS
NT50-MLC42-8 PCS

EOC/OZ 銑床夾頭組

MILLING CHUCK SET



NT30-EOC25-7M-SYOZ
NT40-EOC25-7M-SYOZ
NT50-EOC25-7M-SYOZ

EOC 立銑刀夾頭

COLLET CHUCK



NT30-EOC25
NT40-EOC25
NT40-EOC32
NT50-EOC25
NT50-EOC32

ER 銑床夾頭組

MILLING CHUCK SET



NT30-ER32-SET
NT30-ER40-SET
NT40-ER32-SET
NT40-ER40-SET
NT50-ER40-SET
NT50-ER50-SET

NT/ER 銑床夾頭柄

COLLET HOLDER



NT30-ER16A
NT30-ER20A
NT30-ER25
NT30-ER32
NT30-ER40
NT40-ER16A
NT40-ER20A
NT40-ER25
NT40-ER32
NT40-ER40
NT40-ER50
NT50-ER16A
NT50-ER20A
NT50-ER25
NT50-ER32
NT50-ER40
NT50-ER50

直結式鑽夾頭

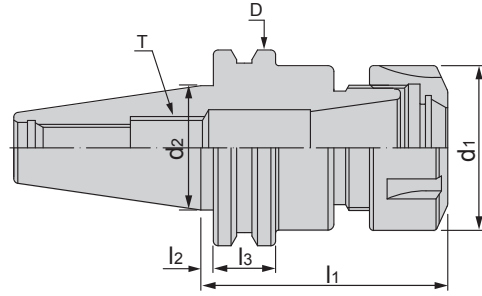
DRILL CHUCK TYPE



NT30-SPU13-100
NT40-SPU13-90
NT50-SPU13-120

ISO/ER 立銑刀夾頭

ISO/ER COLLET CHUCK(FOR W/OUT SLOTS)



特點 Feature

- 無鍵槽適用於高轉速下使用
- 動平衡校正 G2.5 36000rpm

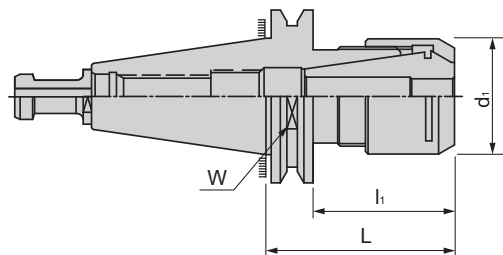
- Is suitable without the key slot under the high speed uses.
- Dynamic balancing G2.5 at 36000rpm.

| 規格 (無鍵槽) Spec. | l_1 | l_2 | l_3 | D | d_1 | d_2 | 夾持範圍 Clamp Range | T | 重量 (KGS) Weight |
|---------------------|-------|-------|-------|----|-------|--------|---------------------|-------------|-----------------------|
| ISO20 x ER11A - 52 | 52 | 2 | 8 | 33 | 19 | 21.642 | 1~7 | M6x 1.0P | 0.55 |
| ISO20 x ER16AD - 52 | 52 | 2 | 15.9 | 30 | 28 | 21.642 | 1~10 | M10 x 1.5P | 0.22 |
| ISO20 x ER20AD - 52 | 52 | 2 | 15.9 | 30 | 34 | 21.642 | 1~13 | M12 x 1.75P | 0.25 |
| ISO25 x ER11A - 52 | 52 | 2.95 | 8 | 37 | 19 | 24.91 | 1~7 | M6x 1.0P | 0.60 |
| ISO25 x ER16A - 52 | 52 | 2.95 | 8 | 37 | 28 | 24.91 | 1~10 | M10 x 1.5P | 0.65 |
| ISO25 x ER20A - 52 | 52 | 2.95 | 8 | 37 | 34 | 24.91 | 1~13 | M12 x 1.75P | 0.70 |
| ISO30 x ER11A - 80 | 80 | 3.2 | 15.9 | 50 | 19 | 31.75 | 1~7 | M6x 1.0P | 0.70 |
| ISO30 x ER16A - 63 | 63 | 3.2 | 15.9 | 50 | 28 | 31.75 | 1~10 | M10 x 1.5P | 0.57 |
| ISO30 x ER20A - 63 | 63 | 3.2 | 15.9 | 50 | 34 | 31.75 | 1~13 | M12 x 1.75P | 0.62 |
| ISO30 x ER25 - 63 | 63 | 3.2 | 15.9 | 50 | 42 | 31.75 | 1~16 | M16 x 2.0P | 0.67 |
| ISO30 x ER32 - 63 | 63 | 3.2 | 15.9 | 50 | 50 | 31.75 | 2~20 | M16 x 2.0P | 0.68 |
| ISO30 x ER40 - 57 | 57 | 3.2 | 15.9 | 50 | 63 | 31.75 | 3~26 | M16 x 2.0P | 1.00 |

ISO

ISO/ER 高速刀把

ISO/ER HIGH SPEED COLLET CHUCK



特點 Feature

- 標準動平衡 G2.5 40000rpm

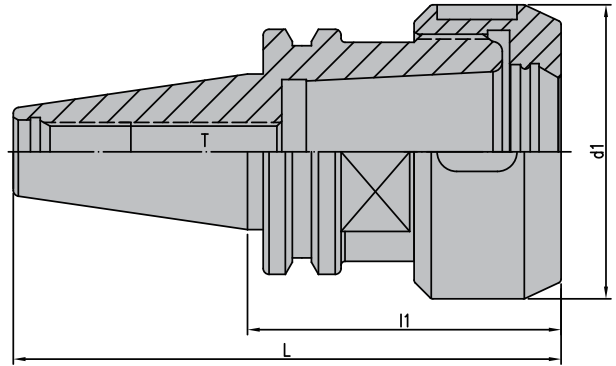
- Dynamic balancing G2.5 at 40000rpm.

| 規格 Spec. | L | l_i | d_i | W | 扳手 Spanner | 螺帽 Nut | 重量 (KGS) Weight |
|------------------|----|-------|-------|---------|---------------|-----------|-----------------------|
| ISO20xER16M-35HG | 35 | 27.2 | 22 | ISO20-W | ER16-MHG-W | ER16-MHG | 0.14 |
| ISO25xER16M-36HG | 36 | 27.2 | 22 | ISO25-W | ER16-MHG-W | ER16-MHG | 0.18 |
| ISO25xER20M-36HG | 36 | 27.2 | 28 | ISO25-W | ER20-MHG-W | ER20-MHG | 0.20 |
| ISO30xER16M-60HG | 60 | 40.9 | 22 | ISO30-W | ER16-MHG-W | ER16-MHG | 0.58 |
| ISO30xER20M-60HG | 60 | 40.9 | 28 | ISO30-W | ER20-MHG-W | ER20-MHG | 0.6 |
| ISO30xER25M-60HG | 60 | 40.9 | 35 | ISO30-W | ER25-MHG-W | ER25-MHG | 0.58 |

選配表 Option

| 拉頭 Pull Stud | 螺帽 Nut | 扳手 Spanner | 鎖刀座 Locking Device |
|--------------|--------|------------|--------------------|
| | | | |
| B646/B649 | B637 | B652 | B657 |

• 長度單位 Unit of Length (mm)



ISO

特點 Feature

- 標準動平衡 G2.5 18000rpm

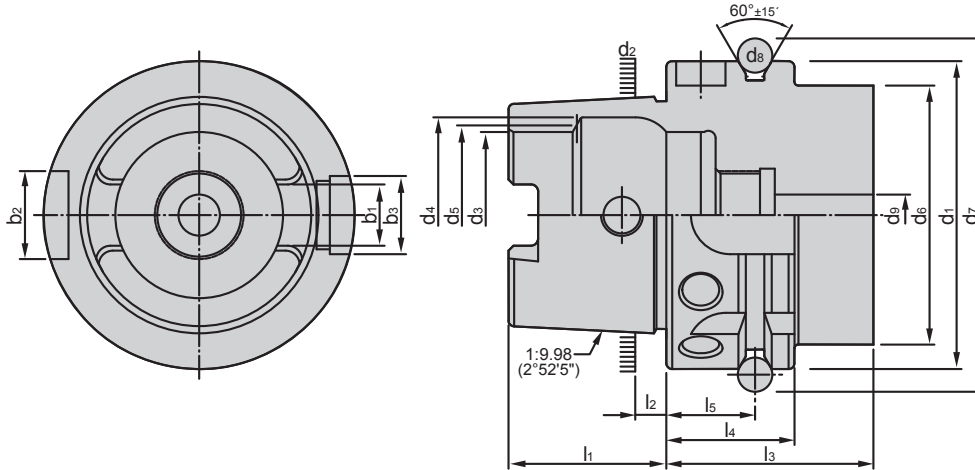
-Dynamic balancing G2.5 at 18000rpm.

| 規格 Spec. | L | l ₁ | d ₁ | T |
|---------------|-------|----------------|----------------|-----------|
| SK30-EOC25-70 | 117.8 | 70 | 60 | M12x1.75P |



• 長度單位 Unit of Length (mm)

DIN 69893 A



HSK

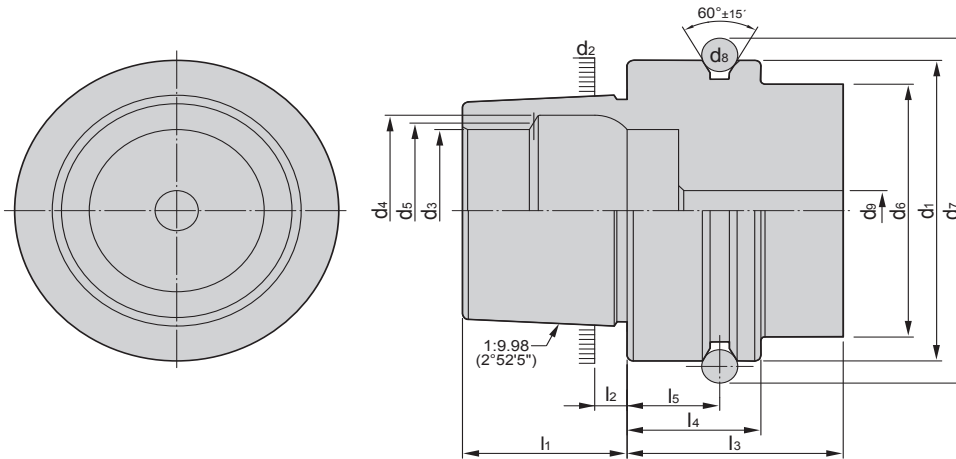
| 規格 Spec. | d ₁ h ₁₀ | d ₂ | d ₃ H ₁₀ | d ₄ H ₁₁ | d ₅ | d ₆ Max. | d ₇ - _{0.1} | d ₈ | d ₉ Max. | l ₁ - _{0.2} | l ₂ | l ₃ Min. | l ₄ - _{0.1} | l ₅ ±0.1 | b ₁ ±0.04 | b ₂ H ₁₀ | b ₃ H ₁₀ |
|-------------|-----------------------------------|----------------|-----------------------------------|-----------------------------------|----------------|------------------------|------------------------------------|----------------|------------------------|------------------------------------|----------------|------------------------|------------------------------------|------------------------|-------------------------|-----------------------------------|-----------------------------------|
| HSK25 | 25 | 19.006 | 14 | 16.4 | 15 | 20 | 28.5 | 3 | 3 | 13 | 2.5 | 20 | 10 | 4.5 | 6.05 | 6 | 7 |
| HSK32 | 32 | 24.007 | 17 | 20.5 | 19 | 26 | 37 | 4 | 4.2 | 16 | 3.2 | 35 | 20 | 16 | 7.05 | 7 | 9 |
| HSK40 | 40 | 30.007 | 21 | 25.5 | 23 | 34 | 45 | 4 | 5 | 20 | 4 | 35 | 20 | 16 | 8.05 | 9 | 11 |
| HSK50 | 50 | 38.009 | 26 | 32 | 29 | 42 | 59.3 | 7 | 6.8 | 25 | 5 | 42 | 26 | 18 | 10.54 | 12 | 14 |
| HSK63 | 63 | 48.010 | 34 | 40 | 37 | 53 | 72.3 | 7 | 8.4 | 32 | 6.3 | 42 | 26 | 18 | 12.54 | 16 | 18 |
| HSK80 | 80 | 60.012 | 42 | 50 | 46 | 68 | 88.8 | 7 | 10.2 | 40 | 8 | 42 | 26 | 18 | 16.04 | 18 | 20 |
| HSK100 | 100 | 75.013 | 53 | 63 | 58 | 88 | 109.75 | 7 | 12 | 50 | 10 | 45 | 29 | 20 | 20.02 | 20 | 22 |
| HSK125 | 125 | 95.016 | 67 | 80 | 73 | 111 | 134.75 | 7 | 14 | 63 | 12.5 | 45 | 29 | 20 | 25.02 | 25 | 28 |

1. 錐度精度 : <AT3
2. 硬度 : > HRC 56°
3. 滲碳深度 : >0.8mm
4. 真圓度 : < 0.6μm
5. 表面粗糙度 : Ra < 0.25μm
6. 刀桿有預設標準動平衡 G6.3 · 可另外指定精密動平衡 G2.5
7. 本體規範 : DIN 69893-1

- 1.Taper tolerance < AT3.
- 2.Hardness > HRC 56°
3. Carbon depth > 0.8mm.
- 4.Roundness < 0.6μm.
- 5.Surface roughness : Ra < 0.25μm.
- 6.The shank has pre-balance at G6.3,and can provide precision balance at G2.5, made by request.
- 7.Shank body standard : DIN69893-1

• 長度單位 Unit of Length (mm)

DIN 69893 E



| 規格 Spec. | d ₁ h ₁₀ | d ₂ | d ₃ H ₁₀ | d ₄ H ₁₁ | d ₅ | d ₆ Max. | d ₇ 0 -0.1 | d ₈ | d ₉ Max. | l ₁ 0 -0.2 | l ₂ | l ₃ Min. | l ₄ 0 -0.1 | l ₅ ±0.1 |
|-------------|-----------------------------------|----------------|-----------------------------------|-----------------------------------|----------------|------------------------|-----------------------------|----------------|------------------------|-----------------------------|----------------|------------------------|-----------------------------|------------------------|
| HSK25 | 25 | 19.006 | 14 | 16.4 | 15 | 20 | 28.5 | 3 | 3 | 13 | 2.5 | 20 | 10 | 4.5 |
| HSK32 | 32 | 24.007 | 17 | 20.5 | 19 | 26 | 37 | 4 | 4.2 | 16 | 3.2 | 35 | 20 | 16 |
| HSK40 | 40 | 30.007 | 21 | 25.5 | 23 | 34 | 45 | 4 | 5 | 20 | 4 | 35 | 20 | 16 |
| HSK50 | 50 | 38.009 | 26 | 32 | 29 | 42 | 59.3 | 7 | 6.8 | 25 | 5 | 42 | 26 | 18 |
| HSK63 | 63 | 48.010 | 34 | 40 | 37 | 53 | 72.3 | 7 | 8.4 | 32 | 6.3 | 42 | 26 | 18 |
| HSK80 | 80 | 60.012 | 42 | 50 | 46 | 68 | 88.8 | 7 | 10.2 | 40 | 8 | 42 | 26 | 18 |
| HSK100 | 100 | 75.013 | 53 | 63 | 58 | 88 | 109.75 | 7 | 12 | 50 | 10 | 45 | 29 | 20 |
| HSK125 | 125 | 95.016 | 67 | 80 | 73 | 111 | 134.75 | 7 | 14 | 63 | 12.5 | 45 | 29 | 20 |

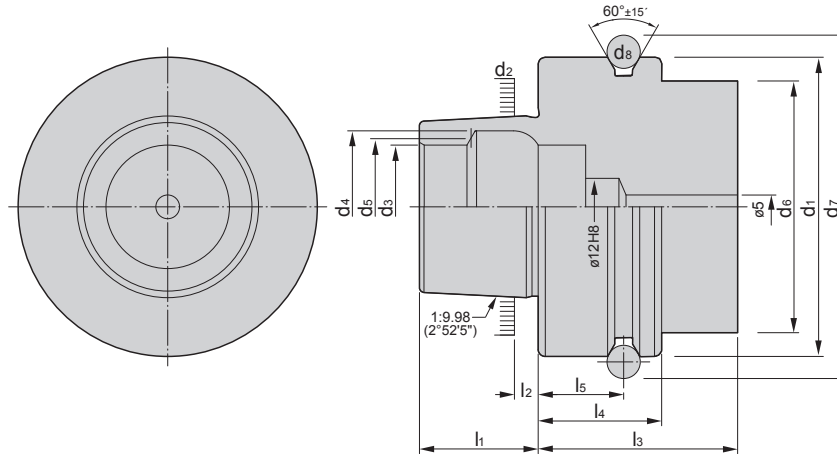
HSK

1. 錐度精度 : < AT3
2. 硬度 : > HRC 56°
3. 滲碳深度 : > 0.8mm
4. 真圓度 : < 0.6μm
5. 表面粗糙度 : Ra < 0.25μm
6. 刀桿有預設標準動平衡 G6.3 · 可另外指定精密動平衡 G2.5
7. 本體規範 : DIN 69893-E

1. Taper tolerance < AT3.
2. Hardness > HRC 56°
3. Carbon depth > 0.8mm.
4. Roundness < 0.6μm.
5. Surface roughness : Ra < 0.25μm.
6. The shank has pre-balance at G6.3, and can provide precision balance at G2.5, made by request.
7. Shank body standard : DIN69893-E

• 長度單位 Unit of Length (mm)

DIN 69893 F



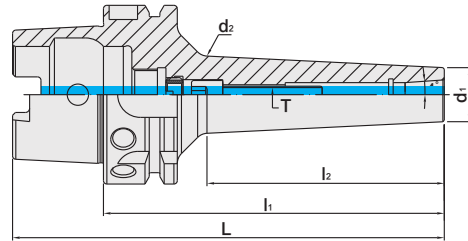
HSK

| 規格 Spec. | d ₁ h ₁₀ | d ₂ | d ₃ H ₁₀ | d ₄ H ₁₁ | d ₅ | d ₆ Max. | d ₇ 0 -0.1 | d ₈ | l ₁ 0 -0.2 | l ₂ | l ₃ Min. | l ₄ 0 -0.1 | l ₅ ±0.1 |
|-------------|-----------------------------------|----------------|-----------------------------------|-----------------------------------|----------------|------------------------|-----------------------------|----------------|-----------------------------|----------------|------------------------|-----------------------------|------------------------|
| HSK50 | 50 | 30.007 | 21 | 25.5 | 23 | 42 | 59.3 | 7 | 20 | 4 | 42 | 26 | 18 |
| HSK63 | 63 | 38.009 | 26 | 32 | 29 | 53 | 72.3 | 7 | 25 | 5 | 42 | 26 | 18 |

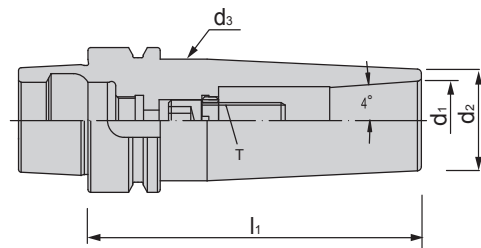
1. 錐度精度 : < AT3
2. 硬度 : > HRC 56°
3. 滲碳深度 : > 0.8mm
4. 真圓度 : < 0.6µm
5. 表面粗糙度 : Ra < 0.25µm
6. 刀桿有預設標準動平衡 G6.3 · 可另外指定精密動平衡 G2.5
7. 本體規範 : DIN 69893-F

1. Taper tolerance < AT3.
2. Hardness > HRC 56°
3. Carbon depth > 0.8mm.
4. Roundness < 0.6µm.
5. Surface roughness : Ra < 0.25µm.
6. The shank has pre-balance at G6.3, and can provide precision balance at G2.5, made by request.
7. Shank body standard : DIN69893-F

• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | l ₂ | d ₁ | d ₂ | T | 扭力值 Torque | | 夾持範圍 clamp Range | 重量 (KGS) Weight |
|----------------------|-----|----------------|----------------|----------------|----------------|------------|---------------|--------|---------------------|-----------------------|
| | | | | | | | N.m | lbf-ft | | |
| HSK63A x EBL6 - 125 | 157 | 125 | 88.8 | 19.05 | 27.7 | M6 x 1.0P | 12 | 9 | 3~6 | 1.06 |
| HSK63A x EBL6 - 150 | 182 | 150 | 115 | 19.05 | 30.3 | M6 x 1.0P | 12 | 9 | 3~6 | 1.19 |
| HSK63A x EBL8 - 125 | 157 | 125 | 90.4 | 22.225 | 31 | M8 x 1.25P | 29 | 21 | 3~8 | 1.12 |
| HSK63A x EBL8 - 150 | 182 | 150 | 116.7 | 22.225 | 33.2 | M8 x 1.25P | 29 | 21 | 3~8 | 1.26 |
| HSK100A x EBL6 - 125 | 175 | 125 | 85.6 | 19.05 | 27.4 | M6 x 1.0P | 12 | 9 | 3~6 | 2.34 |
| HSK100A x EBL6 - 150 | 200 | 150 | 111.9 | 19.05 | 30 | M6 x 1.0P | 12 | 9 | 3~6 | 2.49 |
| HSK100A x EBL8 - 125 | 175 | 125 | 87.3 | 22.225 | 30.7 | M8 x 1.25P | 29 | 21 | 3~8 | 2.41 |
| HSK100A x EBL8 - 150 | 200 | 150 | 113.6 | 22.225 | 33.3 | M8 x 1.25P | 29 | 21 | 3~8 | 2.55 |



特點 Feature

- 標準動平衡 G2.5 25000rpm

- The balancing garde reaches the revoluting of G2.5 25000rpm.

| 規格 Spec. | l ₁ | d ₁ | d ₂ | d ₃ | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|--------------------|----------------|----------------|----------------|----------------|-----------|---------------------|-----------------------|
| HSK50E x SBL6-80 | 80 | 9.93 | 14 | 19.188 | M6x1.0P | 2~6 | 1.40 |
| HSK50E x SBL12-110 | 110 | 18 | 26 | 42 | M10x1.5P | 3~12 | 1.50 |
| HSK50E x SBL20-110 | 110 | 27 | 35 | 42 | M12x1.75P | 3~20 | 1.80 |
| HSK50E x SBL20-120 | 120 | 27 | 35 | 42 | M12x1.75P | 3~20 | 1.80 |

- 附扳手 Attaches the spanner.

選配表 Option

| 筒夾 Collet | 扳手 Spanner | 給水管 Coolant Supply Unti |
|-----------|------------|-------------------------|
| | | |
| B630 | B630 | B519 |
| | | B519 |

• 長度單位 Unit of Length (mm)

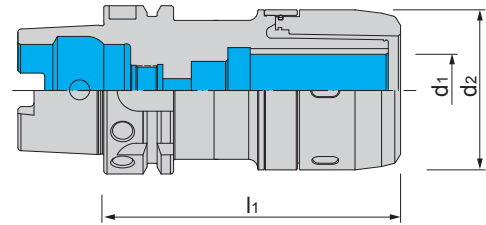


HSK/MLK 強力銑削夾頭

HSK/MLK FORCE COLLET CHUCK

DIN
69893-A

防塵設計 Dust-proof design



| 規格 Spec. | l_1 | d_1 | d_2 | 重量 (KGS) Weight |
|---------------------|-------|-------|-------|-----------------|
| HSK63A-MLK12-90 | 90 | 12 | 42 | - |
| HSK63A-MLK16-100 | 100 | 16 | 48 | - |
| HSK63A-MLK20-120 | 120 | 20 | 56.5 | - |
| HSK63A-MLK25-105 | 105 | 25 | 60 | - |
| HSK63A x MLK32-120 | 120 | 32 | 72 | 2.53 |
| HSK63A x MLK32-150 | 150 | 32 | 72 | - |
| HSK100A-MLK12-115 | 115 | 12 | 42 | - |
| HSK100A-MLK16-120 | 120 | 16 | 48 | - |
| HSK100A-MLK20-120 | 120 | 20 | 56.5 | - |
| HSK100A-MLK25-115 | 115 | 25 | 60 | - |
| HSK100A x MLK32-120 | 120 | 32 | 72 | 4.36 |

HSK

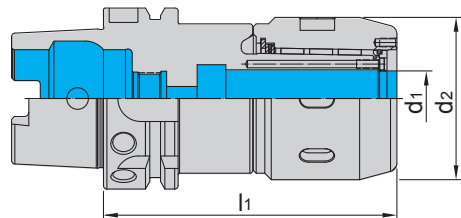


HSK/MLD 直式筒夾銑床夾頭

HSK/MLD MULTI-LOCK COLLET CHUCK

DIN 69893
NO.M430337

DIN
69893-A



特點 Feature

- 偏擺精度 :0.001~0.005 以內 · 真圓度 :0.02mm
- 預設動平衡至 G6.3 8000rpm · 可依照客戶指定動平衡等級及轉速 · 並附檢驗報告 · 但需另外付費
- MLD20、MLD-3/4、MLK20 扳手共用
- MLD25、EOC25、MLK25 扳手共用
- MLD32、MLD-1-1/4、MLK32 扳手共用

- Run-out: Within 0.001~0.005mm. Concentricity: 0.02mm.
- Dynamic pre-balancing G6.3 at 8000rpm., with an inspection report. The balancing grade and revolution can be done according to customer request but the additional charge is needed.
- MLD20 and MLD-3/4、MLK20 spanner can be used in common.
- MLD25 and EOC25、MLK25 spanner can be used in common.
- MLD32 and MLD-1-1/4、MLK32 spanner can be used in common.

| 規格 Spec. | l_1 | d_1 | d_2 | 重量 (KGS) Weight |
|-----------------------|-------|-------|-------|-----------------|
| HSK50A x MLD20 - 120 | 120 | 20 | 56.5 | 1.62 |
| HSK50A x MLD32 - 130 | 130 | 32 | 71 | 1.80 |
| HSK63A x MLD20 - 120 | 120 | 20 | 56.5 | 2.07 |
| HSK63A x MLD32 - 120 | 120 | 32 | 71 | 2.54 |
| HSK100A x MLD20 - 120 | 120 | 20 | 56.5 | 3.40 |
| HSK100A x MLD32 - 120 | 120 | 31 | 71 | 4.00 |

※ 注意：銑刀裝置入筒夾需超過筒夾有效夾持長度，以避免因非完全夾持，導致筒夾損壞、變形

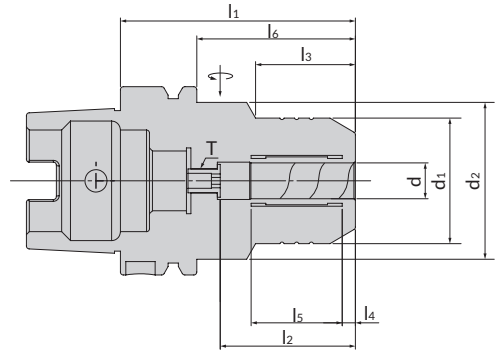
Note: To avoid the improper clamping (no clamp at all) & damage and deformation for collet, it should exceed the effective length of collet when installing the cutter onto collet.

選配表 Option

| 筒夾 Collet | 扳手 Spanner | 給水管 Coolant Supply Unti |
|-----------|------------|-------------------------|
| | | |
| B631 | B651 | B519 |

• 長度單位 Unit of Length (mm)

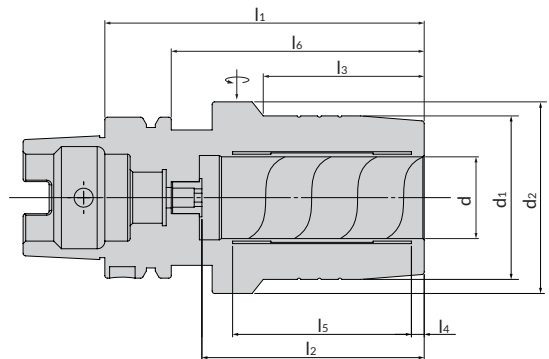
同心度和重覆精度在 0.003mm 以內 (2.5D)



特點 Feature

- 小徑液壓刀桿：外徑降低干涉，無需使用減壓徑套筒
 - 直徑為 20mm 時，最大夾持扭矩高達 900Nm 最小扭矩 520Nm 以上。
 - 直徑為 32mm 時，最大夾持扭矩高達 2000Nm 最小扭矩 900Nm 以上。
- Small-diameter hydraulic shank: Prevent interference from shank, no need to use collet reducer
 - diameter 20mm, .

| 規格 Spec. | l ₁ | l ₂ | l ₃ | l ₄ | l ₅ | l ₆ | d | d ₁ | d ₂ | T | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----|----------------|----------------|---------|-----------|------------------|-----------------|
| HSK63A-LHC6-70 | 70 | 37 | 25 | - | 21 | 43 | 6 | 26 | 50 | M5 | PT5 | - | - |
| NEW HSK63A-LHC8-70 | 70 | 37 | 25 | - | 21 | 43 | 8 | 28 | 50 | M6 | PT5 | - | - |
| HSK63A-LHC10-80 | 80 | 41 | 35 | - | 31 | 53 | 10 | 30 | 50 | M8X1.0P | PT5 | - | - |
| HSK63A-LHC12-80 | 80 | 46 | 34 | 4.5 | 31 | 54 | 12 | 42 | 52.5 | M8X1.0P | PT5 | 110 | 1.25 |
| HSK63A-LHC16-80 | 80 | 51 | - | 5 | 37 | 54 | 16 | 52.5 | - | M8X1.0P | PT5 | 350 | 1.30 |
| HSK63A-LHC20-80 | 80 | 51 | - | 5 | 37 | 54 | 20 | 52.5 | - | M8X1.0P | PT5 | 520 | 1.32 |
| HSK63A-LHC32-120 | 120 | 61 | - | 6 | 44 | 94.05 | 32 | 62.5 | - | M8X1.0P | PT6 | 900 | 2.66 |
| HSK100A-LHC20-90 | 90 | 51 | - | 5 | 37 | 61 | 20 | 52.5 | - | M8X1.0P | PT5 | 520 | 2.80 |
| HSK100A-LHC32-100 | 100 | 61 | - | 6 | 44 | 71 | 32 | 72 | - | M8X1.0P | PT6 | 900 | 3.80 |



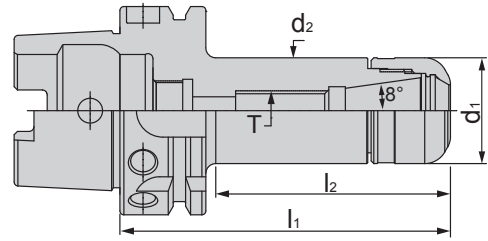
| 規格 Spec. | l ₁ | l ₂ | l ₃ | l ₄ | l ₅ | l ₆ | d | d ₁ | d ₂ | T | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----|----------------|----------------|----------|-----------|------------------|-----------------|
| HSK63A-LHC32-125-P | 125 | 61 | 10 | 63 | 47.7 | 99 | 32 | 64 | 75 | M16X1.0P | PT6 | 650 | 2.70 |

選配表 Option

| 筒夾 Collet | 給水管 Coolant Supply Unit |
|-----------|-------------------------|
| | |
| B632 | B519 |

• 長度單位 Unit of Length (mm)

精度 Accuracy : <math><3\mu\text{m}</math>



特點 Feature

- 標準動平衡 G2.5 25000rpm

- The Dynamic balancing grade reaches the revolving of G2.5 25000rpm.

| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------------|-------|-------|-------|-------|-----------|------------------|-----------------|
| HSK32AxPNER16-50 | 50 | 29 | 30 | 26 | - | 3.0~10 | 0.14 |
| HSK32AxPNER20-60 | 60 | 39 | 32 | - | - | 3.0~13 | 0.24 |
| HSK40AxPNER16-60 | 60 | 37 | 30 | 26 | - | 3.0~10 | 0.36 |
| HSK40AxPNER20-60 | 60 | 38 | 32 | 32 | - | 3.0~13 | 0.37 |
| HSK40AxPNER25-60 | 60 | 38 | 40 | - | - | 3.0~16 | 0.47 |
| HSK40AxPNER32-70 | 70 | 35 | 50 | 40.5 | - | 3.0~20 | 0.57 |
| HSK50AxPNER16-60 | 60 | 31 | 30 | 26 | - | 3.0~10 | 0.54 |
| HSK50AxPNER20-60 | 60 | 31 | 32 | 32 | - | 3.0~13 | 0.55 |
| HSK50AxPNER25-60 | 60 | 32 | 40 | 32.5 | - | 3.0~16 | 0.65 |
| HSK50AxPNER32-70 | 70 | 42 | 50 | - | - | 3.0~20 | 0.75 |
| HSK50AxPNER40-80 | 80 | 38 | 63 | - | - | 6.0~26 | 0.85 |
| HSK63AxPNER16-60 | 60 | 31 | 30 | 26 | - | 3.0~10 | 1.00 |
| HSK63AxPNER16-100 | 100 | 64 | 30 | 26 | M10x1.5P | 3.0~10 | 1.10 |
| HSK63AxPNER16-130 | 130 | 94 | 30 | 26 | M10x1.5P | 3.0~10 | 1.20 |
| HSK63AxPNER16-160 | 160 | 124 | 30 | 26 | M10x1.5P | 3.0~10 | 1.30 |
| HSK63AxPNER20-60 | 60 | 31 | 32 | 32 | - | 3.0~13 | 1.60 |
| HSK63AxPNER20-100 | 100 | 71 | 32 | 32 | M12x1.75P | 3.0~13 | 1.70 |
| HSK63AxPNER20-130 | 130 | 99 | 32 | 32 | M12x1.75P | 3.0~13 | 1.80 |
| HSK63AxPNER20-160 | 160 | 129 | 32 | 32 | M12x1.75P | 3.0~13 | 1.90 |
| HSK63AxPNER25-100 | 100 | 71 | 40 | 40 | M16x2.0P | 3.0~16 | 1.80 |
| HSK63AxPNER25-130 | 130 | 101 | 40 | 40 | M16x2.0P | 3.0~16 | 1.90 |
| HSK63AxPNER25-160 | 160 | 131 | 40 | 40 | M16x2.0P | 3.0~16 | 2.00 |
| HSK63AxPNER32-100 | 100 | 71 | 50 | 50 | - | 3.0~20 | 2.55 |
| HSK63AxPNER32-130 | 130 | 101 | 50 | 50 | M16x2.0P | 3.0~20 | 2.65 |
| HSK63AxPNER32-160 | 160 | 131 | 50 | 50 | M16x2.0P | 3.0~20 | 2.75 |
| HSK63AxPNER40-100 | 100 | 71 | 63 | - | M20x2.0P | 6.0~26 | 2.65 |
| HSK63AxPNER40-130 | 130 | 101 | 63 | - | M20x2.0P | 6.0~26 | 2.75 |
| HSK63AxPNER40-160 | 160 | 131 | 63 | - | M20x2.0P | 6.0~26 | 2.85 |

HSK

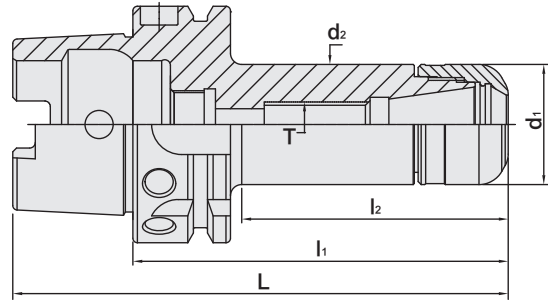
選配表 Option

| 筒夾 Collet | 螺帽 Nut | 扳手 Spanner | 給水管 Coolant Supply Unit |
|-----------|-----------|------------|-------------------------|
| | | | |
| B625-B626 | B637-B638 | B651 | B519 |



• 長度單位 Unit of Length (mm)

精度 Accuracy : <math><3\mu\text{m}</math>



特點 Feature

- 標準動平衡 G2.5 25000rpm

- The Dynamic balancing grade reaches the revolving of G2.5 25000rpm.

| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|--------------------|-------|-------|-------|-------|-----------|------------------|-----------------|
| HSK80AxPNER32-100 | 100 | 69 | 50 | 50 | - | 3.0~20 | 3.10 |
| HSK80AxPNER40-120 | 120 | 91 | 63 | 63 | M20x2.0P | 6.0~26 | 3.20 |
| HSK100AxPNER16-100 | 100 | 61 | 30 | 26 | - | 3.0~10 | 2.90 |
| HSK100AxPNER16-130 | 130 | 91 | 30 | 26 | M10x1.5P | 3.0~10 | |
| HSK100AxPNER16-160 | 160 | 121 | 30 | 26 | M10x1.5P | 3.0~10 | |
| HSK100AxPNER16-200 | 200 | 161 | 30 | 26 | M10x1.5P | 3.0~10 | |
| HSK100AxPNER20-100 | 100 | 61 | 32 | 32 | M12x1.75P | 3.0~13 | 3.00 |
| HSK100AxPNER20-130 | 130 | 91 | 32 | 32 | - | 3.0~13 | |
| HSK100AxPNER20-160 | 160 | 121 | 32 | 32 | M12x1.75P | 3.0~13 | |
| HSK100AxPNER20-200 | 200 | 161 | 32 | 32 | M12x1.75P | 3.0~13 | |
| HSK100AxPNER25-100 | 100 | 61 | 40 | 40 | M16x2.0P | 3.0~16 | 3.10 |
| HSK100AxPNER25-130 | 130 | 91 | 40 | 40 | - | 3.0~16 | |
| HSK100AxPNER25-160 | 160 | 121 | 40 | 40 | M16x2.0P | 3.0~16 | |
| HSK100AxPNER25-200 | 200 | 161 | 40 | 40 | M16x2.0P | 3.0~16 | |
| HSK100AxPNER32-100 | 100 | 61 | 50 | 50 | - | 3.0~20 | 3.20 |
| HSK100AxPNER32-130 | 130 | 91 | 50 | 50 | M16x2.0P | 3.0~20 | |
| HSK100AxPNER32-160 | 160 | 121 | 50 | 50 | M16x2.0P | 3.0~20 | |
| HSK100AxPNER32-200 | 200 | 161 | 50 | 50 | M16x2.0P | 3.0~20 | |
| HSK100AxPNER40-100 | 100 | 61 | 63 | 63 | - | 6.0~26 | 3.30 |
| HSK100AxPNER40-130 | 130 | 91 | 63 | 63 | M20x2.0P | 6.0~26 | |
| HSK100AxPNER40-160 | 160 | 121 | 63 | 63 | M20x2.0P | 6.0~26 | |
| HSK100AxPNER40-200 | 200 | 161 | 63 | 63 | M20x2.0P | 6.0~26 | |

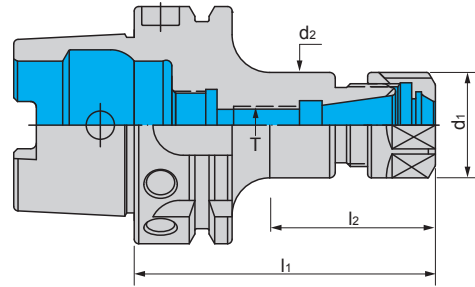
HSK

選配表 Option

| 筒夾 Collet | 螺帽 Nut | 扳手 Spanner | 給水管 Coolant Supply Unti |
|-----------|-----------|------------|-------------------------|
| | | | |
| B625-B626 | B637-B638 | B651 | B519 |



• 長度單位 Unit of Length (mm)



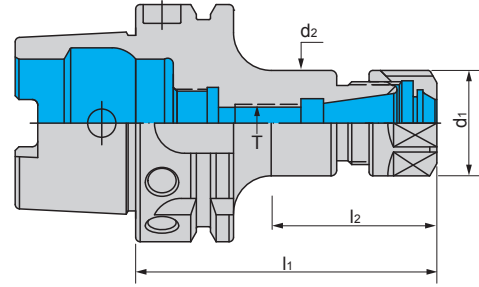
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| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | T | 重量 (KGS) Weight |
|---------------------|-------|-------|-------|-------|-------------|-----------------------|
| HSK 40A x ER20A-80 | 80 | 59 | 34 | 32 | M10 x 1.5P | 0.35 |
| HSK 40A x ER25-80 | 80 | 59 | 42 | 32 | M10 x 1.5P | 0.40 |
| HSK 50A x ER16A-80 | 80 | 49 | 28 | 28 | M10 x 1.5P | 0.50 |
| HSK 50A x ER16A-100 | 100 | 71 | 28 | 28 | M10 x 1.5P | 0.55 |
| HSK 50A x ER16A-120 | 120 | 91 | 28 | 28 | M10 x 1.5P | 0.70 |
| HSK 50A x ER20A-80 | 80 | 53 | 34 | 34 | M12 x 1.75P | 0.60 |
| HSK 50A x ER20A-100 | 100 | 71 | 34 | 34 | M12 x 1.75P | 0.65 |
| HSK 50A x ER20A-120 | 120 | 91 | 34 | 34 | M12 x 1.75P | 0.70 |
| HSK 50A x ER25-80 | 80 | 53 | 42 | 40 | M16 x 2.0P | 0.70 |
| HSK 50A x ER25-100 | 100 | 73 | 42 | 42 | M16 x 2.0P | 0.80 |
| HSK 50A x ER25-135 | 135 | 108 | 42 | 42 | M16 x 2.0P | 0.90 |
| HSK 50A x ER32-100 | 100 | 73 | 50 | 50 | M16 x 2.0P | 1.08 |
| HSK 50A x ER32-135 | 135 | 108 | 50 | 50 | M16 x 2.0P | 1.50 |
| HSK 50A x ER32-160 | 160 | 133 | 50 | 50 | M16 x 2.0P | 1.70 |
| HSK 63A x ER16A-80 | 80 | 44 | 28 | 28 | M10 x 1.5P | 0.90 |
| HSK 63A x ER16A-100 | 100 | 64 | 28 | 28 | M10 x 1.5P | 0.98 |
| HSK 63A x ER16A-120 | 120 | 84 | 28 | 28 | M10 x 1.5P | 1.70 |
| HSK 63A x ER16A-160 | 160 | 124 | 28 | 28 | M10 x 1.5P | 1.28 |
| HSK 63A x ER20A-80 | 80 | 49 | 34 | 34 | M12 x 1.75P | 0.96 |
| HSK 63A x ER20A-100 | 100 | 66 | 34 | 34 | M12 x 1.75P | 1.09 |
| HSK 63A x ER20A-120 | 120 | 91 | 34 | 34 | M12 x 1.75P | 1.19 |
| HSK 63A x ER20A-160 | 160 | 131 | 34 | 34 | M12 x 1.75P | 2.00 |
| HSK 63A x ER25-80 | 80 | 49 | 42 | 42 | M16 x 2.0P | 1.07 |
| HSK 63A x ER25-100 | 100 | 69 | 42 | 42 | M16 x 2.0P | 1.25 |
| HSK 63A x ER25-120 | 120 | 89 | 42 | 42 | M16 x 2.0P | 1.44 |
| HSK 63A x ER25-150 | 150 | 119 | 42 | 42 | M16 x 2.0P | 2.30 |
| HSK 63A x ER32-80 | 80 | 53 | 50 | 50 | - | 1.16 |
| HSK 63A x ER32-100 | 100 | 72 | 50 | 50 | M16 x 2.0P | 1.44 |
| HSK 63A x ER32-145 | 145 | 118 | 50 | 50 | M16 x 2.0P | 2.70 |
| HSK 63A x ER32-160 | 160 | 133 | 50 | 50 | M16 x 2.0P | 2.33 |
| HSK 63A x ER40-80 | 80 | 53 | 63 | 52 | - | 1.28 |
| HSK 63A x ER40-100 | 100 | 73 | 63 | 60 | M20 x 2.0P | 1.69 |
| HSK 63A x ER40-120 | 120 | 93 | 63 | 60 | M20 x 2.0P | 2.03 |
| HSK 63A x ER40-150 | 150 | 123 | 63 | 60 | M20 x 2.0P | 2.95 |
| HSK 63A x ER40-170 | 170 | 143 | 63 | 60 | M20 x 2.0P | 3.10 |
| HSK 63A x ER50-120 | 120 | 93 | 78 | 60 | M24 x 2.0P | 3.50 |

選配表 Option

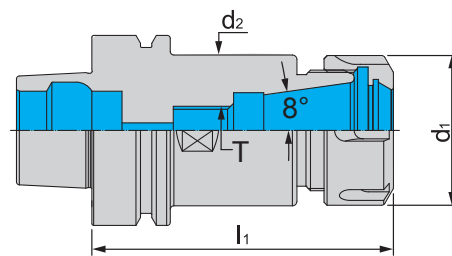
| 筒夾 Collet | 螺帽 Nut | 扳手 Spanner | 給水管 Coolant Supply Uni |
|-----------|--------|------------|------------------------|
| | | | |
| B612 | B634 | B650 | B519 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | T | 重量 (KGS) Weight |
|----------------------|-------|-------|-------|-------|-------------|-----------------|
| HSK 100A x ER16A-80 | 80 | 41 | 28 | 28 | M10 x 1.5P | 2.90 |
| HSK 100A x ER16A-100 | 100 | 61 | 28 | 28 | M10 x 1.5P | 2.95 |
| HSK 100A x ER16A-160 | 160 | 116 | 28 | 28 | M10 x 1.5P | 3.45 |
| HSK 100A x ER20A-80 | 80 | 41 | 34 | 34 | M12 x 1.75P | 2.9 |
| HSK 100A x ER20A-100 | 100 | 61 | 34 | 34 | M12 x 1.75P | 2.57 |
| HSK 100A x ER20A-160 | 160 | 121 | 34 | 34 | M12 x 1.75P | 3.30 |
| HSK 100A x ER25-100 | 100 | 61 | 42 | 42 | M16 x 2.0P | 3.00 |
| HSK 100A x ER25-130 | 130 | 96 | 42 | 42 | M16 x 2.0P | 3.00 |
| HSK 100A x ER32-100 | 100 | 61 | 50 | 50 | M16 x 2.0P | 2.92 |
| HSK 100A x ER32-135 | 135 | 96 | 50 | 50 | M16 x 2.0P | 3.35 |
| HSK 100A x ER32-150 | 150 | 116 | 50 | 50 | M16 x 2.0P | 3.50 |
| HSK 100A x ER40-80 | 80 | 46 | 63 | 62 | - | 3.30 |
| HSK 100A x ER40-120 | 120 | 86 | 63 | 63 | M20 x 2.0P | 3.71 |
| HSK 100A x ER40-175 | 175 | 141 | 63 | 60 | M20 x 2.0P | 4.20 |
| HSK 100A x ER50-100 | 100 | 68 | 78 | 78 | - | 4.50 |
| HSK 100A x ER50-120 | 120 | 88 | 78 | 64 | M24 x 2.0P | 5.00 |

HSK

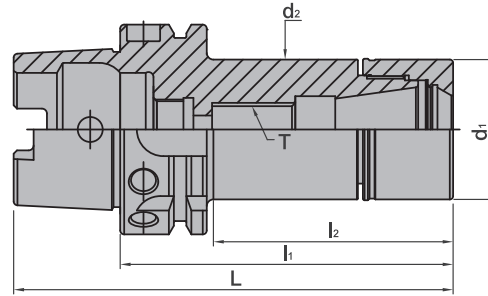


| 規格 Spec. | l_1 | d_1 | d_2 | T | 重量 (KGS) Weight |
|--------------------|-------|-------|-------|------------|-----------------|
| HSK 63F x ER32-70 | 70 | 50 | 53 | - | 0.97 |
| HSK 63F x ER32-100 | 100 | 50 | 53 | M16 x 2.0P | 2.55 |
| HSK 63F x ER40-75 | 75 | 63 | 53 | - | 2.65 |
| HSK 63F x ER40-100 | 100 | 63 | 53 | M20 x 2.0P | 2.50 |
| HSK 63F x ER40-120 | 120 | 63 | 53 | M20 x 2.0P | 2.77 |

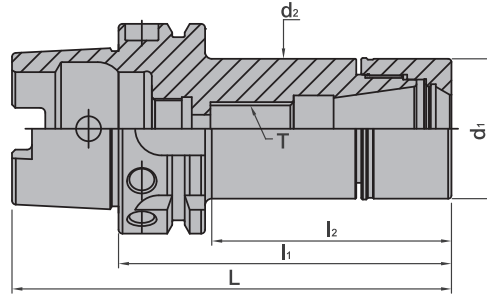
選配表 Option

| 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|-----------|--------|------------|
| | | |
| B612 | B634 | B650 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | l ₂ | d ₁ | d ₂ | T | 夾持範圍 Size Range | 重量 (KGS) Weight |
|--------------------|-----|----------------|----------------|----------------|----------------|-----------|--------------------|--------------------|
| HSK40AxPro.E16-70 | 90 | 70 | 48 | 30 | 30 | - | 1~10 | 0.40 |
| HSK40AxPro.E16-100 | 120 | 100 | 78 | 30 | 30 | M10x1.5P | 1~10 | 0.55 |
| HSK40AxPro.E20-70 | 90 | 70 | 49 | 35 | 34 | - | 1~13 | 0.47 |
| HSK40AxPro.E20-100 | 120 | 100 | 79 | 35 | 34 | M12x1.75P | 1~13 | 0.63 |
| HSK40AxPro.E25-70 | 90 | 70 | 35 | 42 | 42 | - | 1~16 | 0.51 |
| HSK40AxPro.E25-100 | 120 | 100 | 65 | 42 | 42 | M16x2.0P | 1~16 | 0.80 |
| HSK40AxPro.E32-70 | 90 | 70 | 35 | 50 | 50 | - | 2~20 | 0.52 |
| HSK40AxPro.E32-100 | 120 | 100 | 65 | 50 | 50 | M16x2.0P | 2~20 | 0.90 |
| HSK50AxPro.E16-70 | 95 | 70 | 42 | 30 | 30 | - | 1~10 | 0.56 |
| HSK50AxPro.E16-100 | 125 | 100 | 71 | 30 | 30 | M10x1.5P | 1~10 | 0.71 |
| HSK50AxPro.E16-125 | 150 | 125 | 96 | 30 | 30 | M10x1.5P | 1~10 | 0.84 |
| HSK50AxPro.E16-150 | 175 | 150 | 121 | 30 | 30 | M10x1.5P | 1~10 | 0.97 |
| HSK50AxPro.E20-70 | 95 | 70 | 42 | 35 | 35 | - | 1~13 | 0.62 |
| HSK50AxPro.E20-100 | 125 | 100 | 71 | 35 | 35 | M12x1.75P | 1~13 | 0.83 |
| HSK50AxPro.E20-125 | 150 | 125 | 96 | 35 | 35 | M12x1.75P | 1~13 | 1.01 |
| HSK50AxPro.E20-150 | 175 | 150 | 121 | 35 | 35 | M12x1.75P | 1~13 | 1.19 |
| HSK50AxPro.E25-70 | 95 | 70 | 43.5 | 42 | 42 | - | 1~16 | 0.71 |
| HSK50AxPro.E25-100 | 125 | 100 | 73.5 | 42 | 42 | M16x2.0P | 1~16 | 1.00 |
| HSK50AxPro.E25-125 | 150 | 125 | 98.5 | 42 | 42 | M16x2.0P | 1~16 | 1.26 |
| HSK50AxPro.E25-150 | 175 | 150 | 123.5 | 42 | 42 | M16x2.0P | 1~16 | 1.52 |
| HSK50AxPro.E32-80 | 105 | 80 | 53 | 50 | 50 | - | 2~20 | 0.82 |
| HSK50AxPro.E32-100 | 125 | 100 | 73 | 50 | 50 | M16x2.0P | 2~20 | 1.05 |
| HSK50AxPro.E32-125 | 150 | 125 | 98 | 50 | 50 | M16x2.0P | 2~20 | 1.37 |
| HSK50AxPro.E32-150 | 175 | 150 | 123 | 50 | 50 | M16x2.0P | 2~20 | 1.71 |
| HSK63AxPro.E16-70 | 102 | 70 | 39 | 30 | 30 | - | 1~10 | 0.82 |
| HSK63AxPro.E16-100 | 132 | 100 | 69 | 30 | 30 | M10x1.5P | 1~10 | 0.97 |
| HSK63AxPro.E16-125 | 157 | 125 | 94 | 30 | 30 | M10x1.5P | 1~10 | 1.09 |
| HSK63AxPro.E16-150 | 182 | 150 | 119 | 30 | 30 | M10x1.5P | 1~10 | 1.22 |
| HSK63AxPro.E16-200 | 232 | 200 | 169 | 30 | 30 | M10x1.5P | 1~10 | 1.47 |
| HSK63AxPro.E20-70 | 102 | 70 | 39 | 35 | 35 | - | 1~13 | 0.88 |
| HSK63AxPro.E20-100 | 132 | 100 | 69 | 35 | 35 | M12x1.75P | 1~13 | 1.08 |
| HSK63AxPro.E20-125 | 157 | 125 | 94 | 35 | 35 | M12x1.75P | 1~13 | 1.25 |
| HSK63AxPro.E20-150 | 182 | 150 | 119 | 35 | 35 | M12x1.75P | 1~13 | 1.43 |
| HSK63AxPro.E20-200 | 232 | 200 | 169 | 35 | 35 | M12x1.75P | 1~13 | 1.78 |
| HSK63AxPro.E25-70 | 102 | 70 | 41 | 42 | 42 | - | 1~16 | 0.97 |
| HSK63AxPro.E25-100 | 132 | 100 | 71 | 42 | 42 | M16x2.0P | 1~16 | 1.26 |
| HSK63AxPro.E25-125 | 157 | 125 | 96 | 42 | 42 | M16x2.0P | 1~16 | 1.51 |
| HSK63AxPro.E25-150 | 192 | 150 | 121 | 42 | 42 | M16x2.0P | 1~16 | 1.77 |
| HSK63AxPro.E25-200 | 232 | 200 | 171 | 42 | 42 | M16x2.0P | 1~16 | 2.28 |
| HSK63AxPro.E32-80 | 112 | 80 | 53 | 50 | 50 | - | 2~20 | 1.01 |
| HSK63AxPro.E32-100 | 132 | 100 | 71 | 50 | 50 | M16x2.0P | 2~20 | 1.39 |
| HSK63AxPro.E32-125 | 157 | 125 | 96 | 50 | 50 | M16x2.0P | 2~20 | 1.69 |
| HSK63AxPro.E32-150 | 182 | 150 | 121 | 50 | 50 | M16x2.0P | 2~20 | 2.02 |
| HSK63AxPro.E32-200 | 232 | 200 | 171 | 50 | 50 | M16x2.0P | 2~20 | 2.70 |



| 規格 Spec. | L | l ₁ | l ₂ | d ₁ | d ₂ | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|---------------------|-----|----------------|----------------|----------------|----------------|-----------|---------------------|--------------------|
| HSK80AxPro.E16-70 | 110 | 70 | 39 | 30 | 30 | - | 1~10 | 1.25 |
| HSK80AxPro.E16-100 | 140 | 100 | 69 | 30 | 30 | M10x1.5P | 1~10 | 1.40 |
| HSK80AxPro.E16-125 | 165 | 125 | 94 | 30 | 30 | M10x1.5P | 1~10 | 1.52 |
| HSK80AxPro.E16-150 | 190 | 150 | 119 | 30 | 30 | M10x1.5P | 1~10 | 1.64 |
| HSK80AxPro.E16-200 | 240 | 200 | 169 | 30 | 30 | M10x1.5P | 1~10 | 1.88 |
| HSK80AxPro.E20-70 | 110 | 70 | 39 | 35 | 35 | - | 1~13 | 1.31 |
| HSK80AxPro.E20-100 | 140 | 100 | 69 | 35 | 35 | M12x1.75P | 1~13 | 1.52 |
| HSK80AxPro.E20-125 | 165 | 125 | 94 | 35 | 35 | M12x1.75P | 1~13 | 1.69 |
| HSK80AxPro.E20-150 | 190 | 150 | 119 | 35 | 35 | M12x1.75P | 1~13 | 1.86 |
| HSK80AxPro.E20-200 | 240 | 200 | 169 | 35 | 35 | M12x1.75P | 1~13 | 2.20 |
| HSK80AxPro.E25-70 | 110 | 70 | 39 | 42 | 42 | - | 1~16 | 1.41 |
| HSK80AxPro.E25-100 | 140 | 100 | 69 | 42 | 42 | M16x2.0P | 1~16 | 1.69 |
| HSK80AxPro.E25-125 | 165 | 125 | 94 | 42 | 42 | M16x2.0P | 1~16 | 1.94 |
| HSK80AxPro.E25-160 | 200 | 160 | 129 | 42 | 42 | M16x2.0P | 1~16 | 2.29 |
| HSK80AxPro.E25-200 | 240 | 200 | 169 | 42 | 42 | M16x2.0P | 1~16 | 2.69 |
| HSK80AxPro.E32-100 | 140 | 100 | 69 | 50 | 50 | - | 2~20 | 1.81 |
| HSK80AxPro.E32-125 | 165 | 125 | 94 | 50 | 50 | M16x2.0P | 2~20 | 2.12 |
| HSK80AxPro.E32-150 | 190 | 150 | 119 | 50 | 50 | M16x2.0P | 2~20 | 2.46 |
| HSK80AxPro.E32-200 | 240 | 200 | 169 | 50 | 50 | M16x2.0P | 2~20 | 3.12 |
| HSK100AxPro.E16-100 | 150 | 100 | 61 | 30 | 30 | M10x1.5P | 1~10 | 2.29 |
| HSK100AxPro.E16-125 | 175 | 125 | 86 | 30 | 30 | M10x1.5P | 1~10 | 2.41 |
| HSK100AxPro.E16-150 | 200 | 150 | 111 | 30 | 30 | M10x1.5P | 1~10 | 2.52 |
| HSK100AxPro.E16-200 | 250 | 200 | 161 | 30 | 30 | M10x1.5P | 1~10 | 2.75 |
| HSK100AxPro.E20-100 | 150 | 100 | 61 | 35 | 35 | - | 1~13 | 2.40 |
| HSK100AxPro.E20-125 | 175 | 125 | 86 | 35 | 35 | M12x1.75P | 1~13 | 2.57 |
| HSK100AxPro.E20-150 | 200 | 150 | 111 | 35 | 35 | M12x1.75P | 1~13 | 2.73 |
| HSK100AxPro.E20-200 | 250 | 200 | 161 | 35 | 35 | M12x1.75P | 1~13 | 3.06 |
| HSK100AxPro.E25-100 | 150 | 100 | 61 | 42 | 42 | - | 1~16 | 2.58 |
| HSK100AxPro.E25-125 | 175 | 125 | 86 | 42 | 42 | M16x2.0P | 1~16 | 2.81 |
| HSK100AxPro.E25-150 | 200 | 150 | 111 | 42 | 42 | M16x2.0P | 1~16 | 3.06 |
| HSK100AxPro.E25-200 | 250 | 200 | 161 | 42 | 42 | M16x2.0P | 1~16 | 3.55 |
| HSK100AxPro.E32-100 | 150 | 100 | 61 | 50 | 50 | - | 2~20 | 2.68 |
| HSK100AxPro.E32-125 | 175 | 125 | 86 | 50 | 50 | M16x2.0P | 2~20 | 2.98 |
| HSK100AxPro.E32-150 | 200 | 150 | 111 | 50 | 50 | M16x2.0P | 2~20 | 3.32 |
| HSK100AxPro.E32-200 | 250 | 200 | 161 | 50 | 50 | M16x2.0P | 2~20 | 3.98 |
| HSK125AxPro.E16-100 | 163 | 100 | 41 | 30 | 30 | M10x1.5P | 1~10 | 3.91 |
| HSK125AxPro.E16-125 | 188 | 125 | 66 | 30 | 30 | M10x1.5P | 1~10 | 4.03 |
| HSK125AxPro.E16-150 | 213 | 150 | 91 | 30 | 30 | M10x1.5P | 1~10 | 4.13 |
| HSK125AxPro.E16-200 | 263 | 200 | 141 | 30 | 30 | M10x1.5P | 1~10 | 4.34 |
| HSK125AxPro.E20-100 | 163 | 100 | 44 | 35 | 35 | M12x1.75P | 1~13 | 3.97 |
| HSK125AxPro.E20-125 | 188 | 125 | 69 | 35 | 35 | M12x1.75P | 1~13 | 4.13 |
| HSK125AxPro.E20-150 | 213 | 150 | 94 | 35 | 35 | M12x1.75P | 1~13 | 4.29 |
| HSK125AxPro.E20-200 | 263 | 200 | 144 | 35 | 35 | M12x1.75P | 1~13 | 4.60 |
| HSK125AxPro.E25-100 | 163 | 100 | 47 | 42 | 42 | M16x2.0P | 1~16 | 4.07 |

HSK

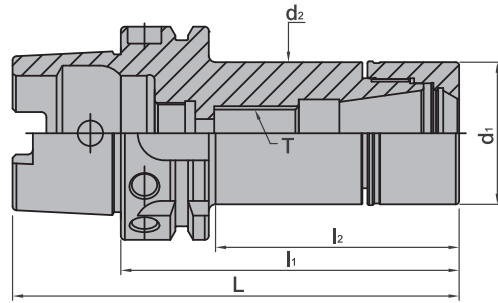


HSK/Pro.E 筒夾式刀桿 HSK/Pro.E COLLET CHUCK(FOR TYPE A)

DIN
69893-A



NEW

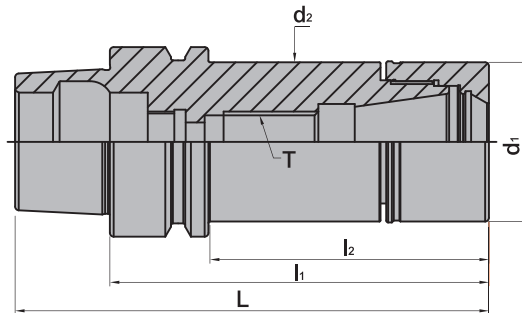


| 規格 Spec. | L | l ₁ | l ₂ | d ₁ | d ₂ | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|----------------------|-----|----------------|----------------|----------------|----------------|----------|---------------------|--------------------|
| HSK125A xPro.E25-125 | 188 | 125 | 72 | 42 | 42 | M16x2.0P | 1~16 | 4.31 |
| HSK125A xPro.E25-150 | 213 | 150 | 97 | 42 | 42 | M16x2.0P | 1~16 | 4.55 |
| HSK125A xPro.E25-200 | 263 | 200 | 147 | 42 | 42 | M16x2.0P | 1~16 | 5.02 |
| HSK125A xPro.E32-100 | 163 | 100 | 61 | 50 | 50 | M16x2.0P | 2~20 | 3.94 |
| HSK125A xPro.E32-125 | 188 | 125 | 86 | 50 | 50 | M16x2.0P | 2~20 | 4.30 |
| HSK125A xPro.E32-150 | 213 | 150 | 111 | 50 | 50 | M16x2.0P | 2~20 | 4.59 |
| HSK125A xPro.E32-200 | 263 | 200 | 161 | 50 | 50 | M16x2.0P | 2~20 | 5.23 |

HSK



HSK/Pro.E 筒夾式刀桿 HSK/Pro.E COLLET CHUCK(FOR TYPE E)



NEW

| 規格 Spec. | L | l ₁ | l ₂ | d ₁ | d ₂ | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|--------------------|-----|----------------|----------------|----------------|----------------|-----------|---------------------|--------------------|
| HSK25ExPro.E16-60 | 73 | 60 | 49 | 30 | 30 | - | 1~10 | 0.22 |
| HSK32ExPro.E16-65 | 81 | 65 | 44 | 30 | 30 | - | 1~10 | 0.29 |
| HSK40ExPro.E16-60 | 80 | 60 | 39 | 30 | 30 | - | 1~10 | 0.37 |
| HSK40ExPro.E20-100 | 120 | 100 | 79 | 35 | 34 | M12x1.75P | 1~13 | 0.68 |
| HSK40ExPro.E20-125 | 145 | 125 | 104 | 35 | 34 | M12x1.75P | 1~13 | 0.85 |
| HSK40ExPro.E25-70 | 90 | 70 | 49.5 | 42 | 42 | - | 1~16 | 0.53 |
| HSK40ExPro.E25-100 | 120 | 100 | 79.5 | 42 | 42 | M16x2.0P | 1~16 | 0.82 |
| HSK40ExPro.E25-125 | 145 | 125 | 104.5 | 42 | 42 | M16x2.0P | 1~16 | 1.08 |
| HSK40ExPro.E25-150 | 170 | 150 | 129.5 | 42 | 42 | M16x2.0P | 1~16 | 1.34 |
| HSK40ExPro.E32-70 | 90 | 70 | 49.5 | 50 | 50 | M16x2.0P | 2~20 | 0.53 |
| HSK40ExPro.E32-100 | 120 | 100 | 79.5 | 50 | 50 | M16x2.0P | 2~20 | 0.92 |
| HSK50ExPro.E16-70 | 95 | 70 | 41 | 30 | 30 | - | 1~10 | 0.60 |
| HSK50ExPro.E16-100 | 125 | 100 | 71 | 30 | 30 | M10x1.5P | 1~10 | 0.75 |
| HSK50ExPro.E20-70 | 95 | 70 | 41 | 35 | 35 | - | 1~13 | 0.66 |
| HSK50ExPro.E20-100 | 125 | 100 | 71 | 35 | 35 | M12x1.75P | 1~13 | 0.86 |
| HSK50ExPro.E20-125 | 150 | 125 | 96 | 35 | 35 | M12x1.75P | 1~13 | 1.04 |
| HSK50ExPro.E20-150 | 175 | 150 | 121 | 35 | 35 | M12x1.75P | 1~13 | 1.22 |
| HSK50ExPro.E25-70 | 95 | 70 | 43.5 | 42 | 42 | - | 1~16 | 0.70 |
| HSK50ExPro.E25-100 | 125 | 100 | 73.5 | 42 | 42 | M16x2.0P | 1~16 | 0.99 |
| HSK50ExPro.E32-70 | 95 | 70 | 43.5 | 50 | 50 | - | 2~20 | 0.73 |
| HSK50ExPro.E32-100 | 125 | 100 | 73 | 50 | 50 | M16x2.0P | 2~20 | 1.06 |
| HSK50ExPro.E32-125 | 150 | 125 | 98 | 50 | 50 | M16x2.0P | 2~20 | 1.41 |
| HSK50ExPro.E32-150 | 175 | 150 | 123 | 50 | 50 | M16x2.0P | 2~20 | 1.75 |

• 長度單位 Unit of Length (mm)

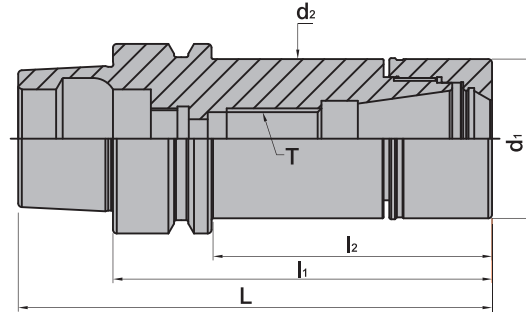


HSK-F/Pro.E 筒夾式刀桿 HSK-F/Pro.E COLLET CHUCK(FOR TYPE F)

DIN
69893-A



NEW

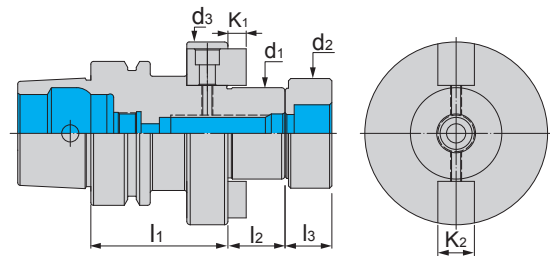


| 規格 Spec. | L | l ₁ | l ₂ | d ₁ | d ₂ | T | 夾持範圍 Size Range | 重量 (KGS) Weight |
|--------------------|-----|----------------|----------------|----------------|----------------|-----------|--------------------|--------------------|
| HSK63FxPro.E16-70 | 95 | 70 | 39 | 30 | 30 | - | 1~10 | 0.82 |
| HSK63FxPro.E16-100 | 125 | 100 | 69 | 30 | 30 | M10x1.5P | 1~10 | 0.97 |
| HSK63FxPro.E16-125 | 150 | 125 | 94 | 30 | 30 | M10x1.5P | 1~10 | 1.10 |
| HSK63FxPro.E20-70 | 95 | 70 | 39 | 35 | 35 | - | 1~13 | 0.88 |
| HSK63FxPro.E20-100 | 125 | 100 | 69 | 35 | 35 | M12x1.75P | 1~13 | 1.09 |
| HSK63FxPro.E20-125 | 150 | 125 | 94 | 35 | 35 | - | 1~13 | 1.27 |
| HSK63FxPro.E20-150 | 175 | 150 | 119 | 35 | 35 | M16x2.0P | 1~13 | 1.45 |
| HSK63FxPro.E25-70 | 95 | 70 | 41 | 42 | 42 | M16x2.0P | 1~16 | 0.97 |
| HSK63FxPro.E25-100 | 125 | 100 | 71 | 42 | 42 | M16x2.0P | 1~16 | 1.26 |
| HSK63FxPro.E25-125 | 150 | 125 | 96 | 42 | 42 | M16x2.0P | 1~16 | 1.52 |
| HSK63FxPro.E32-70 | 95 | 70 | 41 | 50 | 50 | M16x2.0P | 2~20 | 1.00 |
| HSK63FxPro.E32-100 | 125 | 100 | 71 | 50 | 50 | - | 2~20 | 1.38 |
| HSK63FxPro.E32-125 | 150 | 125 | 96 | 50 | 50 | M10x1.5P | 2~20 | 1.70 |
| HSK63FxPro.E32-150 | 175 | 150 | 121 | 50 | 50 | - | 2~20 | 2.04 |

HSK



HSK/FMB 平面銑刀柄 HSK/FMB FACE MILL ARBOR(FOR TYPE E)



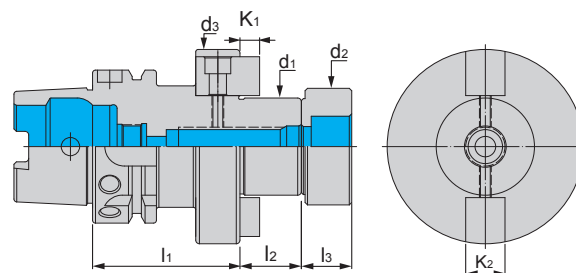
特點 Feature

- 平面銑刀配合部位 (d1) 軸系公差 h6.

- d1 tolerance: h6.

| 規格 Spec. | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | d ₃ | k ₁ | k ₂ | 重量 (KGS) Weight |
|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------|
| HSK 40E x FMB22 - 60 | 60 | 19 | 14 | 22 | 26 | 48 | 4.8 | 10 | 0.86 |
| HSK 50E x FMB22 - 60 | 60 | 19 | 14 | 22 | 26 | 48 | 4.8 | 10 | 1.20 |
| HSK 50E x FMB27 - 60 | 60 | 21 | 16 | 27 | 31.5 | 60 | 5.8 | 12 | 1.30 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 平面銑刀配合部位 (d1) 軸系公差 h6.

- d1 tolerance: h6.

HSK

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | k_1 | k_2 | 重量 (KGS) Weight |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| HSK 40A x FMB16 - 50 | 50 | 17 | - | 16 | - | 40 | 5 | 8 | 0.70 |
| HSK 40A x FMB22 - 60 | 60 | 19 | 14 | 22 | 26 | 52 | 4.8 | 10 | 0.86 |
| HSK 40A x FMB27 - 60 | 60 | 21 | 16 | 27 | 31.5 | 60 | 5.8 | 12 | 1.00 |
| HSK 40A x FMB32 - 60 | 60 | 24 | 16 | 32 | 41 | 78 | 6.8 | 14 | 1.10 |
| HSK 50A x FMB16 - 50 | 50 | 17 | - | 16 | - | 40 | 5 | 8 | 1.10 |
| HSK 50A x FMB22 - 60 | 60 | 19 | 14 | 22 | 26 | 48 | 4.8 | 10 | 0.95 |
| HSK 50A x FMB27 - 60 | 60 | 21 | 16 | 27 | 31.5 | 60 | 5.8 | 12 | 1.30 |
| HSK 50A x FMB32 - 60 | 60 | 24 | - | 32 | 41 | 78 | 6.8 | 14 | 1.50 |
| HSK 63A x FMB16 - 50 | 50 | 17 | - | 16 | - | 40 | 5 | 8 | 1.20 |
| HSK 63A x FMB16 - 100 | 100 | 17 | - | 16 | - | 40 | 5 | 8 | |
| HSK 63A x FMB16 - 150BG | 150 | 17 | - | 16 | - | 40 | 5 | 8 | |
| HSK 63A x FMB22 - 50 | 50 | 17 | 14 | 22 | 26 | 48 | 4.8 | 10 | 1.30 |
| HSK 63A x FMB22 - 100 | 100 | 19 | 14 | 22 | 26 | 48 | 4.8 | 10 | |
| HSK 63A x FMB22 - 150BG | 150 | 19 | 14 | 22 | 26 | 48 | 4.8 | 10 | |
| HSK 63A x FMB27 - 60 | 60 | 19 | 16 | 27 | 31.5 | 53 | 5.8 | 12 | 1.50 |
| HSK 63A x FMB27 - 100 | 100 | 21 | 16 | 27 | 31.5 | 53 | 5.8 | 12 | |
| HSK 63A x FMB27 - 150BG | 150 | 21 | 16 | 27 | 31.5 | 60 | 5.8 | 12 | |
| HSK 63A x FMB32 - 60 | 60 | 21 | 16 | 32 | 41 | 78 | 6.8 | 14 | 1.60 |
| HSK 63A x FMB32 - 100 | 100 | 24 | 16 | 32 | 41 | 78 | 6.8 | 14 | |
| HSK 63A x FMB32 - 150BG | 150 | 24 | 16 | 32 | 41 | 78 | 6.8 | 14 | |
| HSK 63A x FMB40 - 60 | 60 | 24 | 20.5 | 40 | 48 | 80 | 8.3 | 16 | 2.10 |
| HSK 63A x FMB40 - 100 | 100 | 25 | 20.5 | 40 | 48 | 80 | 8.3 | 16 | |

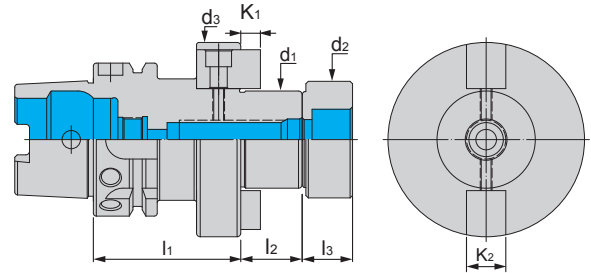
選配表 Option

給水管 Coolant Supply Unti



B519

• 長度單位 Unit of Length (mm)



特點 Feature

- 平面銑刀配合部位 (d1) 軸系公差 h6.

- d1 tolerance: h6.

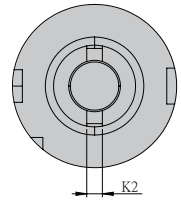
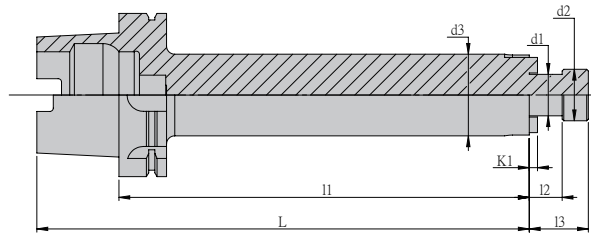
| 規格 Spec. | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | d ₃ | k ₁ | k ₂ | 重量 (KGS) Weight |
|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------|
| HSK 100A x FMB22 - 50 | 50 | 19 | 14 | 22 | 26 | 48 | 4.8 | 10 | 2.7 |
| HSK100AxFMB22-100 | 100 | 19 | 14 | 22 | 26 | 48 | 4.8 | 10 | |
| HSK100AxFMB22-150 BG | 150 | 19 | 14 | 22 | 26 | 58 | 4.8 | 10 | |
| HSK100AxFMB22-200 BG | 200 | 19 | 14 | 22 | 26 | 58 | 4.8 | 10 | |
| HSK 100A x FMB27 - 50 | 50 | 21 | 16 | 27 | 31.5 | 60 | 5.8 | 12 | 2.9 |
| HSK 100A x FMB27 - 100 | 100 | 21 | 16 | 27 | 31.5 | 60 | 5.8 | 12 | |
| HSK 100A x FMB27 - 150BG | 150 | 21 | 16 | 27 | 31.5 | 60 | 5.8 | 12 | |
| HSK 100A x FMB27 - 200BG | 200 | 21 | 16 | 27 | 31.5 | 60 | 5.8 | 12 | |
| HSK 100A x FMB32 - 50 | 50 | 24 | 16 | 32 | 41 | 78 | 6.8 | 14 | 3.0 |
| HSK 100A x FMB32 - 100 | 100 | 24 | 16 | 32 | 41 | 78 | 6.8 | 14 | |
| HSK100A x FMB32 - 150BG | 150 | 25 | 20.5 | 40 | 48 | 80 | 8.3 | 16 | |
| HSK100A x FMB32 - 200BG | 200 | 25 | 20.5 | 40 | 48 | 80 | 8.3 | 16 | |
| HSK 100A x FMB40 - 60 | 60 | 25 | 20.5 | 40 | 48 | 88 | 8.3 | 16 | 4.0 |
| HSK 100A x FMB40 - 100 | 100 | 25 | 20.5 | 40 | 48 | 88 | 8.3 | 16 | |
| HSK 100A x FMB40 - 150BG | 150 | 30 | 24 | 50 | 65 | 120 | 9.7 | 19 | |
| HSK 100A x FMB40 - 200BG | 200 | 40 | - | 60 | - | 129 | 12.5 | 25.4 | |
| HSK 100A x FMB50 - 70 | 70 | 30 | 25 | 50 | 68 | 120 | 9.7 | 19 | 5.1 |
| HSK 100A x FMB60 - 70 | 70 | 40 | - | 60 | - | 129 | 12.5 | 25.4 | 5.5 |

HSK

選配表 Option

| |
|-------------------------|
| 給水管 Coolant Supply Unti |
| |
| B519 |

• 長度單位 Unit of Length (mm)



HSK

| 規格 Spec. | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | d ₃ | k ₁ | k ₂ | 重量 (KGS) Weight |
|----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------|
| HSK63A x FMA25.4 - 75 | 75 | 20 | | 25.4 | | 50 | 4.52 | 9.52 | |
| HSK63A-FMA25.4-100 | 100 | 20 | | 25.4 | | 50 | 4.52 | 9.52 | |
| HSK63A-FMA25.4-150BG | 150 | 20 | | 25.4 | | 48 | 4.52 | 9.52 | |
| HSK63A x FMA31.75 - 75 | 75 | 22 | | 31.75 | | 60 | 6.7 | 12.7 | |
| HSK63A-FMA31.75-100 | 100 | 22 | | 31.75 | | 60 | 6.7 | 12.7 | |
| HSK63A-FMA31.75-150BG | 150 | 22 | | 31.75 | | 60 | 6.7 | 12.7 | |
| HSK63A x FMA38.1 - 75 | 75 | 25 | | 38.1 | | 75 | 8.87 | 15.87 | |
| HSK63A x FMA38.1 - 100 | 100 | 25 | | 38.1 | | 75 | 8.87 | 15.87 | |
| HSK100A x FMA25.4 - 75 | 75 | 20 | | 25.4 | | 50 | 4.52 | 9.52 | |
| HSK100A x FMA25.4 - 150BG | 150 | 20 | | 25.4 | | 48 | 4.52 | 9.52 | |
| HSK100A x FMA25.4 - 200BG | 200 | 20 | | 25.4 | | 58 | 4.52 | 9.52 | |
| HSK100A x FMA31.75 - 75 | 75 | 22 | | 25.4 | | 60 | 6.7 | 12.7 | |
| HSK100A x FMA31.75 - 150BG | 150 | 22 | | 31.75 | | 70 | 6.7 | 12.7 | |
| HSK100A x FMA31.75 - 200BG | 200 | 22 | | 31.75 | | 70 | 6.7 | 12.7 | |
| HSK100A x FMA38.1 - 75 | 75 | 25 | | 31.75 | | 80 | 8.87 | 15.87 | |
| HSK100A x FMA38.1 - 150BG | 150 | 25 | | 38.1 | | 80 | 8.87 | 15.87 | |
| HSK100A x FMA38.1 - 200BG | 200 | 25 | | 38.1 | | 80 | 8.87 | 15.87 | |
| HSK100A x FMA50.8 - 75 | 75 | 36 | | 50.8 | | 98 | 9.75 | 19.05 | |
| HSK100A x FMA50.8 - 150BG | 150 | 36 | | 50.8 | | 98 | 9.75 | 19.05 | |

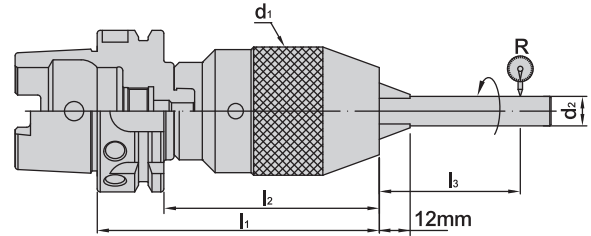
選配表 Option

給水管 Coolant Supply Unit



B519

• 長度單位 Unit of Length (mm)



特點 Feature

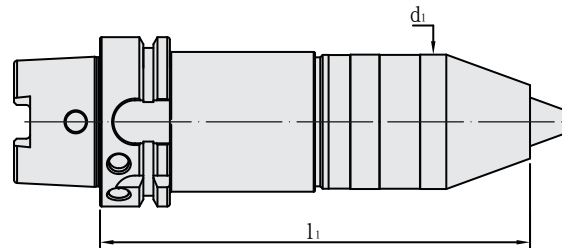
- 本產品因為增加了多層安全性設計，能提供給綜合切削中心機使用，在電腦操作的全自動作業中，以及無人化的管理整個流程，都能夠安全及順利地進行

- This product with multi-safety design can be used at Machine Center. It will be very safety to process under automatic computer operation and unmanned management.

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | R | 重量 (KGS) Weight |
|-----------------------|-------|-------|-------|-------|-------|------|-----------------|
| HSK 50A x SPU13- 150 | 150 | 124 | 55 | 50 | 5 | 0.04 | 1.40 |
| HSK 63A x SPU13- 150 | 150 | 124 | 55 | 50 | 10 | 0.04 | 2.69 |
| HSK 100A x SPU13- 155 | 155 | 126 | 75 | 50 | 13 | 0.04 | 4.30 |

- 附扳手 Attaches the spanner.

HSK

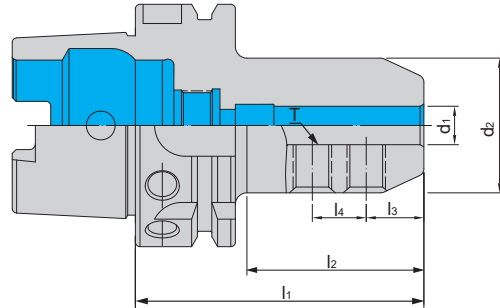


| 規格 Spec. | l_1 | d_1 | 夾持範圍 Capacity Range | 重量 (KGS) Weight |
|------------------|-------|-------|---------------------|-----------------|
| HSK63A-GPH13-105 | 105 | 50 | 1 ~ 13 | 2.53 |

選配表 Option

| 給水管 Coolant Supply Unti |
|-------------------------|
| |
| B519 |

• 長度單位 Unit of Length (mm)



HSK

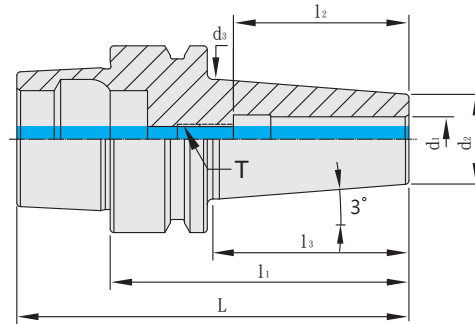
| 規格 Spec. | l_1 | l_2 | l_3 | l_4 | d_1 | d_2 | T | 重量 (KGS) Weight |
|--------------------------|-------|-------|-------|-------|-------|-------|-----------|-----------------------|
| HSK 63A x SLN10 - 75JIS | 75 | 46 | 15 | 14 | 10 | 35 | M10X1.5P | - |
| HSK 63A x SLN12 - 80JIS | 80 | 51 | 20 | 16 | 12 | 42 | M10X1.5P | - |
| HSK 63A x SLN16 - 90JIS | 90 | 62 | 22 | 18 | 16 | 48 | M10X1.5P | - |
| HSK 63A x SLN16 - 150JIS | 150 | 124 | 22 | 18 | 16 | 48 | M10X1.5P | - |
| HSK 63A x SLN20 - 90JIS | 90 | 62.5 | 25 | 20 | 20 | 50 | M12X1.75P | - |
| HSK 63A x SLN20 - 150JIS | 150 | 124 | 25 | 20 | 20 | 50 | M12X1.75P | - |
| HSK 63A x SLN25 - 90JIS | 90 | 62.5 | 24 | 25 | 25 | 50 | M12X1.75P | - |
| HSK 63A x SLN25 - 150JIS | 150 | 124 | 24 | 25 | 25 | 50 | M12X1.75P | - |
| HSK 63A x SLN32 - 105JIS | 105 | 79 | 24 | 28 | 32 | 60 | M16X2.0P | - |
| HSK100A x SLN16 - 90JIS | 90 | 40 | 22 | 18 | 16 | 48 | M10X1.5P | - |
| HSK100A x SLN16 - 150JIS | 150 | 100 | 22 | 18 | 16 | 48 | M10X1.5P | - |
| HSK100A x SLN20 - 90JIS | 90 | 40 | 25 | 20 | 20 | 50 | M12X1.75P | - |
| HSK100A x SLN20 - 150JIS | 150 | 100 | 25 | 20 | 20 | 50 | M12X1.75P | - |
| HSK100A x SLN25 - 90JIS | 90 | 40 | 24 | 25 | 25 | 50 | M12X1.75P | - |
| HSK100A x SLN25 - 150JIS | 150 | 100 | 24 | 25 | 25 | 50 | M12X1.75P | - |
| HSK100A x SLN32 - 105JIS | 105 | 55 | 24 | 32 | 32 | 50 | M12X1.75P | - |
| HSK100A x SLN32 - 150JIS | 150 | 100 | 24 | 32 | 32 | 60 | M12X1.75P | - |

• 長度單位 Unit of Length (mm)

燒結式 Shrink-Fit



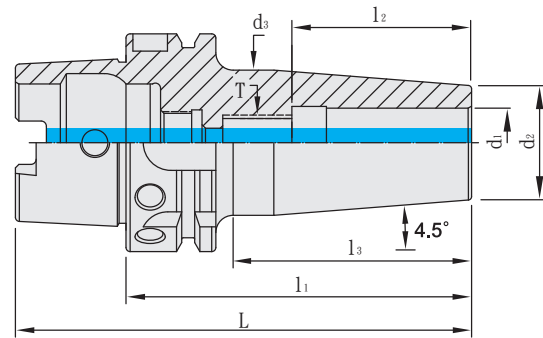
NEW



| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | 重量 (KGS) Weight |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-----------------------|
| HSK25E-SFW3-35L G2.5 RPM36000 | 35 | 20 | 17 | 3 | 6 | 18 | |
| HSK25E-SFW3.175-35L G2.5 RPM36000 | 35 | 20 | 17 | 3.175 | 6.175 | 18 | |
| HSK25E-SFW4-35L G2.5 RPM36000 | 35 | 20 | 17 | 4 | 7 | 18 | |
| HSK25E-SFW6-35L G2.5 RPM36000 | 35 | | 17 | 6 | 9 | 18 | |
| HSK32E-SFW3-50L G2.5 RPM36000 | 50 | 20 | 22 | 3 | 6 | 20 | |
| HSK32E-SFW3.175-50L G2.5 RPM36000 | 50 | 20 | 22 | 3.175 | 6.175 | 20 | |
| HSK32E-SFW4-50L G2.5 RPM36000 | 50 | 20 | 22 | 4 | 7 | 20 | |
| HSK32E-SFW4-50L-R G2.5 RPM36000 | 50 | 20 | 22 | 4 | 10 | 20 | |
| HSK32E-SFW6-70L G2.5 RPM36000 | 50 | | 22 | 6 | 9 | 20 | |
| HSK32E-SFW6-50L-R G2.5 RPM36000 | 50 | | 22 | 6 | 12 | 26 | |
| HSK32E-SFW8-50L-R G2.5 RPM36000 | 50 | | 22 | 8 | 14 | 26 | |
| HSK32E-SFW10-55L-R G2.5 RPM36000 | 50 | | 22 | 10 | 16 | 26 | |
| HSK32E-SFW12-55L-R G2.5 RPM36000 | 50 | | 22 | 12 | 20 | 26 | |
| HSK40E-SFW3-50L G2.5 RPM36000 | 50 | 42 | 22 | 3 | 6 | 20 | |
| HSK40E-SFW3.175-50 G2.5 RPM36000 | 50 | 42 | 22 | 3.175 | 6.175 | 20 | |
| HSK40E-SFW4-50L G2.5 RPM36000 | 50 | 42 | 22 | 4 | 7 | 20 | |
| HSK40E-SFW6-50L G2.5 RPM36000 | 50 | 39 | 22 | 6 | 9 | 20 | |
| HSK40E-SFW8-60L G2.5 RPM36000 | 50 | 49 | 22 | 8 | 11 | 26 | |
| HSK40E-SFW10-60L G2.5 RPM36000 | 50 | 49 | 22 | 10 | 13 | 26 | |
| HSK40E-SFW12-55L-R G2.5 RPM36000 | 50 | 44 | 22 | 12 | 20 | 30 | |
| HSK40E-SFW12-85L-R G2.5 RPM36000 | 50 | 74 | 22 | 12 | 20 | 32 | |

HSK

燒結式 Shrink-Fit



特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

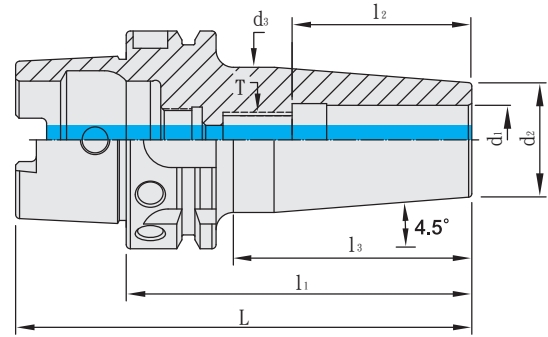
| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | d ₃ | T | 重量 (KGS) Weight |
|--------------------|-----|----------------|----------------|----------------|----------------|----------------|----------------|-------------|-----------------------|
| HSK50A x SFC3-80 | 105 | 80 | 18 | 49 | 3 | 9 | 16.7 | - | 0.54 |
| HSK50A x SFC4-80 | 105 | 80 | 20 | 49 | 4 | 10 | 17.7 | - | 0.55 |
| HSK50A x SFC5-80 | 105 | 80 | 20 | 49 | 5 | 16 | 22 | - | 0.56 |
| HSK50A x SFC6-80 | 105 | 80 | 36 | 49 | 6 | 21 | 27 | M5 x 0.8P | 0.57 |
| HSK50A x SFC8-80 | 105 | 80 | 36 | 49 | 8 | 21 | 27 | M6 x 1.0P | 0.58 |
| HSK50A x SFC10-85 | 110 | 85 | 42 | 54 | 10 | 24 | 32 | M8 x 1.25P | 0.67 |
| HSK50A x SFC12-90 | 115 | 90 | 47 | 59 | 12 | 24 | 32 | M10 x 1.5P | 0.67 |
| HSK50A x SFC14-90 | 115 | 90 | 47 | 59 | 14 | 24 | 32 | M10 x 1.5P | 0.72 |
| HSK50A x SFC16-95 | 120 | 95 | 50 | 64 | 16 | 27 | 34 | M12 x 1.75P | 0.73 |
| HSK50A x SFC18-95 | 120 | 95 | 52 | 67 | 18 | 33 | 42 | M12 x 1.75P | 0.90 |
| HSK50A x SFC20-100 | 125 | 100 | 52 | 73 | 20 | 33 | 42 | M16 x 2.0P | 0.92 |
| HSK50A x SFC25-115 | 140 | 115 | 47 | 88 | 25 | 44 | 53 | M20 x 2.0P | 0.95 |
| HSK63A x SFC3-80 | 112 | 80 | 18 | 40 | 3 | 9 | 18 | - | 0.70 |
| HSK63A x SFC4-80 | 112 | 80 | 20 | 44 | 4 | 10 | 17.049 | - | 0.70 |
| HSK63A x SFC5-80 | 112 | 80 | 20 | 51 | 5 | 16 | 22 | - | 0.70 |
| HSK63A x SFC6-80 | 112 | 80 | 36 | 51 | 6 | 21 | 27 | M5 x 0.8P | 0.89 |
| HSK63A x SFC6-130 | 162 | 130 | 36 | 94 | 8 | 21 | 27 | M6 | 1.06 |
| HSK63A x SFC6-160 | 192 | 160 | 36 | 124 | 8 | 21 | 27 | M6 | 1.19 |
| HSK63A x SFC8-80 | 112 | 80 | 36 | 51 | 8 | 21 | 27 | M6 x 1.0P | 0.82 |
| HSK63A x SFC8-130 | 162 | 130 | 36 | 94 | 8 | 21 | 27 | M6 | 1.05 |
| HSK63A x SFC8-160 | 192 | 160 | 36 | 124 | 8 | 21 | 27 | M6 | 1.18 |
| HSK63A x SFC10-85 | 117 | 85 | 42 | 54 | 10 | 24 | 32 | M8 x 1.25P | 0.91 |
| HSK63A x SFC10-130 | 162 | 130 | 42 | 94 | 10 | 24 | 32 | M8 | 1.81 |
| HSK63A x SFC10-160 | 192 | 160 | 42 | 124 | 10 | 24 | 32 | M8 | 1.36 |
| HSK63A x SFC12-90 | 122 | 90 | 47 | 59 | 12 | 24 | 32 | M10 x 1.5P | 0.97 |
| HSK63A x SFC12-130 | 162 | 130 | 47 | 94 | 12 | 24 | 32 | M10 | 1.17 |
| HSK63A x SFC12-160 | 192 | 160 | 47 | 124 | 12 | 24 | 32 | M10 | 1.35 |
| HSK63A x SFC14-90 | 122 | 90 | 47 | 59 | 14 | 27 | 34 | M10 x 1.5P | 0.97 |
| HSK63A x SFC14-130 | 162 | 130 | 47 | 99 | 14 | 27 | 34 | M10 | 1.23 |
| HSK63A x SFC14-160 | 192 | 160 | 47 | 129 | 14 | 27 | 34 | M10 | 1.44 |
| HSK63A x SFC16-95 | 127 | 95 | 50 | 64 | 16 | 27 | 34 | M12 x 1.75P | 0.98 |
| HSK63A x SFC16-130 | 162 | 130 | 50 | 99 | 16 | 27 | 34 | M12 | 1.21 |

選配表 Option

| 給水管 Coolant Supply Unit | 加熱器 Hot-Air |
|-------------------------|-------------|
| | |
| B519 | B400 |

• 長度單位 Unit of Length (mm)

燒結式 Shrink-Fit



特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

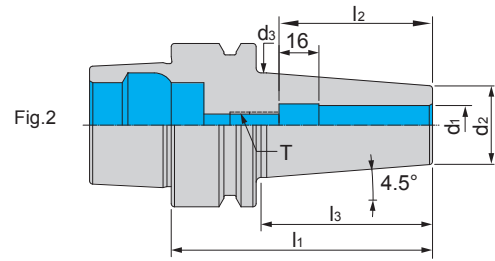
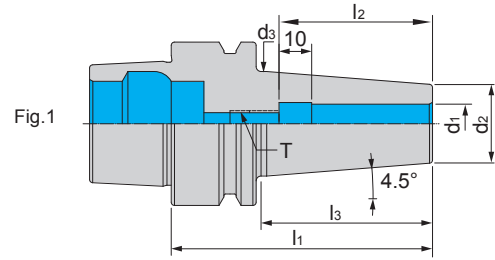
- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | d ₃ | T | 重量 (KGS) Weight |
|-----------------------|-----|----------------|----------------|----------------|----------------|----------------|----------------|-------------|-----------------|
| HSK63A x SFC16-160 | 192 | 160 | 50 | 129 | 16 | 27 | 34 | M12 | 1.42 |
| HSK63A x SFC18-95 | 127 | 95 | 50 | 64 | 18 | 33 | 42 | M12 x 1.75P | 0.99 |
| HSK63A x SFC18-130 | 162 | 130 | 50 | 89 | 18 | 33 | 42 | M12 | 1.51 |
| HSK63A x SFC18-160 | 192 | 160 | 50 | 89 | 18 | 33 | 42 | M12 | 1.83 |
| HSK63A x SFC20-100 | 132 | 100 | 52 | 69 | 20 | 33 | 42 | M16 x 2.0P | 1.00 |
| HSK63A x SFC20-130 | 162 | 130 | 52 | 89 | 20 | 33 | 42 | M16 | 1.48 |
| HSK63A x SFC20-160 | 192 | 160 | 52 | 89 | 20 | 33 | 42 | M16 | 1.80 |
| HSK63A x SFC25-115 | 147 | 115 | 58 | 88 | 25 | 44 | 53 | M20 x 2.0P | 1.40 |
| HSK63A x SFC25-130 | 162 | 130 | 58 | 104 | 25 | 44 | 53 | M20 | 2.00 |
| HSK63A x SFC25-160 | 192 | 160 | 58 | 134 | 25 | 44 | 53 | M20 | 2.51 |
| HSK63A x SFC32-120 | 152 | 120 | 58 | 93 | 32 | 44 | 53 | M20 x 2.0P | 1.39 |
| HSK100A x SFC6-85 | 135 | 85 | 36 | 46 | 6 | 21 | 27 | M5 x 0.8P | 2.15 |
| HSK100A x SFC6-130 | 180 | 130 | 36 | 91 | 6 | 21 | 27 | M5 | 2.36 |
| HSK100A x SFC6-160 | 210 | 160 | 36 | 91 | 6 | 21 | 27 | M5 | 2.50 |
| HSK100A x SFC8-85 | 135 | 85 | 36 | 46 | 8 | 21 | 27 | M6 x 1.0P | 2.15 |
| HSK100A x SFC8-130 | 180 | 130 | 36 | 91 | 8 | 21 | 27 | M6 | 2.35 |
| HSK100A x SFC8-160 | 210 | 160 | 36 | 91 | 8 | 21 | 27 | M6 | 2.49 |
| HSK100A x SFC10-90 | 140 | 90 | 42 | 51 | 10 | 24 | 32 | M8 x 1.25P | 2.23 |
| HSK100A x SFC10-130 | 180 | 130 | 42 | 91 | 10 | 24 | 32 | M8 | 2.49 |
| HSK100A x SFC10-160 | 210 | 160 | 42 | 91 | 10 | 24 | 32 | M8 | 2.68 |
| HSK100A x SFC12-95 | 145 | 95 | 47 | 56 | 12 | 24 | 32 | M10 x 1.5P | 2.25 |
| HSK100A x SFC12-130 | 180 | 130 | 47 | 91 | 12 | 24 | 32 | M10 | 2.47 |
| HSK100A x SFC12-160 | 210 | 160 | 47 | 91 | 12 | 24 | 32 | M10 | 2.66 |
| HSK100A x SFC14-130 | 180 | 130 | 47 | 91 | 14 | 27 | 34 | M10 | 2.55 |
| HSK100A x SFC14-160 | 210 | 160 | 47 | 91 | 14 | 27 | 34 | M10 | 2.76 |
| HSK100A x SFC16-100 | 150 | 100 | 50 | 61 | 16 | 27 | 34 | M12 x 1.75P | 2.31 |
| HSK100A x SFC16-130 | 180 | 130 | 50 | 91 | 16 | 27 | 34 | M12 | 2.53 |
| HSK100A x SFC16-160 | 210 | 160 | 50 | 91 | 16 | 27 | 34 | M12 | 2.74 |
| HSK100A x SFC20-105 | 155 | 105 | 52 | 71 | 20 | 33 | 42 | M16 x 2.0P | 2.51 |
| HSK100A x SFC20 - 130 | 180 | 130 | 52 | 96 | 20 | 33 | 42 | M16 x 2.0P | 2.79 |
| HSK100A x SFC20 - 160 | 210 | 160 | 52 | 91 | 20 | 33 | 42 | M16 x 2.0P | 3.11 |
| HSK100A x SFC25-115 | 165 | 115 | 58 | 81 | 25 | 44 | 53 | M20 x 2.0P | 3.04 |
| HSK100A x SFC25-160 | 210 | 160 | 58 | 91 | 25 | 44 | 53 | M20 x 2.0P | 3.82 |
| HSK100A x SFC32-120 | 152 | 120 | 58 | 93 | 32 | 44 | 53 | M20 x 2.0P | 1.67 |
| HSK100A x SFC32-160 | 192 | 160 | 58 | 134 | 32 | 44 | 53 | M20 | 2.37 |

HSK

• 長度單位 Unit of Length (mm)

燒結式 Shrink-Fit



特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

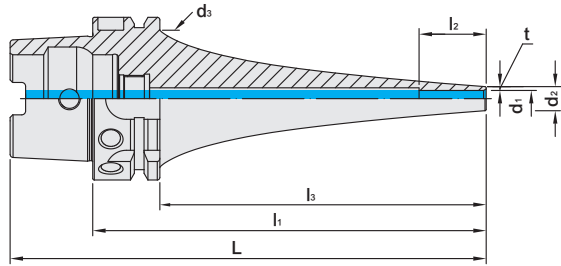
- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm.

HSK

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | T | Fig. | 重量 (KGS) Weight |
|--------------------|-------|-------|-------|-------|-------|--------|-------------|------|-----------------|
| HSK25E x SFC3-50 | 50 | 20 | 37 | 3 | 9 | 13 | - | 1 | 0.14 |
| HSK25E x SFC4-50 | 50 | 20 | 38 | 4 | 10 | 16.079 | - | 1 | 0.15 |
| HSK25E x SFC5-50 | 50 | 20 | 39 | 5 | 16 | 20 | - | 1 | 0.16 |
| HSK32E x SFC3-50 | 50 | 18 | 27 | 3 | 9 | 13.287 | - | 1 | 0.54 |
| HSK32E x SFC4-50 | 50 | 20 | 27 | 4 | 10 | 14.287 | - | 1 | 0.55 |
| HSK32E x SFC5-50 | 50 | 20 | 29 | 5 | 16 | 20 | - | 1 | 0.56 |
| HSK32E x SFC6-50 | 50 | 36 | 29 | 6 | 21 | 25 | - | 2 | 0.57 |
| HSK32E x SFC8-60 | 60 | 36 | 39 | 8 | 21 | 26 | M6 x 1.0P | 1 | 0.58 |
| HSK32E x SFC10-60 | 60 | 42 | 39 | 10 | 21 | 26 | M8 x 1.25P | 1 | 0.60 |
| HSK32E x SFC12-70 | 70 | 47 | 49 | 12 | 21 | 26 | M10 x 1.5P | 1 | 0.70 |
| HSK40E x SFC3-80 | 80 | 20 | 49 | 3 | 9 | 18 | - | 1 | 0.54 |
| HSK40E x SFC4-80 | 80 | 20 | 49 | 4 | 10 | 22 | - | 1 | 0.55 |
| HSK40E x SFC5-80 | 80 | 20 | 55 | 5 | 16 | 22 | - | 1 | 0.56 |
| HSK40E x SFC6-80 | 80 | 36 | 59 | 6 | 21 | 27 | M5 x 0.8P | 2 | 0.57 |
| HSK40E x SFC8-80 | 80 | 36 | 59 | 8 | 21 | 27 | M6 x 1.0P | 1 | 0.58 |
| HSK40E x SFC10-85 | 85 | 42 | 64 | 10 | 24 | 32 | M8 x 1.25P | 1 | 0.65 |
| HSK40E x SFC12-90 | 90 | 47 | 69 | 12 | 24 | 32 | M10 x 1.5P | 1 | 0.67 |
| HSK50E x SFC3-80 | 80 | 20 | 42 | 3 | 9 | 18 | M6X1.0P | 1 | 0.54 |
| HSK50E x SFC4-80 | 80 | 20 | 49 | 4 | 10 | 17.7 | M6X1.0P | 1 | 0.58 |
| HSK50E x SFC5-80 | 80 | 20 | 49 | 5 | 16 | 22 | M6X1.0P | 1 | 0.56 |
| HSK50E x SFC6-80 | 80 | 36 | 49 | 6 | 21 | 27 | M5 x 0.8P | 2 | 0.67 |
| HSK50E x SFC8-80 | 80 | 36 | 49 | 8 | 21 | 27 | M6 x 1.0P | 1 | 0.68 |
| HSK50E x SFC10-80 | 80 | 42 | 52 | 10 | 24 | 32 | M8 x 1.25P | 1 | 0.72 |
| HSK50E x SFC12-80 | 80 | 47 | 52 | 12 | 24 | 32 | M10 x 1.5P | 1 | 0.70 |
| HSK50E x SFC16-95 | 95 | 50 | 67 | 16 | 27 | 34 | M12 x 1.75P | 1 | 0.73 |
| HSK50E x SFC20-100 | 100 | 52 | 73 | 20 | 33 | 42 | M16 x 2.0P | 1 | 0.92 |
| HSK50E x SFC25-115 | 115 | 47 | 88 | 25 | 44 | 53 | M20 x 2.0P | 1 | 0.95 |

• 長度單位 Unit of Length (mm)

燒結式 Shrink-Fit



| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | d ₃ | t | 重量 (KGS) Weight |
|--------------------------|-----|----------------|----------------|----------------|----------------|----------------|----------------|-----|--------------------|
| HSK63A x SFC4 - 150CUL | 182 | 150 | 10 | 124 | 4 | 10 | 53 | 3 | 0.9 |
| HSK63A x SFC4 - 200CUL | 232 | 200 | 10 | 174 | 4 | 10 | 53 | 3 | 1.1 |
| HSK63A x SFC4 - 250CUL | 282 | 250 | 10 | 224 | 4 | 10 | 53 | 3 | 1.6 |
| HSK63A x SFC6 - 150CUL | 182 | 150 | 20 | 124 | 6 | 13 | 53 | 3.5 | 1.3 |
| HSK63A x SFC6 - 200CUL | 232 | 200 | 20 | 174 | 6 | 13 | 53 | 3.5 | 1.4 |
| HSK63A x SFC6 - 250CUL | 282 | 250 | 20 | 224 | 6 | 13 | 53 | 3.5 | 1.8 |
| HSK63A x SFC8 - 150CUL | 182 | 150 | 26 | 124 | 8 | 16 | 53 | 4 | 1.4 |
| HSK63A x SFC8 - 200CUL | 232 | 200 | 26 | 174 | 8 | 16 | 53 | 4 | 1.6 |
| HSK63A x SFC8 - 250CUL | 282 | 250 | 26 | 224 | 8 | 16 | 53 | 4 | 1.9 |
| HSK63A x SFC10 - 150CUL | 182 | 150 | 32 | 124 | 10 | 19 | 53 | 4.5 | 1.3 |
| HSK63A x SFC10 - 200CUL | 232 | 200 | 32 | 174 | 10 | 19 | 53 | 4.5 | 1.6 |
| HSK63A x SFC10 - 250CUL | 282 | 250 | 32 | 224 | 10 | 19 | 53 | 4.5 | 2.1 |
| HSK100A x SFC4 - 150CUL | 200 | 150 | 10 | 121 | 4 | 10 | 85 | 3 | 3.6 |
| HSK100A x SFC4 - 200CUL | 250 | 200 | 10 | 171 | 4 | 10 | 85 | 3 | 4.1 |
| HSK100A x SFC4 - 250CUL | 300 | 250 | 10 | 221 | 4 | 10 | 85 | 3 | 4.5 |
| HSK100A x SFC4 - 300CUL | 350 | 300 | 10 | 271 | 4 | 10 | 85 | 3 | 4.8 |
| HSK100A x SFC6 - 150CUL | 200 | 150 | 20 | 121 | 6 | 13 | 85 | 3.5 | 6.6 |
| HSK100A x SFC6 - 200CUL | 250 | 200 | 20 | 171 | 6 | 13 | 85 | 3.5 | 4.7 |
| HSK100A x SFC6 - 250CUL | 300 | 250 | 20 | 221 | 6 | 13 | 85 | 3.5 | 5.4 |
| HSK100A x SFC6 - 300CUL | 350 | 300 | 20 | 271 | 6 | 13 | 85 | 3.5 | 6.1 |
| HSK100A x SFC8 - 150CUL | 200 | 150 | 26 | 121 | 8 | 16 | 85 | 4 | 6.5 |
| HSK100A x SFC8 - 200CUL | 250 | 200 | 26 | 171 | 8 | 16 | 85 | 4 | 6.9 |
| HSK100A x SFC8 - 250CUL | 300 | 250 | 26 | 221 | 8 | 16 | 85 | 4 | 4.6 |
| HSK100A x SFC8 - 300CUL | 350 | 300 | 26 | 271 | 8 | 16 | 85 | 4 | 4.9 |
| HSK100A x SFC10 - 150CUL | 200 | 150 | 32 | 121 | 10 | 19 | 85 | 4.5 | 3.5 |
| HSK100A x SFC10 - 200CUL | 250 | 200 | 32 | 171 | 10 | 19 | 85 | 4.5 | 4.1 |
| HSK100A x SFC10 - 250CUL | 300 | 250 | 32 | 221 | 10 | 19 | 85 | 4.5 | 4.9 |
| HSK100A x SFC10 - 300CUL | 350 | 300 | 32 | 271 | 10 | 19 | 85 | 4.5 | 5.2 |
| HSK100A x SFC12 - 150CUL | 200 | 150 | 37 | 121 | 12 | 22 | 85 | 5 | 3.6 |
| HSK100A x SFC12 - 200CUL | 250 | 200 | 37 | 171 | 12 | 22 | 85 | 5 | 4.4 |
| HSK100A x SFC12 - 250CUL | 300 | 250 | 37 | 221 | 12 | 22 | 85 | 5 | 4.6 |
| HSK100A x SFC12 - 300CUL | 350 | 300 | 37 | 271 | 12 | 22 | 85 | 5 | 4.8 |

• 搭配熱風式加熱器 A000

HSK

• 長度單位 Unit of Length (mm)



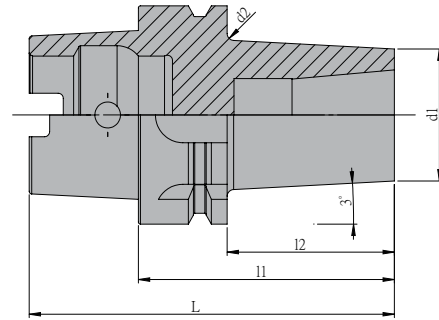
HSK/SFS 後拉式立銑刀夾頭

HSK/SFS SLIM-FIT COLLET CHUCK

DIN
69893-A



NEW



HSK

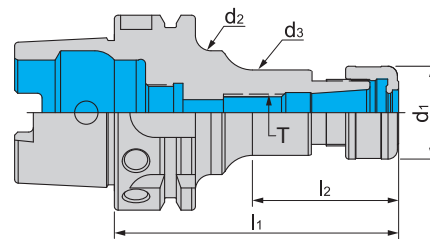
| 規格 Spec. | L | l ₁ | l ₂ | d ₁ | d ₂ | 重量 (KGS) Weight |
|---------------------|-----|----------------|----------------|----------------|----------------|--------------------|
| HSK50A x SFS12-75 | 100 | 75 | 48.6 | 38.1 | 42 | 0.8 |
| HSK63A x SFS12-75 | 107 | 75 | 47.105 | 38.1 | 43 | 1.0 |
| HSK63A x SFS12-135 | 167 | 135 | 107.5 | 38.1 | 49.3 | 1.7 |
| HSK63A x SFS12-165 | 197 | 165 | 138.6 | 38.1 | 52.6 | 2.1 |
| HSK63A x SFS12-225 | 257 | 225 | 199 | 38.1 | 52 | 2.9 |
| HSK63A x SFS12-240 | 272 | 240 | 132.6 | 38.1 | 52 | 3.1 |
| HSK100A x SFS12-105 | 155 | 105 | 66.5 | 38.1 | 45 | 3.4 |
| HSK100A x SFS12-135 | 185 | 135 | 101.26 | 38.1 | 48.7 | 3.8 |
| HSK100A x SFS12-225 | 275 | 225 | 191.2 | 38.1 | 58.1 | 5.4 |
| HSK100A x SFS12-315 | 365 | 315 | 281.2 | 38.1 | 67.5 | 6.4 |
| HSK40E x SFS12-75 | 95 | 75 | 55 | 38.1 | 40 | 0.7 |
| HSK50E x SFS12-75 | 110 | 75 | 48.6 | 38.1 | 42 | 0.8 |
| HSK63F x SFS12-75 | 100 | 75 | 47.1 | 38.1 | 43 | 1.0 |
| HSK63F x SFS12-100 | 125 | 75 | 72.1 | 38.1 | 45.6 | 1.3 |
| HSK63F x SFS12-125 | 150 | 125 | 97.0 | 38.1 | 48.2 | 1.6 |



HSK/SKS 高速機專用夾頭 (無風阻)

HSK/SKS COLLET CHUCK(FOR TYPE A) (NON WIND RESISTANCE)

PAT.NO: M270871



特點 Feature

- 偏擺精度 :5μ 以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

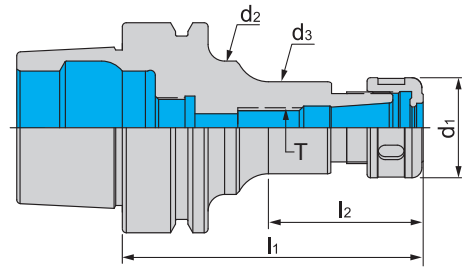
- Run-out accuracy: within 5μ.
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Dynamic balancing G2.5 at 25000rpm.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | d ₃ | T | 重量 (KGS) Weight |
|----------------------|----------------|----------------|----------------|----------------|----------------|-------------|-----------------------|
| HSK32A x SKS10-60-HS | 60 | - | 30 | 40 | - | M12 x 1.75P | 0.26 |
| HSK40A x SKS10-60-HS | 60 | - | 30 | 40 | - | M12 x 1.75P | 0.60 |

選配表 Option

| 熱膨脹刀桿 Shrink-fit Extension | 筒夾 Collet | 螺帽 Nut | | 扳手 Spanner | | 給水管 Coolant Supply Unti |
|----------------------------|-----------|--------|------|------------|------|-------------------------|
| | | | | | | |
| B394 | B627 | B639 | B639 | B651 | B651 | B519 |

• 長度單位 Unit of Length (mm)

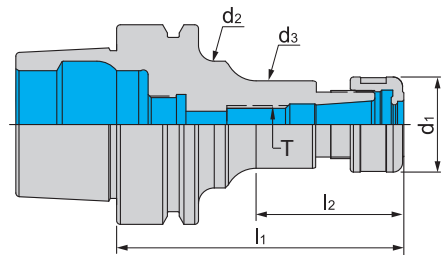


特點 Feature

- 偏擺精度 :5 μ 以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 μ .
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Dynamic balancing G2.5 at 25000 rpm.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | d ₃ | T | 重量 (KGS) Weight |
|--------------------|----------------|----------------|----------------|----------------|----------------|-------------|-----------------|
| HSK50E x SKS10-90 | 90 | 45 | 30 | 40 | 27.6 | M12 x 1.75P | 0.83 |
| HSK50E x SKS10-120 | 120 | 75 | 30 | 40 | 27.6 | M12 x 1.75P | 0.93 |
| HSK50E x SKS16-90 | 90 | 63 | 40 | 40 | - | M18 x 1.5P | 0.90 |
| HSK50E x SKS16-120 | 120 | 93 | 40 | 40 | - | M18 x 1.5P | 1.13 |



特點 Feature

- 偏擺精度 :5 μ 以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

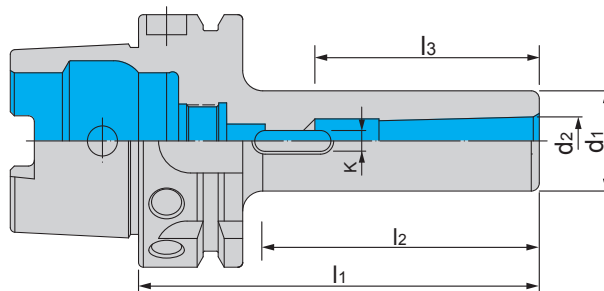
- Run-out accuracy: within 5 μ .
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Dynamic balancing G2.5 at 25000rpm.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | d ₃ | T | 重量 (KGS) Weight |
|-----------------------|----------------|----------------|----------------|----------------|----------------|-----------|-----------------|
| HSK40E x SKS6-60-HS | 60 | 44 | 18 | 32 | 18 | M8x1.25P | 0.32 |
| HSK40E x SKS10-60-HS | 60 | 45 | 30 | 40 | 27.6 | M12x1.75P | 0.42 |
| HSK40E x SKS16-90-HS | 90 | 59 | 40 | 40 | - | M18x1.5P | 0.68 |
| HSK50E x SKS10-90-HS | 90 | 45 | 30 | 40 | 27.6 | M12x1.75P | 0.80 |
| HSK50E x SKS10-120-HS | 120 | 75 | 30 | 40 | 27.6 | M12x1.75P | 1.00 |
| HSK50E x SKS16-90-HS | 90 | 63 | 40 | 40 | - | M18x1.5P | 1.00 |
| HSK50E x SKS16-120-HS | 120 | 93 | 40 | 40 | - | M18x1.5P | 1.20 |

選配表 Option

| 筒夾 Collet | 螺帽 Nut | | 扳手 Spanner | |
|-----------|--------|------|------------|------|
| | | | | |
| B627 | B639 | B639 | B651 | B651 |

• 長度單位 Unit of Length (mm)



特點 Feature

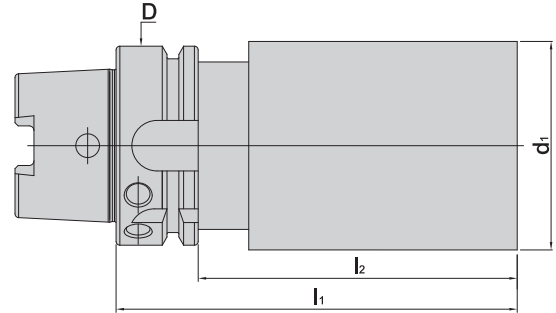
- MTA= 榫舌型式本 =DIN 228-B

- MTA=TANG TYPE=DIN 228-B

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | K | 重量 (KGS) Weight |
|----------------------|-------|-------|-------|-------|--------|------|-----------------|
| HSK 63A x MTA1- 100 | 100 | 69 | 56 | 25 | 12.065 | 5.2 | 1.90 |
| HSK 63A x MTA2- 120 | 120 | 89 | 67 | 32 | 17.78 | 6.3 | 1.15 |
| HSK 63A x MTA3- 140 | 140 | 109 | 84 | 40 | 23.825 | 7.9 | 2.20 |
| HSK 63A x MTA4- 160 | 160 | 132 | 107 | 48 | 31.267 | 11.9 | 1.99 |
| HSK 100A x MTA1- 110 | 110 | 71 | 56 | 25 | 12.065 | 5.2 | 3.40 |
| HSK 100A x MTA2- 120 | 120 | 81 | 67 | 32 | 17.78 | 6.3 | 3.80 |
| HSK 100A x MTA3- 150 | 150 | 111 | 84 | 40 | 23.825 | 7.9 | 4.00 |
| HSK 100A x MTA4- 170 | 170 | 131 | 107 | 48 | 31.267 | 11.9 | 4.60 |
| HSK 100A x MTA5- 200 | 200 | 166 | 135 | 63 | 44.399 | 15.9 | 5.20 |

HSK

• 長度單位 Unit of Length (mm)



| 規格 Spec. | l_1 | l_2 | D | d_1 | 重量 (KGS) Weight |
|-------------------|-------|-------|-----|-------|-----------------|
| HSK32A x Ø67-43.8 | 43.8 | 23.8 | 32 | 67 | 0.46 |
| HSK63A x Ø64-240 | 240 | 224 | 63 | 64 | - |
| HSK63A x Ø80-250 | 250 | 224 | 63 | 80 | - |
| HSK63A x Ø100-150 | 150 | 124 | 63 | 100 | - |
| HSK100A x Ø97-250 | 250 | 221 | 100 | 97 | - |

HSK



Fig.1

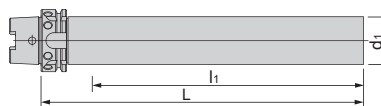


Fig.2

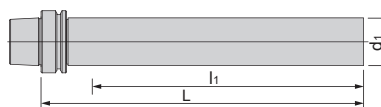


Fig.3

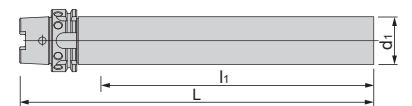
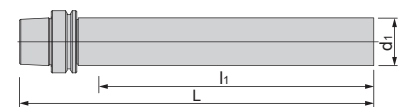


Fig.4



| | | |
|--|-------------------------|---------|
| | 錐度精度 Taper Precision | AT2 |
| | 真圓度 Roundness | 0.001mm |
| | 表面粗造度 Surface Roughness | Ra<0.4 |
| | 同心度 Concentricity | 0.005mm |

| 規格 Spec. | L | l_1 | d_1 | Fig. | 重量 (KGS) Weight |
|----------------|-----|-------|-------|------|-----------------|
| HSK40A-TS180L | 215 | 180 | 32 | 1 | 2.86 |
| HSK50A-TS240L | 282 | 240 | 32 | 1 | - |
| HSK63A-TS300L | 374 | 300 | 40 | 3 | 3.66 |
| HSK100A-TS300L | 395 | 300 | 50 | 3 | 7.61 |
| HSK25E-TS175L | 195 | 175 | 20 | 2 | - |
| HSK32E-TS180L | 215 | 180 | 20 | 2 | 2.38 |
| HSK40E-TS180L | 215 | 180 | 32 | 2 | 2.98 |
| HSK50E-TS240L | 282 | 240 | 32 | 2 | 3.70 |
| HSK63F-TS300L | 367 | 300 | 40 | 4 | 4.48 |

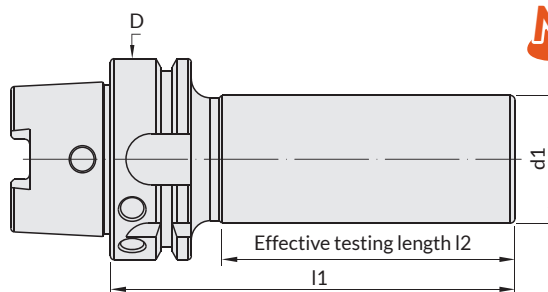
• 長度單位 Unit of Length (mm)



HSK 主軸精密標準棒

HSK SPINDLE MASTER BAR

DIN
69893-A



| | | |
|--|-------------------------|-----------|
| | 錐度精度 Taper Precision | AT2 |
| | 真圓度 Roundness | 0.8um |
| | 表面粗糙度 Surface Roughness | Ra<0.15um |
| | 偏擺精度 Runout | 3um |
| | 圓柱度 Cylindrical | 5um |

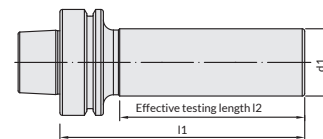
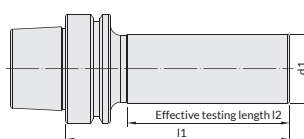
HSK

| 規格 Spec. | l1 | l2 | d1 | 重量 (KGS) Weight |
|------------------|-----|-----|----|-----------------|
| HSK40A-TS200L-P | 200 | 170 | 32 | 2.86 |
| HSK40A-TS300L-P | 300 | 270 | 32 | 1.77 |
| HSK50A-TS240L-P | 240 | 211 | 32 | 1.44 |
| HSK50A-TS300L-P | 300 | 274 | 32 | 2.83 |
| HSK63A-TS346L-P | 346 | 300 | 40 | 3.66 |
| HSK80A-TS200L-P | 200 | 168 | 50 | 3.13 |
| HSK80A-TS350L-P | 350 | 318 | 50 | 4.83 |
| HSK100A-TS349L-P | 349 | 300 | 40 | 7.61 |
| HSK100A-TS350L-P | 350 | 318 | 50 | 5.73 |



HSK 主軸精密標準棒

HSK SPINDLE MASTER BAR

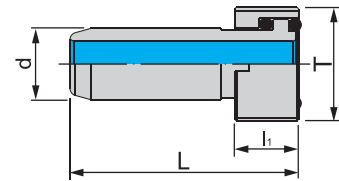
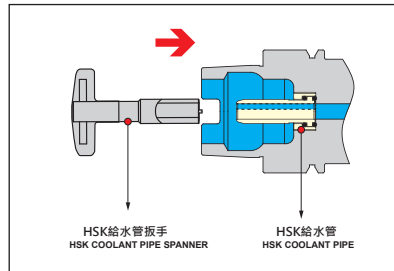


| | | |
|--|-------------------------|-----------|
| | 錐度精度 Taper Precision | AT2 |
| | 真圓度 Roundness | 0.8um |
| | 表面粗糙度 Surface Roughness | Ra<0.15um |
| | 偏擺精度 Runout | 3um |
| | 圓柱度 Cylindrical | 5um |

| 規格 Spec. | l1 | l2 | d1 | 重量 (KGS) Weight |
|-----------------|-----|-----|----|-----------------|
| HSK25E-TS175L-P | 175 | 163 | 25 | 0.58 |
| HSK32E-TS180L-P | 180 | 158 | 20 | 0.41 |
| HSK40E-TS180L-P | 180 | 157 | 32 | 2.98 |
| HSK50E-TS180L-P | 180 | 151 | 32 | 3.7 |
| HSK63F-TS346L-P | 346 | 300 | 40 | 4.48 |

• 長度單位 Unit of Length (mm)

範例 Example



特點 Feature

- HSK 刀桿中心出水使用導管

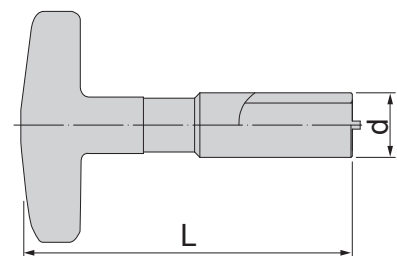
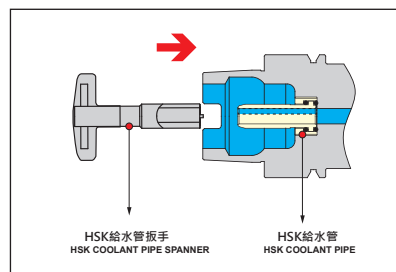
- HSK cutter bar center water leakage use drive pipe.

| 規格 Spec. | L | l ₁ | d | T | 重量 (KGS) Weight |
|-------------|------|----------------|----|------------|-----------------------|
| HSK32-CP | 26 | 5.5 | 6 | M10 x 1.0P | 0.01 |
| HSK40-CP | 29.3 | 7.5 | 8 | M12 x 1.0P | 0.01 |
| HSK50-CP | 33 | 9.5 | 10 | M16 x 1.0P | 0.02 |
| HSK63-CP | 36.3 | 11.5 | 12 | M18 x 1.0P | 0.02 |
| HSK100-CP | 44 | 15.5 | 16 | M24 x 1.5P | 0.06 |

HSK



範例 Example



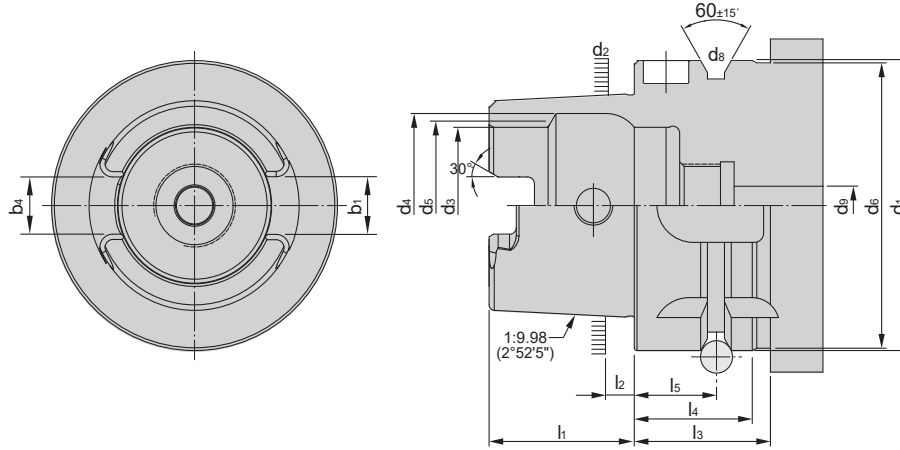
特點 Feature

- HSK 給水管鎖緊扳手

- In HSK cold tube locking spanner.

| 規格 Spec. | L | d | 重量 (KGS) Weight |
|-------------|-----|------|-----------------------|
| HSK32-CPW | 90 | 10 | 0.10 |
| HSK40-CPW | 90 | 13.5 | 0.12 |
| HSK50-CPW | 95 | 15.5 | 0.14 |
| HSK63-CPW | 100 | 17.5 | 0.16 |
| HSK100-CPW | 125 | 23.5 | 0.32 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | d ₁ h ₁₀ | d ₂ | d ₃ H ₁₀ | d ₄ H ₁₁ | d ₅ | d ₆ Max. | d ₈ | d ₉ Max. | l ₁ 0 -0.2 | l ₂ | l ₃ Min. | l ₄ 0 -0.1 | l ₅ ±0.1 | b ₁ ±0.04 | b ₄ | |
|----------|-----------------------------------|----------------|-----------------------------------|-----------------------------------|----------------|------------------------|----------------|------------------------|-----------------------------|----------------|------------------------|-----------------------------|------------------------|-------------------------|----------------|-------------|
| HSK-T32 | 32 | 24.007 | 17 | 20.5 | 19 | 31 | 4 | 4.2 | 16 | 3.2 | 23 | 20 | 16 | 7.05 | 6.932 | +0.03 0 |
| HSK-T40 | 40 | 30.007 | 21 | 25.5 | 23 | 39 | 4 | 5 | 20 | 4 | 23 | 20 | 16 | 8.05 | 7.932 | +0.03 0 |
| HSK-T50 | 50 | 38.009 | 26 | 32 | 29 | 49 | 7 | 6.8 | 25 | 5 | 30 | 26 | 18 | 10.54 | 10.425 | +0.035 0 |
| HSK-T63 | 63 | 48.010 | 34 | 40 | 37 | 62 | 7 | 8.4 | 32 | 6.3 | 30 | 26 | 18 | 12.54 | 12.425 | +0.035 0 |
| HSK-T80 | 80 | 60.012 | 42 | 50 | 46 | 79 | 7 | 10.2 | 40 | 8 | 30 | 26 | 18 | 16.04 | 15.93 | +0.035 0 |
| HSK-T100 | 100 | 75.013 | 53 | 63 | 58 | 99 | 7 | 12 | 50 | 10 | 34 | 26 | 20 | 20.02 | 19.91 | +0.035 0 |

1. 錐度精度 : < AT3
2. 硬度 : > HRC 56°
3. 滲碳深度 : > 0.8mm
4. 真圓度 : < 0.8μm
5. 表面粗糙度 : Ra < 0.25μm
6. 刀桿有預設標準動平衡 G6.3 · 可另外指定精密動平衡 G2.5
7. 本體規範 : DIN ISO 12164-3:20008

1. Taper tolerance < AT3.
2. Hardness > HRC 56°
3. Carbon depth > 0.8mm.
4. Roundness < 0.8μm.
5. Surface roughness : Ra < 0.25μm.
6. The shank has pre-balance at G6.3, and can provide precision balance at G2.5, made by request.
7. Shank body standard : DIN ISO 12164-3:20008

| 鎖固方式Clamp mechanism | | | |
|---------------------|---------------------|---|--------------------|
| A | Back clamp system | M | Multi-clamp system |
| C | Clamp-on system | P | Pin lock system |
| D | Double clamp system | S | Screw-on system |
| E | Off-set pin system | T | Taper lock system |
| JS | Screw-on system | W | Wedge-on system |
| JT | Back clamp system | | |

| 離隙角 Insert clearance | |
|-------------------------|-----|
| | |
| A | 3° |
| B | 5° |
| C | 7° |
| D | 15° |
| E | 20° |
| F | 25° |
| G | 30° |
| N | 0° |
| P | 11° |

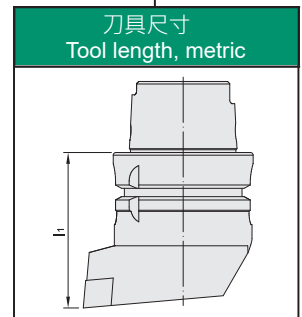
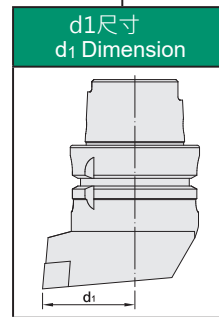
| 刀具長度 Insert edge length | | | | | | |
|----------------------------|-----|------|------|-------|-------|-------|
| Insert inscribed circle | | 6.35 | 7.94 | 9.525 | 12.00 | 12.70 |
| | 80° | 06 | 08 | 09 | - | 12 |
| | 55° | 07 | - | 11 | - | 15 |
| | 35° | 11 | - | 16 | - | - |
| | | - | - | - | 12 | - |
| | | 11 | 13 | 16 | - | 22 |
| | | - | - | 09 | - | 12 |

HSK - T63 - M C L N R - 45 065 - 12

| 刀片形狀 Insert geometry | |
|-------------------------|--|
| C | |
| D | |
| K | |
| R | |
| S | |
| T | |
| V | |
| W | |
| L | |
| H | |
| A | |
| B | |
| E | |
| M | |
| O | |
| P | |

| 進刀角度 Cutting edge geometry | | | | |
|-------------------------------|--------|-------|--------|-----|
| 90° | 75° | 90° | 45° | |
| | | | | |
| A | B | C | D | |
| 60° | 90° | 90° | 107.5° | |
| | | | | |
| E | F | G | H | |
| 93° | 75° | 95° | 95° | 50° |
| | | | | |
| J | K | L | M | |
| 63° | 117.5° | 75° | 45° | |
| | | | | |
| N | P | R | S | |
| 60° | 93° | 72.5° | 60° | |
| | | | | |
| T | U | V | W | |
| 85° | | | | |
| | | | | |
| Y | | | | |

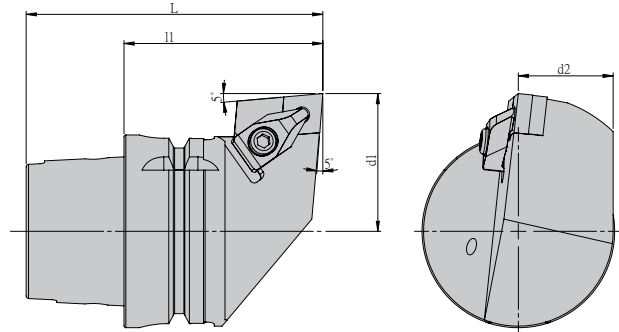
| 切削方向 Hand |
|--------------|
| R |
| |
| L |
| |
| N |
| |



HSK-T

DCLN 外徑車刀

DCLN EXTERNAL TURNING TOOL



| 規格 Spec. | L | l ₁ | d ₁ | d ₂ | 刀片 Insert | 重量 (KGS) Weight |
|------------------------|----|----------------|----------------|----------------|-----------|-----------------|
| HSK-T63-DCLNR-45065-12 | 97 | 65 | 45 | 31 | CN..1204 | 1.26 |
| HSK-T63-DCLNL-45065-12 | 97 | 65 | 45 | 31 | CN..1204 | 1.26 |

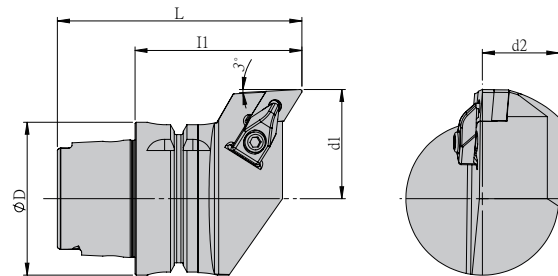
配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| CN..1204 | CNS1204 | M4-10-5.7-60 | T15 | 3.0 | DCP-2 | M5-20-4.9 | PL4 | 5.0 |

HSK-T

DDJN 外徑車刀

DDJN EXTERNAL TURNING TOOL



| 規格 Spec. | L | l ₁ | d ₁ | d ₂ | 刀片 Insert | 重量 (KGS) Weight |
|------------------------|-----|----------------|----------------|----------------|-----------|-----------------|
| HSK-T63-DDJNR-45075-15 | 107 | 75 | 45 | 31 | DN..1504 | 1.38 |
| HSK-T63-DDJNL-45075-15 | 107 | 75 | 45 | 31 | DN..1504 | 1.38 |

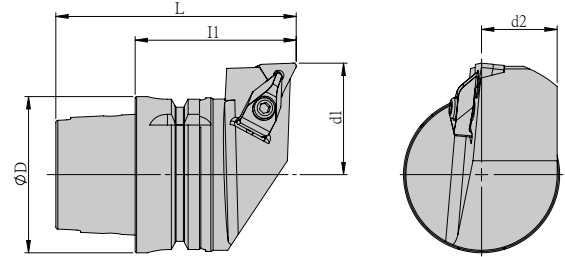
配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| DN..1504 | DNS1504 | - | - | - | DCP-2 | M5-20-4.9 | PL4 | 5.0 |

• 長度單位 Unit of Length (mm)

DTJN 外徑車刀

DTJN EXTERNAL TURNING TOOL



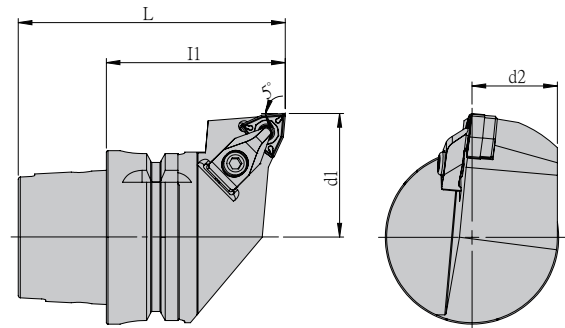
| 規格 Spec. | L | l ₁ | d ₁ | d ₂ | 刀片 Insert | 重量 (KGS) Weight |
|------------------------|----|----------------|----------------|----------------|-----------|-----------------|
| HSK-T63-DTJNR-45065-16 | 97 | 65 | 45 | 31 | TN..1604 | 1.27 |
| HSK-T63-DTJNL-45065-16 | 97 | 65 | 45 | 31 | TN..1604 | 1.27 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| TN..1604 | TNS1604 | M4-9-5.15-47 | T15 | 3.0 | DCP-1 | M5-20-4.9 | PL4 | 5.0 |

DWLN 外徑車刀

DWLN EXTERNAL TURNING TOOL



| 規格 Spec. | L | l ₁ | d ₁ | d ₂ | 刀片 Insert | 重量 (KGS) Weight |
|-----------------------|----|----------------|----------------|----------------|-----------|-----------------|
| HSK-T63-DWLN-45065-08 | 97 | 65 | 45 | 31 | WN..0804 | 1.22 |
| HSK-T63-DWLN-45065-08 | 97 | 65 | 45 | 31 | WN..0804 | 1.22 |

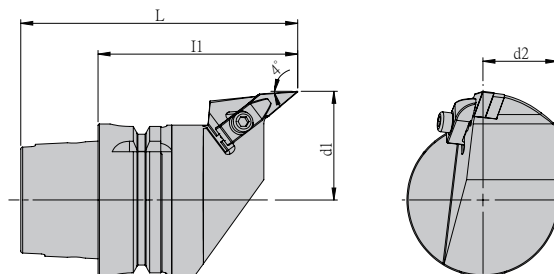
配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| WN..0804 | WNS0804 | M5-12-7.1-70 | T20 | 5.0 | DCP-2 | M5-20-4.9 | PL4 | 5.0 |

• 長度單位 Unit of Length (mm)

DVLN 外徑車刀

DVLN EXTERNAL TURNING TOOL



| 規格 Spec. | L | l ₁ | d ₁ | d ₂ | 刀片 Insert | 重量 (KGS) Weight |
|------------------------|-----|----------------|----------------|----------------|-----------|-----------------|
| HSK-T63-DVLNR-45075-16 | 107 | 75 | 45 | 31 | VN..1604 | 1.30 |
| HSK-T63-DVLNL-45075-16 | 107 | 75 | 45 | 31 | VN..1604 | 1.30 |

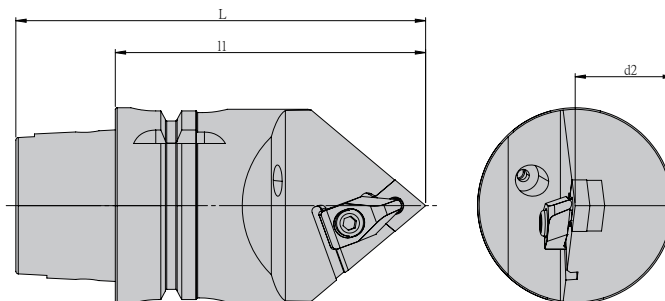
配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| VN..1604 | VNS1604 | - | - | - | DCP-4 | M5-20-4.9 | PL4 | 5.0 |

HSK-T

DCMNN 外徑車刀

DCMNN EXTERNAL TURNING TOOL



| 規格 Spec. | L | l ₁ | 刀片 Insert | 重量 (KGS) Weight |
|------------------------|-----|----------------|-----------|-----------------|
| HSK-T63-DCMNN-00100-12 | 132 | 100 | CN..1204 | 1.68 |
| HSK-T63-DCMNN-00140-12 | 172 | 140 | CN..1204 | 1.68 |

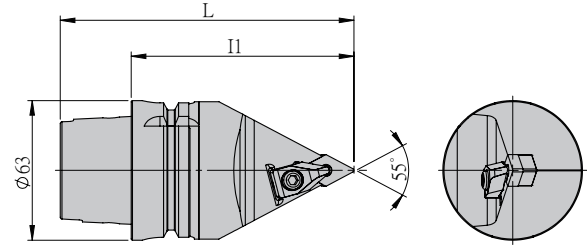
配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| CN..1204 | CNS1204 | M4-10-5.7-60 | T15 | 3.0 | DCP-2 | M5-20-4.9 | PL4 | 5.0 |

• 長度單位 Unit of Length (mm)

DDNN 外徑車刀

DDNN EXTERNAL TURNING TOOL



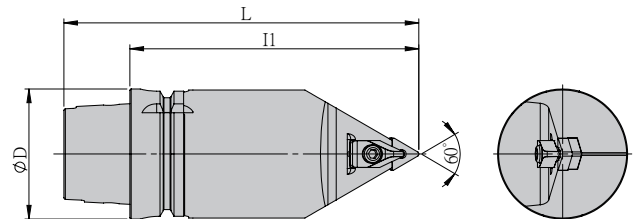
| 規格 Spec. | L | l ₁ | D | 刀片 Insert | 重量 (KGS) Weight |
|------------------------|-----|----------------|----|-----------|-----------------|
| HSK-T63-DDNNN-00100-15 | 132 | 100 | 63 | DN..1504 | 1.55 |
| HSK-T63-DDNNN-00140-15 | 172 | 140 | 63 | DN..1504 | 1.55 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| DN..1504 | DNS1504 | - | - | - | DCP-2 | M5-20-4.9 | PL4 | 5.0 |

DTEN 外徑車刀

DTEN EXTERNAL TURNING TOOL



| 規格 Spec. | L | l ₁ | D | 刀片 Insert | 重量 (KGS) Weight |
|------------------------|-----|----------------|----|-----------|-----------------|
| HSK-T63-DTENN-00100-16 | 132 | 100 | 63 | TN..1604 | 1.62 |
| HSK-T63-DTENN-00140-16 | 172 | 140 | 63 | TN..1604 | 1.62 |

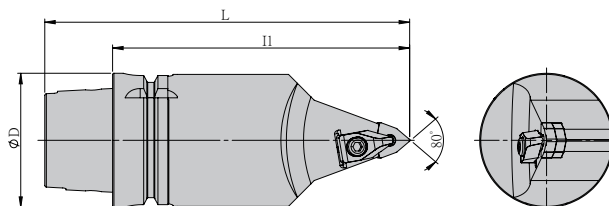
配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| TN..1604 | TNS1604 | M4-9-5.15-47 | T15 | 3.0 | DCP-1 | M5-20-4.9 | PL4 | 5.0 |

• 長度單位 Unit of Length (mm)

DWMN 外徑車刀

DWMN EXTERNAL TURNING TOOL



| 規格 Spec. | L | l ₁ | D | 刀片 Insert | 重量 (KGS) Weight |
|------------------------|-----|----------------|----|-----------|-----------------|
| HSK-T63-DWMNN-00100-08 | 132 | 100 | 63 | WN..0804 | 1.48 |
| HSK-T63-DWMNN-00140-08 | 172 | 140 | 63 | WN..0804 | 1.48 |

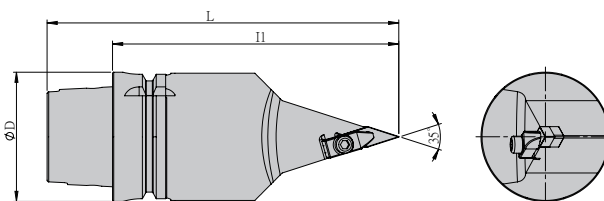
配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| WN..0804 | WNS0804 | M5-12-7.1-70 | T20 | 5.0 | DCP-2 | M5-20-4.9 | PL4 | 5.0 |

HSK-T

DVVN 外徑車刀

DVVN EXTERNAL TURNING TOOL

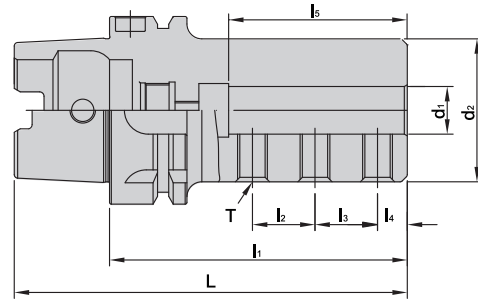


| 規格 Spec. | L | l ₁ | D | 刀片 Insert | 重量 (KGS) Weight |
|------------------------|-----|----------------|----|-----------|-----------------|
| HSK-T63-DVVNN-00100-16 | 132 | 100 | 63 | VN..1604 | 1.40 |
| HSK-T63-DVVNN-00140-16 | 172 | 140 | 63 | VN..1604 | 1.40 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-------------------|------------------|
| VN..1604 | VNS1604 | - | - | - | DCP-4 | M5-20-4.9 | PL4 | 5.0 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | l ₄ | l ₅ | d ₁ | d ₂ | T | 重量 (KGS) Weight |
|-------------------|-----|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----|-----------------|
| HSK-T63xSLT8-70 | 102 | 70 | 10 | 10 | 6 | 32 | 8 | 28 | M6 | 0.93 |
| HSK-T63xSLT10-80 | 112 | 80 | 12 | 12 | 8 | 40 | 10 | 35 | M8 | 1.10 |
| HSK-T63xSLT12-90 | 122 | 90 | 16 | 16 | 8 | 45 | 12 | 42 | M8 | 1.36 |
| HSK-T63xSLT16-100 | 132 | 100 | 21 | 21 | 10 | 60 | 16 | 48 | M10 | 1.60 |
| HSK-T63xSLT20-120 | 152 | 120 | 20 | 20 | 12 | 60 | 20 | 52 | M10 | 2.03 |
| HSK-T63xSLT25-140 | 172 | 140 | 23 | 23 | 14 | 67 | 25 | 56 | M12 | 2.52 |
| HSK-T63xSLT32-160 | 192 | 160 | 26 | 26 | 16 | 74 | 32 | 64 | M12 | 3.34 |

HSK-T

Fig.1

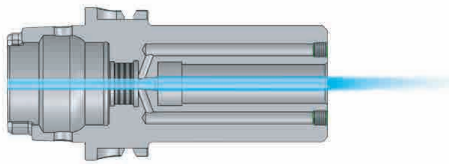
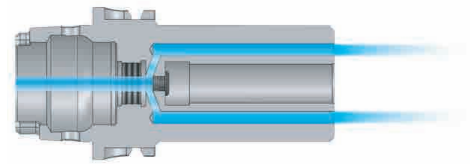


Fig.2



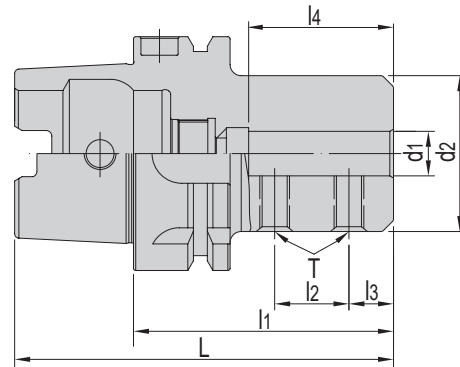
刀具中心出水螺絲 Screw For Coolant Outlet From Tool Holder

| 規格 Spec. | 適用規格 Applicable Spec. | T | Fig. | 重量 (KGS) Weight |
|--------------------|-----------------------|----------|------|-----------------|
| B06-01M4x0.7P-503 | SLT8 | M4x0.7P | 1 | - |
| B06-01M5x0.5P-503 | SLT10 | M5x0.8P | | - |
| B06-01M6x1.0P-603 | SLT12 | M6x1.0P | | - |
| | SLT16 | | | - |
| | SLT20 | | | - |
| B06-01M8x1.25P-603 | SLT25 | M8x1.25P | | - |
| | SLT32 | | - | |

刀具中心出水螺絲 Screw For Coolant Outlet From Tool Holder

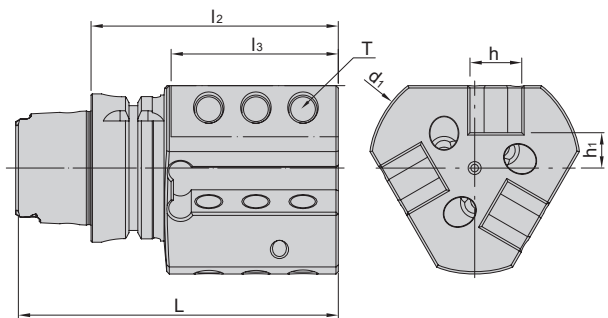
| 規格 Spec. | 適用規格 Applicable Spec. | T | Fig. | 重量 (KGS) Weight |
|-----------|-----------------------|---------|------|-----------------|
| C-EBSS6-8 | SLT8 | M6x1.0P | 2 | - |
| | SLT10 | | | - |
| | SLT12 | | | - |
| | SLT16 | | | - |
| | SLT20 | | | - |
| | SLT25 | | | - |
| | SLT32 | | | - |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | l ₄ | d ₁ | d ₂ | T | 重量 (KGS) Weight |
|-------------------|-----|----------------|----------------|----------------|----------------|----------------|----------------|-----|-----------------------|
| HSK-T63xSLD8-65 | 97 | 65 | 18 | 10 | 34 | 8 | 28 | M8 | 0.84 |
| HSK-T63xSLD10-70 | 102 | 70 | 20 | 12 | 39 | 10 | 35 | M8 | 0.97 |
| HSK-T63xSLD12-70 | 102 | 70 | 20 | 12 | 39 | 12 | 42 | M8 | 1.10 |
| HSK-T63xSLD16-75 | 107 | 75 | 20 | 15 | 44 | 16 | 48 | M10 | 1.26 |
| HSK-T63xSLD20-75 | 104 | 75 | 20 | 15 | 44 | 20 | 52 | M10 | 1.34 |
| HSK-T63xSLD25-85 | 117 | 85 | 23 | 17 | 52 | 25 | 62 | M12 | 1.79 |
| HSK-T63xSLD32-90 | 122 | 90 | 27 | 17 | 56 | 32 | 62 | M12 | 1.74 |
| HSK-T63xSLD40-100 | 132 | 100 | 28 | 22 | 62 | 40 | 68 | M16 | 2.00 |

HSK-T

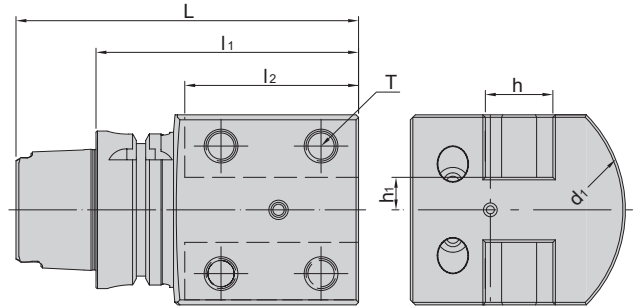


| 規格 Spec. | L | l ₂ | l ₃ | d ₁ | h | h ₁ | T | 重量 (KGS) Weight |
|-------------------|-----|----------------|----------------|----------------|----|----------------|-----------|-----------------------|
| HSK-T63xSV20R-105 | 137 | 105 | 70 | 90 | 20 | 15 | M12x1.75P | 2.72 |
| HSK-T63xSV20L-105 | 137 | 105 | 70 | 90 | 20 | 15 | M12x1.75P | 2.72 |

• 長度單位 Unit of Length (mm)



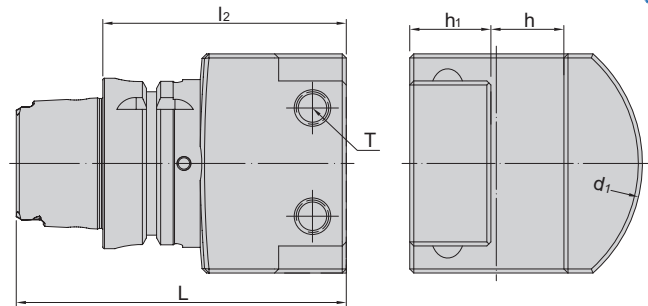
SB 外徑車刀架 EXTERNAL TURNING TOOL



| 規格 Spec. | L | l ₁ | l ₂ | h | h ₁ | d ₁ | T | 重量 (KGS) Weight |
|-------------------|-----|----------------|----------------|----|----------------|----------------|-----------|--------------------|
| HSK-T63xSB25R-105 | 137 | 105 | 70 | 25 | 13 | 54 | M12x1.75P | 2.98 |



SF 外徑車刀架 EXTERNAL TURNING TOOL

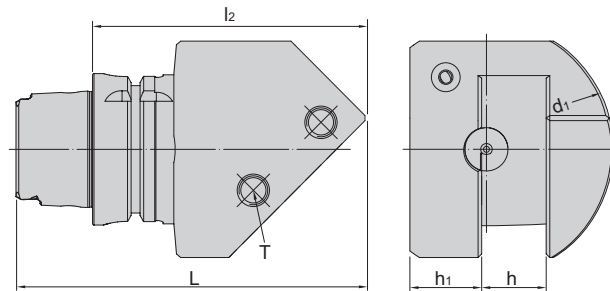


| 規格 Spec. | L | l ₂ | h | h ₁ | d ₁ | T | 重量 (KGS) Weight |
|------------------|-----|----------------|----|----------------|----------------|-----------|--------------------|
| HSK-T63xSF25-90 | 122 | 90 | 25 | 30 | 54 | M12x1.75P | 3.05 |
| HSK-T63xSF25-120 | 152 | 120 | 25 | 30 | 54 | M12x1.75P | 3.99 |

HSK-T



SN 外徑車刀架 EXTERNAL TURNING TOOL



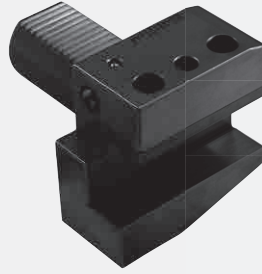
| 規格 Spec. | L | l ₂ | d ₁ | h | h ₁ | T | 重量 (KGS) Weight |
|-------------------|-----|----------------|----------------|----|----------------|-----------|--------------------|
| HSK-T63xSN25R-115 | 147 | 115 | 53 | 25 | 30 | M12x1.75P | 3.40 |
| HSK-T63xSN25L-115 | 147 | 115 | 53 | 25 | 30 | M12x1.75P | 3.40 |

• 長度單位 Unit of Length (mm)

車銑複合機刀座系統

Turning and Milling Machine Driven Tooling System

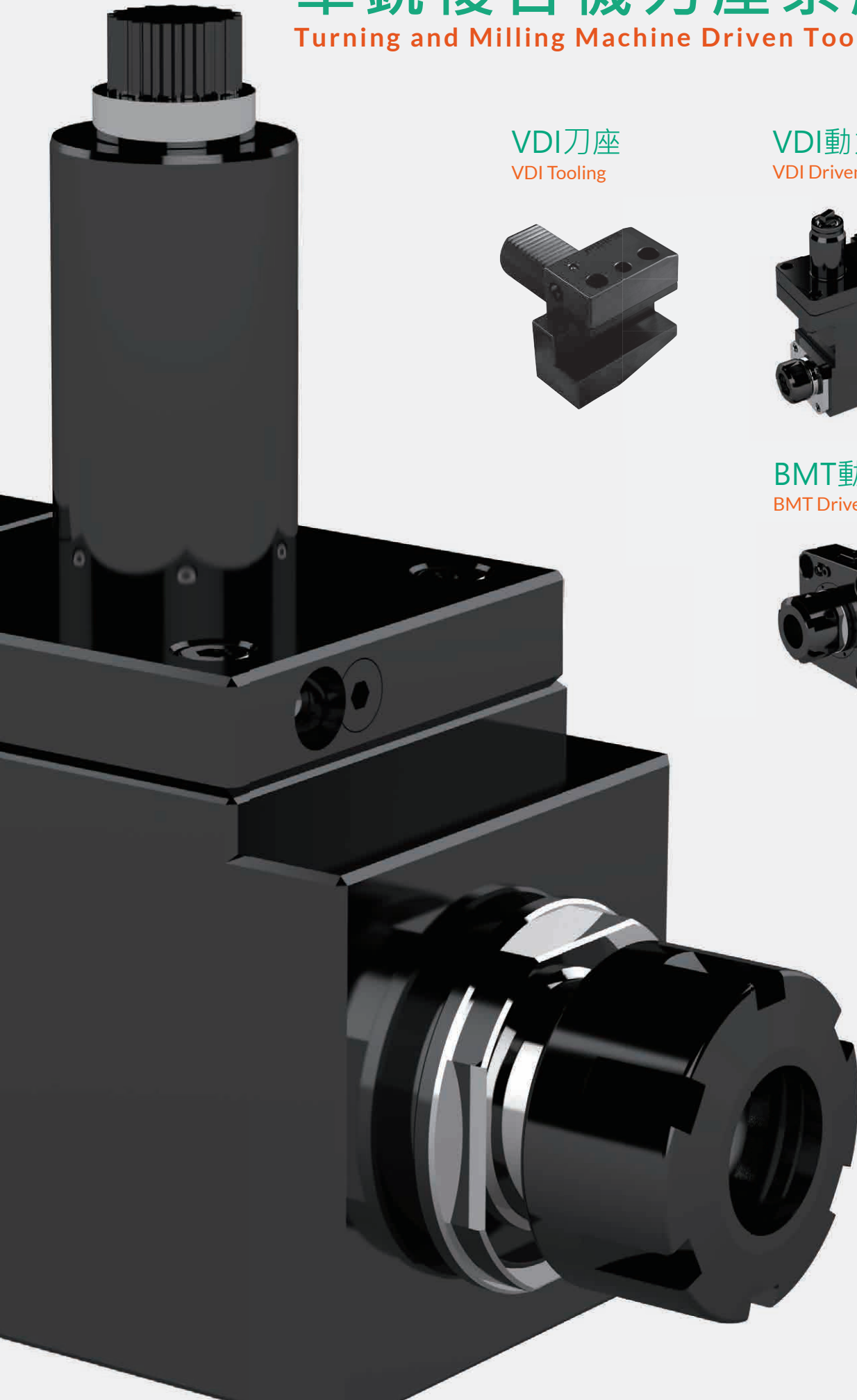
VDI刀座
VDI Tooling



VDI動力刀座
VDI Driven Tooling



BMT動力刀座
BMT Driven Tooling



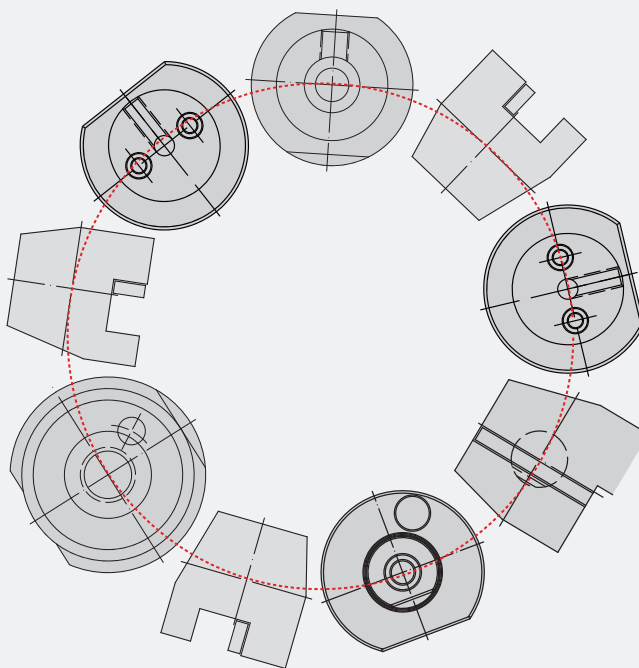
車銑複合機

Turning and Milling Machine(DIN 69880 系列)

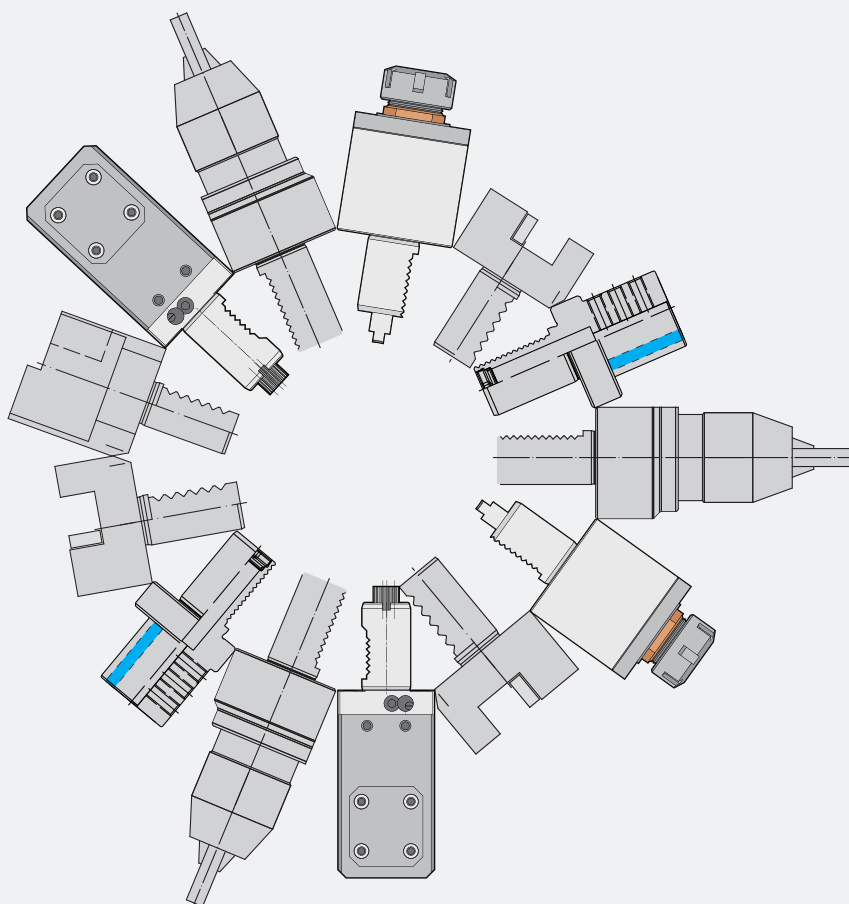
依入刀方向

Insert Toolholder into Turret Direction

軸向入刀
(axial),(axial turret)



徑向入刀
(radial),(radial turret)



VDI 動力刀座系列

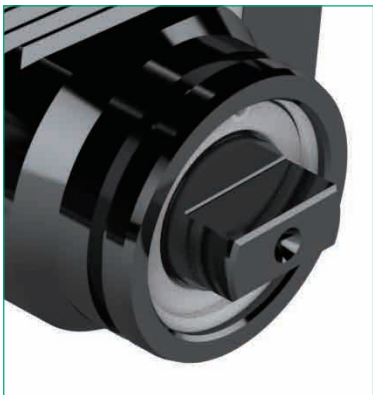
Driven Tooling System

- 研磨級齒輪-高精度、低噪音、低溫升
- 提供客製化服務
- Grinding gears - high precision, low noise, low temperature rise.
- Provide customized service.

傳動方式

Driven Method

-DIN1809



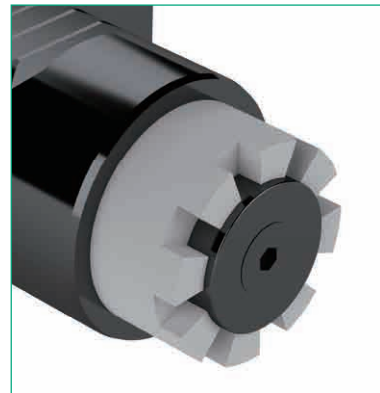
-DIN5480

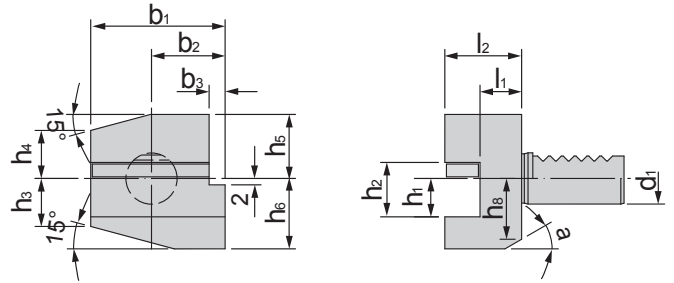


-DIN5482



-TOME



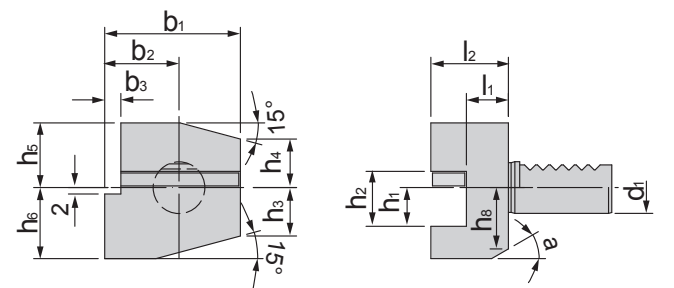


特點 Feature

- 徑向 - 右撇
- 短刀架
- 附出水孔

- Radial - right handed
- Short tool holder.
- With coolant hole.

| 規格 Spec. | 尺寸 Size d1 x h2 x l2 | d1 | b1 | b2 | b3 | h1 | h2 | h3 | h4 | h5 | h6 | h8 | l1 | l2 | a | 重量 (KGS) Weight |
|-----------------|----------------------|----|-----|------|------|----|----|----|----|------|----|----|----|----|-----|-----------------|
| 150.B1.30.20.40 | 30 x 20 x 40 | 30 | 70 | 35 | 10 | 20 | 29 | 26 | 22 | 28 | 38 | 30 | 22 | 40 | 25° | 1.38 |
| 150.B1.30.20.60 | 30 x 20 x 60 | 30 | 70 | 35 | 10 | 20 | 29 | 26 | 22 | 28 | 38 | 30 | 42 | 60 | 25° | 2.02 |
| 150.B1.40.25.44 | 40 x 25 x 44 | 40 | 85 | 42.5 | 12.5 | 25 | 34 | 35 | 30 | 32.5 | 48 | - | 22 | 44 | - | 2.36 |
| 150.B1.50.32.55 | 50 x 32 x 55 | 50 | 100 | 50 | 16 | 32 | 41 | 42 | 35 | 35 | 60 | - | 30 | 55 | - | 4.14 |



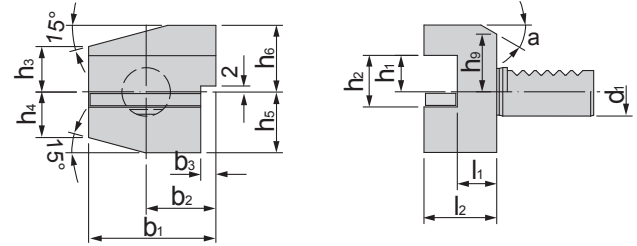
特點 Feature

- 徑向 - 左撇
- 短刀架
- 附出水孔

- Radial - Left handed
- Short tool holder.
- With coolant hole

| 規格 Spec. | 尺寸 Size d1 x h2 x l2 | d1 | b1 | b2 | b3 | h1 | h2 | h3 | h4 | h5 | h6 | h8 | l1 | l2 | a | 重量 (KGS) Weight |
|-----------------|----------------------|----|-----|------|------|----|----|----|----|------|----|----|----|----|-----|-----------------|
| 150.B2.30.20.40 | 30 x 20 x 40 | 30 | 70 | 35 | 10 | 20 | 29 | 26 | 22 | 28 | 38 | 30 | 22 | 40 | 25° | 1.40 |
| 150.B2.30.20.60 | 30 x 20 x 60 | 30 | 70 | 35 | 10 | 20 | 29 | 26 | 22 | 28 | 38 | 30 | 42 | 60 | 25° | 2.02 |
| 150.B2.40.25.44 | 40 x 25 x 44 | 40 | 85 | 42.5 | 12.5 | 25 | 34 | 35 | 30 | 32.5 | 48 | - | 22 | 44 | - | 2.38 |
| 150.B2.50.32.55 | 50 x 32 x 55 | 50 | 100 | 50 | 16 | 32 | 41 | 42 | 35 | 35 | 60 | - | 30 | 55 | - | - |

• 長度單位 Unit of Length (mm)

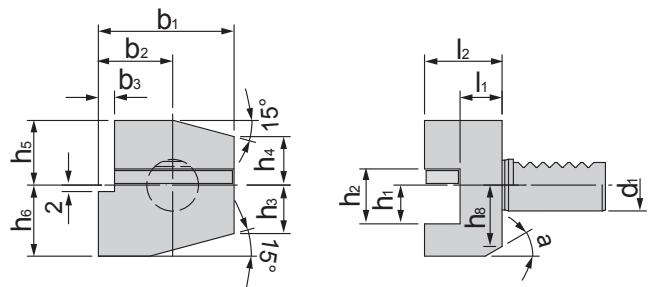
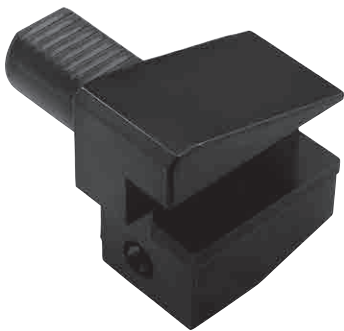


特點 Feature

- 徑向 - 右撇
- 短刀架
- 刀片向下
- 附出水孔

- Radial - right handed
- Short tool holder.
- Turning insert downwards.
- With coolant hole.

| 規格 Spec. | 尺寸 Size $d_1 \times h_1 \times l_2$ | d_1 | b_1 | b_2 | b_3 | h_1 | h_2 | h_3 | h_4 | h_6 | h_7 | h_8 | l_1 | l_2 | a | 重量 (KGS) Weight |
|-----------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|--------------------|
| 150.B3.30.20.40 | 30 x 20 x 40 | 30 | 70 | 35 | 10 | 20 | 29 | 26 | 22 | 38 | 35 | 28 | 22 | 40 | 25° | 1.42 |
| 150.B3.30.20.60 | 30 x 20 x 60 | 30 | 70 | 35 | 10 | 20 | 29 | 26 | 22 | 38 | 35 | 28 | 42 | 60 | 25° | 2.1 |
| 150.B3.40.25.44 | 40 x 25 x 44 | 40 | 85 | 42.5 | 12.5 | 25 | 34 | 35 | 30 | 48 | 42.5 | - | 22 | 44 | - | 2.52 |
| 150.B3.50.32.55 | 50 x 32 x 55 | 50 | 100 | 50 | 16 | 32 | 41 | 42 | 35 | 60 | 50 | - | 30 | 55 | - | - |



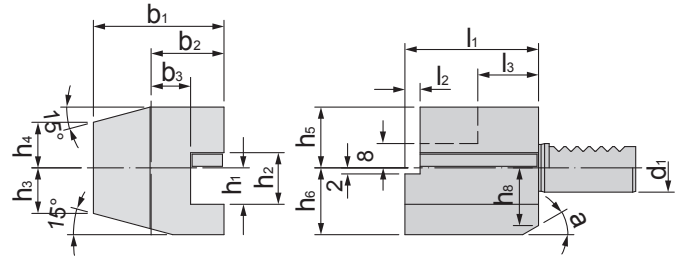
特點 Feature

- 徑向 - 左撇
- 短刀架
- 刀片向下
- 附出水孔

- Radial - left handed
- Short tool holder.
- Turning insert downwards.
- With coolant hole.

| 規格 Spec. | 尺寸 Size $d_1 \times h_1 \times l_2$ | d_1 | b_1 | b_2 | b_3 | h_1 | h_2 | h_3 | h_4 | h_6 | h_7 | h_8 | l_1 | l_2 | a | 重量 (KGS) Weight |
|-----------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|--------------------|
| 150.B4.30.20.40 | 30 x 20 x 40 | 30 | 70 | 35 | 10 | 20 | 29 | 26 | 22 | 38 | 35 | 28 | 22 | 40 | 25° | - |
| 150.B4.30.20.60 | 30 x 20 x 60 | 30 | 70 | 35 | 10 | 20 | 29 | 26 | 22 | 38 | 35 | 28 | 42 | 60 | 25° | - |
| 150.B4.40.25.44 | 40 x 25 x 44 | 40 | 85 | 42.5 | 12.5 | 25 | 34 | 35 | 30 | 48 | 42.5 | - | 22 | 44 | - | 2.52 |
| 150.B4.50.32.55 | 50 x 32 x 55 | 50 | 100 | 50 | 16 | 32 | 41 | 42 | 35 | 60 | 50 | - | 30 | 55 | - | - |

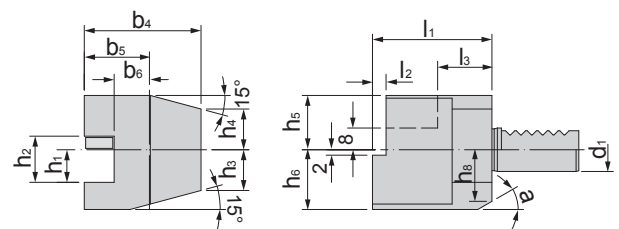
• 長度單位 Unit of Length (mm)



特點 Feature

- 軸向 - 右撇
- 短刀架
- 附出水孔
- Axial - right handed
- Short tool holder.
- With coolant hole.

| 規格 Spec. | 尺寸 Size $d_1 \times h_1$ | d_1 | b_1 | b_2 | b_3 | h_1 | h_2 | h_3 | h_4 | h_5 | h_6 | h_8 | l_1 | l_2 | l_3 | a | 重量 (KGS) Weight |
|--------------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----------------|
| 150.C1.30.20 | 30 x 20 | 30 | 70 | 35 | 17 | 20 | 29 | 26 | 22 | 28 | 38 | 30 | 70 | 10 | 30 | 25° | 1.90 |
| 150.C1.40.25 | 40 x 25 | 40 | 85 | 42.5 | 21 | 25 | 34 | 35 | 30 | 32.5 | 48 | - | 85 | 12.5 | 30 | - | 3.38 |
| 150.C1.50.32 | 50 x 32 | 50 | 100 | 50 | 26 | 32 | 41 | 42 | 35 | 35 | 60 | - | 100 | 16 | 40 | - | - |

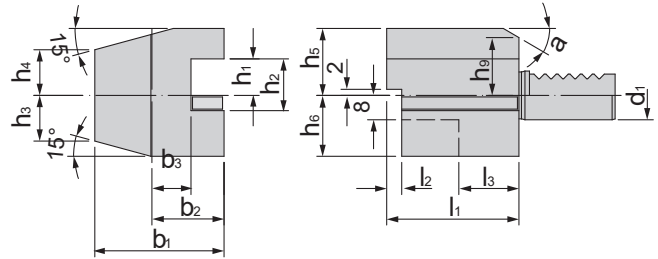
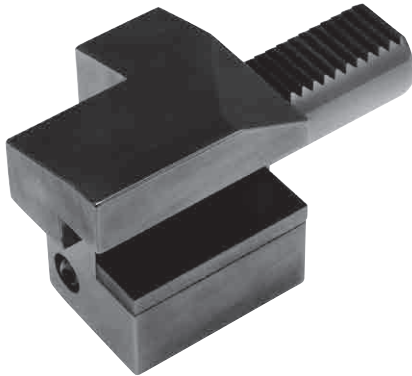


特點 Feature

- 軸向 - 左撇
- 短刀架
- 附出水孔
- Axial - left handed
- Short tool holder.
- With coolant hole.

| 規格 Spec. | 尺寸 Size $d_1 \times h_1$ | d_1 | b_4 | b_5 | b_6 | h_1 | h_2 | h_3 | h_4 | h_5 | h_6 | h_8 | l_1 | l_2 | l_3 | a | 重量 (KGS) Weight |
|--------------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----------------|
| 150.C2.30.20 | 30 x 20 | 30 | 76 | 41 | 23 | 20 | 29 | 26 | 22 | 28 | 38 | 30 | 70 | 10 | 30 | 25° | 2.06 |
| 150.C2.40.25 | 40 x 25 | 40 | 90 | 47.5 | 25.5 | 25 | 34 | 35 | 30 | 32.5 | 48 | - | 85 | 12.5 | 30 | - | 3.64 |
| 150.C2.50.32 | 50 x 32 | 50 | 105 | 55 | 30.5 | 32 | 41 | 42 | 35 | 35 | 60 | - | 100 | 16 | 40 | - | - |

• 長度單位 Unit of Length (mm)

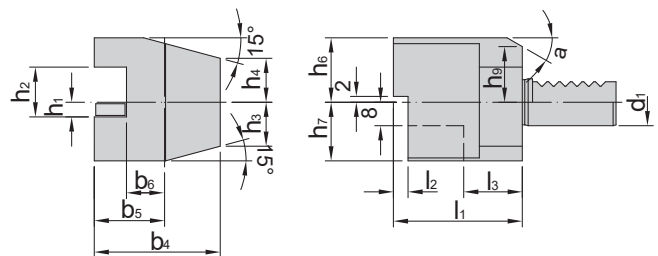


特點 Feature

- 軸向 - 右撇
- 短刀架
- 刀片向下
- 附出水孔

- Axial - right handed
- Short tool holder.
- Turning insert downwards.
- With coolant hole.

| 規格 Spec. | 尺寸 Size $d_1 \times h_1$ | d_1 | b_1 | b_2 | b_3 | h_1 | h_2 | h_3 | h_4 | h_6 | h_7 | h_9 | l_1 | l_2 | l_3 | a | 重量 (KGS) Weight |
|--------------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----------------|
| 150.C3.30.20 | 30 x 20 | 30 | 70 | 35 | 17 | 20 | 29 | 26 | 22 | 28 | 35 | 28 | 70 | 10 | 30 | 25° | 1.96 |
| 150.C3.40.25 | 40 x 25 | 40 | 85 | 42.5 | 21 | 25 | 34 | 35 | 30 | 48 | 42.5 | - | 85 | 12.5 | 30 | - | 3.54 |
| 150.C3.50.32 | 50 x 32 | 50 | 100 | 50 | 26 | 32 | 41 | 42 | 35 | 60 | 50 | - | 100 | 16 | 40 | - | - |



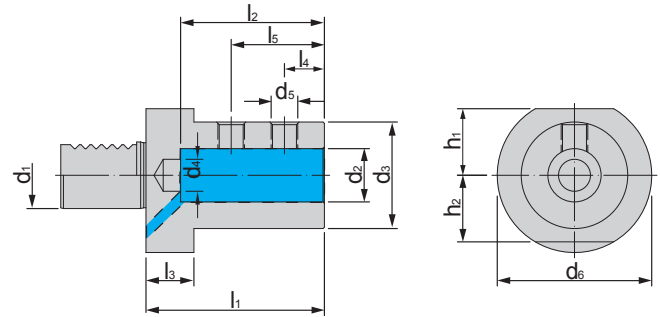
特點 Feature

- 軸向 - 左撇
- 短刀架
- 刀片向下
- 附出水孔

- Axial - left handed
- Short tool holder.
- Turning insert downwards.
- With coolant hole.

| 規格 Spec. | 尺寸 Size $d_1 \times h_1$ | d_1 | b_4 | b_5 | b_6 | h_1 | h_2 | h_3 | h_4 | h_6 | h_7 | h_9 | l_1 | l_2 | l_3 | a | 重量 (KGS) Weight |
|--------------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----------------|
| 150.C4.30.20 | 30 x 20 | 30 | 76 | 41 | 23 | 20 | 29 | 26 | 22 | 38 | 35 | 28 | 70 | 10 | 30 | 25° | 2.2 |
| 150.C4.40.25 | 40 x 25 | 40 | 90 | 47.5 | 25.5 | 25 | 34 | 35 | 30 | 48 | 42.5 | - | 85 | 12.5 | 30 | - | 3.86 |
| 150.C4.50.32 | 50 x 32 | 50 | 105 | 55 | 30.5 | 32 | 41 | 42 | 35 | 60 | 50 | - | 100 | 16 | 40 | - | - |

• 長度單位 Unit of Length (mm)



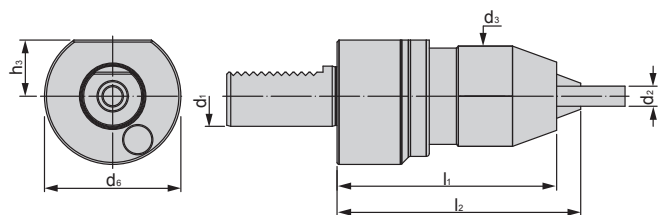
特點 Feature

- 內徑公差：H5
- 中心出水

- Tolerance of internal hole: H5.
- With center coolant.

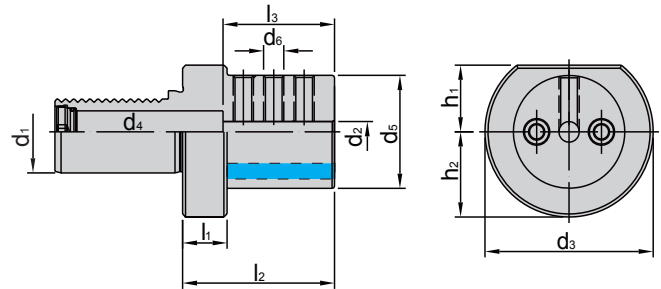
| 規格 Spec. | 尺寸 Size $d_1 \times d_2$ | d_1 | d_2 | d_3 | d_4 | d_5 | d_6 | h_1 | h_2 | l_1 | l_2 | l_3 | l_4 | l_5 | 重量 (KGS) Weight |
|--------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| 150.E1.30.20 | 30 x 20 | 30 | 20 | 40 | 12 | M10x1 | 68 | 28 | 30 | 67 | 54 | 22 | 15 | 35 | 1.28 |
| 150.E1.30.25 | 30 x 25 | 30 | 25 | 45 | 17 | M12x1 | 68 | 28 | 30 | 71 | 59 | 22 | 17 | 40 | 1.34 |
| 150.E1.30.32 | 30 x 32 | 30 | 32 | 52 | 24 | M12x1 | 68 | 28 | 30 | 75 | 63 | 22 | 17 | 44 | 1.43 |
| 150.E1.30.40 | 30 x 40 | 30 | 40 | 65 | 24 | M16x1 | 68 | 28 | 30 | 90 | 73 | 22 | 22 | 50 | - |
| 150.E1.40.18 | 40 x 18 | 40 | 18 | 40 | 12 | M10x1 | 83 | 32.5 | - | 67 | 54 | 22 | 15 | 35 | - |
| 150.E1.40.20 | 40 x 20 | 40 | 20 | 40 | 12 | M10x1 | 83 | 32.5 | - | 67 | 54 | 22 | 15 | 35 | 1.84 |
| 150.E1.40.25 | 40 x 25 | 40 | 25 | 45 | 17 | M12x1 | 83 | 32.5 | - | 75 | 59 | 22 | 17 | 40 | 1.98 |
| 150.E1.40.32 | 40 x 32 | 40 | 32 | 52 | 24 | M12x1 | 83 | 32.5 | - | 75 | 63 | 22 | 17 | 44 | 1.98 |
| 150.E1.40.40 | 40 x 40 | 40 | 40 | 65 | 24 | M16x1 | 83 | 32.5 | - | 90 | 73 | 22 | 22 | 50 | 2.58 |
| 150.E1.40.50 | 40 x 50 | 40 | 50 | 75 | 32 | M16x1 | 83 | 32.5 | - | 100 | 83 | 22 | 24 | 60 | 3.54 |
| 150.E1.50.20 | 50 x 20 | 50 | 20 | 40 | 12 | M10x1 | 98 | 35 | - | 67 | 54 | 30 | 15 | 35 | - |
| 150.E1.50.25 | 50 x 25 | 50 | 25 | 45 | 17 | M12x1 | 98 | 35 | - | 80 | 59 | 30 | 17 | 40 | - |
| 150.E1.50.32 | 50 x 32 | 50 | 32 | 52 | 24 | M12x1 | 98 | 35 | - | 80 | 63 | 30 | 17 | 44 | - |
| 150.E1.50.40 | 50 x 40 | 50 | 40 | 65 | 32 | M16x1 | 98 | 35 | - | 90 | 73 | 30 | 22 | 50 | - |
| 150.E1.50.50 | 50 x 50 | 50 | 50 | 75 | 42 | M16x1 | 98 | 35 | - | 100 | 83 | 30 | 24 | 60 | - |

VDI



| 規格 Spec. | 尺寸 Size | d_1 | d_2 | d_3 | d_6 | h_3 | l_1 | l_2 | 重量 (KGS) Weight |
|---------------|------------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| 150.30.669.08 | 30 x SPU8 | 30 | 0.5-8 | 36 | 68 | 28 | 68 | 71 | - |
| 150.30.669.13 | 30 x SPU13 | 30 | 1-13 | 50 | 68 | 28 | 90 | 96 | 2.32 |
| 150.30.669.16 | 30 x SPU16 | 30 | 3-16 | 57 | 68 | 28 | 90 | 101 | 2.46 |
| 150.40.669.08 | 40 x SPU8 | 40 | 0.5-8 | 36 | 83 | 32.5 | 68 | 71 | 1.84 |
| 150.40.669.13 | 40 x SPU13 | 40 | 1-13 | 50 | 83 | 32.5 | 90 | 96 | 2.46 |
| 150.40.669.16 | 40 x SPU16 | 40 | 3-16 | 57 | 83 | 32.5 | 90 | 101 | 3.12 |
| 150.50.669.13 | 50 x SPU13 | 50 | 1-13 | 57 | 98 | 35 | 90 | 96 | - |
| 150.50.669.16 | 50 x SPU16 | 50 | 3-16 | 57 | 98 | 35 | 90 | 101 | - |

• 長度單位 Unit of Length (mm)



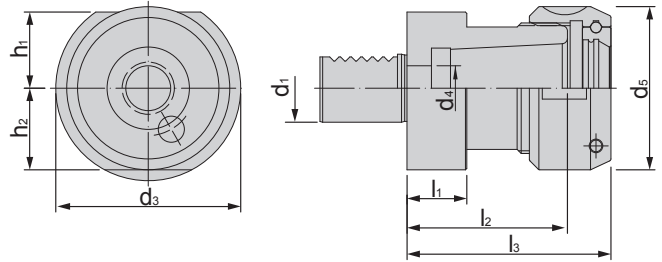
特點 Feature

- 內徑公差：H5
- 中心出水

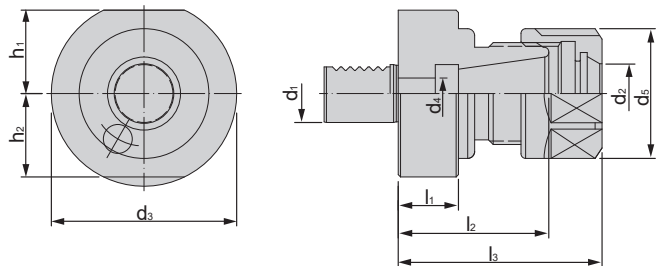
- Tolerance of internal hole: H5.
- With center coolant.

| 規格 Spec. | 尺寸 Size d ₁ × d ₂ | d ₁ | d ₂ | d ₃ | d ₄ | d ₅ | d ₆ | h ₁ | h ₂ | l ₁ | l ₂ | l ₃ | 重量 (KGS) Weight |
|--------------|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------|
| 150.E2.30.08 | 30 × 8 | 30 | 8 | 68 | 6 | 55 | M6 | 28 | 30 | 22 | 60 | 51 | 1.60 |
| 150.E2.30.10 | 30 × 10 | 30 | 10 | 68 | 8 | 55 | M6 | 28 | 30 | 22 | 60 | 51 | 1.59 |
| 150.E2.30.12 | 30 × 12 | 30 | 12 | 68 | 10 | 55 | M8 | 28 | 30 | 22 | 60 | 51 | 1.57 |
| 150.E2.30.14 | 30 × 14 | 30 | 14 | 68 | 10 | 55 | M8 | 28 | 30 | 22 | 60 | 52 | 1.82 |
| 150.E2.30.16 | 30 × 16 | 30 | 16 | 68 | 12 | 55 | M8 | 28 | 30 | 22 | 60 | 51 | 1.48 |
| 150.E2.30.18 | 30 × 18 | 30 | 18 | 68 | 10 | 55 | M8 | 28 | 30 | 22 | 60 | 52 | - |
| 150.E2.30.20 | 30 × 20 | 30 | 20 | 68 | 16 | 55 | M8 | 28 | 30 | 22 | 60 | 51 | 1.44 |
| 150.E2.30.25 | 30 × 25 | 30 | 25 | 68 | 16 | 55 | M8 | 28 | 30 | 22 | 60 | 51 | 1.36 |
| 150.E2.30.32 | 30 × 32 | 30 | 32 | 68 | 16 | 68 | M8 | 28 | 30 | 22 | 75 | 51 | 1.88 |
| 150.E2.40.10 | 40 × 10 | 40 | 10 | 83 | 8 | 55 | M10 | 32.5 | - | 22 | 75 | 67 | - |
| 150.E2.40.12 | 40 × 12 | 40 | 12 | 83 | 10 | 55 | M10 | 32.5 | - | 22 | 75 | 61 | 2.44 |
| 150.E2.40.14 | 40 × 14 | 40 | 14 | 83 | 10 | 55 | M8 | 32.5 | - | 22 | 75 | 63 | - |
| 150.E2.40.16 | 40 × 16 | 40 | 16 | 83 | 12 | 55 | M10 | 32.5 | - | 22 | 75 | 61 | 2.30 |
| 150.E2.40.18 | 40 × 18 | 40 | 18 | 83 | 10 | 55 | M8 | 32.5 | - | 22 | 75 | 62 | - |
| 150.E2.40.20 | 40 × 20 | 40 | 20 | 83 | 16 | 55 | M10 | 32.5 | - | 22 | 75 | 61 | 2.25 |
| 150.E2.40.25 | 40 × 25 | 40 | 25 | 83 | 20.5 | 55 | M10 | 32.5 | - | 22 | 75 | 61 | 2.23 |
| 150.E2.40.32 | 40 × 32 | 40 | 32 | 83 | 20.5 | 83 | M10 | 32.5 | - | 22 | 75 | 61 | 3.20 |
| 150.E2.40.40 | 40 × 40 | 40 | 40 | 83 | 20.5 | 83 | M10 | 32.5 | - | 22 | 75 | 75 | 3.64 |
| 150.E2.40.50 | 40 × 50 | 40 | 50 | 83 | 20.5 | 83 | M12 | 32.5 | - | 22 | 75 | 75 | 1.86 |
| 150.E2.50.12 | 50 × 12 | 50 | 12 | 98 | 10 | 68 | M8 | 35 | - | 30 | 90 | 76 | - |
| 150.E2.50.16 | 50 × 16 | 50 | 16 | 98 | 12 | 68 | M10 | 35 | - | 30 | 90 | 76 | - |
| 150.E2.50.20 | 50 × 20 | 50 | 20 | 98 | 16 | 68 | M12 | 35 | - | 30 | 90 | 76 | - |
| 150.E2.50.25 | 50 × 25 | 50 | 25 | 98 | 20 | 68 | M12 | 35 | - | 30 | 90 | 76 | - |
| 150.E2.50.32 | 50 × 32 | 50 | 32 | 98 | 25 | 68 | M12 | 35 | - | 30 | 90 | 76 | - |
| 150.E2.50.40 | 50 × 40 | 50 | 40 | 98 | 25 | 98 | M12 | 35 | - | 30 | 90 | 76 | - |
| 150.E2.50.50 | 50 × 50 | 50 | 50 | 98 | 25 | 98 | M12 | 35 | - | 30 | 100 | 86 | 5.24 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | 尺寸 Size | d ₁ | d ₃ | d ₄ min | d ₅ | h ₁ | h ₂ | l ₁ | l ₂ | l ₃ | 重量 (KGS) Weight |
|--------------|------------|----------------|----------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| 150.E3.30.25 | 30 x EOC25 | 30 | 68 | 16.5 | 60 | 28 | 30 | 22 | 59 | 75 | - |
| 150.E3.40.25 | 40 x EOC25 | 40 | 83 | 20.5 | 60 | 32.5 | - | 22 | 59 | 75 | - |
| 150.E3.40.32 | 40 x EOC32 | 40 | 83 | 20.5 | 72 | 32.5 | - | 22 | 73 | 90 | 2.6 |
| 150.E3.50.25 | 50 x EOC25 | 50 | 98 | 25.5 | 60 | 35 | - | 30 | 59 | 75 | - |
| 150.E3.50.32 | 50 x EOC32 | 50 | 98 | 25.5 | 72 | 35 | - | 30 | 73 | 90 | - |



特點 Feature

- 搭配 DIN-15488 系列彈性筒夾，可夾持各直柄刀具
- 使用包固得螺帽提高剛性
- 無風阻螺帽搭配使用，夾持力大、穩定性與精度提高

- It can match with ER Spring Collet (DIN-15488 standard) and can clamp all kinds of straight shank tools.
- Rigidity can be raised by using ER Power Good Clamping Nut.
- Matching with non wind resistance nut can raise clamping power, stability and precision.

| 規格 Spec. | 尺寸 Size | d ₁ | d ₂ ER | d ₃ | d ₄ min | d ₅ | h ₁ | h ₂ | l ₁ | l ₂ | l ₃ | 重量 (KGS) Weight |
|--------------|-----------|----------------|-------------------|----------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| 150.E4.30.25 | 30 x ER25 | 30 | 25 | 68 | 16.5 | 42 | 28 | 30 | 22 | 45 | 57 | 1.08 |
| 150.E4.30.32 | 30 x ER32 | 30 | 32 | 68 | 16.5 | 50 | 28 | 30 | 22 | 49 | 62 | - |
| 150.E4.30.40 | 30 x ER40 | 30 | 40 | 68 | 16.5 | 63 | 28 | 30 | 22 | 56 | 70 | - |
| 150.E4.40.25 | 40 x ER25 | 40 | 25 | 83 | 20.5 | 42 | 32.5 | - | 22 | 45 | 57 | 1.66 |
| 150.E4.40.32 | 40 x ER32 | 40 | 32 | 83 | 20.5 | 50 | 32.5 | - | 22 | 49.5 | 62 | 1.77 |
| 150.E4.40.40 | 40 x ER40 | 40 | 40 | 83 | 20.5 | 63 | 32.5 | - | 22 | 61 | 75 | 2.10 |
| 150.E4.50.40 | 50 x ER40 | 50 | 40 | 98 | 20.5 | 63 | 35 | - | 30 | 61 | 75 | - |

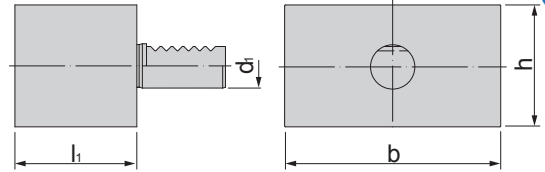
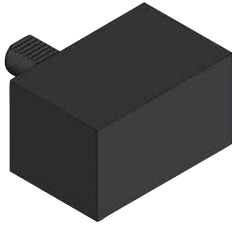
• 長度單位 Unit of Length (mm)



VDI 素材 VDI BLANK

DIN ISO 10889-2

DIN
ISO
10889

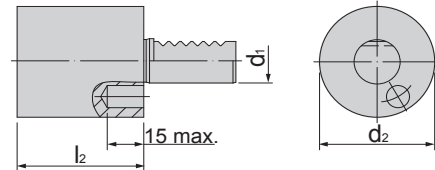


| 規格 Spec. | 尺寸 Size $d_1 \times l_1$ | d_1 | l_1 | b | h | 重量 (KGS) Weight |
|---------------|-----------------------------|-------|-------|-----|-----|--------------------|
| 150.A1.30.85 | 30 x 85 | 30 | 85 | 130 | 76 | - |
| 150.A1.40.100 | 40 x 100 | 40 | 100 | 151 | 96 | - |



VDI 素材 VDI BLANK

DIN ISO 10889-2



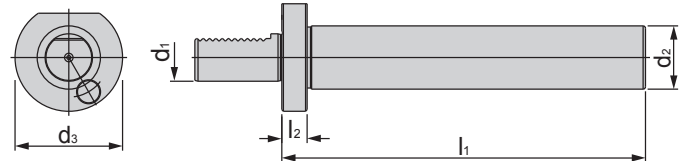
| 規格 Spec. | 尺寸 Size $d_1 \times l_2$ | d_1 | d_2 | l_2 | 重量 (KGS) Weight |
|---------------|-----------------------------|-------|-------|-------|--------------------|
| 150.A2.30.100 | 30 x 100 | 30 | 68 | 100 | - |
| 150.A2.30.240 | 30 x 240 | 30 | 68 | 240 | - |
| 150.A2.40.120 | 40 x 120 | 40 | 83 | 120 | - |
| 150.A2.40.200 | 40 x 200 | 40 | 83 | 200 | - |
| 150.A2.40.320 | 40 x 320 | 40 | 83 | 320 | - |

VDI



VDI 主軸檢測棒 VDI SPINDLE MASTER BAR

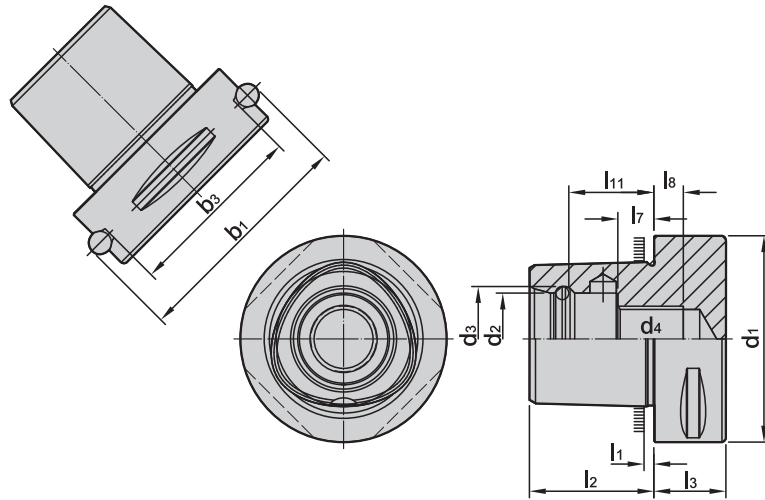
TYPE BC



| | | |
|--|-------------------------|---------|
| | 錐度精度 Taper Precision | AT2 |
| | 真圓度 Roundness | 0.001mm |
| | 表面粗造度 Surface Roughness | Ra<0.4 |
| | 同心度 Concentricity | 0.005mm |

| 規格 Spec. | 尺寸 Size $d_1 \times d_2 \times l_1$ | l_1 | l_2 | d_1 | d_2 | d_3 | 重量 (KGS) Weight |
|---------------|--|-------|-------|-------|-------|-------|--------------------|
| 150.30.40.230 | 30 x 40 x 230 | 230 | 16 | 30 | 40 | 68 | 4.30 |
| 150.40.40.200 | 40 x 40 x 200 | 200 | 16 | 40 | 40 | 83 | 4.42 |
| 150.50.40.200 | 50 x 40 x 200 | 200 | 15 | 50 | 40 | 98 | 5.22 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | b ₁ ±0.1 | b ₃ ±0.1 | d ₁ ±0.1 | d ₂ +0.1 -0.05 | d ₃ ±0.05 | d ₄ | l ₁ | l ₂ ±0.1 | l ₃ Min | l ₇ ±0.15 | l ₈ Min | l ₁₁ ±0.1 |
|-------------|------------------------|------------------------|------------------------|---------------------------------|-------------------------|----------------|----------------|------------------------|-----------------------|-------------------------|-----------------------|-------------------------|
| PSC32 | 39 | 27.9 | 32 | 15 | 16.5 | M12x1.5P | 2.5 | 19 | 15 | 6 | 6 | 13.5 |
| PSC40 | 46 | 34.9 | 40 | 18 | 20 | M14x1.5P | 2.5 | 24 | 20 | 9 | 6 | 17.5 |
| PSC50 | 59.3 | 44 | 50 | 21 | 24 | M16x1.5P | 3 | 30 | 20 | 10 | 7 | 22 |
| PSC63 | 70.7 | 55.4 | 63 | 28 | 32 | M20x2.0P | 3 | 38 | 22 | 11 | 9 | 26 |
| PSC80 | 86 | 70.7 | 80 | 32 | 38 | M20x2.0P | 3 | 48 | 30 | 20 | 0 | 34 |
| PSC80X | 110 | 88.3 | 10 | 32 | 38 | M20x2.0P | 3 | 48 | 32 | 20 | 0 | 34 |

1. 錐度精度 : < AT3
2. 硬度 : HRC 56°
3. 滲碳深度 > 0.8mm
4. 真圓度 : < 0.8μm
5. 表面粗糙度 : Ra < 0.25μm
6. 刀桿有預設標準動平衡 G6.3 · 可另外指定精密動平衡 G2.5
7. 本體規範 : ISO 26623-1

1. Taper tolerance < AT3.
2. Hardness > HRC 56°.
3. Carbon depth > 0.8mm.
4. Roundness < 0.8μm.
5. Surface roughness : Ra < 0.25μm.
6. The shank has pre-balance at G6.3, and can provide precision balance at G2.5, made by request.
7. Shank body standard : ISO 26623-1.

PSC

| 1 接口型式 PSC Style | | 2 壓板鎖固方式 Clamping System | | | | 5 離隙角 Clearance Angle | | 9 長度記號 Length | | | | | |
|---------------------|---|-----------------------------|----------------------------------|------------|--------------------------------------|--------------------------|------------------------|------------------|------|------|-------|-------|-------|
| 記號 Code | | 記號 Code | 功能 Function | 記號 Code | 功能 Function | 記號 Code | 離隙角 Clearance Angle | 記號 Code | 6.35 | 7.94 | 9.525 | 12.00 | 12.70 |
| PSC32(C3) | | A | Back Clamp System | M | 螺鎖上壓式 Multi Top and Hole Clamping | A | 3° | 80° | 06 | 08 | 09 | - | 12 |
| PSC40(C4) | B | | | | | 5° | 55° | | 07 | - | 11 | - | 15 |
| PSC50(C5) | | C | 上壓式 Top Clamping Without Hole | P | 側推式 Pin Lock Hole Clamping | C | | 7° | 35° | 11 | - | 16 | - |
| PSC63(C6) | D | | | | | 15° | - | - | | - | 12 | - | - |
| PSC80(C8) | | D | Double Clamp System | S | 壓孔式 Screw On | E | | 20° | - | 11 | 13 | 16 | - |
| PSC80X(C8X) | E | | | | | 25° | - | - | | - | 12 | - | - |
| | | JS | Screw-on System | W | 楔勾式 Wedge Top and Hole Clamping | N | | 0° | - | 11 | 13 | 16 | - |
| | | | | | | JT | Back Clamp System | | | | P | 11° | - |
| | | | | | | | | | | | | | |

PSC63 - M C L N R - 45 065 12

1 2 3 4 5 6 7 8 9

| 3 刀片形狀 Insert Shape | | |
|------------------------|-------------|--------------|
| 記號 Code | 角度 Angle | 圖形 Figure |
| C | 80° | |
| D | 55° | |
| K | | |
| R | - | |
| S | - | |
| T | - | |
| V | 35° | |
| W | 80° | |
| L | - | |
| H | 120° | |
| A | 85° | |
| B | 82° | |
| E | 75° | |
| M | 86° | |
| O | 135° | |
| P | 108° | |

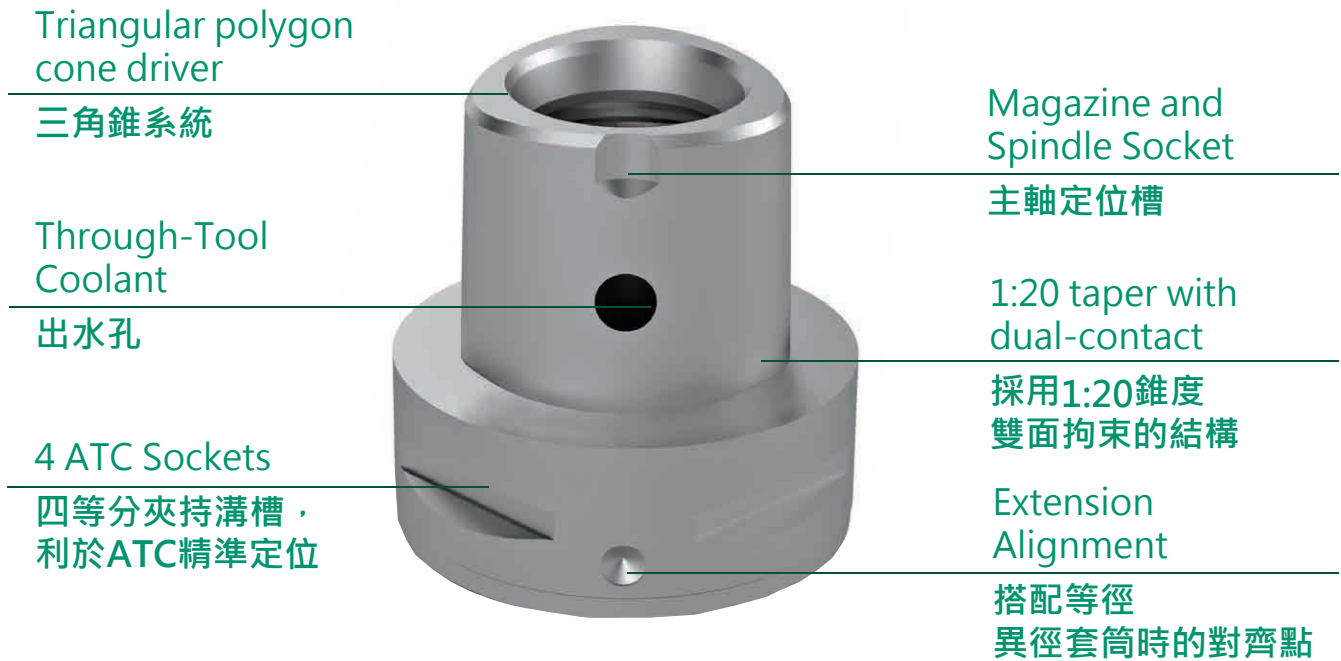
| 4 進刀角度 Lead Angle | | | |
|----------------------|--------------|------------|--------------|
| 記號 Code | 圖形 Figure | 記號 Code | 圖形 Figure |
| A | 90° | M | 50° |
| B | 75° | N | 63° |
| C | 90° | P | 117.5° |
| D | 45° | R | 75° |
| E | 60° | S | 45° |
| F | 90° | T | 60° |
| G | 90° | U | 93° |
| H | 107.5° | V | 72.5° |
| J | 93° | W | 60° |
| K | 75° | Y | 85° |
| L | 95° | | |

| 6 切削方向 Hand | |
|----------------|--------------|
| 記號 Code | 圖形 Figure |
| L | |
| N | |
| R | |

| 7 d1 尺寸 Size | |
|-----------------|----------------|
| 圖形 Figure | |
| | d ₁ |

| 8 刀具有效長 Effective Length | |
|-----------------------------|--|
| 圖形 Figure | |
| | |

• 長度單位 Unit of Length (mm)



重複定位精度高

XYZ軸向的重複定位精度是 $\pm 2\mu\text{m}$ ，刀具延伸四倍長的偏擺精度是 $3\mu\text{m}$ 。

獨特的雙面拘束設計

連接結構是高精度的三角錐體，採用1:20錐度雙面拘束的夾緊結構，在車削加工中，因為沒有定位誤差，即不懼軸高位移，且切削扭矩呈現均勻分布，提高扭轉剛性。

增進生產效率

穩固的夾持、良好的穩定性與精度，可以有效降低磨耗並增加刀具壽命。廣泛的應用方式配上模組化的組合模式，讓加工者得以節省時間與空間。

High Precision Coupling

The precision during repeated coupling in the XYZ direction is $\pm 2\mu\text{m}$ and the run-out accuracy is $3\mu\text{m}$.

Unique Dual Contact Design

The coupling structure is a high precision triangular form with a 1:20 taper for dual contact and tight clamping. Designed without drive keys evenly distributes torque without balance irregularities. There are no axial discrepancies during lathe turning due to consistent positioning.

Increase Productivity

Rigid clamping for superior stability and precision, which produces minimal wear and a longer tool life. The universal applications and modular interface allow manufacturers to save time and space.

• 長度單位 Unit of Length (mm)

模組化示意圖 Modular combination

Milling 銑床



FACE MILLING CUTTERS



PSC + IAP
PSC + CIAP



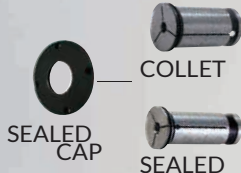
PSC + MAP
PSC + CMAP



PSC + FMA



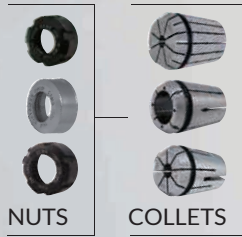
PSC + FMB



SEALED CAP
COLLET
SEALED COLLET



WRENCHES



NUTS
COLLETS



PSC + MLD



PSC + SFC



PSC + ER



PSC ADAPTER



PSC ADAPTER



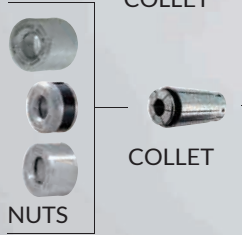
COLLET



PSC + SBL



WRENCHES



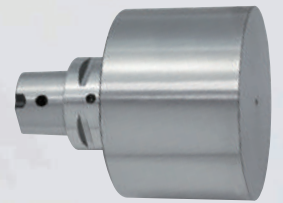
NUTS



COLLET



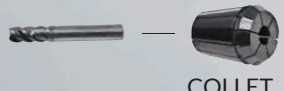
PSC + SKS



BLANK PSC ADAPTER



PSC + SLN



COLLET



PSC + PNER



PSC TEST BAR

Turning 車床



BT + PSC ADAPTER



DAT + PSC ADAPTER



HSK + PSC ADAPTER



Boring 搪孔



PSC + PBJ



PSC + PCK



PSC + MCK



PSC + PMB



PSC / PMB-DP



PSC + SBJ



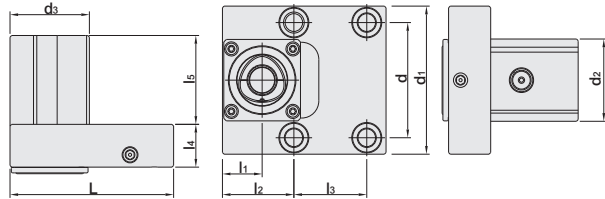
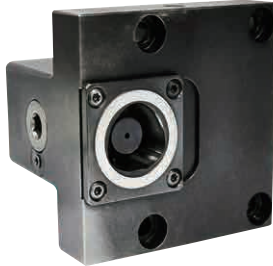
EXTENSION SPACER



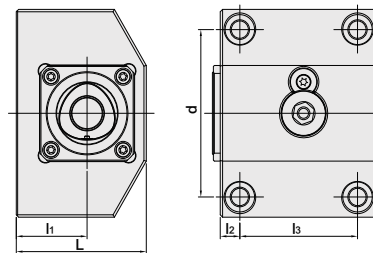
SCK BORING HEAD



SMB BORING HEAD



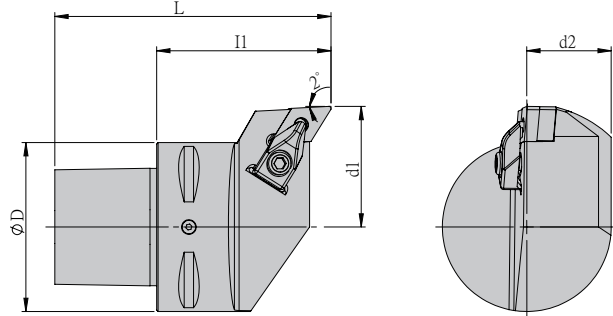
| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | l ₄ | l ₅ | d | d ₁ | d ₂ | d ₃ | 適用主軸 Applicable type | 機器品牌 Machine brand | 重量 (KGS) Weight |
|-------------|-------|----------------|----------------|----------------|----------------|----------------|----|----------------|----------------|----------------|----------------------|--------------------|-----------------|
| EOTP40 - OR | 108.5 | 24.5 | 43.5 | 35 | 26 | 54 | 76 | 105 | 50 | 49 | PSC40 | VICTOR TAICHUNG | 2.81 |
| EOTP40 - HA | 101 | 24.5 | 44.1 | 45 | 26 | 54 | 70 | 90 | 50 | 49 | PSC40 | HAAS | 2.40 |
| EOTP40 - MO | 108.5 | 24.5 | 44 | 35 | 26 | 54 | 76 | 105 | 50 | 49 | PSC40 | DMG MORI | 2.88 |
| EOTP40 - MA | 104 | 24.5 | 32.75 | 60 | 33.5 | 45 | 84 | 104 | 49 | 47.75 | PSC40 | MAZAK | 2.90 |
| EOTP40 - GW | 114 | 24.5 | 49 | 35 | 26 | 54 | 76 | 105 | 50 | 49 | PSC40 | GOODWAY | 2.99 |
| EOTP40 - EX | 104 | 24.5 | 39 | 45 | 26 | 54 | 92 | 114 | 50 | 59 | PSC40 | TAKISAWA | 2.90 |



| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | d | 適用主軸 Applicable type | 機器品牌 Machine brand | 重量 (KGS) Weight |
|-------------|------|----------------|----------------|----------------|----|----------------------|--------------------|-----------------|
| IOTP40 - HA | 60 | 30.4 | 21.3 | 45 | 70 | PSC40 | HAAS | 2.70 |
| IOTP40 - MA | 93.2 | 63 | 10 | 60 | 84 | PSC40 | MAZAK | 4.41 |
| IOTP40 - MO | 80 | 46 | 25 | 35 | 76 | PSC40 | DMG MORI | 4.10 |
| IOTP40 - OR | 81 | 46 | 25 | 35 | 76 | PSC40 | VICTOR TAICHUNG | 4.15 |
| IOTP40 - GW | 75 | 40 | 25 | 35 | 76 | PSC40 | GOODWAY | 4.20 |

- 各機械廠牌·刀座尺寸眾多·其他尺寸採客製樣式

• 長度單位 Unit of Length (mm)

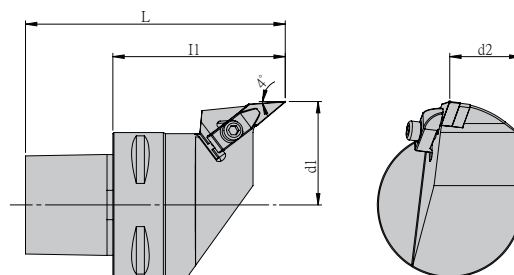


| 規格 Spec. | L | l ₁ | D | d ₁ | d ₂ | 刀片 Insert | 重量 (KGS) Weight |
|----------------------|-----|----------------|----|----------------|----------------|--------------|-----------------------|
| PSC32-DDJNR-22045-15 | 64 | 45 | 32 | 22 | 18.1 | DN..1504 | 0.22 |
| PSC32-DDJNL-22045-15 | 64 | 45 | 32 | 22 | 18.1 | DN..1504 | 0.22 |
| PSC40-DDJNR-27050-15 | 74 | 50 | 40 | 27 | 22.5 | DN..1504 | 0.42 |
| PSC40-DDJNL-27050-15 | 74 | 50 | 40 | 27 | 22.5 | DN..1504 | 0.42 |
| PSC50-DDJNR-3506015 | 90 | 60 | 50 | 35 | 28.65 | DN..1504 | 0.78 |
| PSC50-DDJNL-35060-15 | 90 | 60 | 50 | 35 | 28.65 | DN..1504 | 0.78 |
| PSC63-DDJNR-45075-15 | 113 | 75 | 63 | 45 | 31 | DN..1504 | 0.80 |
| PSC63-DDJNL-45075-15 | 113 | 75 | 63 | 45 | 31 | DN..1504 | 0.80 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|--------------|------------|--------------------|--------------|------------------------|-------------|---------------------|----------------------|------------------------|
| DN..1504 | DNS1504 | - | - | - | DCP-2 | M5-20-4.9 | PL4 | 5.0 |

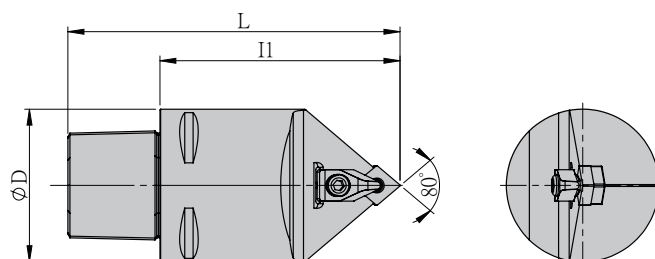
• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | D | d ₁ | d ₂ | 刀片 Insert | 重量 (KGS) Weight |
|----------------------|-----|----------------|----|----------------|----------------|--------------|-----------------------|
| PSC32-DVLNR-20050-16 | 69 | 50 | 32 | 20 | 18.1 | VN..1604 | 0.22 |
| PSC32-DVLNL-20050-16 | 69 | 50 | 32 | 20 | 18.1 | VN..1604 | 0.22 |
| PSC40-DVLNR-27055-16 | 79 | 55 | 40 | 27 | 22.5 | VN..1604 | 0.42 |
| PSC40-DVLNL-27055-16 | 79 | 55 | 40 | 27 | 22.5 | VN..1604 | 0.42 |
| PSC50-DVLNR-35060-16 | 90 | 60 | 50 | 35 | 28.65 | VN..1604 | 0.78 |
| PSC50-DVLNL-35060-16 | 90 | 60 | 50 | 35 | 28.65 | VN..1604 | 0.78 |
| PSC63-DVLNR-45075-16 | 113 | 75 | 63 | 45 | 31 | VN..1604 | 0.80 |
| PSC63-DVLNL-45075-16 | 113 | 75 | 63 | 45 | 31 | VN..1604 | 0.80 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|--------------|------------|--------------------|--------------|------------------------|-------------|---------------------|----------------------|------------------------|
| VN..1604 | VNS1604 | - | - | - | DCP-4 | M5-20-4.9 | PL4 | 5.0 |

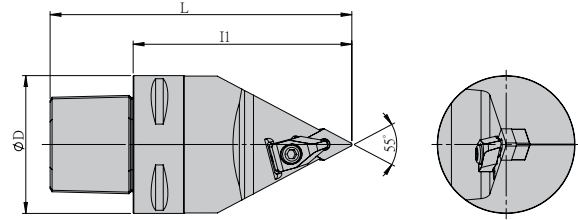


| 規格 Spec. | L | l ₁ | D | 刀片 Insert | 重量 (KGS) Weight |
|----------------------|-----|----------------|----|--------------|-----------------------|
| PSC32-DCMNN-00050-12 | 69 | 50 | 32 | CN..1204 | 0.24 |
| PSC40-DCMNN-00060-12 | 84 | 60 | 40 | CN..1204 | 0.44 |
| PSC50-DCMNN-00070-12 | 100 | 70 | 50 | CN..1204 | 0.76 |
| PSC63-DCMNN-00100-12 | 138 | 100 | 63 | CN..1204 | 0.86 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|--------------|------------|--------------------|--------------|------------------------|-------------|---------------------|----------------------|------------------------|
| CN..1204 | CNS1204 | M4-10-5.7-60 | T15 | 3.0 | DCP-2 | M5-20-4.9 | PL4 | 5.0 |

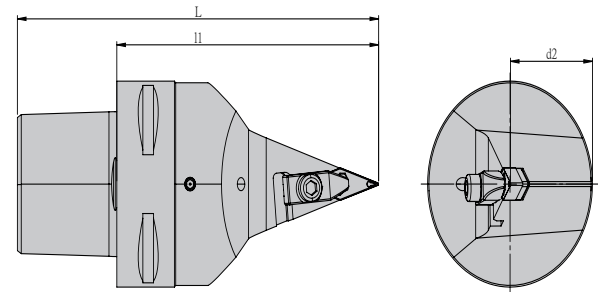
• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | D | 刀片 Insert | 重量 (KGS) Weight |
|----------------------|-----|----------------|----|--------------|-----------------------|
| PSC32-DDNNN-00050-15 | 69 | 50 | 32 | DN..1504 | 0.22 |
| PSC40-DDNNN-00060-15 | 84 | 60 | 40 | DN..1504 | 0.40 |
| PSC50-DDNNN-00070-15 | 100 | 70 | 50 | DN..1504 | 0.70 |
| PSC63-DDNNN-00100-15 | 138 | 100 | 63 | DN..1504 | 0.80 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|--------------|------------|--------------------|--------------|------------------------|-------------|---------------------|----------------------|------------------------|
| DN..1504 | DNS1504 | - | - | - | DCP-2 | M5-20-4.9 | PL4 | 5.0 |

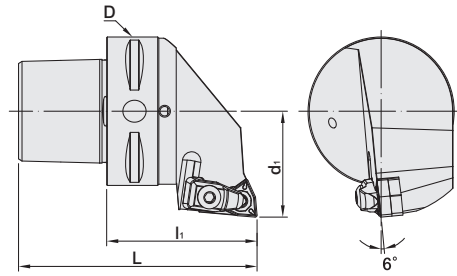


| 規格 Spec. | L | l ₁ | D | 刀片 Insert | 重量 (KGS) Weight |
|----------------------|-----|----------------|----|--------------|-----------------------|
| PSC32-DVVNN-00055-16 | 74 | 55 | 32 | VN..1604 | 0.22 |
| PSC40-DVVNN-00060-16 | 84 | 60 | 40 | VN..1604 | 0.38 |
| PSC50-DVVNN-00070-16 | 100 | 70 | 50 | VN..1604 | 0.68 |
| PSC63-DVVNN-00100-16 | 138 | 100 | 63 | VN..1604 | 0.78 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 壓板扳手 Clamp Wrench | 扭力值 (N.m) Torque |
|--------------|------------|--------------------|--------------|------------------------|-------------|---------------------|----------------------|------------------------|
| VN..1604 | VNS1604 | - | - | - | DCP-4 | M5-20-4.9 | PL4 | 5.0 |

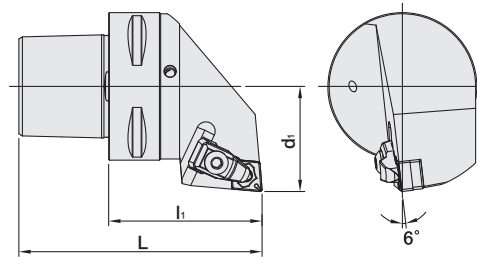
• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | D | d _i | 刀片 Insert | 重量 (KGS) Weight |
|---------------------|-----|----------------|----|----------------|-----------|-----------------|
| PSC40-DWLN-27050-08 | 74 | 50 | 40 | 27 | WN..0804 | 0.42 |
| PSC40-DWLN-27050-08 | 74 | 50 | 40 | 27 | WN..0804 | 0.42 |
| PSC50-DWLN-35060-08 | 90 | 60 | 50 | 35 | WN..0804 | 0.78 |
| PSC50-DWLN-35060-08 | 90 | 60 | 50 | 35 | WN..0804 | 0.78 |
| PSC63-DWLN-45065-08 | 103 | 65 | 63 | 45 | WN..0804 | 0.80 |
| PSC63-DWLN-45065-08 | 103 | 65 | 63 | 45 | WN..0804 | 0.80 |
| PSC80-DWLN-55080-08 | 128 | 80 | 80 | 55 | WN..0804 | 2.64 |
| PSC80-DWLN-55080-08 | 128 | 80 | 80 | 55 | WN..0804 | 2.64 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-----------|------------------|
| WN..0804 | WNS0804 | M5-12-7.1-70 | T20 | 5.0 | DCP-2 | M5-20-4.9 | PL4 | 5.0 |

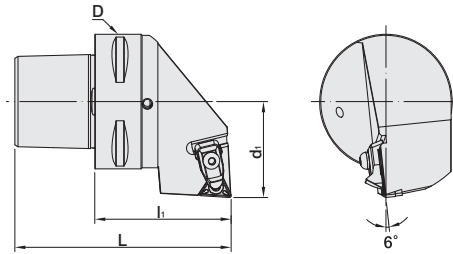


| 規格 Spec. | L | l ₁ | d _i | 刀片 Insert | 重量 (KGS) Weight |
|---------------------|-----|----------------|----------------|-----------|-----------------|
| PSC32-DCLN-22045-12 | 64 | 45 | 22 | CN..1204 | 0.22 |
| PSC32-DCLN-22045-12 | 64 | 45 | 22 | CN..1204 | 0.22 |
| PSC40-DCLN-27050-12 | 74 | 50 | 27 | CN..1204 | 0.42 |
| PSC40-DCLN-27050-12 | 74 | 50 | 27 | CN..1204 | 0.42 |
| PSC50-DCLN-35060-12 | 90 | 60 | 35 | CN..1204 | 0.78 |
| PSC50-DCLN-35060-12 | 90 | 60 | 35 | CN..1204 | 0.78 |
| PSC63-DCLN-45065-12 | 103 | 65 | 45 | CN..1204 | 0.80 |
| PSC63-DCLN-45065-12 | 103 | 65 | 45 | CN..1204 | 0.80 |
| PSC80-DCLN-55080-12 | 128 | 80 | 55 | CN..1204 | 2.64 |
| PSC80-DCLN-55080-12 | 128 | 80 | 55 | CN..1204 | 2.64 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-----------|------------------|
| CN..1204 | CNS1204 | M4-10-5.7-60 | T15 | 3.0 | DCP-2 | M5-20-4.9 | PL4 | 5.0 |

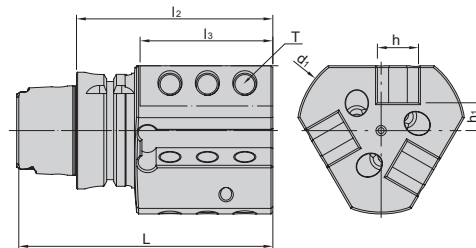
• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | D | d ₁ | 刀片 Insert | 重量 (KGS) Weight |
|----------------------------|-----|----------------|----|----------------|-----------|-----------------|
| PSC32 - DTJNR - 22040 - 16 | 59 | 40 | 32 | 22 | TN..1604 | 0.22 |
| PSC32 - DTJNL - 22040 - 16 | 59 | 40 | 32 | 22 | TN..1604 | 0.22 |
| PSC32 - DTJNR - 27050 - 16 | 74 | 50 | 32 | 27 | TN..1604 | 0.42 |
| PSC32 - DTJNL - 27050 - 16 | 74 | 50 | 32 | 27 | TN..1604 | 0.42 |
| PSC32 - DTJNR - 35060 - 16 | 90 | 60 | 32 | 35 | TN..1604 | 0.78 |
| PSC32 - DTJNL - 35060 - 16 | 90 | 60 | 32 | 35 | TN..1604 | 0.78 |
| PSC32 - DTJNR - 45065 - 16 | 103 | 65 | 32 | 45 | TN..1604 | 0.80 |
| PSC32 - DTJNL - 45065 - 16 | 103 | 65 | 32 | 45 | TN..1604 | 0.80 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 壓板 Clamp | 壓板螺絲 Clamp Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|---------|-----------------|-----------|------------------|----------|------------------|-----------|------------------|
| TN..1604 | TNS1604 | M4-9-5.15-47 | T15 | 3.0 | DCP-1 | M5-20-4.9 | PL4 | 5.0 |

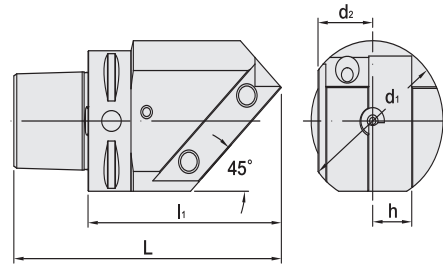


| 規格 Spec. | L | l ₁ | l ₂ | d ₁ | h | h ₁ | 重量 (KGS) Weight |
|---------------------|-----|----------------|----------------|----------------|----|----------------|-----------------|
| PSC50 x SV20R - 123 | 153 | 123 | 97 | 90 | 20 | 16 | 3.56 |
| PSC50 x SV20L - 123 | 153 | 123 | 97 | 90 | 20 | 16 | 3.56 |
| PSC63 x SV20R - 125 | 163 | 125 | 97 | 90 | 20 | 16 | 3.58 |
| PSC63 x SV20L - 125 | 163 | 125 | 97 | 90 | 20 | 16 | 3.58 |
| PSC80 x SV32R - 150 | 198 | 150 | 114 | 120 | 32 | 20 | 7.13 |
| PSC80 x SV32L - 150 | 198 | 150 | 114 | 120 | 32 | 20 | 7.13 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 壓板 Clamp | 壓板螺絲 Clamp Screw | 彈簧 Spring |
|-----------|---------|-----------------|----------|------------------|-----------|
| CN..1204 | C12BM | SM6x10xA1 | C2RA | CM6x25C | SPR4 |

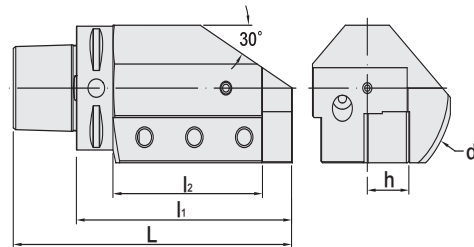
• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | d ₁ | d ₂ | h | 重量 (KGS) Weight |
|---------------------|-----|----------------|----------------|----------------|----|--------------------|
| PSC50 x SN20R - 97 | 127 | 97 | 72 | 31.5 | 20 | 1.66 |
| PSC50 x SN20L - 97 | 127 | 97 | 72 | 31.5 | 20 | 1.66 |
| PSC63 x SN20R - 99 | 137 | 99 | 72 | 31.5 | 20 | 2.10 |
| PSC63 x SN20L - 99 | 137 | 99 | 72 | 31.5 | 20 | 2.10 |
| PSC80 x SN32R - 135 | 183 | 135 | 140 | 45 | 32 | 6.51 |
| PSC80 x SN32L - 135 | 183 | 135 | 140 | 45 | 32 | 6.51 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 壓板 Clamp | 壓板螺絲 Clamp Screw | 彈簧 Spring |
|--------------|------------|--------------------|-------------|---------------------|--------------|
| WN..0804 | W08BM | SM6x10xA1 | C2RA | CM6x25C | SPR4 |

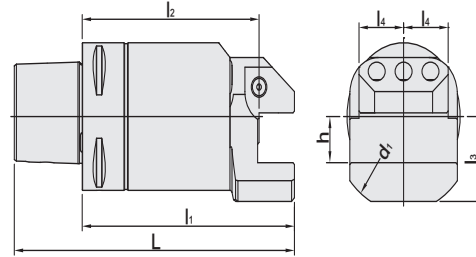


| 規格 Spec. | L | l ₁ | l ₂ | d ₁ | h | 重量 (KGS) Weight |
|---------------------|-----|----------------|----------------|----------------|----|--------------------|
| PSC50 x S20R - 98 | 128 | 98 | 68 | 90 | 20 | 2.22 |
| PSC50 x S20L - 98 | 128 | 98 | 68 | 90 | 20 | 2.22 |
| PSC63 x S20R - 100 | 138 | 100 | 75 | 90 | 20 | 2.34 |
| PSC63 x S20L - 100 | 138 | 100 | 75 | 90 | 20 | 2.34 |
| PSC63 x S25R - 130 | 168 | 130 | 102 | 103.5 | 25 | 3.93 |
| PSC63 x S25L - 130 | 168 | 130 | 102 | 103.5 | 25 | 3.93 |
| PSC80 x S32L - 140 | 188 | 140 | 130 | 110 | 32 | 5.05 |
| PSC80 x S32R - 140 | 188 | 140 | 130 | 110 | 32 | 5.05 |
| PSC80X x S32L - 143 | 191 | 143 | 133 | 145 | 32 | 7.75 |
| PSC80X x S32R - 143 | 191 | 143 | 133 | 145 | 32 | 7.75 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 壓板 Clamp | 壓板螺絲 Clamp Screw | 彈簧 Spring |
|--------------|------------|--------------------|-------------|---------------------|--------------|
| CN..1204 | C12BM | SM6x10xA1 | C2RA | CM6x25C | SPR4 |

• 長度單位 Unit of Length (mm)

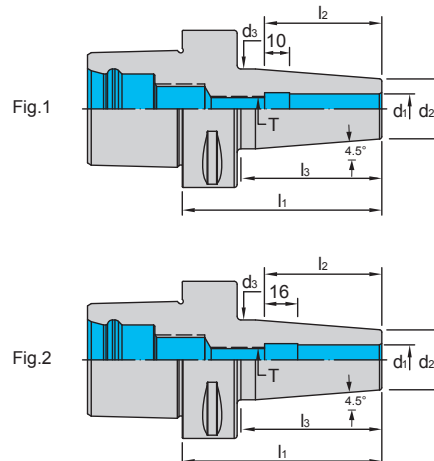


| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | l ₄ | h | d ₁ | 重量 (KGS) Weight |
|------------------|-----|----------------|----------------|----------------|----------------|----|----------------|--------------------|
| PSC40xSF20-55 | 79 | 55 | 35 | 36 | 30 | 20 | 80 | 0.84 |
| PSC50xSF20-65 | 95 | 65 | 45 | 39 | 25.5 | 20 | 85 | 1.43 |
| PSC63xSF20-70 | 108 | 70 | 50 | 39 | 25.5 | 20 | 85 | 1.84 |
| PSC63xSF25-80 | 118 | 80 | 55 | 46 | 31.5 | 25 | 103 | 2.55 |
| PSC63xSF32-80 | 118 | 80 | 48 | 65 | 40 | 32 | 142 | 3.64 |
| PSC80xSF25-75 | 123 | 75 | 50 | 46 | 31.5 | 25 | 103 | 3.01 |
| PSC80xSF25-150 | 198 | 150 | 125 | 46 | 31.5 | 25 | 103 | 5.84 |
| PSC80xSF25-180 | 228 | 180 | 155 | 46 | 31.5 | 25 | 103 | 6.97 |
| PSC80xSF32-85 | 133 | 85 | 53 | 65 | 40 | 32 | 142 | 4.52 |
| PSC80X x SF32-90 | 138 | 90 | 58 | 65 | 40 | 32 | 142 | 5.65 |
| PSC100xSF32-90 | 150 | 90 | 58 | 65 | 40 | 32 | 145 | 6.45 |

配件表 Accessories

| 刀片 Insert | 墊片 Shim | 墊片螺絲 Shim Screw | 壓板 Clamp | 壓板螺絲 Clamp Screw | 彈簧 Spring |
|--------------|------------|--------------------|-------------|---------------------|--------------|
| CN..1204 | C12BM | SM6x10xA1 | C2RA | CM6x25C | SPR4 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 標準動平衡 G2.5 25000rpm

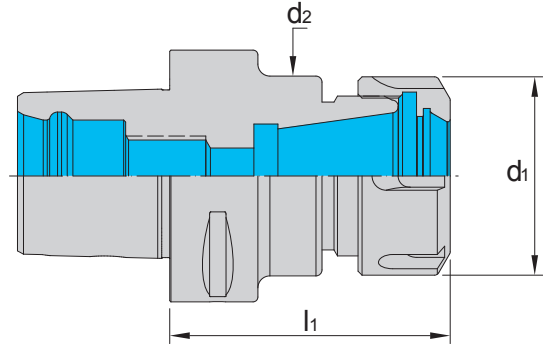
-Dynamic balancing G2.5 at 25000 rpm.

| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | T | Fig. | 重量 (KGS) Weight |
|----------------|-------|-------|-------|-------|-------|-------|-------------|------|-----------------------|
| PSC40xSFC6-75 | 75 | 36 | 53 | 6 | 20 | 26 | M5 x 0.8P | 2 | - |
| PSC40xSFC8-75 | 75 | 36 | 53 | 8 | 20 | 26 | M6 x 1.0P | 1 | - |
| PSC40xSFC10-75 | 75 | 42 | 54 | 10 | 24 | 32 | M8 x 1.25P | 1 | - |
| PSC40xSFC12-75 | 75 | 47 | 54 | 12 | 24 | 32 | M10 x 1.5P | 1 | - |
| PSC40xSFC14-80 | 80 | 47 | 59 | 14 | 27 | 34 | M10 x 1.5P | 1 | - |
| PSC40xSFC16-80 | 80 | 50 | 59 | 16 | 27 | 34 | M12 x 1.75P | 1 | - |
| PSC40xSFC18-80 | 80 | 52 | 59 | 18 | 33 | 42 | M12 x 1.75P | 1 | - |
| PSC40xSFC20-85 | 85 | 52 | 64 | 20 | 33 | 42 | M16 x 2.0P | 1 | - |
| PSC50xSFC6-75 | 75 | 36 | 53 | 6 | 20 | 26 | M5 x 0.8P | 2 | - |
| PSC50xSFC8-75 | 75 | 36 | 53 | 8 | 20 | 26 | M6 x 1.0P | 1 | - |
| PSC50xSFC10-75 | 75 | 42 | 54 | 10 | 24 | 32 | M8 x 1.25P | 1 | - |
| PSC50xSFC12-75 | 75 | 47 | 59 | 12 | 24 | 32 | M10 x 1.5P | 1 | - |
| PSC50xSFC14-80 | 80 | 47 | 59 | 14 | 27 | 34 | M10 x 1.5P | 1 | - |
| PSC50xSFC16-80 | 80 | 50 | 59 | 16 | 27 | 34 | M12 x 1.75P | 1 | - |
| PSC50xSFC18-80 | 80 | 52 | 59 | 18 | 33 | 42 | M12 x 1.75P | 1 | - |
| PSC50xSFC20-85 | 85 | 52 | 64 | 20 | 33 | 42 | M16 x 2.0P | 1 | - |
| PSC50xSFC25-90 | 90 | 58 | 68 | 25 | 44 | 53 | M20 x 2.0P | 1 | - |
| PSC63xSFC6-80 | 80 | 36 | 53 | 6 | 20 | 26 | M5 x 0.8P | 2 | - |
| PSC63xSFC8-80 | 80 | 36 | 53 | 8 | 20 | 26 | M6 x 1.0P | 1 | - |
| PSC63xSFC10-80 | 80 | 52 | 53 | 10 | 24 | 32 | M8 x 1.25P | 1 | - |
| PSC63xSFC12-80 | 80 | 52 | 56 | 12 | 24 | 32 | M10 x 1.5P | 1 | - |
| PSC63xSFC14-85 | 85 | 47 | 58 | 14 | 27 | 34 | M10 x 1.5P | 1 | - |
| PSC63xSFC16-85 | 85 | 52 | 58 | 16 | 27 | 34 | M12 x 1.75P | 1 | - |
| PSC63xSFC18-85 | 85 | 52 | 58 | 18 | 33 | 42 | M12 x 1.75P | 1 | - |
| PSC63xSFC20-85 | 85 | 52 | 58 | 20 | 33 | 42 | M16 x 2.0P | 1 | - |
| PSC63xSFC25-90 | 90 | 58 | 66 | 25 | 44 | 53 | M20 x 2.0P | 1 | - |
| PSC63xSFC32-95 | 95 | 58 | 71 | 32 | 44 | 53 | M20 x 2.0P | 1 | - |

選配表 Option

| 加熱器 Hot-Air | 鎖刀座 Lock Device |
|-------------|-----------------|
| | |
| B400 | B655 |

• 長度單位 Unit of Length (mm)



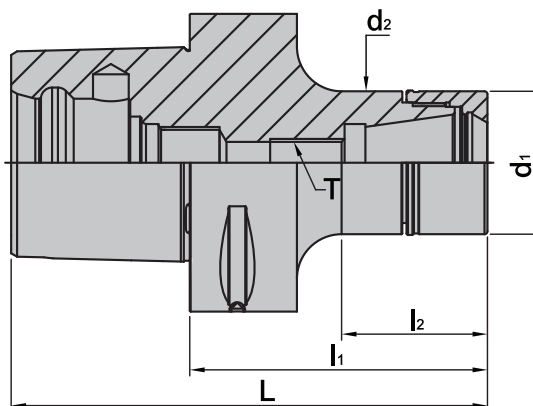
| 規格 Spec. | l_1 | d_1 | d_2 | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|----------------|-------|-------|-------|------------------|-----------------|
| PSC32xER16-45 | 45 | 28 | 28 | Ø1-Ø10 | 0.20 |
| PSC32xER20-45 | 45 | 34 | 34 | Ø2-Ø13 | 0.30 |
| PSC40xER16-70 | 70 | 28 | 28 | Ø1-Ø10 | 0.40 |
| PSC40xER20-52 | 52 | 34 | 34 | Ø2-Ø13 | 0.30 |
| PSC40xER25-52 | 52 | 42 | 42 | Ø2-Ø16 | 0.40 |
| PSC40xER32-54 | 54 | 50 | 50 | Ø3-Ø20 | 0.50 |
| PSC50xER16-100 | 100 | 28 | 28 | Ø1-Ø10 | 0.90 |
| PSC50xER20-55 | 55 | 34 | 34 | Ø2-Ø13 | 0.50 |
| PSC50xER20-100 | 100 | 34 | 34 | Ø2-Ø13 | 0.80 |
| PSC50xER25-55 | 55 | 42 | 42 | Ø2-Ø16 | 0.50 |
| PSC50xER32-57 | 57 | 50 | 50 | Ø3-Ø20 | 0.60 |
| PSC50xER32-100 | 100 | 50 | 50 | Ø3-Ø20 | 0.90 |
| PSC63xER16-100 | 100 | 28 | 28 | Ø1-Ø10 | 1.30 |
| PSC63xER20-60 | 60 | 34 | 34 | Ø2-Ø13 | 0.80 |
| PSC63xER25-60 | 60 | 42 | 42 | Ø2-Ø16 | 1.08 |
| PSC63xER25-100 | 100 | 42 | 42 | Ø2-Ø16 | 1.30 |
| PSC63xER32-70 | 70 | 50 | 50 | Ø3-Ø20 | 0.80 |
| PSC63xER32-100 | 100 | 50 | 50 | Ø3-Ø20 | 1.50 |
| PSC63xER40-65 | 65 | 63 | 63 | Ø3-Ø26 | 1.10 |

PSC

選配表 Option

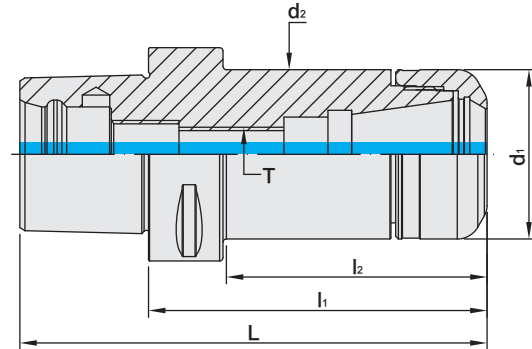
| 筒夾 Collet | 螺帽 Nut | 扳手 Spanner | 鎖刀座 Lock Device |
|-----------|--------|------------|-----------------|
| | | | |
| B612 | B634 | B650 | B655 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l1 | l2 | d1 | d2 | T | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------------|-----|-----|-----|----|----|-----------|---------------------|--------------------|
| PSC40xPro.E32-100 | 124 | 100 | 76 | 50 | 50 | M16x2.0P | 2~20 | 1.04 |
| PSC40xPro.E32-125 | 149 | 125 | 101 | 50 | 50 | M16x2.0P | 2~20 | 1.36 |
| PSC40xPro.E32-150 | 174 | 150 | 126 | 50 | 50 | M16x2.0P | 2~20 | 1.69 |
| PSC50xPro.E25-100 | 130 | 100 | 79 | 42 | 42 | M16x2.0P | 1~16 | 1.09 |
| PSC50xPro.E25-125 | 155 | 125 | 104 | 42 | 42 | M16x2.0P | 1~16 | 1.32 |
| PSC50xPro.E25-150 | 180 | 150 | 129 | 42 | 42 | M16x2.0P | 1~16 | 1.56 |
| PSC50xPro.E32-70 | 100 | 70 | 49 | 50 | 50 | - | 2~20 | 0.84 |
| PSC50xPro.E32-100 | 130 | 100 | 79 | 50 | 50 | M16x2.0P | 2~20 | 1.23 |
| PSC50xPro.E32-125 | 155 | 125 | 104 | 50 | 50 | M16x2.0P | 2~20 | 1.54 |
| PSC50xPro.E32-150 | 180 | 150 | 129 | 50 | 50 | M16x2.0P | 2~20 | 1.85 |
| PSC63xPro.E16-70 | 108 | 70 | 43 | 30 | 30 | - | 1~10 | 0.94 |
| PSC63xPro.E16-100 | 138 | 100 | 73 | 30 | 30 | M10x1.5P | 1~10 | 1.09 |
| PSC63xPro.E16-125 | 163 | 125 | 98 | 30 | 30 | M10x1.5P | 1~10 | 1.18 |
| PSC63xPro.E16-150 | 188 | 150 | 123 | 30 | 30 | M10x1.5P | 1~10 | 1.26 |
| PSC63xPro.E16-200 | 238 | 200 | 173 | 30 | 30 | M10x1.5P | 1~10 | 1.44 |
| PSC63xPro.E20-70 | 108 | 70 | 43 | 35 | 35 | - | 1~13 | 1.00 |
| PSC63xPro.E20-100 | 138 | 100 | 70 | 35 | 35 | M12x1.75P | 1~13 | 1.21 |
| PSC63xPro.E20-125 | 163 | 125 | 95 | 35 | 35 | M12x1.75P | 1~13 | 1.35 |
| PSC63xPro.E20-150 | 188 | 150 | 120 | 35 | 35 | M12x1.75P | 1~13 | 1.49 |
| PSC63xPro.E20-200 | 238 | 200 | 170 | 35 | 35 | M12x1.75P | 1~13 | 1.76 |
| PSC63xPro.E25-70 | 108 | 70 | 45 | 42 | 42 | - | 1~16 | 1.11 |
| PSC63xPro.E25-100 | 138 | 100 | 75 | 42 | 42 | M16x2.0P | 1~16 | 1.39 |
| PSC63xPro.E25-125 | 163 | 125 | 100 | 42 | 42 | M16x2.0P | 1~16 | 1.60 |
| PSC63xPro.E25-150 | 188 | 150 | 125 | 42 | 42 | M16x2.0P | 1~16 | 1.82 |
| PSC63xPro.E25-200 | 238 | 200 | 175 | 42 | 42 | M16x2.0P | 1~16 | 2.26 |
| PSC63xPro.E32-70 | 108 | 70 | 45 | 50 | 50 | - | 2~20 | 1.16 |
| PSC63xPro.E32-100 | 138 | 100 | 75 | 50 | 50 | M16x2.0P | 2~20 | 1.52 |
| PSC63xPro.E32-125 | 163 | 125 | 100 | 50 | 50 | M16x2.0P | 2~20 | 1.82 |
| PSC63xPro.E32-150 | 188 | 150 | 125 | 50 | 50 | M16x2.0P | 2~20 | 2.12 |
| PSC63xPro.E32-200 | 238 | 200 | 175 | 50 | 50 | M16x2.0P | 2~20 | 2.72 |
| PSC80xPro.E16-100 | 148 | 100 | 65 | 30 | 30 | M10x1.5P | 1~10 | 2.00 |
| PSC80xPro.E16-125 | 173 | 125 | 90 | 30 | 30 | M10x1.5P | 1~10 | 2.13 |
| PSC80xPro.E16-150 | 198 | 150 | 110 | 30 | 30 | M10x1.5P | 1~10 | 2.27 |
| PSC80xPro.E16-200 | 248 | 200 | 160 | 30 | 30 | M10x1.5P | 1~10 | 2.52 |
| PSC80xPro.E20-100 | 148 | 100 | 65 | 35 | 35 | M12x1.75P | 1~13 | 2.10 |
| PSC80xPro.E20-125 | 173 | 125 | 90 | 35 | 35 | M12x1.75P | 1~13 | 2.28 |
| PSC80xPro.E20-150 | 198 | 150 | 110 | 35 | 35 | M12x1.75P | 1~13 | 2.46 |
| PSC80xPro.E20-200 | 248 | 200 | 160 | 35 | 35 | M12x1.75P | 1~13 | 2.80 |

精度 Accuracy : < 3 μ m



特點 Feature

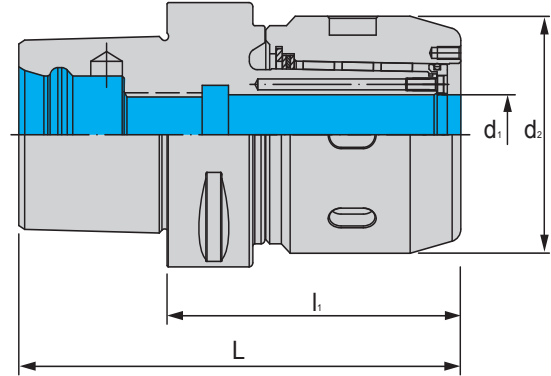
- 標準動平衡 G2.5 25000rpm

- Standard balance of G2.5 at 25000 rpm.

| 規格 Spec. | L | l1 | l2 | d1 | d2 | T | 夾持範圍 Size Range | 重量 (KGS) Weight |
|----------------------|-----|-----|-----|----|----|-----------|--------------------|--------------------|
| PSC32 x PNER16 - 45 | 64 | 45 | 29 | 30 | 30 | - | 3~10 | 0.21 |
| PSC32 x PNER20 - 45 | 64 | 45 | 30 | 32 | 32 | - | 3~13 | 0.21 |
| PSC40 x PNER16 - 55 | 79 | 55 | 30 | 30 | 30 | - | 3~10 | 0.36 |
| PSC40 x PNER20 - 55 | 79 | 55 | 31 | 32 | 32 | - | 3~13 | 0.36 |
| PSC50 x PNER16 - 60 | 90 | 60 | 34 | 30 | 30 | - | 3~10 | 0.56 |
| PSC50 x PNER16 - 100 | 130 | 100 | 74 | 30 | 30 | M10x1.5P | 3~10 | 0.75 |
| PSC50 x PNER20 - 60 | 90 | 60 | 34 | 32 | 32 | - | 3~13 | 0.57 |
| PSC50 x PNER25 - 60 | 90 | 60 | 37 | 40 | 40 | - | 3~16 | 0.63 |
| PSC50 x PNER32 - 60 | 90 | 60 | 37 | 50 | 50 | - | 3~20 | 0.70 |
| PSC63 x PNER16 - 60 | 98 | 60 | 35 | 30 | 30 | - | 3~10 | 0.87 |
| PSC63 x PNER16 - 100 | 138 | 100 | 75 | 30 | 30 | M10x1.5P | 3~10 | 1.07 |
| PSC63 x PNER20 - 60 | 98 | 60 | 35 | 32 | 32 | - | 3~13 | 0.88 |
| PSC63 x PNER20 - 100 | 138 | 100 | 75 | 32 | 32 | M12x1.75P | 3~13 | 1.10 |
| PSC63 x PNER25 - 60 | 98 | 60 | 35 | 40 | 40 | - | 3~16 | 0.94 |
| PSC63 x PNER25 - 100 | 138 | 100 | 75 | 40 | 40 | M16x2.0P | 3~16 | 1.28 |
| PSC63 x PNER25 - 130 | 168 | 130 | 105 | 40 | 40 | M16x2.0P | 3~16 | 1.53 |
| PSC63 x PNER25 - 160 | 198 | 160 | 135 | 40 | 40 | M16x2.0P | 3~16 | 1.79 |
| PSC63 x PNER32 - 60 | 98 | 60 | 35 | 50 | 50 | - | 3~20 | 1.00 |
| PSC63 x PNER32 - 100 | 138 | 100 | 75 | 50 | 50 | M16x2.0P | 3~20 | 1.55 |
| PSC63 x PNER32 - 130 | 168 | 130 | 105 | 50 | 50 | M16x2.0P | 3~20 | 1.97 |
| PSC63 x PNER40 - 60 | 98 | 60 | 38 | 63 | 63 | - | 6~26 | 1.18 |
| PSC63 x PNER40 - 100 | 138 | 100 | 68 | 63 | 63 | M20x2.0P | 6~26 | 2.03 |
| PSC80 x PNER32 - 100 | 148 | 100 | 65 | 50 | 50 | M16x2.0P | 3~20 | 2.38 |
| PSC80 x PNER40 - 100 | 148 | 100 | 69 | 63 | 63 | M20x2.0P | 6~26 | 2.73 |

PSC

• 長度單位 Unit of Length (mm)



特點 Feature

- 內孔特殊溝槽設計，防止所夾持刀具脫刀滑落，可以割斷附著油膜，不會有脫刀現象產生，提高了使用的安全性
- 刀桿本體厚，可產生充分的夾持力。採用滾針軸承原理設計，滾動磨擦及脫落減到最小，裝置操作省力便捷
- 螺帽與刀桿端面鎖固後，緊貼牢靠，提高剛性並徹底的防塵
- 偏擺精度 :0.001~0.005 以內，真圓度 :0.02mm
- MLD20、MLD-3/4、MLK20 扳手共用
- MLD32、MLD-1-1/4、MLK32 扳手共用

- There is a special design for the slots of internal hole. It prevents the cutting tools from slipping and increases the clamping power.
- The body of the tool holder is thick, so it has good clamping power. It adopts the needle bearing design to prevent the slipping. The operation is convenient and easy.
- After locking the cutting tool (The tolerance of the cutting tool must be less than h6), it is more contacted with the flange while locking the clamping nut and tool holder. It can prevent the bearing cage from deformation easily. Also, rigidity and dust-proof function is improved.
- Run-out: Within 0.001~0.005mm. Concentricity: 0.02mm.
- MLD20 and MLD-3/4、MLK20 spanner can be used in common.
- MLD32 and MLD-1-1/4、MLK32 spanner can be used in common.

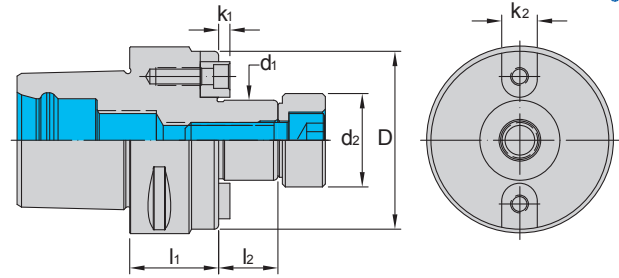
| 規格 Spec. | l_1 | d_1 | d_2 | 重量 (KGS) Weight |
|----------------|-------|-------|-------|-----------------|
| PSC50xMLD20-75 | 75 | 20 | 56.5 | 1.20 |
| PSC50xMLD32-90 | 90 | 32 | 71 | 1.90 |
| PSC63xMLD20-75 | 75 | 20 | 56.5 | 1.40 |
| PSC63xMLD32-85 | 85 | 32 | 71 | 2.20 |

※ 英制規格，接單生產 INCH size made to order.

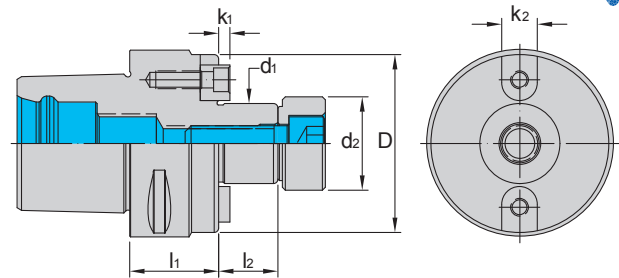
選配表 Option

| 筒夾 Collet | 扳手 Spanner | 止水端蓋 Sealed Cap | 鎖刀座 Lock Device |
|-----------|------------|-----------------|-----------------|
| | | | |
| B631 | B653 | B640 | B655 |

• 長度單位 Unit of Length (mm)

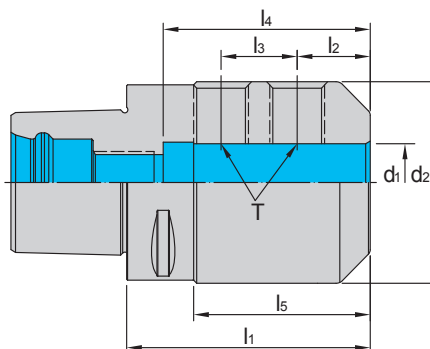


| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | D | K_1 | K_2 | 重量 (KGS) Weight |
|-------------------|-------|--------|-------|--------|--------|-------|--------|-----------------------|
| PSC50xFMA25.4-40 | 40 | 17.449 | 25.4 | 31.496 | 55.626 | 4.775 | 9.525 | - |
| PSC63xFMA25.4-50 | 50 | 17.449 | 25.4 | 31.496 | 55.626 | 4.775 | 9.525 | - |
| PSC63xFMA31.75-50 | 50 | 17.449 | 31.75 | 40.995 | 69.85 | 6.35 | 12.7 | - |
| PSC63xFMA38.1-50 | 50 | 23.825 | 38.1 | 44.5 | 96.774 | 8.864 | 15.875 | - |



| 規格 Spec. | l_1 | l_2 | D | d_1 | d_2 | K_1 | K_2 | 重量 (KGS) Weight |
|----------------|-------|-------|----|-------|-------|-------|-------|-----------------------|
| PSC32xFMB16-30 | 30 | 16 | 34 | 16 | 23.5 | 4 | 8 | 0.30 |
| PSC40xFMB16-32 | 32 | 16 | 34 | 16 | 23.5 | 4 | 8 | 0.30 |
| PSC40xFMB16-55 | 55 | 16 | 34 | 16 | 23.5 | 4 | 8 | 0.40 |
| PSC40xFMB22-25 | 25 | 22 | 50 | 22 | 26 | 4.8 | 10 | 0.40 |
| PSC40xFMB22-55 | 55 | 22 | 50 | 22 | 26 | 4.8 | 10 | 0.70 |
| PSC50xFMB16-35 | 35 | 16 | 34 | 16 | 23.5 | 4 | 8 | 0.60 |
| PSC50xFMB16-70 | 70 | 16 | 34 | 16 | 23.5 | 4 | 8 | 0.70 |
| PSC50xFMB22-25 | 25 | 16 | 50 | 22 | 26 | 4.8 | 10 | 0.60 |
| PSC50xFMB22-70 | 70 | 16 | 50 | 22 | 26 | 4.8 | 10 | 1.00 |
| PSC50xFMB27-25 | 25 | 18 | 50 | 27 | 31.5 | 5.8 | 12 | 0.70 |
| PSC50xFMB32-40 | 40 | 22 | 63 | 32 | 41 | 6.8 | 14 | 1.20 |
| PSC63xFMB16-40 | 40 | 16 | 34 | 16 | 23.5 | 4 | 8 | 0.90 |
| PSC63xFMB22-40 | 40 | 16 | 50 | 22 | 26 | 4.8 | 10 | 0.90 |
| PSC63xFMB27-30 | 30 | 18 | 50 | 27 | 31.5 | 5.8 | 12 | 1.00 |
| PSC63xFMB32-45 | 45 | 22 | 63 | 32 | 41 | 6.8 | 14 | 1.60 |
| PSC63xFMB40-45 | 45 | 25 | 80 | 40 | 48 | 8.3 | 16 | 1.60 |

• 長度單位 Unit of Length (mm)



PSC

| 規格 Spec. | l_1 | l_2 | l_3 | l_4 | l_5 | d_1 | d_2 | T | 重量 (KGS) Weight |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-----|-----------------------|
| PSC32xSLN6-45 | 45 | 18 | - | 35 | 27.5 | 6 | 25 | M6 | 0.30 |
| PSC32xSLN8-45 | 45 | 18 | - | 35 | 29 | 8 | 28 | M8 | 0.30 |
| PSC32xSLN10-50 | 50 | 20 | - | 39 | 27.5 | 10 | 35 | M10 | 0.40 |
| PSC32xSLN12-55 | 55 | 22.5 | - | 44 | 36 | 12 | 42 | M12 | 0.30 |
| PSC40xSLN6-50 | 50 | 18 | - | 35 | 25.5 | 6 | 25 | M6 | 0.40 |
| PSC40xSLN8-50 | 50 | 18 | - | 35 | 26 | 8 | 28 | M8 | 0.40 |
| PSC40xSLN10-50 | 50 | 20 | - | 39 | 27.5 | 10 | 35 | M10 | 0.50 |
| PSC40xSLN12-55 | 55 | 22.5 | - | 44 | 36 | 12 | 42 | M12 | 0.60 |
| PSC40xSLN14-50 | 50 | 22.5 | - | 44 | 37 | 14 | 44 | M12 | 0.60 |
| PSC40xSLN16-55 | 55 | 24 | - | 47 | 39 | 16 | 48 | M14 | 0.70 |
| PSC50xSLN6-50 | 50 | 18 | - | 35 | 25.5 | 6 | 25 | M6 | 0.60 |
| PSC50xSLN8-50 | 50 | 18 | - | 35 | 26 | 8 | 28 | M8 | 0.70 |
| PSC50xSLN10-55 | 55 | 20 | - | 39 | 27.5 | 10 | 35 | M10 | 0.70 |
| PSC50xSLN12-60 | 60 | 22.5 | - | 44 | 36 | 12 | 42 | M12 | 0.90 |
| PSC50xSLN14-60 | 60 | 22.5 | - | 44 | 37 | 14 | 44 | M12 | 0.80 |
| PSC50xSLN16-60 | 60 | 24 | - | 47 | 39 | 16 | 48 | M14 | 1.00 |
| PSC50xSLN18-60 | 60 | 24 | - | 47 | - | 18 | 50 | M14 | 1.00 |
| PSC50xSLN20-60 | 60 | 25 | - | 49 | 40 | 20 | 52 | M16 | 1.00 |
| PSC50xSLN25-80 | 80 | 24 | 25 | 54 | 60 | 25 | 65 | M18 | 1.80 |
| PSC63xSLN6-55 | 55 | 18 | - | 35 | 25 | 6 | 25 | M6 | 0.90 |
| PSC63xSLN8-55 | 55 | 18 | - | 35 | 26 | 8 | 28 | M8 | 0.90 |
| PSC63xSLN10-60 | 60 | 20 | - | 39 | 30 | 10 | 35 | M10 | 1.00 |
| PSC63xSLN12-60 | 60 | 22.5 | - | 44 | 33 | 12 | 42 | M12 | 1.10 |
| PSC63xSLN14-60 | 60 | 22.5 | - | 44 | 33.5 | 14 | 44 | M12 | 1.10 |
| PSC63xSLN16-65 | 65 | 24 | - | 47 | 35.5 | 16 | 48 | M14 | 1.20 |
| PSC63xSLN18-65 | 65 | 24 | - | 47 | 39 | 18 | 50 | M14 | 1.20 |
| PSC63xSLN20-65 | 65 | 25 | - | 49 | 37.5 | 20 | 52 | M16 | 1.50 |
| PSC63xSLN25-80 | 80 | 24 | 25 | 54 | 58 | 25 | 65 | M18 | 1.90 |
| PSC63xSLN32-90 | 90 | 24 | 28 | 58 | 68 | 32 | 72 | M20 | 2.40 |
| PSC63xSLN40-100 | 100 | 30 | 32 | 68 | 77 | 40 | 90 | M20 | 3.70 |

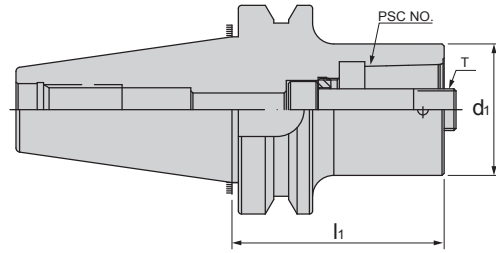
選配表 Option

鎖刀座 Lock Device

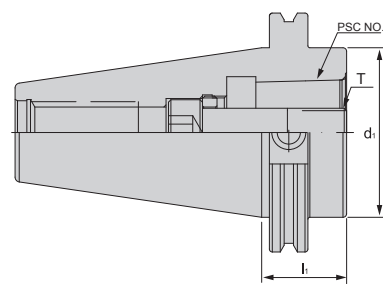


B655

• 長度單位 Unit of Length (mm)

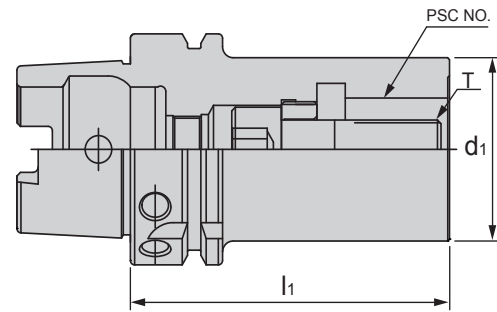


| 規格 Spec. | l_1 | d_1 | T | 扳手 Wrench | 重量 (KGS) Weight |
|-----------------|-------|-------|----------|-----------|-----------------|
| SBT40xPSC32-30 | 30 | 32 | M12x1.5P | T10-200 | 1.70 |
| SBT40xPSC40-30 | 30 | 40 | M14x1.5P | T12-200 | 1.70 |
| SBT40xPSC50-30 | 30 | 50 | M16x1.5P | T10-200 | 1.70 |
| SBT40xPSC63-75 | 75 | 63 | M20x2.0P | T12-200 | 1.90 |
| SBT50xPSC32-40 | 40 | 32 | M12x1.5P | T10-200 | 4.80 |
| SBT50xPSC40-40 | 40 | 40 | M14x1.5P | T12-200 | 4.80 |
| SBT50xPSC50-40 | 40 | 50 | M16x1.5P | T10-200 | 4.80 |
| SBT50xPSC63-100 | 100 | 63 | M20x2.0P | T12-200 | 4.68 |
| SBT50xPSC63-150 | 150 | 63 | M20x2.0P | T12-200 | 5.75 |
| SBT50xPSC63-200 | 200 | 63 | M20x2.0P | - | 6.81 |
| SBT50xPSC63-250 | 250 | 63 | M20x2.0P | - | 7.88 |
| SBT50xPSC63-300 | 300 | 63 | M20x2.0P | - | 8.73 |
| SBT50xPSC80-70 | 70 | 80 | M20x2.0P | - | 3.91 |
| SBT50xPSC80-93 | 93 | 80 | M20x2.0P | - | 4.73 |
| SBT50xPSC80-120 | 120 | 80 | M20x2.0P | - | 5.71 |
| SBT50xPSC80-183 | 183 | 80 | M20x2.0P | - | 7.98 |
| SBT50xPSC80-243 | 243 | 80 | M20x2.0P | - | 10.14 |

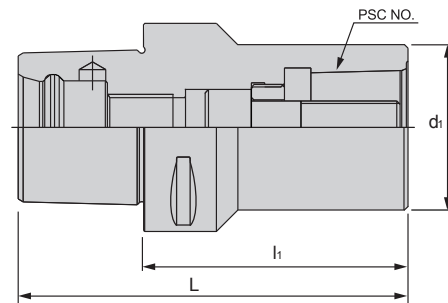


| 規格 Spec. | l_1 | d_1 | T | 重量 (KGS) Weight |
|-----------------|-------|-------|----------|-----------------|
| DAT40xPSC32-30 | 30 | 32 | M12x1.5P | 1.40 |
| DAT40xPSC40-40 | 40 | 40 | M14x1.5P | 1.50 |
| DAT40xPSC50-50 | 50 | 50 | M16x1.5P | 1.60 |
| DAT40xPSC63-90 | 90 | 63 | M20x2.0P | 2.00 |
| DAT50xPSC32-30 | 30 | 32 | M12x1.5P | 4.20 |
| DAT50xPSC40-30 | 30 | 40 | M14x1.5P | 4.30 |
| DAT50xPSC50-30 | 30 | 50 | M16x1.5P | 4.40 |
| DAT50xPSC63-30 | 30 | 63 | M20x2.0P | 4.50 |
| DAT50xPSC63-100 | 100 | 63 | M20x2.0P | 5.00 |
| DAT50xPSC63-150 | 150 | 63 | M20x2.0P | 5.20 |
| DAT50xPSC63-200 | 200 | 63 | M20x2.0P | 5.40 |
| DAT50xPSC63-250 | 250 | 63 | M20x2.0P | 5.80 |
| DAT50xPSC63-300 | 300 | 63 | M20x2.0P | 6.00 |

• 長度單位 Unit of Length (mm)

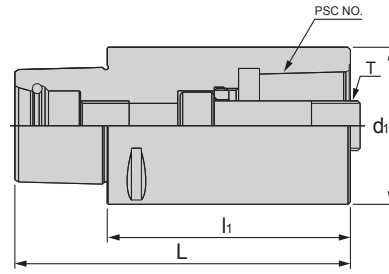


| 規格 Spec. | l_1 | d_1 | T | 扳手 Wrench | 重量 (KGS) Weight |
|-------------------|-------|-------|----------|-----------|-----------------|
| HSK63AxPSC32-75 | 75 | 32 | M12x1.5P | T6-200 | 0.92 |
| HSK63AxPSC40-80 | 80 | 40 | M14x1.5P | T6-200 | 1.06 |
| HSK63AxPSC50-90 | 90 | 50 | M16x1.5P | T6-200 | 1.39 |
| HSK100AxPSC32-80 | 80 | 32 | M12x1.5P | T10-200 | 2.25 |
| HSK100AxPSC40-90 | 90 | 40 | M14x1.5P | T10-200 | 2.43 |
| HSK100AxPSC50-100 | 100 | 50 | M16x1.5P | T6-200 | 2.80 |
| HSK100AxPSC63-110 | 110 | 63 | M20x2.0P | T10-200 | 3.41 |
| HSK100AxPSC63-150 | 150 | 63 | M20x2.0P | T10-200 | 4.18 |
| HSK100AxPSC63-200 | 200 | 63 | M20x2.0P | T10-200 | 5.14 |
| HSK100AxPSC63-250 | 250 | 63 | M20x2.0P | - | 6.10 |
| HSK100AxPSC63-300 | 300 | 63 | M20x2.0P | - | 7.07 |
| HSK100AxPSC80-120 | 120 | 80 | M20x2.0P | - | 4.93 |

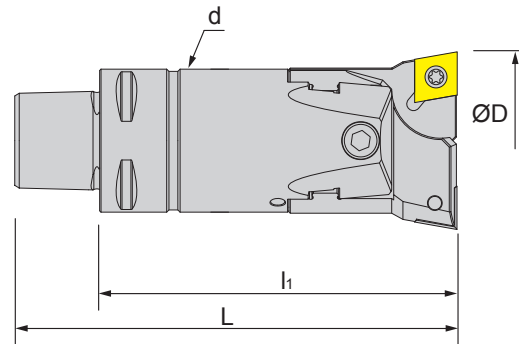


| 規格 Spec. | PSC NO. | L | l_1 | d_1 | T | 重量 (KGS) Weight |
|-----------------|---------|-----|-------|-------|----------|-----------------|
| PSC40xPSC32-55 | PSC32 | 79 | 55 | 32 | M12x1.5P | 0.50 |
| PSC40xPSC32-70 | PSC32 | 94 | 70 | 32 | M12x1.5P | 0.60 |
| PSC50xPSC32-60 | PSC32 | 84 | 60 | 32 | M12x1.5P | 0.60 |
| PSC50xPSC40-65 | PSC40 | 89 | 65 | 40 | M14x1.5P | 0.80 |
| PSC50xPSC40-85 | PSC40 | 115 | 85 | 40 | M14x1.5P | 1.10 |
| PSC63xPSC32-70 | PSC32 | 108 | 70 | 32 | M12x1.5P | 1.10 |
| PSC63xPSC40-80 | PSC40 | 118 | 80 | 40 | M14x1.5P | 1.20 |
| PSC63xPSC50-80 | PSC50 | 118 | 80 | 50 | M16x1.5P | 1.50 |
| PSC63xPSC50-110 | PSC50 | 148 | 110 | 50 | M16x1.5P | 2.20 |
| PSC80xPSC32-60 | PSC32 | 108 | 60 | 32 | M12x1.5P | 1.70 |
| PSC80xPSC40-70 | PSC40 | 118 | 70 | 40 | M14x1.5P | 1.90 |
| PSC80xPSC50-45 | PSC50 | 93 | 45 | 50 | M16x1.5P | 1.50 |
| PSC80xPSC50-80 | PSC50 | 128 | 80 | 50 | M16x1.5P | 2.20 |
| PSC80xPSC63-55 | PSC63 | 103 | 55 | 63 | M20x2.0P | 2.30 |
| PSC80xPSC63-80 | PSC63 | 128 | 80 | 63 | M20x2.0P | 2.50 |
| PSC80xPSC63-120 | PSC63 | 168 | 120 | 63 | M20x2.0P | 4.00 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | PSC NO. | L | l ₁ | d ₁ | T | 重量 (KGS) Weight |
|-----------------|---------|-----|----------------|----------------|----------|-----------------|
| PSC32xPSC32-60 | PSC32 | 79 | 60 | 32 | M12x1.5P | 0.40 |
| PSC32xPSC32-80 | PSC32 | 99 | 80 | 32 | M12x1.5P | 0.50 |
| PSC40xPSC40-60 | PSC40 | 84 | 60 | 40 | M14x1.5P | 0.50 |
| PSC40xPSC40-80 | PSC40 | 104 | 80 | 40 | M14x1.5P | 0.70 |
| PSC50xPSC50-80 | PSC50 | 110 | 80 | 50 | M16x1.5P | 1.10 |
| PSC50xPSC50-100 | PSC50 | 130 | 100 | 50 | M16x1.5P | 1.40 |
| PSC63xPSC63-80 | PSC63 | 118 | 80 | 63 | M20x2.0P | 2.00 |
| PSC63xPSC63-100 | PSC63 | 138 | 100 | 63 | M20x2.0P | 2.20 |
| PSC63xPSC63-140 | PSC63 | 178 | 140 | 63 | M20x2.0P | 3.18 |
| PSC63xPSC63-200 | PSC63 | 238 | 200 | 63 | M20x2.0P | 4.7 |
| PSC63xPSC63-300 | PSC63 | 338 | 300 | 63 | M20x2.0P | 6.88 |
| PSC80xPSC80-65 | PSC80 | 113 | 65 | 80 | M20x2.0P | 3.10 |
| PSC80xPSC80-100 | PSC80 | 148 | 100 | 80 | M20x2.0P | 3.60 |
| PSC80xPSC80-125 | PSC80 | 173 | 125 | 80 | M20x2.0P | 4.60 |

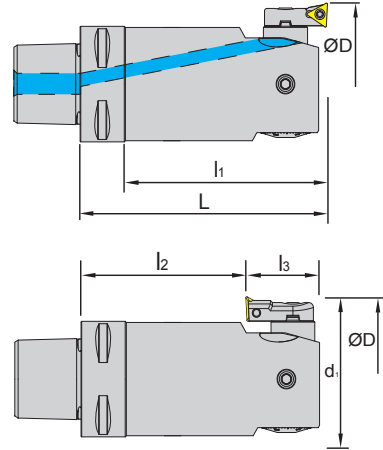


| 規格 Spec. | øD 搪孔範圍 Boring Range | | L | l ₁ | d | 刀片 Insert | 重量 (KGS) Weight |
|----------------------|----------------------|------|-----|----------------|----|-----------|-----------------|
| | Min. | Max. | | | | | |
| PSC32 x PCK3950-80 | 39 | 50 | 99 | 80 | 32 | CC..09T3 | 0.49 |
| PSC40 x PCK4965-82 | 49 | 65 | 106 | 82 | 42 | CC..1204 | 0.49 |
| PSC50 x PCK6382-92 | 63 | 82 | 122 | 92 | 54 | CC..1204 | 0.70 |
| PSC63 x PCK80102-140 | 80 | 102 | 178 | 140 | 68 | CC..1204 | 3.60 |

配件表 Accessories

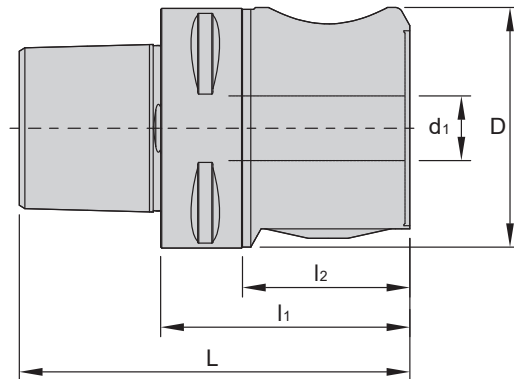
| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|--------------|-----------|------------------|
| CC..09T3 | M4-10-5.7-60 | T15 | 3.0 |
| CC..1204 | M5-11-7.5-60 | T20 | 5.0 |

• 長度單位 Unit of Length (mm)



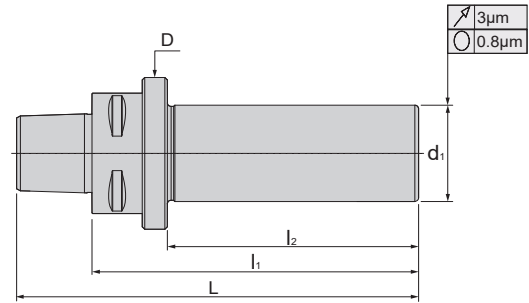
| 規格 Spec. | øD 搪孔範圍 Boring Range(正搪) | | | | | øD 搪孔範圍 Boring Range(背搪) | | | | | 刀片座 Insert Seat | 刀片 Insert | 螺絲 Screw | 重量 (KGS) Weight | | | |
|-----------------|----------------------------|------|-----|----------------|----------------|----------------------------|------|----------------|----------------|----------------|---|----------------------|-----------------|-----------------------|--|--|------|
| | Min. | Max. | L | l ₁ | l ₂ | Min. | Max. | l ₂ | l ₃ | d ₁ | | | | | | | |
| PSC32xPMB32-85 | 32 | 42 | 104 | 85 | 69 | - | - | - | - | - | SIB32-1/SIC32-1 SIB32-2/SIC32-2 SIB32-3/SIC32-3 | TB..0601 TP..0802 | M2-5.0-2.7-60 | 0.21 | | | |
| | 41 | 51 | | | | 46 | 51 | 55 | 25 | 16 | | | | 0.21 | | | |
| | 50 | 60 | | | | 50 | 60 | | | | | | | 0.21 | | | |
| PSC40xPMB41-102 | 41 | 54 | 126 | 102 | 81 | - | - | - | - | - | SIB41-1/SIC41-1 SIB41-2/SIC41-2 SIB41-3/SIC41-3 | TP..0902 TC..1102 | M2.5-6.0-3.5-60 | 0.40 | | | |
| | 50 | 63 | | | | 53 | 63 | 70 | 29 | 20 | | | | 0.40 | | | |
| | 61 | 74 | | | | 61 | 74 | | | | | | | 0.40 | | | |
| PSC50xPMB53-112 | 53 | 70 | 142 | 112 | 91.5 | 62 | 70 | 74 | 34 | 25.5 | SIB53-1/SIC53-1 SIB53-2/SIC53-2 SIB53-3/SIC53-3 | TP..0902 TC..1102 | M2.5-6.0-3.5-60 | 1.10 | | | |
| | 65 | 82 | | | | 65 | 82 | | | | | | | | | | 1.10 |
| | 78 | 95 | | | | 78 | 95 | | | | | | | | | | 1.10 |
| PSC63xPMB68-140 | 68 | 100 | 178 | 140 | 117.5 | 80 | 100 | 90.8 | 45.2 | 32.5 | SIB68-1/SIC68-1 SIB68-2/SIC68-2 SIB68-3/SIC68-3 | TP..0902 TC..1102 | M2.5-6.0-3.5-60 | 1.74 | | | |
| | 94 | 126 | | | | 94 | 126 | | | | | | | | | | 1.74 |
| | 118 | 150 | | | | 118 | 150 | | | | | | | | | | 1.74 |

※ 不含 SIB/SIC 刀片座 · 刀片座需另外購買 Not including SIB/SIC insert seat, insert seat need purchase separately.

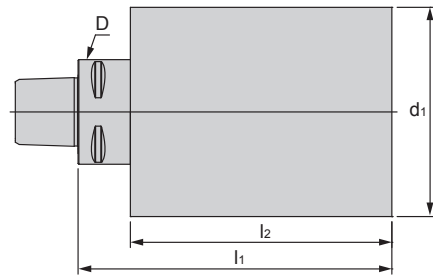


| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | 重量 (KGS) Weight |
|------------------|------|----------------|----------------|------|----------------|-----------------------|
| PSC40xPBJ10-48.5 | 72.5 | 48.5 | 28.5 | 39 | 10 | 0.49 |
| PSC50xPBJ12-56 | 86 | 56 | 36 | 50 | 12 | 0.91 |
| PSC63xPBJ16-67 | 105 | 67 | 45 | 63.5 | 16 | 1.76 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|----|----------------|-----------------------|
| PSC32-TS180L-P | 180 | 165 | 32 | 20 | 0.41 | 0.41 |
| PSC40-TS180L-P | 180 | 160 | 40 | 32 | 1.08 | 1.08 |
| PSC50-TS180L-P | 180 | 150 | 63 | 32 | 1.38 | 1.38 |
| PSC50-TS245L-P | 245 | 215 | 63 | 32 | 1.7 | 1.70 |
| PSC50-TS280L-P | 280 | 250 | 63 | 40 | 2.12 | 2.12 |
| PSC63-TS182L-P | 182 | 150 | 75 | 40 | 1.93 | 1.93 |
| PSC63-TS232L-P | 232 | 200 | 75 | 40 | 4.02 | 4.02 |
| PSC63-TS352L-P | 352 | 320 | 75 | 40 | 2.93 | 2.93 |



| 規格 Spec. | l ₁ | l ₂ | d ₁ | D | 重量 (KGS) Weight |
|-------------------|----------------|----------------|----------------|----|-----------------------|
| PSC32xØ32-90 | 90 | - | 32 | 32 | 0.53 |
| PSC32xØ60-90 | 90 | 75 | 60 | 32 | 1.65 |
| PSC40xØ40-120 | 120 | - | 40 | 40 | 1.30 |
| PSC40xØ80-120 | 120 | 100 | 80 | 40 | 4.12 |
| PSC50xØ50-150 | 150 | - | 50 | 50 | 2.38 |
| PSC50xØ95-150 | 150 | 130 | 95 | 50 | 7.60 |
| PSC63xØ63-180 | 180 | - | 63 | 63 | 4.56 |
| PSC63xØ120-180 | 180 | 158 | 120 | 63 | 14.5 |
| PSC80 xØ80 - 200 | 200 | - | 80 | 80 | 8.30 |
| PSC80 xØ145 - 200 | 200 | 170 | 145 | 80 | 23.3 |

• 長度單位 Unit of Length (mm)

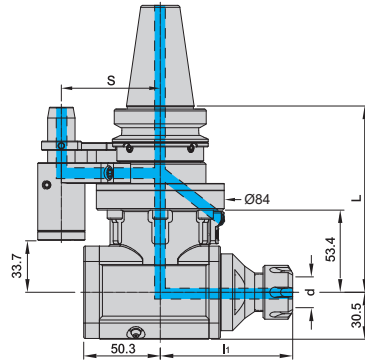


Fig.1

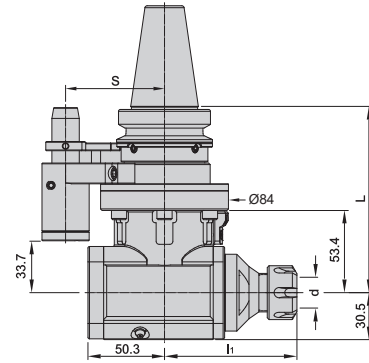


Fig.2

特點 Feature

- 適用加工：鑽孔、攻牙
- 建議切削深度 ≤ 2mm (建議值·需視設備剛性調整)
- 最高轉速：4000rpm
- 最大扭力值：20N·m
- 心軸轉向：與主軸反向
- 可適用 ATC 自動換刀系統

- Applicable for drilling, tapping.
- Suggested $A_p \leq 2\text{mm}$.
- Max. revolution : 4000 rpm.
- Max. torque : 20N·m.
- Mandrel rotation direction: same as machine spindle.
- Can be used for ATC.

| 規格 Spec. | L | l ₁ | S | d | 扭力值 (N.m) Torque | 筒夾 Collet | Fig. | 重量 (KGS) Weight |
|--------------------|-----|----------------|----|--------|------------------|-----------|------|-----------------|
| BT40 x SAM16EX-120 | 120 | 87 | 65 | Ø1~Ø10 | 20 N·m | ER16 | 2 | 6.40 |
| BT40 x SAM20EX-120 | 120 | 87 | 65 | Ø1~Ø13 | 20 N·m | ER20 | 2 | 6.40 |
| BT40 x SAM25EX-120 | 120 | 87 | 65 | Ø1~Ø16 | 20 N·m | ER25 | 2 | 6.40 |
| BT40 x SAM32EX-120 | 120 | 82 | 65 | Ø2~Ø20 | 20 N·m | ER32 | 2 | 6.44 |
| BT50 x SAM16EX-135 | 135 | 87 | 80 | Ø1~Ø10 | 20 N·m | ER16 | 2 | 6.40 |
| BT50 x SAM20EX-135 | 135 | 87 | 80 | Ø1~Ø13 | 20 N·m | ER20 | 2 | 6.40 |
| BT50 x SAM25EX-135 | 135 | 87 | 80 | Ø1~Ø16 | 20 N·m | ER25 | 2 | 6.40 |
| BT50 x SAM32EX-135 | 135 | 82 | 80 | Ø2~Ø20 | 20 N·m | ER32 | 2 | 6.44 |
| BT40 x SAM16E-120 | 120 | 87 | 65 | Ø1~Ø10 | 20 N·m | ER16 | 1 | 6.40 |
| BT40 x SAM20E-120 | 120 | 87 | 65 | Ø1~Ø13 | 20 N·m | ER20 | 1 | 6.40 |
| BT40 x SAM25E-120 | 120 | 87 | 65 | Ø1~Ø16 | 20 N·m | ER25 | 1 | 6.40 |
| BT40 x SAM32E-120 | 120 | 82 | 65 | Ø2~Ø20 | 20 N·m | ER32 | 1 | 6.44 |
| BT50 x SAM16E-135 | 135 | 87 | 80 | Ø1~Ø10 | 20 N·m | ER16 | 1 | 6.40 |
| BT50 x SAM20E-135 | 135 | 87 | 80 | Ø1~Ø13 | 20 N·m | ER20 | 1 | 6.40 |
| BT50 x SAM25E-135 | 135 | 87 | 80 | Ø1~Ø16 | 20 N·m | ER25 | 1 | 6.40 |
| BT50 x SAM32E-135 | 135 | 82 | 80 | Ø2~Ø20 | 20 N·m | ER32 | 1 | 6.44 |

銑削頭
ANGLE HEAD

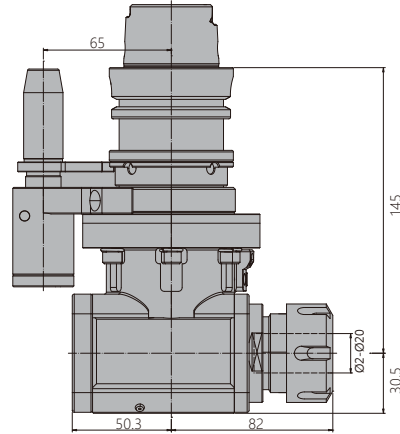
※ 歡迎詢問 SBT 雙面拘束形式 Welcome to ask SBT DualDRIVE+ type.

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner | 定位塊 Fix block |
|--------------|-----------|-----------|------------|---------------|
| | | | | |
| B646-B647 | B612/B627 | B634/B639 | B650/B653 | B573-B574 |



• 長度單位 Unit of Length (mm)



特點 Feature

- 適用加工：鑽孔、攻牙。
- 建議切削深度 $\leq 2\text{mm}$ (建議值，需視設備剛性調整)。
- 最高轉速：4000rpm。
- 最大扭力值：20N·m。
- 可耐最高水壓：7kgf/cm²。
- 心軸轉向：與主軸反向。
- 可適用 ATC 自動換刀系統。
- 針對不同機械設備提供多元化冷卻出水系統供客戶作選擇：
 - (1) 中心入水刀具出水
 - (2) 中心入水給水油珠出水
 - (3) 側邊定位塊入水刀具出水
 - (4) 側邊定位塊入水給水油珠出水

- Applicable for drilling, tapping.
- Suggested $A_p \leq 2\text{mm}$.
- Max. revolution : 4000 rpm.
- Max. torque : 20N-m.
- Max. water pressure : 7kgf/cm²(100PSI).
- Rotating direction opposite to machine spindle.
- Can be used for ATC.
- According to different machine devices, it is equipped with versatile coolant systems for customer to choose from.
 - (1) Coolant feed from the center and exhaust from the cutting tool.
 - (2) Coolant feed from the center and exhaust from the oil ball.
 - (3) Coolant feed from stop block and exhaust from cutting tool.
 - (4) Coolant feed from the stop block and exhaust from oil ball.

| 規格 Spec. | L | l ₁ | S | d | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|-----|----------------|----|--------|------------------|-----------------|
| HSK63A x SAM16E - 145 | 145 | 87 | 65 | Ø1~Ø10 | 20 N-m | 6.40 |
| HSK63A x SAM20E - 145 | 145 | 87 | 65 | Ø1~Ø13 | 20 N-m | 6.40 |
| HSK63A x SAM25E - 145 | 145 | 87 | 65 | Ø1~Ø16 | 20 N-m | 6.40 |
| HSK63A x SAM32E - 145 | 145 | 82 | 65 | Ø2~Ø20 | 20 N-m | 6.44 |
| HSK63A x SAM16EX - 145 | 145 | 87 | 65 | Ø1~Ø10 | 20 N-m | 6.40 |
| HSK63A x SAM20EX - 145 | 145 | 87 | 65 | Ø1~Ø13 | 20 N-m | 6.40 |
| HSK63A x SAM25EX - 145 | 145 | 87 | 65 | Ø1~Ø16 | 20 N-m | 6.40 |
| HSK63A x SAM32EX - 145 | 145 | 82 | 65 | Ø2~Ø20 | 20 N-m | 6.44 |

角度頭
ANGLE HEAD

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner | 定位塊 Fix block |
|--------------|-----------|-----------|------------|---------------|
| | | | | |
| B646-B647 | B612/B627 | B634/B639 | B650/B653 | B573-B574 |



• 長度單位 Unit of Length (mm)

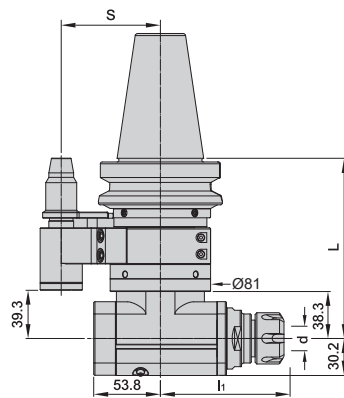


Fig.1

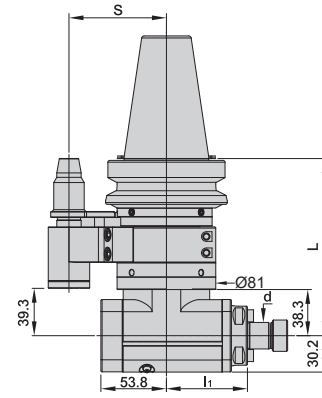


Fig.2

特點 Feature

- 適用加工：鑽孔、攻牙、銑削
- 建議切削深度 $\leq 3\text{mm}$ (建議值，需視設備剛性調整)。
- 最高轉速：3000rpm。
- 最大扭力值：25N·m。
- 心軸轉向：與主軸反向。
- 可適用 ATC 自動換刀系統。

- Applicable for drilling, tapping, and milling.
- Suggested $A_p \leq 3\text{mm}$.
- Max. revolution : 3000 rpm.
- Max. torque : 25N-m.
- Rotating direction opposite to machine spindle.
- Can be used for ATC.

| 規格 Spec. | L | l_1 | S | d | 扭力值 (N.m) Torque | 筒夾 Collet | Fig. | 重量 (KGS) Weight |
|----------------------|-----|-------|----|---------------------------|------------------|-----------|------|-----------------|
| BT40 x SAC16E-130 | 130 | 89.6 | 65 | $\text{Ø}1\sim\text{Ø}10$ | 25 N-m | ER16 | 1 | 6.40 |
| BT40 x SAC20E-130 | 130 | 91 | 65 | $\text{Ø}1\sim\text{Ø}13$ | 25 N-m | ER20 | 1 | 6.40 |
| BT40 x SAC25E-130 | 130 | 92 | 65 | $\text{Ø}1\sim\text{Ø}16$ | 25 N-m | ER25 | 1 | 6.40 |
| BT40 x SAC32E-130 | 130 | 96 | 65 | $\text{Ø}3\sim\text{Ø}16$ | 25 N-m | ER32 | 1 | 6.44 |
| BT50 x SAC16E-147 | 147 | 89.6 | 80 | $\text{Ø}1\sim\text{Ø}10$ | 25 N-m | ER16 | 1 | 8.40 |
| BT50 x SAC20E-147 | 147 | 91 | 80 | $\text{Ø}1\sim\text{Ø}13$ | 25 N-m | ER20 | 1 | 8.40 |
| BT50 x SAC25E-147 | 147 | 92 | 80 | $\text{Ø}1\sim\text{Ø}16$ | 25 N-m | ER25 | 1 | 8.40 |
| BT50 x SAC32E-147 | 147 | 96 | 80 | $\text{Ø}3\sim\text{Ø}16$ | 25 N-m | ER32 | 1 | 8.44 |
| BT40 x SAC25.4FA-130 | 130 | 66 | 65 | 25.4 | 25 N-m | - | 2 | 6.54 |
| BT40 x SAC22FB-130 | 130 | 66 | 65 | 22 | 25 N-m | - | 2 | 6.54 |
| BT50 x SAC25.4FA-147 | 147 | 66 | 80 | 25.4 | 25 N-m | - | 2 | 8.54 |
| BT50 x SAC22FB-147 | 147 | 66 | 80 | 22 | 25 N-m | - | 2 | 8.54 |

銑削頭
ANGLE HEAD

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner | 定位塊 Fix block |
|--------------|-----------|-----------|------------|---------------|
| | | | | |
| B646-B647 | B612/B627 | B634/B639 | B650/B653 | B573-B574 |



• 長度單位 Unit of Length (mm)

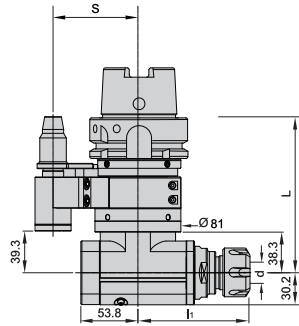


Fig.1

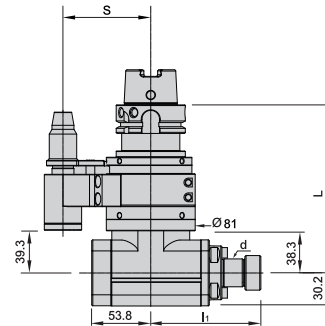


Fig.2

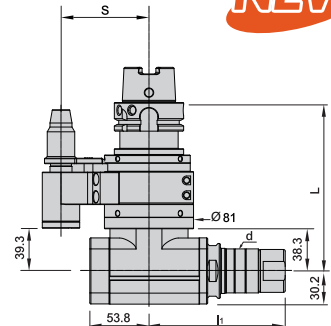


Fig.3

特點 Feature

- 適用鑽孔、攻牙、銑削
- 最高轉速：3000rpm
- 建議最大切深 ≤4mm

- Applicable for drilling, tapping, and milling.
- Max. revolution: 3000 rpm.
- Suggest $A_p \leq 4\text{mm}$

| 規格 Spec. | L | l_1 | S | d | 筒夾 Collet | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|----------------------------|-----|-------|----|------|-----------|------------------|------|-----------------|
| HSK 63A x SAC16E - 155 | 155 | 89.6 | 65 | 1~10 | ER16 | 25N-m | 1 | 6.40 |
| HSK 63A x SAC20E - 155 | 155 | 91 | 65 | 1~13 | ER20 | 25N-m | 1 | 6.40 |
| HSK 63A x SAC25E - 155 | 155 | 92 | 65 | 1~16 | ER25 | 25N-m | 1 | 6.40 |
| HSK 63A x SAC32E - 155 | 155 | 96 | 65 | 3~16 | ER32 | 25N-m | 1 | 6.40 |
| HSK 100A x SAC16E - 151 | 151 | 89.6 | 80 | 1~10 | ER16 | 25N-m | 1 | 8.40 |
| HSK 100A x SAC20E - 151 | 151 | 91 | 80 | 1~13 | ER20 | 25N-m | 1 | 8.40 |
| HSK 100A x SAC25E - 151 | 151 | 92 | 80 | 1~16 | ER25 | 25N-m | 1 | 8.40 |
| HSK 100A x SAC32E - 151 | 151 | 96 | 80 | 3~16 | ER32 | 25N-m | 1 | 8.44 |
| HSK 63A x SAC25.4FA - 155 | 155 | 66 | 65 | 25.4 | - | 25N-m | 2 | 6.54 |
| HSK 63A x SAC22FB - 155 | 155 | 66 | 65 | 22 | - | 25N-m | 2 | 6.54 |
| HSK 100A x SAC25.4FA - 151 | 151 | 66 | 80 | 25.4 | - | 25N-m | 2 | 8.54 |
| HSK 100A x SAC22FB - 151 | 151 | 66 | 80 | 22 | - | 25N-m | 2 | 8.54 |
| HSK 63A x SAC22SC - 155 | 155 | 67.5 | 65 | 22 | - | 25N-m | 3 | 8.40 |
| HSK 63A x SAC25.4SC - 155 | 155 | 67.5 | 65 | 25.4 | - | 25N-m | 3 | 8.40 |
| HSK 100A x SAC22SC - 151 | 151 | 67.5 | 80 | 22 | - | 25N-m | 3 | 8.40 |
| HSK 100A x SAC25.4SC - 151 | 151 | 67.5 | 80 | 25.4 | - | 25N-m | 3 | 8.40 |

角度頭
ANGLE HEAD

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner | 定位塊 Fix block |
|--------------|-----------|-----------|------------|---------------|
| | | | | |
| B646-B647 | B612/B627 | B634/B639 | B650/B653 | B573-B574 |

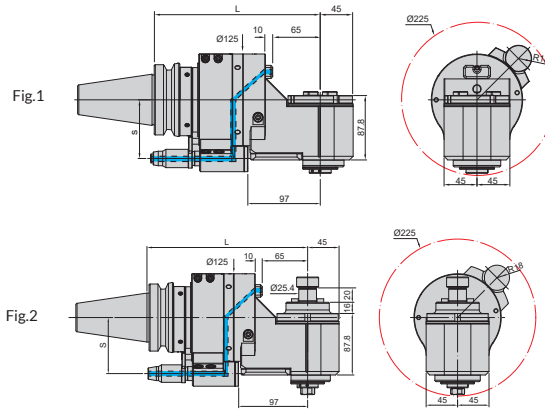


• 長度單位 Unit of Length (mm)



BT/SAR 大鋼炮銑削頭

BT/SAR ANGLE HEAD HOLDER FOR HEAVY-DUTY CUTTING



特點 Feature

- 適用加工：鑽孔、攻牙、銑削。
- 建議切削深度 ≤ 4mm (建議值，需視設備剛性調整)。
- 最高轉速：3000rpm。
- 最大扭力值：50N·m。
- 可耐最高水壓：7kgf/cm²。
- 心軸轉向：與主軸同向。
- 臥式、龍門機床可適用 ATC 自動換刀系統。
- 出水方式：側邊定位塊入水給水油珠出水

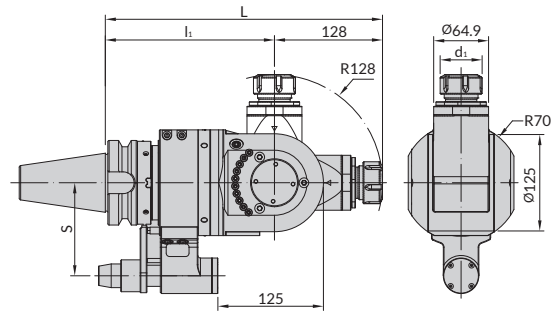
- Applicable for drilling, tapping, and milling.
- Suggested $A_p \leq 4\text{mm}$.
- Max. revolution : 3000 rpm.
- Max. torque : 50N·m.
- Mandrel rotation direction: same as machine spindle
- Mandrel rotation direction: same as machine spindle, can be used for ATC.
- Coolant feed from the stop block and exhaust from oil ball.

| 規格 Spec. | L | S | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-------------------------|-----|-----|------------------|------|-----------------|
| BT50xSAR50/SBT30-230 | 230 | 80 | 50 N·m | 1 | 16.1 |
| BT50xSAR50/SBT30-230S | 230 | 110 | 50 N·m | 1 | 16.1 |
| BT50xSAR50/FMA25.4-230 | 230 | 80 | 50 N·m | 2 | 16.1 |
| BT50xSAR50/FMA25.4-230S | 230 | 110 | 50 N·m | 2 | 16.1 |



BT/SAU 萬向銑削頭

BT/SAU ANGLE HEAD HOLDER(UNIVERSAL TYPE)



特點 Feature

- 齒輪比為 1:1
- 最高轉速：3000rpm
- 最大扭力：40N.m
- 建議切深 ≤ 4mm
- 主軸角度可調整 0°~90°
- 角度調整間距 1°

- Gear ratio 1:1.
- Max. revolution: 3000rpm.
- Max. torque: 40 N·m.
- Suggested $A_p \leq 4\text{mm}$.
- Adjustable spindle angle from 0° to 90° on inclined surfaces.
- Adjustable angle increment: 1°.

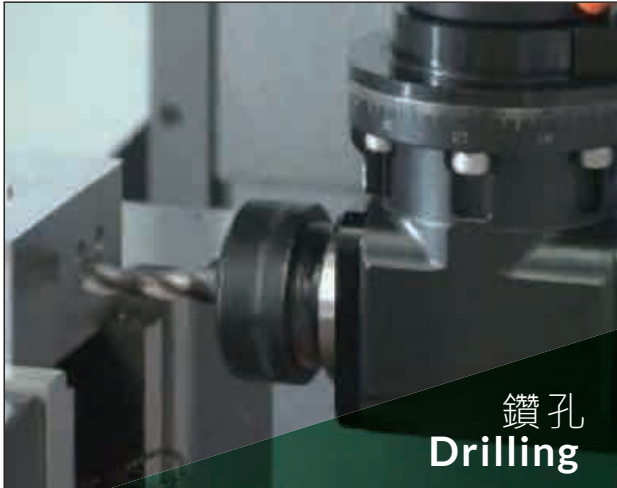
| 規格 Spec. | L | l ₁ | S | 夾持範圍 Clamping Range | 扭力值 (N.m) Torque | 筒夾 Collet | 重量 (KGS) Weight |
|-------------------|-----|----------------|-----|---------------------|------------------|-----------|-----------------|
| BT50 x SAU32E-328 | 328 | 200 | 110 | 2~20 | 40 N·m | ER32 | 20.9 |

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner | 定位塊 Fix block |
|--------------|-----------|-----------|------------|---------------|
| B646-B647 | B612/B627 | B634/B639 | B650/B653 | B573-B574 |



• 長度單位 Unit of Length (mm)

最大切削扭力 Max. Torque: 20N.m



鑽孔
Drilling

BT40xSAM32EX-120

工件材料Workpiece material: S45C(Steels)

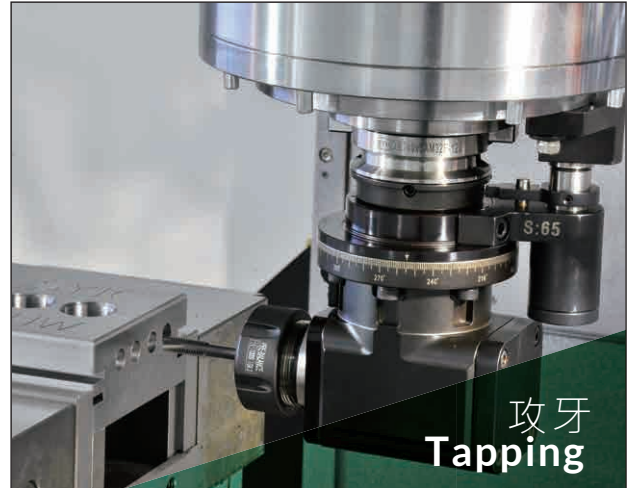
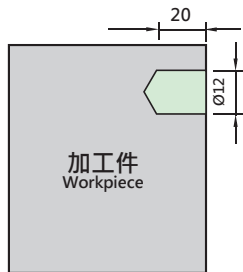
刀具Tool: Ø12高速鋼鑽頭
(Ø12 High Speed Steels Drills)

切削速度(Vc): 31m/min

轉速(S): 1000rpm

進給(Vf): 100mm/min

切削深度(Ap): 20mm



攻牙
Tapping

BT40xSAM32EX-120

工件材料Workpiece material: S45C(Steels)

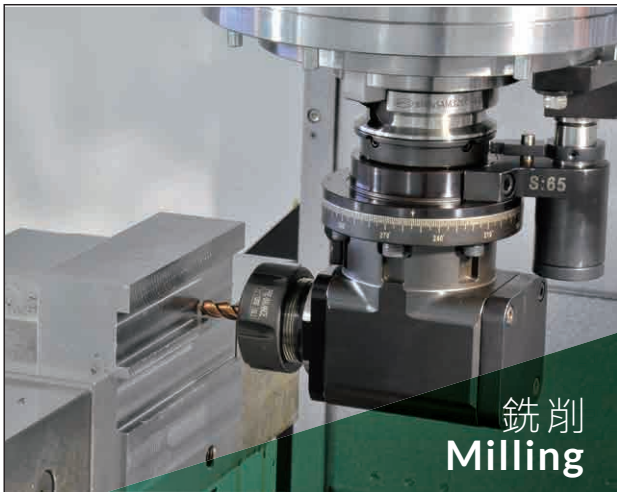
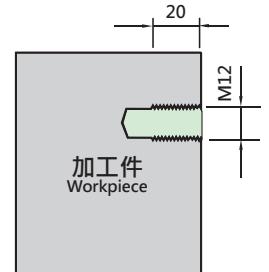
刀具Tool: M12x1.75P絲攻
(M12x1.75P Tap)

切削速度(Vc): 7.53m/min

轉速(S): 200rpm

進給(Vf): 350mm/min

切削深度(Ap): 20mm



銑削
Milling

BT40xSAM32EX-120

工件材料Workpiece material: S45C(Steels)

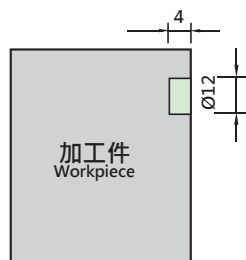
刀具Tool: Ø12鎢鋼立銑刀
(Ø12 End mills)

切削速度(Vc): 18.8m/min

轉速(S): 500rpm

進給(Vf): 150mm/min

切削深度(Ap): 4mm



銑削
Milling

BT40xSAM25.4SCAX-120

工件材料Workpiece material: S45C(Steels)

刀具Tool: SDC-100X08A25.4

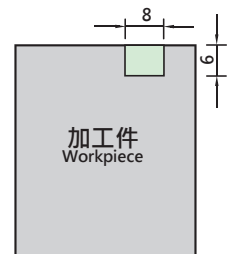
切削速度(Vc): 120m/min

轉速(S): 380rpm

進給(Vf): 90mm/min

切削深度(Ap): 6mm

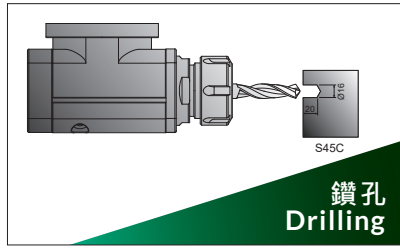
切削深度(Ae): 8mm



角度頭
ANGLE HEAD

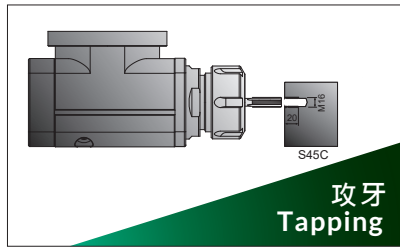
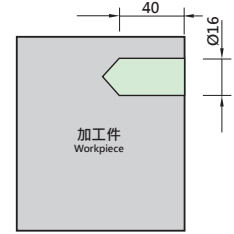
• 長度單位 Unit of Length (mm)

最大切削扭力
Max. Torque
25N.m



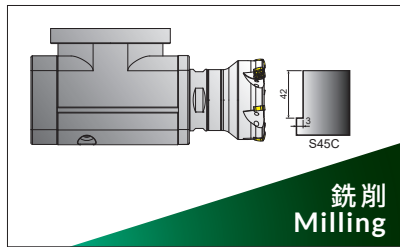
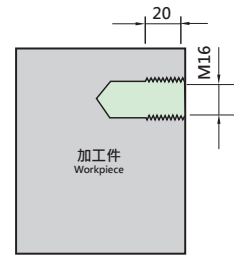
BT50xSAC32E-147

工件材料Workpiece material: S45C(Steels)
 刀具Tool: Ø16高速鋼鑽頭
 (Ø16 High Speed Steels Drills)
 切削速度(Vc): 30.14m/min
 轉速(S): 600rpm
 進給(Vf): 96mm/min
 切削深度(Ap): 40mm



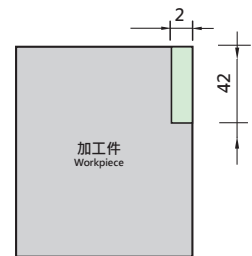
BT50xSAC32E-147

工件材料Workpiece material: S45C(Steels)
 刀具Tool: M16x2.0P絲攻
 (M16x2.0P Tap)
 切削速度(Vc): 10.05m/min
 轉速(S): 200rpm
 進給(Vf): 400mm/min
 切削深度(Ap): 20mm



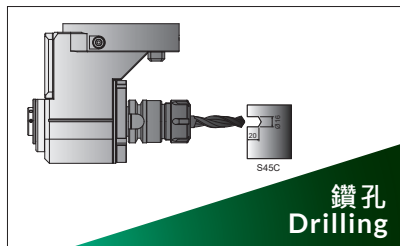
BT50xSAC25.4FA-147

工件材料Workpiece material: S45C(Steels)
 刀具Tool: Ø50面銑刀
 (Ø50 Face mill)
 切削速度(Vc): 65.94m/min
 轉速(S): 500rpm
 進給(Vf): 150mm/min
 切削深度(Ap): 2mm
 切削寬度(Ae): 42mm



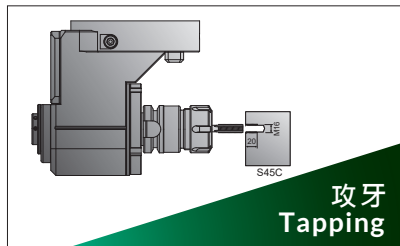
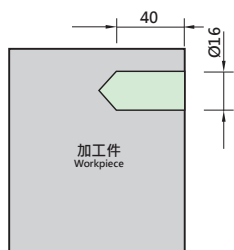
角頭
ANGLE HEAD

最大切削扭力
Max. Torque
30N.m



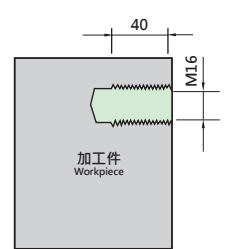
BT50xSAR50/SBT30-230 BT30-ER32-50

工件材料Workpiece material: S45C(Steels)
 刀具Tool: Ø16高速鋼鑽頭
 (Ø16 High speed steels drills)
 切削速度(Vc): 31m/min
 轉速(S): 1000rpm
 進給(Vf): 100mm/min
 切削深度(Ap): 40mm

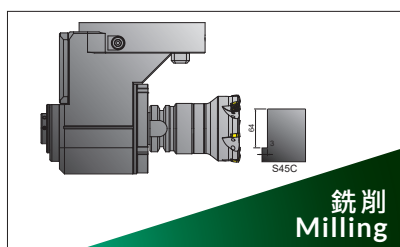


BT50xSAR50/SBT30-230 BT30-ER32-50

工件材料Workpiece material: S45C(Steels)
 刀具Tool: M16x2.0P絲攻
 (M16x2.0P Tap)
 切削速度(Vc): 10.05m/min
 轉速(S): 200rpm
 進給(Vf): 400mm/min
 切削深度(Ap): 40mm

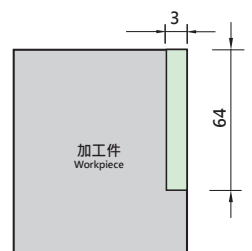


適用：龍門銑床
Applicable: gantry
milling machine



BT50xSAR50/SBT30-230 BT30-FMA25.4-45

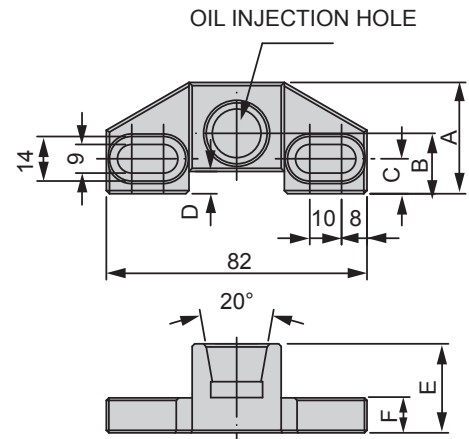
工件材料Workpiece material: S45C(Steels)
 刀具Tool: Ø80面銑刀
 (Ø80 Face mill)
 切削速度(Vc): 80.38m/min
 轉速(S): 400rpm
 進給(Vf): 360mm/min
 切削深度(Ap): 3mm
 切削寬度(Ae): 64mm



• 長度單位 Unit of Length (mm)

SFT 定位塊 (錐度梢)

SFT FIXED BLOCK (TAPPER PIN)



特點 Feature

- 定位塊需配合定位梢形式購買
- 購買 SFB 的定位塊為素材，客戶可自行加工為機台所需之形式
- 定位塊可以裝置在軸上，但要固定在機器上，才不會妨礙到 ATC 臂，固定方法因機台而異，因此裝置前應詢問機器製造商其適合的定位塊裝置方法
- 接受特殊規格訂製，下單之前請詳細提供並填寫相關尺寸，填寫表在 A068

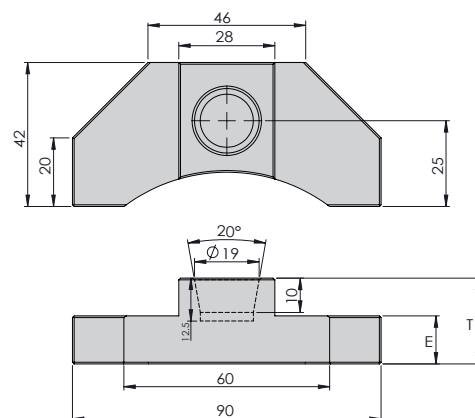
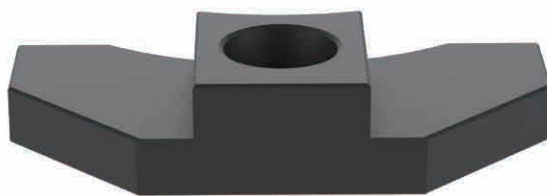
- Applicate for oil hole holder and angle head holder.
- SFB-1 Fixed block is blank, and customers can process the fixed block by themselves to fit the machines.
- The fixed block can be installed on the spindle, but it must be fastened on the machines, so that it won't interfere with the ATC, before installation, it's necessary to consult the machine manufacturers about the correct installation methods.
- Special type is accepted. Before making a purchase order, please informed detailed dimensions by filling out the form in A068

| 規格 Spec. | 適用規格 Suitable Type | A | B | C | D | E | F | T | 重量 (KGS) Weight |
|----------|---|----|------|----|---|----|----|-----------|-----------------|
| SFT-40 | #40 定位塊 (錐度梢) #40 Fixed block (tapper pin) | 40 | 18.5 | 10 | 5 | 30 | 13 | NPT1/4-18 | 0.30 |
| SFT-50 | #50 定位塊 (錐度梢) #50 Fixed block (tapper pin) | 34 | 19 | 11 | 7 | 35 | 15 | NPT1/4-18 | 0.32 |

- 主要用於銑削加工、鑽孔和攻牙 Used for milling, drilling and tapping.

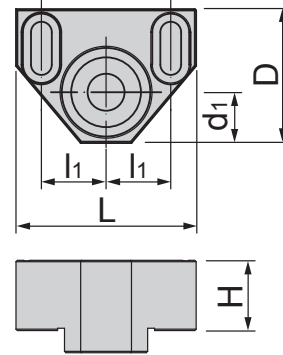
SFT 定位塊素材 (錐度梢)

SFT FIXED BLOCK BLANK (TAPPER PIN)

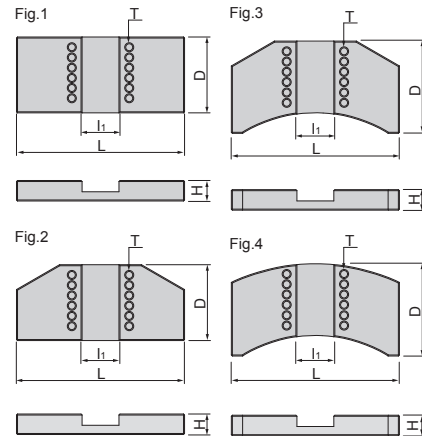


| 規格 Spec. | E | T | 重量 (KGS) Weight |
|----------|----|----|-----------------|
| SFT-19L | 10 | 19 | - |
| SFT-22L | 12 | 22 | - |
| SFT-25L | 14 | 25 | - |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | D | d ₁ | L | l ₁ | H | 重量 (KGS) Weight |
|----------|----|----------------|----|----------------|------|-----------------|
| SFO-A | 29 | 11 | 39 | 14 | 15.2 | 0.08 |



角度頭
ANGLE HEAD

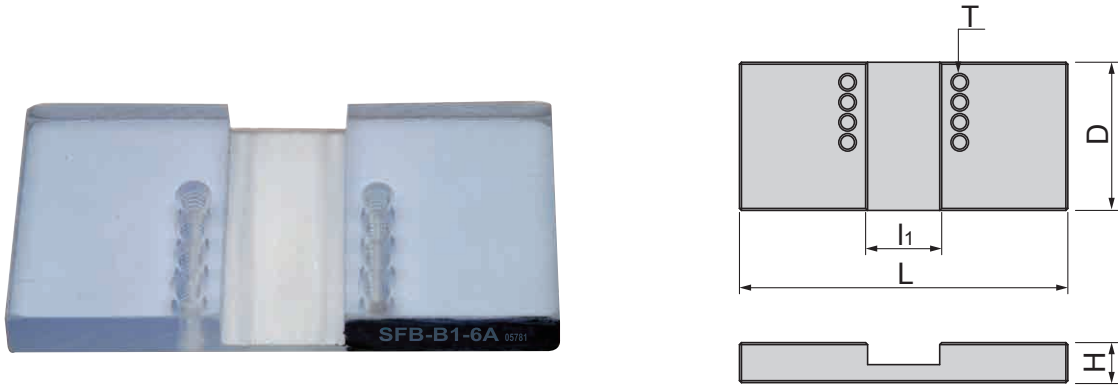
特點 Feature

- 定位塊可以裝在主軸上，但要固定在機器上，才不會妨礙到 ATC 換刀臂，固定方法因機台而異，因此，裝置前應詢問機器製造商其適合的定位塊裝置方法
- 接受特殊規格訂製，下單之前請詳細提供並填寫相關尺寸，填寫表在 A068

- The fixed block can be installed on the spindle but it has to be a fixed installation so that it will not interfere with the ATC (Automatic Tool Changer). It is important to consult your machine manufacturer first before installing.
- Special order is accepted but fill out the dimension form on A068 first before ordering.

| 規格 Spec. | D | L | l ₁ | H | T | Fig. | 重量 (KGS) Weight |
|----------|----|----|----------------|----|----|------|-----------------|
| SFO-1-10 | 37 | 82 | 18 | 10 | M4 | 1 | 0.20 |
| SFO-1-15 | 37 | 82 | 18 | 15 | M4 | 1 | 0.32 |
| SFO-2-10 | 37 | 82 | 18 | 10 | M4 | 2 | 0.18 |
| SFO-2-15 | 37 | 82 | 18 | 15 | M4 | 2 | 0.28 |
| SFO-3-10 | 45 | 82 | 18 | 10 | M4 | 3 | 0.19 |
| SFO-3-15 | 45 | 82 | 18 | 15 | M4 | 3 | 0.31 |
| SFO-4-10 | 45 | 82 | 18 | 10 | M4 | 4 | 0.19 |
| SFO-4-15 | 45 | 82 | 18 | 15 | M4 | 4 | 0.31 |

• 長度單位 Unit of Length (mm)



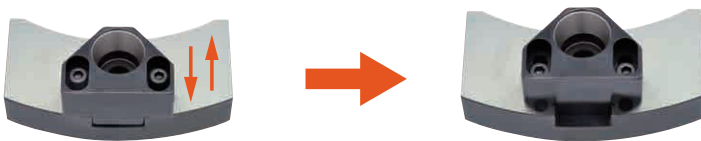
| 規格 Spec. | D | L | l_1 | H | T | 重量 (KGS) Weight |
|-------------|----|----|-------|---|----|-----------------------|
| SFB-B1-6A | 37 | 82 | 18.5 | 6 | M4 | 0.02 |

範例 Example



角度頭
ANGLE HEAD

▶ 上座可前後做調整，調合角度頭上定位梢位置，達到完美貼合
The upper angle-head fixed block can be adjusted first before bolting it together to achieve a perfect fit.





| 規格 Spec. | 內容物 Contents | | | | | 重量 (KGS) Weight |
|-------------|--------------------|--------------|--|--------------|-----------|-----------------------|
| | 定位塊 Fixed Block | 鑽頭 Drill | 螺絲 Screw | 扳手 Wrench | 數量 Qty | |
| SFB-10P-SET | SFO-1-10 | 6.8mm 9mm | SH-M4-16 (2只 -15mm 座用) SH-M4-12 (2只 -10mm 座用) | PL3 | 1 | 3.28 |
| | SFO-1-15 | | | | | |
| | SFO-2-10 | | | | | |
| | SFO-2-15 | | | | | |
| | SFO-3-10 | | | | | |
| | SFO-3-15 | | | | | |
| | SFO-4-10 | | | | | |
| | SFO-4-15 | | | | | |
| | SFO-A | | | | | |
| | SFB-B1-6A | | | | | |

 角度頭
ANGLE HEAD

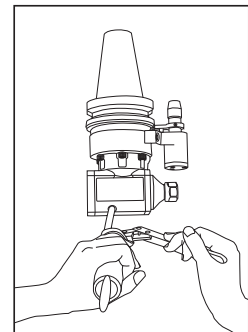
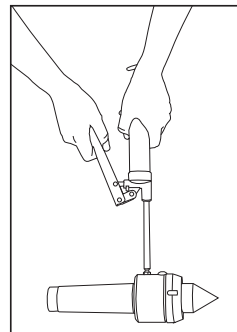
Fig.1



Fig.2



範例 Example



特點 Feature

- 攜帶方便
- 汽車、機械設備皆可適用
- 可放入條狀黃油或裝填桶裝黃油

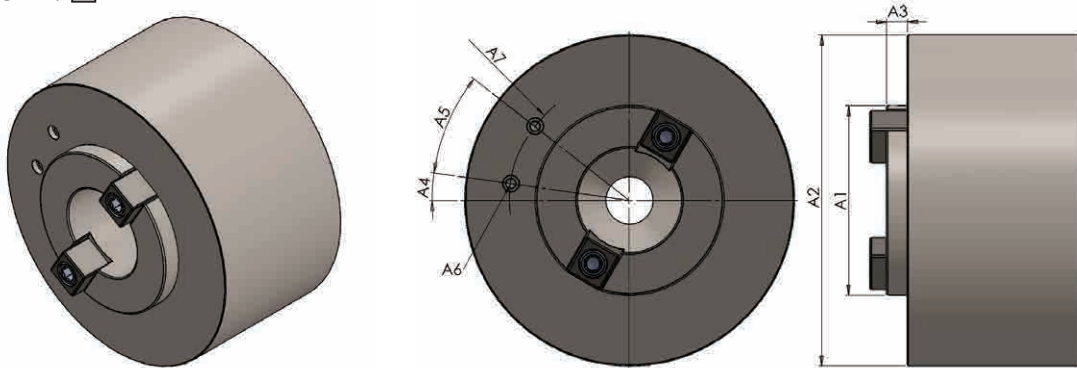
- Easy to carry.
- Suitable for automobile and mechanical equipments.
- Grease from tubes or drums may be used.

| 規格 Spec. | 工作壓力 (psi) Power | 容量 (ml) Capacity | 尺寸 (mm) size | Fig. | 重量 (KGS) Weight |
|-------------|------------------------|------------------------|--------------------|------|-----------------------|
| LM-GG-100 | 4500 | 100 | 210x60x35 | 1 | 0.15 |
| LM-GG-500 | - | 500 | 380x130x50 | 2 | 1.28 |

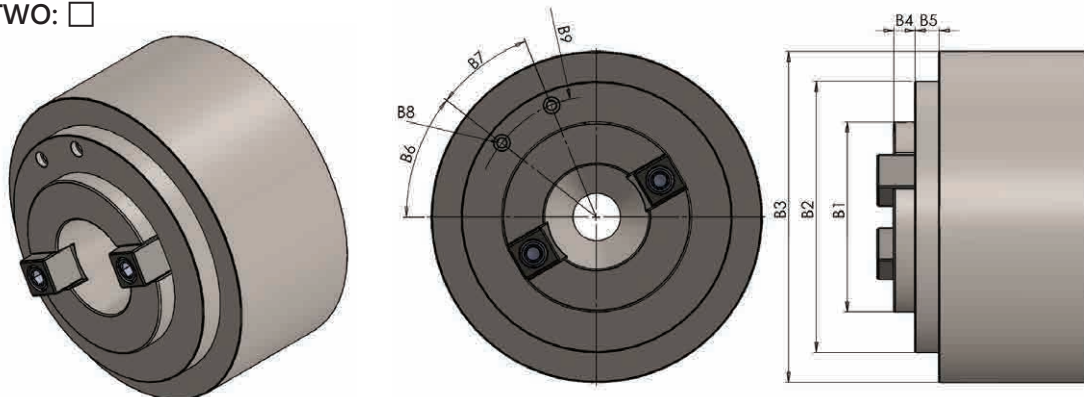
• 長度單位 Unit of Length (mm)

- 訂製時請注意主軸中心與定位塊中心的間距的變動，並指明您機器主軸法蘭上的固定螺絲孔尺寸位置
Before installation, first measure the distance between the center of the spindle and the center of the fixed block. Also, indicate clearly the position of the fixed screw on the flange of the spindle.
- 下單之前，請詳細提供並填寫相關尺寸，透過電子郵件、電話或者傳真與我們連繫
Before purchasing, please send related detailed dimensions to us by email, phone or fax.

TYPE ONE:



TYPE TWO:



單位 (UNIT):mm

| | | | |
|-----------------------|--|----|--|
| 機械廠牌 MACHINE MAKER | | | |
| 機械型號 MACHINE MODEL | | | |
| A1 | | A5 | |
| A2 | | A6 | |
| A3 | | A7 | |
| A4 | | | |

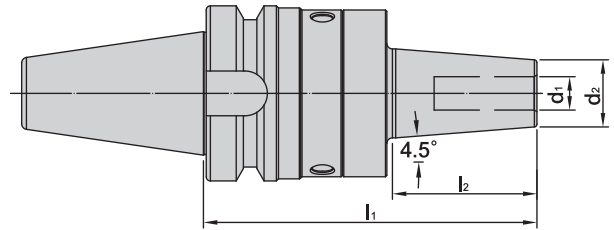
單位 (UNIT):mm

| | | | |
|-----------------------|--|----|--|
| 機械廠牌 MACHINE MAKER | | | |
| 機械型號 MACHINE MODEL | | | |
| B1 | | B6 | |
| B2 | | B7 | |
| B3 | | B8 | |
| B4 | | B9 | |
| B5 | | | |

- S= 主軸中心到定位塊的中心距離

S = the distance between the center of the spindle and the center of the fixed block.

• 長度單位 Unit of Length (mm)



特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 2 μ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 2 μ m.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | 組合 Combination | | 重量 (KGS) Weight |
|-----------------|----------------|----------------|----------------|----------------|----------------|--------------------|-----------------|
| | | | | | 本體 Body | 法蘭盤 Flange Adapter | |
| BT30xSAFC6-110 | 110 | 52 | 6 | 21 | BT30xSAFC25 | SFC6-70 | 1.13 |
| BT30xSAFC8-110 | 110 | 52 | 8 | 21 | BT30xSAFC25 | SFC8-70 | 1.12 |
| BT30xSAFC10-110 | 110 | 52 | 10 | 24 | BT30xSAFC25 | SFC10-70 | 1.17 |
| BT30xSAFC12-110 | 110 | 52 | 12 | 24 | BT30xSAFC25 | SFC12-70 | 1.15 |
| BT30xSAFC16-115 | 115 | 57 | 16 | 27 | BT30xSAFC25 | SFC16-75 | 1.20 |
| BT40xSAFC6-120 | 120 | 52 | 6 | 21 | BT40xSAFC25 | SFC6-70 | 1.86 |
| BT40xSAFC8-120 | 120 | 52 | 8 | 21 | BT40xSAFC25 | SFC8-70 | 1.85 |
| BT40xSAFC10-120 | 120 | 52 | 10 | 24 | BT40xSAFC25 | SFC10-70 | 1.90 |
| BT40xSAFC12-120 | 120 | 52 | 12 | 24 | BT40xSAFC25 | SFC12-70 | 1.88 |
| BT40xSAFC16-125 | 125 | 57 | 16 | 27 | BT40xSAFC25 | SFC16-75 | 1.93 |
| BT40xSAFC20-130 | 130 | 60 | 20 | 33 | BT40xSAFC40 | SFC20-80 | 2.67 |
| BT40xSAFC25-150 | 150 | 81 | 25 | 44 | BT40xSAFC40 | SFC25-100 | 3.20 |
| BT40xSAFC32-150 | 150 | 81 | 32 | 44 | BT40xSAFC40 | SFC32-100 | 3.06 |
| BT50xSAFC6-130 | 130 | 52 | 6 | 21 | BT50xSAFC25 | SFC6-70 | 4.34 |
| BT50xSAFC8-130 | 130 | 52 | 8 | 21 | BT50xSAFC25 | SFC8-70 | 4.33 |
| BT50xSAFC10-130 | 130 | 52 | 10 | 24 | BT50xSAFC25 | SFC10-70 | 4.38 |
| BT50xSAFC12-130 | 130 | 52 | 12 | 24 | BT50xSAFC25 | SFC12-70 | 4.36 |
| BT50xSAFC16-135 | 135 | 57 | 16 | 27 | BT50xSAFC25 | SFC16-75 | 4.41 |
| BT50xSAFC20-140 | 140 | 60 | 20 | 33 | BT50xSAFC40 | SFC20-80 | 5.26 |
| BT50xSAFC25-160 | 160 | 81 | 25 | 44 | BT50xSAFC40 | SFC25-100 | 5.79 |
| BT50xSAFC32-160 | 160 | 81 | 32 | 44 | BT50xSAFC40 | SFC32-100 | 5.65 |

選配表 Option

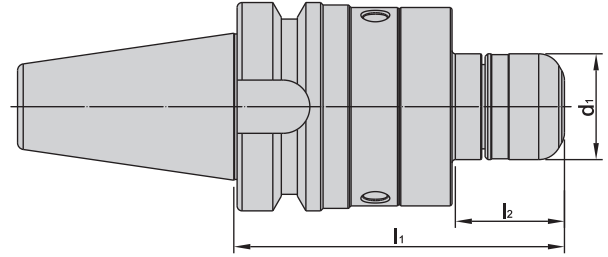


• 長度單位 Unit of Length (mm)

BT/SAF 可調式刀桿

BT/SAF RUNOUT ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : PNER 偏擺精度 Precision < 2 μ m



特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 2 μ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 2 μ m.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | 組合 Combination | | 重量 (KGS) Weight |
|-----------------|----------------|----------------|----------------|----------------|--------------------|-----------------|
| | | | | 本體 Body | 法蘭盤 Flange Adapter | |
| BT30xSAFP16-90 | 90 | 32 | 30 | BT30xSAFC25 | PNER16-50 | 1.03 |
| BT30xSAFP20-90 | 90 | 33 | 32 | BT30xSAFC25 | PNER20-50 | 1.04 |
| BT40xSAFP16-100 | 100 | 32 | 30 | BT40xSAFC25 | PNER16-50 | 1.76 |
| BT40xSAFP16-150 | 150 | 82 | 30 | BT40xSAFC25 | PNER16-100 | 2.00 |
| BT40xSAFP20-100 | 100 | 33 | 32 | BT40xSAFC25 | PNER20-50 | 1.77 |
| BT40xSAFP20-150 | 150 | 83 | 32 | BT40xSAFC25 | PNER20-100 | 2.03 |
| BT40xSAFP25-100 | 100 | 28.9 | 40 | BT40xSAFC40 | PNER25-50 | 2.41 |
| BT40xSAFP25-150 | 150 | 78.9 | 40 | BT40xSAFC40 | PNER25-100 | 2.83 |
| BT40xSAFP32-110 | 110 | 40.9 | 50 | BT40xSAFC40 | PNER32-60 | 2.56 |
| BT40xSAFP32-150 | 150 | 80.9 | 50 | BT40xSAFC40 | PNER32-100 | 3.11 |
| BT50xSAFP16-110 | 110 | 32 | 30 | BT50xSAFC25 | PNER16-50 | 4.24 |
| BT50xSAFP16-160 | 160 | 82 | 30 | BT50xSAFC25 | PNER16-100 | 4.48 |
| BT50xSAFP20-110 | 110 | 33 | 32 | BT50xSAFC25 | PNER20-50 | 4.25 |
| BT50xSAFP20-160 | 160 | 83 | 32 | BT50xSAFC25 | PNER20-100 | 4.51 |
| BT50xSAFP25-110 | 110 | 28.9 | 40 | BT50xSAFC40 | PNER25-50 | 5.00 |
| BT50xSAFP25-160 | 160 | 78.9 | 40 | BT50xSAFC40 | PNER25-100 | 5.42 |
| BT50xSAFP32-120 | 120 | 40.9 | 50 | BT50xSAFC40 | PNER32-60 | 5.15 |
| BT50xSAFP32-160 | 160 | 80.9 | 50 | BT50xSAFC40 | PNER32-100 | 5.70 |

可調式刀桿
RUNOUT
ADJUSTABLE
HOLDER

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|-----------|------------|
| | | | |
| B645-B647 | B612/B627 | B634/B639 | B650-B651 |

• 長度單位 Unit of Length (mm)



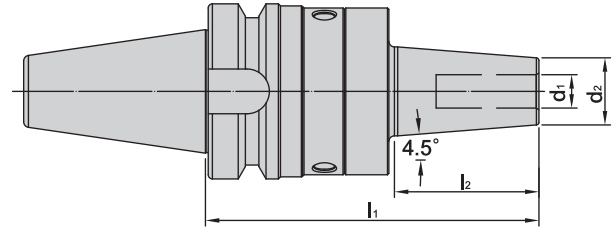
SBT/SAF 法蘭加厚型可調式刀桿

SBT/SAF DUAL DRIVE ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : SFC

雙面拘束 Dual Contact

偏擺精度 Precision < 2 μ m



特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 2 μ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 2 μ m.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | 組合 Combination | | 重量 (KGS) Weight |
|------------------|----------------|----------------|----------------|----------------|----------------|--------------------|-----------------|
| | | | | | 本體 Body | 法蘭盤 Flange Adapter | |
| SBT30xSAFC6-110 | 110 | 52 | 6 | 21 | BT30xSAFC25 | SFC6-70 | 1.13 |
| SBT30xSAFC8-110 | 110 | 52 | 8 | 21 | BT30xSAFC25 | SFC8-70 | 1.12 |
| SBT30xSAFC10-110 | 110 | 52 | 10 | 24 | BT30xSAFC25 | SFC10-70 | 1.17 |
| SBT30xSAFC12-110 | 110 | 52 | 12 | 24 | BT30xSAFC25 | SFC12-70 | 1.15 |
| SBT30xSAFC16-115 | 115 | 57 | 16 | 27 | BT30xSAFC25 | SFC16-75 | 1.20 |
| SBT40xSAFC6-120 | 120 | 52 | 6 | 21 | BT40xSAFC25 | SFC6-70 | 1.87 |
| SBT40xSAFC8-120 | 120 | 52 | 8 | 21 | BT40xSAFC25 | SFC8-70 | 1.86 |
| SBT40xSAFC10-120 | 120 | 52 | 10 | 24 | BT40xSAFC25 | SFC10-70 | 1.91 |
| SBT40xSAFC12-120 | 120 | 52 | 12 | 24 | BT40xSAFC25 | SFC12-70 | 1.89 |
| SBT40xSAFC16-125 | 125 | 57 | 16 | 27 | BT40xSAFC25 | SFC16-75 | 1.94 |
| SBT40xSAFC20-130 | 130 | 60 | 20 | 33 | BT40xSAFC40 | SFC20-80 | 2.68 |
| SBT40xSAFC25-150 | 150 | 81 | 25 | 44 | BT40xSAFC40 | SFC25-100 | 3.21 |
| SBT40xSAFC32-150 | 150 | 81 | 32 | 44 | BT40xSAFC40 | SFC32-100 | 3.07 |
| SBT50xSAFC6-130 | 130 | 52 | 6 | 21 | BT50xSAFC25 | SFC6-70 | 4.38 |
| SBT50xSAFC8-130 | 130 | 52 | 8 | 21 | BT50xSAFC25 | SFC8-70 | 4.37 |
| SBT50xSAFC10-130 | 130 | 52 | 10 | 24 | BT50xSAFC25 | SFC10-70 | 4.42 |
| SBT50xSAFC12-130 | 130 | 52 | 12 | 24 | BT50xSAFC25 | SFC12-70 | 4.40 |
| SBT50xSAFC16-135 | 135 | 57 | 16 | 27 | BT50xSAFC25 | SFC16-75 | 4.45 |
| SBT50xSAFC20-140 | 140 | 60 | 20 | 33 | BT50xSAFC40 | SFC20-80 | 5.30 |
| SBT50xSAFC25-160 | 160 | 81 | 25 | 44 | BT50xSAFC40 | SFC25-100 | 5.83 |
| SBT50xSAFC32-160 | 160 | 81 | 32 | 44 | BT50xSAFC40 | SFC32-100 | 5.69 |

可調式刀桿
RUNOUT
ADJUSTABLE
HOLDER

選配表 Option

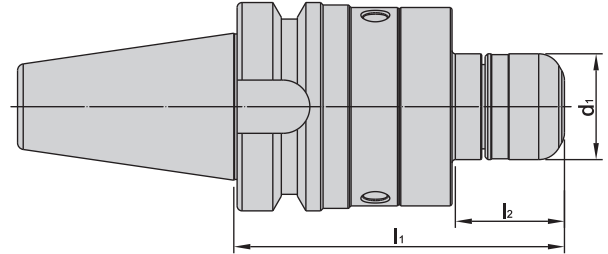


• 長度單位 Unit of Length (mm)

SBT/SAF 法蘭加厚型可調式刀桿

SBT/SAF DUAL DRIVE ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : PNER 雙面拘束 Dual Contact 偏擺精度 Precision < 2 μ m



特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 2 μ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 2 μ m.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | 組合 Combination | | 重量 (KGS) Weight |
|------------------|----------------|----------------|----------------|----------------|--------------------|-----------------|
| | | | | 本體 Body | 法蘭盤 Flange Adapter | |
| SBT30xSAFP16-90 | 90 | 32 | 30 | BT30xSAFC25 | PNER16-50 | 1.03 |
| SBT30xSAFP20-90 | 90 | 33 | 32 | BT30xSAFC25 | PNER20-50 | 1.04 |
| SBT40xSAFP16-100 | 100 | 32 | 30 | BT40xSAFC25 | PNER16-50 | 1.77 |
| SBT40xSAFP16-150 | 150 | 82 | 30 | BT40xSAFC25 | PNER16-100 | 2.01 |
| SBT40xSAFP20-100 | 100 | 33 | 32 | BT40xSAFC25 | PNER20-50 | 1.78 |
| SBT40xSAFP20-150 | 150 | 83 | 32 | BT40xSAFC25 | PNER20-100 | 2.04 |
| SBT40xSAFP25-100 | 100 | 28.9 | 40 | BT40xSAFC40 | PNER25-50 | 2.45 |
| SBT40xSAFP25-150 | 150 | 78.9 | 40 | BT40xSAFC40 | PNER25-100 | 2.84 |
| SBT40xSAFP32-110 | 110 | 40.9 | 50 | BT40xSAFC40 | PNER32-60 | 2.57 |
| SBT40xSAFP32-150 | 150 | 80.9 | 50 | BT40xSAFC40 | PNER32-100 | 3.12 |
| SBT50xSAFP16-110 | 110 | 32 | 30 | BT50xSAFC25 | PNER16-50 | 4.28 |
| SBT50xSAFP16-160 | 160 | 82 | 30 | BT50xSAFC25 | PNER16-100 | 4.52 |
| SBT50xSAFP20-110 | 110 | 33 | 32 | BT50xSAFC25 | PNER20-50 | 4.29 |
| SBT50xSAFP20-160 | 160 | 83 | 32 | BT50xSAFC25 | PNER20-100 | 4.55 |
| SBT50xSAFP25-110 | 110 | 28.9 | 40 | BT50xSAFC40 | PNER25-50 | 5.04 |
| SBT50xSAFP25-160 | 160 | 78.9 | 40 | BT50xSAFC40 | PNER25-100 | 5.46 |
| SBT50xSAFP32-120 | 120 | 40.9 | 50 | BT50xSAFC40 | PNER32-60 | 5.19 |
| SBT50xSAFP32-160 | 160 | 80.9 | 50 | BT50xSAFC40 | PNER32-100 | 5.74 |

可調式刀桿
RUNOUT
ADJUSTABLE
HOLDER

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|-----------|------------|
| | | | |
| B645-B647 | B612/B627 | B634/B639 | B650-B651 |

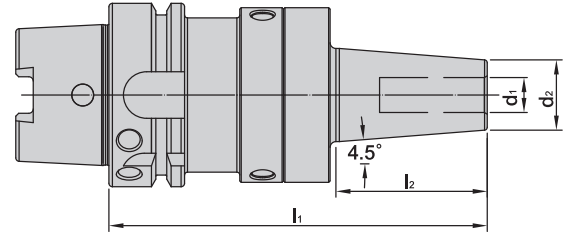
• 長度單位 Unit of Length (mm)

HSK/SAF 可調式刀桿

HSK/SAF RUNOUT ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : SFC

偏擺精度 Precision < 2μm



特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 2μm 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 2μm.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | 組合 Combination | | 重量 (KGS) Weight |
|--------------------|----------------|----------------|----------------|----------------|----------------|--------------------|-----------------|
| | | | | | 本體 Body | 法蘭盤 Flange Adapter | |
| HSK40AxSAFC6-130 | 130 | 52 | 6 | 21 | HSK40AxSAF25 | SFC6-70 | 1.22 |
| HSK40AxSAFC8-130 | 130 | 52 | 8 | 21 | HSK40AxSAF25 | SFC8-70 | 1.21 |
| HSK40AxSAFC10-130 | 130 | 52 | 10 | 24 | HSK40AxSAF25 | SFC10-70 | 1.26 |
| HSK40AxSAFC12-130 | 130 | 52 | 12 | 24 | HSK40AxSAF25 | SFC12-70 | 1.24 |
| HSK40AxSAFC16-135 | 135 | 57 | 16 | 27 | HSK40AxSAF25 | SFC16-75 | 1.29 |
| HSK50AxSAFC6-130 | 130 | 52 | 6 | 21 | HSK50AxSAF25 | SFC6-70 | 1.34 |
| HSK50AxSAFC8-130 | 130 | 52 | 8 | 21 | HSK50AxSAF25 | SFC8-70 | 1.33 |
| HSK50AxSAFC10-130 | 130 | 52 | 10 | 24 | HSK50AxSAF25 | SFC10-70 | 1.38 |
| HSK50AxSAFC12-130 | 130 | 52 | 12 | 24 | HSK50AxSAF25 | SFC12-70 | 1.36 |
| HSK50AxSAFC16-135 | 135 | 57 | 16 | 27 | HSK50AxSAF25 | SFC16-75 | 1.41 |
| HSK63AxSAFC6-130 | 130 | 52 | 6 | 21 | HSK63AxSAF25 | SFC6-70 | 1.68 |
| HSK63AxSAFC8-130 | 130 | 52 | 8 | 21 | HSK63AxSAF25 | SFC8-70 | 1.67 |
| HSK63AxSAFC10-130 | 130 | 52 | 10 | 24 | HSK63AxSAF25 | SFC10-70 | 1.72 |
| HSK63AxSAFC12-130 | 130 | 52 | 12 | 24 | HSK63AxSAF25 | SFC12-70 | 1.70 |
| HSK63AxSAFC16-135 | 135 | 57 | 16 | 27 | HSK63AxSAF25 | SFC16-75 | 1.75 |
| HSK63AxSAFC20-140 | 140 | 60 | 20 | 33 | HSK63AxSAF40 | SFC20-80 | 2.55 |
| HSK63AxSAFC25-160 | 160 | 81 | 25 | 44 | HSK63AxSAF40 | SFC25-100 | 3.08 |
| HSK63AxSAFC32-160 | 160 | 81 | 32 | 44 | HSK63AxSAF40 | SFC32-100 | 2.94 |
| HSK80AxSAFC6-120 | 120 | 52 | 6 | 21 | HSK80AxSAF25 | SFC6-70 | 1.99 |
| HSK80AxSAFC8-120 | 120 | 52 | 8 | 21 | HSK80AxSAF25 | SFC8-70 | 1.98 |
| HSK80AxSAFC10-120 | 120 | 52 | 10 | 24 | HSK80AxSAF25 | SFC10-70 | 2.03 |
| HSK80AxSAFC12-120 | 120 | 52 | 12 | 24 | HSK80AxSAF25 | SFC12-70 | 2.01 |
| HSK80AxSAFC16-125 | 125 | 57 | 16 | 27 | HSK80AxSAF25 | SFC16-75 | 2.06 |
| HSK80AxSAFC20-140 | 140 | 60 | 20 | 33 | HSK80AxSAF40 | SFC20-80 | 3.14 |
| HSK80AxSAFC25-160 | 160 | 81 | 25 | 44 | HSK80AxSAF40 | SFC25-100 | 3.67 |
| HSK80AxSAFC32-160 | 160 | 81 | 32 | 44 | HSK80AxSAF40 | SFC32-100 | 3.53 |
| HSK100AxSAFC6-125 | 125 | 52 | 6 | 21 | HSK100AxSAF25 | SFC6-70 | 2.93 |
| HSK100AxSAFC8-125 | 125 | 52 | 8 | 21 | HSK100AxSAF25 | SFC8-70 | 2.92 |
| HSK100AxSAFC10-125 | 125 | 52 | 10 | 24 | HSK100AxSAF25 | SFC10-70 | 2.97 |
| HSK100AxSAFC12-125 | 125 | 52 | 12 | 24 | HSK100AxSAF25 | SFC12-70 | 2.95 |
| HSK100AxSAFC16-130 | 130 | 57 | 16 | 27 | HSK100AxSAF25 | SFC16-75 | 3.00 |
| HSK100AxSAFC20-135 | 135 | 60 | 20 | 33 | HSK100AxSAF40 | SFC20-80 | 3.92 |
| HSK100AxSAFC25-155 | 155 | 81 | 25 | 44 | HSK100AxSAF40 | SFC25-100 | 4.45 |
| HSK100AxSAFC32-155 | 155 | 81 | 32 | 44 | HSK100AxSAF40 | SFC32-100 | 4.31 |

選配表 Option



• 長度單位 Unit of Length (mm)

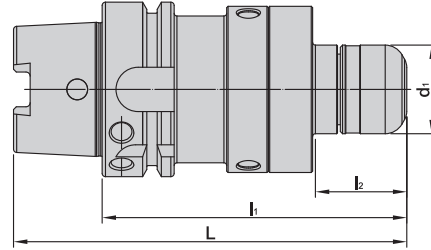
可調式刀桿 RUNOUT ADJUSTABLE HOLDER

HSK/SAF 可調式刀桿

HSK/SAF RUNOUT ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : PNER

偏擺精度 Precision < 2μm



特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 2μm 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 2μm.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | 組合 Combination | | 筒夾 Collet | 重量 (KGS) Weight |
|--------------------|----------------|----------------|----------------|----------------|--------------------|-----------|-----------------|
| | | | | 本體 Body | 法蘭盤 Flange Adapter | | |
| HSK40AxSAFP16-110 | 110 | 32 | 30 | HSK63AxSAF25 | PNER16-50 | PNER16 | 1.12 |
| HSK40AxSAFP16-160 | 160 | 82 | 30 | HSK63AxSAF25 | PNER16-100 | PNER16 | 1.36 |
| HSK40AxSAFP20-110 | 110 | 33 | 32 | HSK63AxSAF25 | PNER20-50 | PNER20 | 1.13 |
| HSK40AxSAFP20-160 | 160 | 83 | 32 | HSK63AxSAF25 | PNER20-100 | PNER20 | 1.39 |
| HSK50AxSAFP16-110 | 110 | 32 | 30 | HSK63AxSAF25 | PNER25-50 | PNER25 | 1.24 |
| HSK50AxSAFP16-160 | 160 | 82 | 30 | HSK63AxSAF25 | PNER25-100 | PNER25 | 1.48 |
| HSK50AxSAFP20-110 | 110 | 33 | 32 | HSK63AxSAF25 | PNER32-60 | PNER32 | 1.25 |
| HSK50AxSAFP20-160 | 160 | 83 | 32 | HSK63AxSAF25 | PNER32-100 | PNER32 | 1.51 |
| HSK63AxSAFP16-110 | 110 | 32 | 30 | HSK63AxSAF25 | PNER16-50 | PNER16 | 1.58 |
| HSK63AxSAFP16-160 | 160 | 82 | 30 | HSK63AxSAF25 | PNER16-100 | PNER16 | 1.82 |
| HSK63AxSAFP20-110 | 110 | 33 | 32 | HSK63AxSAF25 | PNER20-50 | PNER20 | 1.59 |
| HSK63AxSAFP20-160 | 160 | 83 | 32 | HSK63AxSAF25 | PNER20-100 | PNER20 | 1.85 |
| HSK63AxSAFP25-110 | 110 | 28.9 | 40 | HSK63AxSAF40 | PNER25-50 | PNER25 | 2.29 |
| HSK63AxSAFP25-160 | 160 | 78.9 | 40 | HSK63AxSAF40 | PNER25-100 | PNER25 | 2.71 |
| HSK63AxSAFP32-120 | 120 | 40.9 | 50 | HSK63AxSAF40 | PNER32-60 | PNER32 | 2.44 |
| HSK63AxSAFP32-160 | 160 | 80.9 | 50 | HSK63AxSAF40 | PNER32-100 | PNER32 | 2.99 |
| HSK80AxSAFP16-100 | 100 | 32 | 30 | HSK80AxSAF25 | PNER16-50 | PNER16 | 1.89 |
| HSK80AxSAFP16-150 | 150 | 82 | 30 | HSK80AxSAF25 | PNER16-100 | PNER16 | 2.13 |
| HSK80AxSAFP20-100 | 100 | 33 | 32 | HSK80AxSAF25 | PNER20-50 | PNER20 | 1.90 |
| HSK80AxSAFP20-150 | 150 | 83 | 32 | HSK80AxSAF25 | PNER20-100 | PNER20 | 2.16 |
| HSK80AxSAFP25-110 | 110 | 28.9 | 40 | HSK80AxSAF40 | PNER25-50 | PNER25 | 2.88 |
| HSK80AxSAFP25-160 | 160 | 78.9 | 40 | HSK80AxSAF40 | PNER25-100 | PNER25 | 3.30 |
| HSK80AxSAFP32-120 | 120 | 40.9 | 50 | HSK80AxSAF40 | PNER32-60 | PNER32 | 3.03 |
| HSK80AxSAFP32-160 | 160 | 80.9 | 50 | HSK80AxSAF40 | PNER32-100 | PNER32 | 3.58 |
| HSK100AxSAFP16-105 | 105 | 32 | 30 | HSK100AxSAF25 | PNER16-50 | PNER16 | 2.83 |
| HSK100AxSAFP16-155 | 155 | 82 | 30 | HSK100AxSAF25 | PNER16-100 | PNER16 | 3.07 |
| HSK100AxSAFP20-105 | 105 | 33 | 32 | HSK100AxSAF25 | PNER20-50 | PNER20 | 2.84 |
| HSK100AxSAFP20-155 | 155 | 83 | 32 | HSK100AxSAF25 | PNER20-100 | PNER20 | 3.10 |
| HSK100AxSAFP25-105 | 105 | 28.9 | 40 | HSK100AxSAF40 | PNER25-50 | PNER25 | 3.66 |
| HSK100AxSAFP25-155 | 155 | 78.9 | 40 | HSK100AxSAF40 | PNER25-100 | PNER25 | 4.08 |
| HSK100AxSAFP32-115 | 115 | 40.9 | 50 | HSK100AxSAF40 | PNER32-60 | PNER32 | 3.81 |
| HSK100AxSAFP32-155 | 155 | 80.9 | 50 | HSK100AxSAF40 | PNER32-100 | PNER32 | 4.36 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|-----------|------------|
| | | | |
| B645-B647 | B612/B627 | B634/B639 | B650-B651 |

• 長度單位 Unit of Length (mm)

可調式刀桿
RUNOUT
ADJUSTABLE
HOLDER

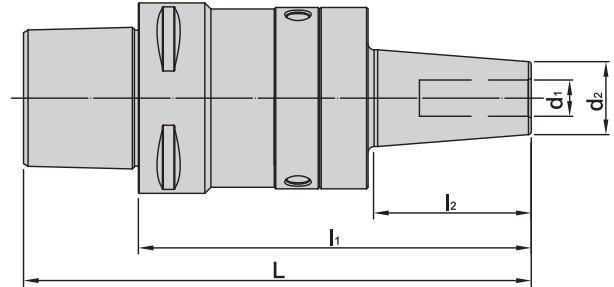


PSC/SAF 可調式刀桿

PSC/SAF RUNOUT ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : SFC

偏擺精度 Precision < 2 μ m



特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 2 μ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 2 μ m.

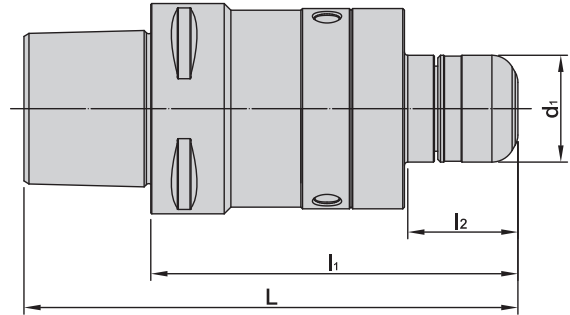
| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | 組合 Combination | | 重量 (KGS) Weight |
|------------------|----------------|----------------|----------------|----------------|----------------|--------------------|-----------------|
| | | | | | 本體 Body | 法蘭盤 Flange Adapter | |
| PSC40xSAFC6-125 | 125 | 52 | 6 | 21 | PSC40xSAF25 | SFC6-70 | 1.28 |
| PSC40xSAFC8-125 | 125 | 52 | 8 | 21 | PSC40xSAF25 | SFC8-70 | 1.27 |
| PSC40xSAFC10-125 | 125 | 52 | 10 | 24 | PSC40xSAF25 | SFC10-70 | 1.32 |
| PSC40xSAFC12-125 | 125 | 52 | 12 | 24 | PSC40xSAF25 | SFC12-70 | 1.30 |
| PSC40xSAFC16-130 | 130 | 57 | 16 | 27 | PSC40xSAF25 | SFC16-75 | 1.35 |
| PSC50xSAFC6-130 | 130 | 52 | 6 | 21 | PSC50xSAF25 | SFC6-70 | 1.62 |
| PSC50xSAFC8-130 | 130 | 52 | 8 | 21 | PSC50xSAF25 | SFC8-70 | 1.61 |
| PSC50xSAFC10-130 | 130 | 52 | 10 | 24 | PSC50xSAF25 | SFC10-70 | 1.66 |
| PSC50xSAFC12-130 | 130 | 52 | 12 | 24 | PSC50xSAF25 | SFC12-70 | 1.64 |
| PSC50xSAFC16-135 | 135 | 57 | 16 | 27 | PSC50xSAF25 | SFC16-75 | 1.69 |
| PSC63xSAFC6-130 | 130 | 52 | 6 | 21 | PSC63xSAF25 | SFC6-70 | 1.97 |
| PSC63xSAFC8-130 | 130 | 52 | 8 | 21 | PSC63xSAF25 | SFC8-70 | 1.96 |
| PSC63xSAFC10-130 | 130 | 52 | 10 | 24 | PSC63xSAF25 | SFC10-70 | 2.01 |
| PSC63xSAFC12-130 | 130 | 52 | 12 | 24 | PSC63xSAF25 | SFC12-70 | 1.99 |
| PSC63xSAFC16-135 | 135 | 57 | 16 | 27 | PSC63xSAF25 | SFC16-75 | 2.04 |
| PSC63xSAFC20-140 | 140 | 60 | 20 | 33 | PSC63xSAF40 | SFC20-80 | 3.01 |
| PSC63xSAFC25-160 | 160 | 81 | 25 | 44 | PSC63xSAF40 | SFC25-100 | 3.54 |
| PSC63xSAFC32-160 | 160 | 81 | 32 | 44 | PSC63xSAF40 | SFC32-100 | 3.40 |
| PSC80xSAFC6-120 | 120 | 52 | 6 | 21 | PSC80xSAF25 | SFC6-70 | 2.55 |
| PSC80xSAFC8-120 | 120 | 52 | 8 | 21 | PSC80xSAF25 | SFC8-70 | 2.57 |
| PSC80xSAFC10-120 | 120 | 52 | 10 | 24 | PSC80xSAF25 | SFC10-70 | 2.59 |
| PSC80xSAFC12-120 | 120 | 52 | 12 | 24 | PSC80xSAF25 | SFC12-70 | 2.57 |
| PSC80xSAFC16-125 | 125 | 57 | 16 | 27 | PSC80xSAF25 | SFC16-75 | 2.62 |
| PSC80xSAFC20-140 | 140 | 60 | 20 | 33 | PSC80xSAF40 | SFC20-80 | 3.81 |
| PSC80xSAFC25-160 | 160 | 81 | 25 | 44 | PSC80xSAF40 | SFC25-100 | 4.32 |
| PSC80xSAFC32-160 | 160 | 81 | 32 | 44 | PSC80xSAF40 | SFC32-100 | 4.20 |

選配表 Option



• 長度單位 Unit of Length (mm)

法蘭盤形式 Flange Adapter : PNER



特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 2μm 內

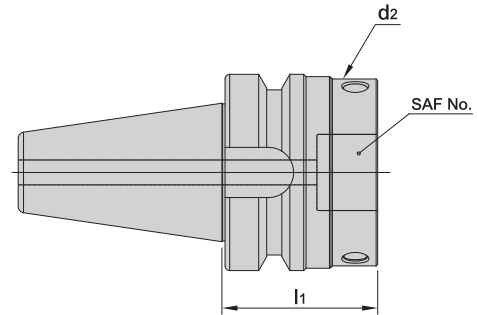
- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 2μm.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | 組合 Combination | | 筒夾 Collet | 重量 (KGS) Weight |
|------------------|----------------|----------------|----------------|----------------|--------------------|--------------|-----------------------|
| | | | | 本體 Body | 法蘭盤 Flange Adapter | | |
| PSC40xSAFP16-105 | 105 | 32 | 30 | PSC40xSAF25 | PNER16-50 | PNER16 | 1.18 |
| PSC40xSAFP16-155 | 155 | 82 | 30 | PSC40xSAF25 | PNER16-100 | PNER16 | 4.42 |
| PSC40xSAFP20-105 | 105 | 33 | 32 | PSC40xSAF25 | PNER20-50 | PNER20 | 1.19 |
| PSC40xSAFP20-155 | 155 | 83 | 23 | PSC40xSAF25 | PNER20-100 | PNER20 | 1.45 |
| PSC50xSAFP16-110 | 110 | 32 | 30 | PSC50xSAF25 | PNER16-50 | PNER16 | 1.52 |
| PSC50xSAFP16-160 | 160 | 82 | 30 | PSC50xSAF25 | PNER16-100 | PNER16 | 1.76 |
| PSC50xSAFP20-110 | 110 | 33 | 32 | PSC50xSAF25 | PNER20-50 | PNER20 | 1.53 |
| PSC50xSAFP20-160 | 160 | 83 | 32 | PSC50xSAF25 | PNER20-100 | PNER20 | 1.79 |
| PSC63xSAFP16-110 | 110 | 32 | 30 | PSC63xSAF25 | PNER16-50 | PNER16 | 1.87 |
| PSC63xSAFP16-160 | 160 | 82 | 30 | PSC63xSAF25 | PNER16-100 | PNER16 | 2.11 |
| PSC63xSAFP20-110 | 110 | 33 | 32 | PSC63xSAF25 | PNER20-50 | PNER20 | 1.88 |
| PSC63xSAFP20-160 | 160 | 83 | 32 | PSC63xSAF25 | PNER20-100 | PNER20 | 2.14 |
| PSC63xSAFP25-110 | 110 | 28.9 | 40 | PSC63xSAF40 | PNER25-50 | PNER25 | 2.75 |
| PSC63xSAFP25-160 | 160 | 78.9 | 40 | PSC63xSAF40 | PNER25-100 | PNER25 | 3.17 |
| PSC63xSAFP32-120 | 120 | 40.9 | 50 | PSC63xSAF40 | PNER32-60 | PNER32 | 2.90 |
| PSC63xSAFP32-160 | 160 | 80.9 | 50 | PSC63xSAF40 | PNER32-100 | PNER32 | 3.45 |
| PSC80xSAFP16-100 | 100 | 32 | 30 | PSC80xSAF25 | PNER16-50 | PNER16 | 2.45 |
| PSC80xSAFP16-150 | 150 | 82 | 30 | PSC80xSAF25 | PNER16-100 | PNER16 | 2.69 |
| PSC80xSAFP20-100 | 100 | 33 | 32 | PSC80xSAF25 | PNER20-50 | PNER20 | 2.46 |
| PSC80xSAFP20-150 | 150 | 83 | 32 | PSC80xSAF25 | PNER20-100 | PNER20 | 2.72 |
| PSC80xSAFP25-110 | 110 | 28.9 | 40 | PSC80xSAF40 | PNER25-50 | PNER25 | 3.55 |
| PSC80xSAFP25-160 | 160 | 78.9 | 40 | PSC80xSAF40 | PNER25-100 | PNER25 | 3.97 |
| PSC80xSAFP32-120 | 120 | 40.9 | 50 | PSC80xSAF40 | PNER32-60 | PNER32 | 3.70 |
| PSC80xSAFP32-160 | 160 | 80.9 | 50 | PSC80xSAF40 | PNER32-100 | PNER32 | 4.25 |

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|-----------|------------|
| | | | |
| B645-B647 | B612/B627 | B634/B639 | B650-B651 |

• 長度單位 Unit of Length (mm)



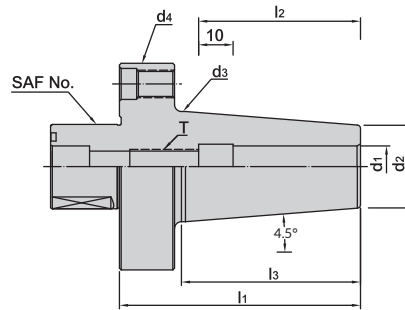
| 規格 Spec. | l_1 | d_2 | SAF NO. | 重量 (KGS) Weight |
|---------------|-------|-------|---------|-----------------------|
| BT30xSAF25 | 40 | 60 | 1 | 0.61 |
| BT40xSAF25 | 50 | 60 | 1 | 1.34 |
| BT40xSAF40 | 50 | 80 | 2 | 1.48 |
| BT50xSAF25 | 60 | 60 | 1 | 3.82 |
| BT50xSAF40 | 60 | 80 | 2 | 4.07 |
| SBT30xSAF25 | 40 | 60 | 1 | 0.61 |
| SBT40xSAF25 | 50 | 60 | 1 | 1.35 |
| SBT40xSAF40 | 50 | 80 | 2 | 1.49 |
| SBT50xSAF25 | 60 | 60 | 1 | 3.86 |
| SBT50xSAF40 | 60 | 80 | 2 | 4.11 |
| HSK40AxSAF25 | 60 | 60 | 1 | 0.70 |
| HSK50AxSAF25 | 60 | 60 | 1 | 0.82 |
| HSK63AxSAF25 | 60 | 60 | 1 | 1.16 |
| HSK63AxSAF40 | 60 | 80 | 2 | 1.36 |
| HSK80AxSAF25 | 50 | 60 | 1 | 1.47 |
| HSK80AxSAF40 | 60 | 80 | 2 | 1.95 |
| HSK100AxSAF25 | 55 | 60 | 1 | 2.41 |
| HSK100AxSAF40 | 55 | 80 | 2 | 2.73 |
| PSC40xSAF25 | 55 | 60 | 1 | 0.76 |
| PSC50xSAF25 | 60 | 60 | 1 | 1.10 |
| PSC63xSAF25 | 60 | 60 | 1 | 1.45 |
| PSC63xSAF40 | 60 | 80 | 2 | 1.82 |
| PSC80xSAF25 | 50 | 60 | 1 | 2.03 |
| PSC80xSAF40 | 60 | 80 | 2 | 2.62 |

可調式刀桿
RUNOUT
ADJUSTABLE
HOLDER

• 長度單位 Unit of Length (mm)

SAF 可調式刀桿法蘭盤 - SFC

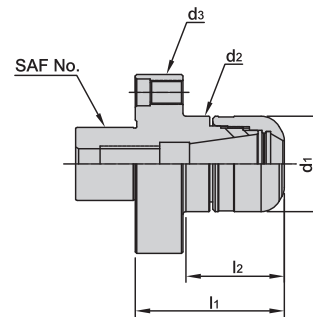
SHRINK-FIT CHUCK FLANGE FOR SAF



| 規格 Spec. | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | d ₃ | d ₄ | T | SAF NO. | 重量 (KGS) Weight |
|-----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------|---------|-----------------|
| SFC6-70 | 70 | 36 | 52 | 6 | 21 | 27 | 60 | M5x0.8P | 1 | 0.52 |
| SFC8-70 | 70 | 36 | 52 | 8 | 21 | 27 | 60 | M6x1.0P | 1 | 0.51 |
| SFC10-70 | 70 | 42 | 52 | 10 | 24 | 32 | 60 | M8x1.25P | 1 | 0.56 |
| SFC12-70 | 70 | 47 | 52 | 12 | 24 | 32 | 60 | M10x1.5P | 1 | 0.54 |
| SFC16-75 | 75 | 50 | 57 | 16 | 27 | 34 | 60 | M12x1.75P | 1 | 0.59 |
| SFC20-80 | 80 | 52 | 60 | 20 | 33 | 42 | 80 | M16x2.0P | 2 | 1.19 |
| SFC25-100 | 100 | 58 | 81 | 25 | 44 | 52 | 80 | M20x2.0P | 2 | 1.72 |
| SFC32-100 | 100 | 58 | 81 | 32 | 44 | 52 | 80 | M20x2.0P | 2 | 1.58 |

SAF 可調式刀桿法蘭盤 - PNER

PNER COLLET CHUCK FLANGE FOR SAF



| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | d ₃ | SAF NO. | 重量 (KGS) Weight |
|------------|----------------|----------------|----------------|----------------|----------------|---------|-----------------|
| PNER16-50 | 50 | 32 | 30 | 30 | 60 | 1 | 0.42 |
| PNER16-100 | 100 | 82 | 30 | 30 | 60 | 1 | 0.66 |
| PNER20-50 | 50 | 33 | 32 | 32 | 60 | 1 | 0.43 |
| PNER20-100 | 100 | 83 | 32 | 32 | 60 | 1 | 0.69 |
| PNER25-50 | 50 | 28.94 | 40 | 40 | 80 | 2 | 0.93 |
| PNER25-100 | 100 | 78.9 | 40 | 40 | 80 | 2 | 1.35 |
| PNER32-60 | 60 | 40.94 | 50 | 50 | 80 | 2 | 1.08 |
| PNER32-100 | 100 | 80.94 | 50 | 50 | 80 | 2 | 1.63 |

可調式刀桿
RUNOUT
ADJUSTABLE
HOLDER

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|-----------|------------|
| | | | |
| B645-B647 | B612/B627 | B634/B639 | B650-B651 |

• 長度單位 Unit of Length (mm)

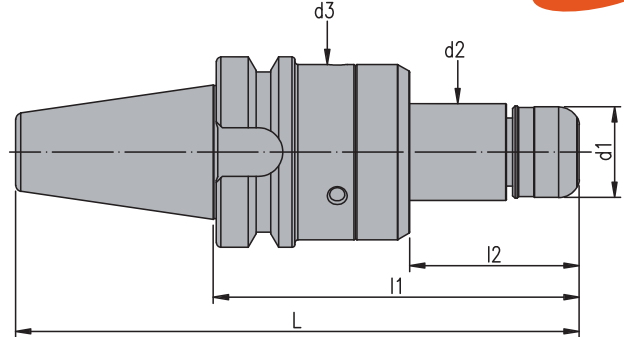
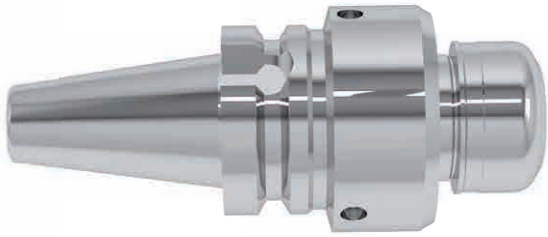


SBF 法蘭加厚型可調式徑向歸零刀桿 RADIAL ZERO ADJUSTABLE HOLDER

偏擺精度 Precision < 2 μ m 30 秒偏擺精度歸零

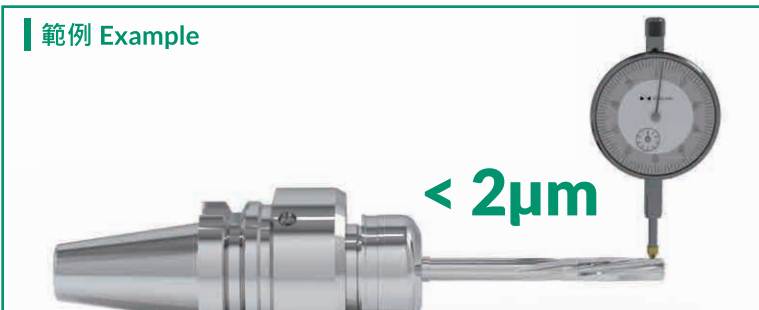
LEMMA

NEW





| 規格 Spec. | L | l1 | l2 | d1 | d2 | d3 | COLLET | 重量 WEIGHT(KGS) |
|-------------------|-------|-----|----|----|----|----|--------|----------------|
| SBT30xSBF16PN-90 | 138.4 | 90 | 27 | 30 | 32 | 58 | PN16 | 1.16 |
| SBT30xSBF20PN-90 | 138.4 | 90 | 27 | 32 | 32 | 58 | PN20 | 1.14 |
| SBT40xSBF16PN-100 | 165.4 | 100 | 42 | 30 | 32 | 58 | PN16 | 1.70 |
| SBT40xSBF16PN-150 | 215.4 | 150 | 92 | 30 | 32 | 58 | PN16 | 1.98 |
| SBT40xSBF20PN-100 | 165.4 | 100 | 32 | 32 | 32 | 58 | PN20 | 1.68 |
| SBT40xSBF20PN-150 | 215.4 | 150 | 92 | 32 | 32 | 58 | PN20 | 1.95 |
| SBT40xSBF25PN-100 | 165.4 | 100 | 32 | 40 | 42 | 75 | PN25 | 2.31 |
| SBT40xSBF25PN-150 | 215.4 | 150 | 82 | 40 | 42 | 75 | PN25 | 2.79 |
| SBT40xSBF32PN-100 | 165.4 | 100 | 34 | 50 | 42 | 75 | PN32 | 2.24 |
| SBT40xSBF32PN-150 | 215.4 | 150 | 82 | 50 | 42 | 75 | PN32 | 2.82 |
| SBT50xSBF16PN-110 | 211.8 | 110 | 42 | 30 | 32 | 58 | PN16 | 4.29 |
| SBT50xSBF16PN-160 | 261.8 | 160 | 92 | 30 | 32 | 58 | PN16 | 4.60 |
| SBT50xSBF20PN-110 | 211.8 | 110 | 42 | 32 | 32 | 58 | PN20 | 4.24 |
| SBT50xSBF20PN-160 | 261.8 | 160 | 92 | 32 | 32 | 58 | PN20 | 4.55 |
| SBT50xSBF25PN-110 | 211.8 | 110 | 37 | 40 | 42 | 75 | PN25 | 4.82 |
| SBT50xSBF25PN-160 | 261.8 | 160 | 87 | 40 | 42 | 75 | PN25 | 5.26 |
| SBT50xSBF32PN-120 | 221.8 | 120 | 47 | 50 | 42 | 75 | PN32 | 4.94 |
| SBT50xSBF32PN-160 | 261.8 | 160 | 87 | 50 | 42 | 75 | PN32 | 5.30 |

可調式刀桿
RADIAL ZERO
ADJUSTABLE
HOLDER



選配表 Option

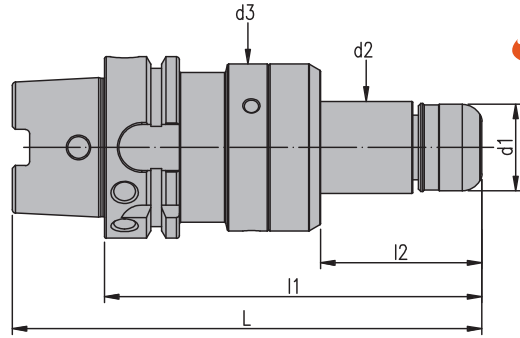
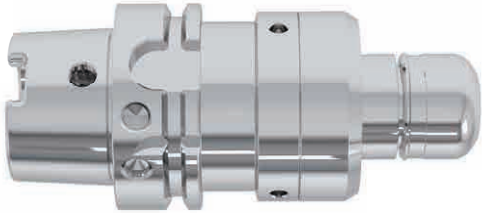
| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|---|---|---|---|
|  |  |  |  |
| B645-B647 | B612/B627 | B634/B639 | B650-B651 |

• 長度單位 Unit of Length (mm)

SBF 可調式徑向歸零刀桿 RADIAL ZERO ADJUSTABLE HOLDER

偏擺精度 Precision < 2μm 30 秒偏擺精度歸零

NEW



| 規格 Spec. | L | l1 | l2 | d1 | d2 | d3 | COLLET | 重量 WEIGHT(KGS) |
|---------------------|-----|-----|----|----|----|----|--------|----------------|
| HSK40AxSBF16PN-160 | 180 | 160 | 92 | 30 | 32 | 58 | PN16 | 1.37 |
| HSK40AxSBF20PN-110 | 130 | 110 | 42 | 32 | 32 | 58 | PN20 | 1.04 |
| HSK40AxSBF20PN-160 | 180 | 160 | 92 | 32 | 32 | 58 | PN20 | 1.35 |
| HSK50AxSBF16PN-110 | 135 | 110 | 37 | 30 | 32 | 58 | PN16 | 1.26 |
| HSK50AxSBF16PN-160 | 185 | 160 | 87 | 30 | 32 | 58 | PN16 | 1.56 |
| HSK50AxSBF20PN-110 | 135 | 110 | 37 | 32 | 32 | 58 | PN20 | 1.24 |
| HSK50AxSBF20PN-160 | 185 | 160 | 87 | 32 | 32 | 58 | PN20 | 1.54 |
| HSK63AxSBF16PN-110 | 142 | 110 | 37 | 30 | 32 | 58 | PN16 | 1.62 |
| HSK63AxSBF16PN-160 | 192 | 160 | 87 | 30 | 32 | 58 | PN16 | 1.91 |
| HSK63AxSBF20PN-110 | 142 | 110 | 37 | 32 | 32 | 58 | PN20 | 1.60 |
| HSK63AxSBF20PN-160 | 192 | 160 | 87 | 32 | 32 | 58 | PN20 | 1.89 |
| HSK63AxSBF25PN-110 | 142 | 110 | 32 | 40 | 42 | 75 | PN25 | 2.16 |
| HSK63AxSBF25PN-160 | 192 | 160 | 82 | 40 | 42 | 75 | PN25 | 2.68 |
| HSK63AxSBF32PN-120 | 152 | 120 | 42 | 50 | 42 | 75 | PN32 | 2.23 |
| HSK63AxSBF32PN-160 | 192 | 160 | 82 | 50 | 42 | 75 | PN32 | 2.69 |
| HSK80AxSBF16PN-100 | 140 | 100 | 44 | 30 | 32 | 58 | PN16 | 1.81 |
| HSK80AxSBF16PN-150 | 190 | 150 | 94 | 30 | 32 | 58 | PN16 | 2.10 |
| HSK80AxSBF20PN-100 | 140 | 100 | 44 | 32 | 32 | 58 | PN20 | 1.80 |
| HSK80AxSBF20PN-150 | 190 | 150 | 94 | 32 | 32 | 58 | PN20 | 2.08 |
| HSK80AxSBF25PN-110 | 150 | 110 | 32 | 40 | 42 | 75 | PN25 | 2.81 |
| HSK80AxSBF25PN-160 | 200 | 160 | 82 | 40 | 42 | 75 | PN25 | 3.32 |
| HSK80AxSBF32PN-120 | 160 | 120 | 42 | 50 | 42 | 75 | PN32 | 2.87 |
| HSK80AxSBF32PN-160 | 200 | 160 | 82 | 50 | 42 | 75 | PN32 | 3.33 |
| HSK100AxSBF16PN-105 | 155 | 105 | 47 | 30 | 32 | 58 | PN16 | 2.72 |
| HSK100AxSBF16PN-155 | 205 | 155 | 97 | 30 | 32 | 58 | PN16 | 2.99 |
| HSK100AxSBF20PN-105 | 155 | 105 | 47 | 32 | 32 | 58 | PN20 | 2.70 |
| HSK100AxSBF20PN-155 | 205 | 155 | 97 | 32 | 32 | 58 | PN20 | 2.98 |
| HSK100AxSBF25PN-105 | 155 | 105 | 42 | 40 | 42 | 75 | PN25 | 3.31 |
| HSK100AxSBF25PN-155 | 205 | 155 | 92 | 40 | 42 | 75 | PN25 | 3.81 |
| HSK100AxSBF32PN-115 | 165 | 115 | 52 | 50 | 42 | 75 | PN32 | 3.40 |
| HSK100AxSBF32PN-155 | 205 | 155 | 92 | 50 | 42 | 75 | PN32 | 3.79 |

可調式刀桿
RUNOUT
ADJUSTABLE
HOLDER

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|-----------|------------|
| | | | |
| B645-B647 | B612/B627 | B634/B639 | B650-B651 |

• 長度單位 Unit of Length (mm)

攻牙系統化示意圖

Tapping System Illustration

剛性攻牙 RIGID TAP

刀桿 Holder



BT-TPL攻牙刀桿
BT-TPL Tapping Holder



TPL實用型直柄伸縮攻牙器
TPL Practical Straight Shank Tapper



BT/ETP伸縮ER攻牙器
BT/ETP Expansion ER Tapper

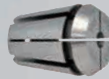


STH-CX同步補償剛性攻牙器
STH-CX Synchro Tapping Holder

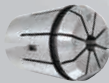


STH-CX同步補償剛性攻牙器(加長型)
STH-CX Synchro Tapping Holder
(Extension tool)

筒夾 Chuck



ER鋼性攻牙筒夾
ER-TC Rigid Tap Collet



ER鋼性攻牙止水筒夾
ER-TC Rigid Tap Sealed Collet

螺帽 Nut



ER螺帽
ER Clamping Nut

刀具 Cutting Tool



先端絲攻
Spiral Point Tap



螺旋絲攻
Spiral Flute Tap



擠壓絲攻
Forming Tap



先端絲攻(高硬度)
POT Point Taps

扭力攻牙 QUICK CHANGE TAPPING

刀桿 Holder



快換式攻牙刀桿-剛性
Quick Change Tapping Chuck



伸縮攻牙器(鑽床專用)
Quick Change Tapping Chuck



軸向伸縮攻牙器
Quick Change Tapping Chuck



快換式伸縮/扭力攻牙刀桿
Quick Change Tapping Chuck

筒夾 Chuck



TCS扭力絲攻筒夾
TCS Quick Change Tapping Collet

刀具 Cutting Tool



先端絲攻
Spiral Point Tap



螺旋絲攻
Spiral Flute Tap



擠壓絲攻
Forming Tap

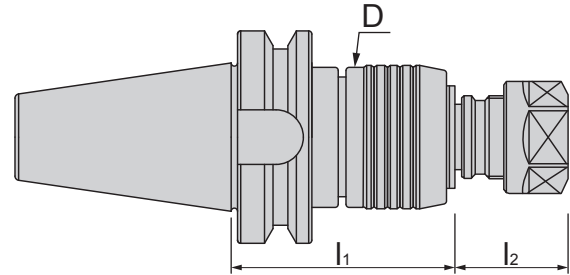
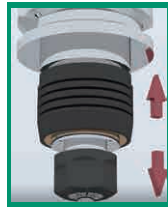


先端絲攻(高硬度)
POT Point Taps

同步補償 · 提升 100% 壽命
Synchronized Compensator Expands Tool Life and Provides the Perfect Effect of Usage.



範例 Example



特點 Feature

- 有效消除背隙與過大扭力
- 提升攻牙質量
- 延長絲錐壽命
- 無中心出水

- Effectively eliminate backlash and excessive torque.
- Increasing tapping quality
- Extend tap life.
- Without coolant hole.

BT

| 規格 Spec. | l ₁ | l ₂ | D | 攻牙能力 Capacity | 伸縮長度 Length Comp | | 螺帽 Nut | 重量 (KGS) Weight |
|----------------|----------------|----------------|------|---------------|------------------|------------|--------|-----------------|
| | | | | | 縮 (-) Comp | 伸 (+) Tens | | |
| BT30xSTH16E-CX | 70 | 25 | 43.4 | M3~M12 | - | 1 | ER16 | 0.82 |
| BT30xSTH20E-CX | 70 | 25 | 43.4 | M3~M17 | - | 1 | ER20 | 1.04 |
| BT40xSTH16E-CX | 75 | 25 | 43.4 | M3~M12 | - | 1 | ER16 | - |
| BT40xSTH20E-CX | 75 | 35 | 43.4 | M3~M17 | - | 1 | ER20 | 1.52 |
| BT40xSTH32E-CX | 95 | 40 | 43.4 | M10~M24 | - | 1 | ER32 | - |
| BT50xSTH16E-CX | 90 | 25 | 43.4 | M3~M12 | - | 1 | ER16 | - |
| BT50xSTH20E-CX | 90 | 35 | 43.4 | M3~M17 | - | 1 | ER20 | 4.46 |
| BT50xSTH32E-CX | 105 | 40 | 60 | M10~M24 | - | 1 | ER32 | 4.90 |

SBT

| 規格 Spec. | l ₁ | l ₂ | D | 攻牙能力 Capacity | 伸縮長度 Length Comp | | 螺帽 Nut | 重量 (KGS) Weight |
|-----------------|----------------|----------------|------|---------------|------------------|------------|--------|-----------------|
| | | | | | 縮 (-) Comp | 伸 (+) Tens | | |
| SBT30xSTH16E-CX | 70 | 25 | 43.4 | M3~M12 | - | 1 | ER16 | 0.82 |
| SBT30xSTH20E-CX | 70 | 25 | 43.4 | M3~M17 | - | 1 | ER20 | - |
| SBT40xSTH16E-CX | 75 | 25 | 43.4 | M3~M12 | - | 1 | ER16 | - |
| SBT40xSTH20E-CX | 75 | 35 | 43.4 | M3~M17 | - | 1 | ER20 | 1.52 |
| SBT40xSTH32E-CX | 95 | 40 | 43.4 | M10~M24 | - | 1 | ER32 | - |
| SBT50xSTH16E-CX | 90 | 25 | 43.4 | M3~M12 | - | 1 | ER16 | 4.46 |
| SBT50xSTH20E-CX | 90 | 35 | 43.4 | M3~M17 | - | 1 | ER20 | - |
| SBT50xSTH32E-CX | 105 | 40 | 60 | M10~M24 | - | 1 | ER32 | 4.90 |

HSK

| 規格 Spec. | l ₁ | l ₂ | D | 攻牙能力 Capacity | 伸縮長度 Length Comp | | 螺帽 Nut | 重量 (KGS) Weight |
|------------------|----------------|----------------|------|---------------|------------------|------------|--------|-----------------|
| | | | | | 縮 (-) Comp | 伸 (+) Tens | | |
| HSK63A-STH20-CX | 65 | 35 | 43.4 | M3~M17 | - | 1 | ER20 | |
| HSK63A-STH32-CX | 97 | 40 | 43.4 | M10~M24 | - | 1 | ER32 | |
| HSK100A-STH20-CX | 81 | 35 | 43.4 | M3~M17 | - | 1 | ER20 | |
| HSK100A-STH32-CX | 96 | 40 | 43.4 | M10~M24 | - | 1 | ER32 | |

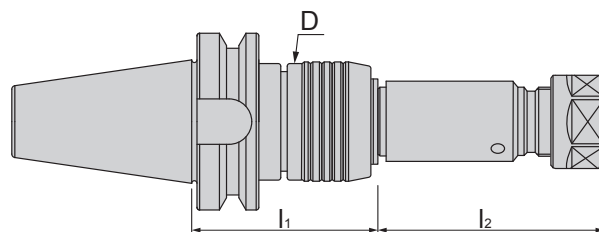
選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B604 | B634 | B650 |



• 長度單位 Unit of Length (mm)

TAP



特點 Feature

- 有效消除背隙與過大扭力
- 提升攻牙質量
- 延長絲錐壽命
- 無中心出水

- Effectively eliminate backlash and excessive torque.
- Increasing tapping quality
- Extend tap life.
- Without coolant hole.

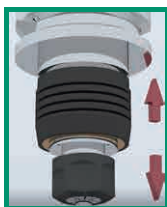
BT

| 規格 Spec. | l ₁ | l ₂ | D | 攻牙能力 Capacity | 伸縮長度 Length Comp | | 螺帽 Nut | 重量 (KGS) Weight |
|-------------------|----------------|----------------|------|---------------|------------------|------------|--------|-----------------|
| | | | | | 縮 (-) Comp | 伸 (+) Tens | | |
| BT30xSTH16E-70-CX | 70 | 70 | 43.4 | M3~M12 | - | 1 | ER16 | - |
| BT30xSTH20E-70-CX | 70 | 70 | 43.4 | M3~M17 | - | 1 | ER20 | - |
| BT40xSTH16E-70-CX | 75 | 70 | 43.4 | M3~M12 | - | 1 | ER16 | - |
| BT40xSTH20E-70-CX | 75 | 70 | 43.4 | M3~M17 | - | 1 | ER20 | - |
| BT40xSTH32E-70-CX | 95 | 70 | 43.4 | M10~M24 | - | 1 | ER32 | - |
| BT50xSTH16E-70-CX | 90 | 70 | 43.4 | M3~M12 | - | 1 | ER16 | - |
| BT50xSTH20E-70-CX | 90 | 70 | 43.4 | M3~M17 | - | 1 | ER20 | - |
| BT50xSTH32E-70-CX | 105 | 70 | 60 | M10~M24 | - | 1 | ER32 | - |

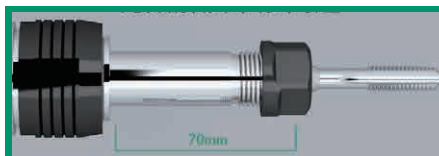
SBT

| 規格 Spec. | l ₁ | l ₂ | D | 攻牙能力 Capacity | 伸縮長度 Length Comp | | 螺帽 Nut | 重量 (KGS) Weight |
|--------------------|----------------|----------------|------|---------------|------------------|------------|--------|-----------------|
| | | | | | 縮 (-) Comp | 伸 (+) Tens | | |
| SBT30xSTH16E-70-CX | 70 | 70 | 43.4 | M3~M12 | - | 1 | ER16 | - |
| SBT30xSTH20E-70-CX | 70 | 70 | 43.4 | M3~M17 | - | 1 | ER20 | - |
| SBT40xSTH16E-70-CX | 75 | 70 | 43.4 | M3~M12 | - | 1 | ER16 | - |
| SBT40xSTH20E-70-CX | 75 | 70 | 43.4 | M3~M17 | - | 1 | ER20 | - |
| SBT40xSTH32E-70-CX | 95 | 70 | 43.4 | M10~M24 | - | 1 | ER32 | - |
| SBT50xSTH16E-70-CX | 90 | 70 | 43.4 | M3~M12 | - | 1 | ER16 | - |
| SBT50xSTH20E-70-CX | 90 | 70 | 43.4 | M3~M17 | - | 1 | ER20 | - |
| SBT50xSTH32E-70-CX | 105 | 70 | 60 | M10~M24 | - | 1 | ER32 | - |

範例 Example



- 同步補償，提升 100% 壽命
- Synchronized Compensator Expands Tool Life and Provides the Perfect Effect of Usage.



- 替換夾頭柄，有效解決干涉問題
- Quick Change Collet Solve the Problem of Interference.

選配表 Option

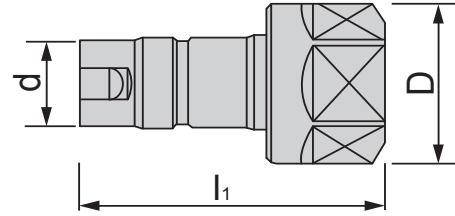
| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B604 | B634 | B650 |



• 長度單位 Unit of Length (mm)

STH-ER 替換夾頭柄

STH-ER EXCHANGE QUICK CHANGE TAPPING CHUCK



| 規格 Spec. | l_1 | D | d | 攻牙能力 Capacity | 重量 (KGS) Weight |
|-------------|-------|----|----|------------------|-----------------------|
| STH-ER16 | 47 | 28 | 20 | M3~M12 | 0.10 |
| STH-ER16-70 | 93 | 28 | 20 | M3~M12 | 0.24 |
| STH-ER20 | 57 | 34 | 20 | M3~M17 | 0.14 |
| STH-ER20-70 | 93 | 34 | 20 | M3~M17 | 0.28 |
| STH-ER32 | 78 | 50 | 32 | M10~M24 | 0.44 |
| STH-ER32-70 | 103 | 50 | 32 | M10~M24 | 0.63 |



同步補償剛性攻牙器
Synchro tapping holder



替換夾頭柄
Quick change collet

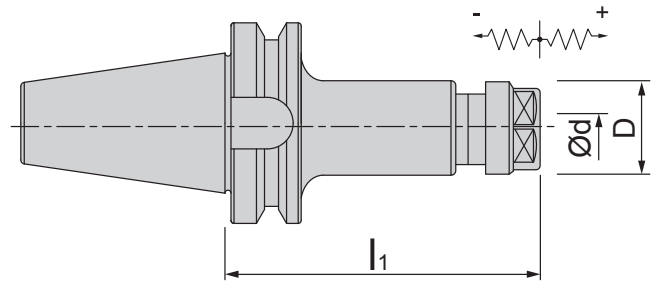


剛性攻牙筒夾
Rigid tap collet



絲攻
Tap

TAP



| 規格 Spec. | l ₁ | D | Ød 夾持範圍 Clamp Range | 攻牙能力 Capacity | 伸縮長度 Length Comp | | 筒夾 Collet | 重量 (KGS) Weight |
|----------------|----------------|----|------------------------|------------------|------------------|---------------|--------------|-----------------------|
| | | | | | 縮 (-) Comp | 伸 (+) Tens | | |
| BT30xTPL16-80 | 80 | 28 | Ø0.5~Ø10.0 | M3~M12 | 3 | 8 | ER16 | - |
| BT30xTPL20-80 | 80 | 34 | Ø1.0~Ø13.0 | M3~M17 | 3 | 8 | ER20 | 0.66 |
| BT40xTPL16-80 | 80 | 28 | Ø0.5~Ø10.0 | M3~M12 | 3 | 8 | ER16 | - |
| BT40xTPL20-80 | 80 | 34 | Ø1.0~Ø13.0 | M3~M17 | 3 | 8 | ER20 | 1.24 |
| BT40xTPL32-100 | 100 | 50 | Ø2.0~Ø20.0 | M3~M27 | 3 | 10 | ER32 | - |
| BT50xTPL16-100 | 100 | 28 | Ø0.5~Ø10.0 | M3~M10 | 3 | 8 | ER16 | - |
| BT50xTPL20-100 | 100 | 34 | Ø1.0~Ø13.0 | M3~M12 | 3 | 8 | ER20 | - |
| BT50xTPL32-100 | 100 | 50 | Ø2.0~Ø20.0 | M3~M27 | 3 | 10 | ER32 | - |

範例 Example



攻牙刀桿
Tapping Holder



剛性攻牙筒夾
Rigid Tap Collet



絲攻
Tap

TAP

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B604 | B634 | B650 |

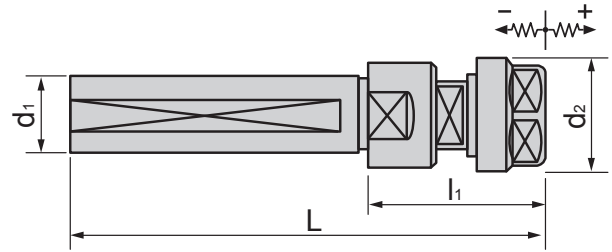
• 長度單位 Unit of Length (mm)



TPL 實用型直柄伸縮攻牙器

TPL PRACTICAL STRAIGHT SHANK TAPPER

LEMMA



特點 Feature

- 穩定性高

- High stability.

| 規格 Spec. | L | l ₁ | d ₁ | d ₂ | 筒夾 Collet | 攻牙能力 Capacity | 伸縮量 Stretch Size | | 重量 (KGS) Weight |
|----------|-----|----------------|----------------|----------------|-----------|---------------|------------------|---------------|-----------------|
| | | | | | | | 伸 (+) elongation | 縮 (-) shorten | |
| TPL-20 | 125 | 45 | 20 | 34 | ER20 | M3~M17 | 8mm | 3mm | 0.36 |
| TPL-32 | 145 | 65 | 32 | 50 | ER32 | M3~M27 | 10mm | 5mm | 1.32 |



TPL 止縮套環

TPL RETREATING FREE RING



Fig.1

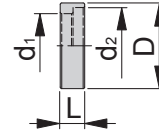
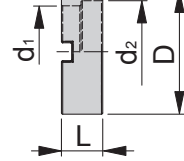


Fig.2



特點 Feature

- 防止 TPL 攻牙器往內縮

- Prevent TPL tapper from retreating back.

| 規格 Spec. | L | D | d ₁ | d ₂ | Fig. | 重量 (KGS) Weight |
|----------|----|----|----------------|----------------|------|-----------------|
| TPL-20-R | 8 | 28 | 21 | 25 | 1 | 0.01 |
| TPL-32-R | 16 | 49 | 36 | 40 | 2 | 0.01 |

範例 Example

TPL-20 實用型直柄伸縮攻牙器
TPL-20 Practical Straight Shank tapper



TPL-32 實用型直柄伸縮攻牙器
TPL-32 Practical Straight Shank tapper



TPL-20-R 止縮套環
TPL-20-R Retreating Free Ring

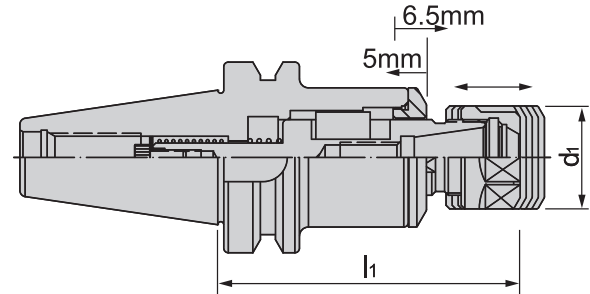
TPL-32-R 止縮套環
TPL-32-R Retreating Free Ring

選配表 Option

| 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|-----------|--------|------------|
| | | |
| B604 | B634 | B650 |

• 長度單位 Unit of Length (mm)

TAP



特點 Feature

- 用伸長 6.5mm · 收縮 5mm
- 可搭配剛性攻牙套筒 · 搭配效果大增

- Elongates 6.5mm, contracts 5mm.
- Used along with rigid tap for better result.

| 規格 Spec. | l ₁ | d ₁ | 使用筒夾 Collet | 攻牙能力 Capacity | 重量 (KGS) Weight |
|-------------------|----------------|----------------|-------------|---------------|-----------------|
| BT30 x ETP16A-75 | 75 | 28 | ER16 | M3-M10 | 0.55 |
| BT30 x ETP16A-90 | 90 | 28 | ER16 | M3-M10 | 0.60 |
| BT30 x ETP20A-75 | 75 | 34 | ER20 | M3-M17 | 0.58 |
| BT30 x ETP20A-90 | 90 | 34 | ER20 | M3-M17 | 0.62 |
| BT40 x ETP16A-120 | 120 | 28 | ER16 | M3-M10 | 1.65 |
| BT40 x ETP16A-150 | 150 | 28 | ER16 | M3-M10 | 1.85 |
| BT40 x ETP20A-100 | 100 | 34 | ER20 | M3-M17 | 1.65 |
| BT40 x ETP20A-150 | 150 | 34 | ER20 | M3-M17 | 1.90 |
| BT40 x ETP20M-200 | 200 | 28 | ER20 | M3-M17 | 2.15 |
| BT40 x ETP32 -125 | 125 | 50 | ER32 | M3-M27 | 2.10 |
| BT50 x ETP16A-120 | 120 | 28 | ER16 | M3-M10 | 4.30 |
| BT50 x ETP16A-150 | 150 | 28 | ER16 | M3-M10 | 4.50 |
| BT50 x ETP20A-100 | 100 | 34 | ER20 | M3-M17 | 4.30 |
| BT50 x ETP20A-150 | 150 | 34 | ER20 | M3-M17 | 4.60 |
| BT50 x ETP20M-200 | 200 | 28 | ER20 | M3-M17 | 4.70 |
| BT50 x ETP32 -125 | 125 | 50 | ER32 | M3-M27 | 4.65 |

TAP

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|--------------|-----------|--------|------------|
| | | | |
| B645-B647 | B604 | B634 | B650 |

• 長度單位 Unit of Length (mm)



Fig.1

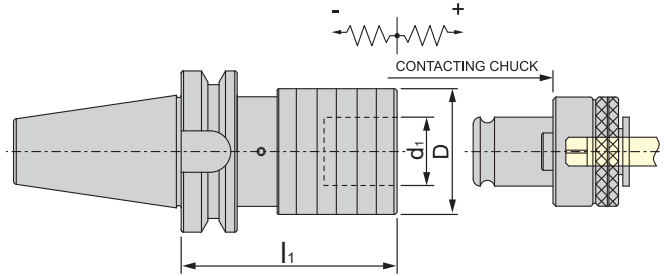
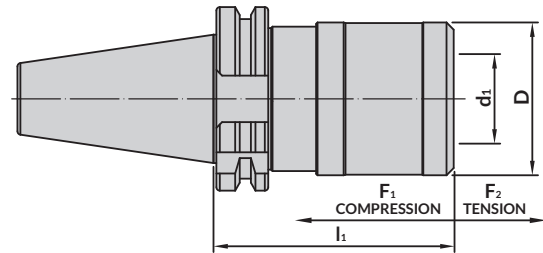


Fig.2



| 規格 Spec. | 攻牙能力 Capacity | 絲攻夾頭形式 Tapper Collet Chuck Type | 伸縮長度 Length Comp | | D | d ₁ | l ₁ | Fig | 重量 (KGS) Weight |
|----------------|------------------|---------------------------------------|---------------------|---------------|----|----------------|----------------|-----|-----------------------|
| | | | 縮 (-) Comp | 伸 (+) Tens | | | | | |
| BT30x312-68 | M3~M14 | TCS-1B | 7.5 | 7.5 | 36 | 19 | 68 | 1 | 0.64 |
| BT40x312-73 | M3~M14 | TCS-1B | 7.5 | 7.5 | 36 | 19 | 73 | 1 | 1.25 |
| BT40x312-135 | M3~M14 | TCS-1B | 15 | 20 | 46 | 19 | 135 | 1 | 2.00 |
| BT40x822-94 | M8~M24 | TCS-2B | 12.5 | 12.5 | 53 | 31 | 94 | 1 | 1.74 |
| BT40x822-165 | M8~M24 | TCS-2B | 15 | 20 | 58 | 31 | 165 | 1 | 3.94 |
| BT40x1638-157 | M14~M36 | TCS-3B | 20 | 20 | 78 | 48 | 157 | 1 | 3.89 |
| BT50x312-84 | M3~M14 | TCS-1B | 7.5 | 7.5 | 36 | 19 | 84 | 1 | 4.00 |
| BT50x312-135 | M3~M14 | TCS-1B | 15 | 20 | 46 | 19 | 135 | 1 | 4.48 |
| BT50x822-103 | M8~M24 | TCS-2B | 12.5 | 12.5 | 53 | 31 | 103 | 1 | 4.50 |
| BT50x822-165 | M8~M24 | TCS-2B | 15 | 15 | 58 | 31 | 165 | 1 | 6.45 |
| BT50x1638-142 | M14~M36 | TCS-3B | 20 | 20 | 78 | 48 | 142 | 1 | 6.06 |
| BT50x1638-200 | M14~M36 | TCS-3B | 20 | 20 | 75 | 48 | 200 | 1 | 7.27 |
| DAT40x312-64 | M3~M14 | TCS-1B | 7.5 | 7.5 | 36 | 19 | 64 | 2 | 1.25 |
| DAT40x822-84 | M8~M24 | TCS-2B | 12.5 | 12.5 | 53 | 31 | 84 | 2 | 1.74 |
| DAT50x312-68 | M3~M14 | TCS-1B | 7.5 | 7.5 | 36 | 19 | 68 | 2 | 4.00 |
| DAT50x822-82 | M8~M24 | TCS-2B | 12.5 | 12.5 | 53 | 31 | 82 | 2 | 4.50 |
| DAT50x1638-122 | M14~M36 | TCS-3B | 20 | 20 | 78 | 48 | 122 | 2 | 6.06 |

TAP

選配表 Option

| 拉頭 Pull Stud | 筒夾 Collet |
|--------------|-----------|
| | |
| B645-B647 | B604 |

• 長度單位 Unit of Length (mm)



快換式攻牙刀桿 - 剛性 QUICK CHANGE TAPPING CHUCK



Fig.1

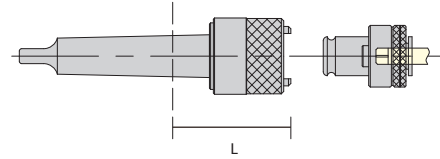
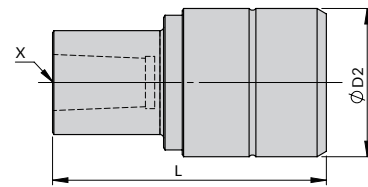


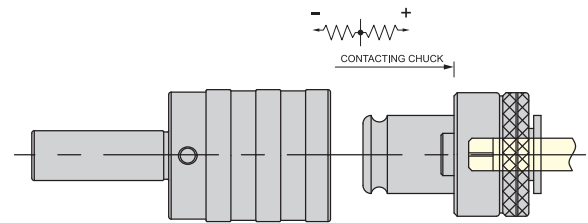
Fig.2



| 規格 Spec. | 攻牙能力 Capacity | 使用筒夾 Collet | L | Fig. | 重量 (KGS) Weight |
|-------------|------------------|----------------|----|------|-----------------------|
| MT2-SF12 | M3 ~ M14 | TCS - 1B | 46 | 1 | 0.20 |
| JT6-SF12 | M3 ~ M14 | TCS - 1B | 62 | 1 | 0.29 |
| MT3-SF20 | M8 ~ M22 | TCS - 2B | 70 | 2 | 0.70 |



伸縮攻牙器 (鑽床專用) QUICK CHANGE TAPPING CHUCK FOR DRILLING MACHINE



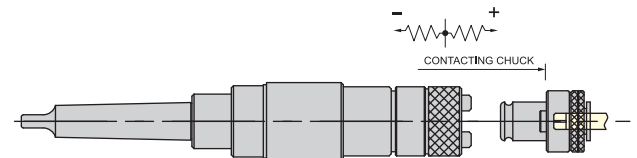
LEMMA

| 規格 Spec. | 攻牙能力 Capacity | 使用筒夾 Collet | 重量 (KGS) Weight |
|-------------|-----------------------------------|----------------|-----------------------|
| ST20-WF12 | M3~M12 U1/8~U7/16 P1/8~P1/4 | TCS-1B | 0.62 |



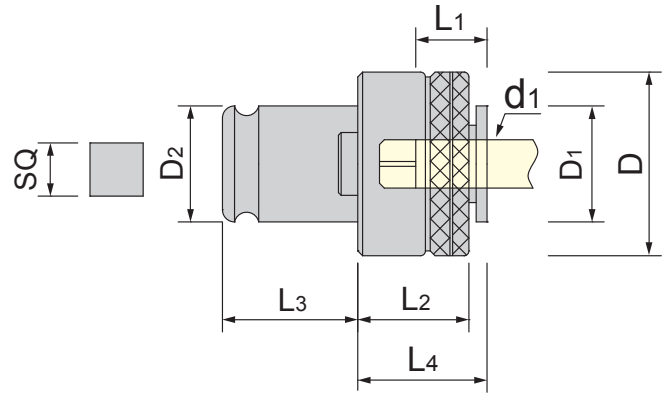
軸向伸縮攻牙器 QUICK CHANGE TAPPING CHUCK

TAP



| 規格 Spec. | 攻牙能力 Capacity | 使用筒夾 Collet | 重量 (KGS) Weight |
|----------------|------------------|----------------|-----------------------|
| THL-140 x MT 2 | M3 ~ M14 | TCS - 1B | 0.6 |
| THL-140 x JT 6 | M3 ~ M14 | TCS - 1B | 0.5 |
| THL-240 x MT 3 | M8 ~ M22 | TCS - 2B | 1.7 |

• 長度單位 Unit of Length (mm)



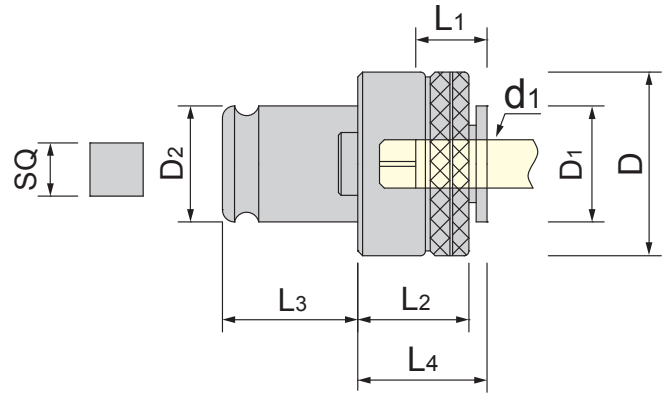
※ 訂購前請先確認 d_1 及 SQ 尺寸 Before ordering, please make sure the size of d_1 and SQ .

| 規格 Spec. | d_1 | SQ | 適用規範 Standard | | D | D_1 | D_2 | L_1 | L_2 | L_3 | L_4 | 重量 (KGS) Weight |
|----------------|-------|------|------------------|-------------|--------|-------|-------|-------|-------|-------|-------|-----------------------|
| TCS1B-2.5-2 | 2.5 | 2 | M1.M2 | ISO529 | 32 | 19 | 19 | 17 | 25 | 21.5 | 25 | 0.18 |
| TCS1B-3-2.5 | 3 | 2.5 | M3.5 | ISO529/2283 | | | | | | | | |
| TCS1B-3.15-2.5 | 3.15 | | M2 | JIS | | | | | | | | |
| TCS1B-3.15-2.5 | 3.15 | 2.5 | M3 | ISO529 | | | | | | | | |
| | | | M4 | ISO529/2283 | | | | | | | | |
| TCS1B-3.5-2.7 | 3.5 | 2.7 | M3 | DIN371 | | | | | | | | |
| | | | M4.5.M5 | DIN376 | | | | | | | | |
| TCS1B-4-3.15 | 4 | 3.15 | M4 | ISO529 | | | | | | | | |
| TCS1B-4-3.2 | 4 | 3.2 | M5 | ISO529/2283 | | | | | | | | |
| | | | M3 | JIS | | | | | | | | |
| TCS1B-4.5-3.4 | 4.5 | 3.4 | M4 | DIN371 | | | | | | | | |
| TCS1B-4.5-3.55 | | 3.55 | M6 | DIN376 | | | | | | | | |
| TCS1B-5-4 | 5 | 4 | M4.5 | ISO529 | | | | | | | | |
| | | | M6 | ISO529/2283 | | | | | | | | |
| TCS1B-5-4 | 5 | 4 | M4.M4.5 | JIS | | | | | | | | |
| TCS1B-5.5-4.5 | 5.5 | 4.5 | M5 | ISO529 | | | | | | | | |
| TCS1B-6-4.5 | 6 | | M6 | JIS | | | | | | | | |
| TCS1B-6-4.9 | 6 | 4.9 | M4.5.M5.M6 | DIN371 | | | | | | | | |
| TCS1B-6.1-5 | 6.1 | 5 | M8 | DIN376 | | | | | | | | |
| | | | M8.M7 | JIS | | | | | | | | |
| TCS1B-6.2-5 | 6.2 | 5 | M6 | ISO529 | | | | | | | | |
| TCS1B-6.3-5 | 6.3 | | M8 | ISO529/2283 | | | | | | | | |
| TCS1B-7-5.5 | 7 | 5.5 | M10.M9 | JIS | | | | | | | | |
| | | | UNC3/8 | JIS | | | | | | | | |
| | | | M10 | DIN376 | | | | | | | | |
| TCS1B-8-6 | 8 | 6 | M11 | JIS | | | | | | | | |
| UNC7/16 | | | JIS | | | | | | | | | |
| PT1/8 | | JIS | | | | | | | | | | |
| TCS1B-8-6.2 | | | 6.2 | M8 | | | | | | | | |
| TCS1B-8-6.3 | 6.3 | 6.3 | M8 | ISO529 | | | | | | | | |
| | | | M10 | ISO529/2283 | | | | | | | | |
| TCS1B-8.5-6.5 | 8.5 | 6.5 | M12 | JIS | | | | | | | | |
| TCS1B-9-7 | 9 | 7 | UNC1/2 | JIS | | | | | | | | |
| | | | M12 | DIN376 | | | | | | | | |
| TCS1B-9-7.1 | 7.1 | 7.1 | M9 | ISO529 | | | | | | | | |
| | | | M12 | ISO529/2283 | | | | | | | | |
| TCS1B-10-8 | 10 | 8 | M10 | DIN371 | | | | | | | | |
| | | | M10 | ISO529 | | | | | | | | |
| TCS1B-10.5-8 | 10.5 | 8 | M14.M15 | JIS | | | | | | | | |
| | | | UNC9/16 | | JIS | | | | | | | |
| TCS1B-11-9 | 11 | 9 | M14 | DIN376 | | | | | | | | |
| | | | PT1/4 | | DIN376 | | | | | | | |
| TCS1B-11.2-9 | 11.2 | 9 | M14 | ISO529/2283 | | | | | | | | |

• 長度單位 Unit of Length (mm)

TAP

TSC-2B

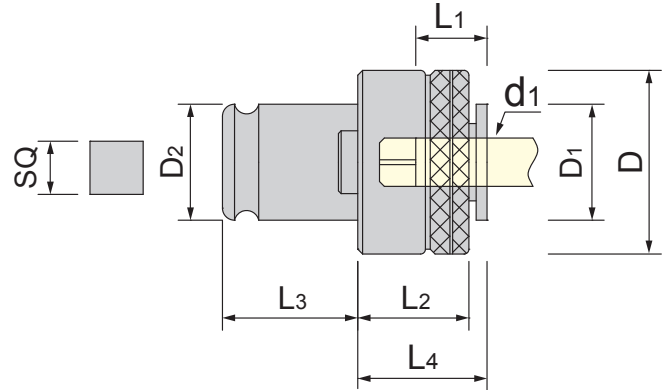


※ 訂購前請先確認 d₁ 及 SQ 尺寸 Before ordering, please make sure the size of d₁ and SQ.

| 規格 Spec. | d ₁ | SQ | 適用規範 Standard | D | D ₁ | D ₂ | L ₁ | L ₂ | L ₃ | L ₄ | 重量 (KGS) Weight | |
|---------------|----------------|------|---------------|-------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|------|
| TCS2B-6-4.5 | 6 | 4.5 | M6 | JIS | 50 | 30 | 31 | 30 | 31 | 35.5 | 33 | 0.55 |
| TCS2B-6-4.9 | | | UNC1/4 | | | | | | | | | |
| TCS2B-6-4.9 | 6.2 | 4.9 | M4.5.M5.M6 | DIN371 | | | | | | | | |
| TCS2B-6-2.5 | | | M8 | DIN376 | | | | | | | | |
| TCS2B-6-3-5 | 6.3 | 5 | M8.M7 | JIS | | | | | | | | |
| TCS2B-6-3-5 | | | M6 | ISO529 | | | | | | | | |
| TCS2B-7-5.5 | 7 | 5.5 | M8 | ISO529/2283 | | | | | | | | |
| TCS2B-8-6 | | | M10.M9 | JIS | | | | | | | | |
| TCS2B-8-6.2 | | | UNC3/8 | DIN376 | | | | | | | | |
| TCS2B-8-6.3 | 8 | 6 | M10 | JIS | | | | | | | | |
| TCS2B-8-6.3 | | | M11 | | | | | | | | | |
| TCS2B-8-5-6.5 | | | UNC7/16 | | | | | | | | | |
| TCS2B-8-6.3 | | | PT1/8 | | | | | | | | | |
| TCS2B-8-5-6.5 | 8.5 | 6.5 | M8 | DIN371 | | | | | | | | |
| TCS2B-9-7 | | | M8 | ISO529 | | | | | | | | |
| TCS2B-9-7.1 | 9 | 7 | M10 | ISO529/2283 | | | | | | | | |
| TCS2B-10-8 | | | M12 | JIS | | | | | | | | |
| TCS2B-10-5-8 | | | UNC1/2 | DIN376 | | | | | | | | |
| TCS2B-11-9 | 11 | 9 | M9 | ISO529 | | | | | | | | |
| TCS2B-11.2-9 | | | M12 | ISO529/2283 | | | | | | | | |
| TCS2B-12-9 | 12 | 10 | M12 | JIS | | | | | | | | |
| TCS2B-12-5-10 | | | M10 | DIN371 | | | | | | | | |
| TCS2B-14-11 | | | ISO529 | | | | | | | | | |
| TCS2B-14-11 | 14 | 11 | M14 | DIN376 | | | | | | | | |
| TCS2B-14-11.2 | | | PT1/4 | JIS | | | | | | | | |
| TCS2B-15-12 | | | M14 | ISO529/2283 | | | | | | | | |
| TCS2B-16-12 | 16 | 12 | UNC5/8 | JIS | | | | | | | | |
| TCS2B-16-12.5 | | | DIN376 | | | | | | | | | |
| TCS2B-17-13 | 17 | 13 | M16 | JIS | | | | | | | | |
| TCS2B-18-14 | | | ISO529/2283 | | | | | | | | | |
| TCS2B-18-14.5 | 18 | 14 | M18 | JIS | | | | | | | | |
| TCS2B-19-15 | | | UNC3/4 | DIN376 | | | | | | | | |
| TCS2B-18-14.5 | 19 | 15 | PT3/8 | JIS | | | | | | | | |
| TCS2B-19-15 | | | M18 | ISO529/2283 | | | | | | | | |
| TCS2B-18-14.5 | 18 | 14.5 | M18.M20 | ISO529/2283 | | | | | | | | |
| TCS2B-19-15 | | | M20 | DIN376 | | | | | | | | |
| TCS2B-18-14.5 | 18 | 14.5 | M22 | ISO529/2283 | | | | | | | | |
| TCS2B-19-15 | | | UNC7/8 | JIS | | | | | | | | |
| TCS2B-18-14.5 | 18 | 14.5 | M24 | ISO529/2283 | | | | | | | | |
| TCS2B-19-15 | | | PT1/2 | JIS | | | | | | | | |
| TCS2B-18-14.5 | 18 | 14.5 | M22.M24 | DIN376 | | | | | | | | |
| TCS2B-19-15 | | | M24.M25 | JIS | | | | | | | | |

• 長度單位 Unit of Length (mm)










TAP



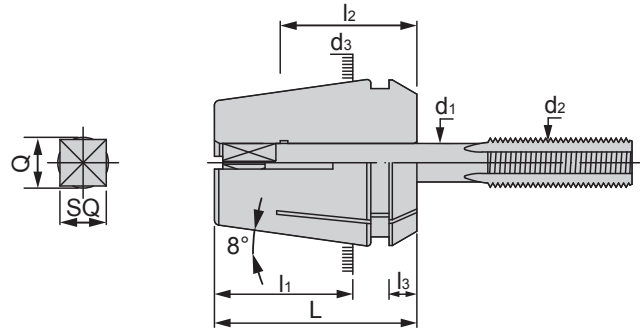
※ 訂購前請先確認 d_1 及 SQ 尺寸 Before ordering, please make sure the size of d_1 and SQ.

| 規格 Spec. | d_1 | SQ | 適用規範 Standard | | D | D_1 | D_2 | L_1 | L_2 | L_3 | L_4 | 重量 (KGS) Weight |
|---------------|-------|------|--------------------|-------------|----|-------|-------|-------|-------|-------|-------|-----------------|
| TCS3B-10.5-8 | 10.5 | 8 | M14.M15 UNC9/16 | JIS | 72 | 47 | 48 | 44 | 41 | 55.5 | 45 | 1.58 |
| TCS3B-11-9 | 11 | 9 | M14 | DIN376 | | | | | | | | |
| TCS3B-11.2-9 | 11.2 | | PT1/4 | JIS | | | | | | | | |
| TCS3B-12-9 | 12 | | M14 | ISO529/2283 | | | | | | | | |
| TCS3B-12.5-10 | 12.5 | 10 | UNC5/8 | JIS | | | | | | | | |
| TCS3B-14-11 | 14 | 11 | M16 | DIN376 | | | | | | | | |
| TCS3B-14-11.2 | | | JIS | | | | | | | | | |
| TCS3B-15-12 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-16-12 | 15 | 12 | M18 | JIS | | | | | | | | |
| TCS3B-16-12.5 | 16 | 12.5 | UNC3/4 | DIN376 | | | | | | | | |
| TCS3B-17-13 | 17 | 13 | PT3/8 | ISO529/2283 | | | | | | | | |
| TCS3B-18-14 | 18 | 14 | M18 | JIS | | | | | | | | |
| TCS3B-18-14.5 | | | DIN376 | | | | | | | | | |
| TCS3B-19-15 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-20-15 | 20 | 15 | M20 | JIS | | | | | | | | |
| TCS3B-21-17 | | | DIN376 | | | | | | | | | |
| TCS3B-22-18 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-22.4-18 | 22.4 | 18 | M22 | JIS | | | | | | | | |
| TCS3B-23-17 | 23 | 17 | UNC7/8 | DIN376 | | | | | | | | |
| TCS3B-24-19 | | | JIS | | | | | | | | | |
| TCS3B-25-19 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-25-20 | 25 | 20 | M24 | JIS | | | | | | | | |
| TCS3B-26-21 | | | DIN376 | | | | | | | | | |
| TCS3B-28-21 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-28-22 | 28 | 22 | M24.M25 | JIS | | | | | | | | |
| TCS3B-22.4-18 | | | DIN376 | | | | | | | | | |
| TCS3B-23-17 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-24-19 | 24 | 19 | M27.M26 | JIS | | | | | | | | |
| TCS3B-25-19 | | | DIN376 | | | | | | | | | |
| TCS3B-25-20 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-26-21 | 26 | 21 | UNC1 | JIS | | | | | | | | |
| TCS3B-28-21 | | | DIN376 | | | | | | | | | |
| TCS3B-28-22 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-28-21 | 28 | 22 | M27 | JIS | | | | | | | | |
| TCS3B-22.4-18 | | | DIN376 | | | | | | | | | |
| TCS3B-23-17 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-24-19 | 24 | 19 | M27.M30 | JIS | | | | | | | | |
| TCS3B-25-19 | | | DIN376 | | | | | | | | | |
| TCS3B-25-20 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-26-21 | 26 | 21 | M28 | JIS | | | | | | | | |
| TCS3B-28-21 | | | DIN376 | | | | | | | | | |
| TCS3B-28-22 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-28-21 | 28 | 22 | M30 | JIS | | | | | | | | |
| TCS3B-22.4-18 | | | DIN376 | | | | | | | | | |
| TCS3B-23-17 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-24-19 | 24 | 19 | M30 | JIS | | | | | | | | |
| TCS3B-25-19 | | | DIN376 | | | | | | | | | |
| TCS3B-25-20 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-26-21 | 26 | 21 | M32 | JIS | | | | | | | | |
| TCS3B-28-21 | | | DIN376 | | | | | | | | | |
| TCS3B-28-22 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-28-21 | 28 | 22 | UNC1-1/4 | JIS | | | | | | | | |
| TCS3B-22.4-18 | | | DIN376 | | | | | | | | | |
| TCS3B-23-17 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-24-19 | 24 | 19 | M33 | JIS | | | | | | | | |
| TCS3B-25-19 | | | DIN376 | | | | | | | | | |
| TCS3B-25-20 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-26-21 | 26 | 21 | M33 | JIS | | | | | | | | |
| TCS3B-28-21 | | | DIN376 | | | | | | | | | |
| TCS3B-28-22 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-28-21 | 28 | 22 | M35.M34 | JIS | | | | | | | | |
| TCS3B-22.4-18 | | | DIN376 | | | | | | | | | |
| TCS3B-23-17 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-24-19 | 24 | 19 | UNC1-3/8 | JIS | | | | | | | | |
| TCS3B-25-19 | | | DIN376 | | | | | | | | | |
| TCS3B-25-20 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-26-21 | 26 | 21 | PT1 | JIS | | | | | | | | |
| TCS3B-28-21 | | | DIN376 | | | | | | | | | |
| TCS3B-28-22 | | | ISO529/2283 | | | | | | | | | |
| TCS3B-28-21 | 28 | 22 | M36 | JIS | | | | | | | | |
| TCS3B-22.4-18 | | | DIN376 | | | | | | | | | |
| TCS3B-23-17 | | | ISO529/2283 | | | | | | | | | |

TAP

| 規格 Spec. | 功能 Features | 尺寸範圍 Ø Size Range (mm) | 夾持範圍 Clamp Range (mm) | | |
|---|----------------|---------------------------|----------------------------|------|------|
| | | | 0.5 mm | 1 mm | 2 mm |
|  ER 彈性筒夾 ER COLLET | ER8 | 1~5 | V | | |
| | ER11 | 1~7 | V | | |
| | ER16 | 1~10 | ($\varnothing \leq 2.5$) | V | |
| | ER20 | 1~13 | ($\varnothing \leq 2.5$) | V | |
| | ER25 | 2~16 | ($\varnothing \leq 2.5$) | V | |
| | ER32 | 2~20 | ($\varnothing \leq 2.5$) | V | |
| | ER40 | 3~26 | | V | |
|  ER 彈性筒夾 (A 級) ER COLLET (A GRADE) | ER8 | 1~5 | V | | |
| | ER11 | 1~7 | V | | |
| | ER16 | 1~10 | ($\varnothing \leq 2.5$) | V | |
| | ER20 | 1~13 | ($\varnothing \leq 2.5$) | V | |
| | ER25 | 2~16 | ($\varnothing \leq 2.5$) | V | |
| | ER32 | 2~20 | ($\varnothing \leq 2.5$) | V | |
| | ER40 | 3~26 | | V | |
|  ER 彈性筒夾 (UP 級) ER COLLET (UP GRADE) | ER8 | 1~5 | V | | |
| | ER11 | 1~7 | V | | |
| | ER16 | 1~10 | ($\varnothing \leq 2.5$) | V | |
| | ER20 | 1~13 | ($\varnothing \leq 2.5$) | V | |
| | ER25 | 2~16 | ($\varnothing \leq 2.5$) | V | |
| | ER32 | 2~20 | ($\varnothing \leq 2.5$) | V | |
| | ER40 | 3~26 | | V | |
|  ER-FID 出水筒夾 ER-FID COOLANT COLLET | ER16-FID | 3~9 | | | |
| | ER20-FID | 3~12 | | | |
| | ER25-FID | 3~16 | - | - | - |
| | ER32-FID | 3~20 | | | |
| | ER40-FID | 4~26 | | | |
|  ER-FOD 出水筒夾 ER-FOD COOLANT COLLET | ER16-FOD | 3~7 | | | |
| | ER20-FOD | 3~9 | | | |
| | ER25-FOD | 3~14 | | | |
| | ER32-FOD | 3~20 | | | |
| | ER40-FOD | 4~26 | | | |
| | ER50-FOD | 6~34 | | | |
|  ER-EO 止水筒夾 ER-EO SEALED COLLET | ER11-EO | 3~7 | | | |
| | ER16-EO | 3~10 | | | |
| | ER20-EO | 3~13 | | | |
| | ER25-EO | 3~16 | | | |
| | ER32-EO | 3~20 | | | |
|  ERS 直溝止水筒夾 ERS METALLIC SEALED COLLET | ERS11 | 3~7 | | | |
| | ERS16 | 3~10 | | | |
| | ERS20 | 3~13 | | | |
| | ERS25 | 3~16 | | | |
| | ERS32 | 3~20 | | | |
| | ERS40 | 3~26 | | | |
|  ER 鋼性攻牙筒夾 ER RIGID TAP COLLET | ER16-TP | M3 ~ M12 (2.24~10) | | | |
| | ER20-TP | M3 ~ M17 (2.24~13) | | | |
| | ER25-TP | M3 ~ M22 (2.24~16) | | | |
| | ER32-TP | M3 ~ M27 (2.24~20) | | | |
| | ER40-TP | M3 ~ M27 (2.24~20) | | | |
|  ER 剛性攻牙止水筒夾 RIGID TAP SEALED COLLET | ER-TCO16 | M5 ~ M10 (6~10) | | | |
| | ER-TCO20 | M5 ~ M17 (6~13) | | | |
| | ER-TCO25 | M5 ~ M22 (6~16) | | | |
| | ER-TCO32 | M5 ~ M27 (6~20) | | | |
| | ER-TCO40 | M5 ~ M27 (6~20) | | | |

| 精度 Accuracy (mm) | | | 出水 Coolant | | 止水 Sealed | |
|------------------|-----------|-----------|------------------------|-------------------------------|----------------------------|----------------------|
| ≤ 0.005 mm | ≤ 0.01 mm | ≤ 0.02 mm | 溝槽出水 Coolant Groove | 端面出水 Coolant-thru End-face | O-ring 止水 O-ring Sealed | 斜槽止水 Steel Sealed |
| | | V | - | - | - | - |
| | V | | - | - | - | - |
| V | | | - | - | - | - |
| | V | | V | | | |
| | V | | | V | | |
| | | V | V | | V | |
| | | V | | | | V |
| - | - | - | - | - | - | - |
| - | - | - | | | | V |



- 材質 :SUJ-2
- 斜度 :8°
- 硬度 :HRC46°
- 表面粗糙度 RZ2.5 以內

- Steel:SUJ - 2
- Taper:8°
- Hardness: HRC46°
- Surface Roughness:RZ 2.5

特點 Feature

- 利用溝槽的差異，有效而穩固地夾住螺絲攻，決不打滑！專利在案
- 適合切削中心機的剛性攻牙加工，或是其他攻牙機械
- 當訂 JIS、DIN、ISO 或其他尺寸，訂購前請校對四角孔需核對 SQ，而圓孔則需對 d1
- 可降低使用攻牙器的成本

- Differences in the use of the trench, effectively and securely grip the screw attack, never slipping! Patents documented.
- Suitable for machining center's rigid tapping or other mechanical.
- When set JIS, DIN, ISO or other sizes, please proofread before ordering: four bye corners should match Kong SQ, and holes should matchh d1.
- Can reduce the cost of using tapper.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | d ₁ 範圍 Range | d ₃ | 攻牙能力 Capacity | 重量 (KGS) Weight |
|----------|------|----------------|----------------|----------------|-------------------------|----------------|---------------|-----------------|
| ER16-TP | 27.5 | 17.5 | 18 | 4.0 | 1~7 | 16 | M3~M12 | 0.02 |
| | 27.5 | 17.5 | 22 | 4.0 | 8~10 | 16 | M3~M12 | 0.02 |
| ER20-TP | 31.5 | 20.7 | 18 | 4.8 | 1~7 | 20 | M3~M17 | 0.04 |
| | 31.5 | 20.7 | 22 | 4.8 | 8~10 | 20 | M3~M17 | 0.04 |
| | 31.5 | 20.7 | 25 | 4.8 | 10.5~13 | 20 | M3~M17 | 0.04 |
| ER25-TP | 34 | 23 | 18 | 5.0 | 1~7 | 25 | M3~M22 | 0.06 |
| | 34 | 23 | 22 | 5.0 | 8~10 | 25 | M3~M22 | 0.06 |
| | 34 | 23 | 25 | 5.0 | 10.5~16 | 25 | M3~M22 | 0.06 |
| ER32-TP | 40 | 27.34 | 18 | 5.5 | 1~7 | 32 | M3~M27 | 0.14 |
| | 40 | 27.34 | 22 | 5.5 | 8~10 | 32 | M3~M27 | 0.14 |
| | 40 | 27.34 | 25 | 5.5 | 10.5~16 | 32 | M3~M27 | 0.14 |
| | 40 | 27.34 | 28 | 5.5 | 17~20 | 32 | M3~M27 | 0.14 |
| ER40-TP | 46 | 31.4 | 18 | 7 | 1~7 | 40 | M3~M27 | 0.24 |
| | 46 | 31.4 | 22 | 7 | 8~10 | 40 | M3~M27 | 0.24 |
| | 46 | 31.4 | 25 | 7 | 10.5~16 | 40 | M3~M27 | 0.24 |
| | 46 | 31.4 | 28 | 7 | 17~20 | 40 | M3~M27 | 0.24 |

TAP

• 長度單位 Unit of Length (mm)



ER16

| 規格 Spec. | 絲攻柄徑 Shank diameter of taper d ₁ | 使用絲攻範圍 Tapping range d ₂ | |
|-------------|---|---|---|
| ER16-2.24TP | 2.24 | M3 | ISO - 529 |
| ER16-2.5TP | 2.5 | M3.5 M3.5 | DIN - 376 ISO - 529 |
| ER16-2.8TP | 2.8 | M4 | DIN - 376 |
| ER16-3.15TP | 3.15 | M3 M4 | ISO - 529 ISO - 529 |
| ER16-3.5TP | 3.5 | M3 M3 M5 | DIN - 352 DIN - 371 DIN - 376 |
| ER16-3.55TP | 3.55 | M3.5 M4.5 | ISO - 529 ISO - 529 |
| ER16-4TP | 4 | M3 M3.5 M3.5 M4 M5 | JIS DIN - 352 DIN - 371 ISO - 529 ISO - 529 |
| ER16-4.5TP | 4.5 | M4 M4 M6 M6 | DIN - 362 DIN - 371 DIN - 376 ISO - 529 |
| ER16-5TP | 5 | M4 M4.5 M5 | JIS JIS ISO - 529 |
| ER16-5.5TP | 5.5 | M5 M5.5 | JIS JIS |
| ER16-6TP | 6 | M5 M5 M6 M6 M6 M8 M8 | DIN - 352 DIN - 371 JIS DIN - 352 DIN - 371 DIN - 352 DIN - 376 |
| ER16-6.2TP | 6.2 | M7 M8 | JIS JIS |
| ER16-6.3TP | 6.3 | M6 M8 | ISO - 529 ISO - 529 |
| ER16-7TP | 7 | M9 M10 M10 M10 | JIS JIS DIN - 352 DIN - 376 |
| ER16-8TP | 8 | M8 M8 M10 M11 | DIN - 371 ISO - 529 ISO - 529 JIS |
| ER16-8.5TP | 8.5 | M12 | JIS |
| ER16-9TP | 9 | M12 M12 M12 | DIN - 352 DIN - 376 ISO - 529 |
| ER16-10TP | 10 | M10 M10 | DIN - 371 ISO - 529 |

ER20

| 規格 Spec. | 絲攻柄徑 Shank diameter of taper d ₁ | 使用絲攻範圍 Tapping range d ₂ | |
|-------------|---|---|---|
| ER20-2.24TP | 2.24 | M3 | ISO - 529 |
| ER20-2.5TP | 2.5 | M3.5 M3.5 | DIN - 376 DIN - 529 |
| ER20-2.8TP | 2.8 | M4 | DIN - 376 |
| ER20-3.15TP | 3.15 | M3 M4 | ISO - 529 ISO - 529 |
| ER20-3.5TP | 3.5 | M3 M3 M5 | DIN - 352 DIN - 371 DIN - 376 |
| ER20-3.55TP | 3.55 | M3.5 M4.5 | ISO - 529 ISO - 529 |
| ER20-4TP | 4 | M3 M3.5 M3.5 M4 M5 | JIS DIN - 352 DIN - 371 ISO - 529 ISO - 529 |
| ER20-4.5TP | 4.5 | M4 M4 M6 M6 | DIN - 362 DIN - 371 DIN - 376 ISO - 529 |
| ER20-5TP | 5 | M4 M4.5 M5 | JIS JIS ISO - 529 |
| ER20-5.5TP | 5.5 | M5 M5.5 | JIS JIS |
| ER20-6TP | 6 | M5 M5 M6 M6 M6 M8 M8 | DIN - 352 DIN - 371 JIS DIN - 352 DIN - 371 DIN - 352 DIN - 376 |
| ER20-6.2TP | 6.2 | M7 M8 | JIS JIS |
| ER20-6.3TP | 6.3 | M6 M8 | ISO - 529 ISO - 529 |
| ER20-7TP | 7 | M9 M10 M10 M10 | JIS JIS DIN - 352 DIN - 376 |
| ER20-8TP | 8 | M8 M8 M10 M11 | DIN - 371 ISO - 529 ISO - 529 JIS |
| ER20-8.5TP | 8.5 | M12 | JIS |
| ER20-9TP | 9 | M12 M12 M12 | DIN - 352 DIN - 376 ISO - 529 |
| ER20-10TP | 10 | M10 M10 | DIN - 371 ISO - 529 |
| ER20-10.5TP | 10.5 | M14 M15 | JIS JIS |
| ER20-11TP | 11 | M14 M14 | DIN - 352 DIN - 376 |
| ER20-11.2TP | 11.2 | M14 | ISO - 529 |
| ER20-12TP | 12 | M16 M16 | DIN - 352 DIN - 376 |
| ER20-12.5TP | 12.5 | M16 M16 | JIS ISO - 529 |
| ER20-13TP | 13 | M17 | JIS |

TAP



ER25

| 規格 Spec. | 絲攻柄徑 Shank diameter of taper d ₁ | 使用絲攻範圍 Tapping range d ₂ | |
|-------------|---|---|---|
| ER25-2.24TP | 2.24 | M3 | ISO - 529 |
| ER25-2.5TP | 2.5 | M3.5 M3.5 | DIN - 376 ISO - 529 |
| ER25-2.8TP | 2.8 | M4 | DIN - 376 |
| ER25-3.15TP | 3.15 | M3 M4 | ISO - 529 ISO - 529 |
| ER25-3.5TP | 3.5 | M3 M3 M5 | DIN - 352 DIN - 371 DIN - 376 |
| ER25-3.55TP | 3.55 | M3.5 M4.5 | ISO - 529 ISO - 529 |
| ER25-4TP | 4 | M3 M3.5 M3.5 M4 M5 | JIS DIN - 352 DIN - 371 ISO - 529 ISO - 529 |
| ER25-4.5TP | 4.5 | M4 M4 M6 M6 | DIN - 362 DIN - 371 DIN - 376 ISO - 529 |
| ER25-5TP | 5 | M4 M4.5 M5 | JIS JIS ISO - 529 |
| ER25-5.5TP | 5.5 | M5 M5.5 | JIS JIS |
| ER25-6TP | 6 | M5 M5 M6 M6 M6 M8 M8 | DIN - 352 DIN - 371 JIS DIN - 352 DIN - 371 DIN - 352 DIN - 376 |
| ER25-6.2TP | 6.2 | M7 M8 | JIS JIS |
| ER25-6.3TP | 6.3 | M6 M8 | ISO - 529 ISO - 529 |
| ER25-7TP | 7 | M9 M10 M10 M10 | JIS JIS DIN - 352 DIN - 376 |
| ER25-8TP | 8 | M8 M8 M10 M11 | DIN - 371 ISO - 529 ISO - 529 JIS |
| ER25-8.5TP | 8.5 | M12 | JIS |
| ER25-9TP | 9 | M12 M12 M12 | DIN - 352 DIN - 376 ISO - 529 |
| ER25-10TP | 10 | M10 M10 | DIN - 371 ISO - 529 |
| ER25-10.5TP | 10.5 | M14 M15 | JIS JIS |
| ER25-11TP | 11 | M14 M14 | DIN - 352 DIN - 376 |
| ER25-11.2TP | 11.2 | M14 | ISO - 529 |
| ER25-12TP | 12 | M16 M16 | DIN - 352 DIN - 376 |
| ER25-12.5TP | 12.5 | M16 | JIS |

| 規格 Spec. | 絲攻柄徑 Shank diameter of taper d ₁ | 使用絲攻範圍 Tapping range d ₂ | |
|-------------|---|---|---|
| ER25-12.5TP | 12.5 | M16 | ISO - 529 |
| ER25-13TP | 13 | M17 | JIS |
| ER25-14TP | 14 | M18 M18 M18 M18 M20 | JIS DIN - 352 DIN - 376 ISO - 529 ISO - 529 |
| ER25-15TP | 15 | M20 | JIS |
| ER25-16TP | 16 | M20 M20 M22 | DIN - 352 DIN - 376 ISO - 529 |

ER32

| 規格 Spec. | 絲攻柄徑 Shank diameter of taper d ₁ | 使用絲攻範圍 Tapping range d ₂ | |
|-------------|---|---|---|
| ER32-2.24TP | 2.24 | M3 | ISO - 529 |
| ER32-2.5TP | 2.5 | M3.5 M3.5 | DIN - 376 ISO - 529 |
| ER32-2.8TP | 2.8 | M4 | DIN - 376 |
| ER32-3.15TP | 3.15 | M3 M4 | ISO - 529 ISO - 529 |
| ER32-3.5TP | 3.5 | M3 M3 M5 | DIN - 352 DIN - 371 DIN - 376 |
| ER32-3.55TP | 3.55 | M3.5 M4.5 | ISO - 529 ISO - 529 |
| ER32-4TP | 4 | M3 M3.5 M3.5 M4 M5 | JIS DIN - 352 DIN - 371 ISO - 529 ISO - 529 |
| ER32-4.5TP | 4.5 | M4 M4 M6 M6 | DIN - 362 DIN - 371 DIN - 376 ISO - 529 |
| ER32-5TP | 5 | M4 M4.5 M5 | JIS JIS ISO - 529 |
| ER32-5.5TP | 5.5 | M5 M5.5 | JIS JIS |
| ER32-6TP | 6 | M5 M5 M6 M6 M6 M8 M8 | DIN - 352 DIN - 371 JIS DIN - 352 DIN - 371 DIN - 352 DIN - 376 |
| ER32-6.2TP | 6.2 | M7 M8 | JIS JIS |
| ER32-6.3TP | 6.3 | M6 M8 | ISO - 529 ISO - 529 |
| ER32-7TP | 7 | M9 M10 M10 M10 | JIS JIS DIN - 352 DIN - 376 |
| ER32-8TP | 8 | M8 M8 M10 M11 | DIN - 371 ISO - 529 ISO - 529 JIS |
| ER32-8.5TP | 8.5 | M12 | JIS |

TAP

• 長度單位 Unit of Length (mm)

ER32

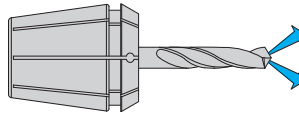
| 規格 Spec. | 絲攻柄徑 Shank diameter of taper d ₁ | 使用絲攻範圍 Tapping range d ₂ | |
|-------------|---|---|---|
| ER32-9TP | 9 | M12 M12 M12 | DIN - 352 DIN - 376 ISO - 529 |
| ER32-10TP | 10 | M10 M10 | DIN - 371 ISO - 529 |
| ER32-10.5TP | 10.5 | M14 M15 | JIS JIS |
| ER32-11TP | 11 | M14 M14 | DIN - 352 DIN - 376 |
| ER32-11.2TP | 11.2 | M14 | ISO - 529 |
| ER32-12TP | 12 | M16 M16 | DIN - 352 DIN - 376 |
| ER32-12.5TP | 12.5 | M16 M16 | JIS ISO - 529 |
| ER32-13TP | 13 | M17 | JIS |
| ER32-14TP | 14 | M18 M18 M18 M20 | JIS DIN - 352 DIN - 376 ISO - 529 ISO - 529 |
| ER32-15TP | 15 | M20 | JIS |
| ER32-16TP | 16 | M20 M20 M22 | DIN - 352 DIN - 376 ISO - 529 |
| ER32-17TP | 17 | M22 | JIS |
| ER32-18TP | 18 | M22 M22 M24 M24 M24 | DIN - 352 DIN - 376 DIN - 352 DIN - 736 ISO - 529 |
| ER32-19TP | 19 | M24 M25 | JIS JIS |
| ER32-20TP | 20 | M26 M27 | JIS JIS |

ER40

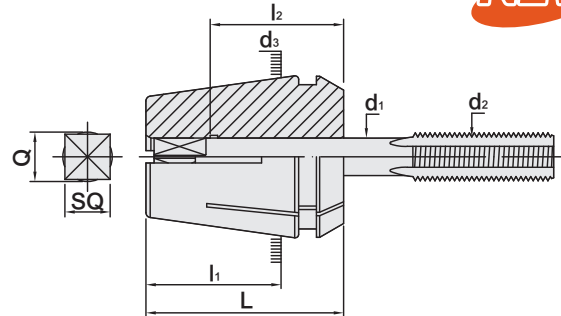
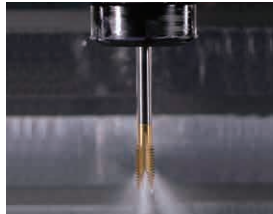
| 規格 Spec. | 絲攻柄徑 Shank diameter of taper d ₁ | 使用絲攻範圍 Tapping range d ₂ | |
|-------------|---|---|---|
| ER40-2.24TP | 2.24 | M3 | ISO - 529 |
| ER40-2.5TP | 2.5 | M3.5 M3.5 | DIN - 376 ISO - 529 |
| ER40-2.8TP | 2.8 | M4 | DIN - 376 |
| ER40-3.15TP | 3.15 | M3 M4 | ISO - 529 ISO - 529 |
| ER40-3.5TP | 3.5 | M3 M3 M5 | DIN - 352 DIN - 371 DIN - 376 |
| ER40-3.55TP | 3.55 | M3.5 M4.5 | ISO - 529 ISO - 529 |
| ER40-4TP | 4 | M3 M3.5 M3.5 M4 M5 | JIS DIN - 352 DIN - 371 ISO - 529 ISO - 529 |
| ER40-4.5TP | 4.5 | M4 M4 M6 M6 | DIN - 352 DIN - 371 DIN - 376 ISO - 529 |
| ER40-5TP | 5 | M4 M4.5 M5 | JIS JIS ISO - 529 |

| 規格 Spec. | 絲攻柄徑 Shank diameter of taper d ₁ | 使用絲攻範圍 Tapping range d ₂ | |
|-------------|---|---|---|
| ER40-5.5TP | 5.5 | M5 M5.5 | JIS JIS |
| ER40-6TP | 6 | M5 M5 M6 M6 M6 M8 M8 | DIN - 352 DIN - 371 JIS DIN - 352 DIN - 371 DIN - 352 DIN - 376 |
| ER40-6.2TP | 6.2 | M7 M8 | JIS JIS |
| ER40-6.3TP | 6.3 | M6 M8 | ISO - 529 ISO - 529 |
| ER40-7TP | 7 | M9 M10 M10 M10 M10 | JIS JIS DIN - 352 DIN - 352 DIN - 376 |
| ER40-8TP | 8 | M8 M8 M10 M11 | DIN - 371 ISO - 529 ISO - 529 JIS |
| ER40-8.5TP | 8.5 | M12 | JIS |
| ER40-9TP | 9 | M12 M12 M12 | DIN - 352 DIN - 376 ISO - 529 |
| ER40-10TP | 10 | M10 M10 | DIN - 371 ISO - 529 |
| ER40-10.5TP | 10.5 | M14 M15 | JIS JIS |
| ER40-11TP | 11 | M14 M14 | DIN - 352 DIN - 376 |
| ER40-11.2TP | 11.2 | M14 | ISO - 529 |
| ER40-12TP | 12 | M16 M16 | DIN - 352 DIN - 376 |
| ER40-12.5TP | 12.5 | M16 M16 | JIS ISO - 529 |
| ER40-13TP | 13 | M17 | JIS |
| ER40-14TP | 14 | M18 M18 M18 M18 M20 | JIS DIN - 352 DIN - 376 ISO - 529 ISO - 529 |
| ER40-15TP | 15 | M20 | JIS |
| ER40-16TP | 16 | M20 M20 M22 | DIN - 352 DIN - 376 ISO - 529 |
| ER40-17TP | 17 | M22 | JIS |
| ER40-18TP | 18 | M22 M22 M24 M24 M24 | DIN - 352 DIN - 376 DIN - 352 DIN - 376 ISO - 529 |
| ER40-19TP | 19 | M24 M25 | JIS JIS |
| ER40-20TP | 20 | M26 M27 | JIS JIS |

TAP



夾持附水孔刀具專用



| 規格 Spec. | d ₃ | L | l ₁ | l ₂ | CAPACITY |
|-------------|----------------|------|----------------|----------------|----------|
| ER-TCO16 | 16 | 27.5 | 17.5 | 18 ~ 22 | M5 ~ M10 |
| ER-TCO20 | 20 | 31.5 | 20.7 | 18 ~ 25 | M5 ~ M17 |
| ER-TCO25 | 25 | 34 | 23 | 18 ~ 25 | M5 ~ M22 |
| ER-TCO32 | 32 | 40 | 27.34 | 18 ~ 28 | M5 ~ M27 |
| ER-TCO40 | 40 | 46 | 31.34 | 18 ~ 28 | M5 ~ M27 |

ER-TCO16

| d ₁ | Q | d ₂ | SQ | l ₂ | STANDARD |
|----------------|------|----------------|-----|----------------|-----------|
| 6 | 5.09 | M5 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M5 | 4.9 | 18 | DIN - 371 |
| 6 | 5.09 | M6 | 4.5 | 18 | JIS |
| 6 | 5.09 | M6 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M6 | 4.9 | 18 | DIN - 371 |
| 6 | 5.09 | M8 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M8 | 4.9 | 18 | DIN - 376 |
| 6.2 | 5.21 | M7 | 5 | 18 | JIS |
| 6.2 | 5.21 | M8 | 5 | 18 | JIS |
| 6.3 | 5.21 | M6 | 5 | 18 | ISO-529 |
| 6.3 | 5.21 | M8 | 5 | 18 | ISO-529 |
| 7 | 5.84 | M9 | 5.5 | 18 | JIS |
| 7 | 5.84 | M10 | 5.5 | 18 | JIS |
| 7 | 5.84 | M10 | 5.5 | 18 | DIN - 352 |
| 7 | 5.84 | M10 | 5.5 | 18 | DIN - 376 |
| 8 | 6.88 | M8 | 6.2 | 22 | DIN - 371 |
| 8 | 6.88 | M8 | 6.3 | 22 | ISO-529 |
| 8 | 6.88 | M10 | 6.3 | 22 | ISO-529 |
| 10 | 9.16 | M10 | 8 | 22 | DIN - 371 |
| 10 | 9.16 | M10 | 8 | 22 | ISO-529 |

ER-TCO20

| d ₁ | Q | d ₂ | SQ | l ₂ | STANDARD |
|----------------|-------|----------------|-----|----------------|-----------|
| 6 | 5.09 | M6 | 4.9 | 18 | DIN - 371 |
| 6 | 5.09 | M8 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M8 | 4.9 | 18 | DIN - 376 |
| 6.2 | 5.21 | M7 | 5 | 18 | JIS |
| 6.2 | 5.21 | M8 | 5 | 18 | JIS |
| 6.3 | 5.21 | M6 | 5 | 18 | ISO-529 |
| 6.3 | 5.21 | M8 | 5 | 18 | ISO-529 |
| 7 | 5.84 | M9 | 5.5 | 18 | JIS |
| 7 | 5.84 | M10 | 5.5 | 18 | JIS |
| 7 | 5.84 | M10 | 5.5 | 18 | DIN - 352 |
| 7 | 5.84 | M10 | 5.5 | 18 | DIN - 376 |
| 8 | 6.88 | M8 | 6.2 | 22 | DIN - 371 |
| 8 | 6.88 | M8 | 6.3 | 22 | ISO-529 |
| 8 | 6.88 | M10 | 6.3 | 22 | ISO-529 |
| 8 | 6.88 | M11 | 6 | 22 | JIS |
| 8.5 | 7.14 | M12 | 6.5 | 22 | JIS |
| 9 | 7.95 | M12 | 7 | 22 | DIN - 352 |
| 9 | 7.95 | M12 | 7 | 22 | DIN - 376 |
| 9 | 7.95 | M12 | 7.1 | 22 | ISO-529 |
| 10 | 9.16 | M10 | 8 | 22 | DIN - 371 |
| 10 | 9.16 | M10 | 8 | 22 | ISO-529 |
| 10.5 | 9.16 | M14 | 8 | 22 | JIS |
| 10.5 | 9.16 | M15 | 8 | 22 | JIS |
| 11 | 10.53 | M14 | 9 | 22 | DIN - 352 |
| 11 | 10.53 | M14 | 9 | 25 | DIN - 376 |
| 11.2 | 10.53 | M14 | 9 | 25 | ISO-529 |
| 12 | 10.53 | M16 | 9 | 25 | DIN - 352 |

ER-TCO20

| d ₁ | Q | d ₂ | SQ | l ₂ | STANDARD |
|----------------|------|----------------|-----|----------------|-----------|
| 6 | 5.09 | M5 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M5 | 4.9 | 18 | DIN - 371 |
| 6 | 5.09 | M6 | 4.5 | 18 | JIS |
| 6 | 5.09 | M6 | 4.9 | 18 | DIN - 352 |

• 長度單位 Unit of Length (mm)

ER-TCO20

| d ₁ | Q | d ₂ | SQ | l ₂ | STANDARD |
|----------------|-------|----------------|----|----------------|-----------|
| 12 | 10.53 | M16 | 9 | 25 | DIN - 376 |
| 12.5 | 11.91 | M16 | 10 | 25 | JIS |
| 12.5 | 11.91 | M16 | 10 | 25 | ISO-529 |
| 13 | 11.91 | M17 | 10 | 25 | JIS |

ER-TCO25

| d ₁ | Q | d ₂ | SQ | l ₂ | STANDARD |
|----------------|-------|----------------|-----|----------------|-----------|
| 6 | 5.09 | M5 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M5 | 4.9 | 18 | DIN - 371 |
| 6 | 5.09 | M6 | 4.5 | 18 | JIS |
| 6 | 5.09 | M6 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M6 | 4.9 | 18 | DIN - 371 |
| 6 | 5.09 | M8 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M8 | 4.9 | 18 | DIN - 376 |
| 6.2 | 5.21 | M7 | 5 | 18 | JIS |
| 6.2 | 5.21 | M8 | 5 | 18 | JIS |
| 6.3 | 5.21 | M6 | 5 | 18 | ISO-529 |
| 6.3 | 5.21 | M8 | 5 | 18 | ISO-529 |
| 7 | 5.84 | M9 | 5.5 | 18 | JIS |
| 7 | 5.84 | M10 | 5.5 | 18 | JIS |
| 7 | 5.84 | M10 | 5.5 | 18 | DIN - 352 |
| 7 | 5.84 | M10 | 5.5 | 18 | DIN - 376 |
| 8 | 6.88 | M8 | 6.2 | 22 | DIN - 371 |
| 8 | 6.88 | M8 | 6.3 | 22 | ISO-529 |
| 8 | 6.88 | M10 | 6.3 | 22 | ISO-529 |
| 8 | 6.88 | M11 | 6 | 22 | JIS |
| 8.5 | 7.14 | M12 | 6.5 | 22 | JIS |
| 9 | 7.95 | M12 | 7 | 22 | DIN - 352 |
| 9 | 7.95 | M12 | 7 | 22 | DIN - 376 |
| 9 | 7.95 | M12 | 7.1 | 22 | ISO-529 |
| 10 | 9.16 | M10 | 8 | 22 | DIN - 371 |
| 10 | 9.16 | M10 | 8 | 22 | ISO-529 |
| 10.5 | 9.16 | M14 | 8 | 22 | JIS |
| 10.5 | 9.16 | M15 | 8 | 22 | JIS |
| 11 | 10.53 | M14 | 9 | 22 | DIN - 352 |
| 11 | 10.53 | M14 | 9 | 25 | DIN - 376 |
| 11.2 | 10.53 | M14 | 9 | 25 | ISO-529 |
| 12 | 10.53 | M16 | 9 | 25 | DIN - 352 |
| 12 | 10.53 | M16 | 9 | 25 | DIN - 376 |
| 12.5 | 11.91 | M16 | 10 | 25 | JIS |
| 12.5 | 11.91 | M16 | 10 | 25 | ISO-529 |
| 13 | 11.91 | M17 | 10 | 25 | JIS |
| 14 | 12.97 | M18 | 11 | 25 | JIS |

ER-TCO25

| d ₁ | Q | d ₂ | SQ | l ₂ | STANDARD |
|----------------|-------|----------------|------|----------------|-----------|
| 14 | 12.97 | M18 | 11 | 25 | DIN - 352 |
| 14 | 12.97 | M18 | 11 | 25 | DIN - 376 |
| 14 | 12.97 | M18 | 11.2 | 25 | ISO-529 |
| 14 | 12.97 | M20 | 11.2 | 25 | ISO-529 |
| 15 | 14.06 | M20 | 12 | 25 | JIS |
| 16 | 14.8 | M20 | 12 | 25 | DIN - 352 |
| 16 | 14.8 | M20 | 12 | 25 | DIN - 376 |
| 16 | 14.8 | M22 | 12.5 | 25 | ISO-529 |
| 17 | 15.44 | M22 | 13 | 28 | JIS |
| 18 | 17.52 | M22 | 14.5 | 28 | DIN - 352 |
| 18 | 17.52 | M22 | 14.5 | 28 | DIN - 376 |

ER-TCO32

| d ₁ | Q | d ₂ | SQ | l ₂ | STANDARD |
|----------------|-------|----------------|-----|----------------|-----------|
| 6 | 5.09 | M5 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M5 | 4.9 | 18 | DIN - 371 |
| 6 | 5.09 | M6 | 4.5 | 18 | JIS |
| 6 | 5.09 | M6 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M6 | 4.9 | 18 | DIN - 371 |
| 6 | 5.09 | M8 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M8 | 4.9 | 18 | DIN - 376 |
| 6.2 | 5.21 | M7 | 5 | 18 | JIS |
| 6.2 | 5.21 | M8 | 5 | 18 | JIS |
| 6.3 | 5.21 | M6 | 5 | 18 | ISO-529 |
| 6.3 | 5.21 | M8 | 5 | 18 | ISO-529 |
| 7 | 5.84 | M9 | 5.5 | 18 | JIS |
| 7 | 5.84 | M10 | 5.5 | 18 | JIS |
| 7 | 5.84 | M10 | 5.5 | 18 | DIN - 352 |
| 7 | 5.84 | M10 | 5.5 | 18 | DIN - 376 |
| 8 | 6.88 | M8 | 6.2 | 22 | DIN - 371 |
| 8 | 6.88 | M8 | 6.3 | 22 | ISO-529 |
| 8 | 6.88 | M10 | 6.3 | 22 | ISO-529 |
| 8 | 6.88 | M11 | 6 | 22 | JIS |
| 8.5 | 7.14 | M12 | 6.5 | 22 | JIS |
| 9 | 7.95 | M12 | 7 | 22 | DIN - 352 |
| 9 | 7.95 | M12 | 7 | 22 | DIN - 376 |
| 9 | 7.95 | M12 | 7.1 | 22 | ISO-529 |
| 10 | 9.16 | M10 | 8 | 22 | DIN - 371 |
| 10 | 9.16 | M10 | 8 | 22 | ISO-529 |
| 10.5 | 9.16 | M14 | 8 | 22 | JIS |
| 10.5 | 9.16 | M15 | 8 | 22 | JIS |
| 11 | 10.53 | M14 | 9 | 22 | DIN - 352 |
| 11 | 10.53 | M14 | 9 | 25 | DIN - 376 |
| 11.2 | 10.53 | M14 | 9 | 25 | ISO-529 |
| 12 | 10.53 | M16 | 9 | 25 | DIN - 352 |
| 12 | 10.53 | M16 | 9 | 25 | DIN - 376 |
| 12.5 | 11.91 | M16 | 10 | 25 | JIS |
| 12.5 | 11.91 | M16 | 10 | 25 | ISO-529 |
| 13 | 11.91 | M17 | 10 | 25 | JIS |
| 14 | 12.97 | M18 | 11 | 25 | JIS |

• 長度單位 Unit of Length (mm)

TAP

ER-TCO32

| d ₁ | Q | d ₂ | SQ | l ₂ | STANDARD |
|----------------|-------|----------------|------|----------------|-----------|
| 11.2 | 10.53 | M14 | 9 | 25 | ISO-529 |
| 12 | 10.53 | M16 | 9 | 25 | DIN - 352 |
| 12 | 10.53 | M16 | 9 | 25 | DIN - 376 |
| 12.5 | 11.91 | M16 | 10 | 25 | JIS |
| 12.5 | 11.91 | M16 | 10 | 25 | ISO-529 |
| 13 | 11.91 | M17 | 10 | 25 | JIS |
| 14 | 12.97 | M18 | 11 | 25 | JIS |
| 14 | 12.97 | M18 | 11 | 25 | DIN - 352 |
| 14 | 12.97 | M18 | 11 | 25 | DIN - 376 |
| 14 | 12.97 | M18 | 11.2 | 25 | ISO-529 |
| 14 | 12.97 | M20 | 11.2 | 25 | ISO-529 |
| 15 | 14.06 | M20 | 12 | 25 | JIS |
| 16 | 14.8 | M20 | 12 | 25 | DIN - 352 |
| 16 | 14.8 | M20 | 12 | 25 | DIN - 376 |
| 16 | 14.8 | M22 | 12.5 | 25 | ISO-529 |
| 17 | 15.44 | M22 | 13 | 28 | JIS |
| 18 | 17.52 | M22 | 14.5 | 28 | DIN - 352 |
| 18 | 17.52 | M22 | 14.5 | 28 | DIN - 376 |
| 18 | 17.52 | M24 | 14.5 | 28 | DIN - 352 |
| 18 | 17.52 | M24 | 14.5 | 28 | DIN - 376 |
| 18 | 17.52 | M24 | 14 | 28 | ISO-529 |
| 19 | 18.22 | M24 | 15 | 28 | JIS |
| 19 | 18.22 | M25 | 15 | 28 | JIS |
| 20 | 19.61 | M26 | 15 | 28 | JIS |
| 20 | 19.61 | M27 | 15 | 28 | JIS |
| 20 | 19.61 | M27 | 16 | 28 | DIN - 376 |
| 20 | 19.61 | M27 | 16 | 28 | ISO-529 |

ER-TCO40

| d ₁ | Q | d ₂ | SQ | l ₂ | STANDARD |
|----------------|------|----------------|-----|----------------|-----------|
| 6 | 5.09 | M5 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M5 | 4.9 | 18 | DIN - 371 |
| 6 | 5.09 | M6 | 4.5 | 18 | JIS |
| 6 | 5.09 | M6 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M6 | 4.9 | 18 | DIN - 371 |
| 6 | 5.09 | M8 | 4.9 | 18 | DIN - 352 |
| 6 | 5.09 | M8 | 4.9 | 18 | DIN - 376 |
| 6.2 | 5.21 | M7 | 5 | 18 | JIS |
| 6.2 | 5.21 | M8 | 5 | 18 | JIS |
| 6.3 | 5.21 | M6 | 5 | 18 | ISO-529 |
| 6.3 | 5.21 | M8 | 5 | 18 | ISO-529 |
| 7 | 5.84 | M9 | 5.5 | 18 | JIS |
| 7 | 5.84 | M10 | 5.5 | 18 | JIS |

ER-TCO40

| d ₁ | Q | d ₂ | SQ | l ₂ | STANDARD |
|----------------|-------|----------------|------|----------------|-----------|
| 7 | 5.84 | M10 | 5.5 | 18 | DIN - 352 |
| 7 | 5.84 | M10 | 5.5 | 18 | DIN - 376 |
| 8 | 6.88 | M8 | 6.2 | 22 | DIN - 371 |
| 8 | 6.88 | M8 | 6.3 | 22 | ISO-529 |
| 8 | 6.88 | M10 | 6.3 | 22 | ISO-529 |
| 8 | 6.88 | M11 | 6 | 22 | JIS |
| 8.5 | 7.14 | M12 | 6.5 | 22 | JIS |
| 9 | 7.95 | M12 | 7 | 22 | DIN - 352 |
| 9 | 7.95 | M12 | 7 | 22 | DIN - 376 |
| 9 | 7.95 | M12 | 7.1 | 22 | ISO-529 |
| 10 | 9.16 | M10 | 8 | 22 | DIN - 371 |
| 10 | 9.16 | M10 | 8 | 22 | ISO-529 |
| 10.5 | 9.16 | M14 | 8 | 22 | JIS |
| 10.5 | 9.16 | M15 | 8 | 22 | JIS |
| 11 | 10.53 | M14 | 9 | 22 | DIN - 352 |
| 11 | 10.53 | M14 | 9 | 25 | DIN - 376 |
| 11.2 | 10.53 | M14 | 9 | 25 | ISO-529 |
| 12 | 10.53 | M16 | 9 | 25 | DIN - 352 |
| 12 | 10.53 | M16 | 9 | 25 | DIN - 376 |
| 12.5 | 11.91 | M16 | 10 | 25 | JIS |
| 12.5 | 11.91 | M16 | 10 | 25 | ISO-529 |
| 13 | 11.91 | M17 | 10 | 25 | JIS |
| 14 | 12.97 | M18 | 11 | 25 | JIS |
| 14 | 12.97 | M18 | 11 | 25 | DIN - 352 |
| 14 | 12.97 | M18 | 11 | 25 | DIN - 376 |
| 14 | 12.97 | M18 | 11.2 | 25 | ISO-529 |
| 14 | 12.97 | M20 | 11.2 | 25 | ISO-529 |
| 15 | 14.06 | M20 | 12 | 25 | JIS |
| 16 | 14.8 | M20 | 12 | 25 | DIN - 352 |
| 16 | 14.8 | M20 | 12 | 25 | DIN - 376 |
| 16 | 14.8 | M22 | 12.5 | 25 | ISO-529 |
| 17 | 15.44 | M22 | 13 | 28 | JIS |
| 18 | 17.52 | M22 | 14.5 | 28 | DIN - 352 |
| 18 | 17.52 | M22 | 14.5 | 28 | DIN - 376 |
| 18 | 17.52 | M24 | 14.5 | 28 | DIN - 352 |
| 18 | 17.52 | M24 | 14.5 | 28 | DIN - 376 |
| 18 | 17.52 | M24 | 14 | 28 | ISO-529 |
| 19 | 18.22 | M24 | 15 | 28 | JIS |
| 19 | 18.22 | M25 | 15 | 28 | JIS |
| 20 | 19.61 | M26 | 15 | 28 | JIS |
| 20 | 19.61 | M27 | 15 | 28 | JIS |
| 20 | 19.61 | M27 | 16 | 28 | DIN - 376 |
| 20 | 19.61 | M27 | 16 | 28 | ISO-529 |

• 長度單位 Unit of Length (mm)



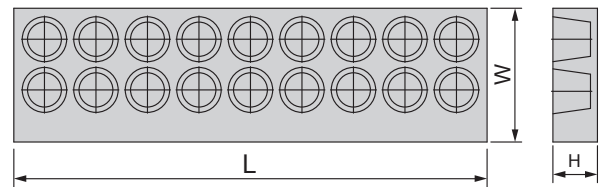
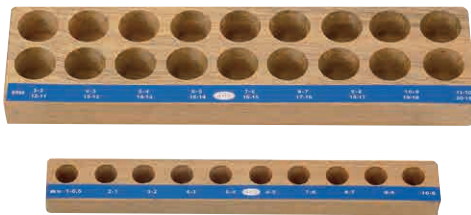
表面特殊處理

特點 Feature

- 表面粗糙度 RA0.25，提升刀桿與螺帽貼合度，增強穩定性
- 表面特殊處理，具較佳防鏽功能，延長使用壽命
- 夾持精度 0.01mm 內
- 夾持力提升 15%

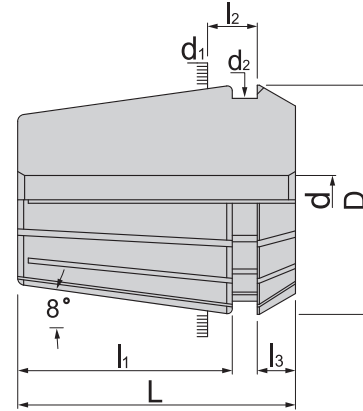
- Surface roughness Ra 0.25, improves the fitness between chuck and nut, also increases the stabilities.
- Special surface treatment provides a better rust-proofing and extend the life cycle.
- Clamping accuracy is within 0.01mm.
- Clamping force improved by 15%.

| 規格 Spec. | 內容物 Contents | | 重量 (KGS) Weight |
|----------------|-----------------------------|---------|-----------------|
| | 筒夾 Collet Size | 數量 Qty. | |
| ER16-A-6P-SET | 1,2,4,6,8,10 | 1 | - |
| ER20-A-6P-SET | 2,4,6,8,10,12 | 1 | - |
| ER16-A-10P-SET | 1,2,3,4,5,6,7,8,9,10 | 1 | - |
| ER20-A-12P-SET | 2,3,4,5,6,7,8,9,10,11,12,13 | 1 | - |



| 規格 Spec. | L | W | H | 數量 (孔) Qty | 重量 (KGS) Weight |
|----------|-----|-----|----|------------|-----------------|
| ER8-MV | 210 | 20 | 13 | 9 | 0.01 |
| ER11-MV | 210 | 20 | 13 | 13 | 0.01 |
| ER16-MV | 275 | 35 | 22 | 10 | 0.14 |
| ER20-MV | 275 | 35 | 22 | 12 | 0.12 |
| ER25-MV | 275 | 77 | 26 | 16 | 0.18 |
| ER32-MV | 340 | 90 | 30 | 18 | 0.48 |
| ER40-MV | 265 | 210 | 38 | 24 | 0.76 |
| ER50-MV | 235 | 210 | 37 | 12 | 0.64 |

• 長度單位 Unit of Length (mm)

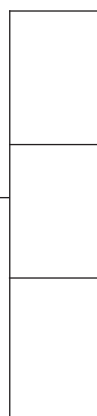


特點 Feature

- 材質 :SUJ2。(高碳軸承鋼：在熱處理後，具有堅韌的硬度與韌性，更好的耐磨耗性，且彈性佳使用壽命更長)
- 硬度 :HRC46°
- 表面粗糙度 RZ2.5 以內
- 同心度按 DIN 標準規範全數檢驗，共計有三種精度等級，普通級 0.02mm、A 級 0.01mm 及 UP 級 0.005mm
- UP 級建議配合 HSP 螺帽使用，其穩定性更好
- 用於夾持鑽頭、螺絲攻、銑刀、鉸刀等工具
- 具有彈性伸縮的功能、應用範圍廣、附變化性
- 訂購時請告知所需精度等級

- Steel:SUJ2 (High-carbon bearing steel : After heat treatment, it has hardness and toughness, better grinding quality, good flexibility, and longer using life span.)
- Hardness: HRC46°
- Surface roughness : within RZ2.5.
- The concentricity is totally examined according to DIN norm. There are three kinds of classes for precision : general class 0.02mm, A class 0.01mm, and UP class 0.005mm.
- UP class is recommended to be used with HSP clamping nut. It will have better stability.
- It used for the cutting tools lock drills, taps, mills, and remers, etc.
- It has flexibility and can be applied widely and variably.
- Please inform the required precision grade when ordering.

| 規格 Spec. | 尺寸範圍 Size Range | L | l ₁ | l ₂ | l ₃ | D | d ₁ | d ₂ | 重量 (KGS) Weight |
|----------|-----------------|------|----------------|----------------|----------------|------|----------------|----------------|-----------------|
| ER8 | 1~5.0 | 13.5 | 10.8 | 2.98 | 1.5 | 8.5 | 8 | 6.5 | 0.01 |
| ER11 | 1~7.0 | 18 | 13.5 | 3.8 | 2.5 | 11.5 | 11 | 9.5 | 0.01 |
| ER16 | 1~10.0 | 27.5 | 20.8 | 6.26 | 4 | 17 | 16 | 13.8 | 0.03 |
| ER20 | 1~13.0 | 31.5 | 23.9 | 6.36 | 4.8 | 21 | 20 | 17.4 | 0.04 |
| ER25 | 2~16.0 | 34 | 25.9 | 6.66 | 5 | 26 | 25 | 22 | 0.06 |
| ER32 | 2~20.0 | 40 | 30.9 | 7.16 | 5.5 | 33 | 32 | 29.2 | 0.10 |
| ER40 | 3~26.0 | 46 | 34.9 | 7.66 | 7 | 41 | 40 | 36.2 | 0.25 |
| ER50 | 6~34.0 | 60 | 46.0 | 13.4 | 8.5 | 52 | 50 | 46 | 0.45 |



ER 彈性筒夾
ER COLLET



ER-EO 止水筒夾
ER-EO COOLANT COLLET



ER-ES 斜槽止水筒夾
ER-ES STEEL SEALED COLLET



ER 剛性攻牙筒夾
ER RIGID TAP COLLET

• 長度單位 Unit of Length (mm)

精度 (普通級) Accuracy : 0.02mm



ER8

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|----------|------------------|----------------|
| ER8-1 | 1~0.5 | 0.02 |
| ER8-1.5 | 1.5~1 | 0.02 |
| ER8-2 | 2~1.5 | 0.02 |
| ER8-2.5 | 2.5~2 | 0.02 |
| ER8-3 | 3~2.5 | 0.02 |
| ER8-3.5 | 3.5~3 | 0.02 |
| ER8-4 | 4~3.5 | 0.02 |
| ER8-4.5 | 4.5~4 | 0.02 |
| ER8-5 | 5~4.5 | 0.02 |

ER11

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|----------|------------------|----------------|
| ER11-1 | 1~0.5 | 0.02 |
| ER11-1.5 | 1.5~1 | 0.02 |
| ER11-2 | 2~1.5 | 0.02 |
| ER11-2.5 | 2.5~2 | 0.02 |
| ER11-3 | 3~2.5 | 0.02 |
| ER11-3.5 | 3.5~3 | 0.02 |
| ER11-4 | 4~3.5 | 0.02 |
| ER11-4.5 | 4.5~4 | 0.02 |
| ER11-5 | 5~4.5 | 0.02 |
| ER11-5.5 | 5.5~5 | 0.02 |
| ER11-6 | 6~5.5 | 0.02 |
| ER11-6.5 | 6.5~6 | 0.02 |
| ER11-7 | 7~6.5 | 0.02 |

ER16

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|----------|------------------|----------------|
| ER16-1 | 1~0.5 | 0.02 |
| ER16-1.5 | 1.5~1 | 0.02 |
| ER16-2 | 2~1.5 | 0.02 |
| ER16-2.5 | 2.5~2 | 0.02 |
| ER16-3 | 3~2 | 0.02 |
| ER16-3.5 | 3.5~2.5 | 0.02 |
| ER16-4 | 4~3 | 0.02 |
| ER16-4.5 | 4.5~3.5 | 0.02 |
| ER16-5 | 5~4 | 0.02 |
| ER16-5.5 | 5.5~4.5 | 0.02 |
| ER16-6 | 6~5 | 0.02 |
| ER16-6.5 | 6.5~5.5 | 0.02 |

ER16

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|----------|------------------|----------------|
| ER16-7 | 7~6 | 0.02 |
| ER16-7.5 | 7.5~6.5 | 0.02 |
| ER16-8 | 8~7 | 0.02 |
| ER16-8.5 | 8.5~7.5 | 0.02 |
| ER16-9 | 9~8 | 0.02 |
| ER16-9.5 | 9.5~8.5 | 0.02 |
| ER16-10 | 10~9 | 0.02 |

ER20

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-----------|------------------|----------------|
| ER20-1 | 1~0.5 | 0.02 |
| ER20-1.5 | 1.5~1 | 0.02 |
| ER20-2 | 2~1.5 | 0.02 |
| ER20-2.5 | 2.5~2 | 0.02 |
| ER20-3 | 3~2 | 0.02 |
| ER20-3.5 | 3.5~2.5 | 0.02 |
| ER20-4 | 4~3 | 0.02 |
| ER20-4.5 | 4.5~3.5 | 0.02 |
| ER20-5 | 5~4 | 0.02 |
| ER20-5.5 | 5.5~4.5 | 0.02 |
| ER20-6 | 6~5 | 0.02 |
| ER20-6.5 | 6.5~5.5 | 0.02 |
| ER20-7 | 7~6 | 0.02 |
| ER20-7.5 | 7.5~6.5 | 0.02 |
| ER20-8 | 8~7 | 0.02 |
| ER20-8.5 | 8.5~7.5 | 0.02 |
| ER20-9 | 9~8 | 0.02 |
| ER20-9.5 | 9.5~8.5 | 0.02 |
| ER20-10 | 10~9 | 0.02 |
| ER20-10.5 | 10.5~9.5 | 0.02 |
| ER20-11 | 11~10 | 0.02 |
| ER20-11.5 | 11.5~10.5 | 0.02 |
| ER20-12 | 12~11 | 0.02 |
| ER20-12.5 | 12.5~11.5 | 0.02 |
| ER20-13 | 13~12 | 0.02 |

ER25

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|----------|------------------|----------------|
| ER25-1 | 1~0.5 | 0.02 |
| ER25-1.5 | 1.5~1 | 0.02 |

ER25

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-----------|------------------|----------------|
| ER25-2 | 2~1.5 | 0.02 |
| ER25-2.5 | 2.5~2 | 0.02 |
| ER25-3 | 3~2 | 0.02 |
| ER25-3.5 | 3.5~2.5 | 0.02 |
| ER25-4 | 4~3 | 0.02 |
| ER25-4.5 | 4.5~3.5 | 0.02 |
| ER25-5 | 5~4 | 0.02 |
| ER25-5.5 | 5.5~4.5 | 0.02 |
| ER25-6 | 6~5 | 0.02 |
| ER25-6.5 | 6.5~5.5 | 0.02 |
| ER25-7 | 7~6 | 0.02 |
| ER25-7.5 | 7.5~6.5 | 0.02 |
| ER25-8 | 8~7 | 0.02 |
| ER25-8.5 | 8.5~7.5 | 0.02 |
| ER25-9 | 9~8 | 0.02 |
| ER25-9.5 | 9.5~8.5 | 0.02 |
| ER25-10 | 10~9 | 0.02 |
| ER25-10.5 | 10.5~9.5 | 0.02 |
| ER25-11 | 11~10 | 0.02 |
| ER25-11.5 | 11.5~10.5 | 0.02 |
| ER25-12 | 12~11 | 0.02 |
| ER25-12.5 | 12.5~11.5 | 0.02 |
| ER25-13 | 13~12 | 0.02 |
| ER25-13.5 | 13.5~12.5 | 0.02 |
| ER25-14 | 14~13 | 0.02 |
| ER25-14.5 | 14.5~13.5 | 0.02 |
| ER25-15 | 15~14 | 0.02 |
| ER25-15.5 | 15.5~14.5 | 0.02 |
| ER25-16 | 16~15 | 0.02 |

ER32

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|----------|------------------|----------------|
| ER32-2 | 2~1.5 | 0.02 |
| ER32-2.5 | 2.5~2 | 0.02 |
| ER32-3 | 3~2 | 0.02 |
| ER32-3.5 | 3.5~2.5 | 0.02 |
| ER32-4 | 4~3 | 0.02 |
| ER32-4.5 | 4.5~3.5 | 0.02 |
| ER32-5 | 5~4 | 0.02 |
| ER32-5.5 | 5.5~4.5 | 0.02 |
| ER32-6 | 6~5 | 0.02 |

• 長度單位 Unit of Length (mm)

精度 (普通級) Accuracy : 0.02mm



ER32

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-----------|------------------|----------------|
| ER32-6.5 | 6.5~5.5 | 0.02 |
| ER32-7 | 7~6 | 0.02 |
| ER32-7.5 | 7.5~6.5 | 0.02 |
| ER32-8 | 8~7 | 0.02 |
| ER32-8.5 | 8.5~7.5 | 0.02 |
| ER32-9 | 9~8 | 0.02 |
| ER32-9.5 | 9.5~8.5 | 0.02 |
| ER32-10 | 10~9 | 0.02 |
| ER32-10.5 | 10.5~9.5 | 0.02 |
| ER32-11 | 11~10 | 0.02 |
| ER32-11.5 | 11.5~10.5 | 0.02 |
| ER32-12 | 12~11 | 0.02 |
| ER32-12.5 | 12.5~11.5 | 0.02 |
| ER32-13 | 13~12 | 0.02 |
| ER32-13.5 | 13.5~12.5 | 0.02 |
| ER32-14 | 14~13 | 0.02 |
| ER32-14.5 | 14.5~13.5 | 0.02 |
| ER32-15 | 15~14 | 0.02 |
| ER32-15.5 | 15.5~14.5 | 0.02 |
| ER32-16 | 16~15 | 0.02 |
| ER32-16.5 | 16.5~15.5 | 0.02 |
| ER32-17 | 17~16 | 0.02 |
| ER32-17.5 | 17.5~16.5 | 0.02 |
| ER32-18 | 18~17 | 0.02 |
| ER32-18.5 | 18.5~17.5 | 0.02 |
| ER32-19 | 19~18 | 0.02 |
| ER32-19.5 | 19.5~18.5 | 0.02 |
| ER32-20 | 20~19 | 0.02 |

ER40

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|----------|------------------|----------------|
| ER40-3 | 3~2 | 0.02 |
| ER40-3.5 | 3.5~2.5 | 0.02 |
| ER40-4 | 4~3 | 0.02 |
| ER40-4.5 | 4.5~3.5 | 0.02 |
| ER40-5 | 5~4 | 0.02 |
| ER40-5.5 | 5.5~4.5 | 0.02 |
| ER40-6 | 6~5 | 0.02 |
| ER40-6.5 | 6.5~5.5 | 0.02 |
| ER40-7 | 7~6 | 0.02 |
| ER40-7.5 | 7.5~6.5 | 0.02 |

ER40

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-----------|------------------|----------------|
| ER40-8 | 8~7 | 0.02 |
| ER40-8.5 | 8.5~7.5 | 0.02 |
| ER40-9 | 9~8 | 0.02 |
| ER40-9.5 | 9.5~8.5 | 0.02 |
| ER40-10 | 10~9 | 0.02 |
| ER40-10.5 | 10.5~9.5 | 0.02 |
| ER40-11 | 11~10 | 0.02 |
| ER40-11.5 | 11.5~10.5 | 0.02 |
| ER40-12 | 12~11 | 0.02 |
| ER40-12.5 | 12.5~11.5 | 0.02 |
| ER40-13 | 13~12 | 0.02 |
| ER40-13.5 | 13.5~12.5 | 0.02 |
| ER40-14 | 14~13 | 0.02 |
| ER40-14.5 | 14.5~13.5 | 0.02 |
| ER40-15 | 15~14 | 0.02 |
| ER40-15.5 | 15.5~14.5 | 0.02 |
| ER40-16 | 16~15 | 0.02 |
| ER40-16.5 | 16.5~15.5 | 0.02 |
| ER40-17 | 17~16 | 0.02 |
| ER40-17.5 | 17.5~16.5 | 0.02 |
| ER40-18 | 18~17 | 0.02 |
| ER40-18.5 | 18.5~17.5 | 0.02 |
| ER40-19 | 19~18 | 0.02 |
| ER40-19.5 | 19.5~18.5 | 0.02 |
| ER40-20 | 20~19 | 0.02 |
| ER40-20.5 | 20.5~19.5 | 0.02 |
| ER40-21 | 21~20 | 0.02 |
| ER40-21.5 | 21.5~20.5 | 0.02 |
| ER40-22 | 22~21 | 0.02 |
| ER40-22.5 | 22.5~21.5 | 0.02 |
| ER40-23 | 23~22 | 0.02 |
| ER40-23.5 | 23.5~22.5 | 0.02 |
| ER40-24 | 24~23 | 0.02 |
| ER40-24.5 | 24.5~23.5 | 0.02 |
| ER40-25 | 25~24 | 0.02 |
| ER40-25.5 | 25.5~24.5 | 0.02 |
| ER40-26 | 26~25 | 0.02 |

ER50

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|----------|------------------|----------------|
| ER50-6 | 6~5 | 0.02 |
| ER50-7 | 7~6 | 0.02 |
| ER50-8 | 8~7 | 0.02 |
| ER50-9 | 9~8 | 0.02 |
| ER50-10 | 10~9 | 0.02 |
| ER50-11 | 11~9 | 0.02 |
| ER50-12 | 12~10 | 0.02 |
| ER50-13 | 13~11 | 0.02 |
| ER50-14 | 14~12 | 0.02 |
| ER50-15 | 15~13 | 0.02 |
| ER50-16 | 16~14 | 0.02 |
| ER50-17 | 17~15 | 0.02 |
| ER50-18 | 18~16 | 0.02 |
| ER50-19 | 19~17 | 0.02 |
| ER50-20 | 20~18 | 0.02 |
| ER50-21 | 21~19 | 0.02 |
| ER50-22 | 22~20 | 0.02 |
| ER50-23 | 23~21 | 0.02 |
| ER50-24 | 24~22 | 0.02 |
| ER50-25 | 25~23 | 0.02 |
| ER50-26 | 26~24 | 0.02 |
| ER50-27 | 27~25 | 0.02 |
| ER50-28 | 28~26 | 0.02 |
| ER50-29 | 29~27 | 0.02 |
| ER50-30 | 30~28 | 0.02 |
| ER50-31 | 31~29 | 0.02 |
| ER50-32 | 32~30 | 0.02 |
| ER50-33 | 33~31 | 0.02 |
| ER50-34 | 34~32 | 0.02 |

精度 (A 級) Accuracy : 0.01mm



ER8-A

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER8-1-A | 1~0.5 | 0.01 |
| ER8-1.5-A | 1.5~1 | 0.01 |
| ER8-2-A | 2~1.5 | 0.01 |
| ER8-2.5-A | 2.5~2 | 0.01 |
| ER8-3-A | 3~2.5 | 0.01 |
| ER8-3.5-A | 3.5~3 | 0.01 |
| ER8-4-A | 4~3.5 | 0.01 |
| ER8-4.5-A | 4.5~4 | 0.01 |
| ER8-5-A | 5~4.5 | 0.01 |

ER11-A

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER11-1-A | 1~0.5 | 0.01 |
| ER11-1.5-A | 1.5~1 | 0.01 |
| ER11-2-A | 2~1.5 | 0.01 |
| ER11-2.5-A | 2.5~2 | 0.01 |
| ER11-3-A | 3~2.5 | 0.01 |
| ER11-3.5-A | 3.5~3 | 0.01 |
| ER11-4-A | 4~3.5 | 0.01 |
| ER11-4.5-A | 4.5~4 | 0.01 |
| ER11-5-A | 5~4.5 | 0.01 |
| ER11-5.5-A | 5.5~4.5 | 0.01 |
| ER11-6-A | 6~5.5 | 0.01 |
| ER11-6.5-A | 6.5~6 | 0.01 |
| ER11-7-A | 7~6.5 | 0.01 |

ER16-A

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER16-1-A | 1~0.5 | 0.01 |
| ER16-1.5-A | 1.5~1 | 0.01 |
| ER16-2-A | 2~1.5 | 0.01 |
| ER16-2.5-A | 2.5~2 | 0.01 |
| ER16-3-A | 3~2 | 0.01 |
| ER16-3.5-A | 3.5~2.5 | 0.01 |
| ER16-4-A | 4~3 | 0.01 |
| ER16-4.5-A | 4.5~3.5 | 0.01 |
| ER16-5-A | 5~4 | 0.01 |
| ER16-5.5-A | 5.5~4.5 | 0.01 |
| ER16-6-A | 6~5 | 0.01 |
| ER16-6.5-A | 6.5~5.5 | 0.01 |

ER16-A

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER16-7-A | 7~6 | 0.01 |
| ER16-7.5-A | 7.5~6.5 | 0.01 |
| ER16-8-A | 8~7 | 0.01 |
| ER16-8.5-A | 8.5~7.5 | 0.01 |
| ER16-9-A | 9~8 | 0.01 |
| ER16-9.5-A | 9.5~8.5 | 0.01 |
| ER16-10-A | 10~9 | 0.01 |

ER20-A

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER20-1-A | 1~0.5 | 0.01 |
| ER20-1.5-A | 1.5~1 | 0.01 |
| ER20-2-A | 2~1.5 | 0.01 |
| ER20-2.5-A | 2.5~2 | 0.01 |
| ER20-3-A | 3~2 | 0.01 |
| ER20-3.5-A | 3.5~2.5 | 0.01 |
| ER20-4-A | 4~3 | 0.01 |
| ER20-4.5-A | 4.5~3.5 | 0.01 |
| ER20-5-A | 5~4 | 0.01 |
| ER20-5.5-A | 5.5~4.5 | 0.01 |
| ER20-6-A | 6~5 | 0.01 |
| ER20-6.5-A | 6.5~5.5 | 0.01 |
| ER20-7-A | 7~6 | 0.01 |
| ER20-7.5-A | 7.5~6.5 | 0.01 |
| ER20-8-A | 8~7 | 0.01 |
| ER20-8.5-A | 8.5~7.5 | 0.01 |
| ER20-9-A | 9~8 | 0.01 |
| ER20-9.5-A | 9.5~8.5 | 0.01 |
| ER20-10-A | 10~9 | 0.01 |
| ER20-10.5-A | 10.5~9.5 | 0.01 |
| ER20-11-A | 11~10 | 0.01 |
| ER20-11.5-A | 11.5~10.5 | 0.01 |
| ER20-12-A | 12~11 | 0.01 |
| ER20-12.5-A | 12.5~11.5 | 0.01 |
| ER20-13-A | 13~12 | 0.01 |

ER25-A

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER25-1-A | 1~0.5 | 0.01 |
| ER25-1.5-A | 1.5~1 | 0.01 |

ER25-A

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER25-2-A | 2~1.5 | 0.01 |
| ER25-2.5-A | 2.5~2 | 0.01 |
| ER25-3-A | 3~2 | 0.01 |
| ER25-3.5-A | 3.5~2.5 | 0.01 |
| ER25-4-A | 4~3 | 0.01 |
| ER25-4.5-A | 4.5~3.5 | 0.01 |
| ER25-5-A | 5~4 | 0.01 |
| ER25-5.5-A | 5.5~4.5 | 0.01 |
| ER25-6-A | 6~5 | 0.01 |
| ER25-6.5-A | 6.5~5.5 | 0.01 |
| ER25-7-A | 7~6 | 0.01 |
| ER25-7.5-A | 7.5~6.5 | 0.01 |
| ER25-8-A | 8~7 | 0.01 |
| ER25-8.5-A | 8.5~7.5 | 0.01 |
| ER25-9-A | 9~8 | 0.01 |
| ER25-9.5-A | 9.5~8.5 | 0.01 |
| ER25-10-A | 10~9 | 0.01 |
| ER25-10.5-A | 10.5~9.5 | 0.01 |
| ER25-11-A | 11~10 | 0.01 |
| ER25-11.5-A | 11.5~10.5 | 0.01 |
| ER25-12-A | 12~11 | 0.01 |
| ER25-12.5-A | 12.5~11.5 | 0.01 |
| ER25-13-A | 13~12 | 0.01 |
| ER25-13.5-A | 13.5~12.5 | 0.01 |
| ER25-14-A | 14~13 | 0.01 |
| ER25-14.5-A | 14.5~13.5 | 0.01 |
| ER25-15-A | 15~14 | 0.01 |
| ER25-15.5-A | 15.5~14.5 | 0.01 |
| ER25-16-A | 16~15 | 0.01 |

ER32-A

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER32-2-A | 2~1.5 | 0.01 |
| ER32-2.5-A | 2.5~2 | 0.01 |
| ER32-3-A | 3~2 | 0.01 |
| ER32-3.5-A | 3.5~2.5 | 0.01 |
| ER32-4-A | 4~3 | 0.01 |
| ER32-4.5-A | 4.5~3.5 | 0.01 |
| ER32-5-A | 5~4 | 0.01 |
| ER32-5.5-A | 5.5~4.5 | 0.01 |
| ER32-6-A | 6~5 | 0.01 |

• 長度單位 Unit of Length (mm)

精度 (A 級) Accuracy : 0.01mm



ER32-A

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER32-6.5-A | 6.5~5.5 | 0.01 |
| ER32-7-A | 7~6 | 0.01 |
| ER32-7.5-A | 7.5~6.5 | 0.01 |
| ER32-8-A | 8~7 | 0.01 |
| ER32-8.5-A | 8.5~7.5 | 0.01 |
| ER32-9-A | 9~8 | 0.01 |
| ER32-9.5-A | 9.5~8.5 | 0.01 |
| ER32-10-A | 10~9 | 0.01 |
| ER32-10.5-A | 10.5~9.5 | 0.01 |
| ER32-11-A | 11~10 | 0.01 |
| ER32-11.5-A | 11.5~10.5 | 0.01 |
| ER32-12-A | 12~11 | 0.01 |
| ER32-12.5-A | 12.5~11.5 | 0.01 |
| ER32-13-A | 13~12 | 0.01 |
| ER32-13.5-A | 13.5~12.5 | 0.01 |
| ER32-14-A | 14~13 | 0.01 |
| ER32-14.5-A | 14.5~13.5 | 0.01 |
| ER32-15-A | 15~14 | 0.01 |
| ER32-15.5-A | 15.5~14.5 | 0.01 |
| ER32-16-A | 16~15 | 0.01 |
| ER32-16.5-A | 16.5~15.5 | 0.01 |
| ER32-17-A | 17~16 | 0.01 |
| ER32-17.5-A | 17.5~16.5 | 0.01 |
| ER32-18-A | 18~17 | 0.01 |
| ER32-18.5-A | 18.5~17.5 | 0.01 |
| ER32-19-A | 19~18 | 0.01 |
| ER32-19.5-A | 19.5~18.5 | 0.01 |
| ER32-20-A | 20~19 | 0.01 |

ER40-A

| 規格 Spec. | 夾持範圍 Range | 精度等級 Precision |
|-------------|---------------|-------------------|
| ER40-3-A | 3~2 | 0.01 |
| ER40-3.5-A | 3.5~2.5 | 0.01 |
| ER40-4-A | 4~3 | 0.01 |
| ER40-4.5-A | 4.5~3.5 | 0.01 |
| ER40-5-A | 5~4 | 0.01 |
| ER40-5.5-A | 5.5~4.5 | 0.01 |
| ER40-6-A | 6~5 | 0.01 |
| ER40-6.5-A | 6.5~5.5 | 0.01 |
| ER40-7-A | 7~6 | 0.01 |
| ER40-7.5-A | 7.5~6.5 | 0.01 |

ER40-A

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER40-8-A | 8~7 | 0.01 |
| ER40-8.5-A | 8.5~7.5 | 0.01 |
| ER40-9-A | 9~8 | 0.01 |
| ER40-9.5-A | 9.5~8.5 | 0.01 |
| ER40-10-A | 10~9 | 0.01 |
| ER40-10.5-A | 10.5~9.5 | 0.01 |
| ER40-11-A | 11~10 | 0.01 |
| ER40-11.5-A | 11.5~10.5 | 0.01 |
| ER40-12-A | 12~11 | 0.01 |
| ER40-12.5-A | 12.5~11.5 | 0.01 |
| ER40-13-A | 13~12 | 0.01 |
| ER40-13.5-A | 13.5~12.5 | 0.01 |
| ER40-14-A | 14~13 | 0.01 |
| ER40-14.5-A | 14.5~13.5 | 0.01 |
| ER40-15-A | 15~14 | 0.01 |
| ER40-15.5-A | 15.5~14.5 | 0.01 |
| ER40-16-A | 16~15 | 0.01 |
| ER40-16.5-A | 16.5~15.5 | 0.01 |
| ER40-17-A | 17~16 | 0.01 |
| ER40-17.5-A | 17.5~16.5 | 0.01 |
| ER40-18-A | 18~17 | 0.01 |
| ER40-18.5-A | 18.5~17.5 | 0.01 |
| ER40-19-A | 19~18 | 0.01 |
| ER40-19.5-A | 19.5~18.5 | 0.01 |
| ER40-20-A | 20~19 | 0.01 |
| ER40-20.5-A | 20.5~19.5 | 0.01 |
| ER40-21-A | 21~20 | 0.01 |
| ER40-21.5-A | 21.5~20.5 | 0.01 |
| ER40-22-A | 22~21 | 0.01 |
| ER40-22.5-A | 22.5~21.5 | 0.01 |
| ER40-23-A | 23~22 | 0.01 |
| ER40-23.5-A | 23.5~22.5 | 0.01 |
| ER40-24-A | 24~23 | 0.01 |
| ER40-24.5-A | 24.5~23.5 | 0.01 |
| ER40-25-A | 25~24 | 0.01 |
| ER40-25.5-A | 25.5~24.5 | 0.01 |
| ER40-26-A | 26~25 | 0.01 |

ER50-A

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER50-6-A | 6~5 | 0.01 |
| ER50-7-A | 7~6 | 0.01 |
| ER50-8-A | 8~7 | 0.01 |
| ER50-9-A | 9~8 | 0.01 |
| ER50-10-A | 10~9 | 0.01 |
| ER50-11-A | 11~9 | 0.01 |
| ER50-12-A | 12~10 | 0.01 |
| ER50-13-A | 13~11 | 0.01 |
| ER50-14-A | 14~12 | 0.01 |
| ER50-15-A | 15~13 | 0.01 |
| ER50-16-A | 16~14 | 0.01 |
| ER50-17-A | 17~15 | 0.01 |
| ER50-18-A | 18~16 | 0.01 |
| ER50-19-A | 19~17 | 0.01 |
| ER50-20-A | 20~18 | 0.01 |
| ER50-21-A | 21~19 | 0.01 |
| ER50-22-A | 22~20 | 0.01 |
| ER50-23-A | 23~21 | 0.01 |
| ER50-24-A | 24~22 | 0.01 |
| ER50-25-A | 25~23 | 0.01 |
| ER50-26-A | 26~24 | 0.01 |
| ER50-27-A | 27~25 | 0.01 |
| ER50-28-A | 28~26 | 0.01 |
| ER50-29-A | 29~27 | 0.01 |
| ER50-30-A | 30~28 | 0.01 |
| ER50-31-A | 31~29 | 0.01 |
| ER50-32-A | 32~30 | 0.01 |
| ER50-33-A | 33~31 | 0.01 |
| ER50-34-A | 34~32 | 0.01 |

精度 (UP 級) Accuracy : 0.005mm



ER8-UP

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|------------|------------------|----------------|
| ER8-1-UP | 1~0.5 | 0.005 |
| ER8-1.5-UP | 1.5~1 | 0.005 |
| ER8-2-UP | 2~1.5 | 0.005 |
| ER8-2.5-UP | 2.5~2 | 0.005 |
| ER8-3-UP | 3~2.5 | 0.005 |
| ER8-3.5-UP | 3.5~3 | 0.005 |
| ER8-4-UP | 4~3.5 | 0.005 |
| ER8-4.5-UP | 4.5~4 | 0.005 |
| ER8-5-UP | 5~4.5 | 0.005 |

ER11-UP

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|------------------|----------------|
| ER11-1-UP | 1~0.5 | 0.005 |
| ER11-1.5-UP | 1.5~1 | 0.005 |
| ER11-2-UP | 2~1.5 | 0.005 |
| ER11-2.5-UP | 2.5~2 | 0.005 |
| ER11-3-UP | 3~2.5 | 0.005 |
| ER11-3.5-UP | 3.5~3 | 0.005 |
| ER11-4-UP | 4~3.5 | 0.005 |
| ER11-4.5-UP | 4.5~4 | 0.005 |
| ER11-5-UP | 5~4.5 | 0.005 |
| ER11-5.5-UP | 5.5~5 | 0.005 |
| ER11-6-UP | 6~5.5 | 0.005 |
| ER11-6.5-UP | 6.5~6 | 0.005 |
| ER11-7-UP | 7~6.5 | 0.005 |

ER16-UP

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|------------------|----------------|
| ER16-1-UP | 1~0.5 | 0.005 |
| ER16-1.5-UP | 1.5~1 | 0.005 |
| ER16-2-UP | 2~1.5 | 0.005 |
| ER16-2.5-UP | 2.5~2 | 0.005 |
| ER16-3-UP | 3~2 | 0.005 |
| ER16-3.5-UP | 3.5~2.5 | 0.005 |
| ER16-4-UP | 4~3 | 0.005 |
| ER16-4.5-UP | 4.5~3.5 | 0.005 |
| ER16-5-UP | 5~4 | 0.005 |
| ER16-5.5-UP | 5.5~4.5 | 0.005 |
| ER16-6-UP | 6~5 | 0.005 |
| ER16-6.5-UP | 6.5~5.5 | 0.005 |

ER16-UP

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|------------------|----------------|
| ER16-7-UP | 7~6 | 0.005 |
| ER16-7.5-UP | 7.5~6.5 | 0.005 |
| ER16-8-UP | 8~7 | 0.005 |
| ER16-8.5-UP | 8.5~7.5 | 0.005 |
| ER16-9-UP | 9~8 | 0.005 |
| ER16-9.5-UP | 9.5~8.5 | 0.005 |
| ER16-10-UP | 10~9 | 0.005 |

ER20-UP

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|--------------|------------------|----------------|
| ER20-1-UP | 1~0.5 | 0.005 |
| ER20-1.5-UP | 1.5~1 | 0.005 |
| ER20-2-UP | 2~1.5 | 0.005 |
| ER20-2.5-UP | 2.5~2 | 0.005 |
| ER20-3-UP | 3~2 | 0.005 |
| ER20-3.5-UP | 3.5~2.5 | 0.005 |
| ER20-4-UP | 4~3 | 0.005 |
| ER20-4.5-UP | 4.5~3.5 | 0.005 |
| ER20-5-UP | 5~4 | 0.005 |
| ER20-5.5-UP | 5.5~4.5 | 0.005 |
| ER20-6-UP | 6~5 | 0.005 |
| ER20-6.5-UP | 6.5~5.5 | 0.005 |
| ER20-7-UP | 7~6 | 0.005 |
| ER20-7.5-UP | 7.5~6.5 | 0.005 |
| ER20-8-UP | 8~7 | 0.005 |
| ER20-8.5-UP | 8.5~7.5 | 0.005 |
| ER20-9-UP | 9~8 | 0.005 |
| ER20-9.5-UP | 9.5~8.5 | 0.005 |
| ER20-10-UP | 10~9 | 0.005 |
| ER20-10.5-UP | 10.5~9.5 | 0.005 |
| ER20-11-UP | 11~10 | 0.005 |
| ER20-11.5-UP | 11.5~10.5 | 0.005 |
| ER20-12-UP | 12~11 | 0.005 |
| ER20-12.5-UP | 12.5~11.5 | 0.005 |
| ER20-13-UP | 13~12 | 0.005 |

ER25-UP

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|--------------|------------------|----------------|
| ER25-2-UP | 2~1.5 | 0.005 |
| ER25-2.5-UP | 2.5~2 | 0.005 |
| ER25-3-UP | 3~2 | 0.005 |
| ER25-3.5-UP | 3.5~2.5 | 0.005 |
| ER25-4-UP | 4~3 | 0.005 |
| ER25-4.5-UP | 4.5~3.5 | 0.005 |
| ER25-5-UP | 5~4 | 0.005 |
| ER25-5.5-UP | 5.5~4.5 | 0.005 |
| ER25-6-UP | 6~5 | 0.005 |
| ER25-6.5-UP | 6.5~5.5 | 0.005 |
| ER25-7-UP | 7~6 | 0.005 |
| ER25-7.5-UP | 7.5~6.5 | 0.005 |
| ER25-8-UP | 8~7 | 0.005 |
| ER25-8.5-UP | 8.5~7.5 | 0.005 |
| ER25-9-UP | 9~8 | 0.005 |
| ER25-9.5-UP | 9.5~8.5 | 0.005 |
| ER25-10-UP | 10~9 | 0.005 |
| ER25-10.5-UP | 10.5~9.5 | 0.005 |
| ER25-11-UP | 11~10 | 0.005 |
| ER25-11.5-UP | 11.5~10.5 | 0.005 |
| ER25-12-UP | 12~11 | 0.005 |
| ER25-12.5-UP | 12.5~11.5 | 0.005 |
| ER25-13-UP | 13~12 | 0.005 |
| ER25-13.5-UP | 13.5~12.5 | 0.005 |
| ER25-14-UP | 14~13 | 0.005 |
| ER25-14.5-UP | 14.5~13.5 | 0.005 |
| ER25-15-UP | 15~14 | 0.005 |
| ER25-15.5-UP | 15.5~14.5 | 0.005 |
| ER25-16-UP | 16~15 | 0.005 |

ER32-UP

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|------------------|----------------|
| ER32-2-UP | 2~1.5 | 0.005 |
| ER32-2.5-UP | 2.5~2 | 0.005 |
| ER32-3-UP | 3~2 | 0.005 |
| ER32-3.5-UP | 3.5~2.5 | 0.005 |
| ER32-4-UP | 4~3 | 0.005 |
| ER32-4.5-UP | 4.5~3.5 | 0.005 |
| ER32-5-UP | 5~4 | 0.005 |
| ER32-5.5-UP | 5.5~4.5 | 0.005 |
| ER32-6-UP | 6~5 | 0.005 |

• 長度單位 Unit of Length (mm)

精度 (UP 級) Accuracy : 0.005mm



ER32-UP

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|--------------|---------------------|-------------------|
| ER32-6.5-UP | 6.5~5.5 | 0.005 |
| ER32-7-UP | 7~6 | 0.005 |
| ER32-7.5-UP | 7.5~6.5 | 0.005 |
| ER32-8-UP | 8~7 | 0.005 |
| ER32-8.5-UP | 8.5~7.5 | 0.005 |
| ER32-9-UP | 9~8 | 0.005 |
| ER32-9.5-UP | 9.5~8.5 | 0.005 |
| ER32-10-UP | 10~9 | 0.005 |
| ER32-10.5-UP | 10.5~9.5 | 0.005 |
| ER32-11-UP | 11~10 | 0.005 |
| ER32-11.5-UP | 11.5~10.5 | 0.005 |
| ER32-12-UP | 12~11 | 0.005 |
| ER32-12.5-UP | 12.5~11.5 | 0.005 |
| ER32-13-UP | 13~12 | 0.005 |
| ER32-13.5-UP | 13.5~12.5 | 0.005 |
| ER32-14-UP | 14~13 | 0.005 |
| ER32-14.5-UP | 14.5~13.5 | 0.005 |
| ER32-15-UP | 15~14 | 0.005 |
| ER32-15.5-UP | 15.5~14.5 | 0.005 |
| ER32-16-UP | 16~15 | 0.005 |
| ER32-16.5-UP | 16.5~15.5 | 0.005 |
| ER32-17-UP | 17~16 | 0.005 |
| ER32-17.5-UP | 17.5~16.5 | 0.005 |
| ER32-18-UP | 18~17 | 0.005 |
| ER32-18.5-UP | 18.5~17.5 | 0.005 |
| ER32-19-UP | 19~18 | 0.005 |
| ER32-19.5-UP | 19.5~18.5 | 0.005 |
| ER32-20-UP | 20~19 | 0.005 |

ER40-UP

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER40-3-UP | 3~2 | 0.005 |
| ER40-3.5-UP | 3.5~2.5 | 0.005 |
| ER40-4-UP | 4~3 | 0.005 |
| ER40-4.5-UP | 4.5~3.5 | 0.005 |
| ER40-5-UP | 5~4 | 0.005 |
| ER40-5.5-UP | 5.5~4.5 | 0.005 |
| ER40-6-UP | 6~5 | 0.005 |
| ER40-6.5-UP | 6.5~5.5 | 0.005 |
| ER40-7-UP | 7~6 | 0.005 |
| ER40-7.5-UP | 7.5~6.5 | 0.005 |

ER40-UP

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|--------------|---------------------|-------------------|
| ER40-8-UP | 8~7 | 0.005 |
| ER40-8.5-UP | 8.5~7.5 | 0.005 |
| ER40-9-UP | 9~8 | 0.005 |
| ER40-9.5-UP | 9.5~8.5 | 0.005 |
| ER40-10-UP | 10~9 | 0.005 |
| ER40-10.5-UP | 10.5~9.5 | 0.005 |
| ER40-11-UP | 11~10 | 0.005 |
| ER40-11.5-UP | 11.5~10.5 | 0.005 |
| ER40-12-UP | 12~11 | 0.005 |
| ER40-12.5-UP | 12.5~11.5 | 0.005 |
| ER40-13-UP | 13~12 | 0.005 |
| ER40-13.5-UP | 13.5~12.5 | 0.005 |
| ER40-14-UP | 14~13 | 0.005 |
| ER40-14.5-UP | 14.5~13.5 | 0.005 |
| ER40-15-UP | 15~14 | 0.005 |
| ER40-15.5-UP | 15.5~14.5 | 0.005 |
| ER40-16-UP | 16~15 | 0.005 |
| ER40-16.5-UP | 16.5~15.5 | 0.005 |
| ER40-17-UP | 17~16 | 0.005 |
| ER40-17.5-UP | 17.5~16.5 | 0.005 |
| ER40-18-UP | 18~17 | 0.005 |
| ER40-18.5-UP | 18.5~17.5 | 0.005 |
| ER40-19-UP | 19~18 | 0.005 |
| ER40-19.5-UP | 19.5~18.5 | 0.005 |
| ER40-20-UP | 20~19 | 0.005 |
| ER40-20.5-UP | 20.5~19.5 | 0.005 |
| ER40-21-UP | 21~20 | 0.005 |
| ER40-21.5-UP | 21.5~20.5 | 0.005 |
| ER40-22-UP | 22~21 | 0.005 |
| ER40-22.5-UP | 22.5~21.5 | 0.005 |
| ER40-23-UP | 23~22 | 0.005 |
| ER40-23.5-UP | 23.5~22.5 | 0.005 |
| ER40-24-UP | 24~23 | 0.005 |
| ER40-24.5-UP | 24.5~23.5 | 0.005 |
| ER40-25-UP | 25~24 | 0.005 |
| ER40-25.5-UP | 25.5~24.5 | 0.005 |
| ER40-26-UP | 26~25 | 0.005 |

ER50-UP

| 規格 Spec. | 夾持範圍 Clamp Range | 精度等級 Precision |
|-------------|---------------------|-------------------|
| ER50-6-UP | 6~5 | 0.005 |
| ER50-7-UP | 7~6 | 0.005 |
| ER50-8-UP | 8~7 | 0.005 |
| ER50-9-UP | 9~8 | 0.005 |
| ER50-10-UP | 10~9 | 0.005 |
| ER50-11-UP | 11~9 | 0.005 |
| ER50-12-UP | 12~10 | 0.005 |
| ER50-13-UP | 13~11 | 0.005 |
| ER50-14-UP | 14~12 | 0.005 |
| ER50-15-UP | 15~13 | 0.005 |
| ER50-16-UP | 16~14 | 0.005 |
| ER50-17-UP | 17~15 | 0.005 |
| ER50-18-UP | 18~16 | 0.005 |
| ER50-19-UP | 19~17 | 0.005 |
| ER50-20-UP | 20~18 | 0.005 |
| ER50-21-UP | 21~19 | 0.005 |
| ER50-22-UP | 22~20 | 0.005 |
| ER50-23-UP | 23~21 | 0.005 |
| ER50-24-UP | 24~22 | 0.005 |
| ER50-25-UP | 25~23 | 0.005 |
| ER50-26-UP | 26~24 | 0.005 |
| ER50-27-UP | 27~25 | 0.005 |
| ER50-28-UP | 28~26 | 0.005 |
| ER50-29-UP | 29~27 | 0.005 |
| ER50-30-UP | 30~28 | 0.005 |
| ER50-31-UP | 31~29 | 0.005 |
| ER50-32-UP | 32~30 | 0.005 |
| ER50-33-UP | 33~31 | 0.005 |
| ER50-34-UP | 34~32 | 0.005 |

ER8

| 規格 Spec. | 夾持範圍 Clamp Range |
|-------------|---------------------|
| ER8-1/16 | 0.043"~0.062" |
| ER8-1/8 | 0.086"~0.125" |
| ER8-3/16 | 0.148"~0.187" |

ER11

| 規格 Spec. | 夾持範圍 Clamp Range |
|-------------|---------------------|
| ER11-1/16 | 0.043"~0.062" |
| ER11-3/32 | 0.054"~0.093" |
| ER11-1/8 | 0.086"~0.125" |
| ER11-5/32 | 0.117"~0.156" |
| ER11-3/16 | 0.148"~0.187" |
| ER11-7/32 | 0.179"~0.218" |
| ER11-1/4 | 0.211"~0.250" |

ER16

| 規格 Spec. | 夾持範圍 Clamp Range |
|-------------|---------------------|
| ER16-1/16 | 0.043"~0.062" |
| ER16-3/32 | 0.054"~0.093" |
| ER16-1/8 | 0.086"~0.125" |
| ER16-5/32 | 0.117"~0.156" |
| ER16-3/16 | 0.148"~0.187" |
| ER16-7/32 | 0.179"~0.218" |
| ER16-1/4 | 0.211"~0.250" |
| ER16-9/32 | 0.242"~0.281" |
| ER16-5/16 | 0.283"~0.312" |
| ER16-11/32 | 0.304"~0.343" |
| ER16-3/8 | 0.336"~0.375" |
| ER16-13/32 | 0.367"~0.406" |

ER20

| 規格 Spec. | 夾持範圍 Clamp Range |
|-------------|---------------------|
| ER20-1/16 | 0.043"~0.062" |
| ER20-3/32 | 0.054"~0.093" |
| ER20-1/8 | 0.086"~0.125" |
| ER20-5/32 | 0.117"~0.156" |
| ER20-3/16 | 0.148"~0.187" |
| ER20-7/32 | 0.179"~0.218" |
| ER20-1/4 | 0.211"~0.250" |
| ER20-9/32 | 0.242"~0.281" |
| ER20-5/16 | 0.283"~0.312" |
| ER20-11/32 | 0.304"~0.343" |
| ER20-3/8 | 0.336"~0.375" |
| ER20-13/32 | 0.367"~0.406" |
| ER20-7/16 | 0.398"~0.437" |
| ER20-15/32 | 0.429"~0.468" |
| ER20-1/2 | 0.461"~0.500" |

ER25

| 規格 Spec. | 夾持範圍 Clamp Range |
|-------------|---------------------|
| ER25-3/32 | 0.054"~0.093" |
| ER25-1/8 | 0.086"~0.125" |
| ER25-5/32 | 0.117"~0.156" |
| ER25-3/16 | 0.148"~0.187" |
| ER25-7/32 | 0.179"~0.218" |
| ER25-1/4 | 0.211"~0.250" |
| ER25-9/32 | 0.242"~0.281" |
| ER25-5/16 | 0.283"~0.312" |
| ER25-11/32 | 0.304"~0.343" |
| ER25-3/8 | 0.336"~0.375" |
| ER25-13/32 | 0.367"~0.406" |
| ER25-7/16 | 0.398"~0.437" |
| ER25-15/32 | 0.429"~0.468" |
| ER25-1/2 | 0.461"~0.500" |
| ER25-17/32 | 0.492"~0.531" |
| ER25-9/16 | 0.523"~0.562" |
| ER25-19/32 | 0.554"~0.593" |
| ER25-5/8 | 0.586"~0.625" |

ER32

| 規格 Spec. | 夾持範圍 Clamp Range |
|-------------|---------------------|
| ER32-1/16 | 0.043"~0.062" |
| ER32-3/32 | 0.054"~0.093" |
| ER32-1/8 | 0.086"~0.125" |
| ER32-5/32 | 0.117"~0.156" |
| ER32-3/16 | 0.148"~0.187" |
| ER32-7/32 | 0.179"~0.218" |
| ER32-1/4 | 0.211"~0.250" |
| ER32-9/32 | 0.242"~0.281" |
| ER32-5/16 | 0.283"~0.312" |
| ER32-11/32 | 0.304"~0.343" |
| ER32-3/8 | 0.336"~0.375" |
| ER32-13/32 | 0.367"~0.406" |
| ER32-7/16 | 0.398"~0.437" |
| ER32-15/32 | 0.429"~0.468" |
| ER32-1/2 | 0.461"~0.500" |
| ER32-17/32 | 0.492"~0.531" |
| ER32-9/16 | 0.523"~0.562" |
| ER32-19/32 | 0.554"~0.593" |
| ER32-5/8 | 0.586"~0.625" |
| ER32-21/32 | 0.617"~0.656" |
| ER32-11/16 | 0.648"~0.687" |
| ER32-23/32 | 0.679"~0.718" |
| ER32-3/4 | 0.711"~0.750" |

ER40

| 規格 Spec. | 夾持範圍 Clamp Range |
|-------------|---------------------|
| ER40-1/8 | 0.086"~0.125" |
| ER40-5/32 | 0.117"~0.156" |
| ER40-3/16 | 0.148"~0.187" |
| ER40-7/32 | 0.179"~0.218" |
| ER40-1/4 | 0.211"~0.250" |
| ER40-9/32 | 0.242"~0.281" |
| ER40-5/16 | 0.283"~0.312" |
| ER40-11/32 | 0.304"~0.343" |
| ER40-3/8 | 0.336"~0.375" |
| ER40-13/32 | 0.367"~0.406" |
| ER40-7/16 | 0.398"~0.437" |
| ER40-15/32 | 0.429"~0.468" |
| ER40-1/2 | 0.461"~0.500" |
| ER40-17/32 | 0.492"~0.531" |
| ER40-9/16 | 0.523"~0.562" |
| ER40-19/32 | 0.554"~0.593" |
| ER40-5/8 | 0.586"~0.625" |
| ER40-21/32 | 0.617"~0.656" |
| ER40-11/16 | 0.648"~0.687" |
| ER40-23/32 | 0.679"~0.718" |
| ER40-3/4 | 0.711"~0.750" |
| ER40-7/8 | 0.836"~0.875" |
| ER40-1 | 0.961"~1.00" |

ER50

| 規格 Spec. | 夾持範圍 Clamp Range |
|-------------|---------------------|
| ER50-7/23 | 0.179"~0.219" |
| ER50-1/4 | 0.211"~0.250" |
| ER50-5/16 | 0.273"~0.313" |
| ER50-11/32 | 0.304"~0.344" |
| ER50-3/8 | 0.336"~0.375" |
| ER50-7/16 | 0.359"~0.438" |
| ER50-17/32 | 0.453"~0.531" |
| ER50-5/8 | 0.546"~0.625" |
| ER50-11/16 | 0.609"~0.688" |
| ER50-25/32 | 0.703"~0.781" |
| ER50-27/32 | 0.765"~0.844" |
| ER50-15/16 | 0.859"~0.938" |
| ER50-1 | 0.921"~1.000" |
| ER50-1-3/32 | 1.015"~1.094" |
| ER50-1-3/16 | 1.109"~1.188" |
| ER50-1-1/4 | 1.171"~1.250" |
| ER50-1-5/16 | 1.234"~1.313" |

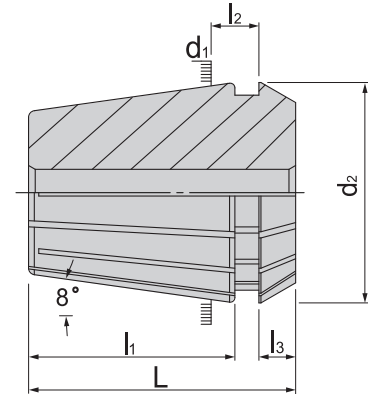
- 以上規格皆有普通級 0.02mm、A 級 0.01mm 及 UP 級 0.005mm 三種精度等級可選購，訂購時請告知所需精度等級。

- The above specifications individually ordinary grade 0.02mm, A grade 0.01mm and UP grade 0.005mm. Three kinds of precision grade optional, please inform us the required accuracy grade when ordering

• 長度單位 Unit of Length (mm)



範例 Exmpl



| 規格 Spec. | d1 | d2 | L | l1 | l2 | l3 | 尺寸範圍 Size Range |
|----------|----|------|------|------|------|-----|-----------------|
| ER16 | 16 | 16.6 | 27.5 | 20.8 | 6.26 | 4 | 3~7mm |
| ER20 | 20 | 20.6 | 31.5 | 23.9 | 6.36 | 4.8 | 3~9mm |
| ER25 | 25 | 25.6 | 34 | 25.9 | 6.66 | 5 | 3~14mm |
| ER32 | 32 | 32.6 | 40 | 30.9 | 7.16 | 5.5 | 3~20mm |
| ER40 | 40 | 40.6 | 46 | 34.9 | 7.66 | 7 | 4~26mm |

ER16-FID

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|------------|------------------|-----------------|
| FID-ER16-3 | 3 | 0.03 |
| FID-ER16-4 | 4 | 0.03 |
| FID-ER16-5 | 5 | 0.03 |
| FID-ER16-6 | 6 | 0.03 |
| FID-ER16-7 | 7 | 0.03 |

ER25-FID

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------|------------------|-----------------|
| FID-ER25-3 | 3 | 0.06 |
| FID-ER25-4 | 4 | 0.06 |
| FID-ER25-5 | 5 | 0.06 |
| FID-ER25-6 | 6 | 0.06 |
| FID-ER25-7 | 7 | 0.06 |
| FID-ER25-8 | 8 | 0.06 |
| FID-ER25-9 | 9 | 0.06 |
| FID-ER25-10 | 10 | 0.06 |
| FID-ER25-11 | 11 | 0.06 |
| FID-ER25-12 | 12 | 0.06 |
| FID-ER25-13 | 13 | 0.06 |
| FID-ER25-14 | 14 | 0.06 |

ER20-FID

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|------------|------------------|-----------------|
| FID-ER20-3 | 3 | 0.04 |
| FID-ER20-4 | 4 | 0.04 |
| FID-ER20-5 | 5 | 0.04 |
| FID-ER20-6 | 6 | 0.04 |
| FID-ER20-7 | 7 | 0.04 |
| FID-ER20-8 | 8 | 0.04 |
| FID-ER20-9 | 9 | 0.04 |



ER-FID 出水筒夾

ER-FID COOLANT COLLET



ER32-FID

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------|---------------------|-----------------------|
| FID-ER32-3 | 3 | 0.10 |
| FID-ER32-4 | 4 | 0.10 |
| FID-ER32-5 | 5 | 0.10 |
| FID-ER32-6 | 6 | 0.10 |
| FID-ER32-7 | 7 | 0.10 |
| FID-ER32-8 | 8 | 0.10 |
| FID-ER32-9 | 9 | 0.10 |
| FID-ER32-10 | 10 | 0.10 |
| FID-ER32-11 | 11 | 0.10 |
| FID-ER32-12 | 12 | 0.10 |
| FID-ER32-13 | 13 | 0.10 |
| FID-ER32-14 | 14 | 0.10 |
| FID-ER32-15 | 15 | 0.10 |
| FID-ER32-16 | 16 | 0.10 |
| FID-ER32-17 | 17 | 0.10 |
| FID-ER32-18 | 18 | 0.10 |
| FID-ER32-19 | 19 | 0.10 |
| FID-ER32-20 | 20 | 0.10 |

ER40-FID

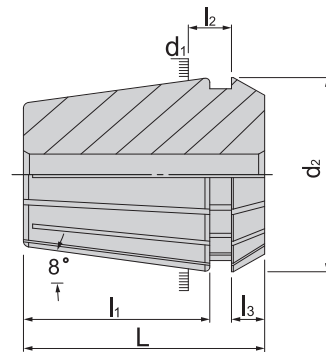
| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------|---------------------|-----------------------|
| FID-ER40-4 | 4 | 0.25 |
| FID-ER40-5 | 5 | 0.25 |
| FID-ER40-6 | 6 | 0.25 |
| FID-ER40-7 | 7 | 0.25 |
| FID-ER40-8 | 8 | 0.25 |
| FID-ER40-9 | 9 | 0.25 |
| FID-ER40-10 | 10 | 0.25 |
| FID-ER40-11 | 11 | 0.25 |
| FID-ER40-12 | 12 | 0.25 |
| FID-ER40-13 | 13 | 0.25 |
| FID-ER40-14 | 14 | 0.25 |
| FID-ER40-15 | 15 | 0.25 |
| FID-ER40-16 | 16 | 0.25 |
| FID-ER40-17 | 17 | 0.25 |
| FID-ER40-18 | 18 | 0.25 |
| FID-ER40-19 | 19 | 0.25 |
| FID-ER40-20 | 20 | 0.25 |
| FID-ER40-21 | 21 | 0.25 |
| FID-ER40-22 | 22 | 0.25 |
| FID-ER40-23 | 23 | 0.25 |
| FID-ER40-24 | 24 | 0.25 |
| FID-ER40-25 | 25 | 0.25 |
| FID-ER40-26 | 26 | 0.25 |



ER-FOD 出水筒夾

ER-FOD COOLANT COLLET

範例 Exmpl



| 規格 Spec. | d1 | d2 | L | l1 | l2 | l3 | 尺寸範圍 Size Range |
|-------------|----|------|------|------|------|-----|--------------------|
| ER16 | 16 | 16.6 | 27.5 | 20.8 | 6.26 | 4 | 3~7mm |
| ER20 | 20 | 20.6 | 31.5 | 23.9 | 6.36 | 4.8 | 3~9mm |
| ER25 | 25 | 25.6 | 34 | 25.9 | 6.66 | 5 | 3~14mm |
| ER32 | 32 | 32.6 | 40 | 30.9 | 7.16 | 5.5 | 3~20mm |
| ER40 | 40 | 40.6 | 46 | 34.9 | 7.66 | 7 | 4~26mm |
| ER50 | 50 | 52 | 60 | 46 | 13.4 | 8.5 | 6~20mm |

• 長度單位 Unit of Length (mm)

ACCESSORIES

ER16-FOD

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------|---------------------|-----------------------|
| FOD-ER16-3 | 3 | 0.03 |
| FOD-ER16-4 | 4 | 0.03 |
| FOD-ER16-5 | 5 | 0.03 |
| FOD-ER16-6 | 6 | 0.03 |
| FOD-ER16-7 | 7 | 0.03 |

ER20-FOD

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------|---------------------|-----------------------|
| FOD-ER20-3 | 3 | 0.04 |
| FOD-ER20-4 | 4 | 0.04 |
| FOD-ER20-5 | 5 | 0.04 |
| FOD-ER20-6 | 6 | 0.04 |
| FOD-ER20-7 | 7 | 0.04 |
| FOD-ER20-8 | 8 | 0.04 |
| FOD-ER20-9 | 9 | 0.04 |

ER25-FOD

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------|---------------------|-----------------------|
| FOD-ER25-3 | 3 | 0.06 |
| FOD-ER25-4 | 4 | 0.06 |
| FOD-ER25-5 | 5 | 0.06 |
| FOD-ER25-6 | 6 | 0.06 |
| FOD-ER25-7 | 7 | 0.06 |
| FOD-ER25-8 | 8 | 0.06 |
| FOD-ER25-9 | 9 | 0.06 |
| FOD-ER25-10 | 10 | 0.06 |
| FOD-ER25-11 | 11 | 0.06 |
| FOD-ER25-12 | 12 | 0.06 |
| FOD-ER25-13 | 13 | 0.06 |
| FOD-ER25-14 | 14 | 0.06 |

ER32-FOD

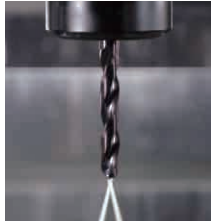
| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------|---------------------|-----------------------|
| FOD-ER32-3 | 3 | 0.10 |
| FOD-ER32-4 | 4 | 0.10 |
| FOD-ER32-5 | 5 | 0.10 |
| FOD-ER32-6 | 6 | 0.10 |
| FOD-ER32-7 | 7 | 0.10 |
| FOD-ER32-8 | 8 | 0.10 |
| FOD-ER32-9 | 9 | 0.10 |
| FOD-ER32-10 | 10 | 0.10 |
| FOD-ER32-11 | 11 | 0.10 |
| FOD-ER32-12 | 12 | 0.10 |
| FOD-ER32-13 | 13 | 0.10 |
| FOD-ER32-14 | 14 | 0.10 |
| FOD-ER32-15 | 15 | 0.10 |
| FOD-ER32-16 | 16 | 0.10 |
| FOD-ER32-17 | 17 | 0.10 |
| FOD-ER32-18 | 18 | 0.10 |
| FOD-ER32-19 | 19 | 0.10 |
| FOD-ER32-20 | 20 | 0.10 |

ER40-FOD

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-------------|---------------------|-----------------------|
| FOD-ER40-4 | 4 | 0.25 |
| FOD-ER40-5 | 5 | 0.25 |
| FOD-ER40-6 | 6 | 0.25 |
| FOD-ER40-7 | 7 | 0.25 |
| FOD-ER40-8 | 8 | 0.25 |
| FOD-ER40-9 | 9 | 0.25 |
| FOD-ER40-10 | 10 | 0.25 |
| FOD-ER40-11 | 11 | 0.25 |
| FOD-ER40-12 | 12 | 0.25 |
| FOD-ER40-13 | 13 | 0.25 |
| FOD-ER40-14 | 14 | 0.25 |
| FOD-ER40-15 | 15 | 0.25 |
| FOD-ER40-16 | 16 | 0.25 |
| FOD-ER40-17 | 17 | 0.25 |
| FOD-ER40-18 | 18 | 0.25 |
| FOD-ER40-19 | 19 | 0.25 |
| FOD-ER40-20 | 20 | 0.25 |
| FOD-ER40-21 | 21 | 0.25 |
| FOD-ER40-22 | 22 | 0.25 |
| FOD-ER40-23 | 23 | 0.25 |
| FOD-ER40-24 | 24 | 0.25 |
| FOD-ER40-25 | 25 | 0.25 |
| FOD-ER40-26 | 26 | 0.25 |

ER50-FOD

| 規格 Spec. | 夾持範圍 Size Range | 重量 (KGS) Weight |
|-------------|--------------------|-----------------------|
| FOD-ER50-6 | 6 | 0.45 |
| FOD-ER50-7 | 7 | 0.45 |
| FOD-ER50-8 | 8 | 0.45 |
| FOD-ER50-9 | 9 | 0.45 |
| FOD-ER50-10 | 10 | 0.45 |
| FOD-ER50-11 | 11 | 0.45 |
| FOD-ER50-12 | 12 | 0.45 |
| FOD-ER50-13 | 13 | 0.45 |
| FOD-ER50-14 | 14 | 0.45 |
| FOD-ER50-15 | 15 | 0.45 |
| FOD-ER50-16 | 16 | 0.45 |
| FOD-ER50-17 | 17 | 0.45 |
| FOD-ER50-18 | 18 | 0.45 |
| FOD-ER50-19 | 19 | 0.45 |
| FOD-ER50-20 | 20 | 0.45 |
| FOD-ER50-21 | 21 | 0.45 |
| FOD-ER50-22 | 22 | 0.45 |
| FOD-ER50-23 | 23 | 0.45 |
| FOD-ER50-24 | 24 | 0.45 |
| FOD-ER50-25 | 25 | 0.45 |
| FOD-ER50-26 | 26 | 0.45 |
| FOD-ER50-27 | 27 | 0.45 |
| FOD-ER50-28 | 28 | 0.45 |
| FOD-ER50-29 | 29 | 0.45 |
| FOD-ER50-30 | 30 | 0.45 |
| FOD-ER50-31 | 31 | 0.45 |
| FOD-ER50-32 | 32 | 0.45 |
| FOD-ER50-33 | 33 | 0.45 |
| FOD-ER50-34 | 34 | 0.45 |



ERS11

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-----------|------------------|-----------------|
| ERS11-3 | 3 | 0.03 |
| ERS11-3.5 | 3.5 | 0.03 |
| ERS11-4 | 4 | 0.03 |
| ERS11-4.5 | 4.5 | 0.03 |
| ERS11-5 | 5 | 0.03 |
| ERS11-5.5 | 5.5 | 0.03 |
| ERS11-6 | 6 | 0.03 |
| ERS11-6.5 | 6.5 | 0.03 |
| ERS11-7 | 7 | 0.03 |

ERS16

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|-----------|------------------|-----------------|
| ERS16-3 | 3 | 0.03 |
| ERS16-3.5 | 3.5 | 0.03 |
| ERS16-4 | 4 | 0.03 |
| ERS16-4.5 | 4.5 | 0.03 |
| ERS16-5 | 5 | 0.03 |
| ERS16-5.5 | 5.5 | 0.03 |
| ERS16-6 | 6 | 0.03 |
| ERS16-6.5 | 6.5 | 0.03 |
| ERS16-7 | 7 | 0.03 |
| ERS16-7.5 | 7.5 | 0.03 |
| ERS16-8 | 8 | 0.03 |
| ERS16-8.5 | 8.5 | 0.03 |
| ERS16-9 | 9 | 0.03 |
| ERS16-9.5 | 9.5 | 0.03 |
| ERS16-10 | 10 | 0.03 |

ERS20

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|------------|------------------|-----------------|
| ERS20-3 | 3 | 0.03 |
| ERS20-3.5 | 3.5 | 0.03 |
| ERS20-4 | 4 | 0.03 |
| ERS20-4.5 | 4.5 | 0.03 |
| ERS20-5 | 5 | 0.03 |
| ERS20-5.5 | 5.5 | 0.03 |
| ERS20-6 | 6 | 0.03 |
| ERS20-6.5 | 6.5 | 0.03 |
| ERS20-7 | 7 | 0.03 |
| ERS20-7.5 | 7.5 | 0.03 |
| ERS20-8 | 8 | 0.03 |
| ERS20-8.5 | 8.5 | 0.03 |
| ERS20-9 | 9 | 0.03 |
| ERS20-9.5 | 9.5 | 0.03 |
| ERS20-10 | 10 | 0.03 |
| ERS20-10.5 | 10.5 | 0.03 |
| ERS20-11 | 11 | 0.03 |
| ERS20-11.5 | 11.5 | 0.03 |
| ERS20-12 | 12 | 0.03 |
| ERS20-12.5 | 12.5 | 0.03 |
| ERS20-13 | 13 | 0.03 |

ERS25

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|------------|------------------|-----------------|
| ERS25-3 | 3 | 0.03 |
| ERS25-3.5 | 3.5 | 0.03 |
| ERS25-4 | 4 | 0.03 |
| ERS25-4.5 | 4.5 | 0.03 |
| ERS25-5 | 5 | 0.03 |
| ERS25-5.5 | 5.5 | 0.03 |
| ERS25-6 | 6 | 0.03 |
| ERS25-6.5 | 6.5 | 0.03 |
| ERS25-7 | 7 | 0.03 |
| ERS25-7.5 | 7.5 | 0.03 |
| ERS25-8 | 8 | 0.03 |
| ERS25-8.5 | 8.5 | 0.03 |
| ERS25-9 | 9 | 0.03 |
| ERS25-9.5 | 9.5 | 0.03 |
| ERS25-10 | 10 | 0.03 |
| ERS25-10.5 | 10.5 | 0.03 |
| ERS25-11 | 11 | 0.03 |
| ERS25-11.5 | 11.5 | 0.03 |
| ERS25-12 | 12 | 0.03 |
| ERS25-12.5 | 12.5 | 0.03 |
| ERS25-13 | 13 | 0.03 |
| ERS25-13.5 | 13.5 | 0.03 |
| ERS25-14 | 14 | 0.03 |
| ERS25-14.5 | 14.5 | 0.03 |
| ERS25-15 | 15 | 0.03 |
| ERS25-15.5 | 15.5 | 0.03 |
| ERS25-16 | 16 | 0.03 |

ERS32

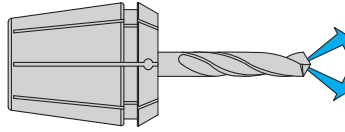
| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|------------|------------------|-----------------|
| ERS32-3 | 3 | 0.03 |
| ERS32-3.5 | 3.5 | 0.03 |
| ERS32-4 | 4 | 0.03 |
| ERS32-4.5 | 4.5 | 0.03 |
| ERS32-5 | 5 | 0.03 |
| ERS32-5.5 | 5.5 | 0.03 |
| ERS32-6 | 6 | 0.03 |
| ERS32-6.5 | 6.5 | 0.03 |
| ERS32-7 | 7 | 0.03 |
| ERS32-7.5 | 7.5 | 0.03 |
| ERS32-8 | 8 | 0.03 |
| ERS32-8.5 | 8.5 | 0.03 |
| ERS32-9 | 9 | 0.03 |
| ERS32-9.5 | 9.5 | 0.03 |
| ERS32-10 | 10 | 0.03 |
| ERS32-10.5 | 10.5 | 0.03 |
| ERS32-11 | 11 | 0.03 |
| ERS32-11.5 | 11.5 | 0.03 |
| ERS32-12 | 12 | 0.03 |
| ERS32-12.5 | 12.5 | 0.03 |
| ERS32-13 | 13 | 0.03 |
| ERS32-13.5 | 13.5 | 0.03 |
| ERS32-14 | 14 | 0.03 |
| ERS32-14.5 | 14.5 | 0.03 |

ERS32

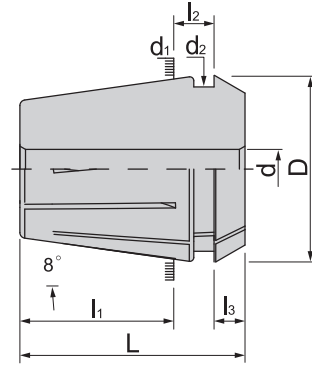
| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|------------|------------------|-----------------|
| ERS32-15 | 15 | 0.03 |
| ERS32-15.5 | 15.5 | 0.03 |
| ERS32-16 | 16 | 0.03 |
| ERS32-16.5 | 16.5 | 0.03 |
| ERS32-17 | 17 | 0.03 |
| ERS32-17.5 | 17.5 | 0.03 |
| ERS32-18 | 18 | 0.03 |
| ERS32-18.5 | 18.5 | 0.03 |
| ERS32-19 | 19 | 0.03 |
| ERS32-19.5 | 19.5 | 0.03 |
| ERS32-20 | 20 | 0.03 |

ERS40

| 規格 Spec. | 夾持範圍 Clamp Range | 重量 (KGS) Weight |
|------------|------------------|-----------------|
| ERS40-3 | 3 | 0.03 |
| ERS40-3.5 | 3.5 | 0.03 |
| ERS40-4 | 4 | 0.03 |
| ERS40-4.5 | 4.5 | 0.03 |
| ERS40-5 | 5 | 0.03 |
| ERS40-5.5 | 5.5 | 0.03 |
| ERS40-6 | 6 | 0.03 |
| ERS40-6.5 | 6.5 | 0.03 |
| ERS40-7 | 7 | 0.03 |
| ERS40-7.5 | 7.5 | 0.03 |
| ERS40-8 | 8 | 0.03 |
| ERS40-8.5 | 8.5 | 0.03 |
| ERS40-9 | 9 | 0.03 |
| ERS40-9.5 | 9.5 | 0.03 |
| ERS40-10 | 10 | 0.03 |
| ERS40-10.5 | 10.5 | 0.03 |
| ERS40-11 | 11 | 0.03 |
| ERS40-11.5 | 11.5 | 0.03 |
| ERS40-12 | 12 | 0.03 |
| ERS40-12.5 | 12.5 | 0.03 |
| ERS40-13 | 13 | 0.03 |
| ERS40-13.5 | 13.5 | 0.03 |
| ERS40-14 | 14 | 0.03 |
| ERS40-14.5 | 14.5 | 0.03 |
| ERS40-15 | 15 | 0.03 |
| ERS40-15.5 | 15.5 | 0.03 |
| ERS40-16 | 16 | 0.03 |
| ERS40-16.5 | 16.5 | 0.03 |
| ERS40-17 | 17 | 0.03 |
| ERS40-17.5 | 17.5 | 0.03 |
| ERS40-18 | 18 | 0.03 |
| ERS40-18.5 | 18.5 | 0.03 |
| ERS40-19 | 19 | 0.03 |
| ERS40-19.5 | 19.5 | 0.03 |
| ERS40-20 | 20 | 0.03 |
| ERS40-20.5 | 20.5 | 0.03 |
| ERS40-21 | 21 | 0.03 |
| ERS40-21.5 | 21.5 | 0.03 |
| ERS40-22 | 22 | 0.03 |
| ERS40-22.5 | 22.5 | 0.03 |
| ERS40-23 | 23 | 0.03 |
| ERS40-23.5 | 23.5 | 0.03 |
| ERS40-24 | 24 | 0.03 |
| ERS40-24.5 | 24.5 | 0.03 |
| ERS40-25 | 25 | 0.03 |
| ERS40-25.5 | 25.5 | 0.03 |
| ERS40-26 | 26 | 0.03 |



夾持附水孔刀具專用



- 材質 :SUJ-2
- 斜度 :8°
- 硬度 :HRC46°
- 表面粗糙度 RZ2.5 以內
- 偏擺精度 <0.02mm

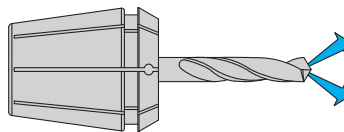
- Steel:SUJ - 2
- Taper:8°
- Hardness: HRC46°
- Surface Roughness:RZ 2.5
- Precision : within 0.02mm.

特點 Feature

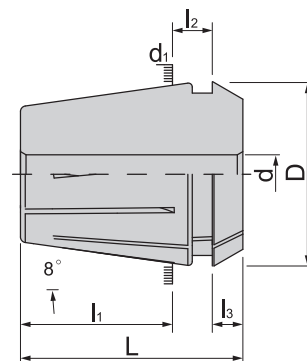
- 利用溝槽的差異，以及墊圈 (Sealed ring 封環) 的應用，達到周圍止水，僅中心出水的功用
- 適合於夾持出水孔的刀具
- 可承受水壓達 21kgf/cm²
- 無彈性 (沒有彈性夾持範圍，需看最大夾持範圍)
- 非標準孔徑如英制尺寸或是點數規格可接受訂製
- 專利在案

- Take use of the difference of groove and then use of sealed ring to attain surrounding coolant and provide center as water outlet.
- Suitable for chuck cutting tools with water exit.
- Can bear the water pressure up to 21kgf/cm².
- No flexibility (NO flexible chucking range. It depends on the biggest chucking range).
- Non-standard type, such as inch type or decimal type, are welcomed to order.
- Has a patent.

| 規格 Spec. | d 尺寸範圍 Size Range | d ₁ | d ₂ | L | l ₁ | l ₂ | l ₃ |
|----------|-------------------|----------------|----------------|------|----------------|----------------|----------------|
| ER11EO-d | 3~7mm | 11 | 11.2 | 18 | 13.5 | 3.8 | 2.5 |
| ER16EO-d | 3~10mm | 16 | 16.6 | 27.5 | 20.8 | 6.26 | 4 |
| ER20EO-d | 3~13mm | 20 | 20.6 | 31.5 | 23.9 | 6.36 | 4.8 |
| ER25EO-d | 3~16mm | 25 | 25.6 | 34 | 25.9 | 6.66 | 5 |
| ER32EO-d | 3~20mm | 32 | 32.6 | 40 | 30.9 | 7.16 | 5.5 |
| ER40EO-d | 3~26mm | 40 | 40.6 | 46 | 34.9 | 7.66 | 7 |



夾持附水孔刀具專用



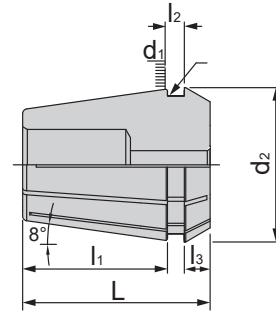
| 規格 Spec. | d 尺寸範圍 Size Range | L | l ₁ | l ₂ | l ₃ | D | d ₁ |
|----------|-------------------|------|----------------|----------------|----------------|------|----------------|
| ER11ES-d | 3~7mm | 18 | 13.5 | 3.8 | 2.5 | 11.2 | 11 |
| ER16ES-d | 0.5~10mm | 27.5 | 20.8 | 6.25 | 4 | 16.6 | 16 |
| ER20ES-d | 1~13mm | 31.5 | 23.9 | 6.36 | 4.8 | 20.6 | 20 |
| ER25ES-d | 1~16mm | 34 | 25.9 | 6.66 | 5 | 25.6 | 25 |
| ER32ES-d | 2~20mm | 40 | 30.9 | 7.16 | 5.5 | 32.6 | 32 |
| ER40ES-d | 3~26mm | 46 | 34.9 | 7.66 | 7 | 40.6 | 40 |

• 長度單位 Unit of Length (mm)



PN 筒夾 PN COLLET

精度 Accuracy: <math><3\mu\text{m}</math>



| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | 夾持範圍 Size Range | 重量 (KGS) Weight |
|----------|------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|
| PN16 | 27.5 | 20.8 | 3.4 | 4 | 16 | 16.8 | 3.0~10 | 0.03 |
| PN20 | 31.5 | 23.9 | 3.4 | 4.8 | 20 | 20.8 | 3.0~13 | 0.04 |
| PN25 | 34 | 25.9 | 3.6 | 5 | 25 | 25.8 | 3.0~16 | 0.06 |
| PN32 | 40 | 30.9 | 4.1 | 5.5 | 32 | 32.7 | 3.0~20 | 0.10 |
| PN40 | 46 | 34.5 | 4.5 | 7 | 40 | 40.85 | 6.0~26 | 0.25 |

PN16

| 規格 Spec. | 夾持範圍 Size Range |
|----------|-----------------|
| PN16-03 | 3 |
| PN16-04 | 4 |
| PN16-05 | 5 |
| PN16-06 | 6 |
| PN16-07 | 7 |
| PN16-08 | 8 |
| PN16-09 | 9 |
| PN16-10 | 10 |

PN20

| 規格 Spec. | 夾持範圍 Size Range |
|----------|-----------------|
| PN20-03 | 3 |
| PN20-04 | 4 |
| PN20-05 | 5 |
| PN20-06 | 6 |
| PN20-07 | 7 |
| PN20-08 | 8 |
| PN20-09 | 9 |
| PN20-10 | 10 |
| PN20-11 | 11 |
| PN20-12 | 12 |
| PN20-13 | 13 |

PN25

| 規格 Spec. | 夾持範圍 Size Range |
|----------|-----------------|
| PN25-03 | 3 |
| PN25-04 | 4 |
| PN25-05 | 5 |
| PN25-06 | 6 |
| PN25-07 | 7 |
| PN25-08 | 8 |
| PN25-09 | 9 |
| PN25-10 | 10 |
| PN25-11 | 11 |
| PN25-12 | 12 |
| PN25-13 | 13 |
| PN25-14 | 14 |
| PN25-15 | 15 |
| PN25-16 | 16 |

PN32

| 規格 Spec. | 夾持範圍 Size Range |
|----------|-----------------|
| PN32-03 | 3 |
| PN32-04 | 4 |
| PN32-05 | 5 |
| PN32-06 | 6 |
| PN32-07 | 7 |
| PN32-08 | 8 |
| PN32-09 | 9 |
| PN32-10 | 10 |
| PN32-11 | 11 |
| PN32-12 | 12 |
| PN32-13 | 13 |
| PN32-14 | 14 |
| PN32-15 | 15 |
| PN32-16 | 16 |
| PN32-17 | 17 |
| PN32-18 | 18 |
| PN32-19 | 19 |
| PN32-20 | 20 |

PN40

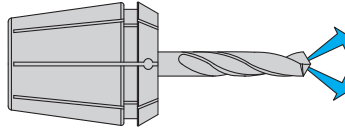
| 規格 Spec. | 夾持範圍 Size Range | 規格 Spec. | 夾持範圍 Size Range |
|----------|-----------------|----------|-----------------|
| PN40-06 | 6 | PN40-21 | 21 |
| PN40-07 | 7 | PN40-22 | 22 |
| PN40-08 | 8 | PN40-23 | 23 |
| PN40-09 | 9 | PN40-24 | 24 |
| PN40-10 | 10 | PN40-25 | 25 |
| PN40-11 | 11 | PN40-26 | 26 |
| PN40-12 | 12 | | |
| PN40-13 | 13 | | |
| PN40-14 | 14 | | |
| PN40-15 | 15 | | |
| PN40-16 | 16 | | |
| PN40-17 | 17 | | |
| PN40-18 | 18 | | |
| PN40-19 | 19 | | |
| PN40-20 | 20 | | |

- 另有英制規格可選購 Another Inch specifications purchase optional.

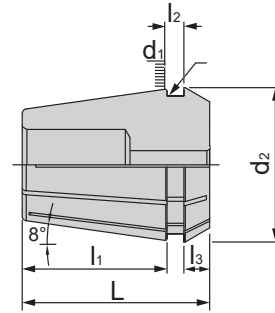
• 長度單位 Unit of Length (mm)

ACCESSORIES

精度 Accuracy : <math><3\mu\text{m}</math>



夾持附水孔刀具專用



| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | 夾持範圍 Size Range | 重量 (KGS) Weight |
|----------|------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|
| PN16ES | 27.5 | 20.8 | 3.4 | 4 | 16 | 16.8 | 3.0~10 | 0.03 |
| PN20ES | 31.5 | 23.9 | 3.4 | 4.8 | 20 | 20.8 | 3.0~13 | 0.04 |
| PN25ES | 34 | 25.9 | 3.6 | 5 | 25 | 25.8 | 3.0~16 | 0.06 |
| PN32ES | 40 | 30.9 | 4.1 | 5.5 | 32 | 32.7 | 3.0~20 | 0.10 |
| PN40ES | 46 | 34.5 | 4.5 | 7 | 40 | 40.85 | 6.0~26 | 0.25 |

PN16ES

| 規格 Spec. | 夾持範圍 Size Range |
|-----------|-----------------|
| PN16ES-03 | 3 |
| PN16ES-04 | 4 |
| PN16ES-05 | 5 |
| PN16ES-06 | 6 |
| PN16ES-07 | 7 |
| PN16ES-08 | 8 |
| PN16ES-09 | 9 |
| PN16ES-10 | 10 |

PN20ES

| 規格 Spec. | 夾持範圍 Size Range |
|-----------|-----------------|
| PN20ES-03 | 3 |
| PN20ES-04 | 4 |
| PN20ES-05 | 5 |
| PN20ES-06 | 6 |
| PN20ES-07 | 7 |
| PN20ES-08 | 8 |
| PN20ES-09 | 9 |
| PN20ES-10 | 10 |
| PN20ES-11 | 11 |
| PN20ES-12 | 12 |
| PN20ES-13 | 13 |

PN25ES

| 規格 Spec. | 夾持範圍 Size Range |
|-----------|-----------------|
| PN25ES-03 | 3 |
| PN25ES-04 | 4 |
| PN25ES-05 | 5 |
| PN25ES-06 | 6 |
| PN25ES-07 | 7 |
| PN25ES-08 | 8 |
| PN25ES-09 | 9 |
| PN25ES-10 | 10 |
| PN25ES-11 | 11 |
| PN25ES-12 | 12 |
| PN25ES-13 | 13 |
| PN25ES-14 | 14 |
| PN25ES-15 | 15 |
| PN25ES-16 | 16 |

PN32ES

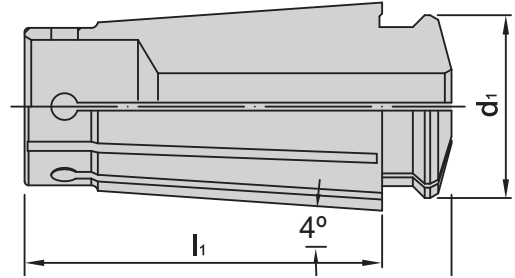
| 規格 Spec. | 夾持範圍 Size Range |
|-----------|-----------------|
| PN32ES-03 | 3 |
| PN32ES-04 | 4 |
| PN32ES-05 | 5 |
| PN32ES-06 | 6 |
| PN32ES-07 | 7 |
| PN32ES-08 | 8 |
| PN32ES-09 | 9 |
| PN32ES-10 | 10 |
| PN32ES-11 | 11 |
| PN32ES-12 | 12 |
| PN32ES-13 | 13 |
| PN32ES-14 | 14 |
| PN32ES-15 | 15 |
| PN32ES-16 | 16 |
| PN32ES-17 | 17 |
| PN32ES-18 | 18 |
| PN32ES-19 | 19 |
| PN32ES-20 | 20 |

PN40ES

| 規格 Spec. | 夾持範圍 Size Range | 規格 Spec. | 夾持範圍 Size Range |
|-----------|-----------------|-----------|-----------------|
| PN40ES-06 | 6 | PN40ES-21 | 21 |
| PN40ES-07 | 7 | PN40ES-22 | 22 |
| PN40ES-08 | 8 | PN40ES-23 | 23 |
| PN40ES-09 | 9 | PN40ES-24 | 24 |
| PN40ES-10 | 10 | PN40ES-25 | 25 |
| PN40ES-11 | 11 | PN40ES-26 | 26 |
| PN40ES-12 | 12 | | |
| PN40ES-13 | 13 | | |
| PN40ES-14 | 14 | | |
| PN40ES-15 | 15 | | |
| PN40ES-16 | 16 | | |
| PN40ES-17 | 17 | | |
| PN40ES-18 | 18 | | |
| PN40ES-19 | 19 | | |
| PN40ES-20 | 20 | | |

- 另有英制規格可選購 Another Inch specifications purchase optional.

• 長度單位 Unit of Length (mm)



特點 Feature

- 偏擺精度 :5 μ 以下 (延伸 4D 長度處)
- 可夾持鑽頭、銑刀、鉸刀
- 所夾持刀具柄徑公差限定 h7 以內
- 孔徑 3mm 以下彈性收縮 0.25mm
- 孔徑 3mm 以上彈性收縮 0.5mm

- Precision:5 μ (4D length)
- Applicable for clamping drills, mills, and reamers.
- Holding tool with a tolerance within h7.
- When the aperture is under 3mm, the clamping capacity is 0.25mm.
- When the aperture is above 3mm, the clamping capacity is 0.5mm.

| 規格 Spec. | L | l ₁ | d ₁ | 重量 (KGS) Weight |
|----------|------|----------------|----------------|-----------------|
| SKS-6 | 25.7 | 21.4 | 9.26 | 0.03 |
| SKS-10 | 32 | 26.8 | 13.6 | 0.04 |
| SKS-13 | 39.1 | 33.6 | 17 | 0.04 |
| SKS-16 | 46 | 40 | 21 | 0.06 |
| SKS-20 | 54.3 | 49 | 24.9 | 0.14 |
| SKS-25 | 58.2 | 51.5 | 31 | 1.00 |

SKS6-UP

| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|-------------|---------------------------|-----------------|
| SKS6-3-UP | 2.75~3.0 | 0.01 |
| SKS6-3.5-UP | 3.0~3.5 | 0.01 |
| SKS6-4-UP | 3.5~4.0 | 0.01 |
| SKS6-4.5-UP | 4.0~4.5 | 0.01 |
| SKS6-5-UP | 4.5~5.0 | 0.01 |
| SKS6-5.5-UP | 5.0~5.5 | 0.01 |
| SKS6-6-UP | 5.5~6.0 | 0.01 |

SKS10-UP

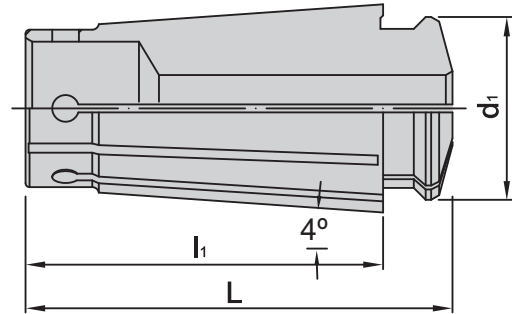
| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|--------------|---------------------------|-----------------|
| SKS10-2-UP | 2.0~1.75 | 0.02 |
| SKS10-2.5-UP | 2.5~2.25 | 0.02 |
| SKS10-3UP | 3.0~2.75 | 0.02 |
| SKS10-3.5-UP | 3.5~3.0 | 0.02 |
| SKS10-4-UP | 4.0~3.5 | 0.02 |
| SKS10-4.5-UP | 4.5~4.0 | 0.02 |
| SKS10-5-UP | 5.0~4.5 | 0.02 |
| SKS10-5.5UP | 5.5~5.0 | 0.02 |
| SKS10-6-UP | 6.0~5.5 | 0.02 |
| SKS10-6.5-UP | 6.5~6.0 | 0.02 |
| SKS10-7-UP | 7.0~6.5 | 0.02 |
| SKS10-7.5-UP | 7.5~7.0 | 0.02 |
| SKS10-8UP | 8.0~7.5 | 0.02 |
| SKS10-8.5-UP | 8.5~8.0 | 0.02 |
| SKS10-9-UP | 9.0~8.5 | 0.02 |
| SKS10-9.5-UP | 9.5~9.0 | 0.01 |
| SKS10-10-UP | 10.0~9.5 | 0.01 |

SKS13-UP

| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|---------------|---------------------------|-----------------|
| SKS13-3-UP | 2.75~3.0 | 0.05 |
| SKS13-3.5-UP | 3.0~3.5 | 0.05 |
| SKS13-4-UP | 3.5~4.0 | 0.05 |
| SKS13-4.5-UP | 4.0~4.5 | 0.05 |
| SKS13-5-UP | 4.5~5.0 | 0.05 |
| SKS13-5.5-UP | 5.0~5.5 | 0.05 |
| SKS13-6-UP | 5.5~6.0 | 0.05 |
| SKS13-6.5-UP | 6.0~6.5 | 0.05 |
| SKS13-7-UP | 6.5~7.0 | 0.05 |
| SKS13-7.5-UP | 7.0~7.5 | 0.05 |
| SKS13-8-UP | 7.5~8.0 | 0.05 |
| SKS13-8.5-UP | 8.0~8.5 | 0.05 |
| SKS13-9-UP | 8.5~9.0 | 0.04 |
| SKS13-9.5-UP | 9.0~9.5 | 0.04 |
| SKS13-10-UP | 9.5~10.0 | 0.04 |
| SKS13-10.5-UP | 10.0~10.5 | 0.04 |
| SKS13-11-UP | 10.5~11.0 | 0.04 |
| SKS13-11.5-UP | 11.0~11.5 | 0.04 |
| SKS13-12-UP | 11.5~12.0 | 0.03 |
| SKS13-12.5-UP | 12.0~12.5 | 0.03 |
| SKS13-13-UP | 12.5~13.0 | 0.03 |



精度 Accuracy : 5 μ m



特點 Feature

- 偏擺精度 : 5 μ 以下 (延伸 4D 長度處)
- 可夾持鑽頭、銑刀、鉸刀
- 所夾持刀具柄徑公差限定 h7 以內
- 孔徑 3mm 以下彈性收縮 0.25mm
- 孔徑 3mm 以上彈性收縮 0.5mm

- Precision: 5 μ (4D length)
- Applicable for clamping drills, mills, and reamers.
- Clamping tool with a tolerance within h7.
- When the aperture is under 3mm, the clamping capacity is 0.25mm.
- When the aperture is above 3mm, the clamping capacity is 0.5mm.

SKS16-UP

| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|---------------|---------------------------|-----------------|
| SKS16-3-UP | 2.75~3.0 | 0.09 |
| SKS16-3.5-UP | 3.0~3.5 | 0.08 |
| SKS16-4-UP | 3.5~4.0 | 0.09 |
| SKS16-4.5-UP | 4.0~4.5 | 0.09 |
| SKS16-5-UP | 4.5~5.0 | 0.09 |
| SKS16-5.5-UP | 5.0~5.5 | 0.09 |
| SKS16-6-UP | 5.5~6.0 | 0.09 |
| SKS16-6.5-UP | 6.0~6.5 | 0.09 |
| SKS16-7-UP | 6.5~7.0 | 0.09 |
| SKS16-7.5-UP | 7.0~7.5 | 0.09 |
| SKS16-8-UP | 7.5~8.0 | 0.09 |
| SKS16-8.5-UP | 8.0~8.5 | 0.09 |
| SKS16-9-UP | 8.5~9.0 | 0.09 |
| SKS16-9.5-UP | 9.0~9.5 | 0.08 |
| SKS16-10-UP | 9.5~10.0 | 0.09 |
| SKS16-10.5-UP | 10.0~10.5 | 0.08 |
| SKS16-11-UP | 10.5~11.0 | 0.08 |
| SKS16-11.5-UP | 11.0~11.5 | 0.08 |
| SKS16-12-UP | 11.5~12.0 | 0.08 |
| SKS16-12.5-UP | 12.0~12.5 | 0.07 |
| SKS16-13-UP | 12.5~13.0 | 0.07 |
| SKS16-13.5-UP | 13.0~13.5 | 0.07 |
| SKS16-14-UP | 13.5~14.0 | 0.07 |
| SKS16-14.5-UP | 14.0~14.5 | 0.06 |
| SKS16-15-UP | 14.5~15.0 | 0.06 |
| SKS16-15.5-UP | 15.0~15.5 | 0.06 |
| SKS16-16-UP | 15.5~16.0 | 0.06 |

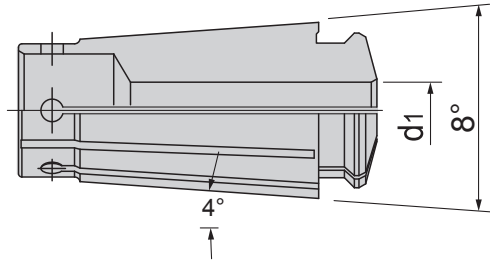
SKS20-UP

| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|---------------|---------------------------|-----------------|
| SKS20-3-UP | 3.0~2.75 | 0.14 |
| SKS20-3.5-UP | 3.5~3.0 | 0.14 |
| SKS20-4-UP | 3.5~4.0 | 0.14 |
| SKS20-4.5-UP | 4.0~4.5 | 0.14 |
| SKS20-5-UP | 4.5~5.0 | 0.14 |
| SKS20-5.5-UP | 5.0~5.5 | 0.14 |
| SKS20-6-UP | 5.5~6.0 | 0.15 |
| SKS20-6.5-UP | 6.0~6.5 | 0.15 |
| SKS20-7-UP | 6.5~7.0 | 0.14 |
| SKS20-7.5-UP | 7.0~7.5 | 0.14 |
| SKS20-8-UP | 7.5~8.0 | 0.15 |
| SKS20-8.5-UP | 8.0~8.5 | 0.15 |
| SKS20-9-UP | 8.5~9.0 | 0.15 |
| SKS20-9.5-UP | 9.0~9.5 | 0.14 |
| SKS20-10-UP | 9.5~10.0 | 0.15 |
| SKS20-10.5-UP | 10.0~10.5 | 0.14 |
| SKS20-11-UP | 10.5~11.0 | 0.14 |
| SKS20-11.5-UP | 11.0~11.5 | 0.14 |
| SKS20-12-UP | 11.5~12.0 | 0.14 |
| SKS20-12.5-UP | 12.0~12.5 | 0.14 |
| SKS20-13-UP | 12.5~13.0 | 0.14 |
| SKS20-13.5-UP | 13.0~13.5 | 0.13 |
| SKS20-14-UP | 13.5~14.0 | 0.13 |
| SKS20-14.5-UP | 14.0~14.5 | 0.13 |
| SKS20-15-UP | 14.5~15.0 | 0.13 |
| SKS20-15.5-UP | 15.0~15.5 | 0.12 |
| SKS20-16-UP | 15.5~16.0 | 0.13 |
| SKS20-16.5-UP | 16.0~16.5 | 0.11 |
| SKS20-17-UP | 16.5~17.0 | 0.11 |
| SKS20-17.5-UP | 17.0~17.5 | 0.11 |
| SKS20-18-UP | 17.5~18.0 | 0.10 |
| SKS20-18.5-UP | 18.0~18.5 | 0.10 |
| SKS20-19-UP | 18.5~19.0 | 0.09 |
| SKS20-19.5-UP | 19.0~19.5 | 0.09 |
| SKS20-20-UP | 19.5~20.0 | 0.08 |

SKS25-UP

| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|---------------|---------------------------|-----------------|
| SKS25-3-UP | 2.75~3 | 0.25 |
| SKS25-4-UP | 3.5~4 | 0.25 |
| SKS25-6-UP | 5.5~6 | 0.25 |
| SKS25-8-UP | 7.5~8 | 0.25 |
| SKS25-10-UP | 9.5~10 | 0.24 |
| SKS25-12-UP | 11.5~12 | 0.24 |
| SKS25-16-UP | 15.5~16 | 0.22 |
| SKS25-16.5-UP | 16~16.5 | 0.22 |
| SKS25-17-UP | 16.5~17 | 0.21 |
| SKS25-17.5-UP | 17~17.5 | 0.20 |
| SKS25-18-UP | 17.5~18 | 0.20 |
| SKS25-18.5-UP | 18~18.5 | 0.20 |
| SKS25-19-UP | 18.5~19 | 0.19 |
| SKS25-19.5-UP | 19~19.5 | 0.19 |
| SKS25-20-UP | 19.5~20 | 0.19 |
| SKS25-20.5-UP | 20~20.5 | 0.18 |
| SKS25-21-UP | 20.5~21 | 0.17 |
| SKS25-21.5-UP | 21~21.5 | 0.17 |
| SKS25-22-UP | 21.5~22 | 0.17 |
| SKS25-22.5-UP | 22~22.5 | 0.16 |
| SKS25-23-UP | 22.5~23 | 0.15 |
| SKS25-23.5-UP | 23~23.5 | 0.20 |
| SKS25-24-UP | 23.5~24 | 0.14 |
| SKS25-24.5-UP | 24~24.5 | 0.14 |
| SKS25-25-UP | 24.5~25 | 0.13 |
| SKS25-25.4-UP | 25~25.4 | 0.13 |





特點 Feature

- 偏擺精度 :5 μ 以下 (延伸 4D 長度處)
- 可夾持鑽頭、銑刀、鉸刀
- 夾持同柄徑刀具專用
- 不具彈性收縮範圍
- 夾持力較 UP 型大
- 所夾持刀具柄徑公差限定 h7 以內

- Precision:5 μ (4D length)
- Used for clamping drills, mills, and reamers.
- Used for clamping tools of the same diameter.
- It is not flexible.
- Clamping power is greater than the UP series.
- Holds tool with the diameter difference under h7.

SKS6-E

| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|----------|---------------------------|-----------------|
| SKS6E-1 | 1 | 0.01 |
| SKS6E-2 | 2 | 0.01 |
| SKS6E-3 | 3 | 0.01 |
| SKS6E-4 | 4 | 0.01 |
| SKS6E-6 | 6 | 0.01 |

SKS10-E

| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|-----------|---------------------------|-----------------|
| SKS10E-3 | 3 | 0.02 |
| SKS10E-4 | 4 | 0.02 |
| SKS10E-5 | 5 | 0.02 |
| SKS10E-6 | 6 | 0.02 |
| SKS10E-8 | 8 | 0.02 |
| SKS10E-10 | 10 | 0.01 |

SKS13-E

| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|-----------|---------------------------|-----------------|
| SKS13E-3 | 3 | 0.05 |
| SKS13E-4 | 4 | 0.05 |
| SKS13E-5 | 5 | 0.05 |
| SKS13E-6 | 6 | 0.05 |
| SKS13E-8 | 8 | 0.05 |
| SKS13E-10 | 10 | 0.04 |
| SKS13E-12 | 12 | 0.03 |
| SKS13E-13 | 13 | 0.04 |

SKS16-E

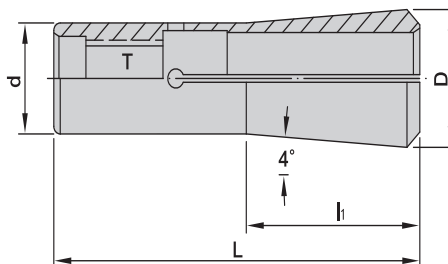
| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|-----------|---------------------------|-----------------|
| SKS16E-3 | 3 | 0.01 |
| SKS16E-4 | 4 | 0.01 |
| SKS16E-5 | 5 | 0.01 |
| SKS16E-6 | 6 | 0.09 |
| SKS16E-8 | 8 | 0.09 |
| SKS16E-10 | 10 | 0.09 |
| SKS16E-12 | 12 | 0.08 |
| SKS16E-16 | 16 | 0.06 |

SKS20-E

| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|-----------|---------------------------|-----------------|
| SKS20E-3 | 3 | 0.15 |
| SKS20E-4 | 4 | 0.14 |
| SKS20E-5 | 5 | 0.14 |
| SKS20E-6 | 6 | 0.14 |
| SKS20E-7 | 7 | 0.15 |
| SKS20E-8 | 8 | 0.15 |
| SKS20E-9 | 9 | 0.15 |
| SKS20E-10 | 10 | 0.15 |
| SKS20E-11 | 11 | 0.15 |
| SKS20E-12 | 12 | 0.15 |
| SKS20E-13 | 13 | 0.14 |
| SKS20E-14 | 14 | 0.14 |
| SKS20E-15 | 15 | 0.12 |
| SKS20E-16 | 16 | 0.12 |
| SKS20E-17 | 17 | 0.12 |
| SKS20E-18 | 18 | 0.10 |
| SKS20E-19 | 19 | 0.10 |
| SKS20E-20 | 20 | 0.10 |



SLC 專用筒夾 SLC COLLET



| 規格 Spec. | L | l ₁ | d | 重量 (KGS) Weight |
|-------------|----|----------------|------|--------------------|
| SLC-6 | 36 | 24 | 8 | 0.02 |
| SLC-12 | 57 | 25.45 | 14.5 | 0.04 |
| SLC-20 | 70 | 35 | 21 | 0.12 |

SLC-6

| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|-------------|------------------------------|--------------------|
| SLC-6-2 | 2.0 | 0.02 |
| SLC-6-2.25 | 2.25 | 0.02 |
| SLC-6-2.5 | 2.5 | 0.02 |
| SLC-6-2.75 | 2.75 | 0.02 |
| SLC-6-3 | 3.0 | 0.02 |
| SLC-6-3.25 | 3.25 | 0.02 |
| SLC-6-3.5 | 3.5 | 0.02 |
| SLC-6-3.75 | 3.75 | 0.02 |
| SLC-6-4 | 4.0 | 0.01 |
| SLC-6-4.25 | 4.25 | 0.02 |
| SLC-6-4.5 | 4.5 | 0.02 |
| SLC-6-4.75 | 4.75 | 0.02 |
| SLC-6-5 | 5.0 | 0.02 |
| SLC-6-5.25 | 5.25 | 0.01 |
| SLC-6-5.5 | 5.5 | 0.02 |
| SLC-6-5.75 | 5.75 | 0.02 |
| SLC-6-6 | 6.0 | 0.02 |

SLC-12

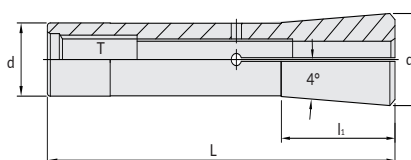
| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|-------------|------------------------------|--------------------|
| SLC-12-3 | 3.0 | 0.06 |
| SLC-12-4 | 4.0 | 0.18 |
| SLC-12-5 | 5.0 | 0.18 |
| SLC-12-6 | 6.0 | 0.18 |
| SLC-12-8 | 8.0 | 0.06 |
| SLC-12-10 | 10.0 | 0.06 |
| SLC-12-12 | 12.0 | 0.18 |

SLC-20

| 規格 Spec. | 夾持範圍 Range d ₁ | 重量 (KGS) Weight |
|-------------|------------------------------|--------------------|
| SLC-20-3 | 3.0 | 0.20 |
| SLC-20-4 | 4.0 | 0.20 |
| SLC-20-5 | 5.0 | 0.20 |
| SLC-20-6 | 6.0 | 0.20 |
| SLC-20-8 | 8.0 | 0.20 |
| SLC-20-10 | 10.0 | 0.18 |
| SLC-20-12 | 12.0 | 0.16 |
| SLC-20-16 | 16.0 | 0.14 |
| SLC-20-20 | 20 | 0.20 |



EBL 筒夾 EBL COLLET



NEW

特點 Feature

-EBL 筒夾的加長長度和刀柄特殊的加長內孔設計，增加刀具置入深度及刀具較短的懸身長

| 規格 Spec. | L | l ₁ | d | d ₁ | T | 夾持範圍 Range |
|-------------|----|----------------|-----|----------------|----|---------------|
| EBL - 6 | 53 | 15 | 8.5 | 10.5 | M6 | 3 ~ 6mm |
| EBL - 8 | 58 | 22.2 | 12 | 15.09 | M8 | 3 ~ 8mm |

EBL-6

| 規格 Spec. | 夾持範圍 Range d ₁ |
|-------------|------------------------------|
| EBL-6-3 | 3.0 |
| EBL-6-4 | 4.0 |
| EBL-6-5 | 5.0 |
| EBL-6-6 | 6.0 |

EBL-8

| 規格 Spec. | 夾持範圍 Range d ₁ |
|-------------|------------------------------|
| EBL-8-3 | 3.0 |
| EBL-8-4 | 4.0 |
| EBL-8-5 | 5.0 |
| EBL-8-6 | 6.0 |
| EBL-8-8 | 8.0 |

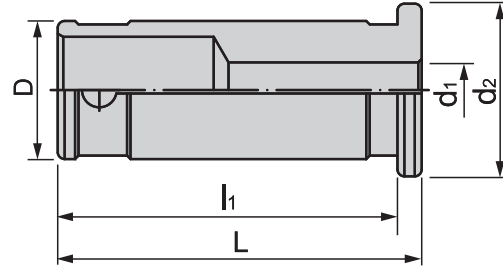


• 長度單位 Unit of Length (mm)



直式筒夾 STRAIGHT SHANK COLLET

精度 Accuracy : <0.02mm



特點 Feature

- 偏擺精度小於 0.02mm
- 限定夾持與孔徑相同之刀具柄徑
- 筒夾不具備彈性收縮範圍，強調夾持力
- 刀具置入筒夾必須超過內孔有效夾持長度，以達到有效夾持

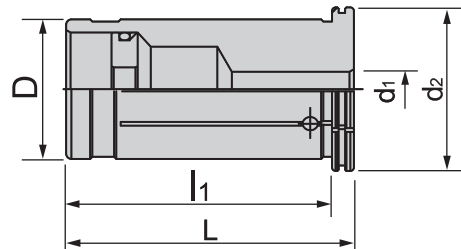
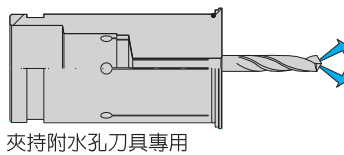
- Precision : within 0.02mm.
- Define clamp and aperture the same shank of tool diameter.
- The collet doesn't have the contraction scope, the emphasis chucking power.
- Cutting tool posts into the collet to surpass the hole effective clamp length, achieves the effective clamp.

| 規格 Spec. | D | 筒夾孔徑 d ₁ | d ₂ | L | l ₁ | 重量 (KGS) Weight |
|----------|----|---|----------------|------|----------------|-----------------|
| SSC12 | 12 | 3, 4, 5, 6, 8 | 19 | 44.5 | 42.5 | 0.10 |
| SSC16 | 16 | 3, 4, 5, 6, 8, 10, 12 | 19 | 50 | 46 | 0.10 |
| SSC20 | 20 | 3, 4, 5, 6, 8, 10, 12, 16 | 25 | 52.5 | 49 | 0.10 |
| SSC25 | 25 | 3, 4, 5, 6, 8, 10, 12, 16, 20 | 31 | 60 | 55 | 0.18 |
| SSC32 | 32 | 3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 20, 24, 25 | 37.5 | 64.6 | 59.6 | 0.30 |
| SSC32 | 32 | 1/8, 1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 1" | 37.5 | 64.6 | 59.6 | 0.30 |
| SSC42 | 42 | 3, 4, 5, 6, 8, 10, 12, 16, 20, 25, 32 | 48 | 75 | 69 | 0.60 |
| SSC42 | 42 | 1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 1" | 48 | 75 | 69 | 0.60 |



直式止水筒夾 STRAIGHT SEALED COLLET

JIS
MAS 403
B6339



特點 Feature

- 可承受 21 kgf/cm² 水壓

- Water pressure up to 21 kgf/cm²

| 規格 Spec. | D | 筒夾孔徑 aperture d ₁ | d ₂ | L | l ₁ | 重量 (KGS) Weight |
|----------|----|---------------------------------------|----------------|------|----------------|-----------------|
| SSC12-C | 12 | 3, 4, 5, 6, 8 | 16 | 40 | 38 | 0.10 |
| SSC20-C | 20 | 3, 4, 5, 6, 8, 10, 12, 16 | 25 | 52.9 | 49.4 | 0.10 |
| SSC25-C | 25 | 3, 4, 5, 6, 8, 10, 12, 16, 20 | 30.5 | 52.5 | 50.5 | 0.18 |
| SSC32-C | 32 | 3, 4, 5, 6, 8, 10, 12, 16, 20, 25 | 37.5 | 66 | 61 | 0.30 |
| SSC42-C | 42 | 3, 4, 5, 6, 8, 10, 12, 16, 20, 25, 32 | 48 | 75 | 69 | 0.60 |

• 長度單位 Unit of Length (mm)

ACCESSORIES

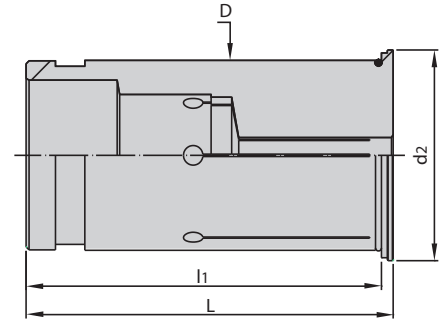


HYC 液壓套筒

HYC HYDRAULIC COLLET

精度 Accuracy : 5μm

LEMMA



特點 Feature

- 筒夾具有深冷處理

- Collet have sub-zero treatment.

| 規格 Spec. | L | l ₁ | D | d ₂ | 重量 (KGS) Weight |
|----------|------|----------------|----|----------------|-----------------|
| HYC12 | 47 | 45 | 12 | 16.5 | - |
| HYC16 | 52.5 | 50.5 | 16 | 20 | - |
| HYC20 | 52.5 | 50.5 | 20 | 24 | - |
| HYC32 | 62.5 | 60.5 | 32 | 35.5 | - |

HYC12

| 規格 Spec. | 夾持範圍 Range |
|----------|------------|
| HYC12-03 | 3 |
| HYC12-04 | 4 |
| HYC12-05 | 5 |
| HYC12-06 | 6 |
| HYC12-08 | 8 |

HYC20

| 規格 Spec. | 夾持範圍 Range |
|----------|------------|
| HYC20-03 | 3 |
| HYC20-04 | 4 |
| HYC20-05 | 5 |
| HYC20-06 | 6 |
| HYC20-07 | 7 |
| HYC20-08 | 8 |
| HYC20-09 | 9 |
| HYC20-10 | 10 |
| HYC20-11 | 11 |
| HYC20-12 | 12 |
| HYC20-13 | 13 |
| HYC20-14 | 14 |
| HYC20-15 | 15 |
| HYC20-16 | 16 |

HYC32

| 規格 Spec. | 夾持範圍 Range |
|----------|------------|
| HYC32-06 | 6 |
| HYC32-08 | 8 |
| HYC32-10 | 10 |
| HYC32-12 | 12 |
| HYC32-14 | 14 |
| HYC32-16 | 16 |
| HYC32-18 | 18 |
| HYC32-20 | 20 |
| HYC32-25 | 25 |

HYC16

| 規格 Spec. | 夾持範圍 Range |
|----------|------------|
| HYC16-03 | 3 |
| HYC16-04 | 4 |
| HYC16-06 | 5 |
| HYC16-08 | 6 |
| HYC16-10 | 8 |
| HYC16-12 | 12 |



HYC 液壓出水套筒

HYC HYDRAULIC COOLANT COLLET

LEMMA



Fig.1

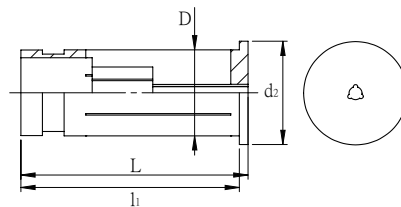
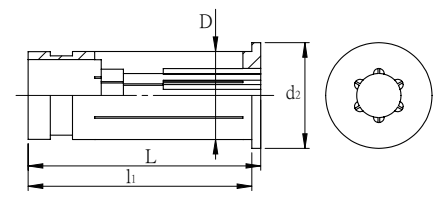


Fig.2



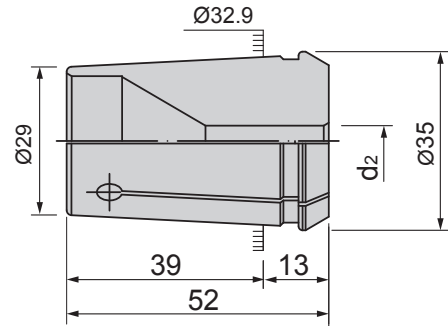
ACCESSORIES

HYC20-FID

| 規格 Spec. | 夾持範圍 Range | Fig. |
|--------------|------------|------|
| HYC20-03-FID | 3 | 1 |
| HYC20-04-FID | 4 | 1 |
| HYC20-06-FID | 6 | 2 |
| HYC20-08-FID | 8 | 2 |
| HYC20-10-FID | 10 | 2 |
| HYC20-12-FID | 12 | 2 |

• 長度單位 Unit of Length (mm)

精度 Accuracy <0.02mm

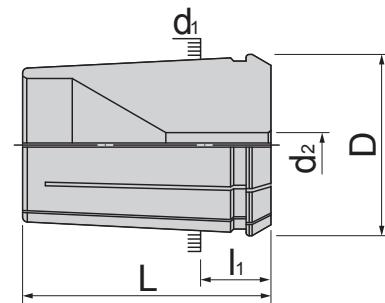


- 偏擺精度 <0.02mm
- 限定夾持與孔徑相同之刀具柄徑
- 筒夾不具備彈性收縮範圍·強調夾持力

- Precision:<0.02mm.
- The same with the aperture defining gripping tool shank diameter.
- Collet does not have the flexibility contraction range, emphasizing the clamping force.

| 規格 Spec. | 內孔尺寸 d2 | 重量 (KGS) Weight |
|----------|---|-----------------|
| SYOZ-25 | 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 18, 20, 25mm | 0.24 |

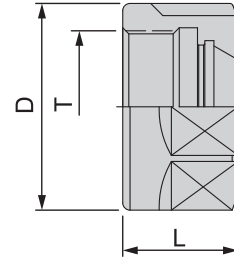
精度 Accuracy <0.02mm



- 材質 :SUI2 - HRC46°
- 收縮彈性為 0.5mm
- 前端及後端均有 6 溝
- 偏擺精度 <0.02mm
- ※ 可訂購尺寸間隔 0.5mm 或英制規格

- Steel:SUI2 - HRC46°
- Increment by 0.5mm.
- With 6 slots in front and back.
- Precision:<0.02mm.
- ※Can order size Increment by steps 0.5mm or Inch size as desired.

| 規格 Spec. | L | l ₁ | D | d ₁ | 內孔尺寸 d ₂ | 重量 (KGS) Weight |
|----------|----|----------------|------|----------------|--|-----------------|
| EOC32-B | 60 | 17 | 43.7 | 41.3 | 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32mm | 0.5 |



- 材質 : SNCM-415
- 硬度 HRC52°
- 螺紋及 30°斜度一次成型加工，確保精度、螺紋公差為一級牙 4H
- 使用時，應先將筒夾置入螺帽，再一併置入本體

特點 Feature

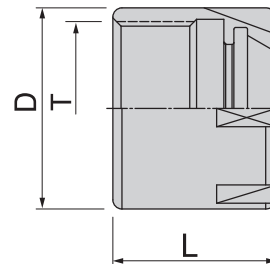
- 已預設平衡、適於 R.P.M10000 使用，專利在案
- 拴緊作業請使用 ER-A 扳手，不可任意改變扳手長度，以免造成人為因素損壞

- Steel:SNCM-415
- Hardness: HRC52°
- The thread and 30° taper are finished processing in one time. The precision and the tolerance are of thread 4H.
- When using, please put the collet into nut and put them into the body together.

- Pre-balanced. Suitable for 10000rpm. Has a patent.
- Fasten jobs please use ER-A wrench, can not be arbitrarily changed Variable length wrench to avoid damage to human factors.

| 規格 Spec. | L | D | T | 重量 (KGS) Weight |
|----------|------|----|-----------|-----------------|
| ER11-A | 11.3 | 19 | M14x0.75P | 0.02 |
| ER16-A | 18.5 | 28 | M22x1.5P | 0.05 |
| ER20-A | 20 | 34 | M25x1.5P | 0.10 |

- 螺帽採標準平衡 G6.3 Nut balanced G6.3 standards adopted.



- 材質 : SNCM-220
- 硬度 HRC52°
- 螺紋及 30°斜度一次成型加工，確保精度、螺紋公差為一級牙 4H
- 使用時，應先將筒夾置入螺帽，再一併置入本體

特點 Feature

- 外徑較標準螺紋小，適於閃避或是避免干涉的場合不使用
- M 型螺帽的螺紋和 A 型不一樣，本體不能共用
- 已預設平衡、適於 R.P.M10000 使用，專利在案

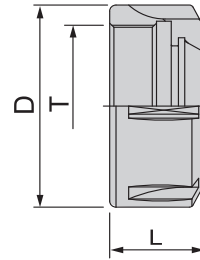
- Steel:SNCM-220
- Hardness: HRC52°
- The thread and 30° taper are finished processing in one time. The precision and the tolerance are of thread 4H.
- When using, please put the collet into nut and then put them into the body together.

- Many machines' spindles are manufactured by ER-M's size.
- ER-M clamping nut is specially processed for small bore.It's external diammer and thread are smaller than ER-A
- Pre-balanced. Suitable for 10000rpm. Has a patent.

| 規格 Spec. | L | D | T | 重量 (KGS) Weight |
|----------|------|----|-----------|-----------------|
| ER8-M | 10.8 | 12 | M10x0.75P | 0.005 |
| ER11-M | 11.3 | 16 | M13x0.75P | 0.01 |
| ER16-M | 18 | 22 | M19x1.0P | 0.05 |
| ER20-M | 19 | 28 | M24x1.0P | 0.05 |
| ER25-M | 20 | 35 | M30x1.0P | 0.08 |

- 螺帽採標準平衡 G6.3 Nut balanced G6.3 standards adopted.

• 長度單位 Unit of Length (mm)



- 材質 : SNCM-415
- 硬度 HRC52°
- 螺紋及 30°斜度一次成型加工，確保精度、螺紋公差為一級牙 4H
- 使用時，應先將筒夾置入螺帽，再一併置入本體

- Steel:SNCM-415
- Hardness: HRC52°
- The thread and 30° taper are finished processing in one time. The precision and the tolerance are of thread 4H.
- When using, please put the collet into nut, and then put them into the body together.

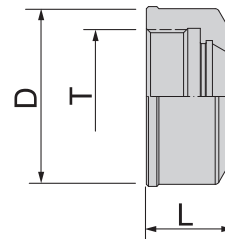
特點 Feature

- 已預設平衡、適於 R.P.M10000 使用，專利在案

- Pre-balanced. Suitable for 10000rpm. Has a patent.

| 規格 Spec. | L | D | T | 重量 (KGS) Weight |
|------------|------|------|----------|-----------------|
| ER16-UM-RD | 18 | 31.7 | M22x1.5P | 0.05 |
| ER20-UM-RD | 19.5 | 35 | M25x1.5P | 0.10 |
| ER25-UM-RD | 21 | 42 | M32x1.5P | 0.11 |
| ER32-UM-RD | 23.5 | 50 | M40x1.5P | 0.20 |
| ER40-UM-RD | 26.5 | 63 | M50x1.5P | 0.27 |
| ER50-UM-RD | 35.3 | 78 | M64x2.0P | 0.50 |

- 螺帽採標準平衡 G6.3 Nut balanced G6.3 standards adopted.



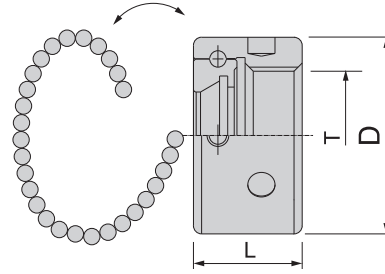
特點 Feature

- 經過特殊的表面處理，夾緊力提高了 50%~ 100%
- 無槽設計減少風阻，可用於高速應用

- Due to special surface treatment, clamping power is increased by 50%~100%.
- Its non-slot design decreases wind resistance, and can be used for high speed application.

| 規格 Spec. | L | D | T | 重量 (KGS) Weight |
|----------|------|----|----------|-----------------|
| ER16-HS | 17.5 | 30 | M22x1.5P | 0.05 |
| ER20-HS | 19 | 34 | M25x1.5P | 0.10 |
| ER25-HS | 20 | 42 | M32x1.5P | 0.14 |
| ER32-HS | 22.5 | 50 | M40x1.5P | 0.23 |

• 長度單位 Unit of Length (mm)



- ER 高速型螺帽
- 材質 :SNCM-220
- 硬度 HRC52°
- 螺紋公差為一級牙 4H
- 使用時，應先將筒夾置入螺帽，再一併置入本體

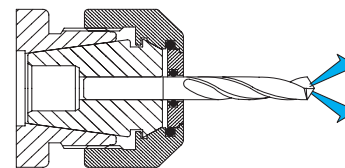
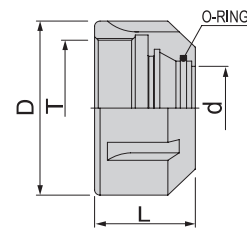
特點 Feature

- 使用 ER 標準扳手
- 環型彈簧無偏心設計，收縮夾持量不可大於 0.3mm
- 外徑經過精密研磨，減少不少平衡量
- 根據 ISO 1941-1 標準，並經過平衡檢驗機測試
- 可供 G2.5 15,000 rpm 機器使用
- 配合 UP 級筒夾、精度以及穩定性大增
- 專利在案

- Steel:SNCM-220
- Hardness: HRC52°
- The thread and 30° taper are finished processing in one time. The precision and the tolerance are of thread 4H.
- When using, please put the collet into nut and then put them into the body together.

- Use the ER standard spanner.
- The ring spring is non-eccentric design, shrink clamping is within 0.3mm.
- The external diameter is treated with precise grind reaches balancing.
- According to ISO1941-1 standard. Tested by balancing machine.
- The balancing is under G2.5. Can be used on the machine of G2.5 15000rpm.
- Match UP grade collet, increased of precision and stability.
- Has a patent.

| 規格 Spec. | L | D | T | 重量 (KGS) Weight |
|----------|------|----|----------|-----------------|
| ER16-HSP | 18 | 32 | M22x1.5P | 0.008 |
| ER20-HSP | 20 | 36 | M25x1.5P | 0.10 |
| ER25-HSP | 22.5 | 42 | M32x1.5P | 0.10 |
| ER32-HSP | 25 | 50 | M40x1.5P | 0.15 |
| ER40-HSP | 27.5 | 63 | M50x1.5P | 0.27 |

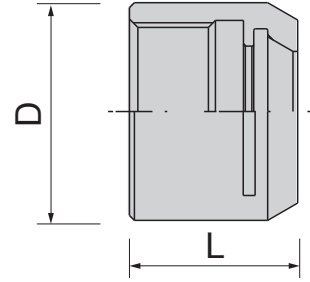


| 規格 Spec. | L | D | d | T | 重量 (KGS) Weight |
|----------|------|----|----|----------|-----------------|
| ER16-CO | 22.5 | 28 | 11 | M22x1.5P | - |
| ER20-CO | 24 | 34 | 14 | M25x1.5P | - |
| ER25-CO | 25 | 42 | 19 | M32x1.5P | - |
| ER32-CO | 27.5 | 50 | 24 | M40x1.5P | - |
| ER40-CO | 30.5 | 63 | 30 | M50x1.5P | - |

• 長度單位 Unit of Length (mm)



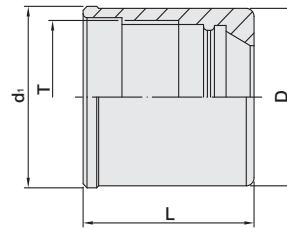
ER-MHG 螺帽 ER-MHG COLLET CHUCK NUT



| 規格 Spec. | L | D | 重量 (KGS) Weight |
|-------------|----|----|-----------------------|
| ER16-MHG | 17 | 22 | - |
| ER20-MHG | 19 | 28 | 0.04 |
| ER25-MHG | 23 | 35 | - |



PTER 螺帽 PTER NUT

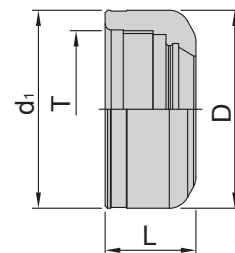


NEW

| 規格 Spec. | L | D | d ₁ | T | 扭力值 Torque | | 重量 (KGS) Weight |
|-------------|------|----|----------------|-----------|------------|--------|-----------------------|
| | | | | | N.m | ft-lbs | |
| PTER8-P | 13.5 | 12 | 12.5 | M10x0.75P | 3.5 | 2.5 | 0.004 |
| PTER11-P | 19 | 16 | 16.5 | M13x0.75P | 20 | 14 | 0.012 |
| PTER16-P | 22 | 22 | 22.5 | M19x1.0P | 30 | 22 | 0.022 |
| PTER20-P | 24 | 28 | 28.5 | M24x1.0P | 50 | 36 | 0.042 |



PNER 螺帽 PNER NUT



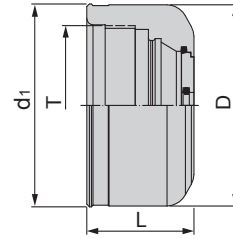
| 規格 Spec. | L | D | d ₁ | T | 扭力值 Torque | | 重量 (KGS) Weight |
|-------------|----|----|----------------|----------|------------|--------|-----------------------|
| | | | | | N.m | ft-lbs | |
| PNER16-P | 23 | 30 | 30.5 | M22x1.5P | 40 | 30 | 0.03 |
| PNER20-P | 24 | 32 | 32.5 | M25x1.5P | 60 | 44 | 0.04 |
| PNER25-P | 24 | 40 | 40.5 | M32x1.5P | 80 | 59 | 0.06 |
| PNER32-P | 27 | 50 | 50.5 | M40x1.5P | 110 | 81 | 0.10 |
| PNER40-P | 30 | 63 | 63.5 | M50x1.5P | 130 | 95 | 0.25 |

• 長度單位 Unit of Length (mm)

ACCESSORIES



PNER 止水螺帽 PNER SEALED NUT

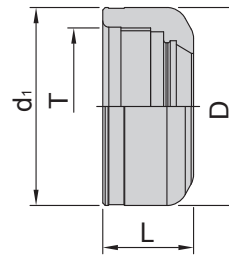


| 規格 Spec. | L | D | d ₁ | T | 止水環 Sealed Ring | 扭力值 Torque | | 重量 (KGS) Weight |
|-------------|----|----|----------------|----------|--------------------|------------|--------|-----------------------|
| | | | | | | N.m | ft-lbs | |
| PNER16-CO | 27 | 30 | 30.5 | M22x1.5P | SR16 | 40 | 30 | 0.08 |
| PNER20-CO | 29 | 32 | 32.5 | M25x1.5P | SR20 | 60 | 44 | 0.08 |
| PNER25-CO | 29 | 40 | 40.5 | M32x1.5P | SR25 | 80 | 59 | 0.14 |
| PNER32-CO | 32 | 50 | 50.5 | M40x1.5P | SR32 | 110 | 81 | 0.22 |
| PNER40-CO | 35 | 63 | 63.5 | M50x1.5P | SR40 | 130 | 95 | 0.40 |

※ 需搭配止水環使用 Should be used with Coolant rings.



PNER 偏心螺帽 PNER ECCENTRIC NUT

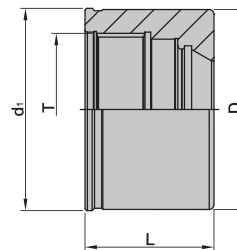


NEW

| 規格 Spec. | L | D | d ₁ | T | 扭力值 Torque | | 重量 (KGS) Weight |
|-------------|----|----|----------------|----------|------------|--------|-----------------------|
| | | | | | N.m | ft-lbs | |
| PNER16-A | 22 | 30 | 30.5 | M22x1.5P | 40 | 30 | 0.03 |
| PNER20-A | 24 | 32 | 32.5 | M25x1.5P | 60 | 44 | 0.04 |
| PNER25-A | 24 | 40 | 40.5 | M32x1.5P | 80 | 59 | 0.06 |
| PNER32-A | 27 | 50 | 50.5 | M40x1.5P | 110 | 81 | 0.10 |
| PNER40-A | 30 | 63 | 63.5 | M50x1.5P | 130 | 95 | 0.25 |



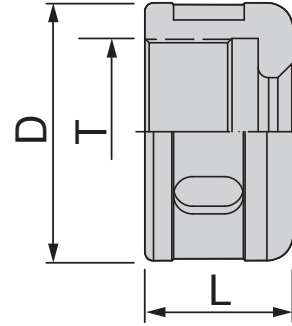
Pro.E 螺帽 Pro.E NUT



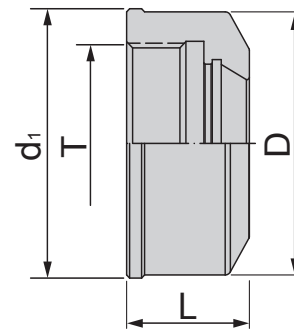
NEW

| 規格 Spec. | L | D | d ₁ | T | 建議扭力值 Recommended Tightening Torque | 重量 (KGS) Weight |
|-------------|------|----|----------------|----------|--|-----------------------|
| Pro.E16-A | 22 | 30 | 30.3 | M22x1.5P | 65 N-m | 0.10 |
| Pro.E20-A | 23.5 | 35 | 35.3 | M27x1.5P | 80 N-m | 0.10 |
| Pro.E25-A | 24.6 | 42 | 42.7 | M32x1.5P | 140 N-m | 0.16 |
| Pro.E32-A | 27 | 50 | 50.7 | M40x1.5P | 170 N-m | 0.16 |

• 長度單位 Unit of Length (mm)

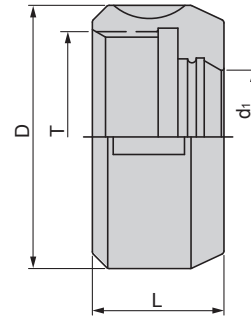


| 規格 Spec. | L | D | T | 扭力值 Torque | | 重量 (KGS) Weight |
|----------|------|------|------------|------------|--------|-----------------|
| | | | | N.m | ft-lbs | |
| SKS6-P | 15 | 18 | M14x1.0P | 25 | 18 | 0.06 |
| SKS10-P | 17 | 30 | M21.5x1.0P | 45 | 33 | 0.04 |
| SKS13-P | 21 | 33 | M27x1.0P | 50 | 36 | 0.06 |
| SKS16-P | 24.5 | 40 | M32x1.5P | 70 | 51 | 0.12 |
| SKS20-P | 24 | 48.5 | M40x1.0P | 70 | 51 | 0.14 |
| SKS25-P | 30.5 | 55 | M45x1.5P | 100 | 73 | 1.00 |



| 規格 Spec. | L | D | d ₁ | T | 扭力值 Torque | | 重量 (KGS) Weight |
|-------------|------|----|----------------|------------|------------|--------|-----------------|
| | | | | | N.m | ft-lbs | |
| SKS-6-HS-P | 15 | 18 | 19 | M14x1.0P | 25 | 18 | 0.02 |
| SKS-10-HS-P | 17 | 30 | 31 | M21.5x1.0P | 45 | 33 | 0.06 |
| SKS-13-HS-P | 21 | 34 | 35 | M27x1.0P | 50 | 36 | 0.07 |
| SKS-16-HS-P | 24.5 | 40 | 41 | M32x1.5P | 70 | 51 | 0.12 |
| SKS-20-HS-P | 24 | 48 | 48.5 | M40x1.0P | 70 | 51 | 0.14 |
| SKS-25-HS-P | 30.5 | 55 | 56 | M45x1.0P | 100 | 73 | 0.23 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | D | d ₁ | T | 扭力值 Torque | | 重量 (KGS) Weight |
|----------|------|----|----------------|----------|------------|--------|-----------------|
| | | | | | N.m | ft-lbs | |
| EOC25-P | 30.0 | 60 | 29.7 | M48x2.0P | 200 | 147 | 0.30 |
| EOC32-P | 33.5 | 72 | 38.5 | M60x2.5P | 220 | 220 | 0.45 |



Fig.1

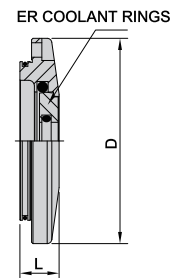
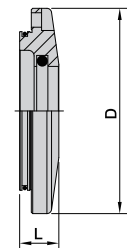


Fig.2



特點 Feature

- 適合用於有中心出水的刀具
- 使用 MLD 止水環可使冷卻液從刀具排出，利於散熱及有效排屑

- Suitable for cutting tools with a coolant hole.
- Coolant fluid exhausting from the cutting tool if used with MLD sealed cap. It's good for heat dissipation and discharges the metal chips effectively.

| 規格 Spec. | 夾持範圍 Size Range | L | D | Fig. | 重量 (KGS) Weight |
|----------|-----------------|-------|------|------|-----------------|
| MLD12-C | Ø3~Ø8 | 8.9 | 38.2 | 1 | 0.04 |
| | Ø12 | 8.9 | 38.2 | 2 | |
| MLD16-C | Ø3~Ø12 | 8.9 | 42.2 | 1 | 0.04 |
| | Ø16 | 8.9 | 42.2 | 2 | |
| MLD20-C | Ø3~Ø16 | 8.9 | 44 | 1 | 0.06 |
| | Ø20 | 8.9 | 44 | 2 | |
| MLD25-C | Ø3~Ø20 | 10.4 | 51 | 1 | 0.90 |
| | Ø25 | 10.4 | 51 | 2 | |
| MLD32-C | Ø3~Ø25 | 11.05 | 60 | 1 | 0.12 |
| | Ø32 | 11.05 | 60 | 2 | |
| MLD42-C | Ø3~Ø25 | 12.02 | 70 | 1 | 0.20 |
| | Ø42 | 12.02 | 70 | 2 | |

• 長度單位 Unit of Length (mm)



特點 Feature



- 無彈性 (沒有彈性夾持範圍·需看最大夾持範圍)
- 可承受水壓達 21kgf/cm²
- 兼具阻隔切屑飛入的功用
- 止水環搭配止水螺帽使用·等同止水筒夾
- No flexibility (No flexible chucking range, according to the biggest chucking range).
- Can bear the water pressure up to 21kgf/cm².
- Can avoid the chips.
- When the coolant ring is matched with the coolant nut, the function is the same as coolant collet.

SR16

| 規格 Spec. | 夾持範圍 Range | 規格 Spec. | 夾持範圍 Range | 重量 (KGS) Weight |
|-----------|------------|-----------|------------|-----------------|
| SR16-03.5 | 3.5 | SR16-07.0 | 7.0 | 0.05 |
| SR16-04.0 | 4.0 | SR16-07.5 | 7.5 | 0.05 |
| SR16-04.5 | 4.5 | SR16-08.0 | 8.0 | 0.05 |
| SR16-05.0 | 5.0 | SR16-08.5 | 8.5 | 0.05 |
| SR16-05.5 | 5.5 | SR16-09.0 | 9.0 | 0.05 |
| SR16-06.0 | 6.0 | SR16-09.5 | 9.5 | 0.05 |
| SR16-06.5 | 6.5 | SR16-10.0 | 10.0 | 0.05 |

SR20

| 規格 Spec. | 夾持範圍 Range | 規格 Spec. | 夾持範圍 Range | 重量 (KGS) Weight |
|-----------|------------|-----------|------------|-----------------|
| SR20-03.5 | 3.5 | SR20-08.5 | 8.5 | 0.07 |
| SR20-04.0 | 4.0 | SR20-09.0 | 9.0 | 0.07 |
| SR20-04.5 | 4.5 | SR20-09.5 | 9.5 | 0.07 |
| SR20-05.0 | 5.0 | SR20-10.0 | 10.0 | 0.07 |
| SR20-05.5 | 5.5 | SR20-10.5 | 10.5 | 0.07 |
| SR20-06.0 | 6.0 | SR20-11.0 | 11.0 | 0.07 |
| SR20-06.5 | 6.5 | SR20-11.5 | 11.5 | 0.07 |
| SR20-07.0 | 7.0 | SR20-12.0 | 12.0 | 0.07 |
| SR20-07.5 | 7.5 | SR20-12.5 | 12.5 | 0.07 |
| SR20-08.0 | 8.0 | SR20-13.0 | 13.0 | 0.07 |

SR25

| 規格 Spec. | 夾持範圍 Range | 規格 Spec. | 夾持範圍 Range | 重量 (KGS) Weight |
|-----------|------------|-----------|------------|-----------------|
| SR25-03.5 | 3.5 | SR25-10.0 | 10.0 | 0.10 |
| SR25-04.0 | 4.0 | SR25-10.5 | 10.5 | 0.10 |
| SR25-04.5 | 4.5 | SR25-11.0 | 11.0 | 0.10 |
| SR25-05.0 | 5.0 | SR25-11.5 | 11.5 | 0.10 |
| SR25-05.5 | 5.5 | SR25-12.0 | 12.0 | 0.10 |
| SR25-06.0 | 6.0 | SR25-12.5 | 12.5 | 0.10 |
| SR25-06.5 | 6.5 | SR25-13.0 | 13.0 | 0.10 |
| SR25-07.0 | 7.0 | SR25-13.5 | 13.5 | 0.10 |
| SR25-07.5 | 7.5 | SR25-14.0 | 14.0 | 0.10 |
| SR25-08.0 | 8.0 | SR25-14.5 | 14.5 | 0.10 |
| SR25-08.5 | 8.5 | SR25-15.0 | 15.0 | 0.10 |
| SR25-09.0 | 9.0 | SR25-15.5 | 15.5 | 0.10 |
| SR25-09.5 | 9.5 | SR25-16.0 | 16.0 | 0.10 |

SR32

| 規格 Spec. | 夾持範圍 Range | 規格 Spec. | 夾持範圍 Range | 重量 (KGS) Weight |
|-----------|------------|-----------|------------|-----------------|
| SR32-03.5 | 3.5 | SR32-12.0 | 12.0 | 0.15 |
| SR32-04.0 | 4.0 | SR32-12.5 | 12.5 | 0.15 |
| SR32-04.5 | 4.5 | SR32-13.0 | 13.0 | 0.15 |
| SR32-05.0 | 5.0 | SR32-13.5 | 13.5 | 0.15 |
| SR32-05.5 | 5.5 | SR32-14.0 | 14.0 | 0.15 |
| SR32-06.0 | 6.0 | SR32-14.5 | 14.5 | 0.15 |
| SR32-06.5 | 6.5 | SR32-15.0 | 15.0 | 0.15 |
| SR32-07.0 | 7.0 | SR32-15.5 | 15.5 | 0.15 |
| SR32-07.5 | 7.5 | SR32-16.0 | 16.0 | 0.15 |
| SR32-08.0 | 8.0 | SR32-16.5 | 16.5 | 0.15 |
| SR32-08.5 | 8.5 | SR32-17.0 | 17.0 | 0.15 |
| SR32-09.0 | 9.0 | SR32-17.5 | 17.5 | 0.15 |
| SR32-09.5 | 9.5 | SR32-18.0 | 18.0 | 0.15 |
| SR32-10.0 | 10.0 | SR32-18.5 | 18.5 | 0.15 |
| SR32-10.5 | 10.5 | SR32-19.0 | 19.0 | 0.15 |
| SR32-11.0 | 11.0 | SR32-19.5 | 19.5 | 0.15 |
| SR32-11.5 | 11.5 | SR32-20.0 | 20.0 | 0.15 |

SR40

| 規格 Spec. | 夾持範圍 Range | 規格 Spec. | 夾持範圍 Range | 規格 Spec. | 夾持範圍 Range | 規格 Spec. | 夾持範圍 Range | 重量 (KGS) Weight |
|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------------|
| SR40-03.5 | 3.5 | SR40-09.5 | 9.5 | SR40-15.5 | 15.5 | SR40-21.5 | 21.5 | 0.27 |
| SR40-04.0 | 4.0 | SR40-10.0 | 10.0 | SR40-16.0 | 16.0 | SR40-22.0 | 22.0 | 0.27 |
| SR40-04.5 | 4.5 | SR40-10.5 | 10.5 | SR40-16.5 | 16.5 | SR40-22.5 | 22.5 | 0.27 |
| SR40-05.0 | 5.0 | SR40-11.0 | 11.0 | SR40-17.0 | 17.0 | SR40-23.0 | 23.0 | 0.27 |
| SR40-05.5 | 5.5 | SR40-11.5 | 11.5 | SR40-17.5 | 17.5 | SR40-23.5 | 23.5 | 0.27 |
| SR40-06.0 | 6.0 | SR40-12.0 | 12.0 | SR40-18.0 | 18.0 | SR40-24.0 | 24.0 | 0.27 |
| SR40-06.5 | 6.5 | SR40-12.5 | 12.5 | SR40-18.5 | 18.5 | SR40-24.5 | 24.5 | 0.27 |
| SR40-07.0 | 7.0 | SR40-13.0 | 13.0 | SR40-19.0 | 19.0 | SR40-25.0 | 25.0 | 0.27 |
| SR40-07.5 | 7.5 | SR40-13.5 | 13.5 | SR40-19.5 | 19.5 | SR40-25.5 | 25.5 | 0.27 |
| SR40-08.0 | 8.0 | SR40-14.0 | 14.0 | SR40-20.0 | 20.0 | SR40-26.0 | 26.0 | 0.27 |
| SR40-08.5 | 8.5 | SR40-14.5 | 14.5 | SR40-20.5 | 20.5 | | | |
| SR40-09.0 | 9.0 | SR40-15.0 | 15.0 | SR40-21.0 | 21.0 | | | |

• 長度單位 Unit of Length (mm)



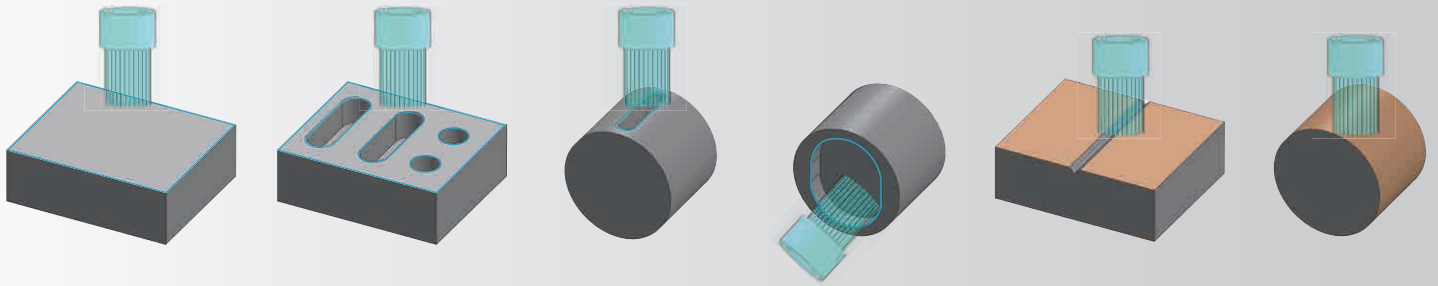
DMB 鑽石研磨刷

DIAMOND BRUSH

去除切削刀痕
Remove the machining tool marks

表面拋光
Polishing

去除毛刺
Deburring



研磨刷應用 Application

| 功能 Function | 去毛刺 Deburring | | | | 表面精修(拋光) Polishing | | |
|---------------------------------|--|---|---|---|---|---|---|
| 毛刷材質 Bristles type | 碳化矽 (SiC) | 陶瓷 Ceramic Bristle (CE) | 氧化鋁 (Al ₂ O ₃) | 鑽石 Diamond (ND) | 陶瓷 Ceramic Bristle (CE) | 氧化鋁 (Al ₂ O ₃) | 鑽石 Diamond (ND) |
| 可加工材質 Machining Materials | 鋼材、不鏽鋼 鋁、非鐵金屬 Steel Stainless Steel Aluminum Non-Ferrous Metal | 鋼材、鑄鐵 不鏽鋼 Steel Stainless steel Cast Iron | 鋼材 非鐵合金 Steel Non-Ferrous Metal | 陶瓷、碳化鎢 有色金屬 Ceramic WC Non-Ferrous Metal | 鋼材、鑄鐵 不鏽鋼 Steel Stainless steel Cast Iron | 鋼材 非鐵合金 Steel Non-Ferrous Metal | 陶瓷、碳化鎢 有色金屬 Ceramic WC Non-Ferrous Metal |
| 粒度 Granularity | #200 | | #400 | | #800 | | #1000 |

搭配使用標準FMB/FMA平面銑刀柄。
It is compatible with standard FMB / FMA face mill arbors.

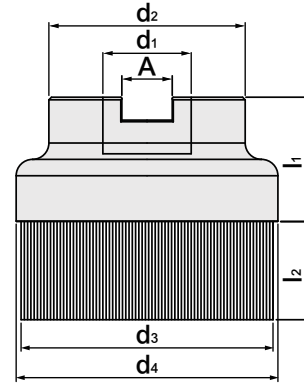


適合加工材質：鋁、銅、金屬、鎳基合金、鎢鋼(超硬合金)、硬脆材料
 例：刀具鈍化、玻璃陶瓷、石英等表面拋光。
 例：鎳基合金(航太業)、所有熱處理後之金屬。

Workpiece material: aluminum, copper, metal, nickel alloy, tungsten steel, hard and brittle material.
 e.g. honing, glass or ceramics polishing, quartz polishing
 e.g. nickel alloys (Aerospace industry), heat-treated metals



DMB 鑽石研磨刷 DIAMOND BRUSH



特點 Feature

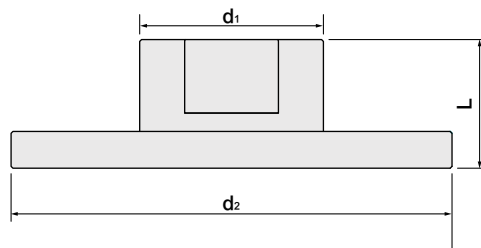
- 依據不同需求選擇不同粒度研磨刷
粒度: #200、#400、#600、#800、#1000

- Choose different grit abrasive brushes according to different needs
Granularity: #200, #400, #600, #800, #1000

| 規格 Spec. | d ₁ | d ₂ | d ₃ | d ₄ | l ₁ | l ₂ | A |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|------|
| DMB50-22 | FMB-22 | 50 | 47 | 50 | 30 | 30 | 10.4 |
| DMB63-22 | FMB-22 | 48 | 60 | 63 | 30 | 30 | 10.4 |
| DMB80-27 | FMB-27 | 60 | 77 | 80 | 38 | 30 | 12.4 |
| DMB100-32 | FMB-32 | 80 | 97 | 100 | 40 | 30 | 14.4 |
| DMB50-25.4 | FMA-25.4 | 50 | 47 | 50 | 30 | 30 | 9.5 |
| DMB63-25.4 | FMA-25.4 | 50 | 60 | 63 | 30 | 30 | 9.5 |
| DMB80-31.75 | FMA-31.75 | 60 | 77 | 80 | 38 | 30 | 12.7 |
| DMB100-31.75 | FMA-31.75 | 80 | 97 | 100 | 40 | 30 | 12.7 |



DDB 鑽石整修板 DDB DIAMOND DRESSING BOARD



特點 Feature

- 加工後的毛刷若受損或磨耗，可用鑽石整修板，去除磨損毛刷，即可接續使用。

- We can use the diamond refurbish board to remove the damaged brush after machining.

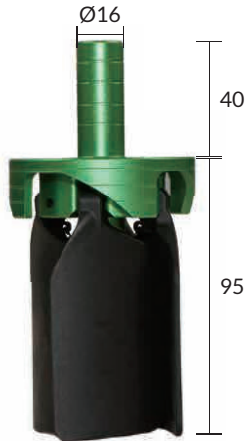
| 規格 Spec. | L | d ₁ | d ₂ | 重量 (KGS) Weight |
|-------------|----|----------------|----------------|-----------------------|
| DDB120 | 35 | 50 | 120 | 0.54 |

範例 Example

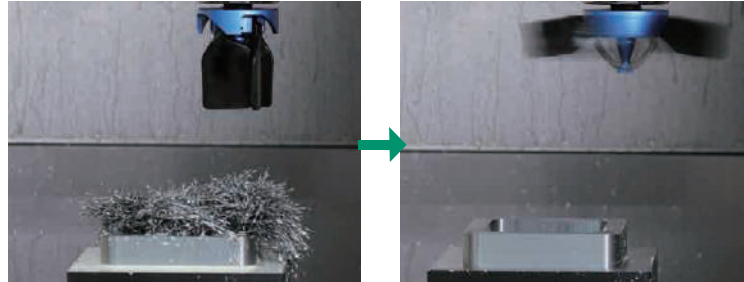


- 修砂時建議將研磨刷設定轉速 S=2000rpm 切深 AP=0.5mm 將研磨刷整平停留秒數 30 秒
-While repairing diamond brush, recommend setting: rotation speed S=2000rpm, depth of cut AP=0.5mm. Remember not to move the brush, finish setting the data and just hold on for 30 seconds.

• 長度單位 Unit of Length (mm)



範例 Example



使用前 Before

使用後 After

特點 Feature

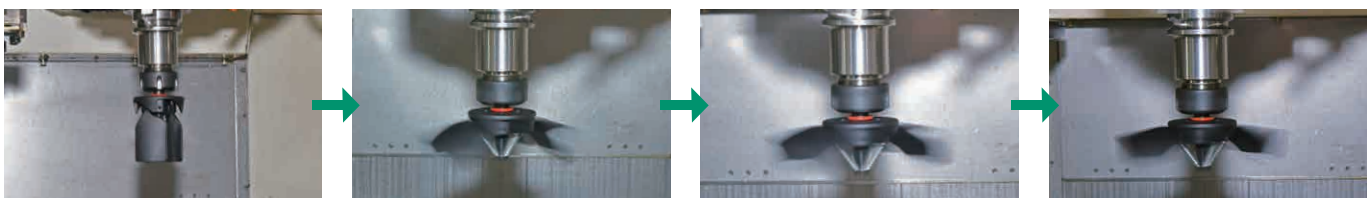
鐵屑清除器作動原理是利用機械主軸迴轉帶動扇葉展開，產生強力氣流，配合適當的路徑，對工作台上的切屑與切削液進行清除，相較傳統的氣槍清理方式，降低人員操作，環境的汙損，提高生產效能。

The operating principle of the chip blower is to use the rotation of mechanical spindle to drive the fan blades to expand, generate a strong air flow, and cooperate with the appropriate path to remove the chips and cutting fluid on the machine platform. Compared with the traditional air gun cleaning method, it reduces the operation from personnel and environmental pollution and also improve production efficiency.

| 規格 Spec. | 建議轉速 Recommend Rotation Speed | 轉向 Direction of Rotation | 扇葉展開尺寸 Opening Size of Fan Blade | 扇葉與工件距離 Distance to Workpieces Surface | 建議路徑移動速度 Recommend Movement Feed | 夾持柄徑 Shank Diameter | 重量 (KGS) Weight |
|----------|--------------------------------|------------------------------|----------------------------------|--|----------------------------------|---------------------|-----------------|
| PIS-200 | Min 7,000~ Max 10,000 r.p.m | 順時針 Clockwise Rotation | ≅ 195mm | 100~150mm | 1,000~12,000 | 16mm | 0.12kg |

注意事項 Notice

- 起動轉速 500R.P.M 後提高至 2,000R.P.M，扇葉展開後再提高至轉速 7,000~10,000R.P.M。
 - 使用時，因扇葉展開高度與直徑的變化，須距離工件至少 100MM，並避免夾治具干涉。
 - 使用時避免切屑與切削液飛濺，機台設備需完全緊閉，且鐵屑清除器須處於完全靜止的狀態下才能重新開啟。
 - 本產品扇葉為耗材，多次的開合使用或不正常適用造成碰撞，均會造成扇葉的損耗，如發現缺損時，則不能繼續使用，避免扇葉斷裂造成損失。
- 7,000~10,000R.P.M。
Startup spindle speed: From 500R.P.M to 2,000R.P.M. Then, increased the speed (7,000R.P.M.~10,000R.P.M.) after the fan blades are deployed.
- Due to the changes in the unfolded height and diameter of the fan blades, the distance from the surface of workpieces must be at least 100mm to avoid the interference from fixture.
- Avoid splashing of chips and cutting fluid during use. The machine door must be completely closed. Before attempting to reopen the chip blower, it must be fully stationary first.
- Fan blades of chip blower are consumable. Collisions caused by multiple opening and closing or abnormal application will cause the loss of the fan blade. If a defect is found, it cannot be used continuously to avoid damage.



500rpm

2000rpm

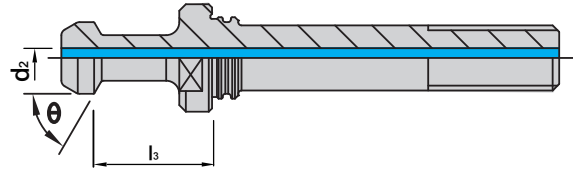
4000rpm

7000rpm

• 長度單位 Unit of Length (mm)



BT30/SFS 螺栓拉頭 BT30/SFS PULL STUD



| 規格 Spec. | l_3 | d_2 | θ | 重量 (KGS) Weight |
|------------------|-------|-------|----------|-----------------------|
| BT30 - 45° - MAS | 18 | 3 | 45° | 0.10 |
| BT30 - 60° - MAS | 18 | 3 | 60° | 0.30 |



JIS6339 螺栓拉頭 JIS6339 PULL STUD



Fig.1

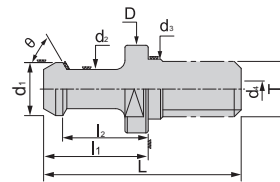
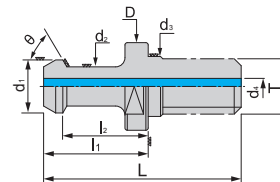
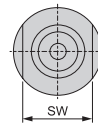


Fig.2

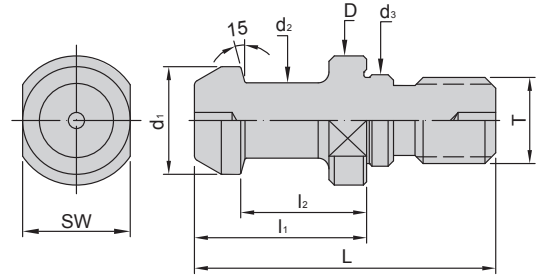


| 規格 Spec. | L | l_1 | l_2 | D | d_1 | d_2 | d_3 | d_4 | SW | T | θ | Fig |
|-----------------|----|-------|-------|------|-------|-------|-------|-------|----|----------|----------|-----|
| JIS6339-BT30-G | 43 | 23.4 | 18.4 | 16.5 | 12 | 8 | 12.5 | - | 13 | M12*1.75 | 75° | 1 |
| JIS6339-BT40-G | 54 | 29 | 23 | 23 | 19 | 14 | 17 | - | 19 | M16*2.0 | 75° | 1 |
| JIS6339-BT50-G | 74 | 34 | 25 | 38 | 28 | 21 | 25 | - | 30 | M24*3.0 | 75° | 1 |
| JIS6339-BT30-HG | 43 | 23.4 | 18.4 | 16.5 | 12 | 8 | 12.5 | 4 | 13 | M12*1.75 | 75° | 2 |
| JIS6339-BT40-HG | 54 | 29 | 23 | 23 | 19 | 14 | 17 | 7 | 19 | M16*2.0 | 75° | 2 |
| JIS6339-BT50-HG | 74 | 34 | 25 | 38 | 28 | 21 | 25 | 10 | 30 | M24*3.0 | 75° | 2 |

• 長度單位 Unit of Length (mm)



ISO 螺栓拉頭 ISO PULL STUD

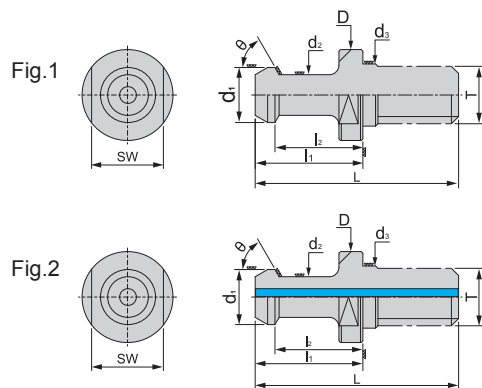


| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | d ₂ | d ₃ | SW | T | 重量 (KGS) Weight |
|-------------|----|----------------|----------------|----|----------------|----------------|----------------|----|-----|-----------------------|
| ISO20- 15° | 26 | 12 | 9 | 12 | 9 | 6 | 8.5 | 10 | M8 | 0.10 |
| ISO25- 15° | 28 | 16 | 11.7 | 12 | 10 | 7 | 8.5 | 10 | M8 | 0.10 |
| ISO25- 45° | 31 | 18 | 13.5 | 12 | 10 | 7 | 9 | 10 | M8 | 0.10 |
| ISO30- 45° | 45 | 24 | 19 | 17 | 12.8 | 9 | 13 | 14 | M12 | 0.30 |



BT-HS 研磨螺栓拉頭 BT-HS HIGH STRENGTH PULL STUD

LEMMA



特點 Feature

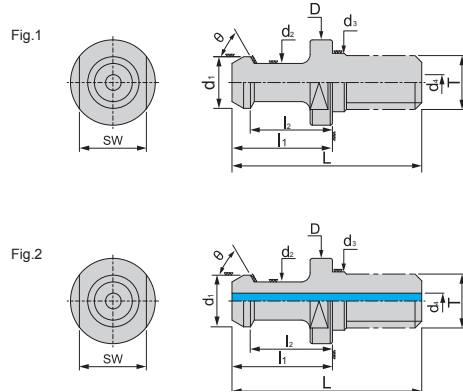
- HS 系列硬度可達到 HRC60°
- 外徑研磨加工以兩頂心孔做研磨牙級的中心點，減少累計公差，減少偏擺

- HS series degree of hardness may achieve HRC60°.
- Grinding the external thread by using the support of two live centers to reduce the accumulated tolerance and runout.

| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | d ₂ | d ₃ | SW | T | θ | Fig. | 重量 (KGS) Weight |
|-----------------|----|----------------|----------------|------|----------------|----------------|----------------|----|-----------|-----|------|-----------------------|
| BT30- 45° -HS | 43 | 23 | 18 | 16.5 | 11 | 7 | 12.5 | 13 | M12x1.75P | 45° | 1 | 0.03 |
| BT30- 60° -HS | 43 | 23 | 18 | 16.5 | 11 | 7 | 12.5 | 13 | M12x1.75P | 60° | 1 | 0.03 |
| BT40- 45° -HS | 60 | 35 | 28 | 23 | 15 | 10 | 17 | 19 | M16x2.0P | 45° | 1 | 0.08 |
| BT40- 45° -HS-W | 60 | 35 | 28 | 23 | 15 | 10 | 17 | 19 | M16x2.0P | 45° | 2 | 0.08 |

• 長度單位 Unit of Length (mm)

ACCESSORIES



特點 Feature

- 外徑研磨加工以兩頂心孔做研磨牙級的中心點，減少累計公差，減少偏擺

- Grinding the external thread by using the support of two live centers to reduce the accumulated tolerance and runout.

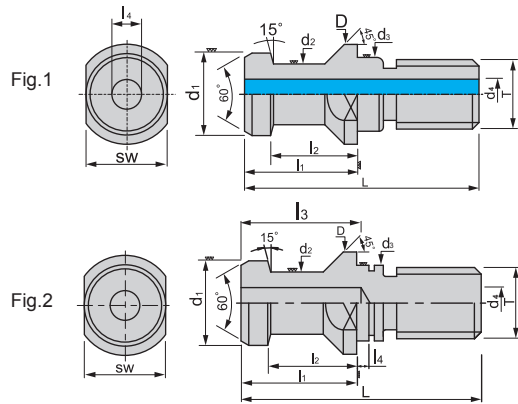
| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | d ₂ | d ₃ | d ₄ | SW | T | Fig. | θ | 重量 (KGS) Weight |
|---------------------|----|----------------|----------------|------|----------------|----------------|----------------|----------------|----|-----------|------|-----|-----------------|
| BT30- 45° -G | 43 | 23 | 18 | 16.5 | 11 | 7 | 12.5 | - | 13 | M12x1.75P | 1 | 45° | 0.05 |
| BT30- 60° -G | 43 | 23 | 18 | 16.5 | 11 | 7 | 12.5 | - | 13 | M12x1.75P | 1 | 60° | 0.05 |
| BT30- 90° -G | 43 | 23 | 18 | 16.5 | 11 | 7 | 12.5 | - | 13 | M12x1.75P | 1 | 90° | 0.05 |
| BT40- 45° -G | 60 | 35 | 28 | 23 | 15 | 10 | 17 | - | 19 | M16x2.0P | 1 | 45° | 0.10 |
| BT40- 60° -G | 60 | 35 | 28 | 23 | 15 | 10 | 17 | - | 19 | M16x2.0P | 1 | 60° | 0.10 |
| BT40- 90° -G | 60 | 35 | 28 | 23 | 15 | 10 | 17 | - | 19 | M16x2.0P | 1 | 90° | 0.10 |
| BT50- 45° -G | 85 | 45 | 35 | 38 | 23 | 17 | 25 | - | 30 | M24x3.0P | 1 | 45° | 0.28 |
| BT50- 60° -G | 85 | 45 | 35 | 38 | 23 | 17 | 25 | - | 30 | M24x3.0P | 1 | 60° | 0.28 |
| BT50- 90° -G | 85 | 45 | 35 | 38 | 23 | 17 | 25 | - | 30 | M24x3.0P | 1 | 90° | 0.27 |
| BT30- 45° -HG (2x3) | 43 | 23 | 18 | 16.5 | 11 | 7 | 12.5 | 2x3 | 13 | M12x1.75P | 2 | 45° | 0.03 |
| BT30- 60° -HG (2x3) | 43 | 23 | 18 | 16.5 | 11 | 7 | 12.5 | 2x3 | 13 | M12x1.75P | 2 | 60° | 0.03 |
| BT40- 45° -HG (4) | 60 | 35 | 28 | 23 | 15 | 10 | 17 | 4 | 19 | M16x2.0P | 2 | 45° | 0.07 |
| BT40- 60° -HG (4) | 60 | 35 | 28 | 23 | 15 | 10 | 17 | 4 | 19 | M16x2.0P | 2 | 60° | 0.07 |
| BT40- 90° -HG (4) | 60 | 35 | 28 | 23 | 15 | 10 | 17 | 4 | 19 | M16x2.0P | 2 | 90° | 0.07 |
| BT40- 45° -HG (5) | 60 | 35 | 28 | 23 | 15 | 10 | 17 | 5 | 19 | M16x2.0P | 2 | 45° | 0.07 |
| BT40- 60° -HG (5) | 60 | 35 | 28 | 23 | 15 | 10 | 17 | 5 | 19 | M16x2.0P | 2 | 60° | 0.07 |
| BT50- 45° -HG (7) | 85 | 45 | 35 | 38 | 23 | 17 | 25 | 7 | 30 | M24x3.0P | 2 | 45° | 0.25 |
| BT50- 60° -HG (7) | 85 | 45 | 35 | 38 | 23 | 17 | 25 | 7 | 30 | M24x3.0P | 2 | 60° | 0.25 |
| BT50- 90° -HG (7) | 85 | 45 | 35 | 38 | 23 | 17 | 25 | 7 | 30 | M24x3.0P | 2 | 90° | 0.25 |
| ■ BT50- 45° | 85 | 45 | 35 | 38 | 23 | 17 | 25 | - | 30 | M24x3.0P | 1 | 45° | 0.30 |
| ■ BT50- 60° | 85 | 45 | 35 | 38 | 23 | 17 | 25 | - | 30 | M24x3.0P | 1 | 60° | 0.30 |
| ■ BT50- 90° | 85 | 45 | 35 | 38 | 23 | 17 | 25 | - | 30 | M24x3.0P | 1 | 90° | 0.30 |

■ 無研磨 Grind

- 中心給水規格 (4)&(7) 可以通過 3mm&6mm 六角扳手
- Center coolant specification (4) & (7) can use with the hex wrench 3mm & 6mm

DAT 研磨螺栓拉頭 DAT HIGH STRENGTH PULL STUD

LEMMA



特點 Feature

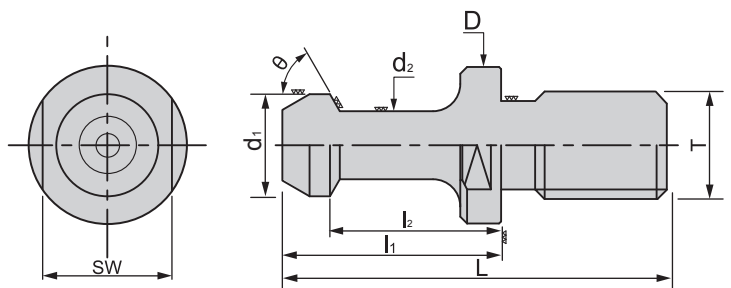
- 外徑研磨加工以兩頂心孔做研磨牙級的中心點，減少累計公差，減少偏擺

- Grinding the external thread by using the support of two live centers to reduce the accumulated tolerance and runout.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | l ₄ | D | d ₁ | d ₂ | d ₃ | d ₄ | SW | T | Fig. | 重量 (KGS) Weight |
|-------------|----|----------------|----------------|----------------|----------------|----|----------------|----------------|----------------|----------------|----|-----------|------|-----------------|
| DAT30-A-G | 44 | 24 | 19 | - | - | 17 | 13 | 9 | 13 | - | 14 | M12x1.75P | 1 | 0.04 |
| DAT30-B-G | 44 | 24 | 19 | - | - | 17 | 13 | 9 | 13 | - | 14 | M12x1.75P | 2 | 0.04 |
| DAT40-A-G | 54 | 26 | 20 | - | - | 23 | 19 | 14 | 17 | 7 | 19 | M16x2.0P | 1 | 0.07 |
| DAT40-A-L-G | 54 | 29 | 23 | - | - | 23 | 19 | 14 | 17 | 7 | 19 | M16x2.0P | 1 | 0.07 |
| DAT40-B-G | 54 | 26 | 20 | 27 | 3 | 23 | 19 | 14 | 17 | 7 | 19 | M16x2.0P | 2 | 0.08 |
| DAT40-B-L-G | 54 | 29 | 23 | - | - | 23 | 19 | 14 | 17 | 7 | 19 | M16x2.0P | 2 | 0.08 |

CAT 研磨螺栓拉頭 CAT HIGH STRENGTH PULL STUD

LEMMA



特點 Feature

- 外徑研磨加工以兩頂心孔做研磨牙級的中心點，減少累計公差，減少偏擺

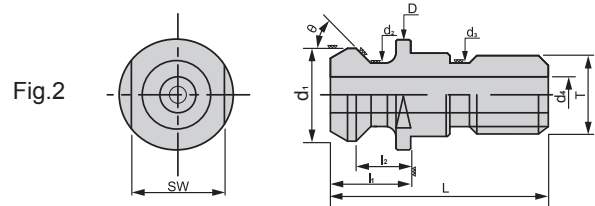
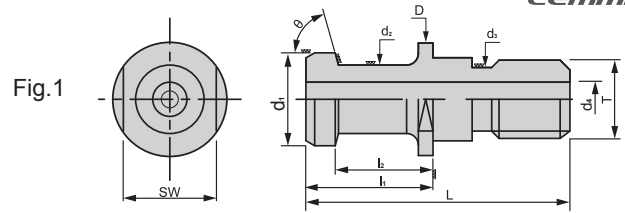
- Grinding the external thread by using the support of two live centers to reduce the accumulated tolerance and runout.

| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | d ₂ | SW | T | θ | 重量 (KGS) Weight |
|-------------|-------|----------------|----------------|----|----------------|----------------|----|---------|-----|-----------------|
| CAT40-45°-G | 57.15 | 32.15 | 25.15 | 23 | 15 | 10 | 19 | 5/8"W11 | 45° | 0.07 |
| CAT40-60°-G | 57.15 | 32.15 | 25.15 | 23 | 15 | 10 | 19 | 5/8"W11 | 60° | 0.07 |
| CAT40-90°-G | 57.15 | 32.15 | 25.15 | 23 | 15 | 10 | 19 | 5/8"W11 | 90° | 0.07 |

• 長度單位 Unit of Length (mm)

ISO 研磨螺栓拉頭 ISO HIGH STRENGTH PULL STUD

LEMMA



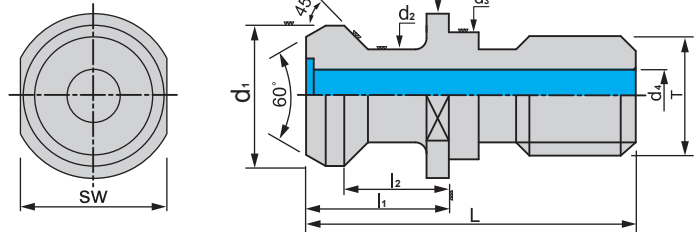
特點 Feature

- 外徑研磨加工以兩頂心孔做研磨牙級的中心點，減少累計公差，減少偏擺
- Grinding the external thread by using the support of two live centers to reduce the accumulated tolerance and runout.

| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | d ₂ | d ₃ | d ₄ | SW | T | Fig. | 重量 (KGS) Weight |
|-----------|------|----------------|----------------|------|----------------|----------------|----------------|----------------|----|----------|------|-----------------|
| ISO40-A-G | 54 | 26 | 20 | 23 | 19 | 14 | 17 | 7 | 19 | M16x2.0P | 1 | 0.07 |
| ISO40-B-G | 44.5 | 16.4 | 11.15 | 22.5 | 18.95 | 12.95 | 17 | 7.35 | 19 | M16x2.0P | 2 | 0.05 |
| ISO50-A-G | 74 | 34 | 25 | 36 | 28 | 21 | 25 | 11.5 | 30 | M24x3.0P | 1 | 0.20 |
| ISO50-B-G | 65.5 | 25.5 | 17.95 | 37 | 29.1 | 19.6 | 25 | 11.55 | 30 | M24x3.0P | 2 | 0.08 |

MAZAK 研磨螺栓拉頭 MAZAK HIGH STRENGTH PULL STUD

LEMMA



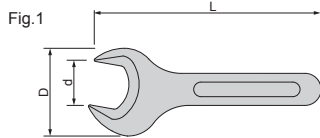
特點 Feature

- 外徑研磨加工以兩頂心孔做研磨牙級的中心點，減少累計公差，減少偏擺
- The outer diameter abrasive machining does by two intelligences grinds does a lot of talking the level central poin, reduces the accumulation common difference, reduction beats.

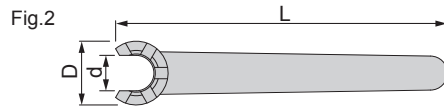
| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | d ₂ | d ₃ | d ₄ | SW | T | 重量 (KGS) Weight |
|---------------|------|----------------|----------------|----|----------------|----------------|----------------|----------------|----|----------|-----------------|
| MAZAK-BT40-G | 44.1 | 19.1 | 14 | 22 | 18.8 | 12.45 | 17 | 7 | 19 | M16x2.0P | 0.05 |
| MAZAK-BT50-G | 65.2 | 25.2 | 17.58 | 37 | 28.95 | 20.83 | 25 | 10 | 30 | M24x3.0P | 0.19 |
| MAZAK-CAT40-G | 41.1 | 16.1 | 11 | 22 | 18.8 | 12.45 | 17 | 7 | 19 | M16x2.0P | 0.05 |

• 長度單位 Unit of Length (mm)

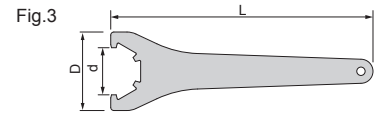
A 型



M 型



UM/RD 及 KM/RD



特點 Feature

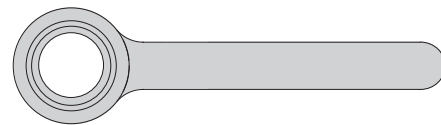
- 材質 SCM-4 鉗口經過熱處理

- Steel:SCM-4

| 規格 Spec. | 螺帽外徑 Nut Dia | L | D | d | 重量 (KGS) Weight |
|-----------|--------------|-----|------|------|-----------------|
| ER11-A | 19 | 120 | 40 | 17 | 0.10 |
| ER16-A | 28 | 140 | 53 | 25 | 0.15 |
| ER20-A | 34 | 160 | 60 | 30 | 0.20 |
| ER8-M | 12 | 75 | 13 | 8 | 0.05 |
| ER11-M | 16 | 95 | 17 | 11.5 | 0.04 |
| ER16-M | 22 | 117 | 22.5 | 15 | 0.06 |
| ER20-M | 28 | 129 | 28.5 | 19.5 | 0.07 |
| ER25-M | 35 | 143 | 36 | 25 | 0.09 |
| ER25UM/RD | 42 | 206 | 65 | 37 | 0.22 |
| ER32UM/RD | 50 | 253 | 75 | 44 | 0.30 |
| ER40UM/RD | 63 | 289 | 90 | 58 | 0.50 |
| ER50UM/RD | 78 | 351 | 110 | 74 | 0.90 |

單向型強力扳手 (ER-M 無風阻螺帽專用)

WRENCH FOR ER-M NON WIND RESISTANCE NUT



特點 Feature

- 適用於 ER-M 無風阻螺帽
- 螺帽鎖緊及開起可達百分之百輕鬆及不易脫落

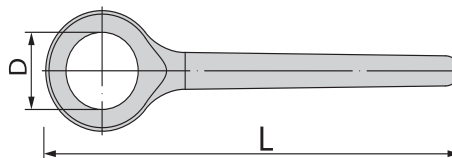
- Applicable ER-M non wind resistance nut.
- Locking nut and opened up to one hundred percent relaxable and not easy to fall off.

| 規格 Spec. | 外徑尺寸 | 重量 (KGS) Weight |
|----------|------|-----------------|
| SP-ER8M | | 0.12 |
| SP-ER11M | | 0.12 |

• 長度單位 Unit of Length (mm)



軸承扳手 BEARING WRENCH



| 規格 Spec. | 適用規格 Applicable Spec. | L | D | 重量 (KGS) Weight |
|-------------|----------------------------------|-----|----|-----------------------|
| ER11W-RDQ | SKS6W-RDQ | 120 | 18 | 0.52 |
| ER16W-RDQ | SKS10W-RDQ、PNER16、UTER16、Pro.E16 | 170 | 30 | 0.52 |
| ER20W-RDQ | SKS13W-RDQ | 172 | 34 | 0.50 |
| ER25W-RDQ | Pro.E25 | 175 | 42 | 0.47 |
| ER32W-RDQ | PNER32、Pro.E32 | 180 | 50 | 0.50 |
| SKS16W-RDQ | PNER25 | 175 | 40 | 0.43 |
| PNER20-RDQ | PNER20 | 195 | 32 | 0.44 |
| PNER40-RDQ | PNER40 | 175 | 40 | 0.66 |
| UTER20 | Pro.E20、UTER20 | 235 | 35 | 0.94 |



SKS 扳手 SKS HOOK WRENCH



Fig.1

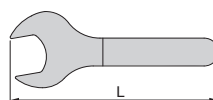
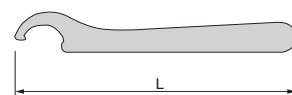


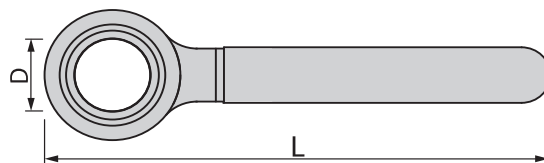
Fig.2



| 規格 Spec. | 適用規格 Applicable Spec. | L | Fig. | 重量 (KGS) Weight |
|-------------|--------------------------|-----|------|-----------------------|
| SKS6 | - | 120 | 1 | 0.09 |
| SKS10 | - | 200 | 2 | 0.08 |
| SKS13 | - | 220 | 2 | 0.16 |
| SKS16 | ER25-HSP-W、MLD-12 | 220 | 2 | 0.20 |
| SKS20 | MLD16-W | 220 | 2 | 0.18 |
| SKS25 | - | 235 | 2 | 0.21 |



SKS/WH 軸承扳手 (無風阻) SKS/WH BEARING WRENCH (NON WIND RESISTANCE)



| 規格 Spec. | L | D | 重量 (KGS) Weight |
|-------------|-----|----|-----------------------|
| SKS6-WH | 125 | 18 | 0.14 |
| SKS10-WH | 160 | 30 | 0.23 |
| SKS16-WH | 200 | 40 | 0.37 |
| SKS25-WH | 216 | 55 | 0.39 |

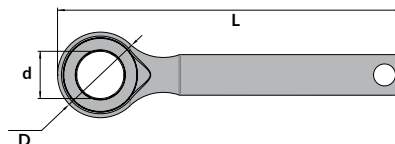
• 長度單位 Unit of Length (mm)



ER-M/WH 軸承扳手 ER-M/WH BEARING WRENCH

適用於走心式機台，外徑縮小，避免干涉

NEW

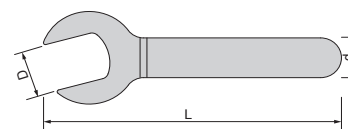


| 規格 Spec. | L | D | d | 重量 (KGS) Weight |
|-------------|-----|----|----|-----------------------|
| ER16M-WH | 157 | 39 | 22 | 0.34 |



ISO 刀桿固定專用扳手 WRENCH FOR ISO COLLET CHUCK

LEMMA

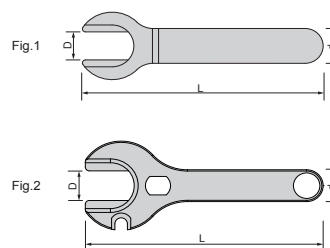


| 規格 Spec. | L | D | d | 重量 (KGS) Weight |
|-------------|-----|------|----|--------------------|
| ISO20-W | 140 | 24.4 | 17 | - |
| ISO25-W | 160 | 26 | 22 | 0.08 |
| ISO30-W | 205 | 31 | 35 | - |



ER-MHG 螺帽專用扳手 WRENCH FOR ER-MHG NUT

LEMMA



| 規格 Spec. | L | D | d | Fig. | 重量 (KGS) Weight |
|-------------|-----|----|------|------|--------------------|
| ER16-MHG-W | 127 | 15 | 17.8 | 1 | - |
| ER20-MHG-W | 160 | 19 | 23.5 | 1 | 0.14 |
| ER25-MHG-W | 180 | 24 | 25 | 2 | 0.32 |

ACCESSORIES

範例 Example

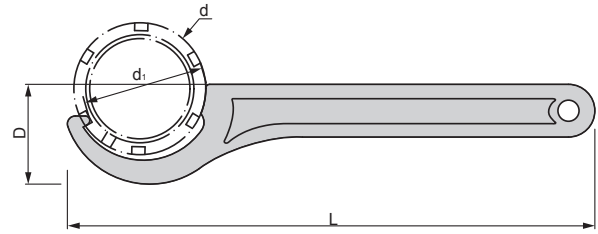
ISO25-W 刀桿固定專用扳手
ISO25-W Collet Chuck Spanner For Fixed



ER20-MHG-W 螺帽專用扳手
ER20-MHG-W Nut Spanner

ISO25 x ER20M-36HG 高速刀把
ISO25 x ER20M-36HG HIGH SPEED COLLET CHUCK

• 長度單位 Unit of Length (mm)



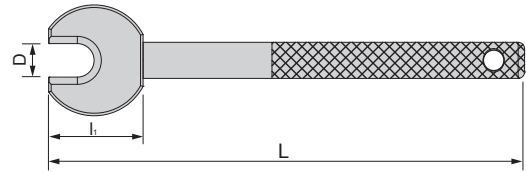
- EOC25 扳手與 MLD25 扳手、MLK25 扳手共用
- EOC32 扳手與 MLC32 扳手共用

- EOC25 and MLD25、MLK25 spanner can be used in common.
- EOC32 and MLD32、MLK32 spanner can be used in common.

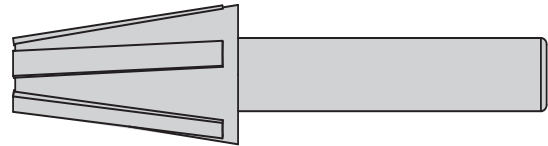
| 規格 Spec. | 使用範圍 Range | L | D | d | d ₁ | 重量 (KGS) Weight |
|-------------|---------------|-----|----|-------|----------------|-----------------------|
| EOC-25-W | 55~60 | 260 | 46 | 60 | 52 | 0.30 |
| EOC-32-W | 71~75 | 272 | 64 | 80~90 | 67 | 0.45 |



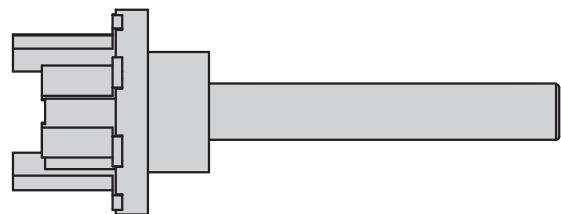
範例 Example



| 規格 Spec. | L | l ₁ | D | 重量 (KGS) Weight |
|---------------|-----|----------------|------|-----------------------|
| PS-BT30 | 140 | 25 | 7.5 | 0.20 |
| PS-BT40 | 162 | 35 | 11 | 0.36 |
| PS-BT50 | 190 | 40 | 18 | 0.48 |
| PS-MAZAK-BT40 | 185 | 36 | 13 | 0.36 |
| PS-MAZAK-BT50 | 195 | 41 | 20.9 | 0.44 |



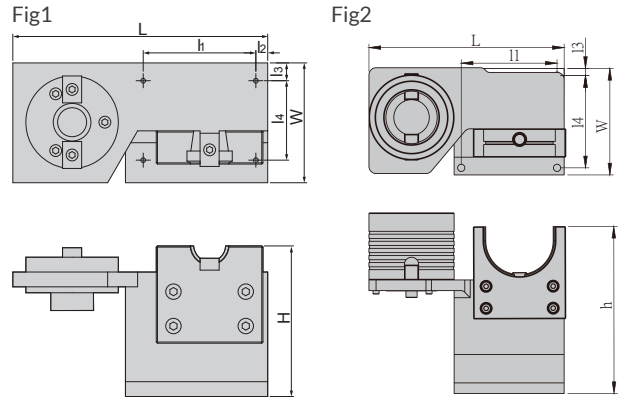
| 規格 Spec. | 斜度 Taper | 材質 Material | 重量 (KGS) Weight |
|-------------|-------------|----------------|-----------------------|
| W30 | #30 | 棉質 Cotton | 0.07 |
| W40 | #40 | 棉質 Cotton | 0.08 |
| W50 | #50 | 棉質 Cotton | 0.19 |
| W30S | #30 | 羊皮毛 Fleecy | 0.07 |
| W40S | #40 | 羊皮毛 Fleecy | 0.08 |
| W50S | #50 | 羊皮毛 Fleecy | 0.19 |



| 規格 Spec. | 斜度 Rake | 重量 (KGS) Weight |
|-------------|------------|-----------------------|
| HSK40E | HSK40 | 0.08 |
| HSK50A | HSK50 | 0.08 |
| HSK63A | HSK63 | 0.10 |
| HSK100A | HSK100 | 0.50 |

BT/CAT/DAT/HSK 鎖刀座

BT/CAT/DAT/HSK TOOL HOLDER TIGHTENING FIXTURE



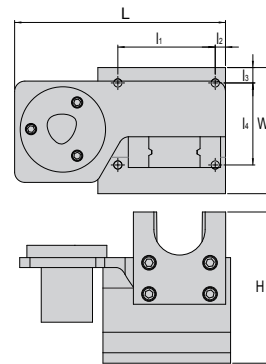
- 不可敲擊 - Don't use hammer.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | l ₄ | H | W | Fig | 重量 (KGS) Weight |
|-------------|-----|----------------|----------------|----------------|----------------|-----|-----|-----|-----------------------|
| LD-BT30 | 210 | 95 | 10 | 15 | 67 | 130 | 100 | 1 | 4.47 |
| LD-BT40 | 210 | 95 | 10 | 15 | 67 | 130 | 100 | 1 | 3.94 |
| LD-BT50 | 275 | 113 | 20 | 24 | 105 | 200 | 150 | 1 | 7.06 |
| LD-DAT40 | 210 | 95 | 10 | 15 | 67 | 130 | 100 | 1 | 3.94 |
| LD-DAT50 | 275 | 113 | 20 | 24 | 105 | 200 | 150 | 1 | 10.62 |
| LD-CAT40 | 210 | 95 | 10 | 15 | 67 | 130 | 100 | 1 | 3.80 |
| LD-CAT50 | 275 | 113 | 20 | 24 | 105 | 200 | 150 | 1 | 11.4 |
| LD-HSK63A | | | | | | | | 2 | |
| LD-HSK100A | 275 | 113 | 105 | 20 | 24 | 200 | 100 | 2 | 16.8 |

- 本體為鑄鐵 - The body is Cast Iron.

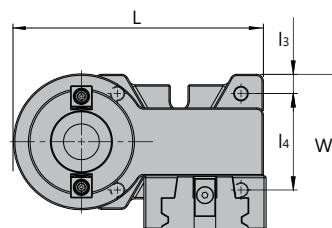
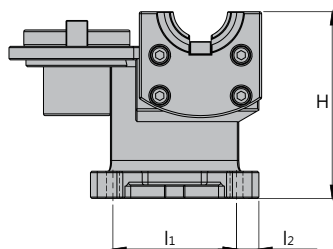
PSC 鎖刀座

PSC TOOL HOLDER TIGHTENING FIXTURE



| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | l ₄ | H | W | 重量 (KGS) Weight |
|-------------|-----|----------------|----------------|----------------|----------------|-----|-----|-----------------------|
| LD-PSC32 | 210 | 95 | 10 | 15 | 67 | 143 | 100 | 5.26 |
| LD-PSC40 | 210 | 95 | 10 | 15 | 67 | 143 | 100 | 5.28 |
| LD-PSC50 | 210 | 95 | 10 | 15 | 67 | 148 | 100 | - |
| LD-PSC63 | 210 | 95 | 10 | 15 | 67 | 148 | 100 | - |

• 長度單位 Unit of Length (mm)



特點 Feature

- BT、SBT 刀桿共用

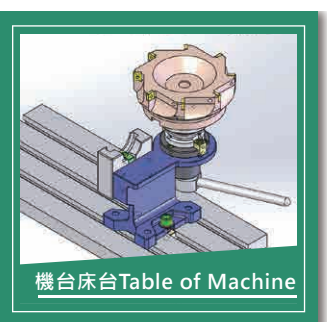
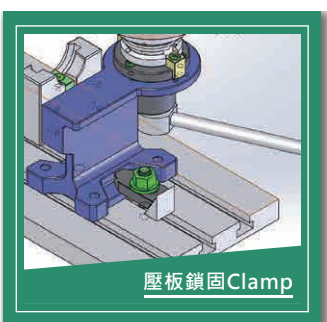
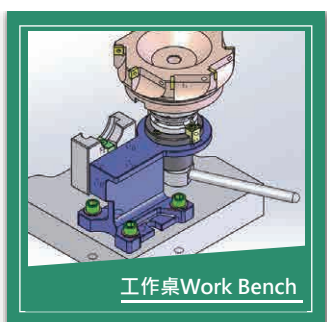
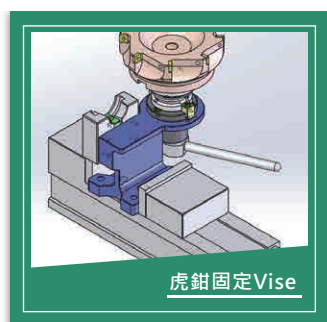
- Compatible with BT and SBT Tool Holder.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | l ₄ | H | W | 重量 (KGS) Weight |
|----------|-----|----------------|----------------|----------------|----------------|-------|-------|-----------------|
| TLT-B30 | 186 | 91 | 16.5 | 14.25 | 71 | 137.5 | 110 | 4.36 |
| TLT-B40 | 186 | 91 | 16.5 | 14.25 | 71 | 137.5 | 110 | 4.38 |
| TLT-B50 | 242 | 116 | - | - | 112 | 195.5 | 162.5 | 10.90 |

鎖刀座比較表 Comparison Table

| 項目 Item | 一般型 General Type | 加強型 Enhanced Type |
|---|-------------------------|--|
| 使用刀桿 Usage Tool Holder | BT 刀桿 BT Tool Holder | BT、SBT 雙面拘束刀桿 Both BT and SBT Tool Holder |
| 懸伸長重量重刀桿 使用穩定性 Stability with Long Length and Heavy Chuck | 一般易晃 Ordinary | 優、穩固 More Powerful and Superior |
| 固定方式 Able to Fixed on/with | 僅固定工作桌 Work Bench | 四種固定方式 1. 虎鉗固定 Vise 2. 工作桌 Work Bench 3. 壓板鎖固 Clamp 4. 機台床台 Table of Machine |

ACCESSORIES



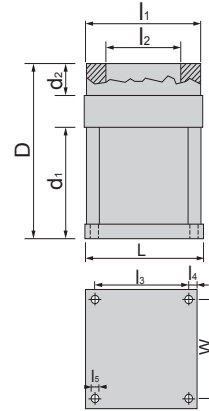
• 長度單位 Unit of Length (mm)

HSK/BT/DIN 無鍵槽鎖刀座

HSK/BT/DIN TOOL HOLDER TIGHTENING FIXTURE



- 不可敲擊 - Don't use hammer.



特點 Feature

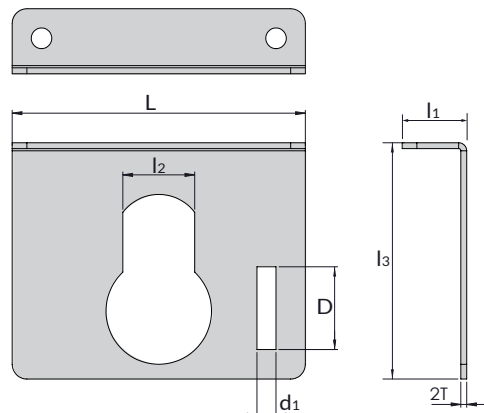
- HSK 有無鍵槽共用

- HSK

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | l ₄ | l ₅ | D | d ₁ | d ₂ | W | 重量 (KGS) Weight |
|-----------|-----|----------------|----------------|----------------|----------------|----------------|-----|----------------|----------------|----|-----------------|
| HD-HSK32I | 100 | 80 | 32 | 84 | 8 | 7 | 141 | 89 | 27 | 84 | 2.95 |
| HD-HSK40I | 100 | 80 | 40 | 84 | 8 | 7 | 141 | 89 | 27 | 84 | 2.80 |
| HD-HSK50I | 100 | 95 | 50 | 84 | 8 | 7 | 147 | 89 | 33 | 84 | 3.00 |
| HD-HSK63I | 100 | 96.5 | 63 | 84 | 8 | 7 | 139 | 89 | 25 | 84 | 2.90 |
| HD-BT30I | 100 | 95 | 46 | 84 | 8 | 7 | 142 | 89 | 28 | 84 | 3.00 |
| HD-DIN30I | 100 | 95 | 50 | 84 | 8 | 7 | 137 | 89 | 23 | 84 | 3.10 |

ISO 鎖刀座

ISO TOOL HOLDER TIGHTENING FIXTURE

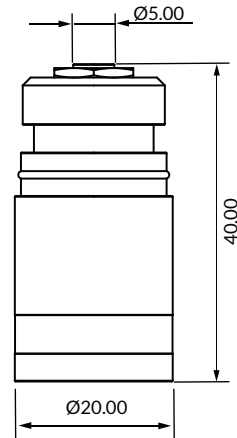


範例 Example



| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d ₁ | 重量 (KGS) Weight |
|----------|-----|----------------|----------------|----------------|----|----------------|-----------------|
| LD-ISO20 | 100 | 22 | 24.5 | 80 | 28 | 6.5 | - |
| LD-ISO25 | 100 | 22 | 27 | 80 | 28 | 6.5 | - |
| LD-ISO30 | 100 | 22 | 42 | 10 | 28 | 6.5 | - |

• 長度單位 Unit of Length (mm)



特點 Feature

- 重複定位精度 $\pm 0.001\text{mm}$
- 高度公差 0.005mm
- 磁性底座設計，可吸附工件探測
- 最小可量測 0.01mm 刀具
- 防護等級 IPX6、IPX7

- Re-positioning accuracy $\pm 0.001\text{mm}$.
- Height tolerance in 0.005 mm .
- Magnetic base design for absorbing workpiece to probe.
- Minimum measurable 0.01mm cutting tool.
- IP protection grade IPX6、IPX7.

注意事項 Notice

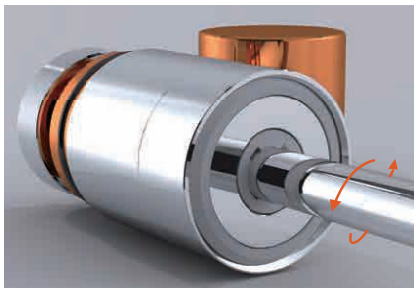
- 使用 SR44 或 LR44 1.5V 電池 2 枚，可連續使用 200 小時，使用前注意電力是否充足。
- 量測壓力值為 1.0 N.m ，不適用一般量具檢測精度

- 2 pieces battery (SR44/LR44), battery life up to 200 hours, please check the battery if it's sufficient before use.
- The measured pressure value is 1.0 N.m , which is not applicable to the general gauge detection accuracy.

| 規格 Spec. | 型式 NO. | 總高度 H | 伸縮距離 Telescopic distance | 重量 (KGS) Weight |
|-------------|------------------|----------|-----------------------------|-----------------------|
| ZMP - 40 | 光電式 Optical type | 40 | 2 | 0.1 |

電池更換方式

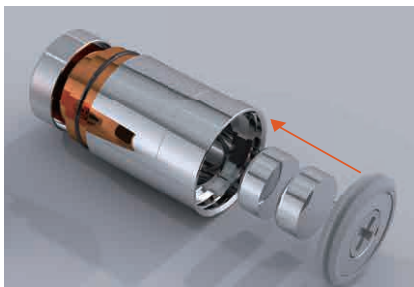
Battery exchange instructions



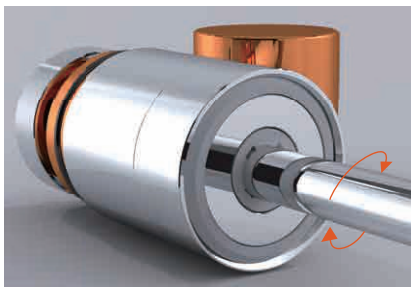
1. 使用十字螺絲起子將電池蓋逆時針轉開。
Open the battery cover by using a cross screwdriver.(counterclockwise)



2. 轉開電池蓋，準備兩顆 SR44 或 LR44 1.5V 電池。
Once the cover is opened, exchange two battery (Battery model: SR44 or LR44 1.5v)



3. 將兩顆電池放入，並蓋上電池蓋。
Install the new battery.



4. 使用十字螺絲起子將電池蓋順時針鎖緊。
Lock the battery cover by using a cross screwdriver. (clockwise)



• 長度單位 Unit of Length (mm)


 高度 50
height

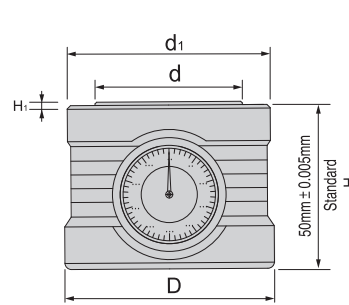
 高度 100
height


Fig.1

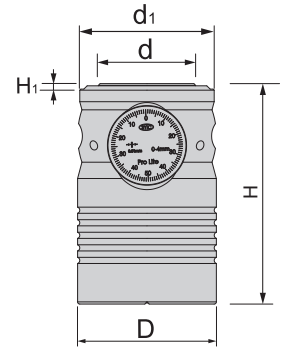


Fig.2

特點 Feature

- 高精密度、高準確度、高便利性
- 測量接觸面積大，以利測量作業

- High precision, high accuracy, high convenience.
- The measuring contacting wide area, in order to help the gauge work.

| 規格 Spec. | D | d | d ₁ | H ±0.005 | H ₁ 有效行程 Stroke | 歸零棒 Block gauge | 重量 (KGS) Weight |
|-----------|----|------|----------------|-------------|----------------------------------|--------------------|-----------------------|
| ZDS-50J | 64 | 44.7 | 62 | 50 | 2 | Ø16 | 1.35 |
| ZDS-50J-N | 64 | 44.7 | 62 | 50 | 2 | Ø16 | 1.35 |
| ZSW-100 | 64 | 44.7 | 62 | 100 | 2 | Ø16 | - |

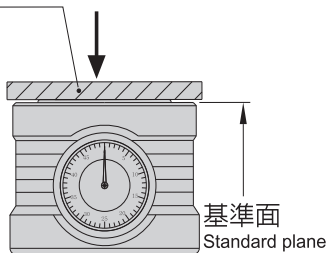
- ZDS-50J-N 為無磁性 - ZDS-50J-N is non-magnetic.

範例 Example

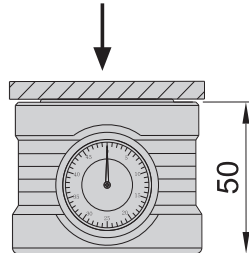
- 請使用歸零棒，下壓至基準面
- 轉開百分錶使錶針歸零
- 移開歸零棒
- 置於工件上，刀具接觸探測面，請慢速進刀至錶針指在 "0"
· 則刀具與工件的距離是 50

- Please use the block gauge to press datum level.
- Turn the dialgauge and adjust the needle to "0".
- Remove the block gauge.
- Put the whole unit on the workpiece, when cutter touched the test surface please feed slowly to move the needle to "0".
The cutter distance is now 50mm above the workpiece.

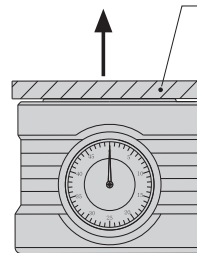
1

 歸零棒
Block gauge


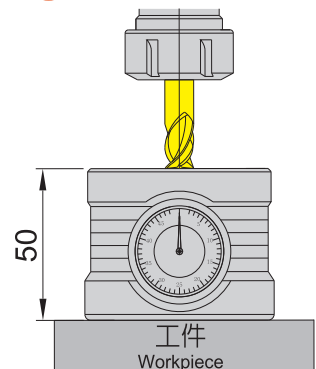
2



3

 移開
Remove


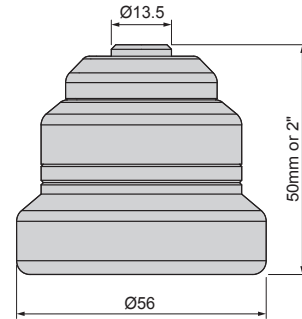
4



• 長度單位 Unit of Length (mm)

ZOP-50 光電式 Z 軸設定器

ZOP-50 Z AXIAL PRESET GAUGE(OPTICAL TYPE)



特點 Feature

- 精度 0.005mm
- 磁性底座設計，可供側面吸附工件探測
- 紅燈亮時，四週都可看見，沒有死角

- Accuracy 0.005mm.
- With magnetic base, available for adsorption side workpiece probe.
- When the red lamp on, you can sweep it with non blind spot.

注意事項 Notice

- 使用 AG13 水銀電池 2 枚
- 磁性底座請勿接近 100°C 以上熱氣或火氣，以防消磁
- 探測面下方有微調機構，調整高度請用平行塊規比測
- 高精度產品，不適用游標尺檢測精度
- 快速進刀至燈亮時，請輕微後退至燈熄，再慢速前進至燈亮，以利確實掌握精度
- 側面探測時，請用刀刃之最高點拉觸探測面

- Uses AG13 clark cell 2.
- Magnetic base should avoid to approach the heat or steam above 100°C, to prevent demagnetization.
- There's micro-adjustment under test surface, please use parallel block for adjusting height.
- High precision products, not suitable for vernier scale to test precision.
- When the light is on due to fast feed cutter, please draw back slightly until the light is off, then go forward slowly until the light is on, for controlling precision indeed.
- When probing side, please use the apogee of the cutter to touch the test surface.

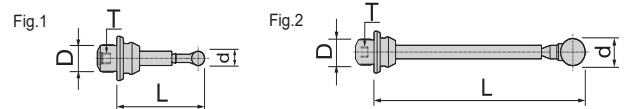
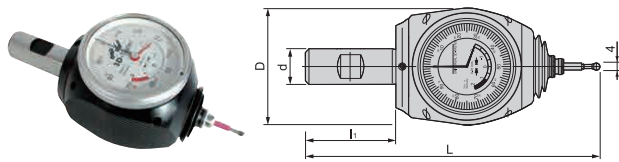
| 規格 Spec. | 型式 NO. | 總高度 H | 伸縮距離 | 重量 (KGS) Weight |
|----------|--------|-------|------|-----------------|
| ZOP-50 | 光電式 | 50 | 3 | 0.5 |

三次元探測器

3D MASTER

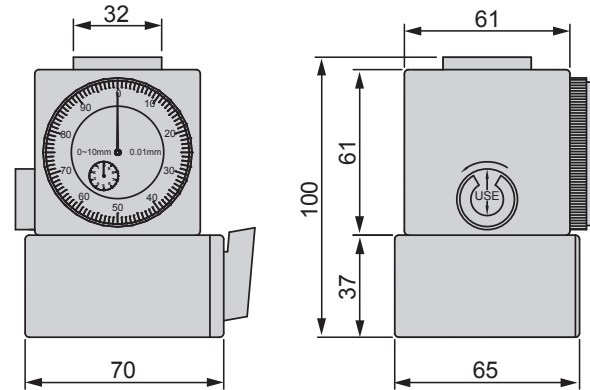
探針

PROBE



| 規格 Spec. | L | l ₁ | D | d | 重量 (KGS) Weight |
|----------|-----|----------------|----|----|-----------------|
| 3D-D | 163 | 50 | 65 | 20 | 0.94 |

| 規格 Spec. | L | D | d | T | Fig. | 重量 (KGS) Weight |
|--------------------|----|-----|---|----|------|-----------------|
| 台製 SYIC-TB-427(短針) | 25 | 7.5 | 4 | M3 | 1 | 0.02 |
| 台製 SYIC-TB-869(長針) | 65 | 7.5 | 8 | M3 | 2 | 0.02 |
| 進口 3D-S(短針) | 25 | 7.5 | 4 | M3 | 1 | 0.02 |
| 進口 3D-L(長針) | 65 | 7.5 | 8 | M3 | 2 | 0.02 |



特點 Feature

- 高度 100mm · 計算容易
- 探測面橢圓形 · 加大使用面積
- 0.01mm 大錶面設計 · 視覺輕鬆
- 底座含磁性 · 有調整 ON-OFF 開關設計
- 到達定位點時 · 大錶、小錶同時顯示 "0"
- 可利用歸零桿 · 進行高度調整

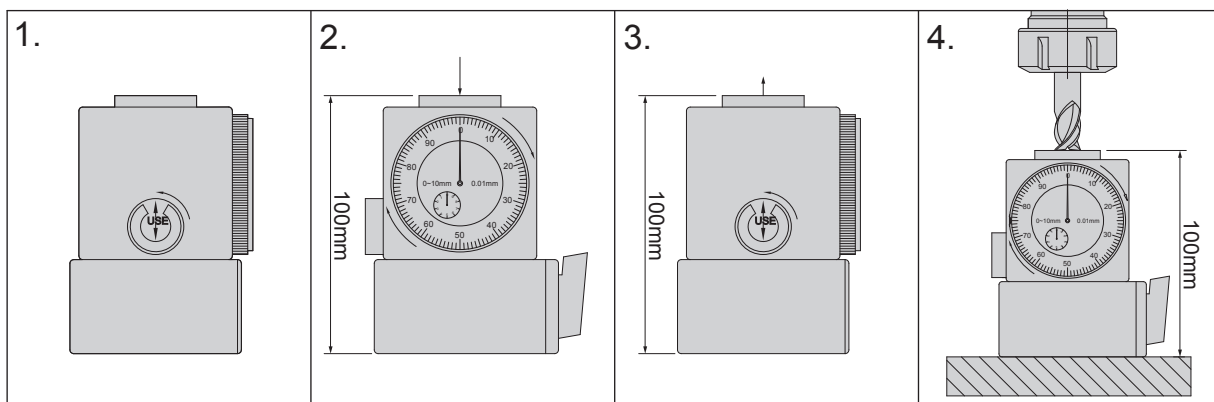
- Height 100mm, easy to calculate.
- Oval test surface, extending using area.
- Big clockface design, easy to read.
- Magnetic base with ON-OFF switch is designed for adjustment.
- The design in a direct way returns to zero by reaching the anchor point.
- Uses zero level to adjust height.

注意事項 Notice

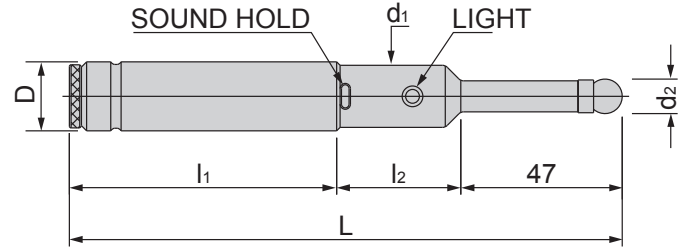
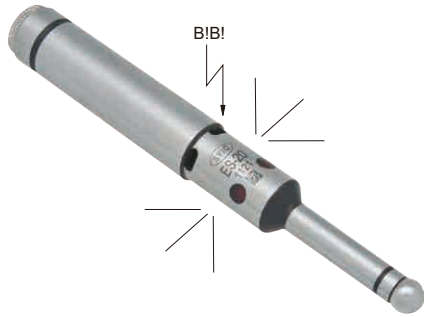
- 將歸零桿轉至 TEST
- 用手下壓至盡頭 · 小錶會顯示 "0" · 請將大錶 "0" 旋轉至對準大指針
- 使用前請將歸零桿旋轉至 "USE"
- 置於工件上 · 將磁性座旋轉至 "ON" · 刀具接觸探測面 · 請慢速進刀至大錶 · 小錶指針同時到 "0" 時 · 則刀具與工件的距離是 100mm

- Rotate the wheel on the side of the unit for the setting-zero point form "USE" to "TEST".
- Press down the gauge at the top of the unit, until the small indicator needle point to zero. Keep pressure against it and then adjust the large indicator needle to zero.
- Rotate the button at the side of the unit form to "USE".
- Introduce the tool to the top of the unit until both dial indicator gauges reach zero, the cutter distance is now 100mm above the workpiece.

| 規格 Spec. | 型式 NO. | 總高度 H | 伸縮距離 Telescopic distance | 重量 (KGS) Weight |
|-------------|-----------|----------|-----------------------------|-----------------------|
| ZDI - 100 | 量錶式 | 100 | 3 | 2.24 |



精度 Accuracy : 0.005mm



特點 Feature

- 每支產品都附有精度檢驗報告書
- 紅燈亮起同時發出電子音嗶！嗶！聲響
- 無法目視之探孔深測，可由聲響得知探測結果

- Each product comes with a precision inspection report
- It will beep at the same time when the red light lit up.
- When probe is in a deep hole you can't see the red light, but you can hear the sound.

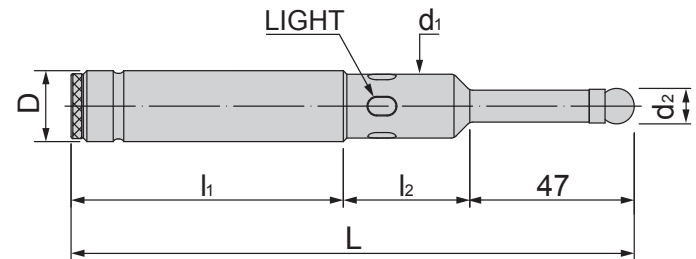
注意事項 Notice

- 附 2 枚 UM5#1.5V · 鹼性乾性電池

- With two UM5 # 1.5V, alkaline dry batteries.

| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | d ₂ | 重量 (KGS) Weight |
|----------|-----|----------------|----------------|----|----------------|----------------|-----------------|
| ES-20 | 160 | 79 | 41 | 20 | 18 | 10 | 0.35 |
| ES-32 | 160 | 79 | 41 | 32 | 18 | 10 | 0.60 |

精度 Accuracy : 0.005mm



特點 Feature

- 接觸時紅光閃耀，降低視覺誤差
- 附精度檢驗表及使用說明

- When contact, red light shine to reduce parallax.
- With accuracy test sheet and instructions for use.

注意事項 Notice

- 不可迴轉量測
- 附 2 枚 UM5#1.5V · 鹼性乾性電池

- Non-rotating measurement.
- With two UM5 # 1.5V, alkaline dry batteries.

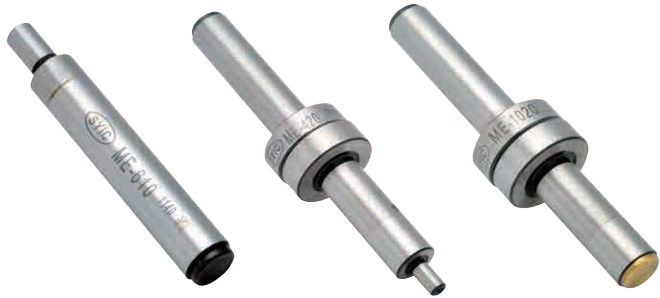
| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | d ₂ | 重量 (KGS) Weight |
|----------|-----|----------------|----------------|----|----------------|----------------|-----------------|
| OP-20 | 160 | 79 | 34 | 20 | 18 | 10 | 0.30 |
| OP-32 | 160 | 79 | 34 | 32 | 18 | 10 | 0.60 |

• 長度單位 Unit of Length (mm)



偏心式尋邊器 ME MECHANICAL ENGE FINDER

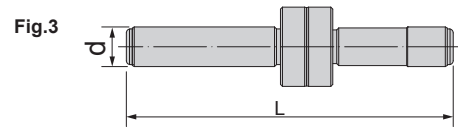
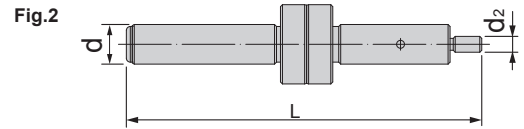
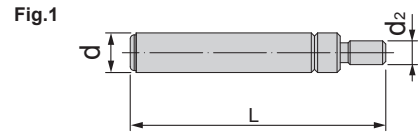
精度 Accuracy : 0.002mm



ME-610

ME-420

ME-1020



特點 Feature

- ME420 特別設計 4mm 測頭 · 提供小孔徑及偏窄溝槽測量使用
- 配合轉速 400~600rpm.
- MIN.(4mm) can be tested mini hole for your workpiece.
- Within 400-600rpm.

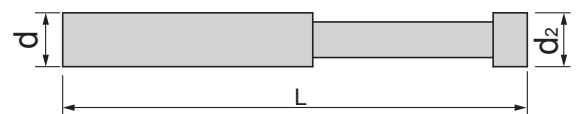
| 規格 Spec. | L | d | d ₂ | Fig. | 重量 (KGS) Weight |
|-------------|------|----|----------------|------|-----------------------|
| ME - 610 | 65 | 10 | Ø6 | 1 | 0.03 |
| ME - 420 | 90 | 10 | Ø4 | 2 | 0.06 |
| ME - 1020 | 82.8 | 10 | Ø10 | 3 | 0.06 |



CME 偏心式尋邊器 CME MECHANICAL ENGE FINDER

精度 Accuracy : 0.002mm

LEMMA



特點 Feature

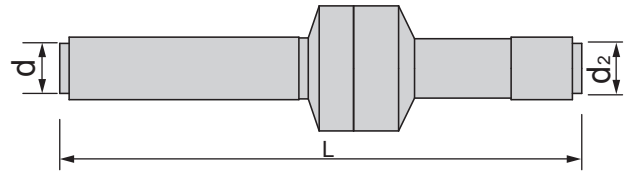
- 配合轉速 400~600rpm
- 陶瓷測頭不導磁
- Within 400-600rpm.
- Non-magnetic ceramic side head.

| 規格 Spec. | L | d | d ₂ | 重量 (KGS) Weight |
|-------------|----|----|----------------|-----------------------|
| CME - 1010 | 86 | 10 | Ø10 | 0.04 |

• 長度單位 Unit of Length (mm)

ACCESSORIES

精度 Accuracy : 0.002mm



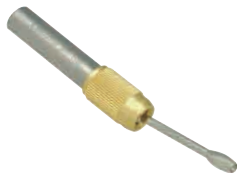
特點 Feature

- 配合轉速 400~600rpm
- 陶瓷測頭不導磁

- Within 400-600 rpm.
- Non-magnetic ceramic side head.

| 規格 Spec. | L | d | d ₂ | 重量 (KGS) Weight |
|------------|----|----|----------------|-----------------|
| CME - 1020 | 90 | 10 | Ø10 | 0.08 |

精度 Accuracy : 0.005mm



SR-10S



SR-10L



CSR-10S



CSR-10L

Fig.1

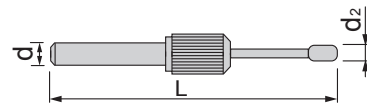
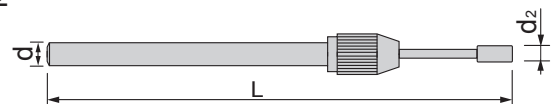


Fig.2



特點 Feature

- 配合轉速 800~1000rpm
- 陶瓷測頭不導磁

- Within 800-1000rpm.
- Non-magnetic ceramic side head.

| 規格 Spec. | L | d | d ₂ | Fig. | 重量 (KGS) Weight |
|--------------|-----------------------------|-----|----------------|------|-----------------|
| SR-10S (單支) | 95 | Ø10 | Ø5 | 1 | 0.06 |
| SR-10L (單支) | 145 | | | 2 | 0.09 |
| SR-10T | 整組 (2支裝) A set (two pieces) | | | | 0.27 |
| CSR-10S (單支) | 95 | Ø10 | Ø5 | 1 | 0.04 |
| CSR-10L (單支) | 145 | | | 2 | 0.08 |
| CSR-10T | 整組 (2支裝) A set (two pieces) | | | | 0.26 |

• 長度單位 Unit of Length (mm)



HME 超硬膜偏心式尋邊器

HME MECHANICAL EDGE FINDER

精度 Accuracy : 0.002mm



HME-1020

HME-420

Fig.1

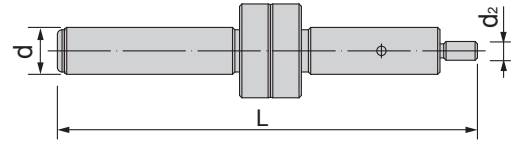
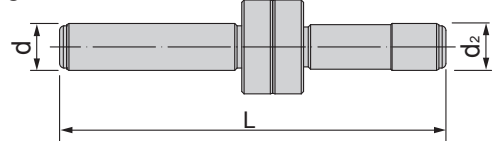


Fig.2



特點 Feature

- 絕不產生磁性
- 探測端硬度 >HRC60°
- 配合轉速 400~600rpm

- No magnetism.
- Test end degree of hardness >HRC60°
- Within 400-600rpm.

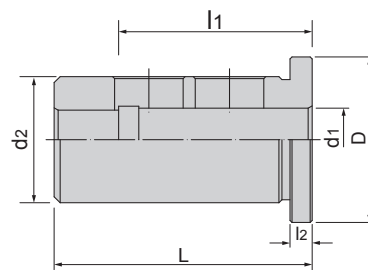
| 規格 Spec. | L | d | d ₂ | Fig. | 重量 (KGS) Weight |
|----------|------|----|----------------|------|-----------------|
| HME-420 | 90 | 10 | Ø4 | 1 | 0.04 |
| HME-1020 | 82.5 | 10 | Ø10 | 2 | 0.04 |



BT/OSL 側固式油路刀把套筒

BT/OSL STRAIGHT SLEEVE FOR SIDE-LOCK OIL HOLDER

TYPE BC



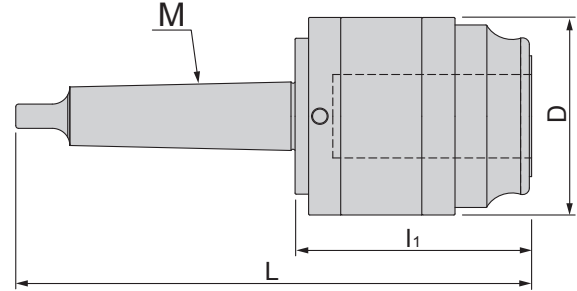
| 規格 Spec. | L | l ₁ | l ₂ | D | d ₁ | d ₂ | 重量 (KGS) Weight |
|-----------|----|----------------|----------------|----|----------------|----------------|-----------------|
| OSL-20-16 | 54 | 48 | 5.5 | 30 | 16 | 20 | 0.07 |
| OSL-25-16 | 60 | 48 | 5.5 | 35 | 16 | 25 | 0.19 |
| OSL-25-20 | 60 | 56 | 5.5 | 35 | 20 | 25 | 0.15 |
| OSL-32-16 | 64 | 48 | 5.5 | 42 | 16 | 32 | 0.35 |
| OSL-32-20 | 64 | 56 | 5.5 | 42 | 20 | 32 | 0.32 |
| OSL-32-25 | 64 | 56 | 5.5 | 42 | 25 | 32 | 0.22 |
| OSL-40-16 | 74 | 48 | 5.5 | 50 | 16 | 40 | 0.57 |
| OSL-40-20 | 74 | 60 | 5.5 | 50 | 20 | 40 | 0.54 |
| OSL-40-25 | 74 | 60 | 5.5 | 50 | 25 | 40 | 0.45 |
| OSL-40-32 | 74 | 60 | 5.5 | 50 | 32 | 40 | 0.30 |

• 長度單位 Unit of Length (mm)

ACCESSORIES



TP/DT33 鑽床攻牙器 TP/DT33 DRILL TAPPER



特點 Feature

- 攻牙本體有調整扭力之功能，可依客戶攻牙需求作扭力強 (H) 和弱 (L) 之調整操作
- 攻牙能力 :M5~M36

- Tapping body have the function of torque adjustment, may adjust the torque by strong (H) and weak (L) attached customer needs.
- Tapping capacity: M5~M36.

| 規格 Spec. | L | l ₁ | D | M | 重量 (KGS) Weight |
|----------|-----|----------------|----|-----|-----------------|
| DT33-MT3 | 200 | 104 | 90 | MT3 | 3.15 |
| DT33-MT4 | 228 | 104 | 90 | MT4 | 3.48 |
| DT33-MT5 | 254 | 104 | 90 | MT5 | 4.38 |

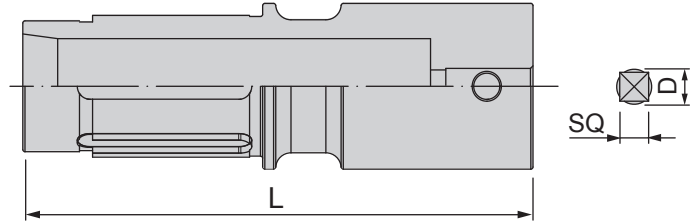


鑽床攻牙器套裝組 DRILL TAPPER SET



| 規格 Spec. | 內容物 Contents | | | | 重量 (KGS) Weight |
|-----------------|------------------|---|---|--------------------------|-----------------|
| | 本體 Tapper Holder | 絲攻筒夾 Tapping Collet | 斜柄筒夾 Tapping Collet | 鑽夾頭筒夾 Drill chuck Collet | |
| DT33-MT3-9P-SET | TP-MT3T | M6~M36 W1/4~W1-1/8 PT1/8~PT1-1/8 (可選配六只) | DT33-TPC-MT1 DT33-TPC-MT2 DT33-TPC-MT3 DT33-TPC-MT4 (可選配二只) | DT33-TPC-JT6 | - |
| DT33-MT4-9P-SET | TP-MT4T | | | | - |
| DT33-MT5-9P-SET | TP-MT5T | | | | - |

• 長度單位 Unit of Length (mm)

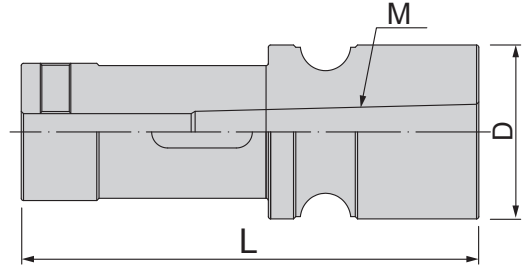


| 規格 Spec. | 公制 (mm) | 英制 (inch) | 英制 (inch) | PT | PS | PF | L | 直徑 Ø D | 四角柄 SQ | 重量 (KGS) Weight |
|--|------------|--------------|--------------|-----|-------|-------|-----|-----------|-----------|-----------------------|
| DT33-TPC-M6.U1/4.W1/4 | M6 | U1/4 | W1/4 | - | - | - | 117 | 6 | 4.5 | 0.57 |
| DT33-TPC-U5/16.W5/16 | - | U5/16 | W5/16 | - | - | - | 117 | 6.1 | 5 | 0.57 |
| DT33-TPC-M8.M7 | M8 M7 | - | - | - | - | - | 117 | 6.2 | 5 | 0.57 |
| DT33-TPC-M9.M10.U3/8.W3/8 | M9 M10 | U3/8 | W3/8 | - | - | - | 117 | 7 | 5.5 | 0.57 |
| DT33-TPC-M11.U7/16.W7/16. PT7/8.PT1/8 | M11 | U 7/16 | W7/16 | 1/8 | 1/8 | 1/8 | 117 | 8 | 6 | 0.57 |
| PT7/8.PT1/8 | M11 | U7/16 | W7/16 | 1/8 | 1/8 | 1/8 | 117 | 8 | 6 | 0.57 |
| DT33-TPC-M12 | M12 | - | - | - | - | - | 117 | 8.5 | 6.5 | 0.57 |
| DT33-TPC-U1/2.W1/2 | - | U1/2 | W1/2 | - | - | - | 117 | 9 | 7 | 0.57 |
| DT33-TPC-M14.M15.U9/16.W9/16 | M14 M15 | U9/16 | W9/16 | - | - | - | 117 | 10.5 | 8 | 0.57 |
| DT33-TPC-PT1/4.PS1/4.PF1/4 | - | - | - | 1/4 | 1/4 | 1/4 | 117 | 11 | 9 | 0.57 |
| DT33-TPC-U5/8.W5/8 | - | U5/8 | W5/8 | - | - | - | 117 | 12 | 9 | 0.57 |
| DT33-TPC-M16 | M16 | - | - | - | - | - | 117 | 12.5 | 10 | 0.57 |
| DT33-TPC-M18.U3/4.W3/4.PT3/8 | M18 | U3/4 | W3/4 | 3/8 | 3/8 | 3/8 | 117 | 14 | 11 | 0.57 |
| DT33-TPC-M20 | M20 | - | - | - | - | - | 117 | 15 | 12 | 0.57 |
| DT33-TPC-M22.U7/8.W7/8 | M22 | U7/8 | W 7/8 | - | - | - | 117 | 17 | 13 | 0.57 |
| DT33-TPC-PT1/2.PS1/2.PF1/2 | - | - | - | 1/2 | 1/2 | 1/2 | 117 | 18 | 14 | 0.57 |
| DT33-TPC-M24.M25.PT5/8 | M24 M25 | - | - | - | - | 5/8 | 117 | 19 | 15 | 0.57 |
| DT33-TPC-M26.M27.U1.W1 | M26 M27 | U1 | W1 | - | - | - | 117 | 20 | 15 | 0.57 |
| DT33-TPC-M28 | M28 | - | - | - | - | - | 117 | 21 | 17 | 0.57 |
| DT33-TPC-M29.W1-1/8 | - | U1-1/8 | W1-1/8 | | | | 117 | 22 | 17 | 0.57 |
| DT33-TPC-M30.PT3/4 | M30 | - | - | 3/4 | 3/4 | 3/4 | 117 | 23 | 17 | 0.57 |
| DT33-TPC-M32.U11/4 | M32 | U1-1/4 | W1-1/4 | - | - | 7/8 | 117 | 24 | 19 | 0.57 |
| DT33-TPC-M33 | M33 | - | - | - | - | - | 117 | 25 | 19 | 0.57 |
| DT33-TPC-M34.M35.U13/8.PT1 | M34 M35 | U1-3/8 | W1-3/8 | 1 | 1 | 1 | 117 | 26 | 21 | 0.57 |
| DT33-TPC-M36.M38.PT1-1/8 | M36 M38 | - | - | - | 1-1/8 | 1-1/8 | 117 | 28 | 21 | 0.57 |



DT33 斜柄筒夾

MORSE TAPER COLLET

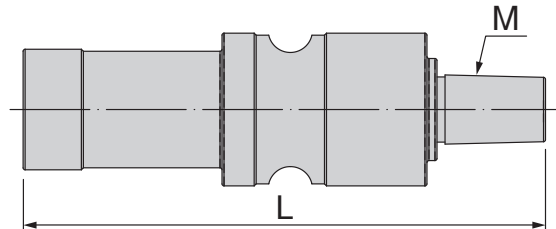


| 規格 Spec. | L | D | M | 重量 (KGS) Weight |
|--------------|-----|----|-----|-----------------------|
| DT33-TPC-MT1 | 100 | 38 | MT1 | 0.62 |
| DT33-TPC-MT2 | 110 | 38 | MT2 | 0.62 |
| DT33-TPC-MT3 | 122 | 38 | MT3 | 0.60 |
| DT33-TPC-MT4 | 170 | 38 | MT4 | 0.66 |

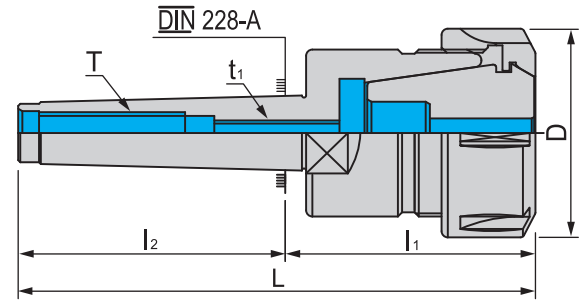


DT33 鑽夾頭筒夾

DT33 DRILL CHUCK COLLET



| 規格 Spec. | L | M | 重量 (KGS) Weight |
|--------------|-----|-----|-----------------------|
| DT33-TPC-JT6 | 130 | JT6 | 0.74 |



特點 Feature

MTB=MK

- MTB 加棒舌即為 MTA

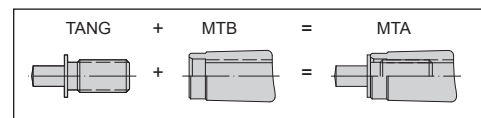
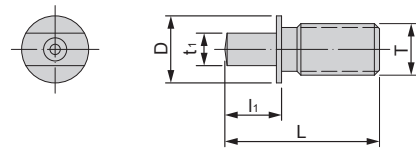
- 訂購前請確認本體拉桿牙數為公制或英制

MTB=MK

- MTB + TANG = MTA

- Please inform DRAW BAR'S size when purchasing holder.

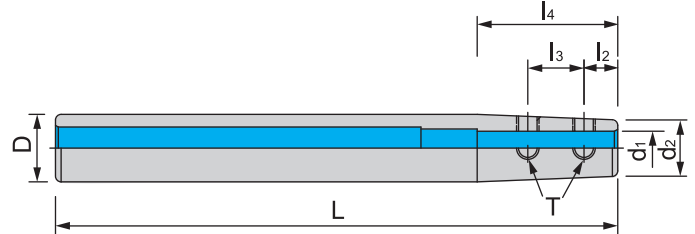
| 規格 Spec. | L | l ₁ | l ₂ | D | t ₁ | T | 重量 (KGS) Weight |
|---------------|-------|----------------|----------------|----|----------------|--------------------|-----------------------|
| MTB2xER20A-52 | 116 | 52 | 64 | 35 | M10x1.5P | M10x1.5P, 3/8"W16 | 0.45 |
| MTB2xER25-55 | 119 | 55 | 64 | 42 | M10x1.5P | M10x1.5P, 3/8"W16 | 0.50 |
| MTB3xER25-55 | 136 | 55 | 81 | 42 | M12x1.75P | M12x1.75P, 1/2"W12 | 0.60 |
| MTB3xER32-60 | 141 | 60 | 81 | 50 | M12x1.75P | M12x1.75P, 1/2"W12 | 0.80 |
| MTB3xER40-70 | 151 | 70 | 81 | 63 | M12x1.75P | M12x1.75P, 1/2"W12 | 1.30 |
| MTB4xER32-60 | 162.5 | 60 | 102.5 | 50 | M16x2.0P | M16x2.0P, 5/8"W11 | 0.95 |
| MTB4xER40-70 | 172.5 | 70 | 102.5 | 63 | M16x2.0P | M16x2.0P, 5/8"W11 | 1.50 |



| 規格 Spec. | L | l ₁ | D | T | t ₁ | 重量 (KGS) Weight |
|---------------|----|----------------|----|-----------|----------------|-----------------------|
| MT2x3/8"W16 | 30 | 7 | 13 | 3/8"W16 | 6.3 | 0.02 |
| MT2xM10x1.5P | 30 | 7 | 13 | M10x1.5P | 6.3 | 0.02 |
| MT3x1/2"W12 | 40 | 12 | 18 | 1/2"W12 | 7.8 | 0.04 |
| MT3xM12x1.75P | 40 | 12 | 18 | M12x1.75P | 7.8 | 0.04 |

| 規格 Spec. | L | l ₁ | D | T | t ₁ | 重量 (KGS) Weight |
|--------------|----|----------------|----|----------|----------------|-----------------------|
| MT4x5/8"W11 | 46 | 13 | 25 | 5/8"W11 | 11.9 | - |
| MT4xM16x2.0P | 46 | 13 | 25 | M16x2.0P | 11.9 | - |
| MT5x1"W8 | 47 | 14 | 35 | 1"W8 | 15.9 | - |
| MT5xM24x3.0P | 47 | 14 | 35 | M24x3.0P | 15.9 | - |

• 長度單位 Unit of Length (mm)



特點 Feature

- 材質採用抗震性優越的鎳鉻鋁合金鋼
- 孔徑差 H5

-Steel : SNCM-220
- d1 is H5.

| 規格 Spec. | L | l ₂ | l ₃ | l ₄ | D | d ₁ | d ₂ | T | 重量 (KGS) Weight |
|--------------|-----|----------------|----------------|----------------|----|----------------|----------------|------------|-----------------------|
| C8-SL03-110 | 110 | 6 | 10 | 25 | 8 | 3 | 7.5 | M3x0.5P-3L | 0.08 |
| C8-SL04-110 | 110 | 6 | 10 | 25 | 8 | 4 | 8 | M3x0.5P-3L | 0.08 |
| C10-SL03-150 | 150 | 6 | 10 | 25 | 10 | 3 | 9 | M3x0.5P-3L | 0.11 |
| C10-SL04-150 | 150 | 6 | 10 | 25 | 10 | 4 | 9 | M4x0.7P-3L | 0.08 |
| C10-SL06-150 | 150 | 6 | 10 | 25 | 10 | 6 | - | M4x0.7P-3L | 0.10 |
| C12-SL04-150 | 150 | 6 | 10 | 25 | 12 | 4 | 9 | M4x0.7P-3L | 0.13 |
| C12-SL06-150 | 150 | 6 | 10 | 25 | 12 | 6 | 10 | M4x0.7P-3L | 0.12 |
| C16-SL04-150 | 150 | 6 | 10 | 25 | 16 | 4 | 10 | M4x0.7P-4L | 0.22 |
| C16-SL04-200 | 200 | 6 | 10 | 25 | 16 | 4 | 10 | M4x0.7P-4L | 0.18 |
| C16-SL06-150 | 150 | 6 | 10 | 25 | 16 | 6 | 13 | M4x0.7P-3L | 0.20 |
| C16-SL06-200 | 200 | 6 | 10 | 25 | 16 | 6 | 13 | M4x0.7P-4L | 0.25 |
| C16-SL08-150 | 150 | 6 | 10 | 25 | 16 | 8 | 15 | M4x0.7P-3L | 0.15 |
| C16-SL08-200 | 200 | 6 | 10 | 25 | 16 | 8 | 15 | M4x0.7P-4L | 0.21 |
| C20-SL06-150 | 150 | 6 | 10 | 25 | 20 | 6 | 13 | M4x0.7P-4L | 0.29 |
| C20-SL06-200 | 200 | 6 | 10 | 25 | 20 | 6 | 13 | M4x0.7P-4L | 0.38 |
| C20-SL08-150 | 150 | 6 | 10 | 25 | 20 | 8 | 15 | M6x1.0P-4L | 0.29 |
| C20-SL08-200 | 200 | 6 | 10 | 25 | 20 | 8 | 15 | M6x1.0P-6L | 0.38 |
| C20-SL10-150 | 150 | 6 | 10 | 25 | 20 | 10 | 17 | M6x1.0P-6L | 0.27 |
| C20-SL10-200 | 200 | 6 | 10 | 25 | 20 | 10 | 17 | M6x1.0P-4L | 0.34 |
| C20-SL12-150 | 150 | 6 | 10 | 25 | 20 | 12 | 19 | M6x1.0P-4L | 0.18 |
| C20-SL12-200 | 200 | 6 | 10 | 25 | 20 | 12 | 19 | M6x1.0P-6L | 0.28 |
| C32-SL06-150 | 150 | 6 | 10 | 25 | 32 | 6 | 13 | M6x1.0P-8L | 0.21 |
| C32-SL08-150 | 150 | 6 | 10 | 25 | 32 | 8 | 15 | M6x1.0P-6L | 0.21 |
| C32-SL10-150 | 150 | 6 | 10 | 25 | 32 | 10 | 17 | M6x1.0P-8L | 0.22 |
| C32-SL12-150 | 150 | 6 | 10 | 25 | 32 | 12 | 19 | M6x1.0P-5L | 0.22 |

直柄ER自動車床夾頭柄系統化示意圖

ER Collet Chuck For Automatic Lathe (Straight Shank) Combination

刀桿
Holder

筒夾
Chuck

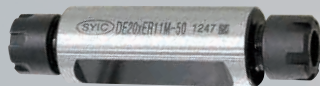
螺帽
Nut

扳手
Wrench



小徑 / 直柄 ER 夾頭柄(M型)
ER Collet Chuck For Automatic Lathe
(Straight Shank)

C20-ER16M-60



DE直柄兩端ER自動車床夾頭柄
ER Collet Chuck For Automatic Lathe
(Double-Ended Straight Shank)

DE20-ER16M-75



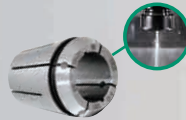
ER彈性筒夾
ER Collet



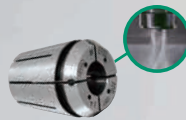
ER彈性筒夾(A級)
ER Collet (A Grade)



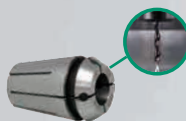
ER彈性筒夾(UP級)
ER Collet (UP Grade)



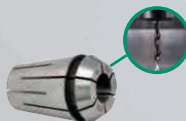
ER-FID出水筒夾
ER-FID Coolant Collet



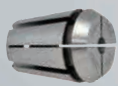
ER-FOD出水筒夾
ER-FOD Coolant Collet



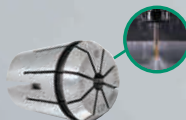
ER-EO止水筒夾
ER-EO Sealed Collet



ER-ES斜槽止水筒夾
ER-ES Steel Sealed Collet



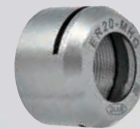
ER鋼性攻牙筒夾
ER-TC Rigid Tap Collet



ER鋼性攻牙止水筒夾
ER-TC Rigid Tap Sealed Collet



ER-M型螺帽
ER-M Nut
尺寸規格Spec.
ER8.ER11.ER16
ER20.ER25



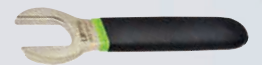
ER-MHG螺帽
ER-MHG Nut
尺寸規格Spec.
ER16-MGH.ER20-MGH
ER25-MGH



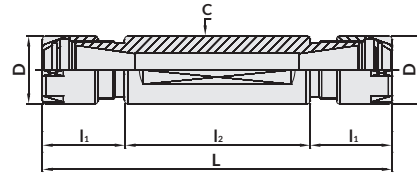
ER-M標準扳手
ER-M Wrench



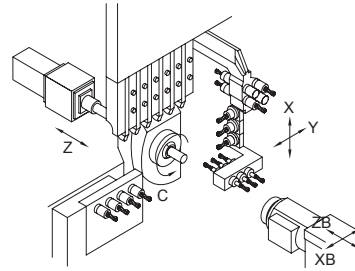
M-LH 螺帽扳手
(扭力扳手用)
M-LH Nut Torque Wrench



ER-MHG螺帽專用扳手
ER-MHG Nut Wrench



範例 Example



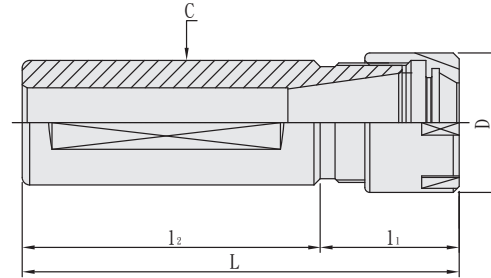
特點 Feature

-整支通孔

| 規格 Spec. | L | l ₁ | l ₂ | C | D | 重量 (KGS) Weight |
|-----------------|-------|----------------|----------------|----|----|--------------------|
| DE20-ER11M-30T | 63.2 | 16.6 | 30 | 20 | 16 | 0.09 |
| DE20-ER11M-50T | 83.2 | 16.6 | 50 | 20 | 16 | 0.12 |
| DE20-ER11M-75T | 108.2 | 16.6 | 75 | 20 | 16 | 0.12 |
| DE20-ER16M-50T | 103.2 | 26.6 | 50 | 20 | 22 | 0.10 |
| DE20-ER16M-55T | 108.2 | 26.6 | 55 | 20 | 22 | 0.12 |
| DE20-ER16M-75T | 128.2 | 26.6 | 75 | 20 | 22 | 0.12 |
| DE22-ER11M-60T | 93.2 | 16.6 | 60 | 22 | 16 | 0.12 |
| DE22-ER11M-100T | 133.2 | 16.6 | 100 | 22 | 16 | 0.14 |
| DE22-ER16M-55T | 108.2 | 26.6 | 55 | 22 | 22 | 0.17 |
| DE22-ER16M-60T | 113.2 | 26.6 | 60 | 22 | 22 | 0.14 |
| DE22-ER16M-75T | 128.2 | 26.6 | 75 | 22 | 22 | 0.21 |
| DE22-ER16M-100T | 153.2 | 26.6 | 100 | 22 | 22 | 0.16 |
| DE23-ER11M-60T | 93.2 | 16.6 | 60 | 23 | 16 | 0.16 |
| DE23-ER11M-100T | 133.2 | 16.6 | 100 | 23 | 16 | 0.18 |
| DE23-ER16M-60T | 113.2 | 26.6 | 60 | 23 | 22 | 0.20 |
| DE23-ER16M-100T | 153.2 | 26.6 | 100 | 23 | 22 | 0.21 |
| DE25-ER16M-62T | 115.2 | 26.6 | 62 | 25 | 22 | 0.23 |

• 使用 ER-M/WH 軸承扳手 ER/WH Wrench

• 長度單位 Unit of Length (mm)



特點 Feature

-整支通孔 -Through hole

| 規格 Spec. | L | l ₁ | l ₂ | C | D | 重量 (KGS) Weight |
|------------------|------|----------------|----------------|----|----|--------------------|
| C20 - ER11M - 60 | 76.6 | 16.6 | 60 | 20 | 16 | 0.14 |
| C20 - ER16M - 60 | 84.6 | 24.6 | 60 | 20 | 22 | 0.14 |
| C22 - ER11M - 60 | 76.6 | 16.6 | 60 | 22 | 16 | 0.26 |
| C22 - ER16M - 60 | 84.6 | 24.6 | 60 | 22 | 22 | 0.28 |
| C23 - ER11M - 60 | 76.6 | 16.6 | 60 | 23 | 16 | 0.30 |
| C23 - ER16M - 60 | 86.6 | 26.6 | 60 | 23 | 22 | 0.32 |
| C25 - ER20M - 60 | 88 | 28 | 60 | 25 | 28 | 0.22 |



Fig.1

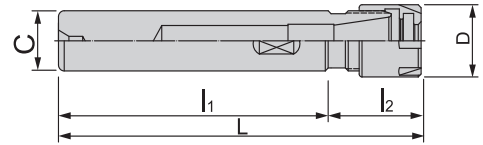
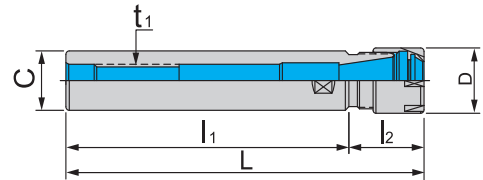
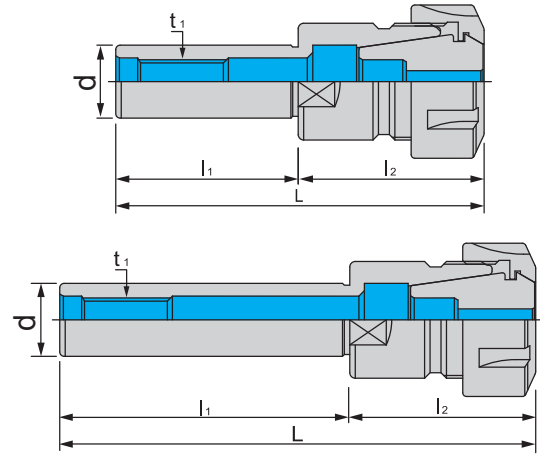


Fig.2



| 規格 Spec. | L | l ₁ | l ₂ | C | D | t ₁ | Fig. | 重量 (KGS) Weight |
|---------------|-------|----------------|----------------|----|----|----------------|------|-----------------------|
| C8xER8M-55 | 78.2 | 55 | 23.2 | 8 | 12 | - | 1 | 0.05 |
| C10xER8M-100 | 116.2 | 100 | 16.2 | 10 | 12 | - | 1 | 0.08 |
| C10xER8M-150 | 166.2 | 150 | 16.2 | 10 | 12 | - | 1 | 0.12 |
| C10xER8M-180 | 196.2 | 180 | 16.2 | 10 | 12 | - | 1 | 0.14 |
| C12xER8M-55 | 71.2 | 55 | 16.2 | 12 | 12 | - | 1 | 0.06 |
| C12xER8M-120 | 136.2 | 120 | 16.2 | 12 | 12 | - | 1 | 0.13 |
| C12xER8M-180 | 197 | 180 | 26.5 | 12 | 12 | - | 1 | 0.19 |
| C12xER11M-80 | 96.6 | 80 | 16.6 | 12 | 16 | M5 x 0.8P | 2 | 0.08 |
| C16xER11M-50 | 66.6 | 50 | 16.6 | 16 | 16 | M5 x 0.8P | 2 | 0.08 |
| C16xER11M-100 | 116.6 | 100 | 16.6 | 16 | 16 | M5 x 0.8P | 2 | 0.15 |
| C16xER11M-140 | 156.6 | 140 | 16.6 | 16 | 16 | M5 x 0.8P | 2 | 0.22 |
| C16xER16M-80 | 117 | 80 | 36.6 | 16 | 22 | M10 x 1.5P | 2 | 0.12 |
| C20xER16M-100 | 126.6 | 100 | 26.6 | 20 | 22 | M10 x 1.5P | 2 | 0.42 |
| C20xER16M-140 | 166.6 | 140 | 26.6 | 20 | 22 | M10 x 1.5P | 2 | 0.31 |
| C20xER16M-160 | 186.6 | 160 | 26.6 | 20 | 22 | M10 x 1.5P | 2 | 0.34 |
| C20xER20M-60 | 100 | 60 | 40 | 20 | 28 | M12 x 1.75P | 2 | 0.18 |
| C20xER20M-100 | 140 | 100 | 40 | 20 | 28 | M12 x 1.75P | 2 | 0.24 |
| C20xER20M-120 | 160 | 120 | 40 | 20 | 28 | M12 x 1.75P | 2 | 0.28 |
| C20xER20M-150 | 190 | 150 | 40 | 20 | 28 | M12 x 1.75P | 2 | 0.34 |
| C20xER20M-180 | 220 | 180 | 40 | 20 | 28 | M12 x 1.75P | 2 | 0.40 |
| C25xER20M-140 | 168 | 140 | 28 | 25 | 28 | M12 x 1.75P | 2 | 0.47 |
| C20xER25M-100 | 150 | 100 | 50 | 20 | 35 | M12 x 1.75P | 2 | 0.35 |

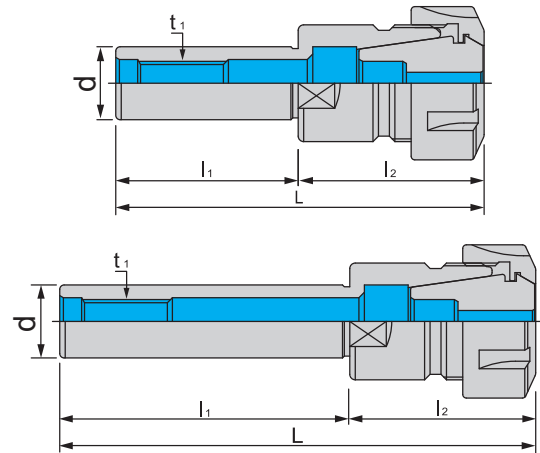


| 規格 Spec. | L | l ₁ | l ₂ | d | t ₁ | 重量 (KGS) Weight |
|---------------|-------|----------------|----------------|----|----------------|-----------------------|
| C16xER11A-140 | 156.5 | 140 | 16.6 | 16 | M6 x 1.0P | 0.23 |
| C16xER16A-50 | 90 | 50 | 40 | 16 | M10 x 1.5P | 0.15 |
| C16xER16A-100 | 140 | 100 | 40 | 16 | M10 x 1.5P | 0.20 |
| C16xER16A-150 | 190 | 150 | 40 | 16 | M10 x 1.5P | 0.28 |
| C20xER16A-50 | 90 | 50 | 40 | 20 | M12 x 1.75P | 0.25 |
| C20xER16A-100 | 140 | 100 | 40 | 20 | M12 x 1.75P | 0.35 |
| C20xER16A-150 | 190 | 150 | 40 | 20 | M12 x 1.75P | 0.40 |
| C20xER20A-60 | 100.5 | 60 | 40.5 | 20 | M12 x 1.75P | 0.22 |
| C20xER20A-120 | 160.5 | 120 | 40.5 | 20 | M12 x 1.75P | 0.40 |
| C20xER20A-180 | 220.5 | 180 | 40.5 | 20 | M12 x 1.75P | 0.43 |
| C20xER20A-140 | 180.5 | 140 | 40.5 | 20 | M12 x 1.75P | 0.34 |
| C20xER25-50 | 101 | 50 | 51 | 20 | M12 x 1.75P | 0.40 |
| C20xER25-100 | 151 | 100 | 51 | 20 | M12 x 1.75P | 0.41 |
| C20xER32-50 | 101.5 | 50 | 51.5 | 20 | M10 x 1.5P | 0.45 |
| C20xER32-100 | 151.5 | 100 | 51.5 | 20 | M10 x 1.5P | 0.52 |
| C25xER16A-150 | 176.6 | 150 | 26.6 | 25 | M10 x 1.5P | 0.55 |
| C25xER20A-140 | 175.1 | 140 | 40.5 | 25 | M12 x 1.75P | 0.55 |
| C25xER25-50 | 101 | 50 | 51 | 25 | M16 x 2.0P | 0.40 |
| C25xER25-100 | 151 | 100 | 51 | 25 | M16 x 2.0P | 0.50 |
| C25xER32-50 | 101.5 | 50 | 51.5 | 25 | M16 x 2.0P | 0.48 |
| C25xER40-50 | 115 | 50 | 65 | 25 | M16 x 2.0P | 0.85 |
| C32xER32-60 | 111.5 | 60 | 51.5 | 32 | M16 x 2.0P | 0.65 |
| C32xER32-100 | 151.5 | 100 | 51.5 | 32 | M16 x 2.0P | 0.80 |
| C32xER40-50 | 115 | 50 | 65 | 32 | M16 x 2.0P | 2.23 |

選配表 Option

| 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|-----------|--------|------------|
| | | |
| B611 | B633 | B649 |

• 長度單位 Unit of Length (mm)

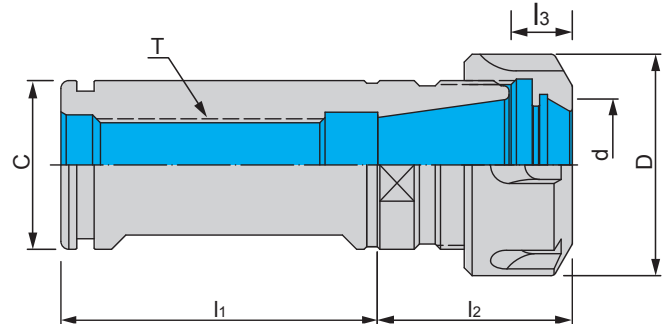


| 規格 Spec. | L | l ₁ | l ₂ | d | t ₁ | 重量 (KGS) Weight |
|----------------|-------|----------------|----------------|----|----------------|-----------------------|
| C16xER11A-140T | 156.5 | 140 | 16.6 | 16 | M6 x 1.0P | 0.23 |
| C16xER16A-50T | 90 | 50 | 40 | 16 | M10 x 1.5P | 0.15 |
| C16xER16A-100T | 140 | 100 | 40 | 16 | M10 x 1.5P | 0.20 |
| C16xER16A-150T | 190 | 150 | 40 | 16 | M10 x 1.5P | 0.28 |
| C20xER16A-50T | 90 | 50 | 40 | 20 | M12 x 1.75P | 0.25 |
| C20xER16A-100T | 140 | 100 | 40 | 20 | M12 x 1.75P | 0.35 |
| C20xER16A-150T | 190 | 150 | 40 | 20 | M12 x 1.75P | 0.40 |
| C20xER20A-60T | 100.5 | 60 | 40.5 | 20 | M12 x 1.75P | 0.22 |
| C20xER20A-120T | 160.5 | 120 | 40.5 | 20 | M12 x 1.75P | 0.40 |
| C20xER20A-180T | 220.5 | 180 | 40.5 | 20 | M12 x 1.75P | 0.43 |
| C20xER20A-140T | 175.1 | 140 | 40.5 | 20 | M12 x 1.75P | 0.34 |
| C20xER25-50T | 101 | 50 | 51 | 20 | M12 x 1.75P | 0.40 |
| C20xER25-100T | 151 | 100 | 51 | 20 | M12 x 1.75P | 0.41 |
| C20xER32-50T | 101.5 | 50 | 51.5 | 20 | M10 x 1.5P | 0.45 |
| C20xER32-100T | 151.5 | 100 | 51.5 | 20 | M10 x 1.5P | 0.52 |
| C25xER16A-150T | 176.6 | 150 | 26.6 | 25 | M10 x 1.5P | 0.55 |
| C25xER20A-140T | 175.1 | 140 | 40.5 | 25 | M12 x 1.75P | 0.55 |
| C25xER25-50T | 101 | 50 | 51 | 25 | M16 x 2.0P | 0.40 |
| C25xER25-100T | 151 | 100 | 51 | 25 | M16 x 2.0P | 0.50 |
| C25xER32-50T | 101.5 | 50 | 51.5 | 25 | M16 x 2.0P | 0.48 |
| C25xER40-50T | 115 | 50 | 65 | 25 | M16 x 2.0P | 0.85 |
| C32xER32-60T | 111.5 | 60 | 51.5 | 32 | M16 x 2.0P | 0.65 |
| C32xER32-100T | 151.5 | 100 | 51.5 | 32 | M16 x 2.0P | 0.80 |
| C32xER40-50T | 115 | 50 | 65 | 32 | M16 x 2.0P | 2.23 |

選配表 Option

| 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|-----------|--------|------------|
| | | |
| B612 | B634 | B650 |

• 長度單位 Unit of Length (mm)



特點 Feature

- CNC 車床專用夾頭柄
- 搭配止水筒夾或止水螺帽加止水環 · 用於夾持附水孔刀具

- This is specially fit for CNC Machines.
- With sealed collet or sealed nut add sealed ring for clamping cutters with water hole.

| 規格 Spec. | L | l ₁ | l ₂ | l ₃ | D | d | C | T | 重量 (KGS) Weight |
|------------------|-----|----------------|----------------|----------------|----|----|----|----------|-----------------|
| C32 x NC/ER25-60 | 97 | 60 | 37 | 12 | 42 | 25 | 32 | M18x1.5P | 0.70 |
| C32 x NC/ER32-60 | 103 | 60 | 43 | 13 | 50 | 32 | 32 | M22x1.5P | 0.75 |
| C40 x NC/ER32-80 | 118 | 80 | 38 | 13 | 50 | 32 | 40 | M22x1.5P | 1.25 |
| C40 x NC/ER40-75 | 135 | 75 | 60 | 15 | 63 | 40 | 40 | M28x1.5P | 1.30 |

選配表 Option

| 筒夾 Collet | 螺帽 Nut | 扳手 Spanner |
|-----------|--------|------------|
| | | |
| B612 | B634 | B650 |

• 長度單位 Unit of Length (mm)



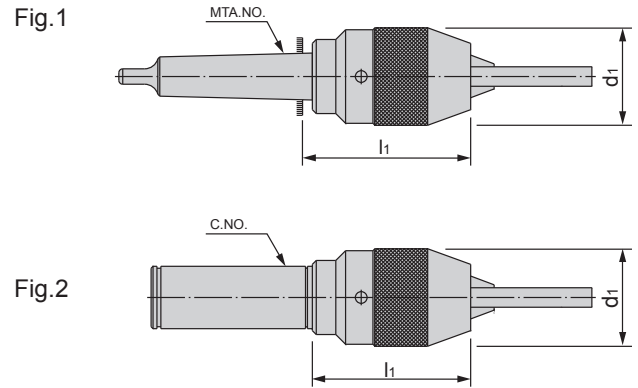
特點 Feature

- 本體可指定削平·適用於側邊鎖固。(另外加價)
- 價格=(筒夾×數)+本體+扳手+包裝盒
- 本價格以塑膠盒計算·指定木盒差額請外加
- 套裝小孔徑筒夾不另加價。

- Flatten the body can be specified for the side locking. (Additional price optional).
- Whole set=(ER collet x Qty) + body + spanner + box.
- The prices calculated in plastic boxes, wooden specify please add balance.
- Collets of small sizes in the whole set have no additional price.

| 規格 Spec. | 內容物 Contents | | 重量 (KGS) Weight |
|------------------------|------------------|--|-----------------------|
| | 內附筒夾 夾持能力 Collet | | |
| C16 x ER16-50 x 9PCS | 2-10 x 9 只 | Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10 | 1.30 |
| C16 x ER16-100 x 9PCS | 2-10 x 9 只 | Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10 | 1.40 |
| C16 x ER16-150 x 9PCS | 2-10 x 9 只 | Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10 | 1.50 |
| C20 x ER16-50 x 9PCS | 2-10 x 9 只 | Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10 | 1.40 |
| C20 x ER16-100 x 9PCS | 2-10 x 9 只 | Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10 | 1.60 |
| C20 x ER16-150 x 9PCS | 2-10 x 9 只 | Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10 | 1.60 |
| C20 x ER20-60 x 12PCS | 2-13 x 12 只 | Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10, Ø11, Ø12, Ø13 | 1.72 |
| C20 x ER20-120 x 12PCS | 2-13 x 12 只 | Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10, Ø11, Ø12, Ø13 | 1.76 |
| C20 x ER20-180 x 12PCS | 2-13 x 12 只 | Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10, Ø11, Ø12, Ø13 | 1.88 |
| C20 x ER25-50 x 15PCS | 2-16 x 15 只 | Ø2~Ø16 | 1.20 |
| C20 x ER25-100 x 15PCS | 2-16 x 15 只 | Ø2~Ø16 | 2.50 |
| C20 x ER32-50 x 6PCS | 6-20 x 6 只 | Ø6, Ø8, Ø10, Ø12, Ø16, Ø20 | 1.20 |
| C20 x ER32-100 x 6PCS | 6-20 x 6 只 | Ø6, Ø8, Ø10, Ø12, Ø16, Ø20 | 1.20 |
| C20 x ER32-50 x 18PCS | 3-20 x 18 只 | Ø3~Ø20 | 1.67 |
| C20 x ER32-100 x 18PCS | 3-20 x 18 只 | Ø3~Ø20 | 1.77 |
| C25 x ER25-50 x 15PCS | 2-16 x 15 只 | Ø2~Ø16 | 1.80 |
| C25 x ER25-100 x 15PCS | 2-16 x 15 只 | Ø2~Ø16 | 2.00 |
| C25 x ER32-50 x 6PCS | 6-20 x 6 只 | Ø6, Ø8, Ø10, Ø12, Ø16, Ø20 | 1.50 |
| C25 x ER32-50 x 18PCS | 3-20 x 18 只 | Ø3~Ø20 | 2.00 |
| C25 x ER40-50 x 7PCS | 6-25 x 7 只 | Ø6, Ø8, Ø10, Ø12, Ø16, Ø20, Ø25 | 1.80 |
| C25 x ER40-50 x 23PCS | 4-26 x 23 只 | Ø4~Ø26 | 2.70 |
| C32 x ER32-60 x 6PCS | 6-20 x 6 只 | Ø6, Ø8, Ø10, Ø12, Ø16, Ø20 | 2.05 |
| C32 x ER32-60 x 18PCS | 3-20 x 18 只 | Ø3~Ø20 | 3.50 |
| C32 x ER40-50 x 7PCS | 6-25 x 7 只 | Ø6, Ø8, Ø10, Ø12, Ø16, Ø20, Ø25 | 3.80 |
| C32 x ER40-50 x 23PCS | 4-26 x 23 只 | Ø4~Ø26 | 7.88 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 一體式設計 · 可避免鑽頭夾具脫落的危險
- 適合使用夾持鑽頭加工
- 操作方便 · 使用勾扳手可直接鎖緊
- The integration design, may avoid the danger which the drilling attachment falls off.
- Suitable for using clamping drill bit processing.
- The ease of operation, the use hook wrench to be possible to lock directly.

| 規格 Spec. | NO. | l ₁ | d ₁ | 夾持範圍 Clamp Range | | 扳手 Wrench | Fig. | 重量 (KGS) Weight |
|---------------|------|----------------|----------------|------------------|----------|-----------|------|-----------------|
| | | | | mm | inch | | | |
| MTA3xSPU13-80 | MTA3 | 80 | 50 | 0.5~13 | 1/50~1/2 | H-130 | 1 | 1.30 |
| MTA4xSPU13-80 | MTA4 | 80 | 50 | 0.5~13 | 1/50~1/2 | H-130 | 1 | 1.65 |
| C20xSPU13-80 | C20 | 80 | 50 | 0.5~13 | 1/50~1/2 | H-130 | 2 | 1.20 |
| C25xSPU13-80 | C25 | 80 | 50 | 0.5~13 | 1/50~1/2 | H-130 | 2 | 1.30 |
| C32xSPU13-80 | C32 | 80 | 50 | 0.5~13 | 1/50~1/2 | H-130 | 2 | 1.50 |

- 附扳手 Attaches the spanner.

注意事項 Notice

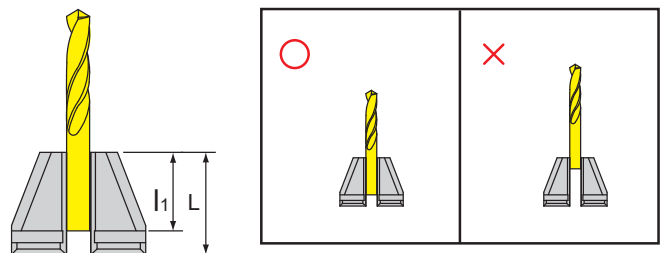
本產品之最大優點為簡單容易操作、快速方便、安全性極高 · 當使用本產品時 · 為了減少意外事故發生 · 延長產品壽命 · 必須遵守以下列舉的基本事項：夾持長度 (l₁) 應將鑽頭柄插入到底或至少爪長 (L) 的 2/3

The most advantage for this product is easy to operate, fast, convenience and high safety. Please abide by following instructions to avoid the accidents & extend the product life when in use. The shank of drill (clamping length l₁) should be inserted into the bottom fully. Or at least 2/3 length of L.

* 以下為各種規格夾爪長度及夾持量 -Following table is the specification for clamping length & volume

| 規格 Spec. | 夾爪長度 L(mm) | 夾持量 l ₁ (mm) 至少 |
|--------------|------------|----------------------------|
| 3mm (1/8") | 14 | 9 |
| 6.5mm (1/4") | 20 | 13 |
| 8mm (5/16") | 26 | 17 |
| 10mm (3/8") | 26 | 17 |
| 13mm (1/2") | 28 | 19 |
| 16mm (5/8") | 30 | 20 |

範例 Example

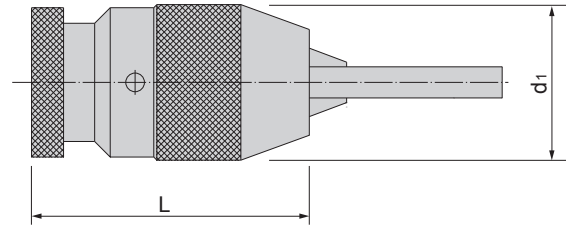


• 長度單位 Unit of Length (mm)



KLS 自動鑽夾頭 KLS KEYLESS DRILL CHUCK

LEMMA



特點 Feature

- 適合使用夾持鑽頭加工
- 操作方便，使用勾扳手可直接鎖緊

- Suitable for using clamp drill bit processing.
- The ease of operation, the use hook wrench to be possible to lock directly.

| 規格 Spec. | 斜度 Taper | L | d ₁ | 夾持範圍 Clamping Range | | 重量 (KGS) Weight |
|-------------|-------------|----|----------------|---------------------|----------|-----------------------|
| | | | | mm | inch | |
| KLS-3/8 | JT2 | 80 | 43 | 1~10 | 1/24~3/8 | 0.61 |
| KLS-1/2 | JT6 | 90 | 49 | 1~13 | 1/24~1/2 | 0.92 |
| KLS-5/8 | JT6 | 97 | 55 | 3~16 | 1/8~5/8 | 1.20 |

- 附扳手 Attaches the spanner.

注意事項 Notice

本產品之最大優點為簡單容易操作、快速方便、安全性極高，當使用本產品時，為了減少意外事故發生，延長產品壽命，必須遵守以下列舉的基本事項：夾持長度 (l₁) 應將鑽頭柄插入到底或至少爪長 (L) 的 2/3。

The most advantage for this product is easy to operate, fast, convenience, and high safety. Please abide by following instructions to avoid the accidents & extend the product life when in use.

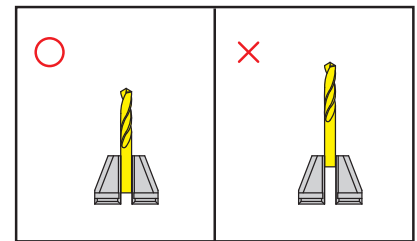
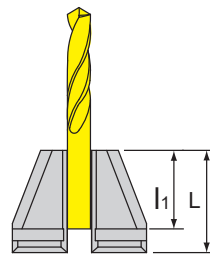
The shank of drill (clamping length l₁) should be inserted into the bottom fully.

Or at least 2/3 length of L

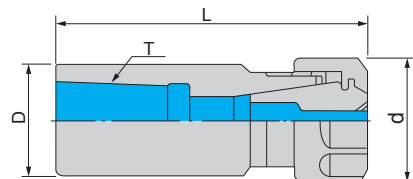
以下為各種規格夾爪長度及夾持量：

Following table is the specification for clamping length & volume

| 規格 Spec. | 夾爪長度 L(mm) | 夾持量 l ₁ (mm) 至少 |
|--------------|---------------|-------------------------------|
| 3mm (1/8") | 14 | 9 |
| 6.5mm (1/4") | 20 | 13 |
| 8mm (5/16") | 26 | 17 |
| 10mm (3/8") | 26 | 17 |
| 13mm (1/2") | 28 | 19 |
| 16mm (5/8") | 30 | 20 |



JT/ER 夾頭柄 JT/ER COLLET CHUCK



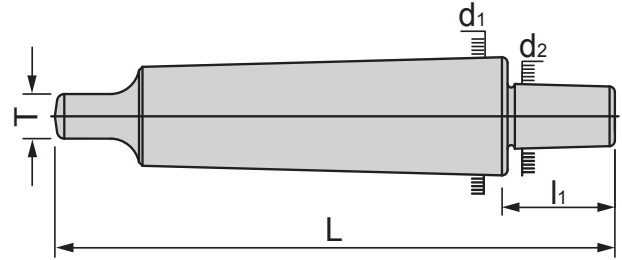
| 規格 Spec. | L | D | d | T | 重量 (KGS) Weight |
|-------------|----|----|----|-----|-----------------------|
| JT6-ER16-70 | 70 | 28 | 28 | JT6 | 0.28 |
| JT6-ER20-70 | 70 | 34 | 34 | JT6 | 0.32 |

• 長度單位 Unit of Length (mm)

ACCESSORIES



精密鑽頭柄 CA/MT DRILL SLEEVE



特點 Feature

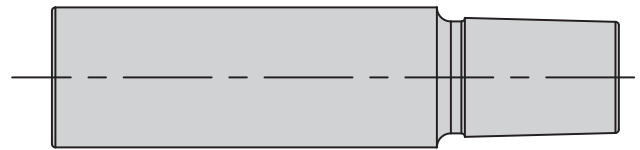
- 全支熱處理研磨

-Grinding and heat treatment all support.

| 規格 Spec. | 適用夾頭 Applicable Chuck | L | l ₁ | d ₁ | d ₂ | T | 重量 (KGS) Weight |
|--------------|--------------------------|-------|----------------|----------------|----------------|------|-----------------------|
| CA-MT2 x JT6 | 1/2" | 109.4 | 29.4 | 17.78 | 17.17 | 6.3 | 0.19 |
| CA-MT3 x JT6 | 1/2" | 128.4 | 29.4 | 23.825 | 17.17 | 7.9 | 0.30 |
| CA-MT4 x JT6 | 1/2" | 153.4 | 29.4 | 31.267 | 17.17 | 11.9 | 0.70 |
| CA-MT5 x JT6 | 1/2" | 187.4 | 29.4 | 44.8 | 17.17 | 16.5 | 1.56 |



C/JT6 直柄鑽頭柄 C/JT6 DRILL SLEEVE



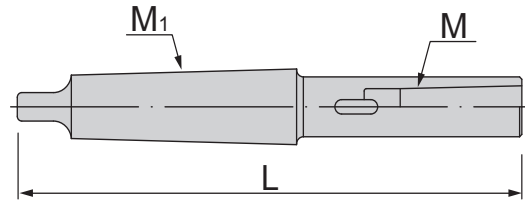
| 規格 Spec. | 斜度 Taper | 重量 (KGS) Weight |
|-------------|-------------|-----------------------|
| C20 x JT6 | JT6 | 0.19 |
| C25 x JT6 | JT6 | 0.33 |
| C32 x JT6 | JT6 | 0.50 |
| C42 x JT6 | JT6 | 0.84 |

ACCESSORIES

• 長度單位 Unit of Length (mm)



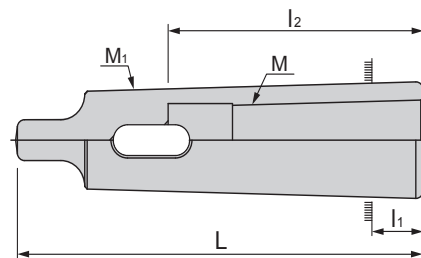
精密延長套筒 EXTENSION DRILL SLEEVE



| 規格 Spec. (內徑 X 外徑) | L | M | M ₁ | 重量 (KGS) Weight |
|-----------------------|-----|-----|----------------|-----------------------|
| ES-MT1 x MT2 | 160 | MT1 | MT2 | 0.25 |
| ES-MT2 x MT2 | 175 | MT2 | MT2 | 0.34 |
| ES-MT3 x MT2 | 196 | MT3 | MT2 | 0.57 |
| ES-MT2 x MT3 | 194 | MT2 | MT3 | 0.49 |
| ES-MT3 x MT3 | 215 | MT3 | MT3 | 0.71 |
| ES-MT4 x MT3 | 240 | MT4 | MT3 | 1.38 |
| ES-MT2 x MT4 | 215 | MT2 | MT4 | 0.83 |
| ES-MT3 x MT4 | 240 | MT3 | MT4 | 1.05 |
| ES-MT4 x MT4 | 265 | MT4 | MT4 | 1.72 |
| ES-MT5 x MT4 | 300 | MT5 | MT4 | 2.97 |
| ES-MT3 x MT5 | 268 | MT3 | MT5 | 2.03 |
| ES-MT4 x MT5 | 300 | MT4 | MT5 | 2.66 |
| ES-MT5 x MT5 | 335 | MT5 | MT5 | 4.18 |



精密套筒 PRECISION DRILL SLEEVE



特點 Feature

- 全支熱處理研磨

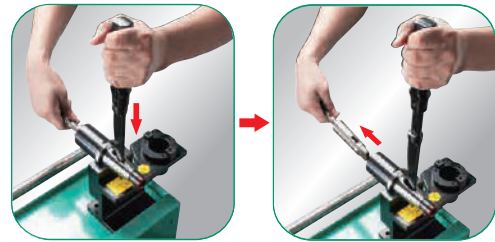
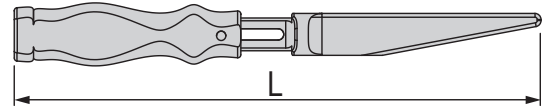
- Grinding and heat treatment all support.

| 規格 Spec. (內徑 X 外徑) | L | l ₁ | l ₂ | M | M ₁ | 重量 (KGS) Weight |
|-----------------------|-----|----------------|----------------|-----|----------------|-----------------------|
| DS-MT1xMT2 | 92 | 17 | 56 | MT1 | MT2 | 0.10 |
| DS-MT2xMT3 | 112 | 18 | 67 | MT2 | MT3 | 0.19 |
| DS-MT2xMT4 | 124 | 6.5 | 67 | MT2 | MT4 | 0.45 |
| DS-MT3xMT4 | 140 | 22.5 | 84 | MT3 | MT4 | 0.40 |
| DS-MT4xMT5 | 171 | 21.5 | 107 | MT4 | MT5 | 0.96 |
| DS-MT5xMT6 | 218 | 8 | 135 | MT5 | MT6 | 2.80 |

• 長度單位 Unit of Length (mm)



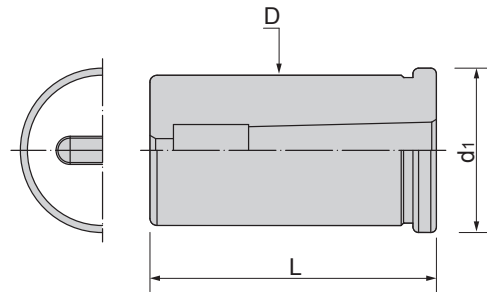
快速退鑽器 HAND DRIFT



| 規格 Spec. | 適用主軸斜度 Taper | L | 重量 (KGS) Weight |
|-------------|-----------------|-----|-----------------------|
| KP-1 | #2, #3, #4, #5 | 380 | 1.23 |



直柄鑽頭套筒 MORSE TAPER SLEEVE



| 規格 Spec. | 內孔斜度 Taper | L | D | d ₁ | 重量 (KGS) Weight |
|-------------|---------------|-----|----|----------------|-----------------------|
| C20-MT1 | MT1 | 60 | 20 | 27 | 0.13 |
| C20-MT2 | MT2 | 70 | 20 | 27 | 0.12 |
| C25-MT1 | MT1 | 60 | 25 | 33 | 0.23 |
| C25-MT2 | MT2 | 70 | 25 | 33 | 0.20 |
| C25-MT3 | MT3 | 90 | 25 | 33 | 0.18 |
| C32-MT1 | MT1 | 60 | 32 | 37 | 0.36 |
| C32-MT2 | MT2 | 70 | 32 | 37 | 0.37 |
| C32-MT3 | MT3 | 90 | 32 | 37 | 0.36 |
| C32-MT4 | MT4 | 110 | 32 | 37 | 0.27 |
| C42-MT2 | MT2 | 70 | 42 | 47 | 0.82 |
| C42-MT3 | MT3 | 90 | 42 | 47 | 0.82 |
| C42-MT4 | MT4 | 110 | 42 | 47 | 0.77 |

• 長度單位 Unit of Length (mm)

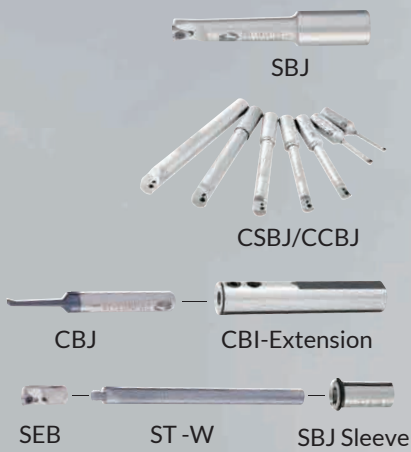


Boring

搪孔模組化示意圖

Modular combination

搪刀類
Boring Cutter



搪頭類
Boring Head



延長桿類
Extension



MCK CK



MCK.CK
Boring Head Shank

BST



BST
Boring Head Shank

搪頭類 Boring Head



SMB大孔徑(精搪)
Large Dia. Finish Boring Head



SRW大孔徑(粗搪)
Large Dia. Roughing Boring Head



CBH大孔徑(精搪)
Large Dia. Finish Boring Head



RBH-LA大孔徑(粗搪)
Large Dia. Roughing Boring Head



RBH120.160大孔徑(粗搪)
Large Dia. Roughing Boring Head



RBH200以上大孔徑(粗搪)
Large Dia. Roughing Boring Head

NBH



BT/NT 粗 / 精搪孔頭刀桿
BT/NT Boring Head Shank



NBH2084S 精密搪孔頭
NBH2084S Precision Boring Head



SBJ-20 替換式搪孔刀柄
SBJ-20 Interchangeable Boring Cutter

Boring Head

SMB特點

搭配MCK系列刀桿並可與CK系統刀桿相容，另有PSC三角錐結構可與BT-PSC刀桿結合，並採模組化設計，連結不同長度之延長桿，解決加工需求並有更多的搭配性。

微調單位:每刻度移動量為0.01mm。

替換式刀座設計，可模組化組合使用。

Suitable for combining with MCK series of tool holders as well as CK series of tool holders. Another PSC structure can be combined with BT-PSC arbor, The modular design connects the extension rods of different lengths to solve the processing needs and has more matching. Micro-adjustment unit: each unit is 0.01mm. The insert seat has an exchangeable design and can be used after combination.



SIC-1



SIC-2

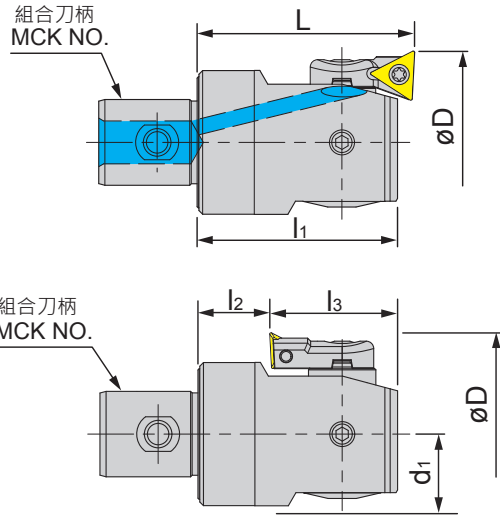


SIC-3

SIC刀座，可完全包覆住心軸，提升穩固性。三種尺寸刀座，可加大搪孔範圍，搪孔範圍 $\varnothing 25 \sim \varnothing 203 \text{mm}$ 。2號及3號刀座，皆能做背搪加工，1號刀座僅SMB53、SMB68、SMB100，才能做背搪加工。

SIC insert holder can be completely coated to live spindle and enhance stability. Three type insert holder can increase the range of Boring, boring range $\varnothing 25$ to $\varnothing 203 \text{mm}$. SIC-2 and SIC-3 insert holder can do back boring processing, SIC-1 insert holder can do back boring processing only SMB53、SMB68、SMB100.

Feature



| | | |
|--|---------------------------------|---------------------------------|
| 搪孔範圍 ø25~203 Boring Range | 精度 0.01mm Accuracy | 最高轉速 8000 Max. rpm |
|--|---------------------------------|---------------------------------|

特點 Feature

- 精搪孔專用
- 微調單位：每刻度移動量為 $\phi 0.01\text{mm}$
- 搪頭內藏式出水孔，可以有效沖刷屑片，提高加工效果
- 替換式刀座設計，可模組化組合使用
- 組合搭配 MCK 系列刀桿或是相容於 CK 系列刀桿
- For finish boring.
- Micro-adjustment unit: each unit is 0.01 mm.
- The insert seat is designed to have a coolant holes at sides, which can remove the metal chips effectively and raise the manufacturing effect.
- The insert seat has an exchangeable design and can be used after modular.
- Suitable for combining with MCK series of tool holders as CK series of tool holders.

| 規格 Spec. | øD 搪孔範圍 Boring Range(正搪) | | | | øD 搪孔範圍 Boring Range(背搪) | | | | | 組合刀柄 Mck No. | 刀片座 Insert Holder | 刀片 Insert | 重量 (KGS) Weight |
|----------|----------------------------|------|------|----------------|----------------------------|------|----------------|----------------|----------------|--------------|-------------------|----------------------|-----------------|
| | Min. | Max. | L | l ₁ | Min. | Max. | l ₂ | l ₃ | d ₁ | | | | |
| SMB 20 | 20 | 26 | 32.5 | 29.5 | - | - | 10.5 | 19.5 | 10 | CK 1 | SIB20-1/SIC20-1 | TB..0601 TP..0802 | 0.07 |
| | 25 | 31 | 32.5 | 29.5 | 30 | 31 | 10.5 | 19.5 | 10 | CK 1 | SIB20-2/SIC20-2 | | 0.07 |
| | 30 | 36 | 32.5 | 29.5 | 30 | 36 | 10.5 | 19.5 | 10 | CK 1 | SIB20-3/SIC20-3 | | 0.07 |
| SMB 25 | 25 | 33 | 35.5 | 32.5 | - | - | 11.5 | 21 | 12.5 | CK 2 | SIB25-1/SIC25-1 | TB..0601 TP..0802 | 0.12 |
| | 32 | 40 | 35.5 | 32.5 | 36 | 40 | 11.5 | 21 | 12.5 | CK 2 | SIB25-2/SIC25-2 | | 0.12 |
| | 39 | 47 | 35.5 | 32.5 | 39 | 47 | 11.5 | 21 | 12.5 | CK 2 | SIB25-3/SIC25-3 | | 0.12 |
| SMB 32 | 32 | 42 | 40 | 35 | - | - | 10 | 25 | 16 | CK 3 | SIB32-1/SIC32-1 | TB..0601 TP..0802 | 0.21 |
| | 41 | 51 | 40 | 35 | 46 | 51 | 10 | 25 | 16 | CK 3 | SIB32-2/SIC32-2 | | 0.21 |
| | 50 | 60 | 40 | 35 | 50 | 60 | 10 | 25 | 16 | CK 3 | SIB32-3/SIC32-3 | | 0.21 |
| SMB 41 | 41 | 54 | 47 | 43 | - | - | 14 | 29 | 20 | CK 4 | SIB41-1/SIC41-1 | TP..0902 TC..1102 | 0.40 |
| | 50 | 63 | 47 | 43 | 53 | 63 | 14 | 29 | 20 | CK 4 | SIB41-2/SIC41-2 | | 0.40 |
| | 61 | 74 | 47 | 43 | 61 | 74 | 14 | 29 | 20 | CK 4 | SIB41-3/SIC41-3 | | 0.40 |
| SMB 53 | 53 | 70 | 57 | 53 | 62 | 70 | 19 | 34 | 25.5 | CK 5 | SIB53-1/SIC53-1 | TP..0902 TC..1102 | 1.10 |
| | 65 | 82 | 57 | 53 | 65 | 82 | 19 | 34 | 25.5 | CK 5 | SIB53-2/SIC53-2 | | 1.10 |
| | 78 | 95 | 57 | 53 | 78 | 95 | 19 | 34 | 25.5 | CK 5 | SIB53-3/SIC53-3 | | 1.10 |
| SMB 68 | 68 | 100 | 71 | 67.2 | 80 | 100 | 22 | 45.2 | 32.5 | CK 6 | SIB68-1/SIC68-1 | TP..0902 TC..1102 | 1.74 |
| | 94 | 126 | 71 | 67.2 | 94 | 126 | 22 | 45.2 | 32.5 | CK 6 | SIB68-2/SIC68-2 | | 1.74 |
| | 118 | 150 | 71 | 67.2 | 118 | 150 | 22 | 45.2 | 32.5 | CK 6 | SIB68-3/SIC68-3 | | 1.74 |
| SMB100 | 100 | 153 | 71 | 67.2 | 112 | 153 | 22 | 45.2 | 45.5 | CK 6 | SIB68-1/SIC68-1 | TP..0902 TC..1102 | 2.46 |
| | 126 | 179 | 71 | 67.2 | 126 | 179 | 22 | 45.2 | 45.5 | CK 6 | SIB68-2/SIC68-2 | | 2.46 |
| | 150 | 203 | 71 | 67.2 | 150 | 203 | 22 | 45.2 | 45.5 | CK 6 | SIB68-3/SIC68-3 | | 2.46 |

- 標準配備附為 SIB □□ -1 刀片座 · SIB/C □□ -2 · SIB/C □□ -3 需另購
 -Standard marting part SIB □□ -1, SIB/C □□ -2, SIB/C □□ -3 is ordered separately

• 長度單位 Unit of Length (mm)



3°

| 規格 Spec. | 刀座形狀 Insert Holder | 組合搪頭 | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-------------|----------------------------------|--------|-----------------|--------------|------------------------|-----------------------|
| SIB20-1 | 使用刀片 TB..0601 TP..0802 | SMB 20 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| SIB20-2 | | - | | | | |
| SIB20-3 | | - | | | | |
| SIB25-1 | | - | | | | |
| SIB25-2 | | - | | | | |
| SIB25-3 | | - | | | | |
| SIB32-1 | | - | | | | |
| SIB32-2 | | - | | | | |
| SIB32-3 | | - | | | | |
| SIB41-1 | 使用刀片 TP..0902 TC..1102 | SMB 41 | M2.5-6.0-3.5-60 | T8 | 1.2 | - |
| SIB41-2 | | - | | | | |
| SIB41-3 | | - | | | | |
| SIB53-1 | | - | | | | |
| SIB53-2 | | - | | | | |
| SIB53-3 | | - | | | | |
| SIB68-1 | | - | | | | |
| SIB68-2 | | - | | | | |
| SIB68-3 | | - | | | | |

0°

| 規格 Spec. | 刀座形狀 Insert Holder | 組合搪頭 | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-------------|----------------------------------|--------|-----------------|--------------|------------------------|-----------------------|
| SIB20-1E | 使用刀片 TB..0601 TP..0802 | SMB 20 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| SIB20-2E | | - | | | | |
| SIB20-3E | | - | | | | |
| SIB25-1E | | - | | | | |
| SIB25-2E | | - | | | | |
| SIB25-3E | | - | | | | |
| SIB32-1E | | - | | | | |
| SIB32-2E | | - | | | | |
| SIB32-3E | | - | | | | |
| SIB41-1E | 使用刀片 TP..0902 TC..1102 | SMB 41 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.03 |
| SIB41-2E | | - | | | | |
| SIB41-3E | | - | | | | |
| SIB53-1E | | - | | | | |
| SIB53-2E | | - | | | | |
| SIB53-3E | | - | | | | |
| SIB68-1E | | - | | | | |
| SIB68-2E | | - | | | | |
| SIB68-3E | | - | | | | |



3°

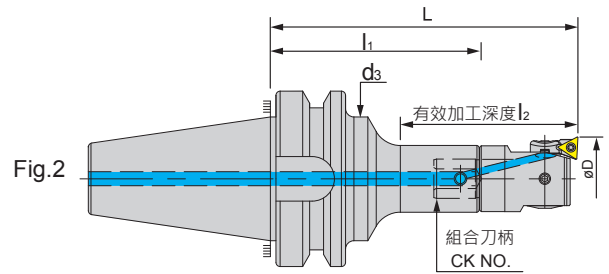
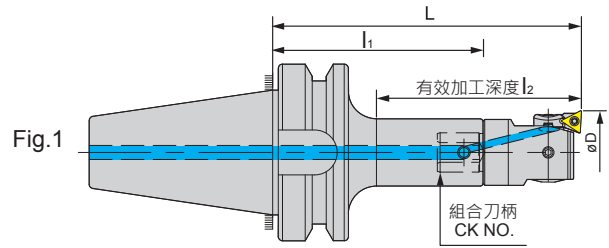
| 規格 Spec. | 刀座形狀 Insert Holder | 組合搪頭 | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------|----------------------------------|--------|-----------------|-----------|------------------|-----------------|
| SIC20-1 | 使用刀片 TB..0601 TP..0802 | SMB 20 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| SIC20-2 | | - | | | | |
| SIC20-3 | | - | | | | |
| SIC25-1 | | 0.02 | | | | |
| SIC25-2 | | 0.02 | | | | |
| SIC25-3 | | 0.02 | | | | |
| SIC32-1 | | 0.02 | | | | |
| SIC32-2 | | 0.02 | | | | |
| SIC32-3 | | 0.02 | | | | |
| SIC41-1 | 使用刀片 TP..0902 TC..1102 | SMB 41 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.03 |
| SIC41-2 | | 0.03 | | | | |
| SIC41-3 | | 0.03 | | | | |
| SIC53-1 | | 0.04 | | | | |
| SIC53-2 | | 0.04 | | | | |
| SIC53-3 | | 0.04 | | | | |
| SIC68-1 | | 0.06 | | | | |
| SIC68-2 | | 0.06 | | | | |
| SIC68-3 | | 0.06 | | | | |

0°

| 規格 Spec. | 刀座形狀 Insert Holders | 組合搪頭 | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------|----------------------------------|--------|-----------------|-----------|------------------|-----------------|
| SIC20-1E | 使用刀片 TB..0601 TP..0802 | SMB 20 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| SIC20-2E | | - | | | | |
| SIC20-3E | | - | | | | |
| SIC25-1E | | - | | | | |
| SIC25-2E | | - | | | | |
| SIC25-3E | | - | | | | |
| SIC32-1E | | - | | | | |
| SIC32-2E | | - | | | | |
| SIC32-3E | | - | | | | |
| SIC41-1E | 使用刀片 TP..0902 TC..1102 | SMB 41 | M2.5-6.0-3.5-60 | T8 | 1.2 | - |
| SIC41-2E | | - | | | | |
| SIC41-3E | | - | | | | |
| SIC53-1E | | - | | | | |
| SIC53-2E | | - | | | | |
| SIC53-3E | | - | | | | |
| SIC68-1E | | - | | | | |
| SIC68-2E | | - | | | | |
| SIC68-3E | | - | | | | |

| 規格 Spec. | Mck No. | 工件材質 Material | 刀片 Insert | | 切削速度 (m/min) | 切削量 (mm/Ø) | 進給量 (mm/rev) | |
|-----------------|-------------|---|-----------|---|---------------------------------------|--|--|--|
| | | | 刀片 R 角 | 刀片材質 Insert Material | | | 推薦值 | Max. |
| SMB20 | MCK1 CK1 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.2/0.4 | RM4030 RM1205 CBN250 CBN500 RM5005 PCD | 180 120 60 180 200 400 | 0.15 0.15 0.10 0.15 0.20 0.20 | 0.06 0.06 0.06 0.06 0.10 0.06 | 0.15 0.15 0.10 0.15 0.15 0.15 |
| | | 不鏽鋼 Stainless Steels | | | | | | |
| | | 鑄鐵 Cast Iron | | | | | | |
| | | 球墨鑄鐵 Nodular Cast Iron | | | | | | |
| | | 鋁合金 Aluminum Alloy | | | | | | |
| | | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | | | | | | |
| SMB25 | MCK2 CK2 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.2/0.4 | RM4030 RM1205 CBN250 CBN500 RM5005 PCD | 180 120 60 180 200 400 | 0.15 0.15 0.10 0.15 0.20 0.20 | 0.06 0.06 0.06 0.06 0.10 0.06 | 0.15 0.15 0.10 0.15 0.15 0.15 |
| | | 不鏽鋼 Stainless Steels | | | | | | |
| | | 鑄鐵 Cast Iron | | | | | | |
| | | 球墨鑄鐵 Nodular Cast Iron | | | | | | |
| | | 鋁合金 Aluminum Alloy | | | | | | |
| | | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | | | | | | |
| SMB32 | MCK3 CK3 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.2/0.4 | RM4030 RM1205 CBN250 CBN500 RM5005 PCD | 180 150 80 200 300 800 | 0.20 0.20 0.10 0.15 0.25 0.25 | 0.06 0.06 0.06 0.06 0.10 0.10 | 0.15 0.15 0.10 0.10 0.15 0.15 |
| | | 不鏽鋼 Stainless Steels | | | | | | |
| | | 鑄鐵 Cast Iron | | | | | | |
| | | 球墨鑄鐵 Nodular Cast Iron | | | | | | |
| | | 鋁合金 Aluminum Alloy | | | | | | |
| | | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | | | | | | |
| SMB41 | MCK4 CK4 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.2/0.4 | RM4030 RM1205 CBN250 CBN500 RM5005 PCD | 180 150 80 200 300 800 | 0.25 0.25 0.10 0.20 0.30 0.30 | 0.06 0.06 0.08 0.10 0.12 0.12 | 0.15 0.15 0.10 0.10 0.15 0.15 |
| | | 不鏽鋼 Stainless Steels | | | | | | |
| | | 鑄鐵 Cast Iron | | | | | | |
| | | 球墨鑄鐵 Nodular Cast Iron | | | | | | |
| | | 鋁合金 Aluminum Alloy | | | | | | |
| | | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | | | | | | |
| SMB53 | MCK5 CK5 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.2/0.4 | RM4030 RM1205 CBN250 CBN500 RM5005 PCD | 180 150 80 200 300 800 | 0.25 0.25 0.10 0.20 0.30 0.30 | 0.10 0.10 0.10 0.10 0.16 0.12 | 0.15 0.15 0.10 0.10 0.28 0.15 |
| | | 不鏽鋼 Stainless Steels | | | | | | |
| | | 鑄鐵 Cast Iron | | | | | | |
| | | 球墨鑄鐵 Nodular Cast Iron | | | | | | |
| | | 鋁合金 Aluminum Alloy | | | | | | |
| | | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | | | | | | |
| SMB68 SMB100 | MCK6 CK6 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.2/0.4 | RM4030 RM1205 CBN250 CBN500 RM5005 PCD | 180 150 80 200 300 800 | 0.25 0.25 0.10 0.20 0.30 0.30 | 0.10 0.10 0.10 0.10 0.16 0.12 | 0.15 0.15 0.10 0.10 0.28 0.15 |
| | | 不鏽鋼 Stainless Steels | | | | | | |
| | | 鑄鐵 Cast Iron | | | | | | |
| | | 球墨鑄鐵 Nodular Cast Iron | | | | | | |
| | | 鋁合金 Aluminum Alloy | | | | | | |
| | | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | | | | | | |

- 本表是切削數據的設定基準，請視當時的機床、工件材質、鐵屑的排出情況做適當的調整。
 - The cutting data table is set benchmarks, please make the appropriate adjustments depend on the situation which machine tools, workpiece materials, iron chips discharge.



| | | |
|--|---------------------------------|---------------------------------|
| 搪孔範圍 ø25~203 Boring Range | 精度 0.01mm Accuracy | 最高轉速 8000 Max. rpm |
|--|---------------------------------|---------------------------------|

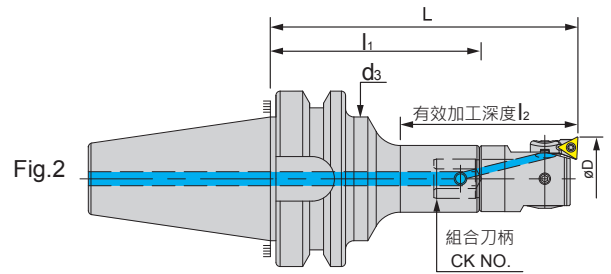
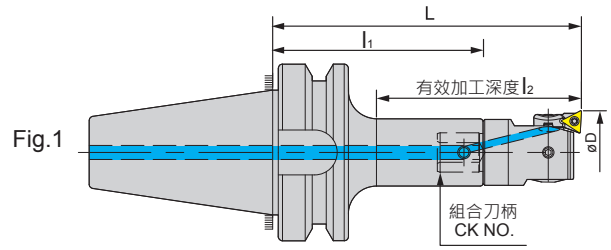
| 規格 Spec. | øD 搪孔範圍 Boring Range | | 搪孔組合 Combination | | 組合刀柄 ck No. | L | l ₁ | 有效加工深度 l ₂ | Fig. | 重量 (KGS) Weight |
|---------------------|----------------------|------|------------------|----------------|-------------|-------|----------------|-----------------------|------|-----------------|
| | Min. | Max. | 刀桿 Shank | 搪頭 Boring Head | | | | | | |
| BT30 - SMB25 - 115 | 25 | 47 | BT30-CK2-80 | SMB25 | CK2 | 115.5 | 80 | 85.5 | 1 | 0.92 |
| BT30 - SMB32 - 120 | 32 | 60 | BT30-CK3-80 | SMB32 | CK3 | 120 | 80 | 96 | 1 | 1.11 |
| BT30 - SMB41 - 117 | 41 | 74 | BT30-CK4-70 | SMB41 | CK4 | 117 | 70 | 87 | 1 | 1.40 |
| BT30 - SMB53 - 117 | 53 | 95 | BT30-CK5-60 | SMB53 | CK5 | 117 | 60 | 87 | 1 | 2.20 |
| BT30 - SMB68 - 131 | 68 | 150 | BT30-CK6-60 | SMB68 | CK6 | 131 | 60 | 101 | 1 | 1.94 |
| BT30 - SMB100 - 131 | 100 | 203 | BT30-CK6-60 | SMB100 | CK6 | 131 | 60 | 101 | 1 | - |
| BT40 - SMB25 - 120 | 25 | 47 | BT40-CK2-85 | SMB25 | CK2 | 120.5 | 85 | 85.5 | 2 | 1.32 |
| BT40 - SMB32 - 135 | 32 | 60 | BT40-CK3-95 | SMB32 | CK3 | 135 | 95 | 100 | 1 | 1.51 |
| BT40 - SMB41 - 132 | 41 | 74 | BT40-CK4-85 | SMB41 | CK4 | 132 | 85 | 97 | 1 | 1.85 |
| BT40 - SMB41 - 177 | 41 | 74 | BT40-CK4-130 | SMB41 | CK4 | 177 | 130 | 142 | 1 | 1.90 |
| BT40 - SMB53 - 132 | 53 | 95 | BT40-CK5-75 | SMB53 | CK5 | 132 | 75 | 97 | 1 | 2.80 |
| BT40 - SMB53 - 182 | 53 | 95 | BT40-CK5-125 | SMB53 | CK5 | 182 | 125 | 147 | 1 | 3.05 |
| BT40 - SMB68 - 136 | 68 | 150 | BT40-CK6-65 | SMB68 | CK6 | 136 | 65 | 101 | 1 | 3.89 |
| BT40 - SMB100 - 136 | 100 | 203 | BT40-CK6-65 | SMB100 | CK6 | 136 | 65 | 101 | 1 | - |

- 標準配備附為 SIB □□ -1 刀片座，SIB □□ -2、SIB □□ -3 需另購。
- 訂購時請說明使用刀座型號。
- SIB、SIC 刀片的相關資料請參照 A290-A291。
- 刀片座有三種型式可交換使用，增大加工範圍。
- < 例 > BT50-SMB25-140 不同刀片座的加工範圍。

- Standard mating part SIB □□ -1, SIB/C □□ -2, SIB/C □□ -3 is ordered separately.
- Please inform the spec / model no. for insert holder when ordering.
- For related information of SIB, SIC inserts, please refer to A290-A291.
- There are three kinds of insert holders for selection for the different cutting range.
- for example: BT50-SMB25-140 has different cutting range for different insert holder.

| 標準型刀片座 Standard insert holder | 另購型刀片座 In additional purchased insert holder | |
|----------------------------------|---|---------|
| SIB25-1 | SIB25-2 | SIB25-3 |
| Ø25~Ø33 | Ø32~Ø40 | Ø39~Ø47 |
| | | |

• 長度單位 Unit of Length (mm)



| | | |
|--|---------------------------------|---------------------------------|
| 搪孔範圍 ø25~203 Boring Range | 精度 0.01mm Accuracy | 最高轉速 8000 Max. rpm |
|--|---------------------------------|---------------------------------|

| 規格 Spec. | øD 搪孔範圍 Boring Range | | 搪孔組合 Combination | | 組合刀柄 ck No. | L | l ₁ | 有效加工深度 l ₂ | Fig. | 重量 (KGS) Weight |
|---------------------|-------------------------|------|---------------------|-------------------|----------------|-----|----------------|--------------------------|------|-----------------------|
| | Min. | Max. | 刀桿 Shank | 搪頭 Boring Head | | | | | | |
| BT50 - SMB25 - 145 | 25 | 47 | BT50-CK2-110 | SMB25 | CK2 | 145 | 110 | 100.5 | 2 | 4.12 |
| BT50 - SMB25 - 175 | 25 | 47 | BT50-CK2-140 | SMB25 | CK2 | 175 | 140 | 130.5 | 2 | 4.22 |
| BT50 - SMB32 - 165 | 32 | 60 | BT50-CK3-125 | SMB32 | CK3 | 165 | 125 | 120 | 1 | 4.61 |
| BT50 - SMB32 - 195 | 32 | 60 | BT50-CK3-155 | SMB32 | CK3 | 195 | 155 | 150 | 1 | 4.81 |
| BT50 - SMB41 - 162 | 41 | 74 | BT50-CK4-115 | SMB41 | CK4 | 162 | 115 | 117 | 1 | 5.20 |
| BT50 - SMB41 - 192 | 41 | 74 | BT50-CK4-145 | SMB41 | CK4 | 192 | 145 | 147 | 1 | 5.60 |
| BT50 - SMB53 - 162 | 53 | 95 | BT50-CK5-105 | SMB53 | CK5 | 162 | 105 | 117 | 1 | 6.50 |
| BT50 - SMB53 - 237 | 53 | 95 | BT50-CK5-180 | SMB53 | CK5 | 237 | 180 | 192 | 1 | 7.30 |
| BT50 - SMB53 - 297 | 53 | 95 | BT50-CK5-240 | SMB53 | CK5 | 297 | 240 | 252 | 1 | 7.50 |
| BT50 - SMB68 - 166 | 68 | 150 | BT50-CK6-95 | SMB68 | CK6 | 166 | 95 | 121 | 1 | 7.65 |
| BT50 - SMB68 - 241 | 68 | 150 | BT50-CK6-170 | SMB68 | CK6 | 241 | 170 | 196 | 1 | 8.25 |
| BT50 - SMB68 - 301 | 68 | 150 | BT50-CK6-230 | SMB68 | CK6 | 301 | 230 | 256 | 1 | 8.65 |
| BT50 - SMB68 - 361 | 68 | 150 | BT50-CK6-290 | SMB68 | CK6 | 361 | 290 | 316 | 1 | - |
| BT50 - SMB68 - 421 | 68 | 150 | BT50-CK6-350 | SMB68 | CK6 | 421 | 350 | 371 | 1 | - |
| BT50 - SMB100 - 166 | 100 | 203 | BT50-CK6-95 | SMB100 | CK6 | 166 | 95 | 121 | 1 | - |
| BT50 - SMB100 - 241 | 100 | 203 | BT50-CK6-170 | SMB100 | CK6 | 241 | 170 | 196 | 1 | - |
| BT50 - SMB100 - 301 | 100 | 203 | BT50-CK6-230 | SMB100 | CK6 | 301 | 230 | 256 | 1 | - |
| BT50 - SMB100 - 361 | 100 | 203 | BT50-CK6-290 | SMB100 | CK6 | 361 | 290 | 316 | 1 | - |
| BT50 - SMB100 - 421 | 100 | 203 | BT50-CK6-350 | SMB100 | CK6 | 421 | 350 | 371 | 1 | - |

- 標準配備附為 SIB □□ -1 刀片座 · SIB □□ -2 · SIB □□ -3 需另購 ·
- 訂購時請說明使用刀片型號 ·
- SIB 、 SIC 刀片的相關資料請參照 A290-A291 ·
- 刀片座有三種型式可交換使用 · 增大加工範圍 ·
- < 例 > BT50-SMB25-140 不同刀片座的加工範圍 ·

- Standard mating part SIB □□ -1, SIB/C □□ -2, SIB/C □□ -3 is ordered separately.
- Please inform the spec / model no. for insert holder when ordering.
- For related information of SIB, SIC inserts, please refer to A290-A291.
- There are three kinds of insert holders for selection for the different cutting range.
- for example: BT50-SMB25-140 has different cutting range for different insert holder.

| 標準型刀片座 Standard insert holder | 另購型刀片座 In additional purchased insert holder | |
|----------------------------------|---|---------|
| SIB25-1 | SIB25-2 | SIB25-3 |
| Ø25~Ø33 | Ø32~Ø40 | Ø39~Ø47 |
| | | |

• 長度單位 Unit of Length (mm)

Feature

SCK特點

使用CCMT刀片，適合重切削及斷續切削，SCK80102-C採用替換式刀座設計，增加搪孔範圍，並可降低維修成本

Use CCMT inserts are suitable for rough boring, heavy and interrupted cutting. The insert seat of SCK80102-C type has an exchangeable design, increase the range of boring and reduces maintenance costs.

微調螺絲，轉動時雙刃可同時移動

Fine-tuning screw, two insert seats at the same time move.

微調單位：每一刻度移動量1mm，直徑為 $\varnothing 2\text{mm}$ ，搪孔範圍 $\varnothing 24 \sim \varnothing 220\text{mm}$

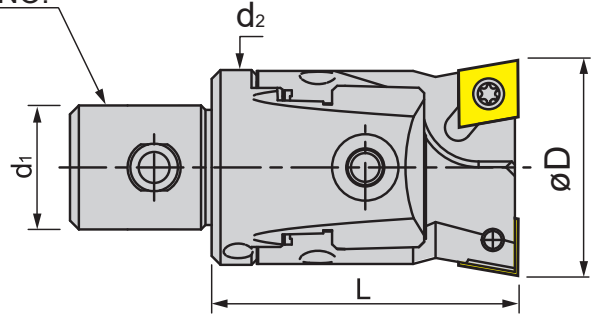
Micro-adjustment unit: 1mm of each, diameter $\varnothing 2\text{mm}$, boring range $\varnothing 24 \sim \varnothing 220\text{mm}$.



採一體式本體，加強包覆刀座力量

Adopt one body, Strengthen the inserts seat strength.

Boring Head


 組合刀柄
CK NO.


| | |
|---------------------------------|-------------------------|
| 搪孔範圍 ø24~220 Boring Range | 精度 0.2mm Accuracy |
|---------------------------------|-------------------------|

特點 Feature

- 雙刃微調同時移動 · 適用於大進給 (F) 切削

- Both inserts operate with a fine adjustment and simultaneous movement, suitable for big feeding (F) cutting.

| 規格 Spec. | øD 搪孔範圍 Boring Range | | 組合刀柄 Mck No. | L | d ₁ | d ₂ | 鎖固螺絲 Screw | 鎖固扳手 Wrench | 扭力值 (N.m) Torque | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-------------|-------------------------|------|-----------------|-----|----------------|----------------|---------------|----------------|------------------------|--------------|------------------|--------------|------------------------|-----------------------|
| | Min. | Max. | | | | | | | | | | | | |
| SCK2430-C | 24 | 30 | CK2 | 34 | 14 | 22 | M4 | PL3 | 3.0 | CC..0602 | M2.5-6.45-3.7-43 | T8 | 1.4 | 0.19 |
| SCK2940-C | 29 | 40 | CK2 | 42 | 14 | 27 | M5 | PL4 | 4.0 | CC..09T3 | M4-10-5.7-60 | T15 | 3.0 | 0.19 |
| SCK3950-C | 39 | 50 | CK3 | 45 | 18 | 32 | M5 | PL4 | 5.0 | CC..09T3 | M4-10-5.7-60 | T15 | 3.0 | 0.19 |
| SCK4965-C | 49 | 65 | CK4 | 56 | 22 | 42 | M6 | PL5 | 6.0 | CC..1204 | M5-11-7.5-60 | T20 | 5.0 | 0.10 |
| SCK6382-C | 63 | 82 | CK5 | 66 | 28 | 54 | M8 | PL6 | 10.0 | CC..1204 | M5-11-7.5-60 | T20 | 5.0 | 0.20 |
| SCK80102-C | 80 | 102 | CK6 | 86 | 36 | 68 | M10 | PL8 | 12.0 | CC..1204 | M5-11-7.5-60 | T20 | 5.0 | 2.30 |
| SCK100125-C | 100 | 125 | MCK7 | 100 | 46 | 85 | M10 | PL8 | 12.0 | CC..1204 | M5-11-7.5-60 | T20 | 5.0 | 4.00 |
| SCK125160-C | 125 | 160 | MCK7 | 100 | 46 | 110 | M10 | PL8 | 12.0 | CC..1204 | M5-11-7.5-60 | T20 | 5.0 | 6.16 |
| SCK160220-C | 160 | 220 | MCK7 | 100 | 46 | 145 | M10 | PL8 | 12.0 | CC..1204 | M5-11-7.5-60 | T20 | 5.0 | 8.10 |

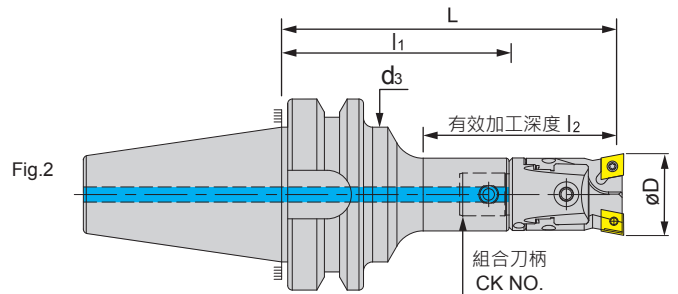
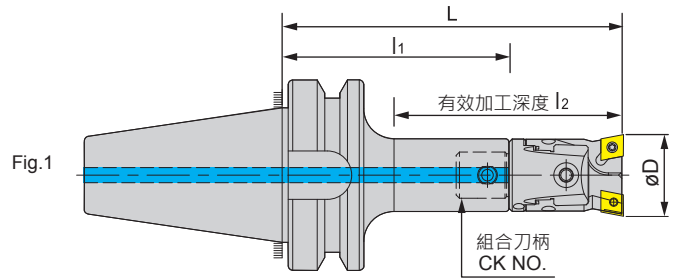


CCMT 刀片適用粗搪、重及斷續切削。
CCMT inserts are suitable for rough boring, heavy and interrupted cutting.



搪孔範圍
ø24~220
Boring Range

精度
0.2mm
Accuracy



| 規格 Spec. | øD 搪孔範圍 Boring Range | | 搪孔組合 Combination | | 組合刀柄 ck No. | L | l ₁ | 有效加工深度 l ₂ | Fig. | 重量 (KGS) Weight |
|--------------------|-------------------------|------|---------------------|-------------------|----------------|-----|----------------|--------------------------|------|-----------------------|
| | Min. | Max. | 刀桿 Shank | 搪頭 Boring Head | | | | | | |
| BT30-SCK2430C-114 | 24 | 30 | BT30-CK2-80 | SCK2430-C | CK2 | 114 | 80 | 84 | 1 | 1.17 |
| BT30-SCK2940C-122 | 30 | 40 | BT30-CK2-80 | SCK2940-C | CK2 | 122 | 80 | 92 | 1 | 1.21 |
| BT30-SCK3950C-125 | 39 | 50 | BT30-CK3-80 | SCK3950-C | CK3 | 125 | 80 | 95 | 1 | 1.31 |
| BT30-SCK4965C-126 | 49 | 65 | BT30-CK4-70 | SCK4965-C | CK4 | 126 | 70 | 96 | 1 | 1.59 |
| BT30-SCK6382C-126 | 63 | 82 | BT30-CK5-60 | SCK6382-C | CK5 | 126 | 60 | 96 | 1 | 1.75 |
| BT30-SCK80102C-146 | 80 | 102 | BT30-CK6-60 | SCK80102-C | CK6 | 146 | 60 | 116 | 1 | 2.25 |
| BT40-SCK2430C-119 | 24 | 30 | BT40-CK2-85 | SCK2430-C | CK2 | 119 | 85 | 84 | 2 | 1.57 |
| BT40-SCK2940C-127 | 30 | 40 | BT40-CK2-85 | SCK2940-C | CK2 | 127 | 85 | 92 | 2 | 1.61 |
| BT40-SCK3950C-140 | 39 | 50 | BT40-CK3-95 | SCK3950-C | CK3 | 140 | 95 | 105 | 1 | 1.71 |
| BT40-SCK4965C-141 | 49 | 65 | BT40-CK4-85 | SCK4965-C | CK4 | 141 | 85 | 106 | 1 | 2.04 |
| BT40-SCK4965C-186 | 49 | 65 | BT40-CK4-130 | SCK4965-C | CK4 | 186 | 130 | 151 | 1 | 2.09 |
| BT40-SCK6382C-141 | 63 | 82 | BT40-CK5-75 | SCK6382-C | CK5 | 141 | 75 | 106 | 1 | 2.35 |
| BT40-SCK6382C-191 | 63 | 82 | BT40-CK5-125 | SCK6382-C | CK5 | 191 | 125 | 156 | 1 | 2.60 |
| BT40-SCK80102C-151 | 80 | 102 | BT40-CK6-65 | SCK80102-C | CK6 | 151 | 65 | 116 | 1 | 3.20 |

選配表 Option



• 長度單位 Unit of Length (mm)

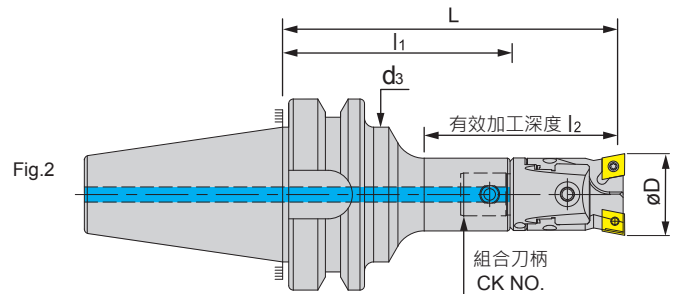
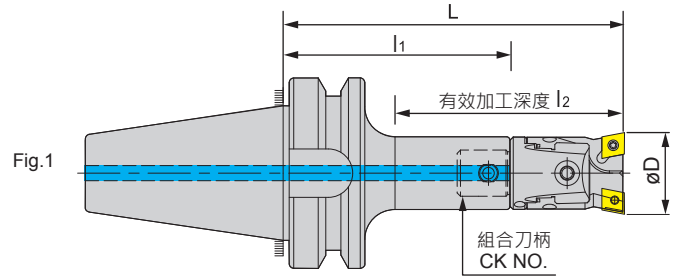


BT/SCK 搪孔頭刀桿 BT/SCK BORING HEAD SHANK



搪孔範圍
ø24~220
Boring Range

精度
0.2mm
Accuracy



| 規格 Spec. | øD 搪孔範圍 Boring Range | | 搪孔組合 Combination | | 組合刀柄 ck No. | L | l ₁ | 有效加工深度 l ₂ | Fig. | 重量 (KGS) Weight |
|--------------------|-------------------------|------|---------------------|-------------------|----------------|-----|----------------|--------------------------|------|-----------------------|
| | Min. | Max. | 刀桿 Shank | 搪頭 Boring Head | | | | | | |
| BT50-SCK2430C-144 | 24 | 30 | BT50-CK2-110 | SCK2430-C | CK2 | 144 | 110 | 99 | 2 | 4.37 |
| BT50-SCK2430C-174 | 24 | 30 | BT50-CK2-140 | SCK2430-C | CK2 | 174 | 140 | 129 | 2 | 4.47 |
| BT50-SCK2940C-152 | 30 | 40 | BT50-CK2-110 | SCK2940-C | CK2 | 152 | 110 | 107 | 2 | 4.41 |
| BT50-SCK2940C-182 | 30 | 40 | BT50-CK2-140 | SCK2940-C | CK2 | 182 | 140 | 137 | 2 | 4.51 |
| BT50-SCK3950C-170 | 39 | 50 | BT50-CK3-125 | SCK3950-C | CK3 | 170 | 125 | 125 | 1 | 4.81 |
| BT50-SCK3950C-200 | 39 | 50 | BT50-CK3-155 | SCK3950-C | CK3 | 200 | 155 | 155 | 1 | 5.01 |
| BT50-SCK4965C-171 | 49 | 65 | BT50-CK4-115 | SCK4965-C | CK4 | 171 | 115 | 126 | 1 | 5.39 |
| BT50-SCK4965C-201 | 49 | 65 | BT50-CK4-145 | SCK4965-C | CK4 | 201 | 145 | 156 | 1 | 5.79 |
| BT50-SCK6382C-171 | 63 | 82 | BT50-CK5-105 | SCK6382-C | CK5 | 171 | 105 | 126 | 1 | 6.05 |
| BT50-SCK6382C-246 | 63 | 82 | BT50-CK5-180 | SCK6382-C | CK5 | 246 | 180 | 201 | 1 | 6.85 |
| BT50-SCK6382C-306 | 63 | 82 | BT50-CK5-240 | SCK6382-C | CK5 | 306 | 240 | 261 | 1 | 7.05 |
| BT50-SCK80102C-181 | 80 | 102 | BT50-CK6-95 | SCK80102-C | CK6 | 181 | 95 | 136 | 1 | 6.95 |
| BT50-SCK80102C-256 | 80 | 102 | BT50-CK6-170 | SCK80102-C | CK6 | 256 | 170 | 211 | 1 | 7.55 |
| BT50-SCK80102C-316 | 80 | 102 | BT50-CK6-230 | SCK80102-C | CK6 | 316 | 230 | 271 | 1 | 7.95 |
| BT50-SCK80102C-376 | 80 | 102 | BT50-CK6-290 | SCK80102-C | CK6 | 376 | 290 | 331 | 1 | - |
| BT50-SCK80102C-436 | 80 | 102 | BT50-CK6-350 | SCK80102-C | CK6 | 436 | 350 | 386 | 1 | - |

BORING

選配表 Option



• 長度單位 Unit of Length (mm)

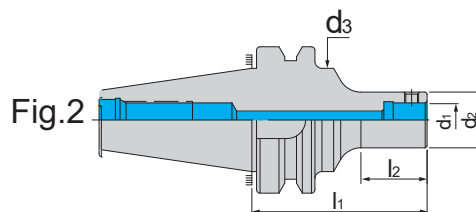
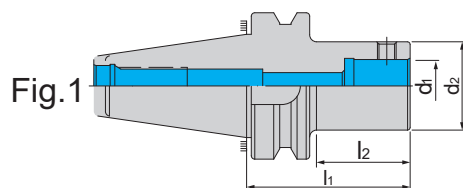
| 規格 | Mck No. | 工件材質 | 刀片 | | 切削速度 (m/min) | 切削量 (mm/Ø) | | 進給量 (mm/rev) | |
|---|-------------|---|---------|--------|-----------------|------------|------|--------------|------|
| | | | 刀片 R 角 | 刀片材質 | | 推薦值 | Max. | 推薦值 | Max. |
| SCK2430-C | MCK2 CK2 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.4/0.8 | RM4035 | 140 | 2.5 | 3.5 | 0.25 | 0.35 |
| | | 不鏽鋼 Stainless Steels | | OM4010 | 140 | 2.0 | 3.0 | 0.25 | 0.35 |
| | | 鑄鐵 Cast Iron | | RM315 | 120 | 2.5 | 3.5 | 0.30 | 0.35 |
| | | 鋁合金 Aluminum Alloy | | RM5005 | 160 | 3.5 | 4.5 | 0.35 | 0.40 |
| SCK2940-C | MCK2 CK2 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.4/0.8 | RM4035 | 140 | 3.5 | 4.0 | 0.25 | 0.40 |
| | | 不鏽鋼 Stainless Steels | | OM4010 | 140 | 3.0 | 4.0 | 0.30 | 0.35 |
| | | 鑄鐵 Cast Iron | | RM315 | 120 | 3.5 | 4.0 | 0.35 | 0.40 |
| | | 鋁合金 Aluminum Alloy | | RM5005 | 160 | 4.0 | 5.0 | 0.40 | 0.45 |
| SCK3950-C | MCK3 CK3 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.4/0.8 | RM4035 | 140 | 4.5 | 5.5 | 0.30 | 0.45 |
| | | 不鏽鋼 Stainless Steels | | OM4010 | 140 | 4.0 | 5.5 | 0.35 | 0.45 |
| | | 鑄鐵 Cast Iron | | RM315 | 120 | 4.5 | 5.5 | 0.40 | 0.45 |
| | | 鋁合金 Aluminum Alloy | | RM5005 | 160 | 6.0 | 8.0 | 0.45 | 0.50 |
| SCK4965-C | MCK4 CK4 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.4/0.8 | RM4035 | 140 | 6.0 | 8.0 | 0.30 | 0.50 |
| | | 不鏽鋼 Stainless Steels | | OM4010 | 140 | 6.0 | 8.0 | 0.40 | 0.45 |
| | | 鑄鐵 Cast Iron | | RM315 | 120 | 6.0 | 8.0 | 0.45 | 0.50 |
| | | 鋁合金 Aluminum Alloy | | RM5005 | 160 | 8.0 | 10.0 | 0.45 | 0.55 |
| SCK6382-C | MCK5 CK5 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.4/0.8 | RM4035 | 140 | 6.0 | 8.0 | 0.35 | 0.50 |
| | | 不鏽鋼 Stainless Steels | | OM4010 | 140 | 6.0 | 8.0 | 0.40 | 0.45 |
| | | 鑄鐵 Cast Iron | | RM315 | 120 | 6.0 | 8.0 | 0.45 | 0.50 |
| | | 鋁合金 Aluminum Alloy | | RM5005 | 160 | 8.0 | 10.0 | 0.45 | 0.55 |
| SCK80102-C | MCK6 CK6 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.4/0.8 | RM4035 | 140 | 6.0 | 8.0 | 0.35 | 0.50 |
| | | 不鏽鋼 Stainless Steels | | OM4010 | 140 | 6.0 | 8.0 | 0.40 | 0.45 |
| | | 鑄鐵 Cast Iron | | RM315 | 120 | 6.0 | 8.0 | 0.45 | 0.50 |
| | | 鋁合金 Aluminum Alloy | | RM5005 | 160 | 8.0 | 10.0 | 0.45 | 0.55 |
| SCK100125-C SCK125160-C SCK160220-C | MCK7 | 碳鋼、合金鋼 Carbon steel . Alloyed Steels | 0.4/0.8 | RM4035 | 140 | 6.0 | 8.0 | 0.35 | 0.50 |
| | | 不鏽鋼 Stainless Steels | | OM4010 | 140 | 6.0 | 8.0 | 0.40 | 0.45 |
| | | 鑄鐵 Cast Iron | | RM315 | 120 | 6.0 | 8.0 | 0.45 | 0.50 |
| | | 鋁合金 Aluminum Alloy | | RM5005 | 160 | 8.0 | 10.0 | 0.45 | 0.55 |

- 本表是切削數據的設定基準，請視當時的機床、工件材質、鐵屑的排出情況做適當的調整

-The cutting data table is set benchmarks, please make the appropriate adjustments depend on the situation which machine tools, workpiece materials, iron chips discharge.

• 長度單位 Unit of Length (mm)

細牙
Fine Teeth



特點 Feature

- 內孔公差 H6
- 整支通孔，利於出水及抗震
- 可共用並互容於大多數 "CK" 系列
- 側邊鎖固螺絲與鍵槽呈 90 度，確保搪孔切削完畢時的相對位置
- 鎖固時請使用螺絲防卡油防止因搪孔加工扭力過大，導致螺絲卡死難以拆卸組裝

- Internal tolerance is H6.
- The tool holder with through coolant design is better for water to get through vibration resistance
- Compatible tolerance in most of the "CK" series.
- Side of the locking screw and keyway was 90 degrees, to ensure that the relative position of the conclusion of the boring cutting.
- Use locking screw preventing oil to prevent excessive torque due to boring processing, resulting in seizure of the thread is difficult to remove the assembly screws.

| 規格 Spec. | l ₁ | l ₂ | d ₁ | d ₂ | d ₃ | 側邊螺絲 Screw | Fig. | 重量 (KGS) Weight |
|---------------|----------------|----------------|----------------|----------------|----------------|--------------|------|-----------------|
| BT30-CK1-70L | 70 | 40 | 11 | 19 | - | M4-0.5P-5L | 1 | 0.50 |
| BT30-CK2-80L | 80 | 50 | 14 | 24 | - | M5-0.5P-6.5L | 1 | 0.60 |
| BT30-CK3-80L | 80 | 50 | 18 | 31 | - | M6-0.75P-8L | 1 | 0.70 |
| BT30-CK4-70L | 70 | 40 | 22 | 39 | - | M8-0.75P-11L | 1 | 0.80 |
| BT30-CK5-60L | 60 | 30 | 28 | 50 | - | M10-1.0P-14L | 1 | 0.80 |
| BT30-CK6-60L | 60 | 30 | 36 | 64 | - | M12-1.0P-18L | 1 | 1.00 |
| BT40-CK1-75L | 75 | 40 | 11 | 19 | - | M4-0.5P-5L | 1 | 1.00 |
| BT40-CK1-105L | 105 | 70 | 11 | 19 | - | M4-0.5P-5L | 1 | 1.20 |
| BT40-CK2-85L | 85 | 50 | 14 | 24 | - | M5-0.5P-6.5L | 1 | 1.10 |
| BT40-CK2-115L | 115 | 80 | 14 | 24 | - | M5-0.5P-6.5L | 1 | 1.40 |
| BT40-CK3-95L | 95 | 60 | 18 | 31 | - | M6-0.75P-8L | 1 | 1.20 |
| BT40-CK3-125L | 125 | 90 | 18 | 31 | - | M6-0.75P-8L | 1 | 1.50 |
| BT40-CK3-155L | 155 | 120 | 18 | 31 | - | M6-0.75P-8L | 1 | 1.70 |
| BT40-CK4-85L | 85 | 50 | 22 | 39 | - | M8-0.75P-11L | 1 | 1.30 |
| BT40-CK4-130L | 130 | 95 | 22 | 39 | - | M8-0.75P-11L | 1 | 1.90 |
| BT40-CK4-175L | 175 | 140 | 22 | 39 | - | M8-0.75P-11L | 1 | 2.20 |
| BT40-CK5-75L | 75 | 40 | 28 | 50 | - | M10-1.0P-14L | 1 | 1.30 |
| BT40-CK5-125L | 125 | 90 | 28 | 50 | - | M10-1.0P-14L | 1 | 2.30 |
| BT40-CK5-175L | 175 | 140 | 28 | 50 | - | M10-1.0P-14L | 1 | 3.00 |
| BT40-CK6-65L | 65 | 30 | 36 | 64 | - | M12-1.0P-18L | 1 | 1.30 |
| BT40-CK6-115L | 115 | 80 | 36 | 64 | - | M12-1.0P-18L | 1 | 2.70 |
| BT40-CK6-165L | 165 | 130 | 36 | 64 | - | M12-1.0P-18L | 1 | 3.90 |

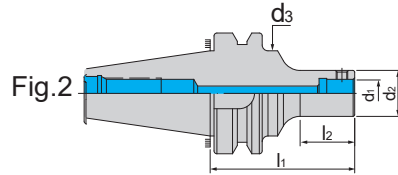
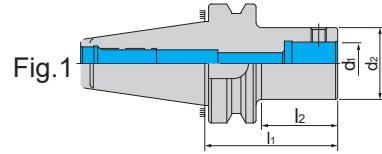
選配表 Option

| 拉頭 Pull Stud | 延長桿 Extension Spacer | 搪頭 Boring Head | | | | | |
|--------------|----------------------|----------------|------|------|------|------|------|
| | | | | | | | |
| B645-B647 | B708-B709 | B687 | B694 | B746 | B717 | B727 | B730 |

• 長度單位 Unit of Length (mm)



細牙
Fine Teeth



| 規格 Spec. | l_1 | l_2 | d_1 | d_2 | d_3 | 側邊螺絲 Screw | Fig. | 重量 (KGS)Weight |
|------------------|-------|-------|-------|-------|-------|--------------|------|----------------|
| BT50-CK1-115L | 115 | 40 | 11 | 19 | 31 | M4-0.5P-5L | 2 | 4.00 |
| BT50-CK1-145L | 145 | 70 | 11 | 19 | 31 | M4-0.5P-5L | 2 | 4.10 |
| BT50-CK2-110L | 110 | 65 | 14 | 24 | - | M5-0.5P-6.5L | 1 | 3.90 |
| BT50-CK2-140L | 140 | 95 | 14 | 24 | - | M5-0.5P-6.5L | 1 | 4.00 |
| BT50-CK3-125L | 125 | 80 | 18 | 31 | - | M6-0.75P-8L | 1 | 4.10 |
| BT50-CK3-155L | 155 | 110 | 18 | 31 | - | M6-0.75P-8L | 1 | 4.20 |
| BT50-CK4-115L | 115 | 70 | 22 | 39 | - | M8-0.75P-11L | 1 | 4.30 |
| BT50-CK4-145L | 145 | 100 | 22 | 39 | - | M8-0.75P-11L | 1 | 4.40 |
| BT50-CK4-175L | 175 | 130 | 22 | 39 | - | M8-0.75P-11L | 1 | 4.80 |
| BT50-CK4-205L | 205 | 160 | 22 | 39 | - | M8-0.75P-11L | 1 | 4.90 |
| BT50-CK5-105L | 105 | 60 | 28 | 50 | - | M10-1.0P-14L | 1 | 4.50 |
| BT50-CK5-180L | 180 | 135 | 28 | 50 | - | M10-1.0P-14L | 1 | 5.50 |
| BT50-CK5-240L | 240 | 195 | 28 | 50 | - | M10-1.0P-14L | 1 | 6.20 |
| BT50-CK5-300L | 300 | 195 | 28 | 50 | 64 | M10-1.0P-14L | 2 | 7.60 |
| BT50-CK6-95L | 95 | 50 | 36 | 64 | - | M12-1.0P-18L | 1 | 4.50 |
| BT50-CK6-170L | 170 | 125 | 36 | 64 | - | M12-1.0P-18L | 1 | 6.30 |
| BT50-CK6-230L | 230 | 185 | 36 | 64 | - | M12-1.0P-18L | 1 | 7.60 |
| BT50-CK6-290L | 290 | 245 | 36 | 64 | - | M12-1.0P-18L | 1 | 9.00 |
| BT50-CK6-350L | 350 | 300 | 36 | 64 | 90 | M12-1.0P-18L | 2 | 13.5 |
| BT50-CK7R-100 | 100 | 55 | 58 | 88 | - | M12-1.0P-18L | 1 | 4.80 |
| BT50-CK7R-150 | 150 | 105 | 58 | 88 | - | M12-1.0P-18L | 1 | 6.50 |
| BT50-CK7R-200 | 200 | 155 | 58 | 88 | - | M12-1.0P-18L | 1 | 8.00 |
| BT50-CK7R-250 | 250 | 205 | 58 | 88 | - | M12-1.0P-18L | 1 | 9.00 |
| BT50-CK7R-300 | 300 | 255 | 58 | 88 | - | M12-1.0P-18L | 1 | 10.00 |
| BT50-CK7R-350 | 350 | 305 | 58 | 88 | - | M12-1.0P-18L | 1 | 12.00 |
| BT50-CK7R-400 | 400 | 355 | 58 | 88 | - | M12-1.0P-18L | 1 | 14.00 |
| BT50-CK7R-450 | 450 | 405 | 58 | 88 | - | M12-1.0P-18L | 1 | 17.10 |
| BT50-CK7R-500 | 500 | 455 | 58 | 88 | - | M12-1.0P-18L | 1 | 18.70 |
| BT50-CK7R-550 | 550 | 505 | 58 | 88 | - | M12-1.0P-18L | 1 | 20.40 |
| HSK100A-CK7R-100 | 100 | 66 | 58 | 88 | - | M12-1.0P-18L | 1 | - |
| HSK100A-CK7R-150 | 150 | 116 | 58 | 88 | - | M12-1.0P-18L | 1 | - |
| HSK100A-CK7R-200 | 200 | 166 | 58 | 88 | - | M12-1.0P-18L | 1 | - |
| HSK100A-CK7R-250 | 250 | 216 | 58 | 88 | - | M12-1.0P-18L | 1 | - |
| HSK100A-CK7R-300 | 300 | 266 | 58 | 88 | - | M12-1.0P-18L | 1 | - |
| HSK100A-CK7R-350 | 350 | 316 | 58 | 88 | - | M12-1.0P-18L | 1 | - |
| HSK100A-CK7R-400 | 400 | 366 | 58 | 88 | - | M12-1.0P-18L | 1 | - |
| HSK100A-CK7R-450 | 450 | 416 | 58 | 88 | - | M12-1.0P-18L | 1 | - |

選配表 Option

| 拉頭 Pull Stud | 延長桿 Extension Spacer | 搪頭 Boring Head | | | | | |
|--------------|----------------------|----------------|------|------|------|------|------|
| | | | | | | | |
| B645-B647 | B708-B709 | B687 | B694 | B746 | B717 | B727 | B730 |

• 長度單位 Unit of Length (mm)



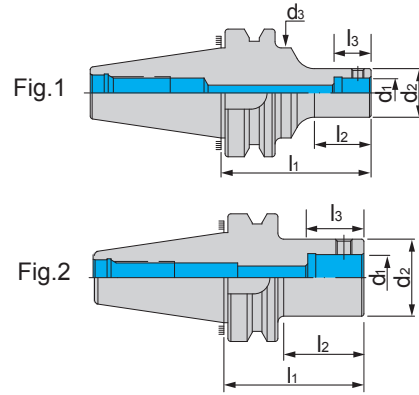
SBT/MCK 法蘭加厚型搪孔刀柄

SBT/MCK DUAL DRIVE BORING HEAD SHANK

雙面拘束 Dual Contact | 細牙 Fine Teeth



SBT



特點 Feature

- 內孔公差 H6
- 整支通孔，利於出水及抗震
- 可共用並互容於大多數 "CK" 系列
- 側邊鎖固螺絲與鍵槽呈 90 度，確保搪孔切削完畢時的相對位置
- 鎖固時請使用螺絲防卡油防止因搪孔加工扭力過大，導致螺絲卡死難以拆卸組裝

- Internal tolerance is H6.
- The tool holder with through coolant design is better for water to get through vibration resistance
- Sharing and mutual tolerance in most of the "CK" series.
- Side of the locking screw and keyway was 90 degrees, to ensure that the relative position of the conclusion of the boring cutting.
- Due to big boring torque, please apply the grease when screwing to avoid the screw jammed shut.

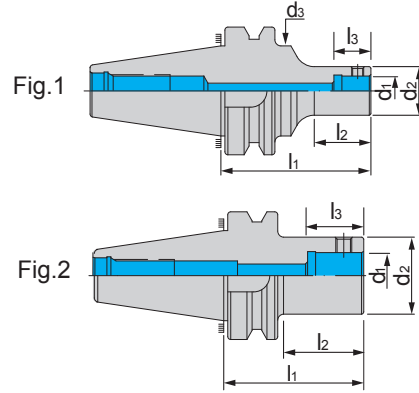
| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | d_3 | 側邊螺絲 Screw | Fig. | 重量 (KGS) Weight |
|----------------|-------|-------|-------|-------|-------|-------|------------|------|-----------------|
| SBT30-MCK1-55 | 55 | 28 | 18 | 11 | 19 | - | M4x0.5P | 2 | 0.70 |
| SBT30-MCK1-70 | 70 | 43 | 18 | 11 | 19 | - | M4x0.5P | 2 | 0.80 |
| SBT30-MCK2-60 | 60 | 33 | 18.5 | 14 | 23.5 | - | M5x0.5P | 2 | 0.80 |
| SBT30-MCK2-75 | 75 | 48 | 18.5 | 14 | 23.5 | - | M5x0.5P | 2 | 0.80 |
| SBT30-MCK2-80 | 80 | 53 | 18.5 | 14 | 23.5 | - | M5x0.5P | 2 | 0.81 |
| SBT30-MCK3-50 | 50 | 26 | 24 | 18 | 31 | - | M6x0.75P | 2 | 0.90 |
| SBT30-MCK3-80 | 80 | 56 | 24 | 18 | 31 | - | M6x0.75P | 2 | 0.95 |
| SBT30-MCK4-60 | 60 | 37 | 22 | 22 | 39 | - | M8x0.75P | 2 | 1.00 |
| SBT30-MCK4-70 | 70 | 47 | 29 | 22 | 39 | - | M8x0.75P | 2 | 1.00 |
| SBT30-MCK5-70 | 70 | 47 | 35 | 28 | 50 | - | M10x1.0P | 2 | 1.10 |
| SBT30-MCK6-60 | 60 | 38 | 42 | 36 | 63 | - | M12x1.0P | 2 | 1.20 |
| SBT40-MCK1-100 | 100 | 51 | 18 | 11 | 19 | 44.45 | M4x0.5P | 1 | 1.48 |
| SBT40-MCK1-115 | 115 | 66 | 18 | 11 | 19 | 44.45 | M4x0.5P | 1 | 1.30 |
| SBT40-MCK2-75 | 75 | 28 | 18.5 | 14 | 23.5 | 44.45 | M5x0.75P | 1 | 1.14 |
| SBT40-MCK2-85 | 85 | 38 | 18.5 | 14 | 23.5 | 44.45 | M5x0.75P | 1 | 1.24 |
| SBT40-MCK2-115 | 115 | 68 | 18.5 | 14 | 23.5 | 44.45 | M5x0.75P | 1 | 1.30 |
| SBT40-MCK3-80 | 80 | 48 | 24 | 18 | 31 | - | M6x0.75P | 2 | 1.22 |
| SBT40-MCK3-95 | 95 | 63 | 24 | 18 | 31 | - | M6x0.75P | 2 | 1.32 |
| SBT40-MCK3-125 | 125 | 93 | 24 | 18 | 31 | - | M6x0.75P | 2 | 1.40 |
| SBT40-MCK3-155 | 155 | 123 | 24 | 18 | 31 | - | M6x0.75P | 2 | 1.42 |
| SBT40-MCK4-70 | 70 | 40 | 28 | 22 | 39 | - | M8x0.75P | 2 | 1.50 |
| SBT40-MCK4-100 | 100 | 70 | 28 | 22 | 39 | - | M8x0.75P | 2 | 1.56 |
| SBT40-MCK4-130 | 130 | 98 | 28 | 22 | 39 | - | M8x0.75P | 2 | 1.66 |
| SBT40-MCK4-175 | 175 | 143 | 28 | 22 | 39 | - | M8x0.75P | 2 | 1.76 |
| SBT40-MCK5-60 | 60 | 30 | 35 | 28 | 50 | - | M10x1.0P | 2 | 1.30 |
| SBT40-MCK5-80 | 80 | 51 | 35 | 28 | 50 | - | M10x1.0P | 2 | 1.60 |
| SBT40-MCK5-125 | 125 | 96 | 35 | 28 | 50 | - | M10x1.0P | 2 | 1.70 |
| SBT40-MCK5-175 | 175 | 146 | 35 | 28 | 50 | - | M10x1.0P | 2 | 1.90 |
| SBT40-MCK6-55 | 55 | 28 | 42 | 36 | 63 | - | M12x1.0P | 2 | 2.15 |
| SBT40-MCK6-65 | 65 | 38 | 42 | 36 | 63 | - | M12x1.0P | 2 | 2.20 |
| SBT40-MCK6-115 | 115 | 88 | 42 | 36 | 63 | - | M12x1.0P | 2 | 2.40 |
| SBT40-MCK6-165 | 165 | 138 | 42 | 36 | 63 | - | M12x1.0P | 2 | 2.50 |

選配表 Option

| 拉頭 Pull Stud | 延長桿 Extension Spacer | 搪頭 Boring Head | | | | | |
|--------------|----------------------|----------------|------|------|------|------|------|
| | | | | | | | |
| B645-B647 | B708-B709 | B687 | B694 | B746 | B717 | B727 | B730 |

• 長度單位 Unit of Length (mm)

雙面拘束 Dual Contact 細牙 Fine Teeth



SBT

特點 Feature

- 內孔公差 H6
- 整支通孔，利於出水及抗震
- 可共用並互容於大多數 "CK" 系列
- 側邊鎖固螺絲與鍵槽呈 90 度，確保搪孔切削完畢時的相對位置
- 鎖固時請使用螺絲防卡油防止因搪孔加工扭力過大，導致螺絲卡死難以拆卸組裝

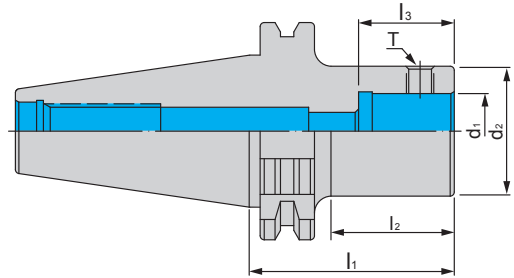
- Internal tolerance is H6.
- The tool holder with through coolant design is better for water to get through vibration resistance
- Sharing and mutual tolerance in most of the "CK" series.
- Side of the locking screw and keyway was 90 degrees, to ensure that the relative position of the conclusion of the boring cutting.
- Due to big boring torque, please apply the grease when screwing to avoid the screw jammed shut.

| 規格 Spec. | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | d ₃ | 側邊螺絲 Screw | Fig. | 重量 (KGS) Weight |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------|------|-----------------|
| SBT50-MCK1-105 | 105 | 38 | 18 | 11 | 19 | 69.85 | M4x0.5P | 1 | 3.90 |
| SBT50-MCK1-115 | 115 | 48 | 18 | 11 | 19 | 69.85 | M4x0.5P | 1 | 3.90 |
| SBT50-MCK1-145 | 145 | 78 | 18 | 11 | 19 | 69.85 | M4x0.5P | 1 | 4.00 |
| SBT50-MCK2-105 | 105 | 39 | 18.5 | 14 | 23.5 | 69.85 | M5x0.5P | 1 | 4.00 |
| SBT50-MCK2-135 | 135 | 67 | 18.5 | 14 | 23.5 | 69.85 | M5x0.5P | 1 | 4.10 |
| SBT50-MCK2-140 | 140 | 72 | 18.5 | 14 | 23.5 | 69.85 | M5x0.5P | 1 | 4.10 |
| SBT50-MCK3-110 | 110 | 62 | 24 | 18 | 31 | - | M6x0.75P | 2 | 4.40 |
| SBT50-MCK3-140 | 140 | 92 | 24 | 18 | 31 | - | M6x0.75P | 2 | 4.60 |
| SBT50-MCK3-155 | 155 | 107 | 24 | 18 | 31 | - | M6x0.75P | 2 | 4.60 |
| SBT50-MCK4-100 | 100 | 52 | 28 | 22 | 39 | - | M8x0.75P | 2 | 4.80 |
| SBT50-MCK4-160 | 160 | 112 | 28 | 22 | 39 | - | M8x0.75P | 2 | 5.20 |
| SBT50-MCK4-175 | 175 | 127 | 28 | 22 | 39 | - | M8x0.75P | 2 | 5.30 |
| SBT50-MCK4-205 | 205 | 205 | 28 | 22 | 39 | - | M8x0.75P | 2 | 5.40 |
| SBT50-MCK5-90 | 90 | 42 | 35 | 28 | 50 | - | M10x1.0P | 2 | 5.40 |
| SBT50-MCK5-105 | 105 | 57 | 35 | 28 | 50 | - | M10x1.0P | 2 | 5.60 |
| SBT50-MCK5-165 | 165 | 117 | 35 | 28 | 50 | - | M10x1.0P | 2 | 6.20 |
| SBT50-MCK5-210 | 210 | 162 | 35 | 28 | 50 | - | M10x1.0P | 2 | 6.40 |
| SBT50-MCK5-240 | 240 | 192 | 35 | 28 | 50 | - | M10x1.0P | 2 | 6.60 |
| SBT50-MCK5-300 | 300 | 252 | 35 | 28 | 50 | - | M10x1.0P | 2 | 6.80 |
| SBT50-MCK6-85 | 85 | 37 | 42 | 36 | 63 | - | M12x1.0P | 2 | 5.90 |
| SBT50-MCK6-155 | 155 | 107 | 42 | 36 | 63 | - | M12x1.0P | 2 | 6.50 |
| SBT50-MCK6-215 | 215 | 167 | 42 | 36 | 63 | - | M12x1.0P | 2 | 6.90 |
| SBT50-MCK6-250 | 250 | 212 | 42 | 36 | 63 | - | M12x1.0P | 2 | 7.00 |
| SBT50-MCK6-300 | 300 | 262 | 42 | 36 | 63 | - | M12x1.0P | 2 | 7.20 |
| SBT50-MCK6-350 | 350 | 312 | 42 | 36 | 63 | - | M12x1.0P | 2 | 7.40 |
| SBT50-MCK7-180 | 180 | 139 | 52 | 46 | 90 | - | M12x1.0P | 2 | 5.00 |
| SBT50-MCK7-330 | 330 | 289 | 52 | 46 | 90 | - | M12x1.0P | 2 | 12.5 |

選配表 Option

| 拉頭 Pull Stud | 延長桿 Extension Spacer | 搪頭 Boring Head | | | | | |
|--------------|----------------------|----------------|------|------|------|------|------|
| | | | | | | | |
| B645-B647 | B708-B709 | B687 | B694 | B746 | B717 | B727 | B730 |

• 長度單位 Unit of Length (mm)



DAT

特點 Feature

- 內孔公差 H6
- 整支通孔 · 利於出水及抗震
- 可共用並互容於大多數 "CK" 系列
- 側邊鎖固螺絲與鍵槽呈 90 度 · 確保搪孔切削機能時的退刀相位
- 鎖固時請使用螺絲防卡油防止因搪孔加工扭力過大 · 導致螺絲卡死難以拆卸組裝

- Internal tolerance is H6.
- The tool holder with through coolant design is better for water to get through vibration resistance
- Compatible on most "CK" series
- 90 degree between the side lock screw & notch, ensure the correct position of cutter when the cutter go back.
- Due to big boring torque, please apply the grease when screwing to avoid the screw jammed shut.

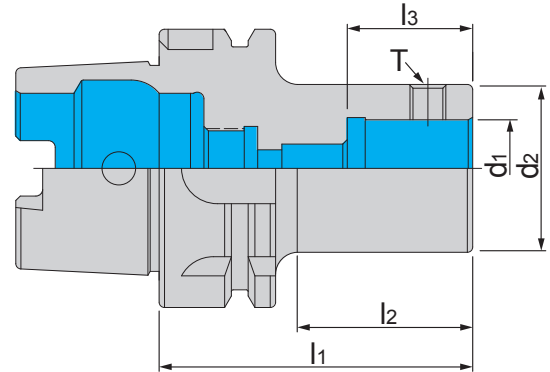
| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | T | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-------|-------|----------|-----------------------|
| DAT30 x MCK1-50 | 50 | 27.9 | 15 | 11 | 19 | M4x0.5P | 0.60 |
| DAT30 x MCK2-65 | 65 | 42.9 | 18.5 | 14 | 23.5 | M5x0.5P | 0.70 |
| DAT30 x MCK3-50 | 50 | 27.9 | 22 | 18 | 31 | M6x0.75P | 0.80 |
| DAT30 x MCK4-50 | 50 | 27.9 | 28 | 22 | 39 | M8x0.75P | 1.30 |
| DAT40 x MCK1-80 | 80 | 50.9 | 18 | 11 | 19 | M4x0.5P | 1.00 |
| DAT40 x MCK1-95 | 95 | 65.9 | 18 | 11 | 19 | M4x0.5P | 1.05 |
| DAT40 x MCK2-80 | 80 | 50.9 | 18.5 | 14 | 23.5 | M5x0.5P | 1.10 |
| DAT40 x MCK2-110 | 110 | 80.9 | 18.5 | 14 | 23.5 | M5x0.5P | 1.15 |
| DAT40 x MCK3-90 | 90 | 65.9 | 24 | 18 | 31 | M6x0.75P | 1.20 |
| DAT40 x MCK3-125 | 125 | 100.9 | 24 | 18 | 31 | M6x0.75P | 1.25 |
| DAT40 x MCK4-80 | 80 | 55.9 | 28 | 22 | 39 | M8x0.75P | 1.30 |
| DAT40 x MCK4-110 | 110 | 85.9 | 28 | 22 | 39 | M8x0.75P | 1.35 |
| DAT40 x MCK5-95 | 95 | 75.4 | 35 | 28 | 50 | M10x1.0P | 1.40 |
| DAT40 x MCK5-110 | 110 | 90.4 | 35 | 28 | 50 | M10x1.0P | 1.45 |
| DAT40 x MCK6-65 | 65 | 45.4 | 42 | 36 | 63 | M12x1.0P | 1.50 |
| DAT40 x MCK6-95 | 95 | 75.4 | 42 | 36 | 63 | M12x1.0P | 1.55 |
| DAT50 x MCK1-110 | 110 | 80.9 | 18 | 11 | 19 | M4x0.5P | 3.10 |
| DAT50 x MCK1-125 | 125 | 95.9 | 18 | 11 | 19 | M4x0.5P | 3.15 |
| DAT50 x MCK2-95 | 95 | 65.9 | 18.5 | 14 | 23.5 | M5x0.5P | 3.20 |
| DAT50 x MCK2-125 | 125 | 95.9 | 18.5 | 14 | 23.5 | M5x0.5P | 3.25 |
| DAT50 x MCK3-125 | 125 | 95.9 | 24 | 18 | 31 | M6x0.75P | 3.30 |
| DAT50 x MCK3-155 | 155 | 125.9 | 24 | 18 | 31 | M6x0.75P | 3.35 |
| DAT50 x MCK4-110 | 110 | 80.9 | 28 | 22 | 39 | M8x0.75P | 3.40 |
| DAT50 x MCK4-125 | 125 | 95.9 | 28 | 22 | 39 | M8x0.75P | 3.45 |
| DAT50 x MCK5-65 | 65 | 35.9 | 35 | 28 | 50 | M10x1.0P | 3.50 |
| DAT50 x MCK5-140 | 140 | 110.9 | 35 | 28 | 50 | M10x1.0P | 3.55 |
| DAT50 x MCK6-140 | 140 | 110.9 | 42 | 36 | 63 | M12x1.0P | 3.60 |
| DAT50 x MCK6-170 | 170 | 140.9 | 42 | 36 | 63 | M12x1.0P | 3.65 |
| DAT50 x MCK7-95 | 95 | 60 | 52 | 46 | 90 | M20x1.5P | 5.00 |

選配表 Option

| 拉頭 Pull Stud | 延長桿 Extension Spacer | 搪頭 Boring Head | | | | | |
|--------------|----------------------|----------------|------|------|------|------|------|
| | | | | | | | |
| B645-B647 | B708-B709 | B687 | B694 | B746 | B717 | B727 | B730 |

• 長度單位 Unit of Length (mm)

細牙 Fine Teeth



| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | T | 重量 (KGS) Weight |
|----------------------|-------|-------|-------|-------|-------|----------|-----------------------|
| HSK40A x MCK1 - 50 | 50 | 27 | 15 | 11 | 19 | M4x0.5P | 0.60 |
| HSK40A x MCK2 - 60 | 60 | 37 | 18.5 | 14 | 23.5 | M5x0.5P | 0.36 |
| HSK40A x MCK3 - 60 | 60 | 38 | 22 | 18 | 31 | M6x0.75P | 0.80 |
| HSK50A x MCK1 - 60 | 60 | 31 | 15 | 11 | 19 | M4x0.5P | 1.00 |
| HSK50A x MCK2 - 60 | 60 | 31 | 18.5 | 14 | 23.5 | M5x0.5P | 1.10 |
| HSK50A x MCK3 - 60 | 60 | 32 | 22 | 18 | 31 | M6x0.75P | 1.20 |
| HSK50A x MCK4 - 60 | 60 | 32 | 24 | 22 | 39 | M8x0.75P | 1.30 |
| HSK50A x MCK5 - 80 | 80 | 53 | 30 | 28 | 50 | M10x1.0P | 1.00 |
| HSK50A x MCK6 - 80 | 80 | 53 | 40 | 36 | 63 | M12x1.0P | 1.50 |
| HSK63A x MCK1 - 80 | 80 | 49 | 15 | 11 | 19 | M4x0.5P | 1.20 |
| HSK63A x MCK1 - 95 | 95 | 64 | 15 | 11 | 19 | M4x0.5P | 1.25 |
| HSK63A x MCK2 - 80 | 80 | 44 | 18.5 | 14 | 23.5 | M5x0.5P | 0.86 |
| HSK63A x MCK2 - 110 | 110 | 79 | 18.5 | 14 | 23.5 | M5x0.5P | 1.35 |
| HSK63A x MCK3 - 90 | 90 | 59 | 24 | 18 | 31 | M6x0.75P | 1.02 |
| HSK63A x MCK3 - 125 | 125 | 94 | 24 | 18 | 31 | M6x0.75P | 0.52 |
| HSK63A x MCK3 - 155 | | | | | | | |
| HSK63A x MCK4 - 80 | 80 | 49 | 28 | 22 | 39 | M8x0.75P | 1.09 |
| HSK63A x MCK4 - 110 | 110 | 79 | 28 | 22 | 39 | M8x0.75P | 1.55 |
| HSK63A x MCK4 - 130 | | | | | | | |
| HSK63A x MCK4 - 175 | | | | | | | |
| HSK63A x MCK5 - 95 | 95 | 67.5 | 35 | 28 | 50 | M10x1.0P | 1.60 |
| HSK63A x MCK5 - 110 | 110 | 82.5 | 35 | 28 | 50 | M10x1.0P | 1.78 |
| HSK63A x MCK5 - 175 | | | | | | | |
| HSK63A x MCK6 - 70 | 70 | 43.5 | 42 | 36 | 63 | M12x1.0P | 1.31 |
| HSK63A x MCK6 - 95 | 95 | 68.5 | 42 | 36 | 63 | M12x1.0P | 1.84 |
| HSK63A x MCK6 - 115 | | | | | | | |
| HSK63A x MCK6 - 165 | | | | | | | |
| HSK100A x MCK1 - 100 | 100 | 61 | 18 | 11 | 19 | M4x0.5P | 2.07 |
| HSK100A x MCK1 - 140 | | | | | | | |

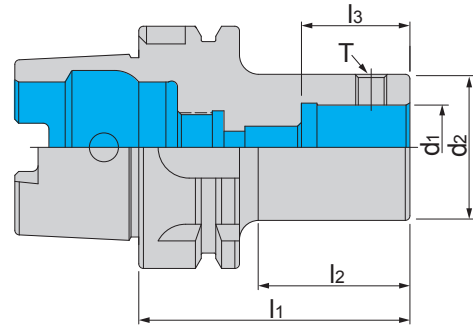
HSK

選配表 Option

| 延長桿 Extension Spacer | 搪頭 Boring Head | | | | | | 給水管 Coolant Supply Unit |
|----------------------|----------------|------|------|------|------|------|-------------------------|
| | | | | | | | |
| B708-B709 | B687 | B694 | B746 | B717 | B727 | B730 | B519 |

• 長度單位 Unit of Length (mm)

細牙 Fine Teeth



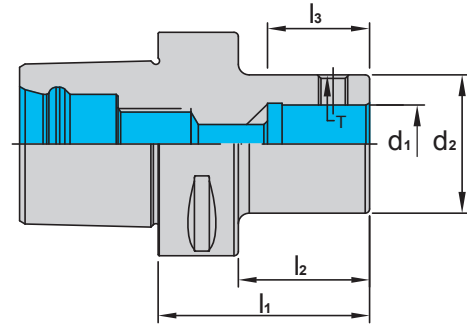
HSK

| 規格 Spec. | l ₁ | l ₂ | l ₃ | d ₁ | d ₂ | T | 重量 (KGS) Weight |
|----------------------|----------------|----------------|----------------|----------------|----------------|----------|-----------------------|
| HSK100A x MCK2 - 75 | 75 | 36 | 18.5 | 14 | 23.5 | M5x0.5P | 2.09 |
| HSK100A x MCK2 - 115 | 115 | 76 | 18.5 | 14 | 23.5 | M5x0.5P | 2.18 |
| HSK100A x MCK2 - 135 | | | | | | | |
| HSK100A x MCK3 - 60 | 60 | 21 | 24 | 18 | 31 | M6x0.75P | 2.15 |
| HSK100A x MCK3 - 125 | 125 | 86 | 24 | 18 | 31 | M6x0.75P | 2.47 |
| HSK100A x MCK3 - 150 | | | | | | | |
| HSK100A x MCK4 - 70 | 70 | 31 | 28 | 22 | 39 | M8x0.75P | 2.34 |
| HSK100A x MCK4 - 120 | 120 | 86 | 28 | 22 | 39 | M8x0.75P | 2.76 |
| HSK100A x MCK4 - 140 | | | | | | | |
| HSK100A x MCK4 - 170 | | | | | | | |
| HSK100A x MCK4 - 200 | | | | | | | |
| HSK100A x MCK5 - 70 | 70 | 31 | 35 | 28 | 50 | M10x1.0P | 2.60 |
| HSK100A x MCK5 - 110 | 110 | 76 | 35 | 28 | 50 | M10x1.0P | 3.17 |
| HSK100A x MCK5 - 175 | | | | | | | |
| HSK100A x MCK5 - 235 | | | | | | | |
| HSK100A x MCK5 - 295 | | | | | | | |
| HSK100A x MCK6 - 75 | 75 | 41 | 42 | 36 | 63 | M12x1.0P | 3.02 |
| HSK100A x MCK6 - 100 | 100 | 66 | 42 | 36 | 63 | M12x1.0P | 3.60 |
| HSK100A x MCK6 - 165 | | | | | | | |
| HSK100A x MCK6 - 225 | | | | | | | |
| HSK100A x MCK6 - 285 | | | | | | | |
| HSK100A x MCK6 - 345 | | | | | | | |

選配表 Option

| 延長桿 Extension Spacer | 搪頭 Boring Head | | | | | | 給水管 Coolant Supply Unit |
|----------------------|----------------|------|------|------|------|------|-------------------------|
| | | | | | | | |
| B708-B709 | B687 | B694 | B746 | B717 | B727 | B730 | B519 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 內孔公差 H6
- 整支通孔 · 利於出水及抗震

- Internal tolerance is H6.
- The tool holder with through coolant design is better for water to get through vibration resistance

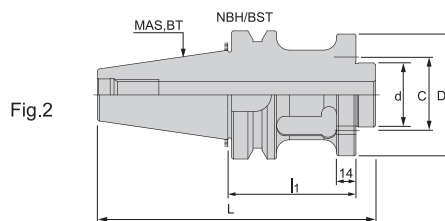
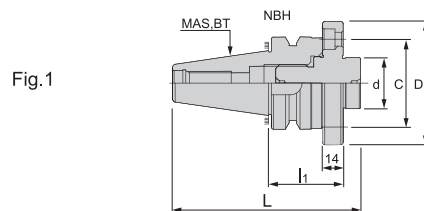
| 規格 Spec. | l_1 | l_2 | l_3 | d_1 | d_2 | T | 重量 (KGS) Weight |
|----------------|-------|-------|-------|-------|-------|----------|-----------------|
| PSC40xMCK2-45 | 45 | 19.5 | 18.5 | 14 | 24 | M5X0.5P | 0.40 |
| PSC40xMCK3-40 | 40 | 17 | 24 | 18 | 31 | M6X0.75P | 0.50 |
| PSC40xMCK4-33 | 33 | 12.5 | 28 | 22 | 39 | M8X0.75P | 0.50 |
| PSC50xMCK2-85 | 85 | 60.5 | 18.5 | 14 | 24 | M5X0.5P | 0.60 |
| PSC50xMCK3-55 | 55 | 30 | 24 | 18 | 31 | M6X0.75P | 0.60 |
| PSC50xMCK3-80 | 80 | 55 | 24 | 18 | 31 | M6X0.75P | 0.70 |
| PSC50xMCK4-48 | 48 | 23 | 28 | 22 | 39 | M8X0.75P | 0.60 |
| PSC50xMCK4-73 | 73 | 48 | 28 | 22 | 39 | M8X0.75P | 0.70 |
| PSC50xMCK5-50 | 50 | 30 | 35 | 28 | 50 | M10X1.0P | 0.60 |
| PSC50xMCK5-83 | 83 | 63 | 35 | 28 | 50 | M10X1.0P | 1.30 |
| PSC50xMCK6-50 | 50 | 30 | 42 | 36 | 63 | M12X1.0P | 1.00 |
| PSC63xMCK2-90 | 90 | 53 | 18.5 | 14 | 24 | M5X0.5P | 1.30 |
| PSC63xMCK3-65 | 65 | 38 | 24 | 18 | 31 | M6X0.75P | 1.30 |
| PSC63xMCK3-100 | 100 | 73 | 24 | 18 | 31 | M6X0.75P | 1.50 |
| PSC63xMCK4-58 | 58 | 31 | 28 | 22 | 39 | M8X0.75P | 1.30 |
| PSC63xMCK4-93 | 93 | 66 | 28 | 22 | 39 | M8X0.75P | 1.70 |
| PSC63xMCK5-48 | 48 | 22 | 35 | 28 | 50 | M10X1.0P | 1.30 |
| PSC63xMCK5-83 | 83 | 57 | 35 | 28 | 50 | M10X1.0P | 1.70 |
| PSC63xMCK6-59 | 59 | 37 | 42 | 36 | 63 | M12X1.0P | 1.60 |
| PSC63xMCK6-94 | 94 | 72 | 42 | 36 | 63 | M12X1.0P | 2.30 |

PSC

選配表 Option

| 延長桿 Extension Spacer | 搪頭 Boring Head | | | | | | 鎖刀座 Lock Device |
|----------------------|----------------|------|------|------|------|------|-----------------|
| | | | | | | | |
| B708-B709 | B687 | B694 | B746 | B717 | B727 | B730 | B655 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | L | l ₁ | D | d h7 | C | Fig. | 重量 (KGS) Weight |
|-------------------|-------|----------------|----|---------|-----------------------|------|--------------------|
| BT40xNBH2084A | 155.4 | 51 | 84 | 35 | PCD.Ø60 4-M8x1.25P | 1 | 1.70 |
| BT50xNBH2084A | 170.8 | 57 | 84 | 35 | | 1 | 3.50 |
| NT50xNBH2084A | 168 | 41.2 | 84 | 35 | | 1 | 6.30 |
| FR60xNBH2084 | 58.5 | 14 | 84 | 35 | PCD.Ø60 | - | - |
| BT40xNBH2084B-100 | 204.4 | 100 | 84 | 35 | PCD.Ø60 4-M8x1.25P | 2 | 2.00 |
| BT50xNBH2084B-100 | 213.8 | 100 | 84 | 35 | | 2 | 4.00 |
| BT50xNBH2084B-165 | 278.8 | 165 | 84 | 35 | | 2 | 4.50 |
| BT50xNBH2084B-200 | 313.8 | 200 | 84 | 35 | | 2 | - |
| BT50xNBH2084B-250 | 363.8 | 250 | 84 | 35 | | 2 | 8.50 |
| BT50xNBH2084B-300 | 413.8 | 300 | 84 | 35 | | 2 | 9.67 |
| NT30xNBH2084 | 109 | 14 | 84 | 35 | PCD.Ø60 4-M8x1.25P | 2 | 3.60 |
| NT40xNBH2084 | 136 | 14 | 84 | 35 | | 2 | 4.00 |
| NT50xNBH2084 | 168 | 14 | 84 | 35 | | 2 | 6.30 |
| BT40xBST-70 | 131 | 70 | 95 | 50 | PCD.Ø72 4-Ø13 | 2 | 2.50 |
| BT50xBST-100 | 208.8 | 100 | 95 | 50 | | 2 | 5.65 |
| BT50xBST-150 | 258.8 | 150 | 95 | 50 | | 2 | 4.00 |
| BT50xBST-200 | 308.8 | 200 | 95 | 50 | | 2 | 8.75 |
| BT50xBST-250 | 358.8 | 250 | 95 | 50 | | 2 | 9.76 |
| BT50xBST-300 | 408.8 | 300 | 95 | 50 | | 2 | 11.5 |
| BT50xBST-350 | 458.8 | 350 | 95 | 50 | | 2 | 12.8 |
| BT50xBST-400 | 508.8 | 400 | 95 | 50 | | 2 | 14.1 |

選配表 Option

| 拉頭 Pull Stud | 搪頭 Boring Head |
|--------------|----------------|
| | |
| B645-B647 | B753 |

Fig.1



Fig.2



Fig.1

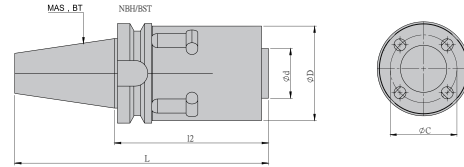
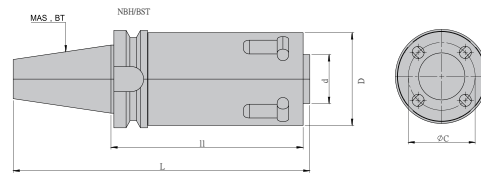


Fig.2



| 規格 Spec. | L | l ₁ | l ₂ | D | d h7 | C | 重量 (KGS) Weight | Fig. |
|-------------------|-------|----------------|----------------|----|------|------------------|-----------------|------|
| BT50xBST-150L-D95 | 258.8 | 150 | 200.8 | 95 | 50 | PCD,Ø72 4-Ø13 | 4.00 | 1 |
| BT50xBST-200L-D95 | 308.8 | 200 | 250.8 | 95 | 50 | | - | 2 |
| BT50xBST-250L-D95 | 358.8 | 250 | 300.8 | 95 | 50 | | - | 2 |
| BT50xBST-300L-D95 | 408.8 | 300 | 350.8 | 95 | 50 | | - | 2 |

Fig.1

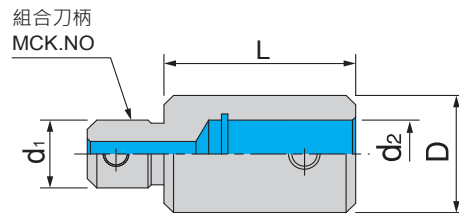
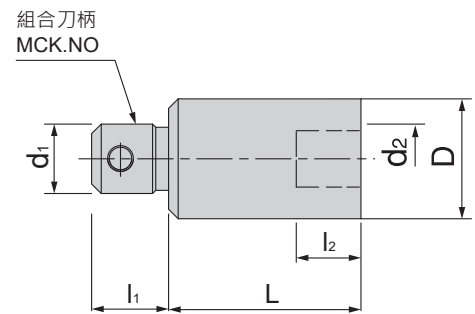


Fig.2

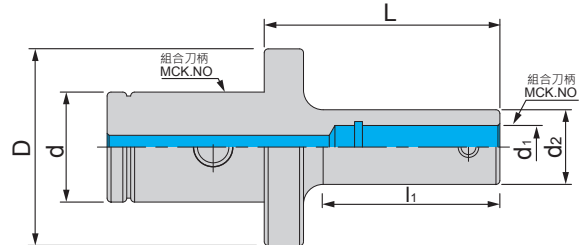


| 規格 Spec. | L | l ₁ | l ₂ | D | d | d ₁ | d ₂ | 側邊螺絲 Screw | 適用搪頭 Boring Head | Fig. | 重量 (KGS) Weight |
|---------------|-----|----------------|----------------|----|----|----------------|----------------|--------------|----------------------------|------|-----------------|
| SCK1- 1 - 30L | 30 | - | - | 19 | - | 11 | 11 | M4-0.5P-5L | - | 1 | 0.07 |
| SCK2- 2 - 30L | 30 | - | - | 24 | - | 14 | 14 | M5-0.5P-6.5L | - | 1 | 0.10 |
| SCK3- 3 - 30L | 30 | - | - | 31 | - | 18 | 18 | M6-0.75P-8L | - | 1 | 0.15 |
| SCK4- 4 - 45L | 45 | - | - | 39 | - | 22 | 22 | M8-0.75P-11L | - | 1 | 0.40 |
| SCK5- 5 - 60L | 60 | - | - | 50 | - | 28 | 28 | M10-1.0P-14L | - | 1 | 0.80 |
| SCK6- 6 - 60L | 60 | - | - | 64 | - | 36 | 36 | M12-1.0P-18L | - | 1 | 1.40 |
| SCK7R-7R-100 | 100 | 50 | 52 | 88 | 58 | 58 | - | M12-1.0P-18L | CBH100DP、CBH150DP、CBH200DP | 2 | 4.85 |

選配表 Option

| 拉頭 Pull Stud | 搪頭 Boring Head |
|--------------|----------------|
| | |
| B645-B647 | B753 |

• 長度單位 Unit of Length (mm)



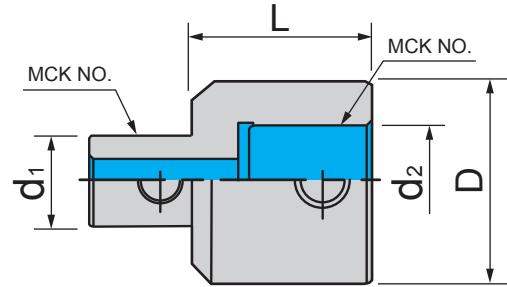
特點 Feature

- CBH100DP~CBH200DP /CK7R 接合柄專用

-For CBH100DP~CBH200DP /CK7R

| 規格 Spec. | L | l ₁ | D | d | d ₁ | d ₂ | 側邊螺絲 Screw | 重量 (KGS) Weight |
|-----------------|-----|----------------|----|----|----------------|----------------|---------------|--------------------|
| SCK2 - 1 - 36L | 36 | 30 | 24 | 14 | 11 | 19 | M4-0.5P-5L | 0.10 |
| SCK3 - 1 - 41L | 41 | 30 | 31 | 18 | 11 | 19 | M4-0.5P-5L | 0.15 |
| SCK3 - 2 - 37L | 37 | 25 | 31 | 18 | 14 | 24 | M5-0.5P-6.5L | 0.15 |
| SCK4 - 1 - 58L | 58 | 40 | 39 | 22 | 11 | 19 | M4-0.5P-5L | 0.30 |
| SCK4 - 2 - 50L | 50 | 36 | 39 | 22 | 14 | 24 | M5-0.5P-6.5L | 0.30 |
| SCK4 - 3 - 50L | 50 | 37 | 39 | 22 | 18 | 31 | M6-0.75P-8L | 0.35 |
| SCK5 - 1 - 60L | 60 | 40 | 50 | 28 | 11 | 19 | M4-0.5P-5L | 0.48 |
| SCK5 - 2 - 54L | 54 | 35 | 50 | 28 | 14 | 24 | M5-0.5P-6.5L | 0.45 |
| SCK5 - 2 - 74L | 74 | 55 | 50 | 28 | 14 | 24 | M5-0.5P-6.5L | 0.60 |
| SCK5 - 3 - 47L | 47 | 29 | 50 | 28 | 18 | 31 | M6-0.75P-8L | 0.52 |
| SCK5 - 3 - 72L | 72 | 54 | 50 | 28 | 18 | 31 | M6-0.75P-8L | 0.68 |
| SCK5 - 4 - 42L | 42 | 25 | 50 | 28 | 22 | 39 | M8-0.75P-11L | 0.50 |
| SCK5 - 4 - 67L | 67 | 50 | 50 | 28 | 22 | 39 | M8-0.75P-11L | 0.80 |
| SCK6 - 1 - 70L | 70 | 40 | 64 | 36 | 11 | 19 | M4-0.5P-5L | 0.95 |
| SCK6 - 2 - 63L | 63 | 45 | 64 | 36 | 14 | 24 | M5-0.5P-6.5L | 0.78 |
| SCK6 - 2 - 93L | 93 | 75 | 64 | 36 | 14 | 24 | M5-0.5P-6.5L | 0.80 |
| SCK6 - 3 - 56L | 56 | 39 | 64 | 36 | 18 | 31 | M6-0.75P-8L | 0.82 |
| SCK6 - 3 - 96L | 96 | 79 | 64 | 36 | 18 | 31 | M6-0.75P-8L | 1.07 |
| SCK6 - 4 - 51L | 51 | 35 | 64 | 36 | 22 | 39 | M8-0.75P-11L | 0.92 |
| SCK6 - 4 - 101L | 101 | 85 | 64 | 36 | 22 | 39 | M8-0.75P-11L | 1.30 |
| SCK6 - 5 - 41L | 41 | 25 | 64 | 36 | 28 | 52 | M10-1.0P-14L | 0.94 |
| SCK6 - 5 - 91L | 91 | 75 | 64 | 36 | 28 | 52 | M10-1.0P-14L | 1.60 |
| BST-SCK6 | 100 | 60 | 95 | 50 | 36 | 64 | - | 3.32 |
| SCK7R-6-145 | 145 | 128 | 88 | 58 | 36 | 64 | M12-1.0P-18L | - |

碳化鎢刀桿專用 SCK 延長桿 (小接大) CARBIDE ARBOR FOR SCK EXTENSION



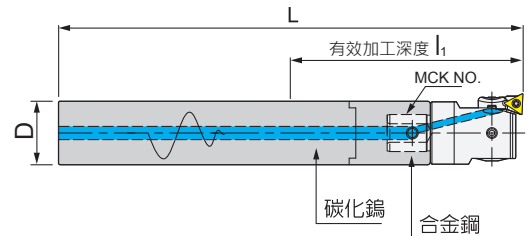
| 規格 Spec. | L | D | d ₁ | d ₂ | 適用搪孔頭 Applicable Boring Head | 重量 (KGS) Weight |
|------------|----|----|----------------|----------------|------------------------------|-----------------|
| SCK3-4-35L | 35 | 39 | 18 | 22 | CBH40 | 0.28 |
| SCK4-5-45L | 45 | 50 | 22 | 28 | CBH52 | 0.58 |

- SCK3-4-35L 與 SCK4-5-45L 為小變大異徑延長桿
- SCK3-4-35L and SCK4-5-45L are the extension bar, diameter ranged from small to big.

SCK 直柄碳化鎢製搪孔頭刀桿 SCK STRAIGHT CARBIDE BORING SHANK



範例 Example



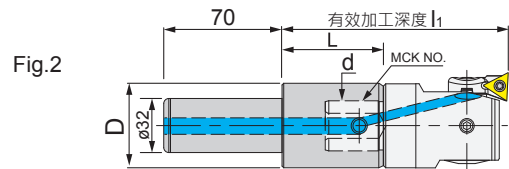
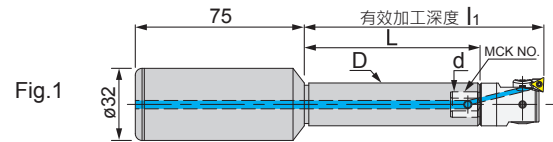
| 規格 Spec. | L | l ₁ | D | 適用搪孔頭 Applicable Boring Head | 重量 (KGS) Weight |
|------------------|-----|----------------|----|------------------------------|-----------------|
| SC19 - SCK1-130L | 180 | 130 | 19 | CBH20 | 0.54 |
| SC19 - SCK1-150L | 225 | 150 | 19 | CBH20 | 0.72 |
| SC19 - SCK1-200L | 275 | 200 | 19 | CBH20 | 0.92 |
| SC24 - SCK2-140L | 200 | 140 | 24 | SMB25 | 0.88 |
| SC24 - SCK2-180L | 260 | 180 | 24 | SMB25 | 1.24 |
| SC24 - SCK2-240L | 320 | 240 | 24 | SMB25 | 1.60 |
| SC32 - SCK3-160L | 240 | 160 | 32 | SMB32 | 2.00 |
| SC32 - SCK3-240L | 320 | 240 | 32 | SMB32 | 2.88 |
| SC32 - SCK3-310L | 390 | 310 | 32 | SMB32 | 3.62 |

BORING

• 長度單位 Unit of Length (mm)



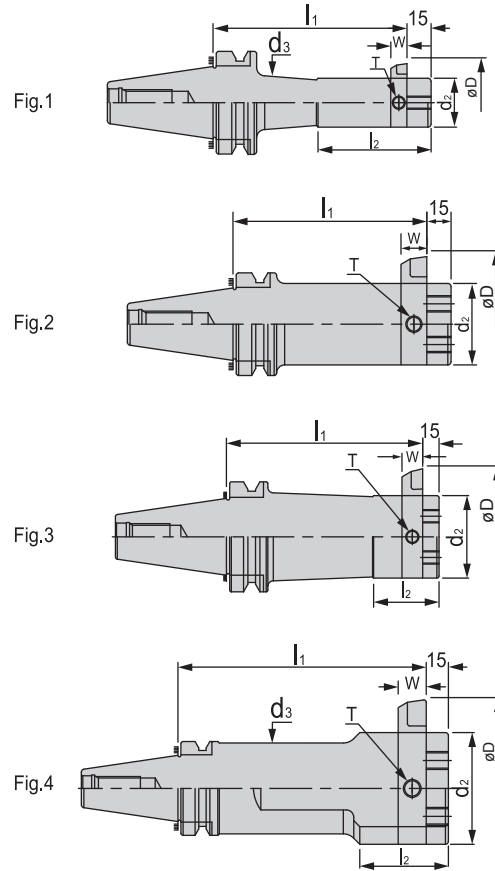
範例 Example



| 規格 Spec. | L | 有效加工深度 l_1 | D | d | 適用搪孔頭 Applicable Boring Head | Fig. | 重量 (KGS) Weight |
|-----------------|-----|-----------------|----|----|--|------|-----------------------|
| C32 - SCK1-75L | 75 | 110 | 19 | 11 | CBH20 | 1 | 0.62 |
| C32 - SCK2-70L | 70 | 110 | 24 | 14 | RBH25/RBH25LA/CBH25 | 1 | 0.67 |
| C32 - SCK2-120L | 120 | 160 | 24 | 14 | RBH25/RBH25LA/CBH25 | 1 | 0.82 |
| C32 - SCK3-70L | 70 | 110 | 31 | 18 | RBH32/RBH32LA/CBH32 | 1 | 0.77 |
| C32 - SCK3-120L | 120 | 160 | 31 | 18 | RBH32/RBH32LA/CBH32 | 1 | 1.03 |
| C32 - SCK4-60L | 60 | 110 | 39 | 22 | RBH40/RBH40LA/CBH40/CBI4 | 2 | 0.93 |
| C32 - SCK4-110L | 110 | 160 | 39 | 22 | RBH40/RBH40LA/CBH40/CBI4 | 2 | 1.37 |
| C32 - SCK5-60L | 60 | 120 | 50 | 28 | RBH52/RBH52LA/CBH52/CBI5 | 2 | 1.22 |
| C32 - SCK5-120L | 120 | 180 | 50 | 28 | RBH52/RBH52LA/CBH52/CBI5 | 2 | 2.00 |
| C32 - SCK6-60L | 60 | 130 | 64 | 36 | RBH68,90/RBH68LA,90LA /CBH68,100,150/CBI6 | 2 | 1.55 |
| C32 - SCK6-120L | 120 | 190 | 64 | 36 | RBH68,90/RBH68LA,90LA /CBH68,100,150/CBI6 | 2 | 2.93 |



搪孔範圍
ø25~260
Boring Range



特點 Feature

- 適用於孔徑凹凸不平・毛胚粗糙之加工物
- 可選用四角形焊刃刀具或捨棄式刀具
- 搪通孔專用

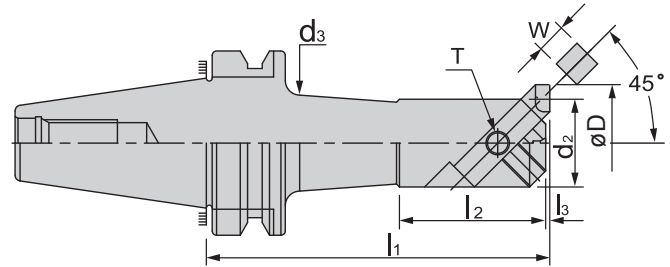
- Suitable for the uneven hole & raw parts with rough surface.
- Selects the foursquare carbide tipped cutter or supplemental cutting tool.
- Exclusively for boring through hole.

| 規格 Spec. | øD 搪孔範圍 Boring Range | | l ₁ | l ₂ | d ₂ | d ₃ | W | T | Fig. | 重量 (KGS) Weight |
|-------------------|----------------------|------|----------------|----------------|----------------|----------------|----|-----|------|-----------------------|
| | Min. | Max. | | | | | | | | |
| BT40 x BSB25-120 | 25 | 52 | 120 | 50 | 20 | 22 | 8 | M6 | 1 | 1.97 |
| BT40 x BSB38-150 | 38 | 70 | 150 | 70 | 30 | 33 | 10 | M8 | 1 | 1.70 |
| BT40 x BSB50-165 | 50 | 90 | 165 | 85 | 40 | 44 | 13 | M10 | 1 | 2.50 |
| BT40 x BSB62-180 | 62 | 115 | 180 | 95 | 50 | 56 | 16 | M10 | 3 | 3.66 |
| BT40 x BSB90-180 | 90 | 150 | 180 | 60 | 75 | 61 | 19 | M12 | 4 | 5.90 |
| BT50 x BSB25-135 | 25 | 52 | 135 | 50 | 20 | 22 | 8 | M6 | 1 | 4.30 |
| BT50 x BSB38-180 | 38 | 70 | 180 | 50 | 30 | 33 | 10 | M8 | 1 | 4.94 |
| BT50 x BSB50-180 | 50 | 90 | 180 | 85 | 40 | 44 | 13 | M10 | 1 | 5.50 |
| BT50 x BSB50-240 | 50 | 90 | 240 | 85 | 40 | 44 | 13 | M10 | 1 | 6.35 |
| BT50 x BSB62-195 | 62 | 115 | 195 | - | 50 | - | 16 | M10 | 2 | 6.40 |
| BT50 x BSB62-270 | 62 | 115 | 270 | - | 50 | - | 16 | M10 | 2 | 7.82 |
| BT50 x BSB72-195 | 72 | 135 | 195 | 95 | 60 | 66 | 19 | M12 | 3 | 7.84 |
| BT50 x BSB72-285 | 72 | 135 | 285 | 95 | 60 | 66 | 19 | M12 | 3 | 9.97 |
| BT50 x BSB90-210 | 90 | 150 | 210 | 60 | 75 | 80 | 19 | M12 | 3 | 10.7 |
| BT50 x BSB90-300 | 90 | 150 | 300 | 60 | 75 | 80 | 19 | M12 | 3 | 12.8 |
| BT50 x BSB105-195 | 105 | 190 | 195 | - | 90 | - | 25 | M12 | 2 | 12.3 |
| BT50 x BSB105-285 | 105 | 190 | 285 | - | 90 | - | 25 | M12 | 2 | 16.9 |
| BT50 x BSB130-255 | 130 | 260 | 255 | 75 | 110 | 98 | 25 | M12 | 4 | 18.1 |

選配表 Option

| 搪刀 Boring Cutter | | |
|------------------|------|------|
| | | |
| B714 | B715 | B715 |

• 長度單位 Unit of Length (mm)



搪孔範圍
ø25~190
Boring Range

特點 Feature

- 可選用四角形熔焊刀具或捨棄式刀具
- 搪盲孔專用

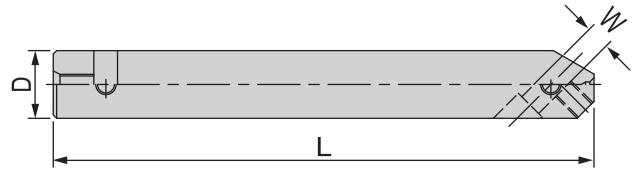
- Selects the foursquare carbide tipped cutter or supplemental cutting tool.
- Exclusively for boring blind hole.

| 規格 Spec. | øD 搪孔範圍 Boring Range | | l ₁ | l ₂ | l ₃ | d ₂ | d ₃ | W | T | 重量 (KGS) Weight |
|-------------------|----------------------|------|----------------|----------------|----------------|----------------|----------------|----|-----|-----------------------|
| | Min. | Max. | | | | | | | | |
| BT40 x BSA25-120 | 25 | 38 | 120 | 35 | 1 | 20 | 22 | 8 | M6 | 1.20 |
| BT40 x BSA30-150 | 30 | 42 | 150 | 40 | 1.6 | 24 | 26 | 8 | M6 | 1.40 |
| BT40 x BSA38-165 | 38 | 52 | 165 | 50 | 2.6 | 30 | 33 | 10 | M8 | 1.70 |
| BT40 x BSA42-165 | 42 | 56 | 165 | 50 | 2.6 | 34 | 37 | 10 | M8 | 2.00 |
| BT40 x BSA50-165 | 50 | 65 | 165 | 65 | 3 | 40 | 44 | 13 | M8 | 2.30 |
| BT40 x BSA62-180 | 62 | 90 | 180 | 80 | 2 | 50 | 56 | 16 | M10 | 3.40 |
| BT40 x BSA72-180 | 72 | 110 | 180 | 149 | 2.4 | 60 | - | 19 | M10 | 3.90 |
| BT40 x BSA90-180 | 90 | 125 | 180 | 60 | 4 | 75 | - | 19 | M10 | 5.20 |
| BT50 x BSA25-135 | 25 | 38 | 135 | 35 | 1 | 20 | 22 | 8 | M6 | 4.20 |
| BT50 x BSA30-165 | 30 | 42 | 165 | 40 | 1.6 | 24 | 26 | 8 | M6 | 4.40 |
| BT50 x BSA38-180 | 38 | 52 | 180 | 50 | 2.6 | 30 | 33 | 10 | M8 | 4.80 |
| BT50 x BSA42-210 | 42 | 56 | 210 | 50 | 2.6 | 34 | 37 | 10 | M8 | 5.00 |
| BT50 x BSA50-180 | 50 | 65 | 180 | 65 | 3 | 40 | 44 | 13 | M10 | 5.40 |
| BT50 x BSA50-240 | 50 | 65 | 240 | 65 | 3 | 40 | 44 | 13 | M10 | 5.70 |
| BT50 x BSA62-195 | 62 | 90 | 195 | 80 | 2 | 50 | 56 | 16 | M10 | 6.20 |
| BT50 x BSA62-270 | 62 | 90 | 270 | 80 | 2 | 50 | 56 | 16 | M10 | 7.60 |
| BT50 x BSA72-195 | 72 | 110 | 195 | 95 | 2.4 | 60 | 66 | 19 | M10 | 7.00 |
| BT50 x BSA72-285 | 72 | 110 | 285 | 95 | 2.4 | 60 | 66 | 19 | M10 | 9.30 |
| BT50 x BSA90-210 | 90 | 125 | 210 | 110 | 4 | 75 | 80 | 19 | M12 | 9.20 |
| BT50 x BSA90-300 | 90 | 125 | 300 | 110 | 4 | 75 | 80 | 19 | M12 | 12.3 |
| BT50 x BSA105-195 | 105 | 160 | 195 | 153 | 3 | 90 | - | 25 | M12 | 10.7 |
| BT50 x BSA105-285 | 105 | 160 | 285 | 130 | 3 | 90 | 94 | 25 | M12 | 15.0 |
| BT50 x BSA130-255 | 130 | 190 | 255 | 120 | 3 | 110 | - | 25 | M12 | 14.5 |

選配表 Option

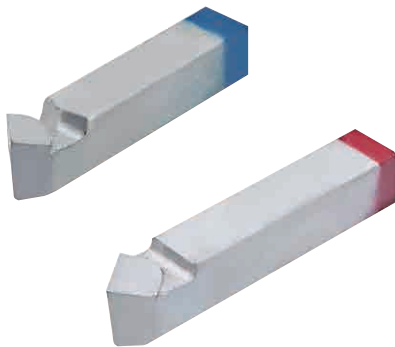
| 搪刀 Boring Cutter | |
|------------------|------|
| | |
| B714 | B715 |

• 長度單位 Unit of Length (mm)



搪孔範圍
ø18~75
Boring Range

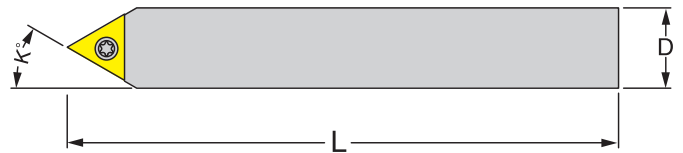
| 規格 Spec. | 搪孔角度 Boring Angle | øD 搪孔範圍 Boring Range | | L | D | 側邊固定螺絲 Screw | W | 重量 (KGS) Weight |
|-----------|-------------------|----------------------|------|-----|----|--------------|----|-----------------|
| | | Min. | Max. | | | | | |
| C16-BS150 | 90° | 18 | 28 | 150 | 16 | M5x0.8P-5L | 6 | 0.24 |
| | 30° | | | | | | | |
| C18-BS180 | 90° | 20 | 32 | 180 | 18 | M6x1.0P-6L | 8 | 0.38 |
| | 30° | | | | | | | |
| C20-BS200 | 90° | 22 | 36 | 200 | 20 | M6x1.0P-6L | 8 | 0.50 |
| | 30° | | | | | | | |
| C25-BS250 | 90° | 28 | 45 | 250 | 25 | M8x1.25P-10L | 10 | 1.00 |
| | 30° | | | | | | | |
| C32-BS300 | 90° | 36 | 58 | 300 | 32 | M8x1.25P-10L | 10 | 1.88 |
| | 30° | | | | | | | |
| C42-BS300 | 90° | 48 | 75 | 300 | 42 | M10x1.5P-10L | 13 | 3.18 |
| | 30° | | | | | | | |



| 規格 Spec. | 規格 Spec. | 柄徑 Shank Diameter | 全長 Length | 角度 Angle | 重量 (KGS) Weight |
|----------|----------|-------------------|-----------|----------|-----------------|
| BS-306P | BS-306K | 6 | 30 | 30° | 0.01 |
| BS-308P | BS-308K | 8 | 40 | | 0.02 |
| BS-310P | BS-310K | 10 | 50 | | 0.04 |
| BS-313P | BS-313K | 13 | 65 | | 0.10 |
| BS-316P | BS-316K | 16 | 75 | | 0.22 |
| BS-406P | BS-406K | 6 | 30 | 45° | 0.01 |
| BS-408P | BS-408K | 8 | 40 | | 0.03 |
| BS-410P | BS-410K | 10 | 50 | | 0.04 |
| BS-413P | BS-413K | 13 | 65 | | 0.09 |
| BS-416P | BS-416K | 16 | 75 | | 0.22 |
| BS-906P | BS-906K | 6 | 30 | 90° | 0.01 |
| BS-908P | BS-908K | 8 | 40 | | 0.03 |
| BS-910P | BS-910K | 10 | 50 | | 0.05 |
| BS-913P | BS-913K | 13 | 65 | | 0.09 |
| BS-916P | BS-916K | 16 | 75 | | 0.18 |

- K 加工鑄鐵、鋁合金
- P 加工合金鋼
- 訂購前註明 K 或 P

- K Cast Iron, aluminium alloy
- P Alloy Steels
- Before the purchase please indicate K or P.



特點 Feature

- 適用於 BSA、BSB 粗搪刀桿
- SBS 適合精加工及中切削加工

- Applicable for BSA BSB rough boring cutter.
- SBS is suitable for fine processing and medium cutting processing.

| 規格 Spec. | L | D | K | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------|-----|----|-----|-----------|-----------------|-----------|------------------|-----------------|
| SBS-308 | 55 | 8 | 30° | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.04 |
| SBS-310 | 65 | 10 | 30° | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.06 |
| SBS-313 | 80 | 13 | 30° | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.11 |
| SBS-316 | 120 | 16 | 30° | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.24 |
| SBS-319 | 140 | 19 | 30° | TP.1603 | M4-10-5.0-43 | T15 | 3.0 | 0.40 |
| SBS-325 | 150 | 25 | 30° | TP.1603 | M4-10-5.0-43 | T15 | 3.0 | 0.74 |
| SBS-408 | 55 | 8 | 45° | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.04 |
| SBS-410 | 65 | 10 | 45° | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.06 |
| SBS-413 | 80 | 13 | 45° | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.11 |
| SBS-416 | 120 | 16 | 45° | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.26 |
| SBS-419 | 140 | 19 | 45° | TP.1603 | M4-10-5.0-43 | T15 | 3.0 | 0.41 |
| SBS-425 | 150 | 25 | 45° | TP.1603 | M4-10-5.0-43 | T15 | 3.0 | 0.74 |
| SBS-908 | 55 | 8 | 90° | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.04 |
| SBS-910 | 65 | 10 | 90° | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.06 |
| SBS-913 | 80 | 13 | 90° | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.11 |
| SBS-916 | 120 | 16 | 90° | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.25 |
| SBS-919 | 140 | 19 | 90° | TP.1603 | M4-10-5.0-43 | T15 | 3.0 | 0.41 |
| SBS-925 | 150 | 25 | 90° | TP.1603 | M4-10-5.0-43 | T15 | 3.0 | 0.75 |

選配表 Option

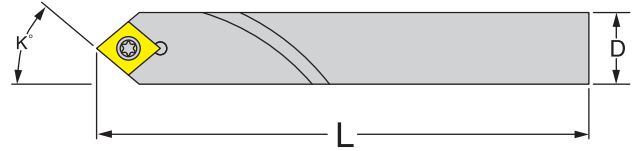


• 長度單位 Unit of Length (mm)

CBS 替換式搪孔刀柄

CBS INTERCHANGABLE BORING CUTTER

KOVIT



特點 Feature

- 適用於 BSA、BSB 粗搪刀桿
- CBS 適合重切削加工

- Applicable for BSA BSB rough boring cutter.
- CBS is suitable for heavy cutting processing.

| 規格 Spec. | D | L | K | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------|----|-----|-----|-----------|-----------------|-----------|------------------|-----------------|
| CBS-308 | 8 | 55 | 30° | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.04 |
| CBS-310 | 10 | 65 | 30° | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.06 |
| CBS-313 | 13 | 80 | 30° | CC..09T3 | M4-10-5.7-60 | T15 | 2.0 | 0.12 |
| CBS-316 | 16 | 120 | 30° | CC..09T3 | M4-10-5.7-60 | T15 | 2.0 | 0.27 |
| CBS-319 | 19 | 140 | 30° | CC..1204 | M5-11-7.5-60 | T20 | 3.0 | 0.41 |
| CBS-408 | 8 | 55 | 45° | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.04 |
| CBS-410 | 10 | 65 | 45° | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.06 |
| CBS-413 | 13 | 80 | 45° | CC..09T3 | M4-10-5.7-60 | T15 | 2.0 | 0.12 |
| CBS-416 | 16 | 120 | 45° | CC..09T3 | M4-10-5.7-60 | T15 | 2.0 | 0.26 |
| CBS-419 | 19 | 140 | 45° | CC..1204 | M5-11-7.5-60 | T20 | 3.0 | 0.40 |
| CBS-908 | 8 | 55 | 90° | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.04 |
| CBS-910 | 10 | 65 | 90° | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.06 |
| CBS-913 | 13 | 80 | 90° | CC..09T3 | M4-10-5.7-60 | T15 | 2.0 | 0.14 |
| CBS-916 | 16 | 120 | 90° | CC..09T3 | M4-10-5.7-60 | T15 | 2.0 | 0.27 |
| CBS-919 | 19 | 140 | 90° | CC..1204 | M5-11-7.5-60 | T20 | 3.0 | 0.42 |

CBS 替換式搪孔刀柄 (左撇)

CBS INTERCHANGABLE BORING CUTTER (LEFT-HANDED)

KOVIT



特點 Feature

- 適用於 BSA、BSB 粗搪刀桿
- CBS 適合重切削加工

- Applicable for BSA BSB rough boring cutter.
- CBS is suitable for heavy cutting processing.

| 規格 Spec. | D | L | K | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------|----|-----|-----|-----------|-----------------|-----------|------------------|-----------------|
| CBS-908L | 8 | 55 | 90° | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.04 |
| CBS-910L | 10 | 65 | 90° | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.06 |
| CBS-913L | 13 | 80 | 90° | CC..09T3 | M4-10-5.7-60 | T15 | 2.0 | 0.12 |
| CBS-916L | 16 | 120 | 90° | CC..09T3 | M4-10-5.7-60 | T15 | 2.0 | 0.27 |
| CBS-919L | 19 | 140 | 90° | CC..1204 | M5-11-7.5-60 | T20 | 3.0 | 0.42 |

※ 背搪專用 For reverse boring

選配表 Option



• 長度單位 Unit of Length (mm)

Feature

RBH-LA特點

微調單位：每一刻度移動量1mm，直徑為
Ø2mm，搪孔範圍Ø25~Ø2000mm。

連接壓板使刀頭與刀座一體，增加切削剛性。

CC及TC刀片座，供客戶選擇，獨特高低段差
設計，平刃或高低刃均可採用。

排屑槽設計，增加深孔排屑功能。

Micro-adjustment unit: 1mm of each, diame-
ter Ø2mm, boring range Ø25~Ø2000mm.

Clamp plate solidifies cartridges and head,
upgrading cutting rigidity.

CC and TC insert seats are suitable for custom-
ers to choose, Patented step boring design;
suitable for both level boring and step boring.

Completed with chip pocket,
improving chip flow of deep boring.



A-A / B-B刀片座

A-A / B-B Insert seat



A-B / B-A刀片座

A-B / B-A Insert seat



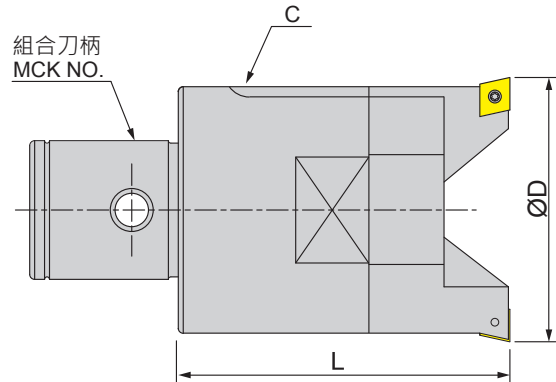
A-A及B-B為平刃設計，刀片座為等高狀態，
可用於一般搪孔加工A-B及B-A為高低刃設計

，刀座獨特高低段差設計，可實現不等徑、不
等高的搪孔加工。

A-A and B-B flat blade design, the insert
seat contours state, can be used for
general Boring processing.

A-B and B-A for the high and low edge
design, knife blocks unique level of
segment Poor design can achieve unequal
diameter, height Boring processing.

Boring Head



搪孔範圍
 ø25~500
 Boring Range

特點 Feature

- 適用單刃搪孔、雙刃搪孔及高低階搪孔。搪孔範圍 Ø25~500mm
- 新型刀刀滑座設計，刀背補強。加工時，滑座承受的兩個作用力相互抵消，產生最大剛性和切削力。適合各形態的搪孔作業
- 可依照不同加工需求，輕易調整搪刀，作少量多樣的加工。加工深度可配合延長桿延伸至所需長度
- 最適合在各型切削中心機或搪床上配合使用，並可搭配各種廠牌相同規格的指定刀片，節省刀具研磨時間並大幅增加搪孔效率
- 專利高低段差設計，平刃或高低刃均可採用
- 直徑 Ø200 以上大孔徑搪刀，使用直接組件，結構簡單剛性強，調整範圍為直徑 100mm

- The head is suitable for single bit boring, twin-bit boring and step boring with working diameter from Ø25mm to Ø500mm on diameter.
- New blade slide design with reinforced back. The pressure imposed on both cartridges counteracts producing highest rigidity and cutting efficiency, most suitable for a variety of borings.
- Boring head can be easily adjusted to different boring needs for machining on demand. Boring depth can be extended by tool connection.
- Most suitable for boring on various machine centers or boring mills. Universal design accepts inserts of any brands, which will reduce tool grinding and greatly improve boring performance.
- Patented step boring design; suitable for both level boring and step boring.

| 規格 Spec. | øD 搪孔範圍 Boring Range | | C | L | 組合刀柄 Mck No. | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------|----------------------|------|----|-----|--------------|-----------|-----------------|-----------|------------------|-----------------|
| | Min. | Max. | | | | | | | | |
| RBH25 - 33 - C | 25 | 33 | 24 | 45 | CK2/MCK2 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.23 |
| RBH32 - 42 - T | 32 | 42 | 31 | 55 | CK3/MCK3 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.23 |
| RBH32 - 42 - C | 32 | 42 | 31 | 55 | CK3/MCK3 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.23 |
| RBH40 - 55 - T | 40 | 55 | 39 | 65 | CK4/MCK4 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 0.66 |
| RBH40 - 55 - C | 40 | 55 | 39 | 65 | CK4/MCK4 | CC..09T3 | M4-10-5.7-60 | T15 | 3.0 | 0.66 |
| RBH52 - 70 - T | 52 | 70 | 50 | 75 | CK5/MCK5 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 0.40 |
| RBH52 - 70 - C | 52 | 70 | 50 | 75 | CK5/MCK5 | CC..09T3 | M4-10-5.7-60 | T15 | 3.0 | 0.40 |
| RBH68 - 92 - T | 68 | 92 | 64 | 85 | CK6/MCK6 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 2.00 |
| RBH68 - 92 - C | 68 | 92 | 64 | 85 | CK6/MCK6 | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 2.10 |
| RBH90 - 122 - T | 90 | 122 | 80 | 100 | CK6/MCK6 | TC..2204 | M5-11-7.0-55 | T20 | 5.0 | 3.03 |
| RBH90 - 122 - C | 90 | 122 | 80 | 100 | CK6/MCK6 | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 3.18 |
| RBH200 - 300 - T | 200 | 300 | - | 95 | BST | TC..2204 | M5-11-7.0-55 | T20 | 5.0 | 7.00 |
| RBH200 - 300 - C | 200 | 300 | - | 95 | BST | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 7.00 |
| RBH300 - 400 - T | 300 | 400 | - | 95 | BST | TC..2204 | M5-11-7.0-55 | T20 | 5.0 | 10.70 |
| RBH300 - 400 - C | 300 | 400 | - | 95 | BST | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 10.70 |
| RBH400 - 500 - T | 400 | 500 | - | 95 | BST | TC..2204 | M5-11-7.0-55 | T20 | 5.0 | 14.00 |
| RBH400 - 500 - C | 400 | 500 | - | 95 | BST | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 14.00 |

選配表 Option

| 刀桿 Shank | |
|-----------|------|
| | |
| B698-B700 | B706 |

• 長度單位 Unit of Length (mm)

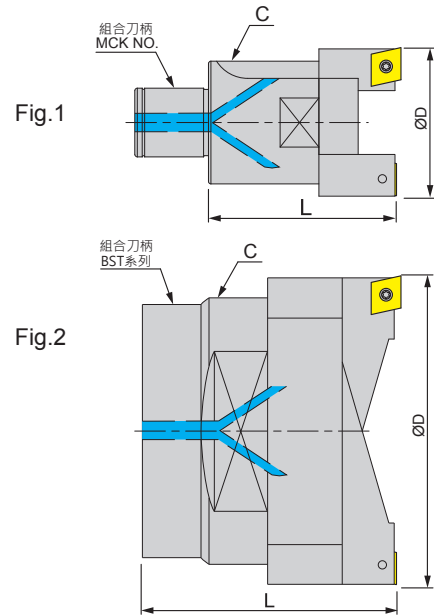


搪孔範圍
 ø25~204
 Boring Range

特點 Feature

新型第二代 LA 搪刀頭增加如下功能：

- 刀片支持座厚度增加，剛性增強
- RBH-25LA~RBH-160LA 為內藏式水孔，直接冷卻，增加刀片的壽命
- 排屑槽設計，增加深孔排屑功能
- 連接壓板使刀頭與刀座一體，增加切削剛性
- 獨特高低段差設計，平刃或高低刃均可採用
- 調整範圍增大，增加穩定性



Following is the junior LA boring head new functions:

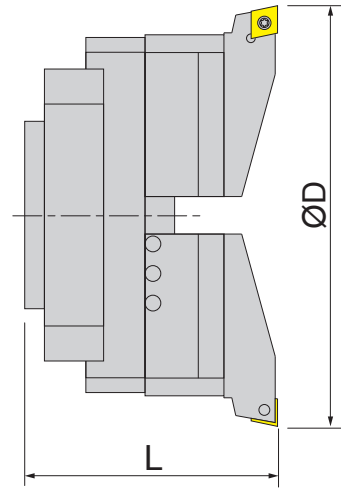
- Thickened cartridge with higher rigidity.
- RBH-25LA~RBH-160LA Coolant nozzle easily cools the insert elongating its working life.
- Flute design, improving chip discharge of deep boring.
- Clamp plate solidifies cartridges and head, upgrading cutting rigidity.
- Patented step boring design; suitable for both level boring and step boring.
- The extended of adjustment range, increased stability.

| 規格 Spec. | øD 搪孔範圍 Boring Range | | C | L | 組合刀柄 Mck No. | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig | 重量 (KGS) Weight |
|---------------------|-------------------------|------|-----|-----|-----------------|--------------|-----------------|--------------|------------------------|-----|-----------------------|
| | Min. | Max. | | | | | | | | | |
| RBH - 25-35LA - C | 25 | 35 | 24 | 50 | CK2/MCK2 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.18 |
| RBH - 32-45LA - C | 32 | 45 | 31 | 60 | CK3/MCK3 | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.34 |
| RBH - 32-45LA - T | 32 | 45 | 31 | 60 | CK3/MCK3 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.35 |
| RBH - 40-55LA - C | 40 | 55 | 39 | 74 | CK4/MCK4 | CC..09T3 | M4-10-5.7-60 | T15 | 3.0 | 1 | 0.62 |
| RBH - 40-55LA - T | 40 | 55 | 39 | 74 | CK4/MCK4 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 1 | 0.61 |
| RBH - 52-75LA - C | 52 | 75 | 50 | 80 | CK5/MCK5 | CC..09T3 | M4-10-5.7-60 | T15 | 3.0 | 1 | 1.13 |
| RBH - 52-75LA - T | 52 | 75 | 50 | 80 | CK5/MCK5 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 1 | 1.11 |
| RBH - 68-100LA - C | 68 | 100 | 66 | 90 | CK6/MCK6 | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 1 | 2.20 |
| RBH - 68-100LA - T | 68 | 100 | 66 | 90 | CK6/MCK6 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 1 | 2.21 |
| RBH - 90-130LA - C | 90 | 130 | 88 | 100 | CK6/MCK6 | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 1 | 3.10 |
| RBH - 90-130LA - T | 90 | 130 | 88 | 100 | CK6/MCK6 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 1 | 2.99 |
| RBH - 120-164LA - C | 120 | 164 | 100 | 95 | BST | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 2 | 3.80 |
| RBH - 120-164LA - T | 120 | 164 | 100 | 95 | BST | TC..2204 | M5-11-7.0-55 | T20 | 5.0 | 2 | 3.80 |
| RBH - 160-204LA - C | 160 | 204 | 130 | 95 | BST | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 2 | 4.80 |
| RBH - 160-204LA - T | 160 | 204 | 130 | 95 | BST | TC..2204 | M5-11-7.0-55 | T20 | 5.0 | 2 | 4.80 |

選配表 Option

| 刀桿 Shank | |
|-----------|------|
| | |
| B698-B700 | B706 |

• 長度單位 Unit of Length (mm)



搪孔範圍
 Ø200~2000
 Boring Range

特點 Feature

- RBH600LA 以下加工調整範圍為直徑 110mm · RBH600LA~RBH900LA 調整範圍為 300mm · RBH1200LA 以上調整範圍為 400mm

- Processing adjustment range RBH600LA within 110mm diameter
 RBH600LA of ~RBH900LA adjustment range is 300mm,
 above RBH1200LA adjustment range of 400mm.

| 規格 Spec. | ØD 搪孔範圍 Boring Range | | L | 組合型式 Combination type | | | | | | |
|-----------|----------------------|------|-----|-----------------------|--------------|----------------------|---------------------|------------------------|---|-----------------|
| | Min. | Max. | | 組合刀柄 Mck No. | 連接盤 Flange | 橫向滑板 Extension Slide | 滑塊 Horizontal Slide | 刀片座墊片 Insert Seat Shim | 刀片座 Insert Seat | 重量 (KGS) Weight |
| RBH200LA | 200 | 310 | 130 | BST | 合金鋼 BR200 | 合金鋼 | RS200 | RS201 | RB200C12 RB200T16 RB200T22 RB200S12 (四選一) | 9.52 |
| RBH300LA | 300 | 410 | | | | | | | | 11.52 |
| RBH400LA | 400 | 510 | | | | | | | | 13.52 |
| RBH500LA | 500 | 610 | | | | | | | | 15.52 |
| RBH600LA | 600 | 900 | 150 | FMA 47.625 | 鋁合金 | 合金鋼 | RS200 | RS201 | RB200C12 RB200T16 RB200T22 RB200S12 (四選一) | 23.02 |
| RBH900LA | 900 | 1200 | | | | | | | | 31.72 |
| RBH1200LA | 1200 | 1600 | 180 | FMA 47.625 | 鋁合金 | 合金鋼 | RS200 | RS201 | RB200C12 RB200T16 RB200T22 RB200S12 (四選一) | 46.62 |
| RBH1600LA | 1600 | 2000 | | | | | | | | 51.82 |

配件表 Accessories

| 刀片座 Insert Seat | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-----------------|-----------|--------------|-----------|------------------|-----------------|
| RB200C12 | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 0.68 |
| RB200T16 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 0.68 |
| RB200T22 | TC..2204 | M5-11-7.0-55 | T20 | 5.0 | 0.68 |
| RB200S12 | SC..1204 | M5 | T20 | 5.0 | 0.68 |

選配表 Option

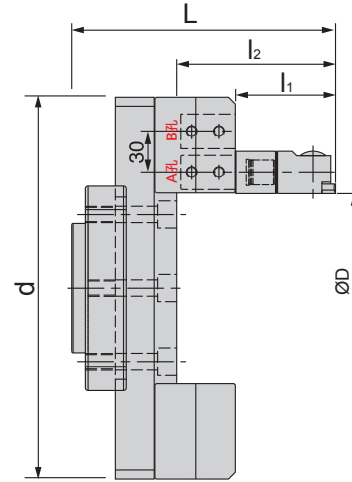


• 長度單位 Unit of Length (mm)

| 規格 Spec. | Mck No. | 工件材質 | 刀片 | | 切削速度 (m/min) | 切削量 (mm/Ø) | | 進給量 (mm/rev) | |
|--|------------------|--------|---------|--------|--------------|------------|------|--------------|------|
| | | | 刀片 R 角 | 刀片材質 | | 推薦值 | Max. | 推薦值 | Max. |
| RBH-25-35LA - C | MCK2 CK2 | 碳鋼、合金鋼 | 0.4/0.8 | RM4035 | 140 | 2.5 | 3.5 | 0.25 | 0.35 |
| | | 不鏽鋼 | | OM4010 | 140 | 2.0 | 3.0 | 0.25 | 0.35 |
| | | 鑄鐵 | | RM315 | 120 | 2.5 | 3.5 | 0.30 | 0.35 |
| | | 鋁合金 | | RM5005 | 160 | 3.5 | 4.5 | 0.35 | 0.40 |
| RBH-32-45LA - C RBH-32-45LA - T | MCK3 CK3 | 碳鋼、合金鋼 | 0.4/0.8 | RM4035 | 140 | 4.5 | 5.5 | 0.25 | 0.45 |
| | | 不鏽鋼 | | OM4010 | 140 | 4.0 | 5.5 | 0.35 | 0.45 |
| | | 鑄鐵 | | RM315 | 120 | 4.5 | 5.5 | 0.40 | 0.45 |
| | | 鋁合金 | | RM5005 | 160 | 6.0 | 8.0 | 0.45 | 0.50 |
| RBH-40-55LA - C RBH-40-55LA - T | MCK4 CK4 | 碳鋼、合金鋼 | 0.4/0.8 | RM4035 | 140 | 6.0 | 8.0 | 0.30 | 0.50 |
| | | 不鏽鋼 | | OM4010 | 140 | 6.0 | 8.0 | 0.40 | 0.45 |
| | | 鑄鐵 | | RM315 | 120 | 6.0 | 8.0 | 0.45 | 0.50 |
| | | 鋁合金 | | RM5005 | 160 | 8.0 | 10.0 | 0.45 | 0.55 |
| RBH-52-75LA - C RBH-52-75LA - T RBH-68-100LA - C RBH-68-100LA - T RBH-90-130LA - C RBH-90-130LA - T | MCK5 CK5 | 碳鋼、合金鋼 | 0.4/0.8 | RM4035 | 140 | 6.0 | 8.0 | 0.30 | 0.50 |
| | | 不鏽鋼 | | OM4010 | 140 | 6.0 | 8.0 | 0.40 | 0.45 |
| | | 鑄鐵 | | RM315 | 120 | 6.0 | 8.0 | 0.45 | 0.50 |
| | | 鋁合金 | | RM5005 | 160 | 8.0 | 10.0 | 0.45 | 0.55 |
| | MCK6 CK6 | 碳鋼、合金鋼 | 0.4/0.8 | RM4035 | 140 | 6.0 | 8.0 | 0.35 | 0.50 |
| | | 不鏽鋼 | | OM4010 | 140 | 6.0 | 8.0 | 0.40 | 0.45 |
| | | 鑄鐵 | | RM315 | 120 | 6.0 | 8.0 | 0.45 | 0.50 |
| | | 鋁合金 | | RM5005 | 160 | 8.0 | 10.0 | 0.45 | 0.55 |
| RBH-120-164LA - C RBH-120-164LA - T RBH-160-204LA - C RBH-160-204LA - T RBH200LA RBH300LA RBH400LA RBH500LA RBH600LA RBH900LA RBH1200LA RBH1600LA | BST FMA47.625 | 碳鋼、合金鋼 | 0.4/0.8 | RM4035 | 140 | 6.0 | 8.0 | 0.35 | 0.50 |
| | | 不鏽鋼 | | OM4010 | 140 | 6.0 | 8.0 | 0.40 | 0.45 |
| | | 鑄鐵 | | RM315 | 120 | 6.0 | 8.0 | 0.45 | 0.50 |
| | | 鋁合金 | | RM5005 | 160 | 8.0 | 10.0 | 0.45 | 0.55 |

- 本表是切削數據的設定基準，請視當時的機床、工件材質、鐵屑的排出情況做適當的調整。

- The cutting data table is set benchmarks, please make the appropriate adjustments depend on the situation which machine tools, workpiece materials, iron chips discharge.



搪孔範圍
ø10~850
Boring Range

| 規格 Spec. | ØD 搪孔範圍 Boring Range | | | | L | l ₁ | l ₂ | d | 重量 (KGS) Weight |
|----------|----------------------|------|------------|------|---------|----------------|----------------|-----|-----------------|
| | A 孔 A Hole | | B 孔 B Hole | | | | | | |
| | Min. | Max. | Min. | Max. | | | | | |
| CBR200 | 10 | 90 | 70 | 150 | 190/220 | 70/100 | 115/145 | 180 | 9.70 |
| CBR300 | 10 | 190 | 70 | 250 | 190/220 | 70/100 | 115/145 | 280 | 11.7 |
| CBR400 | 10 | 290 | 70 | 350 | 190/220 | 70/100 | 115/145 | 380 | 13.7 |
| CBR500 | 10 | 390 | 70 | 450 | 190/220 | 70/100 | 115/145 | 480 | 15.7 |
| CBR600 | 200 | 490 | 400 | 850 | 210/240 | 70/100 | 115/145 | 580 | 19.6 |
| CBR900 | 200 | 790 | 500 | 1150 | 210/240 | 70/100 | 115/145 | 880 | 30.8 |

| 規格 Spec. | 組合型式 Combination type | | | | | | | 組合搪頭 Applicable Boring Head |
|----------|-----------------------|--|----------------------|--------------------|-----------------|---|-------|-----------------------------|
| | 組合刀柄 Mck No. | 連接盤 Flange | 橫向滑板 Extension Slide | 平衡滑塊 Balance Slide | 外圍滑塊 Clamp Base | 外圍用接桿 Adapter For External Boring | | |
| CBR200 | BST | 合金鋼 BR200 (2.7KG) | A-RST200 (1.1KG) | RBN200 (1.6KG) | HBR200 (1.3KG) | C25-SCK3-30 (0.3KG) C25-SCK3-60 (0.5KG) (二選一) | CBH32 | |
| CBR300 | BST | | A-RST300 (1.9KG) | | | | | |
| CBR400 | BST | | A-RST400 (2.7KG) | | | | | |
| CBR500 | BST | | A-RST500 (3.5KG) | | | | | |
| CBR600 | FMA 47.625 | 鋁合金 BR600 (8.8KG) BR900 (13.5KG) | A-RST300X2 只 (3.8KG) | | | | | |
| CBR900 | FMA 47.625 | | A-RST400X2 只 (5.4KG) | | | | | |

※ 在主軸逆轉下使用 Spindle reversal using.

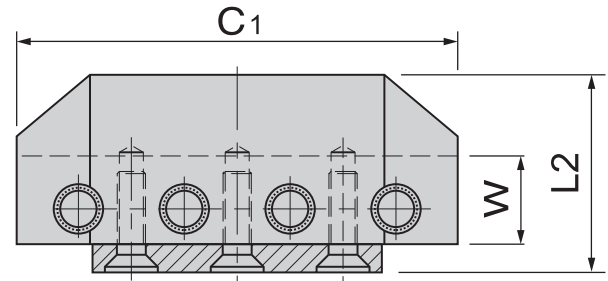
選配表 Option

| |
|----------|
| 刀桿 Shank |
| |
| B706 |

• 長度單位 Unit of Length (mm)

WBST 四方柄徑搪孔刀架

WBST SQUARE BORING TOOL REST



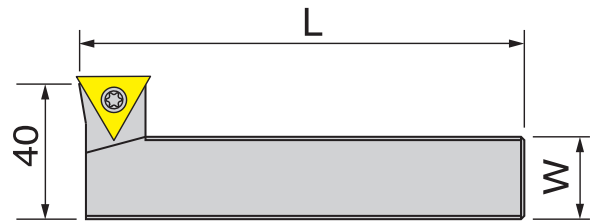
搪孔範圍
ø150~500
Boring Range

| 規格 Spec. | øD 搪孔範圍 Boring Range | | 組合刀柄 No. | L ₂ | C ₁ | W | 重量 (KGS) Weight |
|-------------|----------------------|------|-------------|----------------|----------------|----|-----------------------|
| | Min. | Max. | | | | | |
| A-WBST150 | 150 | 250 | BST | 55 | 125 | 25 | 1.03 |
| S-WBST150 | 150 | 250 | BST | 55 | 125 | 25 | 2.50 |
| A-WBST200 | 200 | 300 | BST | 55 | 175 | 25 | 1.50 |
| S-WBST200 | 200 | 300 | BST | 55 | 175 | 25 | 3.60 |
| A-WBST300 | 300 | 400 | BST | 55 | 275 | 25 | 2.34 |
| S-WBST300 | 300 | 400 | BST | 55 | 275 | 25 | 6.00 |
| A-WBST400 | 400 | 500 | BST | 55 | 375 | 25 | 3.17 |
| S-WBST400 | 400 | 500 | BST | 55 | 375 | 25 | 8.30 |

※ 規格 A- 材質為鋁合金 · 規格 S- 為合金鋼 Spec. A-made of aluminum alloy, Spec. S- steels alloy.

WBST 刀盤專用四方柄搪刀

WBST SQUARE SHANK BORING TOOL HOLDER



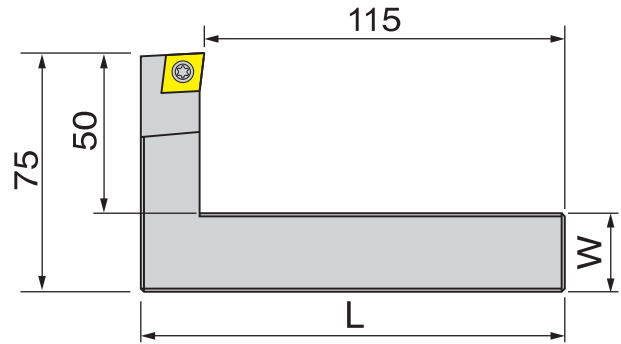
| 規格 Spec. | L | W | 使用刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|-----|----|----------------|--------------|--------------|------------------------|-----------------------|
| BSB25-T16-135 | 135 | 25 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 0.67 |
| BSB25-T22-135 | 135 | 25 | TC..2204 | M5-11-7.0-55 | T20 | 5.0 | 0.67 |
| BSB25-C12-135 | 135 | 25 | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 0.67 |
| BSB25-S12-135 | 135 | 25 | SC..1204 | M5-11-7.0-55 | T20 | 5.0 | 0.67 |

• 長度單位 Unit of Length (mm)

WBST 刀盤專用四方柄外圓搪刀

WBST SQUARE SHANK EXTERNAL BORING TOOL HOLDER

LEMMA

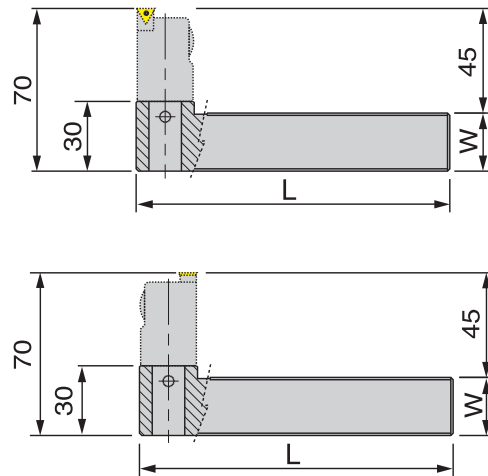


| 規格 Spec. | L | W | 有效加工深度 valid depth | 使用刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-------------------|-----|----|--------------------|-------------|--------------|-----------|------------------|-----------------|
| EBSB25-T16-135-50 | 135 | 25 | 40 | TC..16T3 | M4-10-5.0-43 | T15 | 3.0 | 0.8 |
| EBSB25-C12-135-50 | 135 | 25 | 40 | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | 0.8 |

WBST 刀盤專用四方柄內外圓精搪孔刀架

WBST SQUARE INTERNAL & EXTERNAL BORING TOOL HOLDER

LEMMA



| 規格 Spec. | L | W | 加工深度 | 搪頭 Boring Head | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|----------------|-----|----|------|----------------|-----------|---------------|-----------|------------------|-----------------|
| BSB25-SCK2-135 | 135 | 25 | 36 | CBH25 | TP.0802 | M2-5.0-3.1-60 | T6 | 0.6 | 0.63 |

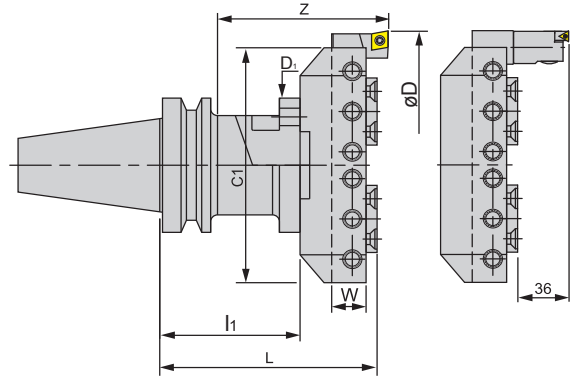
※ 此規格不含搪刀頭 Boring head is not included.

• 長度單位 Unit of Length (mm)

WBST 四方柄大徑搪刀 + BST 刀桿

WBST SQUARE LARGE BORING CUTTER+BST SHANK

LEMMA



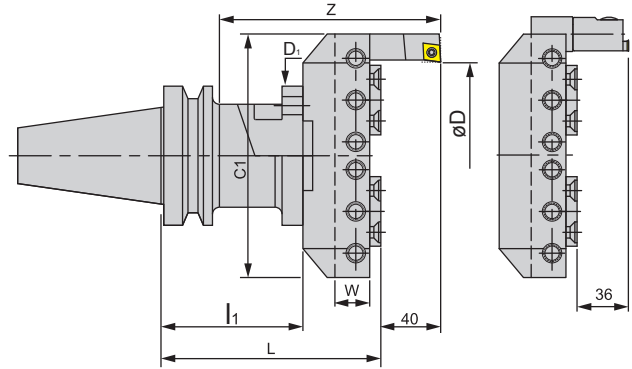
| | | |
|----------------------------------|--------------------------|--------------------------|
| 搪孔範圍 ø150~510 Boring Range | 精度 0.01mm Accuracy | 最高轉速 8000 Max. rpm |
|----------------------------------|--------------------------|--------------------------|

WBST 四方柄搪孔刀架 +BST 刀桿 +BSB25 四方柄搪刀

| 規格 Spec. | øD 搪孔範圍 Boring Range | | Z | 組合內容 Tool Connection | | 組合刀柄 No. | L | l ₁ | D ₁ | 重量 (KGS) Weight |
|------------------|----------------------|------|-----|----------------------|---------------------------|-------------|-----|----------------|----------------|-----------------------|
| | Min. | Max. | | BST 刀桿 BST Shank | WBST 刀桿 WBST Tool Rest | | | | | |
| BT40-WBST150-125 | 150 | 260 | 90 | BT40-BST-70 | WBST150 | BST | 150 | 70 | 95 | 5.70 |
| BT40-WBST200-125 | 200 | 310 | 90 | BT40-BST-70 | WBST200 | BST | 150 | 70 | 95 | 6.80 |
| BT50-WBST150-155 | 150 | 260 | 110 | BT50-BST-100 | WBST150 | BST | 155 | 100 | 95 | 7.60 |
| BT50-WBST150-205 | 150 | 260 | 160 | BT50-BST-150 | WBST150 | BST | 205 | 150 | 95 | 9.30 |
| BT50-WBST150-255 | 150 | 260 | 210 | BT50-BST-200 | WBST150 | BST | 255 | 200 | 95 | 12.1 |
| BT50-WBST150-305 | 150 | 260 | 260 | BT50-BST-250 | WBST150 | BST | 305 | 250 | 95 | 14.0 |
| BT50-WBST150-355 | 150 | 260 | 310 | BT50-BST-300 | WBST150 | BST | 355 | 300 | 95 | 16.0 |
| BT50-WBST150-405 | 150 | 260 | 360 | BT50-BST-350 | WBST150 | BST | 405 | 350 | 95 | 18.6 |
| BT50-WBST150-455 | 150 | 260 | 410 | BT50-BST-400 | WBST150 | BST | 455 | 400 | 95 | 21.8 |
| BT50-WBST200-155 | 200 | 310 | 110 | BT50-BST-100 | WBST200 | BST | 155 | 100 | 95 | 8.70 |
| BT50-WBST200-205 | 200 | 310 | 160 | BT50-BST-150 | WBST200 | BST | 205 | 150 | 95 | 10.4 |
| BT50-WBST200-255 | 200 | 310 | 210 | BT50-BST-200 | WBST200 | BST | 255 | 200 | 95 | 13.2 |
| BT50-WBST200-305 | 200 | 310 | 260 | BT50-BST-250 | WBST200 | BST | 305 | 250 | 95 | 15.1 |
| BT50-WBST200-355 | 200 | 310 | 310 | BT50-BST-300 | WBST200 | BST | 355 | 300 | 95 | 17.1 |
| BT50-WBST200-405 | 200 | 310 | 360 | BT50-BST-350 | WBST200 | BST | 405 | 350 | 95 | 19.7 |
| BT50-WBST200-455 | 200 | 310 | 410 | BT50-BST-400 | WBST200 | BST | 455 | 400 | 95 | 22.9 |
| BT50-WBST300-155 | 300 | 410 | 110 | BT50-BST-100 | WBST300 | BST | 155 | 100 | 95 | 11.1 |
| BT50-WBST300-205 | 300 | 410 | 160 | BT50-BST-150 | WBST300 | BST | 205 | 150 | 95 | 12.8 |
| BT50-WBST300-255 | 300 | 410 | 210 | BT50-BST-200 | WBST300 | BST | 255 | 200 | 95 | 15.6 |
| BT50-WBST300-305 | 300 | 410 | 260 | BT50-BST-250 | WBST300 | BST | 305 | 250 | 95 | 17.5 |
| BT50-WBST300-355 | 300 | 410 | 310 | BT50-BST-300 | WBST300 | BST | 355 | 300 | 95 | 19.5 |
| BT50-WBST300-405 | 300 | 410 | 360 | BT50-BST-350 | WBST300 | BST | 405 | 350 | 95 | 22.1 |
| BT50-WBST300-455 | 300 | 410 | 410 | BT50-BST-400 | WBST300 | BST | 455 | 400 | 95 | 25.3 |
| BT50-WBST400-155 | 400 | 510 | 110 | BT50-BST-100 | WBST400 | BST | 155 | 100 | 95 | 13.4 |
| BT50-WBST400-205 | 400 | 510 | 160 | BT50-BST-150 | WBST400 | BST | 205 | 150 | 95 | 15.1 |
| BT50-WBST400-255 | 400 | 510 | 210 | BT50-BST-200 | WBST400 | BST | 255 | 200 | 95 | 17.9 |
| BT50-WBST400-305 | 400 | 510 | 260 | BT50-BST-250 | WBST400 | BST | 305 | 250 | 95 | 19.8 |
| BT50-WBST400-355 | 400 | 510 | 310 | BT50-BST-300 | WBST400 | BST | 355 | 300 | 95 | 21.8 |
| BT50-WBST400-405 | 400 | 510 | 360 | BT50-BST-350 | WBST400 | BST | 405 | 350 | 95 | 24.4 |
| BT50-WBST400-455 | 400 | 510 | 410 | BT50-BST-400 | WBST400 | BST | 455 | 400 | 95 | 27.6 |

※ 此規格不含 BSB25 四方柄搪刀 This specification is not included BSB25 Quartet Shank Boring Tool.

• 長度單位 Unit of Length (mm)



搪孔範圍
ø80~450
Boring Range

WBST 四方柄搪孔刀架 + BST 刀桿 + BSB25 四方柄外圓搪刀

| 規格 Spec. | øD 搪孔範圍 Boring Range | | Z | 加工深度 depth | 組合內容 Tool Connection | | 組合刀柄 No. | L | l ₁ | D ₁ | 重量 (KGS) Weight |
|------------------|----------------------|------|-----|---------------|----------------------|---------------------------|-------------|-----|----------------|----------------|-----------------------|
| | Min. | Max. | | | BST 刀桿 BST Shank | WBST 刀桿 WBST Tool Rest | | | | | |
| BT40-WBST150-125 | 80 | 200 | 90 | 36 | BT40-BST-70 | WBST150 | BST | 150 | 70 | 95 | 5.7 |
| BT40-WBST200-125 | 130 | 250 | 90 | 36 | BT40-BST-70 | WBST200 | BST | 150 | 70 | 95 | 6.8 |
| BT50-WBST150-155 | 80 | 200 | 110 | 36 | BT50-BST-100 | WBST150 | BST | 155 | 100 | 95 | 7.6 |
| BT50-WBST150-205 | 80 | 200 | 160 | 36 | BT50-BST-150 | WBST150 | BST | 205 | 150 | 95 | 9.3 |
| BT50-WBST150-255 | 80 | 200 | 210 | 36 | BT50-BST-200 | WBST150 | BST | 255 | 200 | 95 | 12.1 |
| BT50-WBST150-305 | 80 | 200 | 260 | 36 | BT50-BST-250 | WBST150 | BST | 305 | 250 | 95 | 14 |
| BT50-WBST150-355 | 80 | 200 | 310 | 36 | BT50-BST-300 | WBST150 | BST | 355 | 300 | 95 | 16 |
| BT50-WBST150-405 | 80 | 200 | 360 | 36 | BT50-BST-350 | WBST150 | BST | 405 | 350 | 95 | 18.6 |
| BT50-WBST150-455 | 80 | 200 | 410 | 36 | BT50-BST-400 | WBST150 | BST | 455 | 400 | 95 | 21.8 |
| BT50-WBST200-155 | 130 | 250 | 110 | 36 | BT50-BST-100 | WBST200 | BST | 155 | 100 | 95 | 8.7 |
| BT50-WBST200-205 | 130 | 250 | 160 | 36 | BT50-BST-150 | WBST200 | BST | 205 | 150 | 95 | 10.4 |
| BT50-WBST200-255 | 130 | 250 | 210 | 36 | BT50-BST-200 | WBST200 | BST | 255 | 200 | 95 | 13.2 |
| BT50-WBST200-305 | 130 | 250 | 260 | 36 | BT50-BST-250 | WBST200 | BST | 305 | 250 | 95 | 15.1 |
| BT50-WBST200-355 | 130 | 250 | 310 | 36 | BT50-BST-300 | WBST200 | BST | 355 | 300 | 95 | 17.1 |
| BT50-WBST200-405 | 130 | 250 | 360 | 36 | BT50-BST-350 | WBST200 | BST | 405 | 350 | 95 | 19.7 |
| BT50-WBST200-455 | 130 | 250 | 410 | 36 | BT50-BST-400 | WBST200 | BST | 455 | 400 | 95 | 22.9 |
| BT50-WBST300-155 | 230 | 350 | 110 | 36 | BT50-BST-100 | WBST300 | BST | 155 | 100 | 95 | 11.1 |
| BT50-WBST300-205 | 230 | 350 | 160 | 36 | BT50-BST-150 | WBST300 | BST | 205 | 150 | 95 | 12.8 |
| BT50-WBST300-255 | 230 | 350 | 210 | 36 | BT50-BST-200 | WBST300 | BST | 255 | 200 | 95 | 15.6 |
| BT50-WBST300-305 | 230 | 350 | 260 | 36 | BT50-BST-250 | WBST300 | BST | 305 | 250 | 95 | 17.5 |
| BT50-WBST300-355 | 230 | 350 | 310 | 36 | BT50-BST-300 | WBST300 | BST | 355 | 300 | 95 | 19.5 |
| BT50-WBST300-405 | 230 | 350 | 360 | 36 | BT50-BST-350 | WBST300 | BST | 405 | 350 | 95 | 22.1 |
| BT50-WBST300-455 | 230 | 350 | 410 | 36 | BT50-BST-400 | WBST300 | BST | 455 | 400 | 95 | 25.3 |
| BT50-WBST400-155 | 330 | 450 | 110 | 36 | BT50-BST-100 | WBST400 | BST | 155 | 100 | 95 | 13.4 |
| BT50-WBST400-205 | 330 | 450 | 160 | 36 | BT50-BST-150 | WBST400 | BST | 205 | 150 | 95 | 15.1 |
| BT50-WBST400-255 | 330 | 450 | 210 | 36 | BT50-BST-200 | WBST400 | BST | 255 | 200 | 95 | 17.9 |
| BT50-WBST400-305 | 330 | 450 | 260 | 36 | BT50-BST-250 | WBST400 | BST | 305 | 250 | 95 | 19.8 |
| BT50-WBST400-355 | 330 | 450 | 310 | 36 | BT50-BST-300 | WBST400 | BST | 355 | 300 | 95 | 21.8 |
| BT50-WBST400-405 | 330 | 450 | 360 | 36 | BT50-BST-350 | WBST400 | BST | 405 | 350 | 95 | 24.4 |
| BT50-WBST400-455 | 330 | 450 | 410 | 36 | BT50-BST-400 | WBST400 | BST | 455 | 400 | 95 | 27.6 |

※ 此規格不含 BSB25 四方柄搪刀 Not included BSB25 Square Shank External Boring Tool holder.

※ 拆掉護蓋，有效深可達到 45，最小搪孔範圍可達到 Ø10. Applicable Boring Depth up to 45mm with Minimum Boring Range down to Ø10mm after taking off the Shield.

• 長度單位 Unit of Length (mm)

Feature

CBH特點

微調單位：圓周50等分，每格調整尺寸為直徑0.01mm，另有副尺可作更精細之調整，搪孔範圍 $\varnothing 20 \sim \varnothing 202$ 均可搭配選用。

搭配T型刀片離隙角為 3° 。

刀座心軸採用方型結構，雙支撐面固定，所以切削穩定且剛性大。

Micro-adjustments with fifty 0.01mm in diameter. Includes a sub-dial for finer adjustments ranging from $\varnothing 20\text{mm} \sim \varnothing 202\text{mm}$.

T-type insert has a clearance angle of 3° .

The insert seat spindle use square structure with two face support, proving high stability and rigidity on diameter.

CBH大孔徑

橫向滑板，搪孔範圍 $\varnothing 200 \sim \varnothing 2000$ 均可搭配選用，材質採用鋁合金製，可減少重量。

平衡滑塊，減少搪孔時的不平衡量。

刀座心軸採用方型結構，雙支撐面固定，所以切削穩定且剛性大。

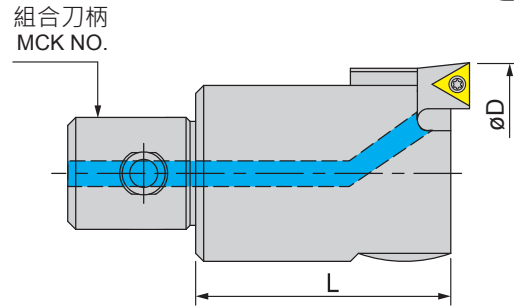
微調滑塊，每格調整尺寸為直徑0.01mm。

Horizontal boring ranges from $\varnothing 200\text{mm} \sim \varnothing 2000\text{mm}$ in diameter and is made with light-weight aluminum alloy.

Sliding counter-weight for long term precision. 0.01mm diameter Micro-adjustable sliding block.



Boring Head



| | | |
|--|---------------------------------|---------------------------------|
| 搪孔範圍 ø20~202 Boring Range | 精度 0.01mm Accuracy | 最高轉速 6000 Max. rpm |
|--|---------------------------------|---------------------------------|

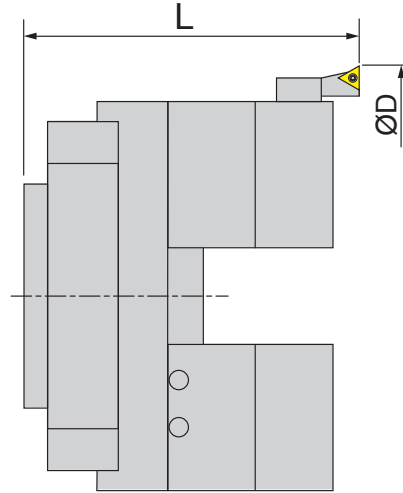
| 規格 Spec. | øD 搪孔範圍 Boring Range | | 組合刀柄 Mck No. | L | 使用刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------|----------------------|------|--------------|----|-------------|-----------------|-----------|------------------|-----------------|
| | Min. | Max. | | | | | | | |
| CBH20-TB06 | 20 | 26 | MCK1 | 35 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.19 |
| CBH25-TB06 | 25 | 33 | MCK2 | 40 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.20 |
| CBH32-TB06 | 32 | 42 | MCK3 | 40 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.28 |
| CBH40-TB06 | 40 | 55 | MCK4 | 50 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.59 |
| CBH20-TP08 | 20 | 26 | MCK1 | 35 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 0.19 |
| CBH25-TP08 | 25 | 33 | MCK2 | 40 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 0.26 |
| CBH32-TP08 | 32 | 42 | MCK3 | 40 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 0.37 |
| CBH40-TP08 | 40 | 55 | MCK4 | 50 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 0.52 |
| CBH20-TC09 | 20 | 26 | MCK1 | 35 | TC..0902 | M2-5.0-3.1-60 | T6 | 0.6 | 0.19 |
| CBH25-TC09 | 25 | 33 | MCK2 | 40 | TC..0902 | M2-5.0-3.1-60 | T6 | 0.6 | 0.20 |
| CBH32-TC09 | 32 | 42 | MCK3 | 40 | TC..0902 | M2-5.0-3.1-60 | T6 | 0.6 | 0.37 |
| CBH40-TC09 | 40 | 55 | MCK4 | 50 | TC..0902 | M2-5.0-3.1-60 | T6 | 0.6 | 0.50 |
| CBH20-TP09 | 20 | 26 | MCK1 | 35 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.10 |
| CBH25-TP09 | 25 | 33 | MCK2 | 40 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.20 |
| CBH32-TP09 | 32 | 42 | MCK3 | 40 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.30 |
| CBH40-TP09 | 40 | 55 | MCK4 | 50 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.50 |
| CBH52-TP08 | 52 | 75 | MCK5 | 60 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 1.02 |
| CBH68-TP08 | 68 | 102 | MCK6 | 72 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 2.02 |
| CBH100-TP08 | 100 | 152 | MCK6 | 72 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 2.90 |
| CBH100B-TP08 | 100 | 152 | BST | 95 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 3.70 |
| CBH150-TP08 | 150 | 202 | MCK6 | 72 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 4.43 |
| CBH150B-TP08 | 150 | 202 | BST | 95 | TP..0802 | M2-5.0-3.1-60 | T6 | 0.6 | 4.90 |
| CBH52-TP09 | 52 | 75 | MCK5 | 60 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1.00 |
| CBH68-TP09 | 68 | 102 | MCK6 | 72 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2.00 |
| CBH100-TP09 | 100 | 152 | MCK6 | 72 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 3.16 |
| CBH100B-TP09 | 100 | 152 | BST | 95 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 3.70 |
| CBH150-TP09 | 150 | 202 | MCK6 | 72 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 4.20 |
| CBH150B-TP09 | 150 | 202 | BST | 95 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 4.90 |
| CBH52-TC11 | 52 | 75 | MCK5 | 60 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1.00 |
| CBH68-TC11 | 68 | 102 | MCK6 | 72 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2.00 |
| CBH100-TC11 | 100 | 152 | MCK6 | 72 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2.90 |
| CBH100B-TC11 | 100 | 152 | BST | 95 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 3.70 |
| CBH150-TC11 | 150 | 202 | MCK6 | 72 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 4.20 |
| CBH150B-TC11 | 150 | 202 | BST | 95 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 4.90 |

選配表 Option

| 刀桿 Shank | |
|-----------|------|
| | |
| B698-B700 | B706 |

• 長度單位 Unit of Length (mm)

BORING



搪孔範圍
 ø200~2000
 Boring Range

精度
 0.01mm
 Accuracy

特點 Feature

- CBH600 以下加工調整範圍為直徑 110mm · CBH600~CBH900 調整範圍為 300mm · CBH1200 以上調整範圍為 400mm

- Processing adjustment range below CBH600 is 110mm diameter, CBH600 of ~ RBH900 adjustment range is 300mm, above CBH1200 adjustment range is 400mm.

| 規格 Spec. | øD 搪孔範圍 Boring Range | | L | 組合型式 Combination type | | | | | | | 重量 (KGS) Weight | |
|----------|----------------------|------|-----|-----------------------|------------|----------------------|--------------------|-----------------------------------|-----------|-------|---|------|
| | Min. | Max. | | 組合刀柄 Mck No. | 連接盤 Flange | 橫向滑板 Extension Slide | 平衡滑塊 Balance Slide | 微調滑塊 Micro-Adjusted Sliding Block | 刀片 Insert | | | |
| CBH200 | 200 | 310 | 130 | BST | 合金鋼 | BR200 | 鋁合金 | A-RST200 | RBN200 | CB200 | TP.0802 TP.0902 TC..1102 (三選一) | 7.40 |
| CBH300 | 300 | 410 | 130 | BST | | BR200 | | A-RST300 | RBN200 | CB200 | | 8.20 |
| CBH400 | 400 | 510 | 130 | BST | | BR200 | | A-RST400 | RBN200 | CB200 | | 9.00 |
| CBH500 | 500 | 610 | 130 | BST | BR200 | A-RST500 | RBN200 | CB200 | 9.80 | | | |
| CBH600 | 600 | 900 | 150 | FMA47.625 | 鋁合金 | BR600 | A-RST300x2 只 | RBN200 | CB200 | 16.20 | | |
| CBH900 | 900 | 1200 | 150 | FMA47.625 | | BR900 | A-RST400x2 只 | RBN200 | CB200 | 21.40 | | |
| CBH1200 | 1200 | 1600 | 180 | FMA47.625 | | BR1200 | A-RST500x2 只 | RBN200 | CB200 | 35.00 | | |
| CBH1600 | 1600 | 2000 | 180 | FMA47.625 | | BR1600 | A-RST500x2 只 | RBN200 | CB200 | 40.20 | | |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-----------------|-----------|------------------|
| TP.0802 | M2-5.0-3.1-60 | T6 | 0.6 |
| TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 |

選配表 Option



• 長度單位 Unit of Length (mm)

Feature

MBH特點

微調單位：每刻度移動量為0.01mm，另有副尺可做更精確之調整，精密導程螺絲與螺帽均經硬化處理，堅固耐用。

搭配T型刀片離隙角為3°，C型刀片離隙角為0°。刀片座可承靠於本體上，能穩定搪孔尺寸與增加加工面光滑度。

內藏式水孔，易於排屑與冷卻。

Micro-adjustments with fifty 0.01mm in diameter. Includes a sub-dial for finer adjustments. High precision lead screw and nut are heat hardened for high durability.

T-type inserts with clearance angle of 3° or 0°. Interchangeable insert seats are able to stabilize and improve surface quality.

Built-in coolant nozzle improves chip removal rate and workpiece quality.



A型刀座

A-Type Insert seat



B型刀座

B-Type Insert seat

MBH40~MBH500皆附A、B型兩款刀座、可自行更換增加搪孔範圍、節省客戶另外購買刀座之成本。

MBH40-MBH500 offers exchangeable A and B insert-holders for exchange on demand to obtain the optimum boring range and cost.

Boring Head



MBH 微調精搪孔頭

MBH FINISH BORING HEAD



搪孔範圍
 ø16~200
 Boring Range

最高轉速
 8000
 Max. rpm

特點 Feature

- MBH 精搪刀使用於精切削搪孔，搪孔範圍 Ø16~Ø200mm 均可搭配選用
- 調整刻度每格調整尺寸為直徑 0.01mm
- 精密導程螺絲與螺帽均經硬化處理，堅固耐用
- 內藏式水孔，易於排屑與冷卻
- 刀片座為兩面固定無振動產生，可增加刀片壽命與加工面光滑度

- MBH Finish Boring Head is suitable for fine boring with working range from Ø16 to Ø200mm diameter.
- Every division for adjustment is 0.01mm diameter.
- High precision lead screw and nut have been heat treated and hardened, with high durability.
- Built-in coolant nozzle is easy for chip removal and cooling.
- Insert holder is with two-face support, free of vibration, which will also extend the working life of insert and ensure smoothness of working surface.

| 規格 Spec. | øD 搪孔範圍 Boring Range | | 組合刀柄 Mck No. | L | l ₁ | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|----------|----------------------|------|--------------|------|----------------|-----------|-----------------|-----------|------------------|------|-----------------|
| | Min. | Max. | | | | | | | | | |
| MBH16A | 16 | 20 | MCK2 | 55 | 50 | WC..02 | M2.0-5.0-2.7-60 | T6 | 0.6 | 1 | 0.09 |
| MBH16B | 16 | 20 | MCK2 | 80 | 75 | WC..02 | M2.0-5.0-2.7-60 | T6 | 0.6 | 1 | 0.12 |
| MBH20 | 20 | 26 | MCK1 | 35 | | WC..02 | M2.0-5.0-2.7-60 | T6 | 0.6 | 2 | 0.07 |
| MBH25 | 25 | 32 | MCK2 | 40 | | WC..02 | M2.0-5.0-2.7-60 | T6 | 0.6 | 2 | 0.12 |
| MBH32 | 32 | 42 | MCK3 | 40 | | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.23 |
| | 32 | 42 | MCK3 | 40 | | TC..0902 | M2-5.0-3.1-60 | T6 | 0.6 | 2 | 0.23 |
| MBH32C | 32 | 42 | MCK3 | 40 | | CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.23 |
| MBH40 | A | 40 | 55 | MCK4 | 50 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 2 | 0.43 |
| | B | 55 | 70 | MCK4 | 50 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | | |
| MBH52 | A | 52 | 70 | MCK5 | 60 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 2 | 0.9 |
| | B | 67 | 85 | MCK5 | 60 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | | |
| MBH68 | A | 68 | 88 | MCK6 | 75 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 2 | 1.86 |
| | B | 85 | 105 | MCK6 | 75 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | | |
| MBH100 | A | 100 | 140 | BST | 105 | CC..0602 | M4-10-5.7-60 | T15 | 3.0 | 2 | 1.86 |
| | B | 120 | 160 | BST | 105 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | | |
| MBH140 | A | 140 | 180 | BST | 105 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 4.08 |
| | B | 160 | 200 | BST | 105 | CC..1204 | M5-11-7.0-55 | T20 | 5.0 | | |

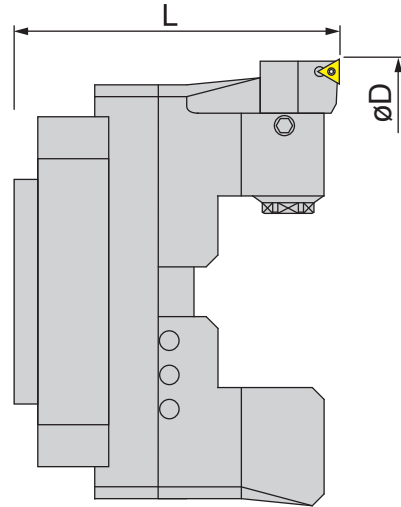
※MBH40、MBH52、MBH68、MBH100、MBH140、MBH200、MBH300、MBH400、MBH500 各有 A、B 兩款刀片座，由使用者自行替換，以達到最大搪孔範圍

※Each of MBH40、MBH52、MBH68、MBH100、MBH140、MBH200、MBH300、MBH400、MBH500 is with both A and B insert-holders for exchange on demand to obtain the maximum boring range.

選配表 Option

| 刀桿 Shank | |
|-----------|------|
| | |
| B698-B700 | B706 |

• 長度單位 Unit of Length (mm)



| | | |
|---------------------------------|--------------------------|--------------------------|
| 搪孔範圍 Ø16~200 Boring Range | 精度 0.01mm Accuracy | 最高轉速 8000 Max. rpm |
|---------------------------------|--------------------------|--------------------------|

特點 Feature

- MBH 精搪刀使用於精切削搪孔，搪孔範圍 Ø200~Ø1250mm 均可搭配選用
- 調整刻度每格調整尺寸為直徑 0.01mm
- 精密導程螺絲與螺帽均經硬化處理，堅固耐用
- 刀片座為兩面固定無振動產生，可增加刀片壽命與加工面光滑度

- MBH Finish Boring Head is suitable for fine boring with working range from Ø200 to Ø1250mm diameter.
- Every division for adjustment is 0.01mm diameter.
- High precision lead screw and nut have been heat treated and hardened, with high durability.
- Insert holder is with two-face support, free of vibration, which will also extend the working life of insert and ensure smoothness of working surface.

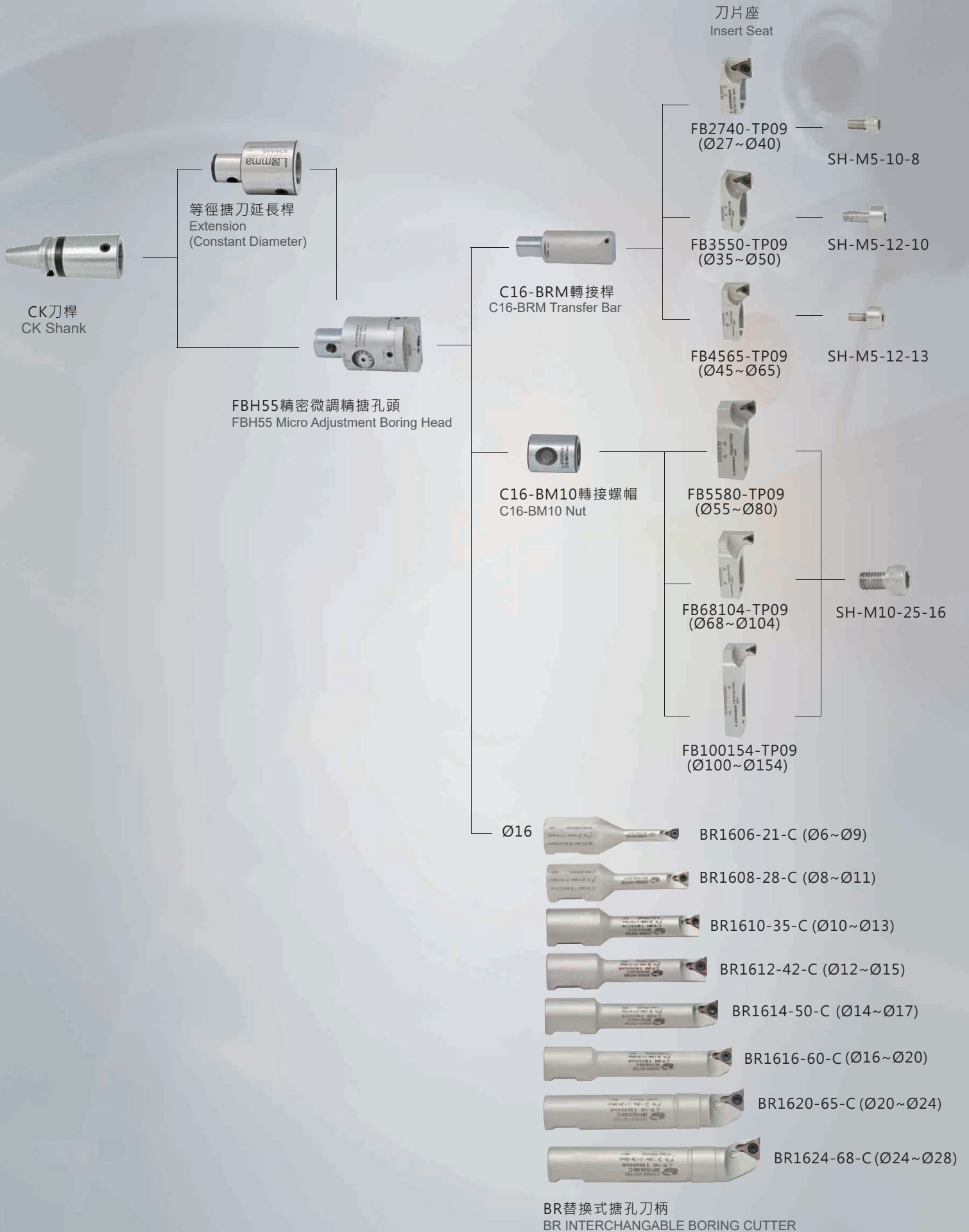
| 規格 Spec. | ØD 搪孔範圍 Boring Range | | 組合刀柄 Mck No. | L | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight | | | | | | | | | | | | | | | | |
|----------|----------------------|------|--------------|-----------|----------------------------------|--|-----------------|-------------------|----------------------------------|--|-----------------|-------------------|----------------------------------|--|-----------------|-------------------|----------------------------------|--|-----------------|-------------------|----------------------------------|--|-----------------|-------------------|------|
| | Min. | Max. | | | | | | | | | | | | | | | | | | | | | | | |
| MBH200 | A | 200 | 260 | BST | TC..1102 TP..1103 CC..1204 | M2.5-6.0-3.5-60 M3-8.0-4.0-43 M5-11-7.5-60 | T8 T9 T20 | 1.2 1.4 5.0 | 7.5 | | | | | | | | | | | | | | | | |
| | B | 250 | 310 | BST | | | | | 8.3 | | | | | | | | | | | | | | | | |
| MBH300 | A | 300 | 360 | BST | | | | | TC..1102 TP..1103 CC..1204 | M2.5-6.0-3.5-60 M3-8.0-4.0-43 M5-11-7.5-60 | T8 T9 T20 | 1.2 1.4 5.0 | 9.1 | | | | | | | | | | | | |
| | B | 350 | 410 | BST | | | | | | | | | 9.9 | | | | | | | | | | | | |
| MBH400 | A | 400 | 460 | BST | | | | | | | | | TC..1102 TP..1103 CC..1204 | M2.5-6.0-3.5-60 M3-8.0-4.0-43 M5-11-7.5-60 | T8 T9 T20 | 1.2 1.4 5.0 | 16.3 | | | | | | | | |
| | B | 450 | 510 | BST | | | | | | | | | | | | | 22.6 | | | | | | | | |
| MBH500 | A | 500 | 560 | BST | | | | | | | | | | | | | TC..1102 TP..1103 CC..1204 | M2.5-6.0-3.5-60 M3-8.0-4.0-43 M5-11-7.5-60 | T8 T9 T20 | 1.2 1.4 5.0 | 16.3 | | | | |
| | B | 550 | 610 | BST | | | | | | | | | | | | | | | | | 22.6 | | | | |
| MBH600 | A | 600 | 900 | FMA47.625 | | | | | | | | | | | | | | | | | TC..1102 TP..1103 CC..1204 | M2.5-6.0-3.5-60 M3-8.0-4.0-43 M5-11-7.5-60 | T8 T9 T20 | 1.2 1.4 5.0 | 16.3 |
| MBH900 | A | 900 | 1250 | FMA47.625 | | | | | | | | | | | | | | | | | | | | | 22.6 |

選配表 Option

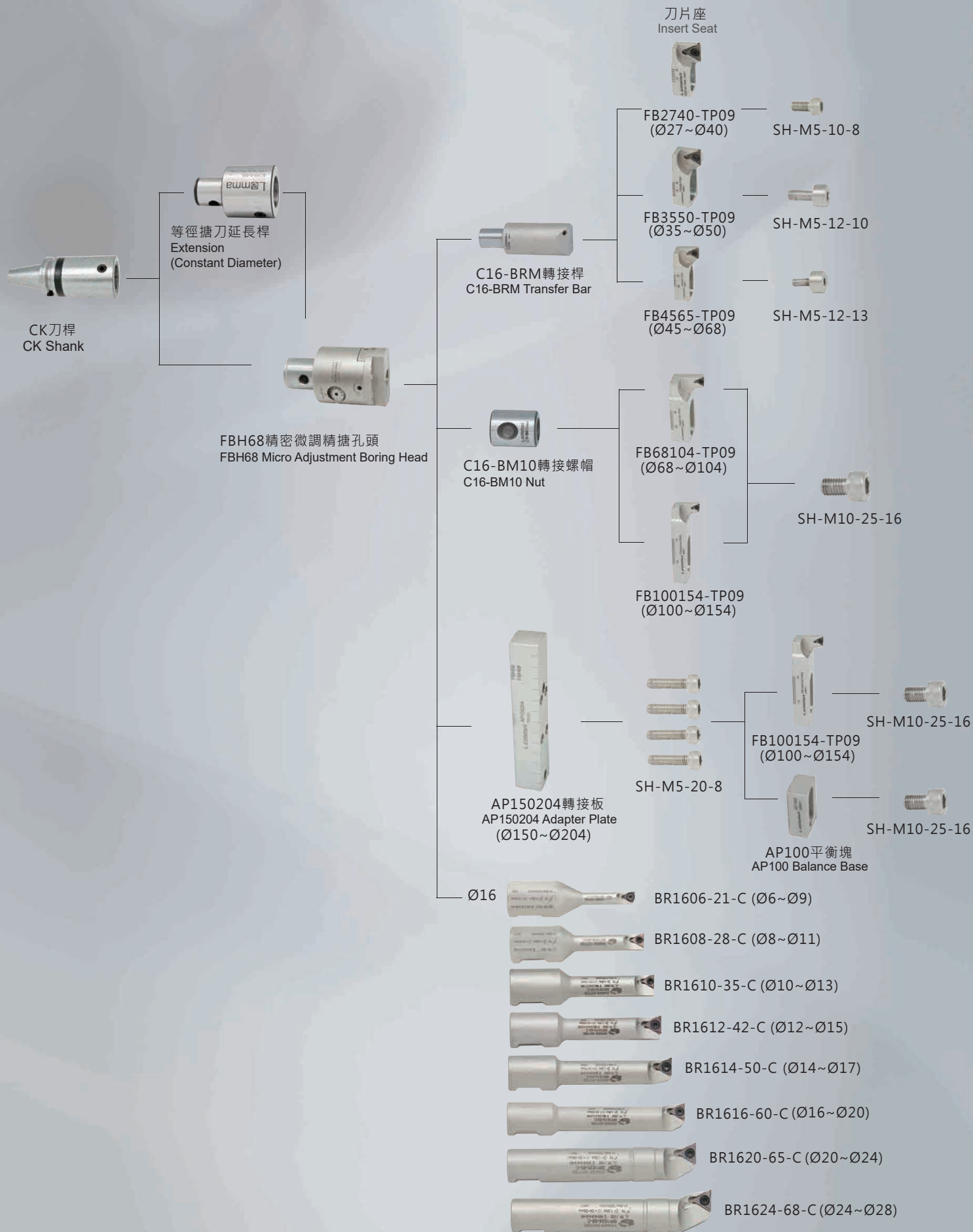
| |
|----------|
| 刀桿 Shank |
| |
| B706 |

• 長度單位 Unit of Length (mm)

FBH55 組合圖 combination



FBH68 組合圖 combination



BR替換式搪孔刀柄
BR INTERCHANGABLE BORING CUTTER

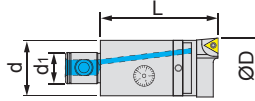


搪孔範圍
ø55~204
Boring Range

精度
0.002mm
Accuracy

正搪
Forward Boring

Fig.1



背搪
Reverse Boring

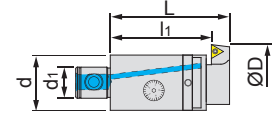
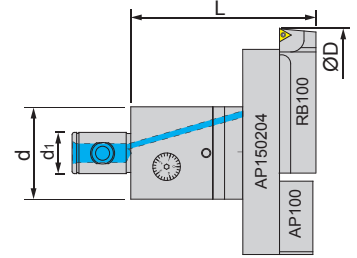
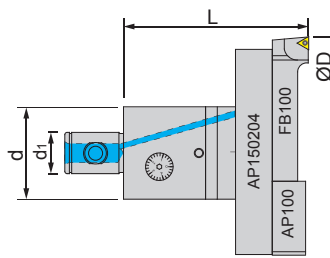


Fig.2



| 規格 Spec. | øD 搪孔範圍 Boring Range(正搪) | | | | øD 搪孔範圍 Boring Range(背搪) | | | | | d | d ₁ | 組合刀柄 ck No. | 刀片 Insert | Fig. | 重量 (KGS) Weight |
|-------------|----------------------------|------|------------------------------------|-----|----------------------------|------|------------------------------------|-----|----------------|-----|----------------|----------------|--------------|------|-----------------------|
| | Min. | Max. | Insert Seat | L | Min. | Max. | 刀片座 Insert Seat | L | l ₁ | | | | | | |
| FBH55 | 55 | 80 | FB5580-TP09 | 85 | 60 | 84 | RB6084-TP09 | 85 | 60 | 50 | 28 | CK | TP.0902 | 1 | 1.04 |
| | 68 | 104 | FB68104-TP09 | 95 | 78 | 115 | RB78115-TP09 | 95 | 70 | 50 | 28 | CK | TP.0902 | 1 | 1.11 |
| | 100 | 154 | FB100154-TP09 | 95 | 110 | 164 | RB110164-TP09 | 95 | 70 | 50 | 28 | CK | TP.0902 | 1 | 1.22 |
| | 150 | 204 | FB100154-TP09 AP150204 AP100 | 120 | 160 | 214 | RB110164-TP09 AP150204 AP100 | 120 | 95 | 140 | 28 | CK | TP.0902 | 2 | 2.13 |
| FBH68 | 68 | 104 | FB68104-TP09 | 100 | 78 | 115 | RB78115-TP09 | 100 | 75 | 63 | 36 | CK | TP.0902 | 1 | 2.00 |
| | 100 | 154 | FB100154-TP09 | 100 | 110 | 164 | RB110164-TP09 | 100 | 75 | 63 | 36 | CK | TP.0902 | 1 | 2.11 |
| | 150 | 204 | FB100154-TP09 AP150204 AP100 | 125 | 160 | 214 | RB110164-TP09 AP150204 AP100 | 125 | 100 | 140 | 36 | CK | TP.0902 | 2 | 3.02 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|--------------|-----------------|--------------|------------------------|
| TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 |

選配表 Option

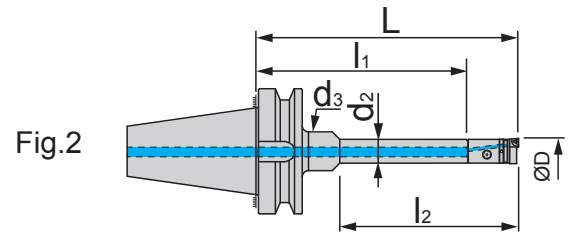
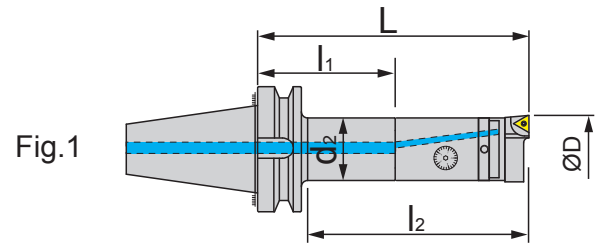
| 刀桿 Shank |
|-----------|
| |
| B698-B700 |



正搪
Forward
Boring

搪孔範圍
ø55~104
Boring Range

精度
0.002mm
Accuracy



| 規格 Spec. | øD 搪孔範圍 Boring Range | | 搪孔組合 Tools Combination | | | | | L | l ₁ | l ₂ | d ₂ | d ₃ | 組合刀柄 Ck No. | Fig. | 重量 (KGS) Weight |
|----------------|-------------------------|------|---------------------------|---------------------------------|---|-----|-----|-----|----------------|----------------|----------------|----------------|----------------|------|-----------------------|
| | Min. | Max. | 刀桿 Shank | 搪頭 Boring Head - Insert Seat | - | 刀片座 | | | | | | | | | |
| BT30-FBH55-145 | 55 | 80 | BT30-CK5-60 | FBH55 - FB5580-TP09 | | | 145 | 60 | 115 | 50 | - | CK | 1 | 1.84 | |
| BT30-FBH68-160 | 68 | 104 | BT30-CK6-60 | FBH68 - FB68104-TP09 | | | 160 | 60 | 130 | 64 | - | CK | 1 | 3.00 | |
| BT40-FBH55-160 | 55 | 80 | BT40-CK5-75 | FBH55 - FB5580-TP09 | | | 160 | 75 | 125 | 50 | - | CK | 1 | 2.34 | |
| BT40-FBH55-210 | 55 | 80 | BT40-CK5-125 | FBH55 - FB5580-TP09 | | | 210 | 125 | 175 | 50 | - | CK | 1 | 3.34 | |
| BT40-FBH55-260 | 55 | 80 | BT40-CK5-175 | FBH55 - FB5580-TP09 | | | 260 | 175 | 225 | 50 | - | CK | 1 | 4.04 | |
| BT40-FBH68-165 | 68 | 104 | BT40-CK6-65 | FBH68 - FB68104-TP09 | | | 165 | 65 | 130 | 50 | - | CK | 1 | 3.30 | |
| BT40-FBH68-215 | 68 | 104 | BT40-CK6-115 | FBH68 - FB68104-TP09 | | | 215 | 115 | 180 | 50 | - | CK | 1 | 4.70 | |
| BT40-FBH68-265 | 68 | 104 | BT40-CK6-165 | FBH68 - FB68104-TP09 | | | 265 | 165 | 230 | 50 | - | CK | 1 | 5.90 | |
| BT50-FBH55-190 | 55 | 80 | BT50-CK5-105 | FBH55 - FB5580-TP09 | | | 190 | 105 | 145 | 50 | - | CK | 1 | 5.54 | |
| BT50-FBH55-265 | 55 | 80 | BT50-CK5-180 | FBH55 - FB5580-TP09 | | | 265 | 180 | 220 | 50 | - | CK | 1 | 6.54 | |
| BT50-FBH55-325 | 55 | 80 | BT50-CK5-240 | FBH55 - FB5580-TP09 | | | 325 | 240 | 280 | 50 | - | CK | 1 | 7.24 | |
| BT50-FBH55-385 | 55 | 80 | BT50-CK5-300 | FBH55 - FB5580-TP09 | | | 385 | 300 | 280 | 50 | 64 | CK | 2 | 8.64 | |
| BT50-FBH68-195 | 68 | 104 | BT50-CK6-95 | FBH68 - FB68104-TP09 | | | 195 | 95 | 150 | 64 | - | CK | 1 | 6.50 | |
| BT50-FBH68-270 | 68 | 104 | BT50-CK6-170 | FBH68 - FB68104-TP09 | | | 270 | 170 | 225 | 64 | - | CK | 1 | 8.30 | |
| BT50-FBH68-330 | 68 | 104 | BT50-CK6-230 | FBH68 - FB68104-TP09 | | | 330 | 230 | 285 | 64 | - | CK | 1 | 9.60 | |
| BT50-FBH68-390 | 68 | 104 | BT50-CK6-290 | FBH68 - FB68104-TP09 | | | 390 | 290 | 345 | 64 | - | CK | 1 | 11.0 | |
| BT50-FBH68-450 | 68 | 104 | BT50-CK6-350 | FBH68 - FB68104-TP09 | | | 450 | 350 | 285 | 64 | 90 | CK | 2 | 15.5 | |

選配表 Option

| |
|----------|
| 刀桿 Shank |
| |
| B700 |

• 長度單位 Unit of Length (mm)



背搪
Reverse
Boring

Fig.1

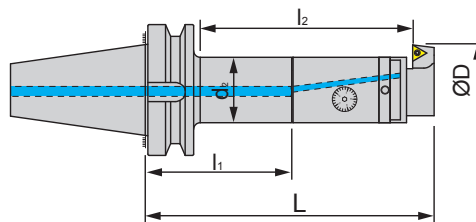
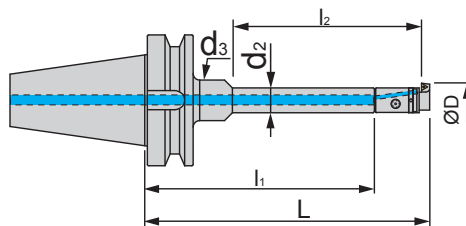


Fig.2



搪孔範圍
ø60~115
Boring Range

精度
0.002mm
Accuracy

| 規格 Spec. | øD 搪孔範圍 Boring Range | | 搪孔組合 Tools Combination | | L | l ₁ | l ₂ | d ₂ | d ₃ | 組合刀柄 Ck No. | Fig. | 重量 (KGS) Weight |
|------------------|-------------------------|------|------------------------|---------------------------------------|-----|----------------|----------------|----------------|----------------|----------------|------|-----------------------|
| | Min. | Max. | 刀桿 Shank | 搪頭 - 刀片座 Boring Head - Insert Seat | | | | | | | | |
| BT30-FBH55-145-R | 60 | 84 | BT30-CK5-60 | FBH55 - RB6084-TP09 | 145 | 60 | 90 | 50 | - | CK | 1 | 1.84 |
| BT30-FBH68-160-R | 78 | 115 | BT30-CK6-60 | FBH68 - RB78115-TP09 | 160 | 60 | 105 | 64 | - | CK | 1 | 3.00 |
| BT40-FBH55-160-R | 60 | 84 | BT40-CK5-75 | FBH55 - RB6084-TP09 | 160 | 75 | 100 | 50 | - | CK | 1 | 2.34 |
| BT40-FBH55-210-R | 60 | 84 | BT40-CK5-125 | FBH55 - RB6084-TP09 | 210 | 125 | 150 | 50 | - | CK | 1 | 3.34 |
| BT40-FBH55-260-R | 60 | 84 | BT40-CK5-175 | FBH55 - RB6084-TP09 | 260 | 175 | 200 | 50 | - | CK | 1 | 4.04 |
| BT40-FBH68-165-R | 78 | 115 | BT40-CK6-65 | FBH68 - RB78115-TP09 | 165 | 65 | 105 | 50 | - | CK | 1 | 3.30 |
| BT40-FBH68-215-R | 78 | 115 | BT40-CK6-115 | FBH68 - RB78115-TP09 | 215 | 115 | 155 | 50 | - | CK | 1 | 4.70 |
| BT40-FBH68-265-R | 78 | 115 | BT40-CK6-165 | FBH68 - RB78115-TP09 | 265 | 165 | 205 | 50 | - | CK | 1 | 5.90 |
| BT50-FBH55-190-R | 60 | 84 | BT50-CK5-105 | FBH55 - RB6084-TP09 | 190 | 105 | 120 | 50 | - | CK | 1 | 5.54 |
| BT50-FBH55-265-R | 60 | 84 | BT50-CK5-180 | FBH55 - RB6084-TP09 | 265 | 180 | 195 | 50 | - | CK | 1 | 6.54 |
| BT50-FBH55-325-R | 60 | 84 | BT50-CK5-240 | FBH55 - RB6084-TP09 | 325 | 240 | 255 | 50 | - | CK | 1 | 7.24 |
| BT50-FBH55-385-R | 60 | 84 | BT50-CK5-300 | FBH55 - RB6084-TP09 | 385 | 300 | 255 | 50 | 64 | CK | 2 | 8.64 |
| BT50-FBH68-195-R | 78 | 115 | BT50-CK6-95 | FBH68 - RB78115-TP09 | 195 | 95 | 125 | 64 | - | CK | 1 | 6.50 |
| BT50-FBH68-270-R | 78 | 115 | BT50-CK6-170 | FBH68 - RB78115-TP09 | 270 | 170 | 200 | 64 | - | CK | 1 | 8.30 |
| BT50-FBH68-330-R | 78 | 115 | BT50-CK6-230 | FBH68 - RB78115-TP09 | 330 | 230 | 260 | 64 | - | CK | 1 | 9.60 |
| BT50-FBH68-390-R | 78 | 115 | BT50-CK6-290 | FBH68 - RB78115-TP09 | 390 | 290 | 320 | 64 | - | CK | 1 | 11.0 |
| BT50-FBH68-450-R | 78 | 115 | BT50-CK6-350 | FBH68 - RB78115-TP09 | 450 | 350 | 260 | 64 | 90 | CK | 2 | 15.5 |

選配表 Option

刀桿 Shank

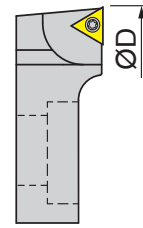


B700

• 長度單位 Unit of Length (mm)

FBH55/68 專用正反搪刀片座

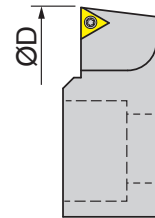
FBH55/68 FORWARD/REVERSE INSERT SEAT



- 正搪 Forward Boring

| 規格 Spec. | 組合搪頭 Suitable Boring Head | $\varnothing D$ 搪孔範圍 Boring Range(正搪) | | 轉接螺帽 Nut | 鎖固螺絲 Locking screws | 刀片 Insert | 重量 (KGS) Weight |
|---------------|---------------------------|---|------|----------|---------------------|-----------|-----------------|
| | | Min. | Max. | | | | |
| FB5580-TP09 | FBH55 | 55 | 80 | C16-BM10 | SH-M10-25-16 | TP.0902 | 0.14 |
| FB68104-TP09 | FBH55/FBH68 | 68 | 104 | C16-BM10 | SH-M10-25-16 | TP.0902 | 0.22 |
| FB100154-TP09 | FBH55/FBH68 | 100 | 154 | C16-BM10 | SH-M10-25-16 | TP.0902 | 0.3 |

※ 附鎖固螺絲 With locking screws



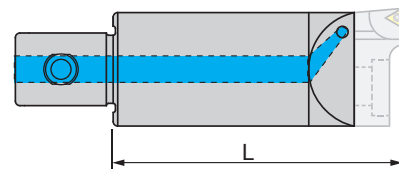
- 背搪 Reverse Boring

| 規格 Spec. | 組合搪頭 Suitable Boring Head | $\varnothing D$ 搪孔範圍 Boring Range(背搪) | | 轉接螺帽 Nut | 鎖固螺絲 Locking screws | 刀片 Insert | 重量 (KGS) Weight |
|---------------|---------------------------|---|------|----------|---------------------|-----------|-----------------|
| | | Min. | Max. | | | | |
| RB6084-TP09 | FBH55 | 60 | 84 | C16-BM10 | SH-M10-25-16 | TP.0902 | 0.20 |
| RB78115-TP09 | FBH55/FBH68 | 78 | 115 | C16-BM10 | SH-M10-25-16 | TP.0902 | 0.40 |
| RB110164-TP09 | FBH55/FBH68 | 110 | 164 | C16-BM10 | SH-M10-25-16 | TP.0902 | 0.60 |

※ 附鎖固螺絲 With locking screws

FBH55/68 專用刀片座轉接桿

FBH55/68 TRANSFER BAR FOR INSERT HOLDER



| 規格 Spec. | 組合搪頭 Suitable Boring Head | 刀片座 Insert Seat | $\varnothing D$ 搪孔範圍 Boring Range | | L | 刀片 Insert | 重量 (KGS) Weight |
|----------|---------------------------|-----------------|-----------------------------------|------------------|----|-----------|-----------------|
| | | | Min. | Max. | | | |
| C16-BRM | FBH55 FBH68 | FB2740-TP09 | $\varnothing 27$ | $\varnothing 40$ | 62 | TP.0902 | - |
| | | FB3550-TP09 | $\varnothing 35$ | $\varnothing 50$ | 65 | TP.0902 | - |
| | | FB4565-TP09 | $\varnothing 45$ | $\varnothing 68$ | 68 | TP.0902 | - |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-----------------|-----------|------------------|
| TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 |

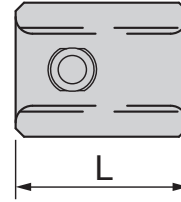
• 長度單位 Unit of Length (mm)



FBH55/68 專用轉接螺帽

FBH55/68 NUT

LEMMA



| 規格 Spec. | L | 重量 (KGS) Weight |
|-------------|------|-----------------------|
| C16-BM10 | 20.5 | 0.04 |



FBH55/68 專用轉接板

FBH55/68 ADAPTER PLATE

LEMMA



| 規格 Spec. | 組合搪頭 Suitable Boring Head | 正搪刀片座 Forward Boring Insert Seat | øD 搪孔範圍 Boring Range(正搪) | | 背搪刀片座 Forward Boring Insert Seat | øD 搪孔範圍 Boring Range(背搪) | | 刀片 Insert | 重量 (KGS) Weight |
|-------------|---------------------------------|--|-------------------------------|------|--|-------------------------------|------|--------------|-----------------------|
| | | | Min. | Max. | | Min. | Max. | | |
| AP150204 | FBH55 FBH68 | FB100154-TP09 | 150 | 204 | RB110164-TP09 | 160 | 214 | TP.0902 | 0.72 |

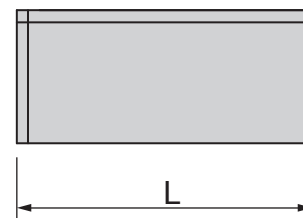
※ 附鎖固螺絲 SH-M5-20-8*4pcs With locking screws SH-M5-20-8*4pcs



FBH55/68 專用平衡塊

FBH55/68 BALANCE BASE

LEMMA



BORING

| 規格 Spec. | L | 重量 (KGS) Weight |
|-------------|----|-----------------------|
| AP100 | 50 | 0.2 |

※ 附鎖固螺絲 SH-M10-25-16 With locking screws SH-M10-25-16

• 長度單位 Unit of Length (mm)



| 規格 Spec. | 內容物 Contents | | | | | | | | 重量 (KGS) Weight | | |
|-----------|--|----------------|-----------------|-------------|--------------------------------|-----------------|--------------------------------|------------------|-----------------|----|-----|
| | 刀桿 Shank | 搪頭 Boring Head | 刀片座 Insert Seat | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | | | |
| FBH55-SET | BT30-CK5-60 BT40-CK5-75 BT50-CK5-105 (任選一只) | FBH55 | FB2740-TP09 | BR1606-21-C | WBGT060104L-F RM4015(10片) | M2-3.8-2.68-43 | T6 | 0.6 | 6.2 | | |
| | | | FB3550-TP09 | BR1608-28-C | TBGT060102L-F01 RM4030(10片) | M2-5.0-2.7-60 | | | | | |
| | | | FB4565-TP09 | BR1610-35-C | TPGT090204L-F01 RM4030(10片) | M2.5-6.0-3.5-60 | T8 | 1.2 | | | |
| | | | FB5580-TP09 | BR1612-42-C | | | | | | | |
| | | | FB68104-TP09 | BR1614-50-C | | | | | | | |
| | | | | | | BR1616-60-C | TPGT110302L-F02 RM4030(10片) | M3-8.0-4.0-43 | | T9 | 1.4 |
| | | | | | | BR1620-65-C | | | | | |
| | | | BR1624-68-C | | | | | | | | |

※ 此套裝組刀片為選配 The insert is optional for this set.

| 規格 Spec. | 內容物 Contents | | | | | | | 重量 (KGS) Weight |
|-----------|------------------|----------|--|--------------------------|------------------|--------------|------------------|-----------------|
| | 轉接桿 Transfer Bar | 轉接螺帽 Nut | 鎖固螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 扳手 Wrench | 扭力值 (N.m) Torque | |
| FBH55-SET | C16-BRM | C16-BM10 | SH-M5-10-8 (1只) SH-M5-12-10 (1只) SH-M5-12-13 (1只) SH-M10-25-16 (1只) | PL4 PL5 PL6 PL8 | 5.0 6.0 | PT2.5 PT3 | 5.0 | 6.2 |

• 長度單位 Unit of Length (mm)



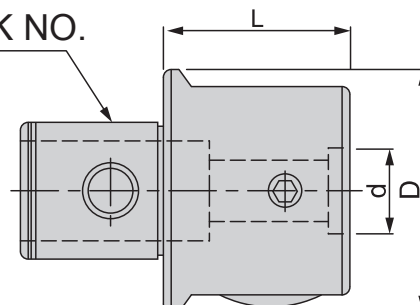
| 規格 Spec. | 內容物 Contents | | | | | | | | 重量 (KGS) Weight |
|-----------|---|----------------|-----------------|-------------|--------------------------------|-----------------|-----------|------------------|-----------------|
| | 刀桿 Shank | 搪頭 Boring Head | 刀片座 Insert Seat | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | |
| FBH68-SET | BT30-CK6-60 BT40-CK6-65 BT50-CK6-95 (任選一只) | FBH68 | FB2740-TP09 | BR1606-21-C | WBGTO60104L-F RM4015(10片) | M2-3.8-2.68-43 | T6 | 0.6 | 7.7 |
| | | | FB3550-TP09 | BR1608-28-C | TBGT060102L-F01 RM4030(10片) | M2-5.0-2.7-60 | | | |
| | | | FB4565-TP09 | BR1610-35-C | TPGT090204L-F01 RM4030(10片) | M2.5-6.0-3.5-60 | T8 | 1.2 | |
| | | | FB68104-TP09 | BR1612-42-C | | | | | |
| | | | FB100154-TP09 | BR1614-50-C | | | | | |
| | | | | BR1616-60-C | TPGT110302L-F02 RM4030(10片) | M3-8.0-4.0-43 | T9 | 1.4 | |
| | | | | BR1620-65-C | | | | | |
| | BR1624-68-C | | | | | | | | |

※ 此套裝組刀片為選配 The insert is optional for this set.

| 規格 Spec. | 內容物 Contents | | | | | | | | 重量 (KGS) Weight | |
|-----------|------------------|----------|-------------------|------------------|---|--------------------------|------------------|--------------|-----------------|------------------|
| | 轉接桿 Transfer Bar | 轉接螺帽 Nut | 轉接板 Adapter Plate | 平衡塊 Balance Base | 鎖固螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 扳手 Wrench | | 扭力值 (N.m) Torque |
| FBH68-SET | C16-BRM | C16-BM10 | AP150204 | AP100 | SH-M5-10-8 (1只) SH-M5-12-10 (1只) SH-M5-12-13 (1只) SH-M5-20-8 (4只) SH-M10-25-16 (2只) | PL4 PL5 PL6 PL8 | 5.0 6.0 | PT2.5 PT3 | 5.0 | 7.7 |



組合刀柄
MCK NO.

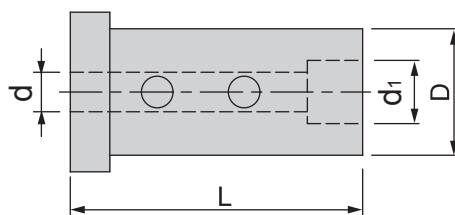


特點 Feature

- CBI 小徑精搪刀有三種選擇，適用於 $\varnothing 8 \sim \varnothing 50 \text{mm}$ 小孔徑使用，如使用全鎢鋼小徑搪刀桿可加工 $\varnothing 3 \sim \varnothing 10 \text{mm}$ 範圍小孔
- 調整刻度為圓周 50 等分，每格調整尺寸為直徑 0.01mm，另有副尺可作更精細之調整
- 精密導程螺絲位於內部，不受切屑、磨耗、生鏽等影響，具有內部潤滑精準耐用

- Three options of CBI compatible with small aperture from $\varnothing 8 \text{mm}$ to $\varnothing 50 \text{mm}$. Boring range can be within $\varnothing 3 \text{mm}$ to $\varnothing 10 \text{mm}$ if small diameter solid carbide boring bar has been employed.
- The dial has been graduated into 50 divisions, each of which is 0.01mm diameter, attached with sub-dial for finer adjustment.
- High precision internal lead screw maintain inner lubrication is free from the effects of chips, abrasion, and rust, featuring precision and high durability.

| 規格 Spec. | 移動量 mm | 組合刀柄 Mck No. | L | D | d | 重量 (KGS) Weight |
|----------|--------|--------------|----|----|----|-----------------|
| CBI4 | 0-2.0 | MCK4 | 32 | 39 | 10 | 0.40 |
| CBI5 | 0-3.5 | MCK5 | 40 | 50 | 12 | 0.80 |
| CBI6 | 0-5.0 | MCK6 | 50 | 64 | 16 | 1.27 |



| 規格 Spec. | L | D | d | d ₁ | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------|----|----|---|----------------|----------|-----------|------------------|-----------------|
| SH-0416-37 | 37 | 16 | 4 | 8 | HS4x4 | PL2 | 3.0 | 0.07 |
| SH-0516-37 | 37 | 16 | 5 | 8 | HS5x5.5 | PL2 | 3.0 | 0.06 |
| SH-0616-37 | 37 | 16 | 6 | 8 | HS6x4 | PL2 | 3.0 | 0.06 |
| SH-0716-37 | 37 | 16 | 7 | 8 | HS6x4 | PL2 | 3.0 | 0.06 |

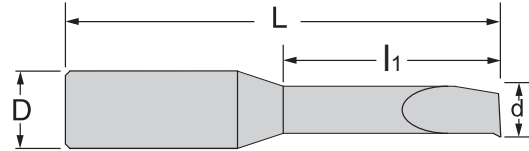
• 長度單位 Unit of Length (mm)



CBI 系列專用超小徑碳化鎢搪孔刀

CARBIDE BORING BAR FOR SMALL DIA.

KOVIT



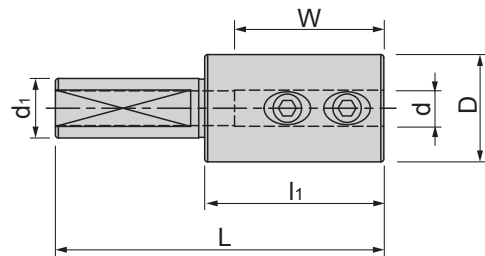
| 規格 Spec. | ød 搪孔範圍 Boring Range | | | | L | l ₁ | D | 重量 (KGS) Weight |
|-------------|----------------------|-------|-------|-------|----|----------------|----|-----------------------|
| | Min. | Max. | | | | | | |
| | | CBI 4 | CBI 5 | CBI 6 | | | | |
| CBJ0603-15 | 3 | 7 | 10 | 13 | 50 | 15 | 6 | - |
| CBJ0604-20 | 4 | 8 | 11 | 14 | 50 | 20 | 6 | - |
| CBJ0605-25 | 5 | 9 | 12 | 15 | 60 | 25 | 6 | - |
| CBJ0606-30 | 6 | 10 | 13 | 16 | 60 | 30 | 6 | - |
| CBJ1008-35 | 8 | 12 | 15 | 18 | 75 | 35 | 10 | - |
| CBJ1010-40 | 10 | 14 | 17 | 20 | 75 | 40 | | 0.07 |



CBI 系列專用超小徑搪刀延長桿

BORING BAR EXTENSION FOR SMALL DIA.

LEMMA

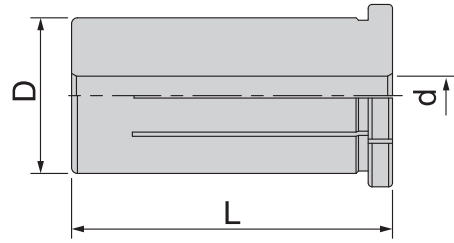


| 規格 Spec. | L | l ₁ | D | d | d ₁ | W | 重量 (KGS) Weight |
|-------------|----|----------------|----|----|----------------|----|-----------------------|
| AC1006-30 | 55 | 30 | 18 | 6 | 10 | 25 | 0.08 |
| AC1206-35 | 65 | 35 | 22 | 6 | 12 | 25 | 0.14 |
| AC1210-35 | 65 | 35 | 22 | 10 | 12 | 30 | 0.12 |
| AC1606-35 | 85 | 35 | 16 | 6 | 16 | 25 | 0.14 |
| AC1610-35 | 85 | 35 | 22 | 10 | 16 | 30 | 0.14 |

BORING

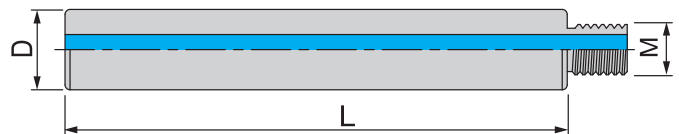
• 長度單位 Unit of Length (mm)

鎢鋼刀柄專用套筒 SLEEVE FOR SOLID CARBIDE TOOL HOLDER



| 規格 Spec. | L | D | d | 重量 (KGS) Weight |
|--------------|----|----|----|-----------------------|
| SBJ - 10-4K | 30 | 10 | 4 | 0.01 |
| SBJ - 10-6K | 30 | 10 | 6 | 0.01 |
| SBJ - 10-8K | 30 | 10 | 8 | 0.01 |
| SBJ - 12-4K | 35 | 12 | 4 | 0.01 |
| SBJ - 12-6K | 35 | 12 | 6 | 0.01 |
| SBJ - 12-8K | 35 | 12 | 8 | 0.01 |
| SBJ - 12-10K | 35 | 12 | 10 | 0.01 |
| SBJ - 16-8K | 37 | 16 | 8 | 0.08 |
| SBJ - 16-10K | 37 | 16 | 10 | 0.04 |
| SBJ - 16-12K | 37 | 16 | 12 | 0.02 |
| SBJ - 16-14K | 37 | 16 | 14 | 0.01 |

抗震鎢鋼刀柄 VIBRATION-DUMPED CARBIDE TOOL HOLDER



特點 Feature

- 搪孔深度不得超過孔徑六倍

- Boring depth must not exceed six times of the diameter.

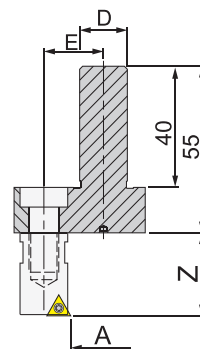
| 規格 Spec. | øD 搪孔範圍 Boring Range | | L | D | M | 組合搪頭 Suitable Boring Head | 重量 (KGS) Weight |
|-----------------|----------------------|------|-----|----|-----------|---------------------------------|-----------------------|
| | Min. | Max. | | | | | |
| ST08 - W5-100L | 9 | 13 | 100 | 8 | M5x0.8P | SEB09N | 0.07 |
| ST10 - W6-110L | 12 | 15 | 110 | 10 | M6x1.0P | SEB12N | 0.14 |
| ST12 - W6-120L | 14 | 17 | 120 | 12 | M6x1.0P | SEB14N | 0.21 |
| ST14 - W6-160L | 16 | 20 | 160 | 14 | M6x1.0P | SEB16N | 0.36 |
| ST16 - W10-160L | 18 | 42 | 160 | 16 | M10x1.25P | SEB18N~SEB50N | 0.47 |

CBR20/CBR30 組合式外圓搪孔組件

CBR20/CBR30 MODULAR EXTERNAL BORING HEAD



範例 Example



| 規格 Spec. | 搪頭 | A | 偏心距離 E | 有效深 Z | D | 使用刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------------------|--------|---------|--------|-------|-------|-------------|---------------|-----------|------------------|-----------------|
| C16-CBR20 C20-CBR20 | SEB36N | 5 - 14 | 20 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB34N | 7 - 16 | 20 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB32N | 9 - 18 | 20 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB30N | 11 - 20 | 20 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB28N | 13 - 22 | 20 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB26N | 15 - 24 | 20 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB24N | 17 - 26 | 20 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB22N | 19 - 28 | 20 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB20N | 21 - 30 | 20 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB18N | 23 - 32 | 20 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| C16-CBR30 C20-CBR30 | SEB36N | 25 - 34 | 30 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB34N | 27 - 36 | 30 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB32N | 29 - 38 | 30 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB30N | 31 - 40 | 30 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB28N | 33 - 42 | 30 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB26N | 35 - 44 | 30 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB24N | 37 - 46 | 30 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB22N | 39 - 48 | 30 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB20N | 41 - 50 | 30 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |
| | SEB18N | 43 - 52 | 30 | 25 | 16/20 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | - |

※C16-CBR20、CBR30 為 CBI6 搪孔器專用搪外圓組件 C16-CBR20、CBR30 are the external boring assemblies for CBI6 boring system.

※C20-CBR20、CBR30 為 NBH2084 搪孔器專用搪外圓組件 C20-CBR20、CBR30 are the external boring assemblies for NBH2084 boring system.

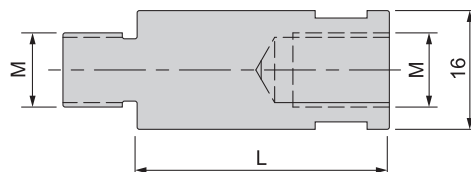
※ 附螺絲 M10x20L With Screw M10 x 20L

CBR20/CBR30 專用加長連接桿

CBR20/CBR30 EXTENSION ADAPTER

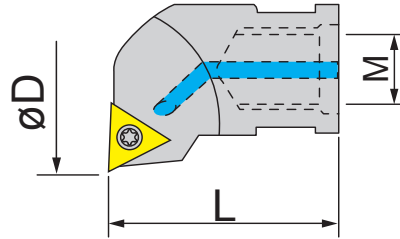


範例 Example



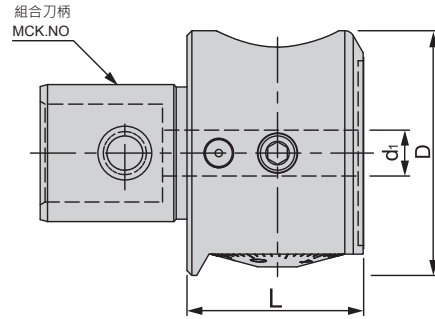
| 規格 Spec. | 搪頭 Boring Head | L | 結合牙 M | 重量 (KGS) Weight |
|-----------|----------------|----|-------|-----------------|
| CBRM10-34 | SEB18N~SEB36N | 34 | M10 | 0.06 |
| CBRM10-64 | SEB18N~SEB36N | 64 | M10 | 0.10 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | øD 搪孔範圍 Boring Range | | L | M | 使用刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|---------------|----------------------|------|----|-----|-------------|---------------|-----------|------------------|-----------------|
| | Min. | Max. | | | | | | | |
| SEB09N-TP08 | 9 | 10.5 | 18 | M5 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.02 |
| SEB10.5N-TP08 | 10.5 | 12 | 18 | M5 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.02 |
| SEB12N-TP08 | 12 | 14 | 23 | M6 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.02 |
| SEB14N-TP08 | 14 | 16 | 23 | M6 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.02 |
| SEB16N-TP08 | 16 | 18 | 23 | M6 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.03 |
| SEB18N-TP08 | 18 | 20 | 27 | M10 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.03 |
| SEB20N-TP08 | 20 | 22 | 27 | M10 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.04 |
| SEB22N-TP08 | 22 | 24 | 27 | M10 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.04 |
| SEB24N-TP08 | 24 | 26 | 27 | M10 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.04 |
| SEB26N-TP08 | 26 | 28 | 27 | M10 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.04 |
| SEB28N-TP08 | 28 | 30 | 27 | M10 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.04 |
| SEB30N-TP08 | 30 | 32 | 27 | M10 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.04 |
| SEB32N-TP08 | 32 | 34 | 27 | M10 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.04 |
| SEB34N-TP08 | 34 | 36 | 27 | M10 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.05 |
| SEB36N-TP08 | 36 | 38 | 27 | M10 | TP.0802 | M2-5.0-2.7-60 | T6 | 0.6 | 0.04 |

| 規格 Spec. | øD 搪孔範圍 Boring Range | | L | M | 使用刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-------------|----------------------|------|----|-----|-------------|-----------------|-----------|------------------|-----------------|
| | Min. | Max. | | | | | | | |
| SEB09N-TB06 | 9 | 10.5 | 18 | M5 | TB.0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.02 |
| SEB12N-TB06 | 12 | 14 | 23 | M6 | TB.0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.02 |
| SEB14N-TP09 | 14 | 16 | 23 | M6 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.02 |
| SEB16N-TP09 | 16 | 18 | 23 | M6 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.03 |
| SEB18N-TP09 | 18 | 20 | 27 | M10 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.03 |
| SEB20N-TP09 | 20 | 22 | 27 | M10 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.04 |
| SEB22N-TP11 | 22 | 24 | 27 | M10 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.04 |
| SEB24N-TP11 | 24 | 26 | 27 | M10 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.04 |
| SEB26N-TP11 | 26 | 28 | 27 | M10 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.04 |
| SEB28N-TP11 | 28 | 30 | 27 | M10 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.04 |
| SEB30N-TP11 | 30 | 32 | 27 | M10 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.04 |
| SEB32N-TP11 | 32 | 34 | 27 | M10 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.04 |
| SEB34N-TP11 | 34 | 36 | 27 | M10 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.05 |
| SEB36N-TP11 | 36 | 38 | 27 | M10 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.04 |
| SEB38N-TP11 | 38 | 40 | 27 | M10 | TP.1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.05 |



| | | |
|--------------------------------------|---------------------------------|---------------------------------|
| 搪孔範圍 ø6~50 Boring Range | 精度 0.01mm Accuracy | 最高轉速 8000 Max. rpm |
|--------------------------------------|---------------------------------|---------------------------------|

特點 Feature

- 採用特殊表面處理，加強防鏽效果
- 搭配 16mm 柄徑的小徑搪刀，並搭配不同切削刀具，達成多樣化的組合，以利客戶加工使用
- 微調單位：每刻度移動量為 0.01mm，另有副尺可做更精確之調整，搪孔範圍 Ø6~Ø50mm
- With special coating treatment, to strengthen the anti-corrosion effect.
- Use with 16mm shank trails boring, and match with different cutting tools can achieve variety of combinations, in order to facilitate customers choice of tool.
- Micro-adjustment until: each unit is 0.01mm. Attached with a sub-dial for finer adjustment, boring range Ø6~Ø50mm.

| 規格 Spec. | øD 搪孔範圍 Boring Range | | D | 微調行程 Stroke | 精度 Accuracy | d. | L | 組合刀柄 Mck No. | 重量 (KGS) Weight |
|----------|----------------------|------|------|-------------|-------------|----|------|--------------|-----------------|
| | Min. | Max. | | | | | | | |
| SBJ10 | 6 | 22 | 39 | 2 | 0.01 | 10 | 28.5 | CK4/MCK4 | 0.25 |
| SBJ12 | 6 | 32 | 50 | 3.5 | 0.01 | 12 | 36 | CK5/MCK5 | 0.50 |
| SBJ16 | 6 | 50 | 63.5 | 6 | 0.01 | 16 | 45 | CK6/MCK6 | 1.00 |

範例 Example

1. SBJ16+SBJ1612-53



2. SBJ16+SBJ-16-10K+ST10-W6-110L
+SEB12N TP08



3. SBJ16+AC1606-35+CBJ0603-15



4. SBJ16+C16-CBR30+SEB28N TP09

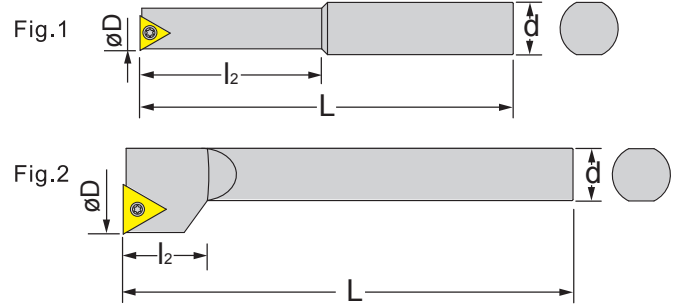


SBJ-10 替換式搪孔刀柄

SBJ-10 INTERCHANGABLE BORING CUTTER



KOVIT



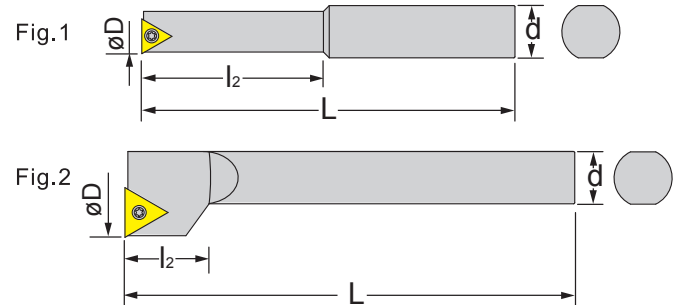
| 規格 Spec. | øD 搪孔範圍 Boring Range | | D | d | L | l ₂ | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-------------|----------------------|------|----|----|----|----------------|-----------|-----------------|-----------|------------------|------|-----------------|
| | Min. | Max. | | | | | | | | | | |
| SBJ-1008-32 | 8 | 10 | 8 | 10 | 64 | 32 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.06 |
| SBJ-1010-40 | 10 | 12 | 10 | 10 | 77 | 40 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.06 |
| SBJ-1012-45 | 12 | 16 | 12 | 10 | 77 | 22 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.08 |
| SBJ-1016-45 | 16 | 20 | 16 | 10 | 77 | 20 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.08 |
| SBJ-1020-45 | 20 | 25 | 20 | 10 | 77 | 22.7 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.08 |

SBJ-12 替換式搪孔刀柄

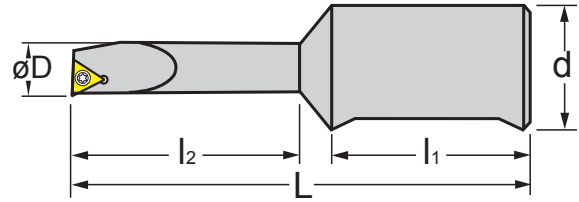
SBJ-12 INTERCHANGABLE BORING CUTTER



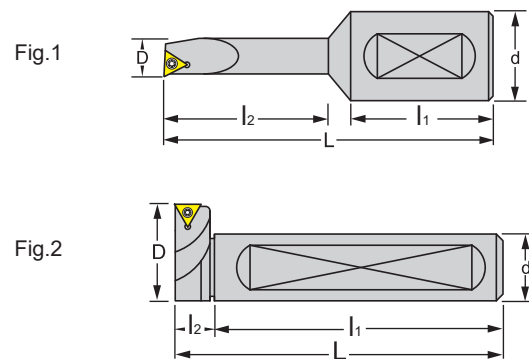
KOVIT



| 規格 Spec. | øD 搪孔範圍 Boring Range | | D | d | L | l ₂ | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|-------------|----------------------|------|----|----|----|----------------|-----------|-----------------|-----------|------------------|------|-----------------|
| | Min. | Max. | | | | | | | | | | |
| SBJ-1208-32 | 8 | 10 | 8 | 12 | 64 | 32 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.08 |
| SBJ-1210-40 | 10 | 12 | 10 | 12 | 72 | 40 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.08 |
| SBJ-1212-45 | 12 | 16 | 12 | 12 | 77 | 45 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.08 |
| SBJ-1216-45 | 16 | 20 | 16 | 12 | 77 | 20 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.10 |
| SBJ-1220-45 | 20 | 25 | 20 | 12 | 77 | 23 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 2 | 0.08 |



| 規格 Spec. | øD 搪孔範圍 Boring Range | | D | d | L | l ₁ | l ₂ | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|--------------|-------------------------|------|----|----|-----|----------------|----------------|--------------|-----------------|--------------|------------------------|-----------------------|
| | Min. | Max. | | | | | | | | | | |
| SBJ-1606-24 | 6 | 9 | 6 | 16 | - | 32 | 24 | WB..0601 | M2-3.8-2.68-43 | T6 | 0.6 | 0.09 |
| SBJ-1608-32 | 8 | 11 | 8 | 16 | 74 | 32 | 32 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.09 |
| SBJ-1608-40 | 8 | 11 | 8 | 16 | 82 | 32 | 40 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.07 |
| SBJ-1610-40 | 10 | 13 | 10 | 16 | 75 | 32 | 40 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.09 |
| SBJ-1610-50 | 10 | 13 | 10 | 16 | 85 | 32 | 50 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 0.08 |
| SBJ-1612-53 | 12 | 17 | 12 | 16 | 85 | 32 | 53 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.10 |
| SBJ-1612-65 | 12 | 17 | 12 | 16 | 97 | 32 | 65 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.12 |
| SBJ-1616-68 | 16 | 21 | 16 | 16 | 100 | 32 | 68 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.15 |
| SBJ-1616-85 | 16 | 21 | 16 | 16 | 117 | 32 | 85 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 0.16 |
| SBJ-1620-83 | 20 | 26 | 20 | 16 | 115 | 32 | 83 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.23 |
| SBJ-1620-105 | 20 | 26 | 20 | 16 | 137 | 32 | 105 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.25 |
| SBJ-1625-90 | 25 | 32 | 25 | 16 | 122 | 32 | 90 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.25 |
| SBJ-1630-90 | 30 | 40 | 30 | 16 | 122 | 32 | 90 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.29 |
| SBJ-1640-90 | 40 | 50 | 40 | 16 | 122 | 32 | 90 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 0.30 |



| 規格 Spec. | øD 搪孔範圍 Boring Range | | D | d | L | l ₁ | l ₂ | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | Fig. | 重量 (KGS) Weight |
|--------------|-------------------------|------|----|----|-----|----------------|----------------|--------------|-----------------|--------------|------------------------|------|-----------------------|
| | Min. | Max. | | | | | | | | | | | |
| SBJ-2008-32 | 8 | 11 | 8 | 20 | 76 | 32 | 44 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.12 |
| SBJ-2010-40 | 10 | 13 | 10 | 20 | 76 | 32 | 44 | TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 | 1 | 0.10 |
| SBJ-2012-53 | 12 | 17 | 12 | 20 | 85 | 32 | 53 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.13 |
| SBJ-2016-68 | 16 | 21 | 16 | 20 | 100 | 32 | 68 | TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 1 | 0.18 |
| SBJ-2020-83 | 20 | 26 | 20 | 20 | 115 | 32 | 83 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 0.25 |
| SBJ-2025-96 | 25 | 32 | 25 | 20 | 135 | 32 | 96 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 0.30 |
| SBJ-2030-115 | 30 | 40 | 30 | 20 | 158 | 32 | 115 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 1 | 0.59 |
| SBJ-L20-20 | 120 | 280 | 28 | 20 | 97 | 83.5 | 13.5 | TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 | 2 | 0.28 |


Fig.1

Fig.2

Fig.3

Fig.4

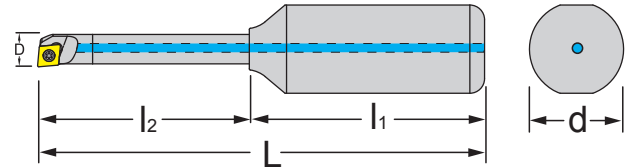
| 規格 Spec. | 內容物 Contents | | | | | | Fig. | 重量 (KGS) Weight |
|------------|--------------|----------------------------|-----------------|-----------|------------------|--------|------|-----------------|
| | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | | |
| SBJ-10-SET | SBJ-1008-32 | TBGH060104L RM4030(10片) | M2-5.0-2.7-60 | T6K | 0.6 | 1 | 1 | 1.39 |
| | SBJ-1010-40 | | | | | | | |
| | SBJ-1012-45 | TPGH090204L RM4030(10片) | M2.5-6.0-3.5-60 | T8K | 1.2 | | | |
| | SBJ-1016-45 | | | | | | | |
| | SBJ-1020-45 | | | | | | | |

| 規格 Spec. | 內容物 Contents | | | | | | Fig. | 重量 (KGS) Weight |
|------------|--------------|----------------------------|-----------------|-----------|------------------|--------|------|-----------------|
| | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | | |
| SBJ-12-SET | SBJ-1208-32 | TBGH060104L RM4030(10片) | M2-5.0-2.7-60 | T6K | 0.6 | 1 | 2 | 1.45 |
| | SBJ-1210-40 | | | | | | | |
| | SBJ-1212-45 | TPGH090204L RM4030(10片) | M2.5-6.0-3.5-60 | T8K | 1.2 | | | |
| | SBJ-1216-45 | | | | | | | |
| | SBJ-1220-45 | | | | | | | |

| 規格 Spec. | 內容物 Contents | | | | | | Fig. | 重量 (KGS) Weight |
|-------------|--------------|----------------------------|-----------------|-----------|------------------|--------|------|-----------------|
| | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | | |
| SBJ-16-SET | SBJ-1608-32 | TBGH060104L RM4030(10片) | M2-5.0-2.7-60 | T6K | 0.6 | 1 | 3 | 2.7 |
| | SBJ-1610-40 | | | | | | | |
| | SBJ-1612-53 | TPGH090204L RM4030(10片) | M2.5-6.0-3.5-60 | T8K | 1.2 | | | |
| | SBJ-1616-68 | | | | | | | |
| | SBJ-1620-83 | TPGH110304L RM4030(10片) | M3-8.0-4.0-43 | T9K | 1.4 | | | |
| | SBJ-1625-90 | | | | | | | |
| | SBJ-1630-90 | | | | | | | |
| SBJ-1640-90 | | | | | | | | |

| 規格 Spec. | 內容物 Contents | | | | | | Fig. | 重量 (KGS) Weight |
|------------|--------------|----------------------------|-----------------|-----------|------------------|--------|------|-----------------|
| | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | | |
| SBJ-20-SET | SBJ-2008-32 | TBGH060104L RM4030(10片) | M2-5.0-2.7-60 | T6K | 0.6 | 1 | 4 | 3.02 |
| | SBJ-2010-40 | | | | | | | |
| | SBJ-2012-53 | TPGH090204L RM4030(10片) | M2.5-6.0-3.5-60 | T8K | 1.2 | | | |
| | SBJ-2016-68 | | | | | | | |
| | SBJ-2020-83 | TPGH110304L RM4030(10片) | M3-8.0-4.0-43 | T9K | 1.4 | | | |
| | SBJ-2025-96 | | | | | | | |
| | SBJ-2030-115 | | | | | | | |
| SBJ-L20-20 | | | | | | | | |

• 長度單位 Unit of Length (mm)



特點 Feature

- 使用碳化鎢鋼材質，加工深度可達直徑的數倍
- 高剛性，延長使用刀片壽命
- 抗震性佳，加工後搪孔尺寸穩定

- The use carbon tungsten steel material quality, the working depth may reach the diameter the several-fold.
- High rigidity, extend use bit life.
- The vibration resistance quality is good, after the processing, the boring size is stable.

Dx5

| 規格 Spec. | L | l ₁ | l ₂ | D | d | øD 搪孔範圍 Boring Range | | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----------------|----------------|-----|----|----------------------|------|-----------|-----------------|
| | | | | | | Min. | Max. | | |
| CSBJ-1605-28-C | 68 | 40 | 28 | 5.6 | 16 | 5.6 | 8 | CC..03S1 | 0.06 |
| CSBJ-1606-30-C | 70 | 40 | 30 | 6 | 16 | 6 | 9 | CC..03S1 | 0.07 |
| CSBJ-1608-40-C | 80 | 40 | 40 | 8 | 16 | 8 | 11 | TB..0601 | 0.07 |
| CSBJ-1610-50-C | 90 | 40 | 50 | 10 | 16 | 10 | 13 | TB..0601 | 0.10 |
| CSBJ-1612-60-C | 100 | 40 | 60 | 12 | 16 | 12 | 15 | TP..0902 | 0.13 |
| CSBJ-1614-70-C | 110 | 40 | 70 | 14 | 16 | 14 | 17 | TP..0902 | 0.18 |
| CSBJ-1616-80-C | 120 | 40 | 80 | 16 | 16 | 16 | 19 | TP..1103 | 0.25 |
| CSBJ-1618-90-C | 130 | - | - | 18 | 16 | 18 | 21 | TP..1103 | 0.33 |

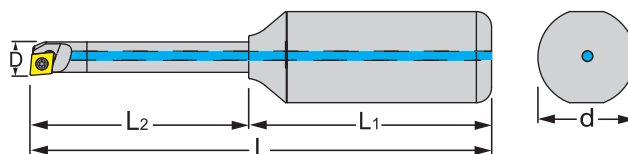
Dx6

| 規格 Spec. | L | l ₁ | l ₂ | D | d | øD 搪孔範圍 Boring Range | | 刀片 Insert | 重量 (KGS) Weight |
|-----------------|-----|----------------|----------------|-----|----|----------------------|------|-----------|-----------------|
| | | | | | | Min. | Max. | | |
| CSBJ-1605-34-C | 74 | 40 | 34 | 5.6 | 16 | 5.6 | 8 | CC..03S1 | 0.06 |
| CSBJ-1606-36-C | 76 | 40 | 36 | 6 | 16 | 6 | 9 | CC..03S1 | 0.07 |
| CSBJ-1608-48-C | 88 | 40 | 48 | 8 | 16 | 8 | 11 | TB..0601 | 0.08 |
| CSBJ-1610-60-C | 100 | 40 | 60 | 10 | 16 | 10 | 13 | TB..0601 | 0.10 |
| CSBJ-1612-72-C | 112 | 40 | 72 | 12 | 16 | 12 | 15 | TP..0902 | 0.15 |
| CSBJ-1614-84-C | 124 | 40 | 84 | 14 | 16 | 14 | 17 | TP..0902 | 0.20 |
| CSBJ-1616-96-C | 136 | 40 | 96 | 16 | 16 | 16 | 19 | TP..1103 | 0.28 |
| CSBJ-1618-108-C | 148 | - | - | 18 | 16 | 18 | 21 | TP..1103 | 0.38 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-----------------|-----------|------------------|
| CC..03S1 | M1.8-4.2-2.5-54 | T6 | 0.6 |
| TB..0601 | M2-5.0-2.7-60 | T6 | 0.6 |
| TP..0902 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| TP..1103 | M3-8.0-4.0-43 | T9 | 1.4 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 使用碳化鎢鋼材質·加工深度可達直徑的數倍
- 高剛性·延長使用刀片壽命
- 抗震性佳·加工後搪孔尺寸穩定

- The use carbon tungsten steel material quality, the working depth may reach the diameter the several-fold.
- High rigidity, extend use bit life.
- The vibration resistance quality is good, after the processing, the boring size is stable.

Dx5

| 規格 Spec. | D | d | L | L ₁ | L ₂ | øD 搪孔範圍 Boring Range | | 刀片 Insert | 重量 (KGS) Weight |
|----------------|-----|----|-----|----------------|----------------|----------------------|------|-----------|-----------------|
| | | | | | | Min. | Max. | | |
| CSBJ-1605-28-C | 5.6 | 16 | 68 | 40 | 28 | 5.6 | 8 | CC..03S1 | 0.06 |
| CSBJ-1606-30-C | 6 | 16 | 70 | 40 | 30 | 6 | 9 | CC..03S1 | 0.07 |
| CCBJ-1608-40-C | 8 | 16 | 80 | 40 | 40 | 8 | 11 | CC..03S1 | 0.07 |
| CCBJ-1610-50-C | 10 | 16 | 90 | 40 | 50 | 10 | 13 | CC..0602 | 0.10 |
| CCBJ-1612-60-C | 12 | 16 | 100 | 40 | 60 | 12 | 15 | CC..0602 | 0.13 |
| CCBJ-1614-70-C | 14 | 16 | 110 | 40 | 70 | 14 | 17 | CC..09T3 | 0.18 |
| CCBJ-1616-80-C | 16 | 16 | 120 | 40 | 80 | 16 | 19 | CC..09T3 | 0.25 |
| CCBJ-1618-90-C | 18 | 16 | 130 | - | - | 18 | 21 | CC..09T3 | 0.33 |

Dx6

| 規格 Spec. | D | d | L | L ₁ | L ₂ | øD 搪孔範圍 Boring Range | | 刀片 Insert | 重量 (KGS) Weight |
|-----------------|-----|----|-----|----------------|----------------|----------------------|------|-----------|-----------------|
| | | | | | | Min. | Max. | | |
| CSBJ-1605-34-C | 5.6 | 16 | 74 | 40 | 34 | 5.6 | 8 | CC..03S1 | 0.06 |
| CSBJ-1606-36-C | 6 | 16 | 76 | 40 | 36 | 6 | 9 | CC..03S1 | 0.07 |
| CCBJ-1608-48-C | 8 | 16 | 88 | 40 | 48 | 8 | 11 | CC..03S1 | 0.08 |
| CCBJ-1610-60-C | 10 | 16 | 100 | 40 | 60 | 10 | 13 | CC..0602 | 0.10 |
| CCBJ-1612-72-C | 12 | 16 | 112 | 40 | 72 | 12 | 15 | CC..0602 | 0.15 |
| CCBJ-1614-84-C | 14 | 16 | 124 | 40 | 84 | 14 | 17 | CC..09T3 | 0.20 |
| CCBJ-1616-96-C | 16 | 16 | 136 | 40 | 96 | 16 | 19 | CC..09T3 | 0.28 |
| CCBJ-1618-108-C | 18 | 16 | 148 | - | - | 18 | 21 | CC..09T3 | 0.38 |

配件表 Accessories

| 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque |
|-----------|-----------------|-----------|------------------|
| CC..03S1 | M1.8-4.2-2.5-54 | T6 | 0.6 |
| CC..0602 | M2.5-6.0-3.5-60 | T8 | 1.2 |
| CC..09T3 | M4-8.0-5.7-60 | T15 | 3.0 |

• 長度單位 Unit of Length (mm)



Fig.1



Fig.2



Fig.3



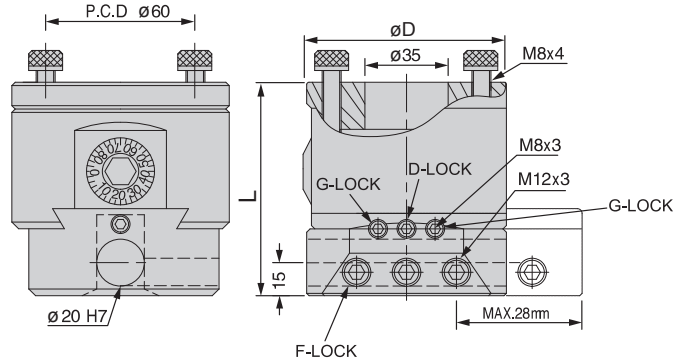
Fig.4

| 規格 Spec. | 內容物 Contents | | | | | | Fig. | 重量 (KGS) Weight |
|------------------|----------------|---------------------------|-----------------|-----------|------------------|--------|------|-----------------|
| | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | | |
| CSBJ16-C Dx5-SET | CSBJ-1605-28-C | CCGT03S104L-F RM4015(10片) | M1.8-4.2-2.5-54 | T6K | 0.6 | 1 | 1 | 2.16 |
| | CSBJ-1606-30-C | | | | | | | |
| | CSBJ-1608-40-C | TBGT060104L RM4030(10片) | M2-5.0-2.7-60 | | | | | |
| | CSBJ-1610-50-C | | | | | | | |
| | CSBJ-1612-60-C | TPGT090204L RM4030(10片) | M2.5-6.0-3.5-60 | T8K | 1.2 | | | |
| | CSBJ-1614-70-C | | | | | | | |
| | CSBJ-1616-80-C | TPGT110304L RM4030(10片) | M3-8.0-4.0-43 | T9K | 1.4 | | | |
| CSBJ-1618-90-C | | | | | | | | |

| 規格 Spec. | 內容物 Contents | | | | | | Fig. | 重量 (KGS) Weight |
|------------------|----------------|---------------------------|-----------------|-----------|------------------|--------|------|-----------------|
| | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | | |
| CSBJ16-C Dx6-SET | CSBJ-1605-34-C | CCGT03S104L-F RM4015(10片) | M1.8-4.2-2.5-54 | T6K | 0.6 | 1 | 2 | 2.16 |
| | CSBJ-1606-36-C | | | | | | | |
| | CSBJ-1608-48-C | TBGT060104L RM4030(10片) | M2-5.0-2.7-60 | | | | | |
| | CSBJ-1610-60-C | | | | | | | |
| | CSBJ-1612-72-C | TPGT090204L RM4030(10片) | M2.5-6.0-3.5-60 | T8K | 1.2 | | | |
| | CSBJ-1614-84-C | | | | | | | |
| | CSBJ-1616-96-C | TPGT110304L RM4030(10片) | M3-8.0-4.0-43 | T9K | 1.4 | | | |
| CSBJ-1618-108-C | | | | | | | | |

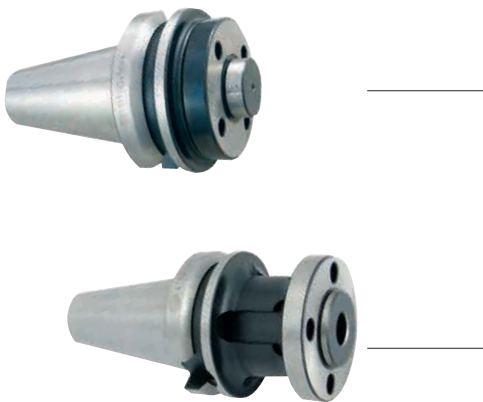
| 規格 Spec. | 內容物 Contents | | | | | | Fig. | 重量 (KGS) Weight |
|------------------|----------------|---------------------------|-----------------|-----------|------------------|--------|------|-----------------|
| | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | | |
| CCBJ16-C Dx5-SET | CSBJ-1605-28-C | CCGT03S104L-F RM4015(10片) | M1.8-4.2-2.5-54 | T6K | 0.6 | 1 | 3 | 2.16 |
| | CSBJ-1606-30-C | | | | | | | |
| | CCBJ-1608-40-C | CCMT060204-M01 RM425(10片) | M2.5-6.0-3.5-60 | T8K | 1.2 | | | |
| | CCBJ-1610-50-C | | | | | | | |
| | CCBJ-1612-60-C | CCMT09T304-M01 RM425(10片) | M4-8.0-5.7-60 | T15K | 3.0 | | | |
| | CCBJ-1614-70-C | | | | | | | |
| | CCBJ-1616-80-C | | | | | | | |
| CCBJ-1618-90-C | | | | | | | | |

| 規格 Spec. | 內容物 Contents | | | | | | Fig. | 重量 (KGS) Weight |
|------------------|----------------|---------------------------|-----------------|-----------|------------------|--------|------|-----------------|
| | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 數量 Qty | | |
| CCBJ16-C Dx6-SET | CSBJ-1605-34-C | CCGT03S104L-F RM4015(10片) | M1.8-4.2-2.5-54 | T6K | 0.6 | 1 | 4 | 3.2 |
| | CSBJ-1606-36-C | | | | | | | |
| | CCBJ-1608-48-C | CCMT060204-M01 RM425(10片) | M2.5-6.0-3.5-60 | T8K | 1.2 | | | |
| | CCBJ-1610-60-C | | | | | | | |
| | CCBJ-1612-72-C | CCMT09T304-M01 RM425(10片) | M4-8.0-5.7-60 | T15K | 3.0 | | | |
| | CCBJ-1614-84-C | | | | | | | |
| | CCBJ-1616-96-C | | | | | | | |
| CCBJ-1618-108-C | | | | | | | | |



| | | |
|--|---------------------------------|---------------------------------|
| 搪孔範圍 $\phi 8 \sim 280$ Boring Range | 精度 0.01mm Accuracy | 最高轉速 8000 Max. rpm |
|--|---------------------------------|---------------------------------|

| 規格 Spec. | ϕD 搪孔範圍 Boring Range | | 微調行程 Stroke | 精度 Win Feed | 刀具孔徑 Tooling Dia | 組合刀柄 NBH | L | D | 重量 (KGS) Weight |
|----------|----------------------------|------|-------------|-------------|------------------|----------|----|----|-----------------|
| | Min. | Max. | | | | | | | |
| NBH2084S | 8 | 280 | 28 | 0.01 | $\phi 20$ | NBH | 83 | 84 | 3.26 |



BT/NT 粗 / 精搪孔頭刀桿
BT/NT Boring Head Shank

NBH2084S 精密搪孔頭
NBH2084S Precision Boring Head



SBJ-20 替換式搪孔刀柄
SBJ-20 Interchangeable Boring Cutter

選配表 Option

| 刀桿 Shank | | 搪刀 Cutter |
|-----------|------|-----------|
| | | |
| B698-B700 | B706 | B747 |

• 長度單位 Unit of Length (mm)



Fig.1



Fig.2



Fig.3



Fig.4

| 規格 Spec. | 內容物 Contents | | | | | | | Fig. | 重量 (KGS) Weight |
|----------------------|-----------------|-------------|-----------------|-----------|------------------|-----------|--------|------|-----------------|
| | 搪刀頭 Boring Head | 刀具 Tools | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 扳手 Wrench | 數量 Qty | | |
| NT30-NBH2084S-3P-SET | NBH2084S | SBJ-2012-53 | M2.5-6.0-3.5-60 | T8K | 1.2 | PT4 | 1 | 1 | 6.20 |
| NT40-NBH2084S-3P-SET | | | | | | | | | 6.60 |
| NT50-NBH2084S-3P-SET | | SBJ-2025-96 | M3-8.0-4.0-43 | T9K | 1.4 | PT6 | | | 8.90 |
| BT40-NBH2084S-3P-SET | | | | | | | | | 8.00 |
| BT50-NBH2084S-3P-SET | | | | | | | | | SBJ-L20-20 |

| 規格 Spec. | 內容物 Contents | | | | | | | | Fig. | 重量 (KGS) Weight |
|----------------------|-----------------|-------------|----------------------------|-----------------|-----------|------------------|-----------|--------|------|-----------------|
| | 搪刀頭 Boring Head | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 扳手 Wrench | 數量 Qty | | |
| NT30-NBH2084S-3P-SET | NBH2084S | SBJ-2012-53 | TPGT090204L RM4030(10片) | M2.5-6.0-3.5-60 | T8K | 1.2 | PT4 | 1 | 2 | 6.40 |
| NT40-NBH2084S-3P-SET | | | | | | | | | | 6.80 |
| NT50-NBH2084S-3P-SET | | SBJ-2025-96 | TPGT110304L RM4030(10片) | M3-8.0-4.0-43 | T9K | 1.4 | PT6 | | | 9.10 |
| BT40-NBH2084S-3P-SET | | | | | | | | | | 8.50 |
| BT50-NBH2084S-3P-SET | | | | | | | | | | SBJ-L20-20 |

| 規格 Spec. | 內容物 Contents | | | | | | | Fig. | 重量 (KGS) Weight |
|----------------------|-----------------|--------------|-----------------|-----------|------------------|-----------|--------|------|-----------------|
| | 搪刀頭 Boring Head | 刀具 Tools | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 扳手 Wrench | 數量 Qty | | |
| NT30-NBH2084S-8P-SET | NBH2084S | SBJ-2008-32 | M2-5.0-2.7-60 | T6K | 0.6 | PT4 | 1 | 3 | 7.30 |
| NT40-NBH2084S-8P-SET | | SBJ-2010-40 | | | | | | | 7.70 |
| NT50-NBH2084S-8P-SET | | SBJ-2012-53 | | | | | | | 10.0 |
| BT40-NBH2084S-8P-SET | | SBJ-2016-68 | M2.5-6.0-3.5-60 | T8K | 1.2 | 8.70 | | | |
| BT50-NBH2084S-8P-SET | | SBJ-2020-83 | M3-8.0-4.0-43 | T9K | 1.4 | PT6 | | | 11.19 |
| | | SBJ-2025-96 | | | | | | | - |
| | | SBJ-2030-115 | | | | | | | - |
| | | SBJ-L20-20 | | | | | | | - |

| 規格 Spec. | 內容物 Contents | | | | | | | | Fig. | 重量 (KGS) Weight |
|----------------------|-----------------|--------------|--------------------------------|-----------------|-----------|------------------|-----------|--------|------|-----------------|
| | 搪刀頭 Boring Head | 刀具 Tools | 刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 扳手 Wrench | 數量 Qty | | |
| NT30-NBH2084S-8P-SET | NBH2084S | SBJ-2008-32 | TBGT060102L RM4030 (10片) | M2-5.0-2.7-60 | T6K | 0.6 | PT4 | 1 | 4 | 7.50 |
| NT40-NBH2084S-8P-SET | | SBJ-2010-40 | | | | | | | | 7.80 |
| NT50-NBH2084S-8P-SET | | SBJ-2012-53 | TPGT090204L RM4030 (10片) | M2.5-6.0-3.5-60 | T8K | 1.2 | PT4 | | | 10.2 |
| BT40-NBH2084S-8P-SET | | SBJ-2016-68 | | | | | | | | 9.00 |
| BT50-NBH2084S-8P-SET | | SBJ-2020-83 | | | | | | | | 11.19 |
| | | SBJ-2025-96 | TPGT110304L RM4030 (10片) | M3-8.0-4.0-43 | T9K | 1.4 | PT6 | | | - |
| | | SBJ-2030-115 | | | | | | | | - |
| | | SBJ-L20-20 | | | | | | | | - |

• 長度單位 Unit of Length (mm)



| ISO 分類 | P | 合金鋼 Alloyed Steels | ○ | | | | | | | | | | | | | | | | | | 切削狀態 Cutting Condition : | | | |
|---------|-----------------|------------------------------------|---|--|--|---------------------------------|--------|--|--|-----------|--|------------------------------|--|---------|------|------|-----|------------|---|--|--------------------------|----------------------------|--|--|
| | M | 不鏽鋼 Stainless Steels | | | | | | | | | | | | | | | | | | | | ● 連續切削 Continuous Cutting | | |
| | K | 鑄鐵 Cast Iron | | | | | | | | | | | | | | | | | | | | ○ 一般切削 General Cutting | | |
| | N | 鋁及鋁合金 Aluminum&Al | | | | | | | | | | | | | | | | | | | | ■ 斷續切削 Interrupted Cutting | | |
| | S | 高溫合金 Refractory Alloys | | | | | | | | | | | | | | | | | | | | | | |
| | H | 高硬度材 Hard Material | | | | | | | | | | | | | | | | | | | | | | |
| 形狀 Form | 規格 Spec. | 鍍層硬質合金 Layer coating carbide alloy | | | | 鍍層超微粒 Layer coating ultra-micro | | | | 瓷金 Cermet | | 超硬微粒 Ultra-hard microprogram | | 尺寸 (mm) | | | | 圖形 Drawing | | | | | | |
| | | CVD | | | | CHF | | | | HT | | HF | | Size | | | | | | | | | | |
| | | RM4035 | | | | RM4015 | RM4030 | | | RM1205 | | RM5005 | | | d | i | s | | r | | | | | |
| | CCGT03S102L-F | | | | | | | | | | | | | 3.57 | - | 1.39 | 0.2 | | | | | | | |
| | CCGT03S104L-F | | | | | ● | | | | | | | | 3.57 | - | 1.39 | 0.4 | | | | | | | |
| | CCMT060202N-F01 | ● | | | | | | | | | | | | 6.35 | 6.4 | 2.38 | 0.4 | | | | | | | |
| | CCMT060204N-F01 | ● | | | | | | | | | | | | 6.35 | 6.4 | 2.38 | 0.8 | | | | | | | |
| | CCMT09T304N-F01 | ● | | | | | | | | | | | | 9.525 | 9.7 | 3.97 | 0.4 | | | | | | | |
| | CCMT09T308N-F01 | ● | | | | | | | | | | | | 9.525 | 9.7 | 3.97 | 0.8 | | | | | | | |
| | CCMT120404N-F01 | ● | | | | | | | | | | | | 12.7 | 12.9 | 4.76 | 0.4 | | | | | | | |
| | CCMT120408N-F01 | ● | | | | | | | | | | | | 12.7 | 12.9 | 4.76 | 0.8 | | | | | | | |
| | TBGT060102L-F01 | | | | | | ● | | | ● | | ● | | 3.97 | 6.4 | 1.59 | 0.2 | | | | | | | |
| | TBGT060104L-F01 | | | | | | ● | | | ● | | ● | | 3.97 | 6.4 | 1.59 | 0.4 | | | | | | | |
| | TPGT080202L-F01 | | | | | | ● | | | ● | | ● | | 4.76 | 8.2 | 2.38 | 0.2 | | | | | | | |
| | TPGT080204L-F01 | | | | | | ● | | | ● | | ● | | 4.76 | 8.2 | 2.38 | 0.4 | | | | | | | |
| | TPGT090202L-F01 | | | | | | ● | | | ● | | ● | | 5.56 | 9.6 | 2.38 | 0.2 | | | | | | | |
| | TPGT090204L-F01 | | | | | | ● | | | ● | | ● | | 5.56 | 9.6 | 2.38 | 0.4 | | | | | | | |
| | TPGT110302L-F01 | | | | | | ● | | | ● | | ● | | 6.35 | 11 | 3.18 | 0.2 | | | | | | | |
| | TPGT110304L-F01 | | | | | | ● | | | ● | | ● | | 6.35 | 11 | 3.18 | 0.4 | | | | | | | |

• 長度單位 Unit of Length (mm)



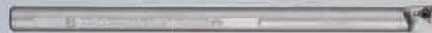
Damping

減震模組化示意圖

Modular combination

車削TURNING

一體式
Integrated



DP/STUPR一體式減震車刀架
Vibration -damped Boring Bar With Coolant

BM 模組化系列
BM Modular Series



BM模組化高硬度減震車刀柄
Modular Vibration-damped Boring Bar



BM模組化高硬度大柄徑減震車刀柄
Modular Vibration-damped Boring Bar



BM模組化鎢鋼減震車刀柄
Modular Vibration-damped Carbide Boring Bar



BM/SCLCR, STUCR, SNR
BM/SDUCR, STUPR, SVUCR
BM/MCLNR, MTUNR

DPFSCK 模組化系列
DPFSCK Modular Series



DPFSCK 模組化減震車刀柄
Modular Vibration -damped Boring Bar Shank



FSCK/SCLC, SCLP, SCKC, SDZC
FSCK/SDUC, STFC, STUC, STUP
FSCK/SVJC, MCLN, MTUN, SDQC
FSCK/SSSC, SVUC, SIR, DGIR

平面銑削FACE MILLING



FDP減震銑刀桿
Damping Face Mill Arbor



HR圓刀殼型銑刀
Round Corner End Milling Cutter



BGP迷你殼型銑刀
Face Milling Cutter



IFM殼型銑刀
Face Milling Cutter



GR圓刀殼型銑刀
Round Corner End Milling Cutter



SFM殼型銑刀
Face Milling Cutter



KM45°殼型銑刀
Face Milling Cutter



KFM殼型銑刀
Face Milling Cutter

搪孔Boring

樣式1 Type1

(DX6)



MCK搪孔頭刀柄
Boring Head Shank



CK搪孔頭刀柄
Boring Head Shank



SCK/DP 減震延長桿
Damping Extension



SMB超微米精搪頭
SMB Super Micron Exchangeable
Finish Boring Head

樣式2 Type2

(DX6)



CK / DP搪孔頭刀柄
Boring Head Shank



SMB超微米精搪頭
SMB Super Micron Exchangeable
Finish Boring Head

樣式3 Type3

(DX8)



MCK搪孔頭刀柄
Boring Head Shank



CK搪孔頭刀柄
Boring Head Shank



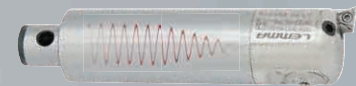
SBT/MLK法蘭加厚型(雙面拘束)
強力銑削夾頭
Dual DRIVE Force Collet Chuck



SCK延長桿
Anti-Vibration Extension



SCK直柄碳化鎢鋼搪孔頭刀桿
Straight Carbide Boring Shank



CBH / DP減震精搪頭
Damping Finish Boring Head

樣式4 Type4

(DX8)



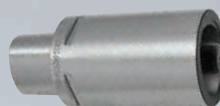
HSK/PSC套筒
HSK/PSC Adapter



SBT/PSC套筒
SBT/PSC Adapter



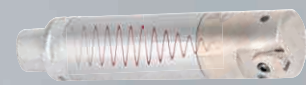
DAT/PSC套筒
DAT/PSC Adapter



PSC等徑套筒
PSC Adapter For Same Dia.



PSC異徑套筒
Adapter For Different Dia.



PSC/PMB減震精密微調搪頭
Submicron Finish Boring Head

Feature

Anti-Vibration



DP減震系列特點

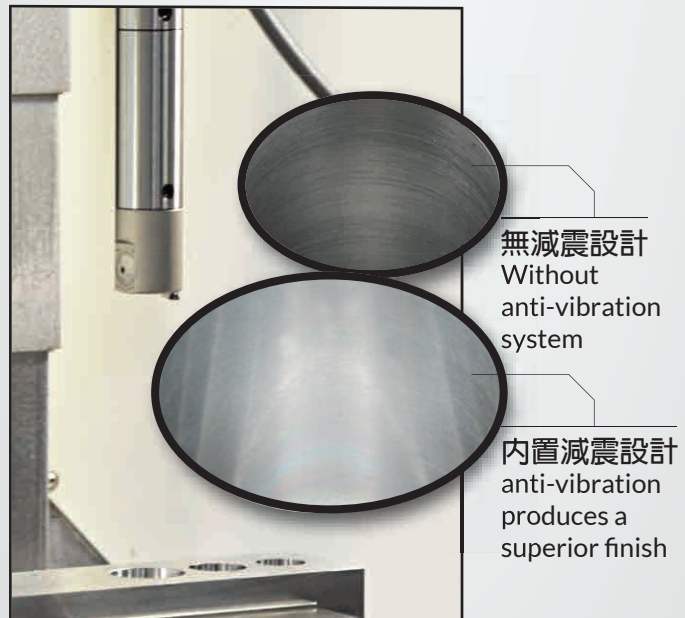


本產品應用在加工深度為柄徑的4~8倍長效果最好。減震器與搪孔頭的結合，一體式的結構，當搪孔加工時可與一般MCK/CK刀桿結合，得到更大的加工有效長與更好的加工表面精度。

具有多種規格，所有規格均具有中心出水功能。使用雙邊對稱定位接合，可使減震效果更好。

For most efficient results use for 4D~8D machining. Adjust the scale of each grid to a diameter of 0.002mm. The integrated damper and extension with generic MCK/CK arbors achieve wider cuts and better accuracy.

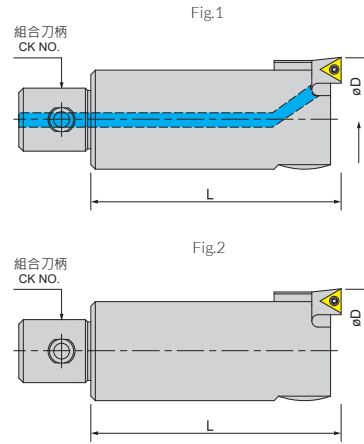
No matter the specifications or the desired function the coolant runs through the spindle. The bilateral symmetry joint allows for almost zero vibration.



使用減震系列產品，對於長懸伸刀具加工時，可有效改善工件表面粗糙度、提高金屬切除率、延長刀具使用壽命。

The CBH/DP is most efficient cutting deeply. It enhances the workpiece's surface finish and has a longer life.

Anti-Vibration



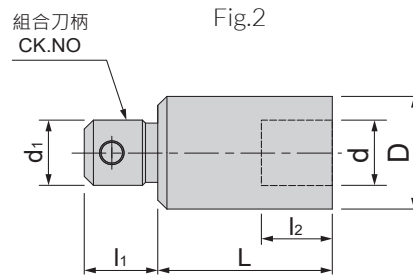
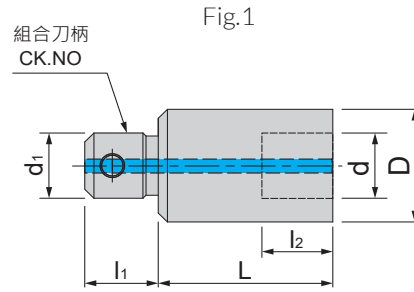
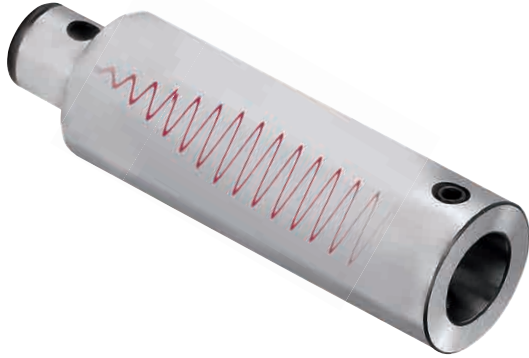
| | | |
|--|---------------------------------|---------------------------------|
| 搪孔範圍 ø20~152 Boring Range | 精度 0.01mm Accuracy | 最高轉速 6000 Max. rpm |
|--|---------------------------------|---------------------------------|

| 規格 Spec. | øD 搪孔範圍 Boring Range | | 組合刀柄 Ck No. | L | 使用刀片 Insert | 螺絲 Screw | 扳手 Wrench | 扭力值 (N.m) Torque | 重量 (KGS) Weight | Fig. |
|-------------------------|-------------------------|------|----------------|-----|----------------|-----------------|--------------|------------------------|-----------------------|------|
| | Min. | Max. | | | | | | | | |
| CBH20DP-90L-TP08 | 20 | 26 | CK1 | 90 | TP.0802 | M2-5.0-3.1-60 | T6 | 0.6 | 0.22 | 2 |
| CBH25DP-90L-TP08 | 25 | 33 | CK2 | 90 | TP.0802 | M2-5.0-3.1-60 | T6 | 0.6 | 0.39 | 2 |
| CBH32DP-100L-TP08 | 32 | 42 | CK3 | 100 | TP.0802 | M2-5.0-3.1-60 | T6 | 0.6 | 0.71 | 1 |
| CBH40DP-120L-TP08 | 40 | 55 | CK4 | 120 | TP.0802 | M2-5.0-3.1-60 | T6 | 0.6 | 1.27 | 1 |
| CBH52DP-140L-TP08 | 52 | 75 | CK5 | 140 | TP.0802 | M2-5.0-3.1-60 | T6 | 0.6 | 2.72 | 1 |
| CBH68DP-175L-TP08 | 68 | 102 | CK6 | 175 | TP.0802 | M2-5.0-3.1-60 | T6 | 0.6 | 5.70 | 1 |
| CBH68DP-175L-TP09 | 68 | 102 | CK6 | 175 | TP.0902 | M2.5-6.0-3.5-60 | T8 | 1.2 | 5.70 | 1 |
| CBH68DP-175L-TC11 | 68 | 102 | CK6 | 175 | TC..1102 | M2.5-6.0-3.5-60 | T8 | 1.2 | 5.70 | 1 |
| CBH100DP-225L-CK7R-TP08 | 100 | 152 | CK7R | 225 | TP.0802 | M2.5-5.0-3.1-60 | T6 | - | 13.0 | 1 |
| CBH100DP-225L-CK7R-TP09 | 100 | 152 | CK7R | 225 | TP.0902 | M2.5-6.0-3.5-60 | T8 | - | 13.0 | 1 |
| CBH100DP-225L-CK7R-TC11 | 100 | 152 | CK7R | 225 | TC..1102 | M2.5-6.0-3.5-60 | T8 | - | 13.0 | 1 |
| CBH150DP-225L-CK7R-TP08 | 150 | 202 | CK7R | 225 | TP.0802 | M2.5-5.0-3.1-60 | T6 | - | 15.0 | 1 |
| CBH150DP-225L-CK7R-TP09 | 150 | 202 | CK7R | 225 | TP.0902 | M2.5-6.0-3.5-60 | T8 | - | 15.0 | 1 |
| CBH150DP-225L-CK7R-TC11 | 150 | 202 | CK7R | 225 | TC..1102 | M2.5-6.0-3.5-60 | T8 | - | 15.0 | 1 |
| CBH200DP-285L-CK7R-TP08 | 200 | 310 | CK7R | 285 | TP.0902 | M2.5-6.0-3.5-60 | T8 | - | 18.0 | 1 |
| CBH200DP-285L-CK7R-TP09 | 200 | 310 | CK7R | 285 | TC..1102 | M2.5-6.0-3.5-60 | T8 | - | 18.0 | 1 |
| CBH200DP-285-CK7R-TC11 | 200 | 310 | CK7R | 285 | TP.0802 | M2.5-5.0-3.1-60 | T8 | - | 18.0 | 1 |

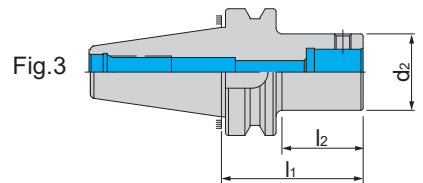
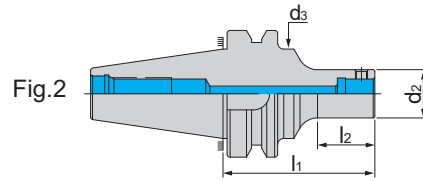
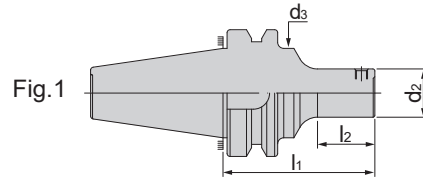
選配表 Option

| 刀桿 Shank | 搪頭 Boring Head | |
|-----------|----------------|------|
| | | |
| B698-B700 | B727 | B730 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | 組合刀柄 Ck No. | L | l ₁ | l ₂ | D | d | d ₁ | 適用搪孔頭 Suitable Boring Head | 重量 (KGS) Weight | Fig. |
|---------------|----------------|-----|----------------|----------------|----|----|----------------|-------------------------------|-----------------------|------|
| SCK2DP-2-75L | CK2 | 75 | 16 | 18 | 24 | 14 | 14 | CBH25/MBH25 | 0.33 | 2 |
| SCK3DP-3-100L | CK3 | 100 | 20 | 22 | 31 | 18 | 18 | CBH32/MBH32 | 0.62 | 1 |
| SCK4DP-4-120L | CK4 | 120 | 24 | 26 | 39 | 22 | 22 | CBH40/MBH40 | 1.11 | 1 |
| SCK5DP-5-130L | CK5 | 130 | 30 | 32 | 50 | 28 | 28 | CBH52/MBH52/FBH55 | 2.30 | 1 |
| SCK6DP-6-170L | CK6 | 170 | 40 | 42 | 64 | 36 | 36 | CBH68/MBH68/FBH68 | 5.10 | 1 |



6 倍長 6 Times Longer

| 規格 Spec. | l_1 | l_2 | d_2 | d_3 | 適用搪孔頭 Suitable Boring Head | Fig. | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-------|----------------------------|------|-----------------|
| BT40 x CK2DP-150 | 150 | 110 | 24 | 39 | SMB25/SCK2430-C/SCK2940-C | 1 | 2.94 |
| BT40 x CK3DP-200 | 200 | 160 | 31 | 50 | SMB32/SCK3950-C | 2 | - |
| BT40 x CK4DP-235 | 235 | 200 | 39 | 50 | SMB41/SCK4965-C | 2 | 4.4 |
| BT40 x CK5DP-310 | 310 | 280 | 50 | - | SMB53/SCK6382-C | 3 | - |
| BT40 x CK6DP-295 | 295 | 270 | 64 | - | SMB68/SCK80102-C | 3 | 9.7 |
| BT50 x CK2DP-160 | 160 | 110 | 24 | 39 | SMB25/SCK2430-C/SCK2940-C | 1 | - |
| BT50 x CK3DP-220 | 220 | 160 | 31 | 50 | SMB32/SCK3950-C | 2 | 6.5 |
| BT50 x CK4DP-260 | 260 | 205 | 39 | 64 | SMB41/SCK4965-C | 2 | 7.42 |
| BT50 x CK5DP-310 | 310 | 265 | 50 | 64 | SMB53/SCK6382-C | 2 | 9.34 |
| BT50 x CK6DP-375 | 375 | 330 | 64 | - | SMB68/SCK80102-C | 3 | 13.22 |

8 倍長 8 Times Longer

| 規格 Spec. | l_1 | l_2 | d_2 | d_3 | 適用搪孔頭 Suitable Boring Head | Fig. | 重量 (KGS) Weight |
|------------------|-------|-------|-------|-------|----------------------------|------|-----------------|
| BT40 x CK2DP-200 | 200 | 160 | 24 | 39 | SMB25/SCK2430-C/SCK2940-C | 1 | 3.14 |
| BT40 x CK3DP-260 | 260 | 220 | 31 | 50 | SMB32/SCK3950-C | 2 | 4.1 |
| BT40 x CK4DP-315 | 315 | 280 | 39 | 50 | SMB41/SCK4965-C | 2 | - |
| BT50 x CK2DP-210 | 210 | 160 | 24 | 39 | SMB25/SCK2430-C/SCK2940-C | 1 | 5.74 |
| BT50 x CK3DP-280 | 280 | 220 | 31 | 50 | SMB32/SCK3950-C | 2 | - |
| BT50 x CK4DP-340 | 340 | 285 | 39 | 64 | SMB41/SCK4965-C | 2 | 8.38 |
| BT50 x CK5DP-400 | 400 | 355 | 50 | 64 | SMB53/SCK6382-C | 2 | - |
| BT50 x CK6DP-505 | 505 | 460 | 64 | - | SMB68/SCK80102-C | 3 | - |

選配表 Option

| 搪頭 Boring Head | 延長桿 Extension |
|----------------|---------------|
| | |
| B759 | B760 |

• 長度單位 Unit of Length (mm)



FDP 減震銑刀桿

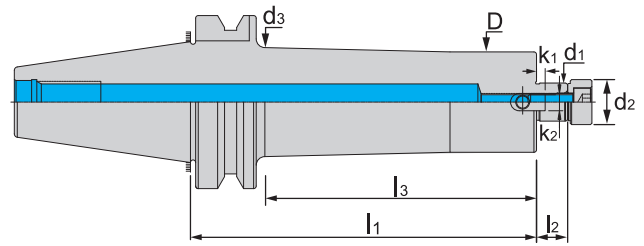
FDP DAMPING FACE MILL ARBOR

PAT.NO : M505356
 PAT.NO : M510806
 ZL201520282217.6
 ZL201520282261.7

Anti-Vibration

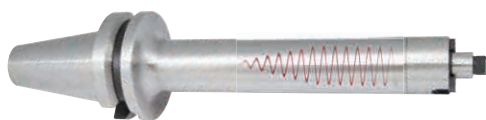


LEMMA



| 規格 Spec. | l_1 | l_2 | l_3 | D | d_1 | d_2 | d_3 | k_1 | k_2 | 重量 (KGS) Weight |
|----------------------|-------|-------|-------|----|-------|-------|-------|-------|-------|-----------------|
| BT50 x FDP22-300BG | 300 | 18 | 255 | 58 | 22 | 31.75 | 62 | 4.3 | 10 | 10.84 |
| BT50 x FDP22-350BG | 350 | 18 | 305 | 58 | 22 | 31.75 | 62 | 4.3 | 10 | - |
| BT50 x FDP22-400BG | 400 | 18 | 355 | 58 | 22 | 31.75 | 62 | 4.3 | 10 | 12.72 |
| BT50 x FDP22-500BG | 500 | 18 | 455 | 58 | 22 | 31.75 | 62 | 4.3 | 10 | 14.96 |
| BT50 x FDP27-300BG | 300 | 20 | 255 | 58 | 27 | 31.5 | 62 | 5.8 | 12 | 10.96 |
| BT50 x FDP27-350BG | 350 | 20 | 305 | 58 | 27 | 31.5 | 62 | 5.8 | 12 | 11.32 |
| BT50 x FDP27-400BG | 400 | 20 | 355 | 58 | 27 | 31.5 | 62 | 5.8 | 12 | - |
| BT50 x FDP27-450BG | 450 | 20 | 405 | 58 | 27 | 31.5 | 62 | 5.8 | 12 | 13.66 |
| BT50 x FDP27-500BG | 500 | 20 | 455 | 58 | 27 | 31.5 | 62 | 5.8 | 12 | - |
| BT50 x FDP32-300BG | 300 | 21 | 255 | 74 | 32 | 41 | 78 | 6.8 | 14 | - |
| BT50 x FDP32-400BG | 400 | 21 | 355 | 74 | 32 | 41 | 78 | 6.8 | 14 | 16.76 |
| BT50 x FDP32-500BG | 500 | 21 | 455 | 74 | 32 | 41 | 78 | 6.8 | 14 | - |
| BT50 x FDP32-600BG | 600 | 21 | 555 | 74 | 32 | 41 | 78 | 6.8 | 14 | - |
| HSK63A-FDP16-200 | 200 | 16.5 | 169 | 38 | 16 | 17 | 38 | 4.3 | 8 | 2.58 |
| HSK63A-FDP16-250 | 250 | 16.5 | 219 | 38 | 16 | 17 | 38 | 4.3 | 8 | 3.31 |
| HSK63A-FDP22-250 BG | 250 | 18 | 219 | 58 | 22 | 31.75 | 61 | 4.3 | 10 | 6.3 |
| HSK63A-FDP22-300 BG | 300 | 18 | 269 | 58 | 22 | 31.75 | 61 | 4.3 | 10 | 7.4 |
| HSK100A-FDP22-300 BG | 300 | 18 | 261 | 58 | 22 | 31.75 | 61 | 4.3 | 10 | 8.84 |
| HSK100A-FDP22-350 BG | 350 | 18 | 311 | 58 | 22 | 31.75 | 61 | 4.3 | 10 | 9.9 |
| HSK100A-FDP22-400 BG | 400 | 18 | 361 | 58 | 22 | 31.75 | 61 | 4.3 | 10 | 10.96 |
| HSK100A-FDP22-450 BG | 450 | 18 | 411 | 58 | 22 | 31.75 | 61 | 4.3 | 10 | 12.02 |
| HSK100A-FDP22-500 BG | 500 | 18 | 461 | 58 | 22 | 31.75 | 61 | 4.3 | 10 | 13.08 |
| HSK100A-FDP27-300 BG | 300 | 20 | 261 | 74 | 27 | 31.5 | 78 | 5.8 | 12 | 10.12 |
| HSK100A-FDP27-350 BG | 350 | 20 | 311 | 74 | 27 | 31.5 | 78 | 5.8 | 12 | 11.27 |
| HSK100A-FDP27-400 BG | 400 | 20 | 361 | 74 | 27 | 31.5 | 78 | 5.8 | 12 | 12.41 |
| HSK100A-FDP27-450 BG | 450 | 20 | 411 | 74 | 27 | 31.5 | 78 | 5.8 | 12 | 13.63 |
| HSK100A-FDP27-500BG | 500 | 20 | 461 | 74 | 27 | 31.5 | 78 | 5.8 | 12 | 14.71 |
| HSK100A-FDP32-300 BG | 300 | 21 | 261 | 74 | 32 | 41 | 85 | 6.8 | 14 | 10.28 |
| HSK100A-FDP32-350 BG | 350 | 21 | 311 | 74 | 32 | 41 | 85 | 6.8 | 14 | 11.46 |
| HSK100A-FDP32-400 BG | 400 | 21 | 361 | 74 | 32 | 41 | 85 | 6.8 | 14 | 12.58 |
| HSK100A-FDP32-450 BG | 450 | 21 | 411 | 74 | 32 | 41 | 85 | 6.8 | 14 | 13.73 |
| HSK100A-FDP32-500 BG | 500 | 21 | 461 | 74 | 32 | 41 | 85 | 6.8 | 14 | 14.88 |
| HSK100A-FDP32-600 BG | 600 | 21 | 561 | 74 | 32 | 41 | 85 | 6.8 | 14 | 17.18 |

範例 Example

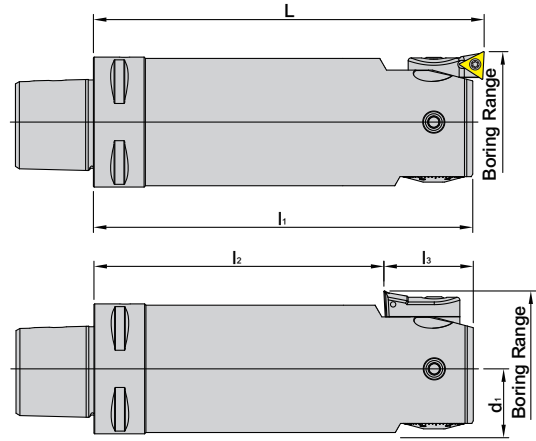


選配表 Option

| 銑刀頭 Milling Cutter | | | | | | |
|--------------------|------|------|------|------|------|------|
| | | | | | | |
| A116 | A125 | A154 | A141 | A158 | A161 | A164 |

• 長度單位 Unit of Length (mm)

BORING



| 規格 Spec. | øD 搪孔範圍 Boring Range(正搪) | | | | øD 搪孔範圍 Boring Range(背搪) | | | | | 刀片座 Insert Seat | 刀片 Insert | 螺絲 Screw | 重量 (KGS) Weight | |
|-------------------|----------------------------|------|-----|-------|----------------------------|------|-------|------|------|-----------------|----------------------|-----------------|-----------------|------|
| | Min. | Max. | L | l1 | Min. | Max. | l2 | l3 | d1 | | | | | |
| PSC32-PMB32DP-115 | 32 | 42 | 115 | 110 | - | - | 90 | 25 | 16 | SIB32-1/SIC32-1 | TB..0601 TP..0802 | M2-5.0-2.7-60 | 0.82 | |
| | 41 | 51 | 115 | 110 | 46 | 51 | 90 | 25 | 16 | | | | SIB32-2/SIC32-2 | 0.82 |
| | 50 | 60 | 115 | 110 | 50 | 60 | 90 | 25 | 16 | | | | SIB32-3/SIC32-3 | 0.82 |
| PSC40-PMB41DP-125 | 41 | 54 | 125 | 121 | - | - | 96 | 29 | 20 | SIB41-1/SIC41-1 | TP..0902 TC..1102 | M2.5-6.0-3.5-60 | - | |
| | 50 | 63 | 125 | 121 | 53 | 63 | 96 | 29 | 20 | | | | SIB41-2/SIC41-2 | - |
| | 61 | 74 | 125 | 121 | 61 | 74 | 96 | 29 | 20 | | | | SIB41-3/SIC41-3 | - |
| PSC50-PMB53DP-150 | 53 | 70 | 150 | 146 | 62 | 70 | 116 | 34 | 25.5 | SIB53-1/SIC53-1 | TP..0902 TC..1102 | M2.5-6.0-3.5-60 | 2.72 | |
| | 65 | 82 | 150 | 146 | 65 | 82 | 116 | 34 | 25.5 | | | | SIB53-2/SIC53-2 | 2.72 |
| | 78 | 95 | 150 | 146 | 78 | 95 | 116 | 34 | 25.5 | | | | SIB53-3/SIC53-3 | 2.72 |
| PSC63-PMB68DP-190 | 68 | 100 | 190 | 186.2 | 80 | 100 | 114.8 | 45.2 | 32.5 | SIB68-1/SIC68-1 | TP..0902 TC..1102 | M2.5-6.0-3.5-60 | 5.82 | |
| | 94 | 126 | 190 | 186.2 | 94 | 126 | 114.8 | 45.2 | 32.5 | | | | SIB68-2/SIC68-2 | 5.82 |
| | 118 | 150 | 190 | 186.2 | 118 | 150 | 114.8 | 45.2 | 32.5 | | | | SIB68-3/SIC68-3 | 5.82 |

※ 不含 SIB/SIC 刀片座 · 刀片座需另外購買
 Not including SIB/SIC insert seat, insert seat need to purchase separately.

選配表 Option

| 刀桿 Shank | 刀片座 Insert Seat |
|-----------|-----------------|
| | |
| B698-B700 | B688 |

• 長度單位 Unit of Length (mm)

夾治具系統

Clamping Systems

同動求心虎鉗

Self Center

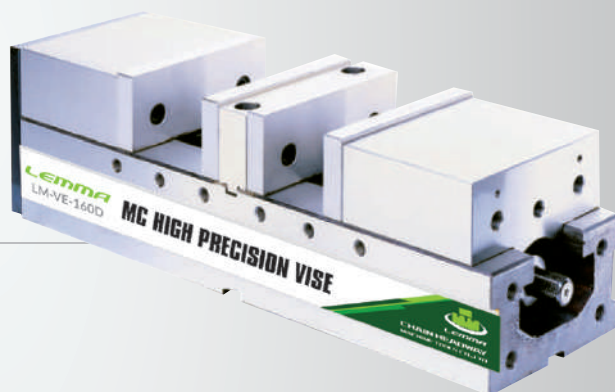


迷你虎鉗

OKV

雙夾型虎鉗

Double-Clamping

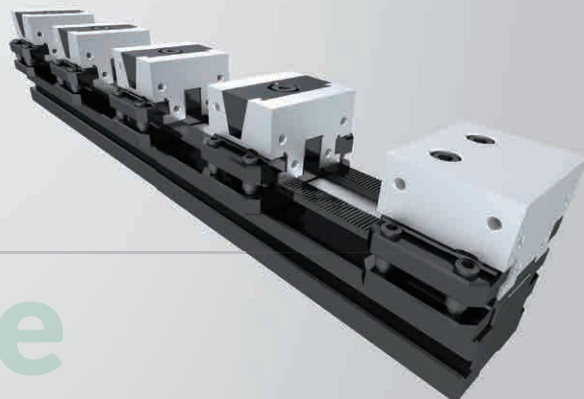


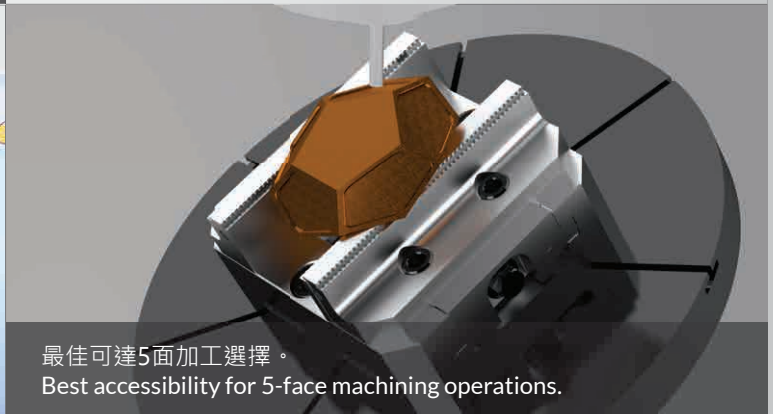
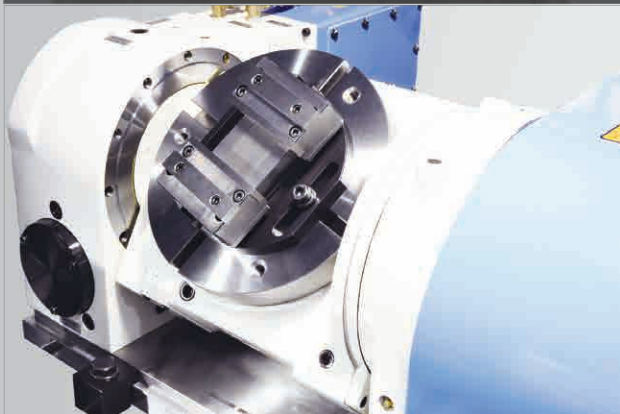
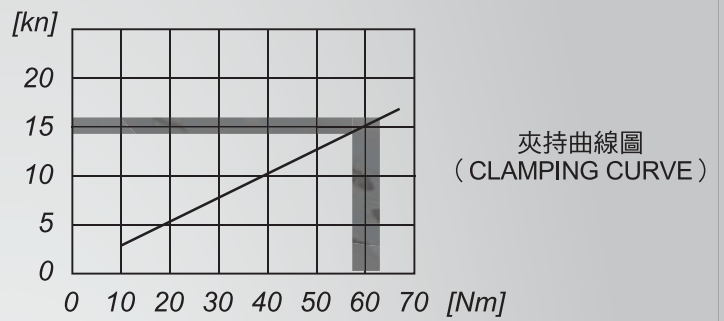
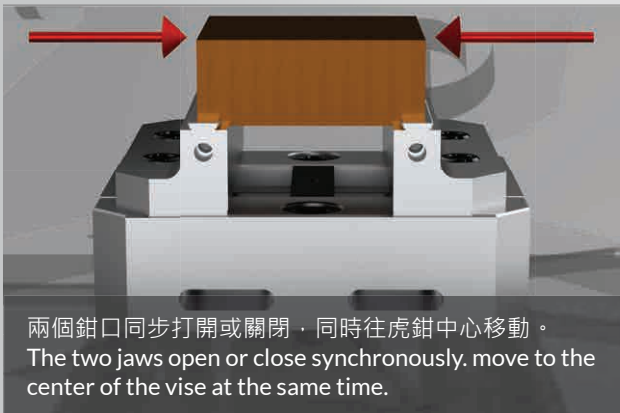
一般型虎鉗

General

彈性並列式虎鉗

Flexible Parallel Vise





特點

Features

同動式求心虎鉗適用於三、四、五軸、CNC分度盤及臥式銑床精密加工

Self Centring Precision Vise is suitable for 3、4、5 axis、CNC Rotary Table and Horizontal machining.

虎鉗中心重覆定位精度可保持 $\pm 0.01\text{mm}$ ，極其扁平的設計，為了最大限度地利用機台空間。

Vise precision of its center repetition position is $\pm 0.01\text{mm}$, extremely flat design, for maximum utilization of the machine room.

虎鉗滑軌經高週波熱處理HRC45°以上，可保持高耐磨性。

Slideway has high frequency heat treatment at HRC45° or more to keep the accuracy and its long use life.

虎鉗鉗口採用全鋼材質，經熱處理硬度達HRC55°以上，可拆換方向使用，變化性與互換性極佳。

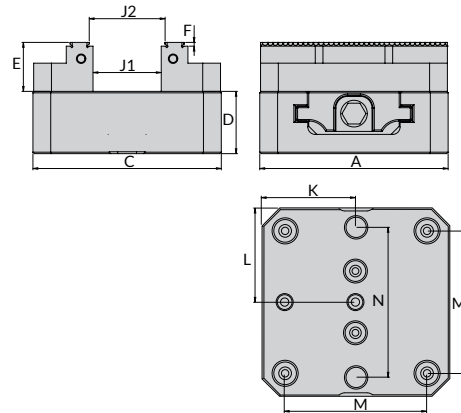
Vise hard jaw material is full Steel and heat treatment at HRC55° or more. Owing to its good design to use both sides of jaw since it is exchangeable.

虎鉗特殊的結構設計，夾持工件時所產生的下壓力能有效防止工件上浮情形，鎖固力極佳。

Special design for the Self Centring Precision Vise to prevent work piece from bending during clamping and machining. Thus, it has the best solution in clamping the work piece.

LM-VE-SC 同動求心虎鉗

LM-VE-SC SELF CENTRING VISE

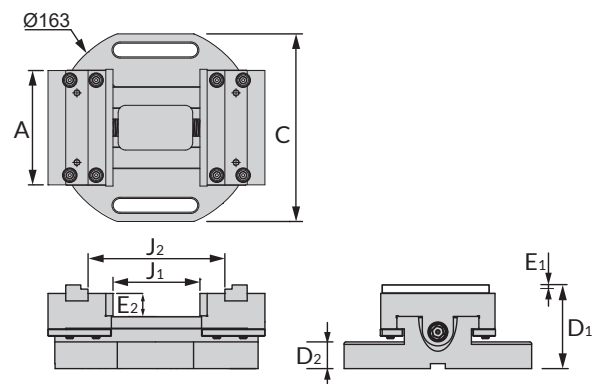


本體材質:合金鋼 Using steel alloy

| 規格 Spec. | A | C | D | E | F | J ₁ | J ₂ | K | L | M | N | 夾持力 Power | 重量 (KGS) Weight |
|---------------|-----|-----|----|----|-----|----------------|----------------|-------|------|----|-----|-----------|-----------------|
| LM-VE-127SC | 127 | 127 | 42 | 33 | 3 | 0-46 | 0-51 | 63.5 | 63.5 | 96 | 101 | 15KN | 5.5 |
| LM-VE-153SC | 127 | 153 | 42 | 33 | 3 | 0-72.5 | 0-79 | 76.5 | 63.5 | 96 | 101 | 15KN | 6.7 |
| LM-VE-210SC | 127 | 210 | 42 | 33 | 3 | 0-122 | 0-127 | 101.5 | 63.5 | 96 | 101 | 18KN | 8.7 |
| LM-VE-76102SC | 76 | 102 | 35 | 21 | 2.5 | 0-45 | 0-49 | 127.5 | 75 | 96 | - | - | - |

LM-VE-90SC 同動求心虎鉗

LM-VE-90SC SELF CENTRING VISE

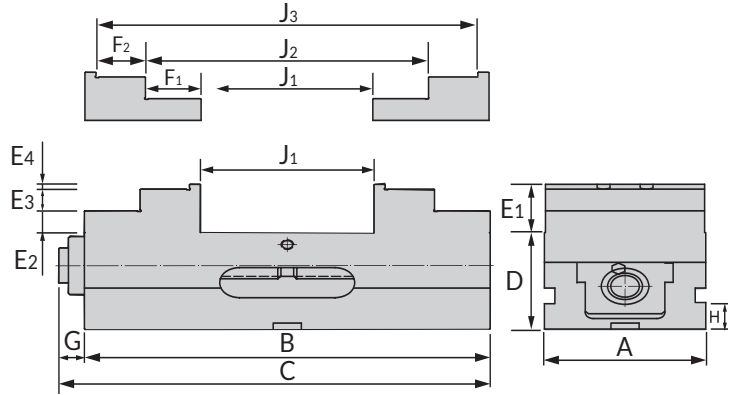
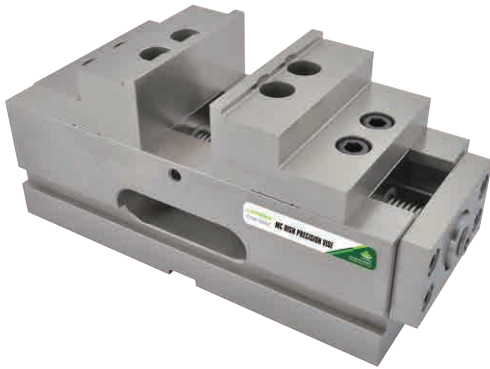


本體材質:合金鋼 Using alloy steel

| 規格 Spec. | A | C | D ₁ | D ₂ | E ₁ | E ₂ | J ₁ | J ₂ | 夾持力 Power | 重量 (KGS) Weight |
|------------|----|-----|----------------|----------------|----------------|----------------|----------------|----------------|-----------|-----------------|
| LM-VE-90SC | 90 | 151 | 60 | 17 | 5 | 18 | 0-60 | 40-100 | 15KN | 4.00 |

LM-VE-SC 同動求心虎鉗

LM-VE-SC SELF CENTRING VISE



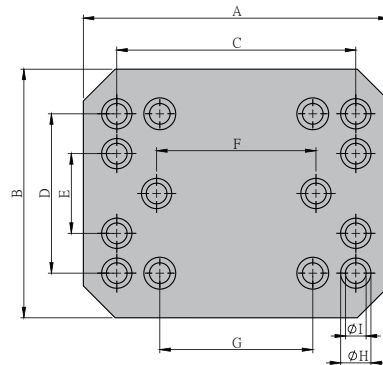
本體材質:球墨鑄鐵 Using FDC60

| 規格 Spec. | A | B | C | D | E ₁ | E ₂ | E ₃ | E ₄ | F ₁ | F ₂ | G | H | J ₁ | J ₂ | J ₃ | 夾持力 Power | 重量 (KGS) Weight |
|-------------|-----|-----|-----|-----|----------------|----------------|----------------|----------------|----------------|----------------|----|----|----------------|----------------|----------------|-----------|-----------------|
| LM-VE-60SC | 60 | 120 | 143 | 60 | 25 | 12.5 | 12.5 | - | 17.5 | - | 23 | 18 | 0-50 | 38-85 | - | 15KN | 6.00 |
| LM-VE-100SC | 101 | 240 | 260 | 80 | 40 | 18 | 18 | 4 | 35 | 31 | 20 | 22 | 0-90 | 70-160 | 134-222 | 15KN | 16.0 |
| LM-VE-160SC | 160 | 370 | 440 | 105 | 55 | 27.5 | 27.5 | - | 42.5 | - | 70 | 22 | 0-200 | 86-285 | - | 18KN | 47.0 |

CC-QCP96-192 快換式定位盤

CC-QCP96-192 QUICK-CHANGE BASE PLATE

範例 Example

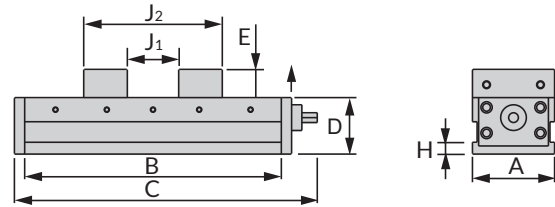
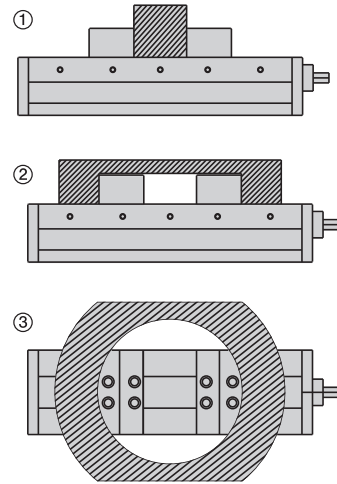


特點 Feature

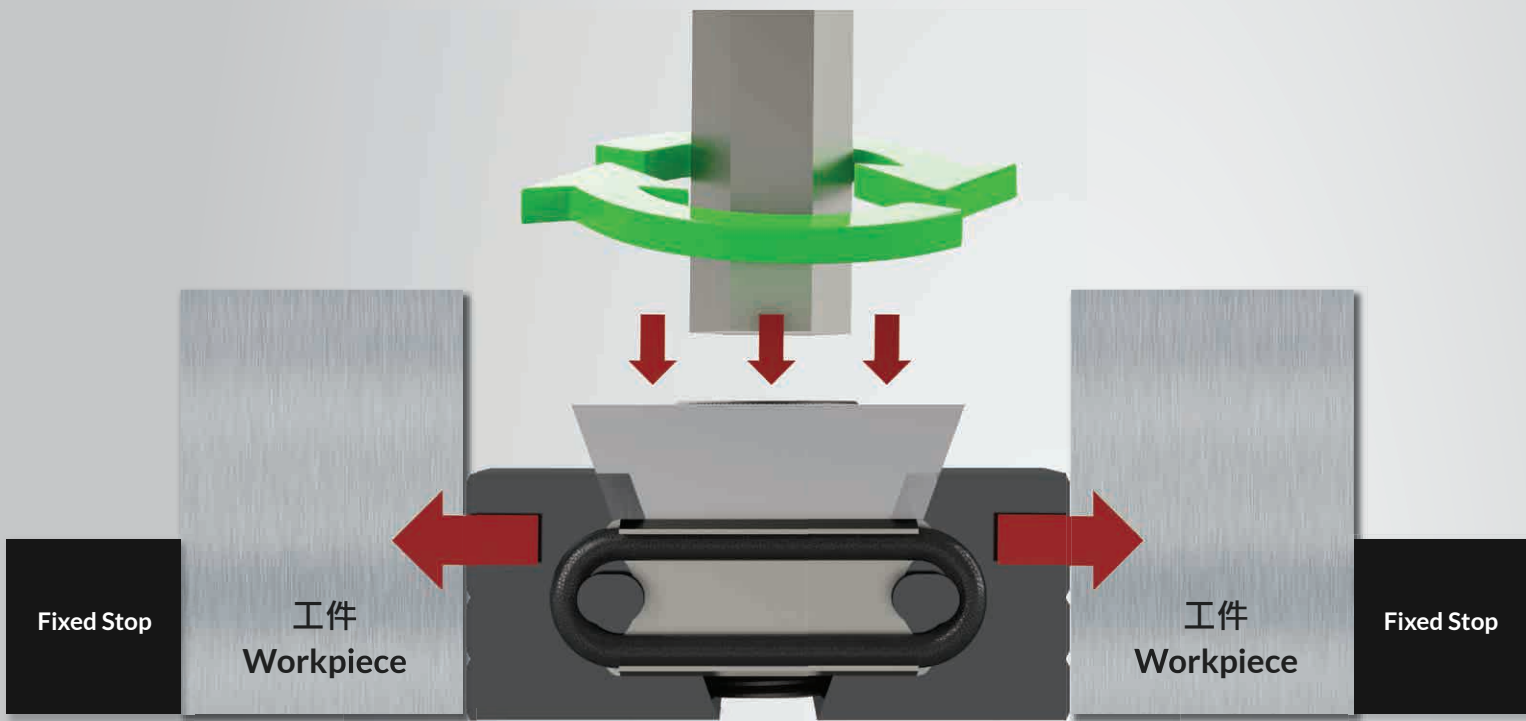
- 搭配 LM-VE-127SC、LM-VE-153SC、LM-VE-210SC 使用
- 重覆定位: ±0.005mm
- 材質: 合金鋼

- Need to be used with LM-VE-127SC、LM-VE-153SC、LM-VE-210SC
- Precision of its center repetition position is ± 0.01mm.
- Material: Alloy steel

| 規格 Spec. | A | B | C | D | E | F | G | H | I | 備註 |
|--------------|-----|-----|-----|-----|----|-----|----|----|----|-----------|
| CC-QCP96-192 | 192 | 156 | 150 | 100 | 50 | 100 | 96 | 19 | 13 | 附 4 只定位拉栓 |



| 規格 Spec. | A | B | C | D | E | H | J1 | J2 | 重量 (KGS) Weight |
|--------------|-----|-----|-----|-----|----|----|--------|---------|-----------------------|
| LM-VE-100DCS | 101 | 310 | 410 | 95 | 40 | 23 | 60~170 | 220~305 | 30.0 |
| LM-VE-130DCS | 130 | 410 | 510 | 100 | 50 | 23 | 60~250 | 220~405 | 40.0 |
| LM-VE-160DCS | 160 | 490 | 590 | 110 | 55 | 23 | 60~320 | 230~485 | 60.0 |
| LM-VE-200DCS | 200 | 565 | 665 | 120 | 60 | 23 | 60~365 | 260~560 | 100.0 |



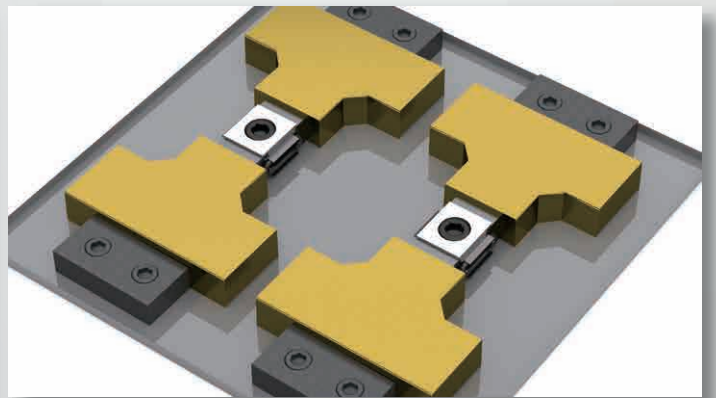
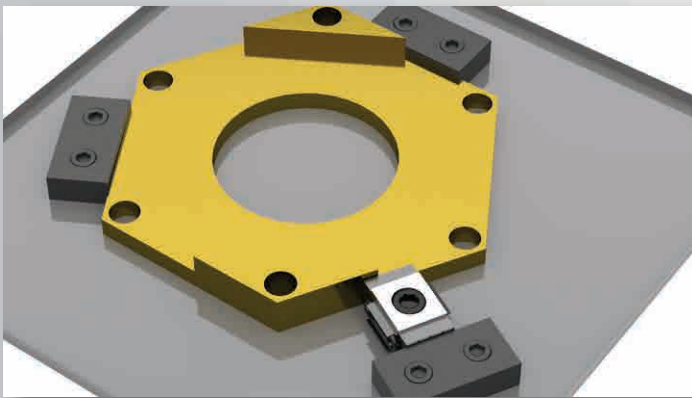
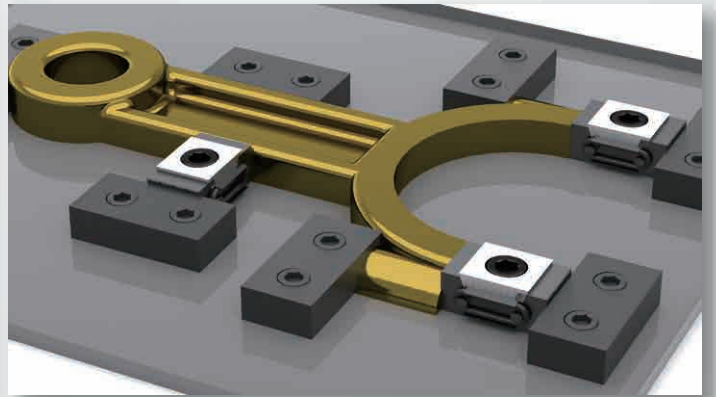
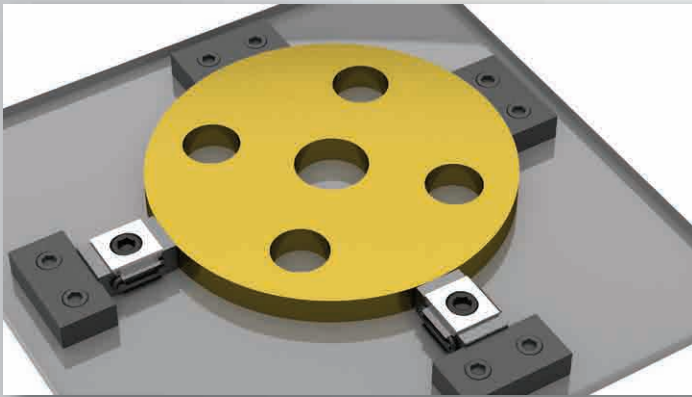
特點

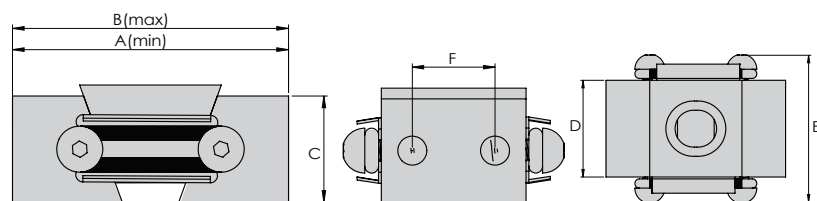
運用六角扳手輕鬆鎖固之設計結構。
Designed with a hexagonal wrench for easy locking.

Features

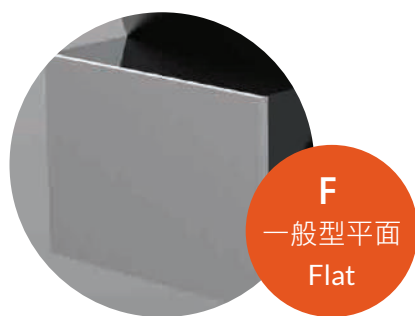
迷你型虎鉗更換工件及設置快速的特點，可靈活運用因應不同變化設計需求。
LM-OKV to replace the workpiece and set the fast features, can flexibly use the design requirements to adapt to different changes.

適用於不同工作平台 (三軸、四軸、五軸及臥式皆可使用)。
Suitable for different working platforms (three-axis, four-axis, five-axis and horizontal).





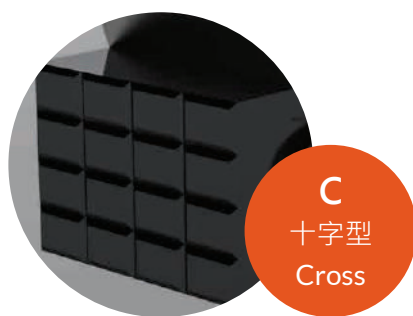
| 規格 Spec. | 形式 Type | 行程 Stroke | AB 尺寸範圍 AB Size Range | C | D | E | F | 重量 (KGS) Weight |
|--------------|---------|-----------|-----------------------|----|----|------|--------|-----------------|
| LM-OKV-2425F | 一般型平面 | 1mm | 24.5-25.5mm | 11 | 15 | 21.5 | - | 0.04 |
| LM-OKV-3742F | | 5mm | 37-42mm | 15 | 21 | 32 | - | 0.1 |
| LM-OKV-4751F | | 4mm | 47-51mm | 22 | 30 | 37 | - | 0.26 |
| LM-OKV-2425C | 十字型 | 1mm | 24.5-25.5mm | 11 | 15 | 21.5 | - | 0.04 |
| LM-OKV-3742C | | 5mm | 37-42mm | 15 | 21 | 32 | - | 0.1 |
| LM-OKV-4751C | | 4mm | 47-51mm | 22 | 30 | 37 | - | 0.24 |
| LM-OKV-3742H | 孔型 | 5mm | 37-42mm | 15 | 21 | 32 | 12(M5) | 0.1 |
| LM-OKV-4751H | | 4mm | 47-51mm | 22 | 30 | 37 | 18(M5) | 0.24 |



F
一般型平面
Flat

當工件為光滑平面時，使用平面鉗口。

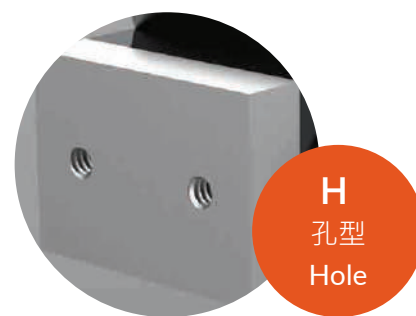
Plane jaws are used when the workpiece is a smooth plane.



C
十字型
Cross

十字型產生高摩擦力，確保在任何情況下都能可靠夾緊。

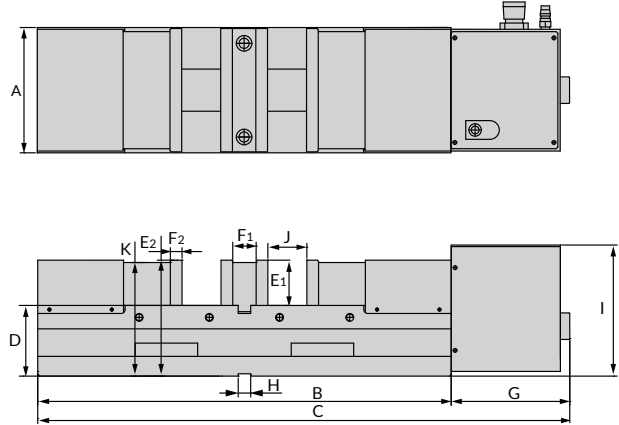
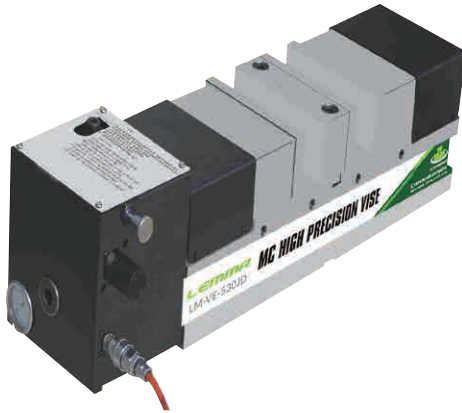
Cross type creates high friction, which ensures reliable clamping in any circumstances.



H
孔型
Hole

側面附有內螺紋，使其可以快速方便地使用各種附加零件。

Internal threads are attached to the sides, making it quick and easy to use various additional pieces.

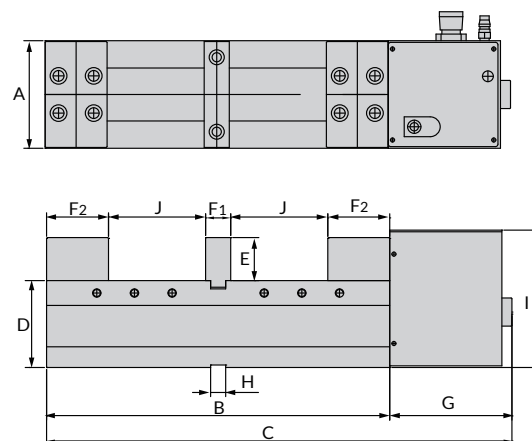
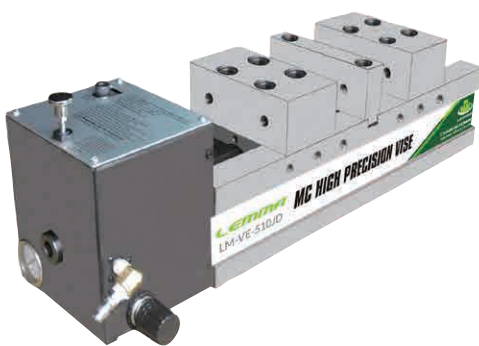


特點 Feature

- 空壓源 8kg/cm² 之低壓源，即可達 4000kgf 之超高夾持力，而夾持力從 0-4000kgf 可藉由調壓器自由調整設定

- Only need 8kg/cm² of low-voltage source to achieve 4000kgf of super high gripping force, and this gripping force can be adjusted from 0-4000kgf by using a pressure regulator.

| 規格 Spec. | A | B | C | D | E1 | E2 | F1 | F2 | G | H | I | J | K | 夾持力 Power | 重量 (KGS) Weight |
|-------------|-----|-----|-----|----|----|----|----|----|-----|----|-----|-------|-----|-----------|-----------------|
| LM-VE-530JD | 160 | 530 | 682 | 90 | 58 | 3 | 30 | 15 | 152 | 18 | 168 | 0-100 | 145 | 4000kgf | 66.0 |



特點 Feature

- 內藏浮動下壓可產生下鎖之力，可消除虎口板上浮和工作傾斜

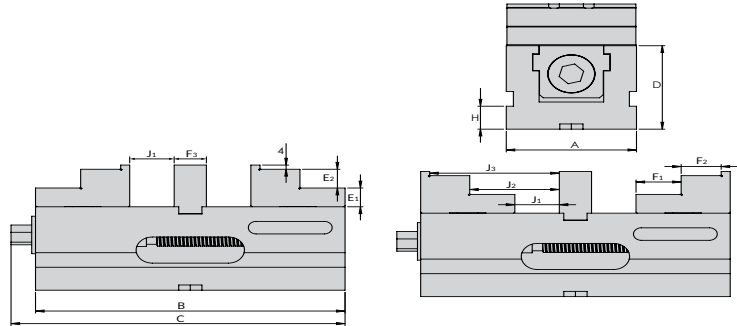
- Having built-in floating pressing structure to provide downward locking force to eliminate flotation of vise jaw and operational slope.

| 規格 Spec. | A | B | C | D | E | F1 | F2 | G | H | I | J | 夾持力 Power | 重量 (KGS) Weight |
|-------------|-----|-----|-----|-----|----|----|----|-----|----|-----|-------|-----------|-----------------|
| LM-VE-410JD | 130 | 410 | 556 | 105 | 52 | 30 | 74 | 146 | 18 | 166 | 0-115 | 3200kgf | 44.0 |
| LM-VE-510JD | 160 | 510 | 656 | 105 | 55 | 30 | 82 | 146 | 18 | 168 | 0-115 | 4000kgf | 69.0 |

• 長度單位 Unit of Length (mm)

LM-VE-SD 精巧雙夾緊虎鉗

LM-VE-SD DOUBLE-CLAMPING PRECISION VISE



特點 Feature

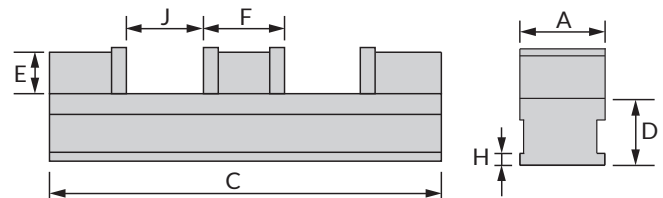
- 使用快速雙夾機構，可以同時夾緊兩邊工件，亦可單邊夾持
- 虎鉗鉗口採用全鋼材質，經熱處理硬度達 HRC55° 以上，可拆換方向使用，變化性與互換性極佳
- 虎鉗本台及鉗口有固定高度，可以組合多台同時使用
- 側面排水槽，用於排出冷卻液和切屑

- With the fast double clamp mechanism, both workpieces can be clamped at the same time, also be clamped unilaterally.
- Vise hard jaw material is full steel and heat treatment at HRC55° or more. Owing to its good design to use both sides of jaw since it is exchangeable.
- The vise and the jaws have a fixed height and can be combined for use at the same time.
- Lateral drainage slots. For drainage of coolant and chips.

| 規格 Spec. | A | B | C | D | E | E2 | F1 | F2 | F3 | G1 | G2 | H | J1 | J2 | J3 | 重量 (KGS) Weight |
|-------------|-----|-----|-----|----|----|----|----|----|----|----|----|----|------|-------|--------|-----------------|
| LM-VE-100SD | 100 | 240 | 260 | 80 | 18 | 18 | 35 | 31 | 25 | 18 | 18 | 22 | 0-35 | 35-70 | 66-100 | 18.0 |

LM-VE-D 雙夾緊虎鉗

LM-VE-D DOUBLE-CLAMPING PRECISION VISE



特點 Feature

- 虎鉗採用下鎖式機構可消除虎口上浮的功能
- 在切削中心機上 1 台可變用一次可加工 2 件工件
- 延性鑄鐵的彈簧 FCD60

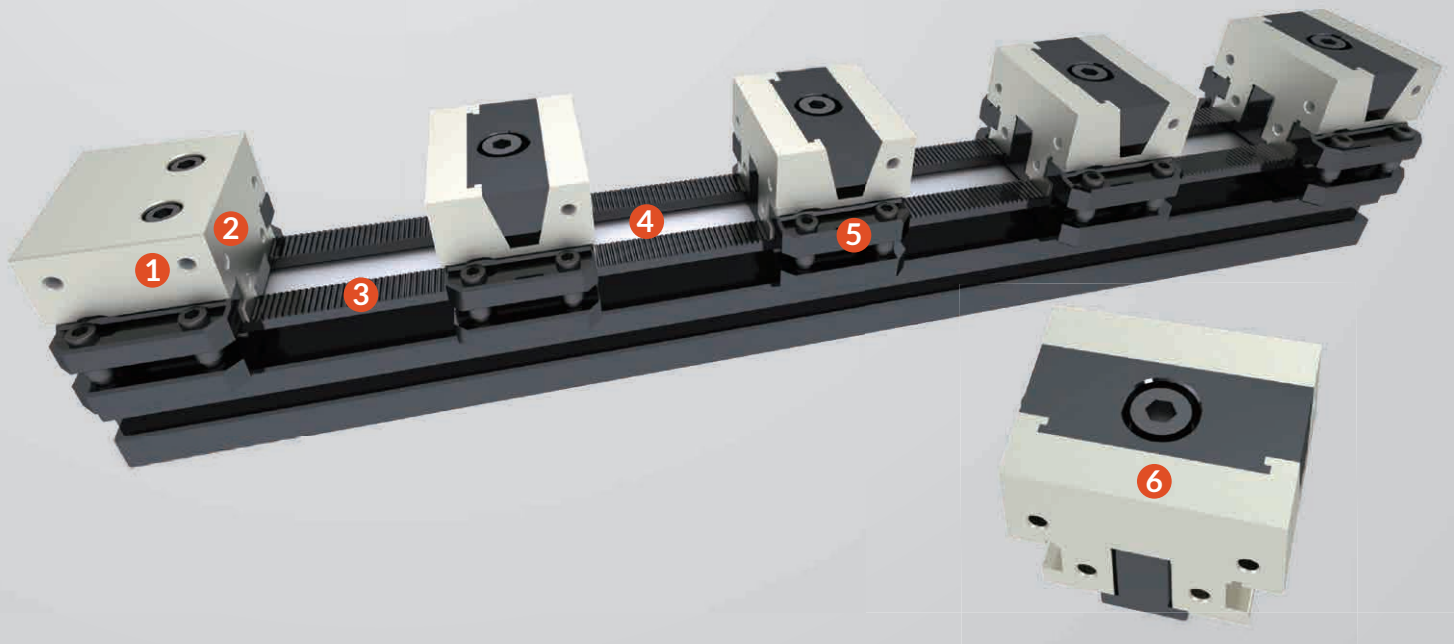
- Vise adopt downward locking structure to eliminate floating body functions.
- On the machining center with a variable of processing two parts.
- Spring of ductile iron FCD60.

| 規格 Spec. | A | C | D | E | F | H | J | 重量 (KGS) Weight |
|------------|-----|-----|----|----|----|----|------|-----------------|
| LM-VE-100D | 100 | 400 | 65 | 40 | 60 | 23 | 0-55 | 25.0 |
| LM-VE-160D | 160 | 500 | 85 | 60 | 66 | 23 | 0-75 | 50.0 |

• 長度單位 Unit of Length (mm)

LM-FRA 彈性並列式虎鉗特色

LM-FRA Flexible parallel vise



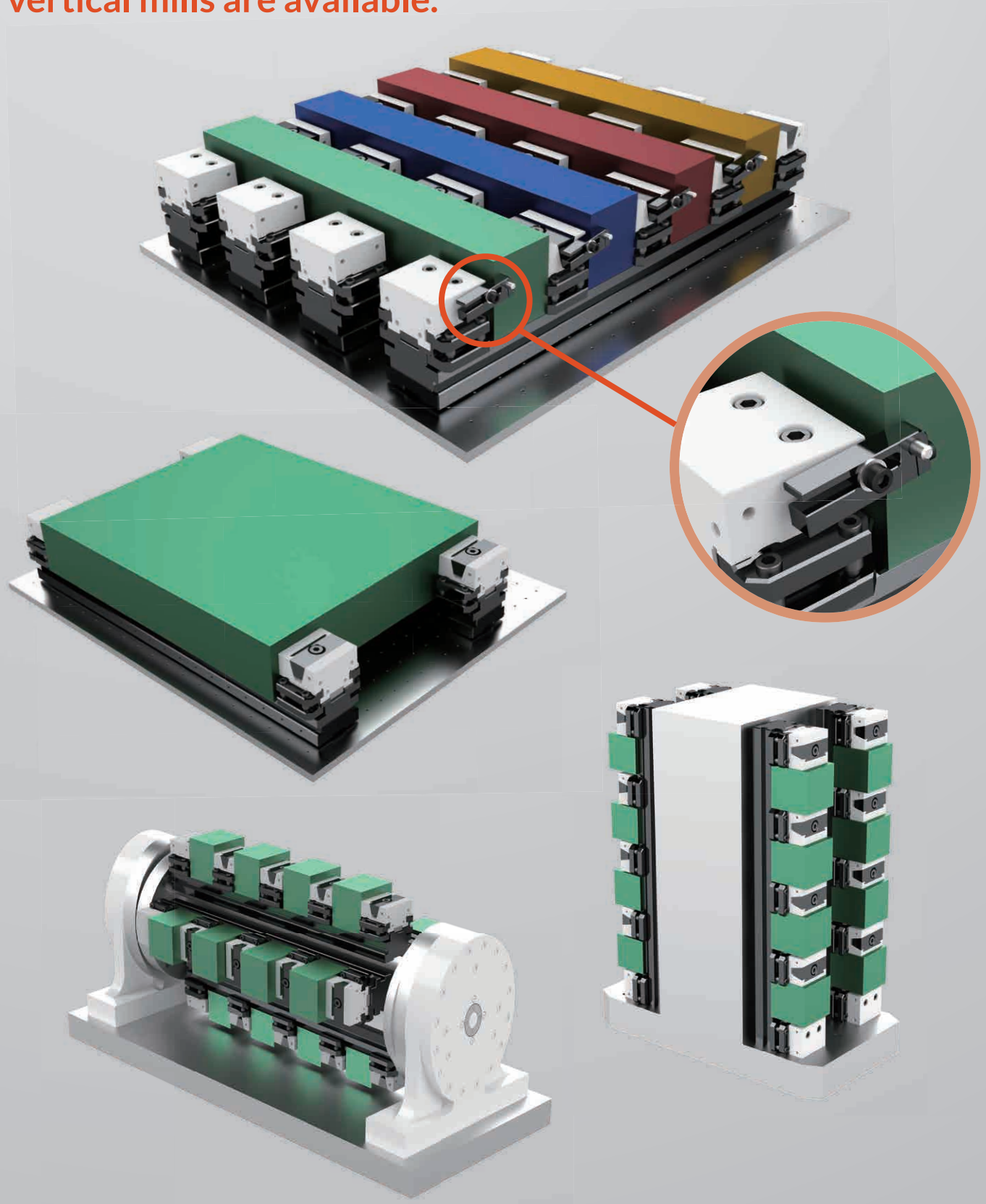
- 1 2** 預留孔位，可自行加裝治具
Reserved screw holes is convenient for optional jigs.
- 3** 排齒設計，增加穩定性，快速移動定位用
The rack design of push block improves the stability.
- 4** 擋屑板，防止鐵屑掉落
Prevent chips from sticking in the vise by the plate.
- 5** 快速固定鉗口的夾持塊
Quick-fixed clamping block.
- 6** 獨立性快拆一體式設計，快速、便利移動調整
Independent push block is able to adjust and shift conveniently.

應用實例

Cutting Application

適用臥式、立式 配合多樣治具靈活使用

The application is flexible that both horizontal mills and vertical mills are available.



LM-FRA 彈性並列式虎鉗

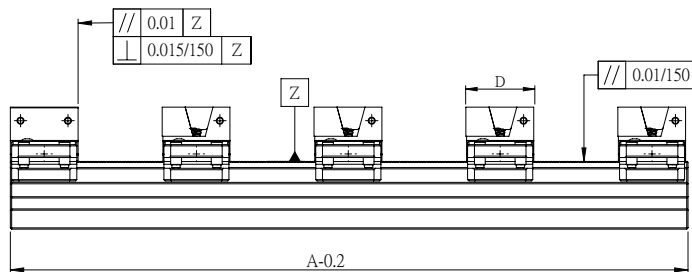
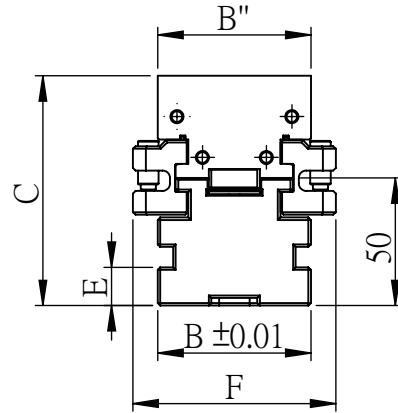
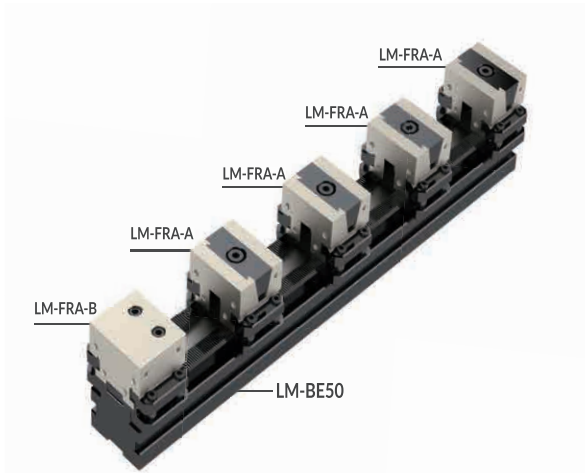
LM-FRA FLEXIBLE PARALLEL VISE

LM-FRA = LM-BE50(基座 BASE) + LM-FRA-_B(固定塊 FIXED BLOCK) + LM-FRA-_A
(壓塊 BRIQUETTING)

LEMMA

單向平行夾持系列 Single Parallel clamping series

NEW



| 規格 Spec. | A | B | B' | C | D | E | F | A 型壓塊 A-type Briquetting | B 型固定塊 B-type Fixed block | 重量 (KGS) Weight | | | | | | |
|-----------------|-----|-----|-----|----|----|----|-------|-----------------------------|------------------------------|-----------------------|------------------|------------------|------------------|------------------|------------------|-------|
| LM-FRA-48300-A | 300 | 60 | 48 | 90 | 50 | 15 | 79.4 | LM-FRA-48A(4PCS) | LM-FRA-48B(1PCS) | 10.40 | | | | | | |
| LM-FRA-48400-A | 400 | | | | | | | | | 12.48 | | | | | | |
| LM-FRA-48500-A | 500 | | | | | | | | | 14.22 | | | | | | |
| LM-FRA-48600-A | 600 | | | | | | | | | 16.31 | | | | | | |
| LM-FRA-48700-A | 700 | | | | | | | | | 17.92 | | | | | | |
| LM-FRA-60300-A | 300 | 60 | 60 | 90 | 50 | 15 | 79.4 | | | LM-FRA-48A(4PCS) | LM-FRA-48B(1PCS) | 10.96 | | | | |
| LM-FRA-60400-A | 400 | | | | | | | | | | | 13.04 | | | | |
| LM-FRA-60500-A | 500 | | | | | | | | | | | 14.78 | | | | |
| LM-FRA-60600-A | 600 | | | | | | | | | | | 16.87 | | | | |
| LM-FRA-60700-A | 700 | | | | | | | | | | | 18.48 | | | | |
| LM-FRA-80400-A | 400 | 80 | 80 | 95 | 60 | 15 | 99.4 | | | | | LM-FRA-48A(4PCS) | LM-FRA-48B(1PCS) | 19.87 | | |
| LM-FRA-80500-A | 500 | | | | | | | | | | | | | 22.63 | | |
| LM-FRA-80600-A | 600 | | | | | | | | | | | | | 25.28 | | |
| LM-FRA-80700-A | 700 | | | | | | | | | | | | | 27.86 | | |
| LM-FRA-80800-A | 800 | | | | | | | | | | | | | 30.51 | | |
| LM-FRA-100400-A | 400 | 100 | 100 | 95 | 60 | 15 | 119.4 | | | | | | | LM-FRA-48A(4PCS) | LM-FRA-48B(1PCS) | 23.05 |
| LM-FRA-100500-A | 500 | | | | | | | | | | | | | | | 26.60 |
| LM-FRA-100600-A | 600 | | | | | | | | | | | | | | | 30.05 |
| LM-FRA-100700-A | 700 | | | | | | | | | | | | | | | 35.46 |
| LM-FRA-100800-A | 800 | | | | | | | | | | | | | | | 38.99 |

A : 500 以下 (含) 附 M12T 帽及鎖固螺絲 3 set 鍵槽定位塊及螺絲 2 set

A : Spec. under 500 attached with M12T nut and locking screw 3 set keyway interlocks and 2 set screw.

A : 600 以上 (含) 附 M12T 帽及鎖固螺絲 4 set 鍵槽定位塊及螺絲 2 set

A : Spec. above 600 attached with M12T nut and locking screw 4 set keyway interlocks and 2 set screw.

• 長度單位 Unit of Length (mm)

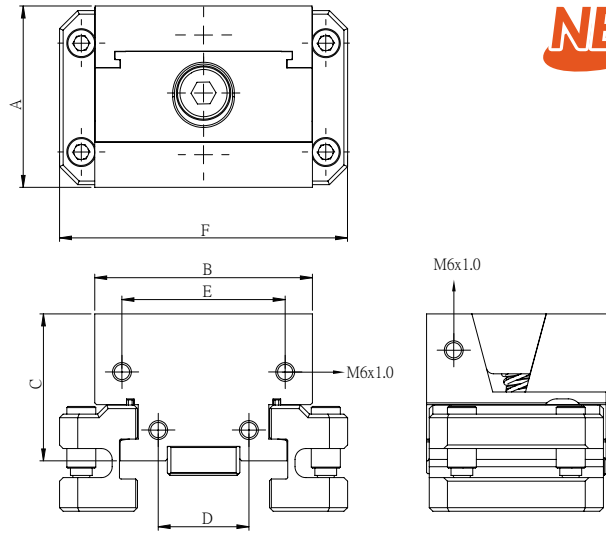


LM-FRA-_B 多夾式虎鉗固定塊

LM-FRA-_B MULTI-FOLDER VISE FIXED BLOCK

LEMMA

NEW



| 規格 Spec. | A | B | C | D | E | F | 重量 (KGS) Weight |
|-------------|----|-----|------|----|----|-----|-----------------|
| LM-FRA-48B | 66 | 48 | 40.6 | 25 | 33 | 81 | 1.04 |
| LM-FRA-60B | 66 | 60 | 40.6 | 25 | 45 | 81 | 1.16 |
| LM-FRA-80B | 70 | 80 | 40.6 | 25 | 65 | 101 | 1.96 |
| LM-FRA-100B | 70 | 100 | 43.6 | 25 | 85 | 121 | 2.39 |

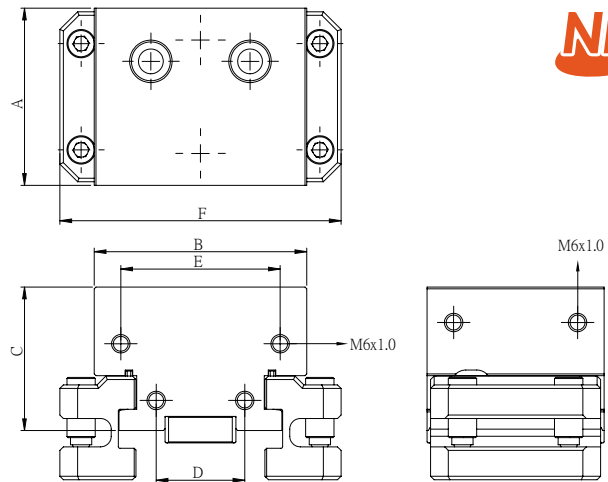


LM-FRA-_A 多夾式虎鉗壓塊

LM-FRA-_A MULTI-FOLDER VISE BRIQUETTING

LEMMA

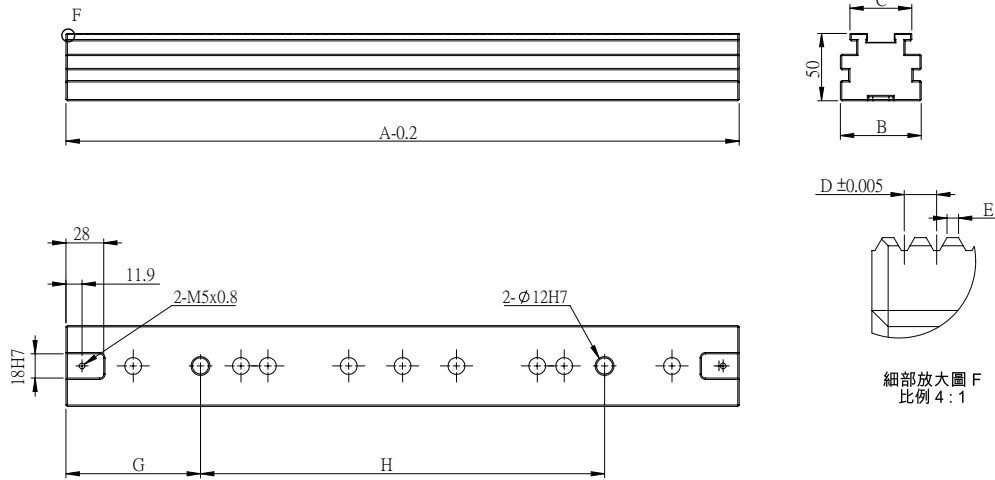
NEW



| 規格 Spec. | A | B | C | D | E | F | 重量 (KGS) Weight |
|-------------|----|-----|------|----|----|-----|-----------------|
| LM-FRA-48A | 66 | 48 | 40.6 | 25 | 33 | 81 | 0.98 |
| LM-FRA-60A | 66 | 60 | 40.6 | 25 | 45 | 81 | 1.09 |
| LM-FRA-80A | 70 | 80 | 40.6 | 25 | 65 | 101 | 1.86 |
| LM-FRA-100A | 70 | 100 | 43.6 | 25 | 85 | 121 | 2.29 |

LM-BE50 多夾式虎鉗基座

LM-BE50 MULTI-FOLDER VISE BASE



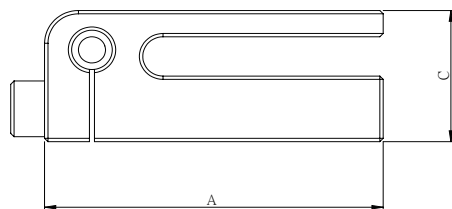
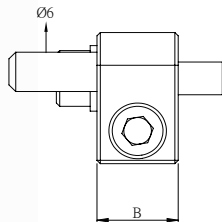
LEMMA

NEW

| 規格 Spec. | A | B | C | D | E | G | H | 重量 (KGS) Weight |
|----------------|-----|-----|-------|---|-------|------|-----|--------------------|
| LM-BE50-60300 | 300 | 60 | 46 | 2 | 0.711 | 74.9 | 150 | 5.44 |
| LM-BE50-60400 | 400 | | | | | 99.9 | 200 | 7.52 |
| LM-BE50-60500 | 500 | | | | | 99.9 | 300 | 9.26 |
| LM-BE50-60600 | 600 | | | | | 99.9 | 400 | 11.35 |
| LM-BE50-60700 | 700 | | | | | 99.9 | 500 | 12.96 |
| LM-BE50-80400 | 400 | 80 | 66 | 2 | 0.711 | 69.9 | 200 | 10.47 |
| LM-BE50-80500 | 500 | | | | | | 350 | 13.23 |
| LM-BE50-80600 | 600 | | | | | | 400 | 15.88 |
| LM-BE50-80700 | 700 | | | | | | 400 | 18.46 |
| LM-BE50-80800 | 800 | 100 | 86 | 2 | 0.711 | 69.9 | 600 | 21.11 |
| LM-BE50-100400 | 400 | | | | | | 200 | 13.6 |
| LM-BE50-100500 | 500 | | | | | | 350 | 17.14 |
| LM-BE50-100600 | 600 | | | | | | 400 | 20.56 |
| LM-BE50-100700 | 700 | | | | | | 400 | 23.93 |
| LM-BE50-100800 | 800 | 600 | 27.47 | | | | | |

LM-DB 基準塊

LM-DB DATUM PLATE



LEMMA

NEW

| 規格 Spec. | A | B | C | 重量 (KGS) Weight |
|--------------|----|----|----|--------------------|
| LM-DB-5006-A | 50 | 12 | 20 | 0.05 |
| LM-DB-6006-A | 60 | | | 0.06 |

• 使用方式請參考第 774 頁應用實例
Usage please refer to the application example of page 774

• 長度單位 Unit of Length (mm)



Fig.1



Fig.2



Fig.3

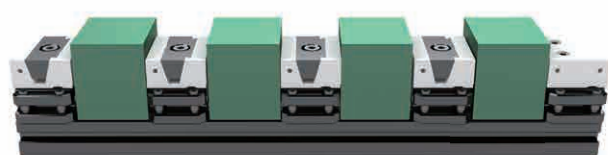


Fig.4

| 規格 Spec. | 最大工件範圍 Biggest range of workpiece | | | |
|-----------------|-----------------------------------|-------------------|-------------------|-------------------|
| | 一個工件 1 workpiece | 二個工件 2 workpieces | 三個工件 3 workpieces | 四個工件 4 workpieces |
| | Fig.1 | Fig.2 | Fig.3 | Fig.4 |
| LM-FRA-048300-A | 168 | 50 | 12 | - |
| LM-FRA-048400-A | 268 | 100 | 44 | 16 |
| LM-FRA-048500-A | 368 | 150 | 78 | 42 |
| LM-FRA-048600-A | 468 | 200 | 112 | 66 |
| LM-FRA-048700-A | 568 | 250 | 144 | 92 |
| LM-FRA-060300-A | 168 | 50 | 12 | - |
| LM-FRA-060400-A | 268 | 100 | 44 | 16 |
| LM-FRA-060500-A | 368 | 150 | 78 | 42 |
| LM-FRA-060600-A | 468 | 200 | 112 | 66 |
| LM-FRA-060700-A | 568 | 250 | 144 | 92 |
| LM-FRA-080400-A | 260 | 94 | 40 | 12 |
| LM-FRA-080500-A | 360 | 144 | 72 | 36 |
| LM-FRA-080600-A | 460 | 194 | 106 | 62 |
| LM-FRA-080700-A | 560 | 244 | 140 | 86 |
| LM-FRA-080800-A | 660 | 294 | 172 | 112 |
| LM-FRA-100400-A | 260 | 94 | 40 | 12 |
| LM-FRA-100500-A | 360 | 144 | 72 | 36 |
| LM-FRA-100600-A | 460 | 194 | 106 | 62 |
| LM-FRA-100700-A | 560 | 244 | 140 | 86 |
| LM-FRA-100800-A | 660 | 294 | 172 | 112 |

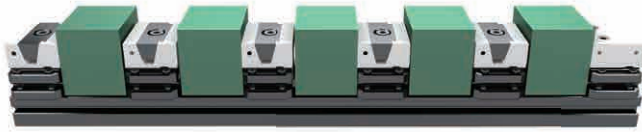


Fig.1



Fig.2

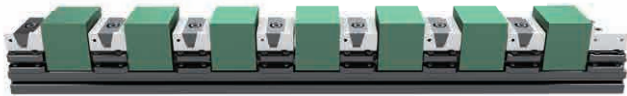
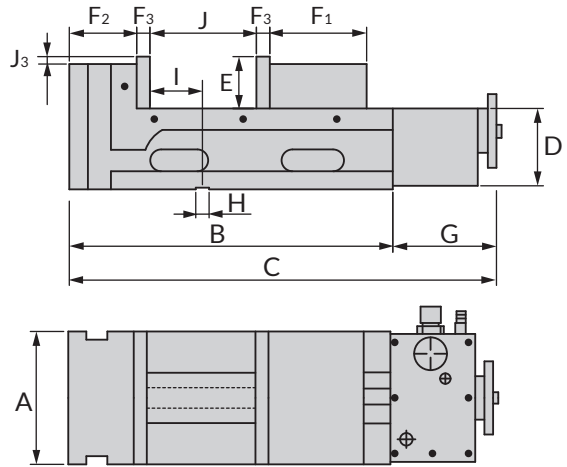


Fig.3

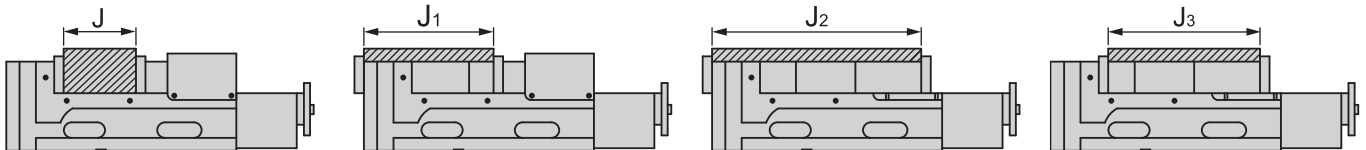
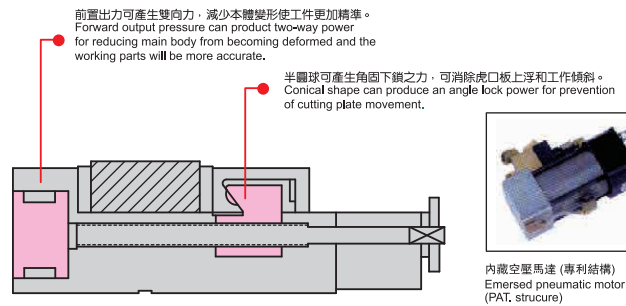
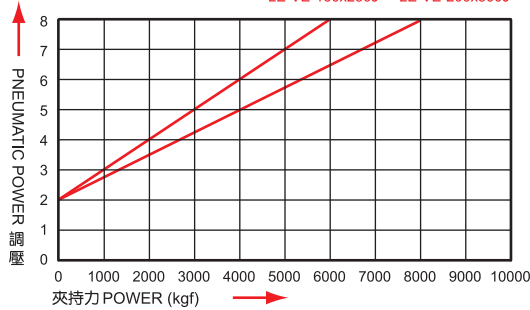


Fig.4

| 規格 Spec. | 最大工件範圍 Biggest range of workpiece | | | |
|-----------------|-----------------------------------|-------------------|-------------------|-------------------|
| | 五個工件 5 workpieces | 六個工件 6 workpieces | 七個工件 7 workpieces | 八個工件 8 workpieces |
| | Fig.1 | Fig.2 | Fig.3 | Fig.4 |
| LM-FRA-048300-A | - | - | - | - |
| LM-FRA-048400-A | - | - | - | - |
| LM-FRA-048500-A | 20 | 6 | - | - |
| LM-FRA-048600-A | 40 | 22 | 10 | - |
| LM-FRA-048700-A | 60 | 38 | 24 | 12 |
| LM-FRA-060300-A | - | - | - | - |
| LM-FRA-060400-A | - | - | - | - |
| LM-FRA-060500-A | 20 | 6 | - | - |
| LM-FRA-060600-A | 40 | 22 | 10 | - |
| LM-FRA-060700-A | 60 | 38 | 24 | 12 |
| LM-FRA-080400-A | - | - | - | - |
| LM-FRA-080500-A | 16 | - | - | - |
| LM-FRA-080600-A | 36 | 18 | 4 | - |
| LM-FRA-080700-A | 56 | 34 | 20 | 8 |
| LM-FRA-080800-A | 76 | 50 | 34 | 20 |
| LM-FRA-100400-A | - | - | - | - |
| LM-FRA-100500-A | 16 | - | - | - |
| LM-FRA-100600-A | 36 | 18 | 4 | - |
| LM-FRA-100700-A | 56 | 34 | 20 | 8 |
| LM-FRA-100800-A | 76 | 50 | 34 | 20 |



LE-VE-130x150J LE-VE-180x200J
 LE-VE-160x160J LE-VE-200x200J
 LE-VE-160x250J LE-VE-200x300J



特點 Feature

- 空壓源 $8\text{kg}/\text{cm}^2$ 之低壓源，即可達 9000kgf 之超高夾持力，而夾持力從 $0-9000\text{kgf}$ 可藉由調壓器自由調整設定
- 開關速度只需 1.5 秒，夾持安全距離可達 8mm，並可設有手輪安全線，可輕易由肉眼辨識出工件夾持之安全距離，是否超限
- 定寸規格，本體六面磨光並預留壓板槽，不須治具板，即可直立加工

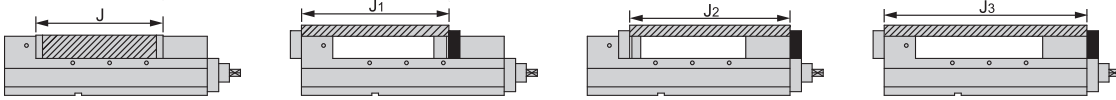
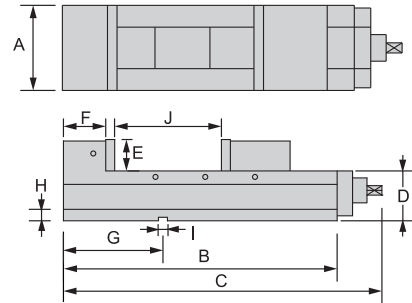
- Even the air source at low pressure $8\text{kg}/\text{cm}^2$ which can be achieved super high gripping force can be adjusted freely by pressure regulator.
- The shifting speed is only 1.5 sec. with safety range: 8mm, also equipped with safety line on hand wheel to easily identify with eye whether if the safety distance of workpiece clamping is exceeded.
- Six faces of vise body be super grinding & pre-setting pad slot, and can be processed vertically without jig fixture.

| 規格 Spec. | A | B | C | D | E | F ₁ | F ₂ | F ₃ | G | H | I | J | J ₁ | J ₂ | J ₃ | 夾持力 Power | 重量 (KGS) Weight |
|----------------|-----|-----|-----|-----|----|----------------|----------------|----------------|-----|----|----|-------|----------------|----------------|----------------|-----------|-----------------|
| LM-VE-100-100J | 100 | 320 | 435 | 100 | 48 | 100 | 85 | 15 | 125 | 16 | 45 | 0-100 | 95-220 | 100-200 | 200-300 | 3200kgf | 29.0 |
| LM-VE-130-150J | 130 | 380 | 505 | 105 | 55 | 110 | 85 | 15 | 125 | 18 | 45 | 0-150 | 95-250 | 110-275 | 200-380 | 6000kgf | 40.0 |
| LM-VE-160-160J | 160 | 400 | 525 | 105 | 58 | 120 | 85 | 15 | 125 | 18 | 45 | 0-160 | 95-260 | 120-295 | 210-400 | 6000kgf | 50.0 |
| LM-VE-160-250J | 160 | 490 | 615 | 105 | 58 | 120 | 85 | 15 | 125 | 18 | 45 | 0-250 | 95-350 | 120-395 | 210-490 | 6000kgf | 55.0 |
| LM-VE-180-200J | 180 | 460 | 585 | 110 | 63 | 130 | 90 | 18 | 125 | 18 | 72 | 0-200 | 100-300 | 130-350 | 220-460 | 9000kgf | 72.0 |
| LM-VE-200-200J | 200 | 470 | 595 | 110 | 63 | 140 | 90 | 18 | 125 | 18 | 72 | 0-200 | 100-310 | 140-360 | 230-470 | 9000kgf | 80.0 |
| LM-VE-200-300J | 200 | 570 | 695 | 110 | 63 | 140 | 90 | 18 | 125 | 18 | 72 | 0-300 | 100-410 | 140-460 | 230-570 | 9000kgf | 90.0 |

• 長度單位 Unit of Length (mm)

CHW-_B 機械式精密虎鉗

CHW-_B MULTIFOLDER VISE FIXED BLOCK



特點 Feature

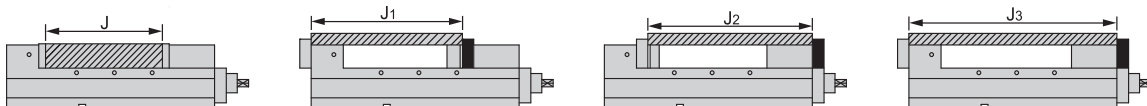
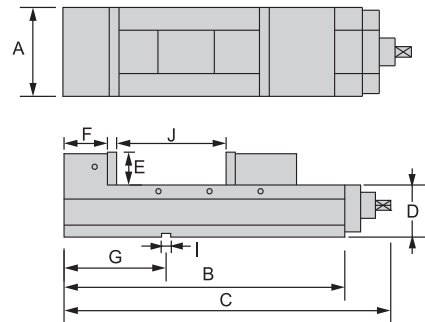
- 附防止所夾持工件上浮的角固裝置
- 無增壓機構 · 適用於較軟的工件夾持

- The unit had prevent lifting structure.
- Not turbo-charged organization, is suitable for clamping the soft workpiece.

| 規格 Spec. | A | B | C | D | E | F | G | H | I | J | J ₁ | J ₂ | J ₃ | 重量 (KGS) Weight |
|----------|-----|-----|-----|-----|----|-----|-----|----|----|-----|----------------|----------------|----------------|-----------------|
| CHW-100B | 100 | 400 | 490 | 85 | 45 | 80 | 110 | 23 | 18 | 200 | 230 | 260 | 340 | 30.0 |
| CHW-130B | 130 | 450 | 540 | 95 | 50 | 85 | 135 | 23 | 18 | 240 | 285 | 320 | 405 | 43.0 |
| CHW-160B | 160 | 550 | 640 | 100 | 60 | 103 | 200 | 23 | 18 | 300 | 380 | 400 | 500 | 61.0 |
| CHW-200B | 200 | 600 | 690 | 110 | 65 | 108 | 220 | 23 | 18 | 340 | 438 | 470 | 578 | 84.0 |

LM-VE-_B 機械式虎鉗

LM-VE-_B MULTIFOLDER VISE FIXED BLOCK

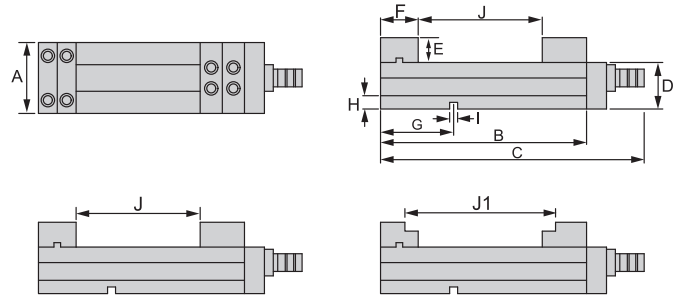


特點 Feature

- 高剛性結構
- 角固機械式虎鉗適合中、輕切削做精密加工
- 虎鉗本台使用高抗張力球狀石墨鑄鐵 · 抗張力強 · 不易變形

- High rigidity type.
- Holding work-piece firmly in single and multiple vises setup.
- Rigid and high tensile casting of ductile iron.

| 規格 Spec. | A | B | C | D | E | F | G | I | Jaw Opening(Max.) | | | | 重量 (KGS) Weight |
|------------|-----|-----|-----|-----|----|-----|-----|----|-------------------|----------------|----------------|----------------|-----------------|
| | | | | | | | | | J | J ₁ | J ₂ | J ₃ | |
| LM-VE-100B | 101 | 340 | 430 | 85 | 48 | 80 | 125 | 16 | 125 | 190 | 230 | 320 | 26.0 |
| LM-VE-130B | 131 | 405 | 495 | 95 | 55 | 85 | 150 | 18 | 180 | 240 | 290 | 380 | 39.0 |
| LM-VE-160B | 161 | 495 | 585 | 105 | 58 | 100 | 165 | | 240 | 320 | 360 | 470 | 57.0 |
| LM-VE-200B | 201 | 570 | 666 | 110 | 63 | 108 | 190 | | 280 | 360 | 420 | 540 | 86.0 |



特點 Feature

- 內藏防止上浮機制，夾持時往下方的力亦作動，因此工件及可動體的上浮極小，又本體及固定顎為一體構造，因此可防止鉗體的傾倒

- This unit had prevent lifting structure, when clamping, downward power also gearing, so the workpiece and movable parts lift very small, the body and solid jaw is a combination structure, it does not tilt.

| 規格 Spec. | A | B | C | D | E | F | G | H | I | J | J ₁ | 夾持力 Power | 重量 (KGS) Weight |
|------------|-----|-----|-----|-----|----|-----|-----|----|----|-----|----------------|-----------|-----------------|
| LM-VE-100C | 100 | 310 | 400 | 95 | 45 | 70 | 110 | 23 | 18 | 150 | 225 | - | 28.0 |
| LM-VE-130C | 130 | 410 | 500 | 100 | 50 | 80 | 135 | 23 | 18 | 250 | 330 | - | 46.0 |
| LM-VE-160C | 160 | 490 | 580 | 110 | 55 | 85 | 150 | 23 | 18 | 300 | 385 | - | 60.0 |
| LM-VE-200C | 200 | 565 | 655 | 120 | 60 | 100 | 220 | 23 | 18 | 350 | 450 | - | 100.0 |



- 較同等級虎鉗鉗口為深，可確實夾持較高之工件
-The jaw more deeper than those of same grade vise. Can clamping higher work piece correctly.



- 全自動伸縮防塵設計，可防止切削屑所引起的動作不良
-Chip cover adopted, preventing chips falling into causing bad motion.



- 較同等級虎鉗有近兩倍的開口，可輕易夾持較長工件
-Double opening than those of same grade vise. Can easy clamp longer work piece.



標準附件：

1. 把手壹組
2. 導正鍵 2 個
M6x10L 螺絲 2 支
3. 虎鉗防屑裝置
4. 虎鉗固定塊 (4 只)

特別附件 (另購)：

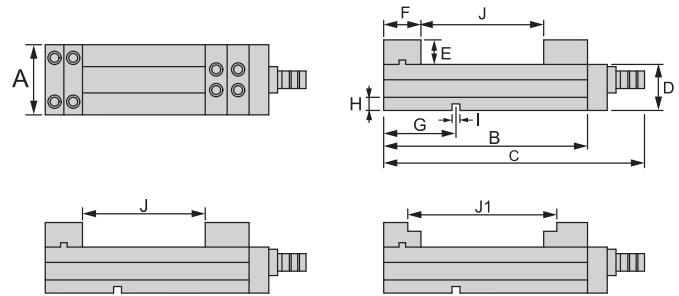
1. 特別虎口
2. 虎鉗定位器
3. 大開口鉗口壹組 (LJ)

Standard Accessories:

- 1.Handle-1 set
- 2.Guide key-2pcs
Screw-M6x10Lx2pcs
- 3.Chip cover
- 4.Vise positioner

Optional Accessories:

- (Purchase separately)
- 1.Special application jaw plates.
 - 2.Vise positioner
 - 3.Opening jaw plates



特點 Feature

- 內藏防止上浮機制，夾持時往下方的力亦作動，因此工件及可動體的上浮極小，又本體及固定顎為一體構造，因此可防止鉗體的傾倒

- This unit had prevent lifting structure, when clamping, downward power also gearing, so the workpiece and movable parts lift very small, the body and soil jaw is a combination structure, it does not tilt.

| 規格 Spec. | A | B | C | D | E | F | G | H | I | J | J ₁ | 夾持力 Power | 重量 (KGS) Weight |
|------------|-----|-----|-----|-----|----|-----|-----|----|----|-----|----------------|-----------|-----------------|
| LM-VE-100S | 100 | 310 | 435 | 95 | 45 | 70 | 110 | 23 | 18 | 140 | 200 | 4000kgf | 30.0 |
| LM-VE-130S | 130 | 410 | 535 | 100 | 50 | 80 | 135 | 23 | 18 | 230 | 315 | 4000kgf | 48.0 |
| LM-VE-160S | 160 | 490 | 615 | 110 | 55 | 85 | 150 | 23 | 18 | 300 | 385 | 5000kgf | 62.0 |
| LM-VE-200S | 200 | 565 | 690 | 120 | 60 | 100 | 220 | 23 | 18 | 350 | 450 | 5000kgf | 105.0 |



- 全自動伸縮防護設計，可防止切屑所引起之動作不良
-Chip covered adopted, preventing chips falling into causing bad motion.



- 較同等級虎鉗有近兩倍的開口，可輕易夾持較長工件
-Double opening than those of same grade vise. Can easy clamp longer work piece.



- 新開發專利無油倍力定壓式機械增壓系統可輕易設定所需壓力(如表)夾持力永不退壓
-New development patented, oil-free powerful mechanical boost system. Which gives greater clamping and never collapsing pressure.

| | |
|---|---------|
| 1 | 800kgf |
| 2 | 2000kgf |
| 3 | 3000kgf |
| 4 | 4000kgf |
| 5 | 5000kgf |



標準附件：

1. 把手壹組
2. 導正鍵 2 個
M6x10L 螺絲 2 支
3. 虎鉗防屑裝置
4. 虎鉗固定塊 (4 只)

特別附件 (另購)：

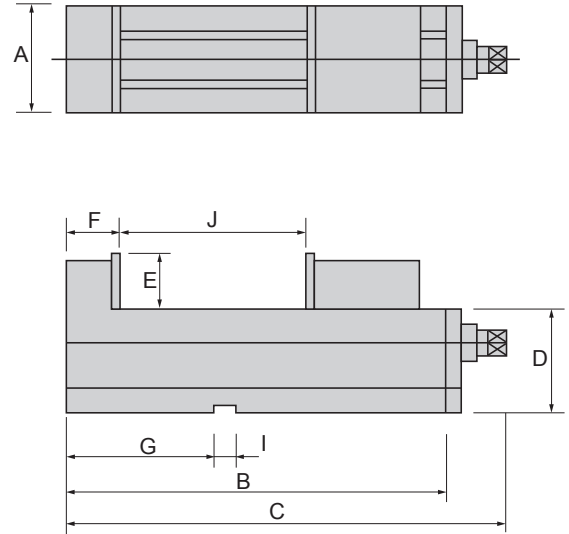
1. 特別虎口
2. 虎鉗定位器
3. 大開口鉗口壹組 (LJ)

Standard Accessories:

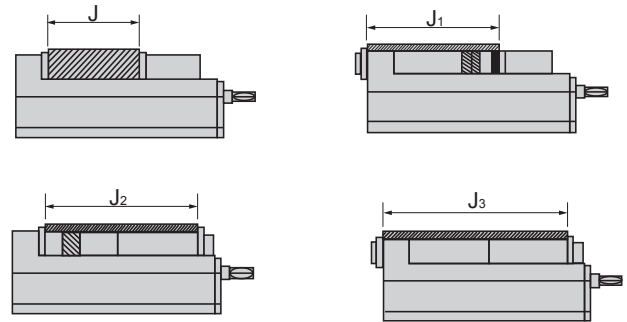
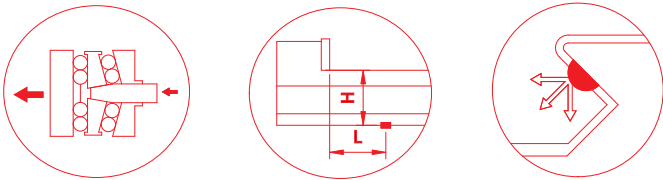
- 1.Handle-1 set
- 2.Guide key-2pcs
Screw-M6x10x2pcs
- 3.Chip cover
- 4.Vise positioner

Optional Accessories:

- (Purchase separately)
- 1.Special application jaw plates.
 - 2.Vise positioner
 - 3.Opening jaw plates



範例 Example

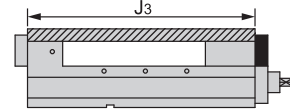
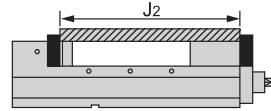
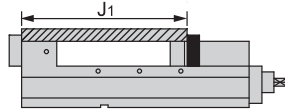
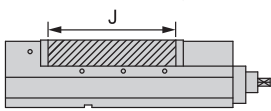
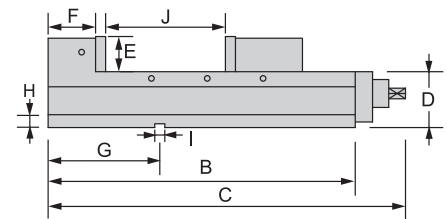
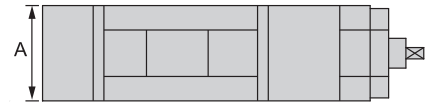


特點 Feature

- 倍力式增壓機構
- 總長度較短、大開口、轉動扳手較省力

- Mechanical power structure.
- The total length is short, the big aperture, rotate the spanner to reduce effort.

| 規格 Spec. | A | B | C | D | E | F | G | I | J | J ₁ | J ₂ | J ₃ | 夾持力 Power | 重量 (KGS) Weight |
|------------|-----|-----|-----|-----|----|-----|-----|----|-----|----------------|----------------|----------------|-----------|-----------------|
| LM-VE-100P | 101 | 400 | 490 | 85 | 48 | 80 | 125 | 16 | 150 | 200 | 240 | 330 | 3000kgf | 27.0 |
| LM-VE-130P | 131 | 465 | 555 | 95 | 55 | 85 | 150 | 18 | 230 | 250 | 300 | 390 | 3500kgf | 40.0 |
| LM-VE-160P | 161 | 555 | 645 | 105 | 58 | 100 | 165 | 18 | 300 | 330 | 370 | 480 | 4000kgf | 60.0 |
| LM-VE-200P | 201 | 630 | 720 | 110 | 63 | 108 | 190 | 18 | 340 | 370 | 430 | 550 | 4500kgf | 81.0 |

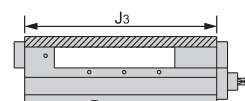
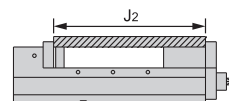
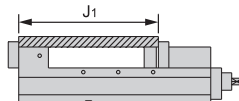
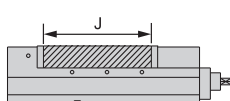
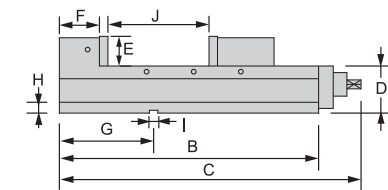
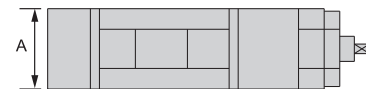
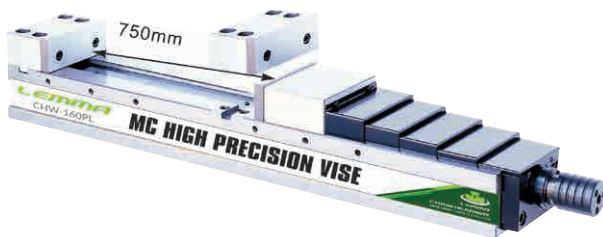


特點 Feature

- 附防止所夾持工件上浮的角固裝置
- 倍力式增壓機構

- The unit had prevent lifting structure.
- Mechanical power structure.

| 規格 Spec. | A | B | C | D | E | F | G | H | I | J | J ₁ | J ₂ | J ₃ | 夾持力 Power | 重量 (KGS) Weight |
|----------|-----|-----|-----|-----|----|-----|-----|----|----|-----|----------------|----------------|----------------|-----------|-----------------|
| CHW-100P | 100 | 400 | 530 | 85 | 45 | 80 | 110 | 23 | 18 | 200 | 230 | 260 | 340 | 4000kgf | 35.0 |
| CHW-130P | 130 | 450 | 580 | 95 | 50 | 85 | 160 | 23 | 18 | 240 | 285 | 320 | 405 | 4500kgf | 48.0 |
| CHW-160P | 160 | 550 | 680 | 100 | 60 | 103 | 200 | 23 | 18 | 300 | 380 | 400 | 500 | 5000kgf | 66.0 |
| CHW-200P | 200 | 600 | 730 | 110 | 60 | 108 | 220 | 23 | 18 | 340 | 438 | 470 | 578 | 5500kgf | 104.0 |

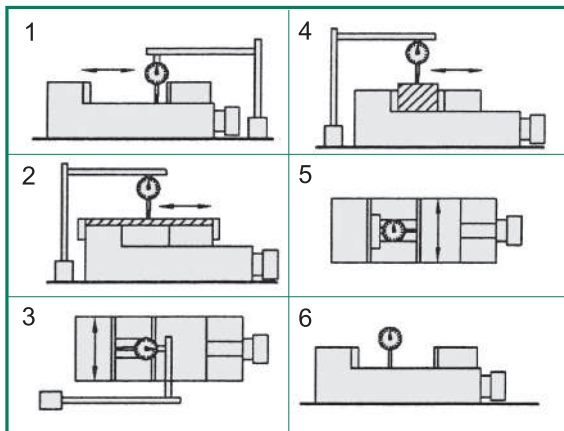
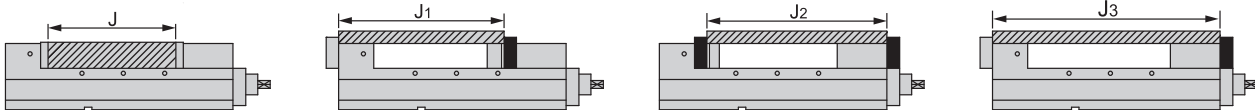
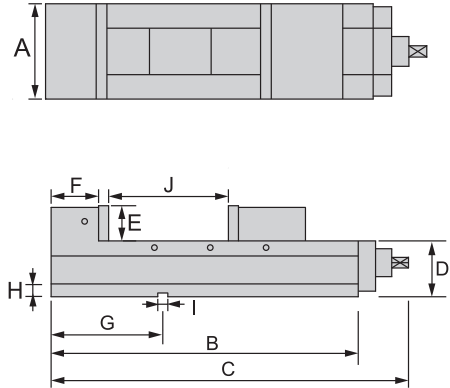


特點 Feature

- 最大開口 750mm

- Max. opening capacity 750mm.

| 規格 Spec. | A | B | C | D | E | F | G | H | I | J | J ₁ | J ₂ | J ₃ | 夾持力 Power | 重量 (KGS) Weight |
|-----------|-----|------|------|-----|----|-----|-----|----|----|-----|----------------|----------------|----------------|-----------|-----------------|
| CHW-160PL | 160 | 1000 | 1130 | 105 | 60 | 103 | 100 | 23 | 18 | 750 | 850 | 890 | 1000 | 4400kgf | 108.0 |
| CHW-200PL | 200 | 1100 | 1230 | 110 | 60 | 108 | 220 | 23 | 18 | 840 | 940 | 990 | 1100 | 5500kgf | 145.0 |



※ 精度測定方法 Accuracy Testing Standard

| NO | 檢查事項 Item | JIS 規格 1 級 JIS Grade 1 | 驗證許可 Guaranteed |
|----|--|---------------------------|--------------------|
| 1 | 虎鉗底部與滑動面之平行度 Sliding surface of vise parallel to bottom of vise body. | 0.020 100mm | 0.010 100mm |
| 2 | 虎鉗大開口與工件之平行度 Max opening test block parallel to bottom of vise body. | 0.050 100mm | 0.030 100mm |
| 3 | 虎鉗底部鍵槽與虎口板之直角度測定 Keyways on bottom of vise square to clamping surface of jaw plate. | 0.020 100mm | 0.015 100mm |
| 4 | 工作夾緊後之平行度 Top of rectangular test block clamped tightly by jaw parallel to bottom of vise body. | 0.030 100mm | 0.020 100mm |
| 5 | 兩虎口板相互平行度 The parallelism of both jaw plate. | 0.020 100mm | 0.020 100mm |
| 6 | 虎鉗側立與工作台之直角度 Vise side stand square to the work bench. | 0.020 100mm | 0.010 100mm |

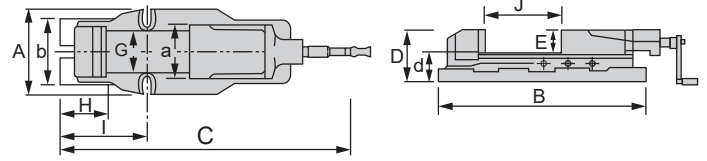
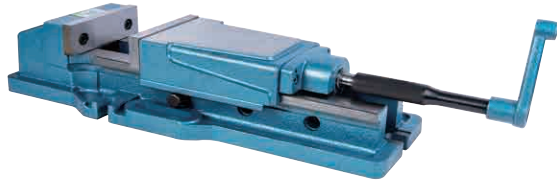
特點 Feature

- 強而有力材質 | 虎鉗本台使用球狀石墨化鑄鐵 (FCD60-60kgs/mm²) 抗張力強、耐磨性高、不易變形
- 虎鉗本台滑動面均經硬化熱處理 HRC45 以上，可保持長久耐磨性及精度

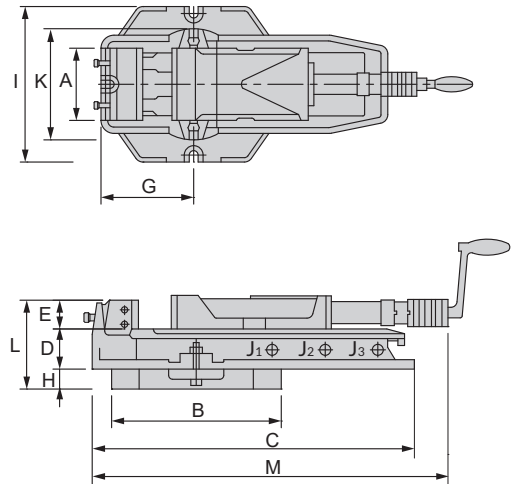
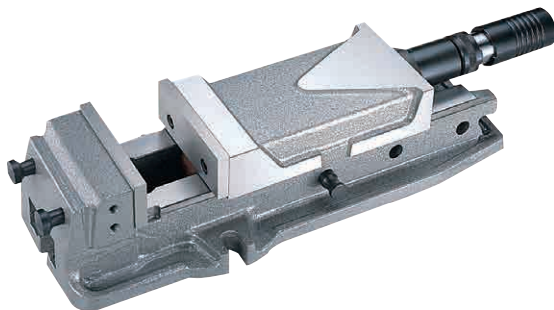
- Rigid material-vise body of ductile iron FCD60 JIS (equal to GGG60) with 60 kgs/mm² or 80000 psi tensile strength.
- Slide surface of vise frame with harden treatment up to HRC45° and keeps up wear and maintain abrasion resistance for long.

| 規格 Spec. | A | B | C | D | E | F | G | I | J | J ₁ | J ₂ | J ₃ | 夾持力 Power | 重量 (KGS) Weight |
|-------------|-----|-----|-----|-----|----|-----|-----|----|-----|----------------|----------------|----------------|--------------|-----------------------|
| CHW-100V | 101 | 340 | 470 | 85 | 48 | 80 | 125 | 16 | 125 | 190 | 230 | 320 | 4000kgf | 27.0 |
| CHW-130V | 131 | 405 | 535 | 95 | 55 | 85 | 150 | 18 | 180 | 240 | 290 | 380 | 5000kgf | 40.0 |
| CHW-160V | 161 | 495 | 625 | 105 | 58 | 100 | 165 | 18 | 240 | 320 | 360 | 470 | 5500kgf | 58.0 |
| CHW-200V | 201 | 570 | 700 | 110 | 63 | 108 | 190 | 18 | 280 | 360 | 420 | 540 | 6900kgf | 87.0 |

• 長度單位 Unit of Length (mm)



| 規格 Spec. | A | B | C | D | E | G | H | I | J | a | b | d | 開口行程 Clamping Range | | | 挾持力 Power | 重量 (KGS) Weight |
|----------|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|------|---------------------|--------|---------|-----------|-----------------|
| | | | | | | | | | | | | | X | Y | Z | | |
| AH-4 | 170 | 440 | 525 | 95 | 36 | 80 | 95 | 147 | 170 | 105 | 135 | 58 | 0~57 | 55~114 | 112~170 | 2500kgf | 21.0 |
| AH-5 | 207 | 550 | 670 | 120 | 48 | 97 | 107 | 195 | 220 | 130 | 175 | 70.5 | 0~73 | 72~146 | 145~220 | 3500kgf | 38.0 |
| AH-6 | 225 | 620 | 970 | 135 | 53 | 116 | 117 | 210 | 300 | 150 | 182 | 82.5 | 0~100 | 98~200 | 198~300 | 4500kgf | 53.0 |
| AH-8 | 280 | 680 | 900 | 162 | 62 | 160 | 150 | 260 | 300 | 200 | 260 | 100 | 0~100 | 99~200 | 198~300 | 8000kgf | 95.0 |



特點 Feature

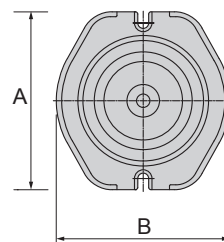
- 本體材質為球墨鑄鐵
- 角固式半圓球可產生角固下鎖之力，可消除虎口上浮和工件傾斜
- 虎鉗本台滑動面均經硬化熱處理 HRC 45°以上，可保持長久耐磨性及精度
- 油壓的最大夾持力為 4000kg

- The body is made of ductile iron.
- Down thrust "semi-sphere segment" mechanism-eliminates lift and work tilt.
- Vise bed flame hardened to HRC 45° and keeps up wear and maintain abrasion resistance for long.
- Max. hydraulic clamping force 4000kg.

| 規格 Spec. | A | B | C | D | E | G | H | I | K | L | M | 行程開口 Stroke Opening | | | 重量 (KGS) Weight |
|------------|-----|-----|-----|-----|----|-----|----|-----|-----|-----|----------|---------------------|----------------|----------------|-----------------|
| | | | | | | | | | | | | J ₁ | J ₂ | J ₃ | |
| LM-VE-125H | 130 | 266 | 505 | 72 | 55 | 180 | 32 | 280 | 190 | 160 | 570-795 | 0-55 | 55-130 | 130-220 | 37.5 |
| LM-VE-160H | 160 | 320 | 605 | 82 | 58 | 195 | 35 | 334 | 240 | 192 | 625-935 | 0-58 | 58-160 | 160-310 | 57.4 |
| LM-VE-200H | 200 | 420 | 700 | 100 | 63 | 265 | 50 | 420 | 280 | 240 | 725-1035 | 0-63 | 63-200 | 200-310 | 94.5 |

| 規格 Spec. | A | B | C | 重量 (KGS) Weight |
|--------------|-----|-----|----|-----------------|
| LM-VE-125H-B | 280 | 266 | 32 | 12.0 |
| LM-VE-160H-B | 330 | 310 | 35 | 16.0 |
| LM-VE-200H-B | 375 | 355 | 40 | 16.0 |

* 底盤選配 Optional chassis.



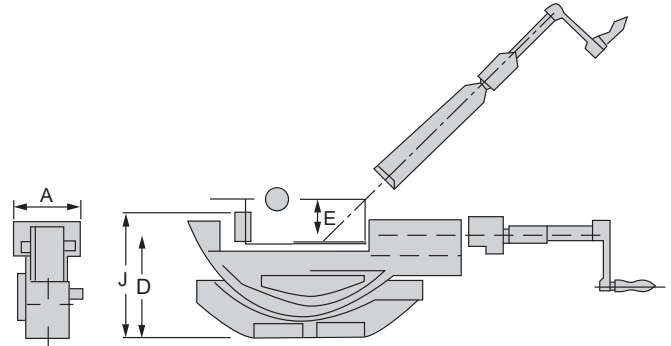
• 長度單位 Unit of Length (mm)



JLB 傾斜式油壓內藏虎鉗

JLB UNIVERSAL HYDRAULIC TILTING VISE

LEMMA



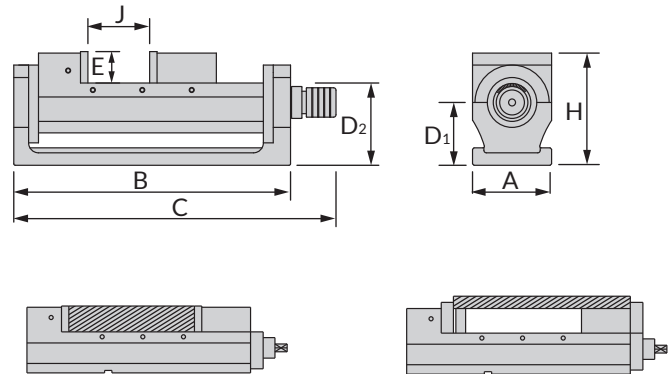
| 規格 Spec. | A | D | E | J | 夾持力 Power | 重量 (KGS) Weight |
|-------------|-----|-----|----|-------|--------------|-----------------------|
| JLB-40 | 100 | 177 | 36 | 0-170 | 2540 | 23.0 |
| JLB-60 | 154 | 237 | 53 | 0-300 | 4400 | 60.0 |



LM-VE- U 傾斜式虎鉗

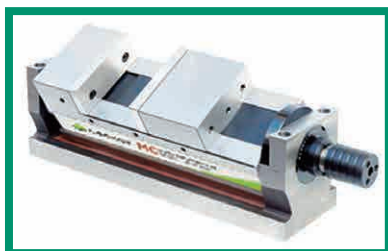
LM-VE- U TILTING VISE

LEMMA



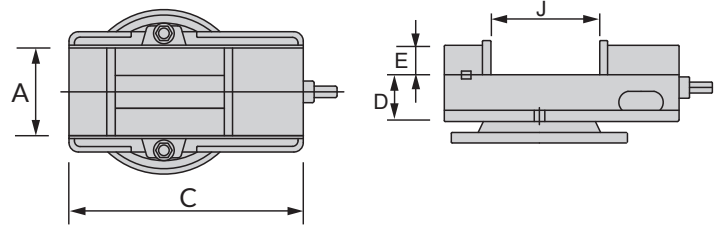
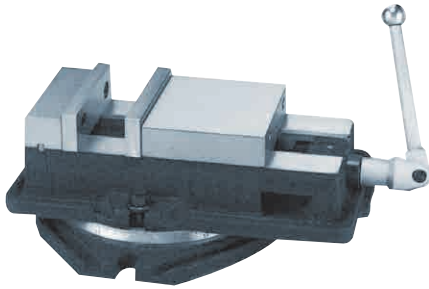
| 規格 Spec. | A | B | C | D ₁ | D ₂ | E | H | J | 調整角度 Adjustable Angle | 夾持力 Power | 重量 (KGS) Weight |
|-------------|-----|-----|-----|----------------|----------------|----|-----|-----|--------------------------|--------------|-----------------------|
| LM-VE-160U | 160 | 550 | 645 | 126 | 165 | 63 | 225 | 200 | 0° ~50° | 5500kgf | 80.0 |

範例 Example



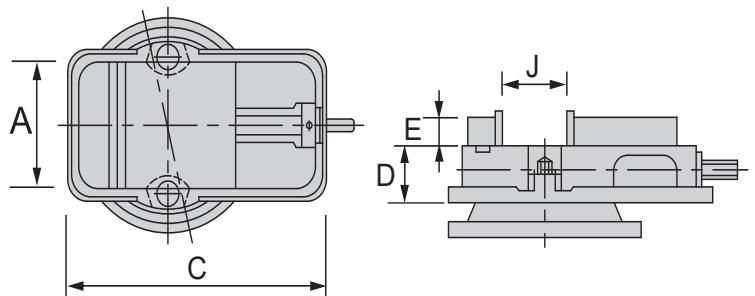
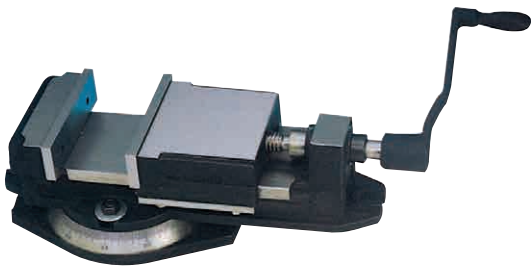
AID

• 長度單位 Unit of Length (mm)



| 規格 Spec. | A | C | D | E | J | 重量 (KGS) Weight |
|----------|-----|-----|----|-----|-----|-----------------|
| AV-4 | 100 | 320 | 65 | 36 | 100 | 20.0 |
| AV-6 | 150 | 430 | 72 | 46 | 140 | 41.0 |
| AV-8 | 200 | 600 | 85 | 62 | 190 | 73.0 |
| AV-12 | 310 | - | - | 125 | 320 | 125.0 |

※ AV-12 無底盤 AV-12 no chassis.

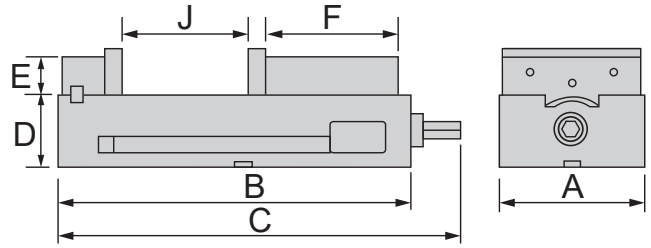
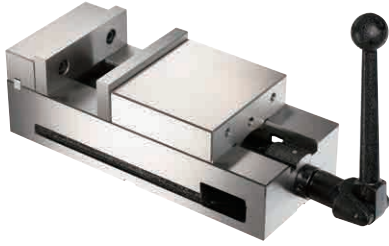


| 規格 Spec. | A | C | D | E | J | 重量 (KGS) Weight |
|----------|-----|-----|----|----|-----|-----------------|
| KV-4 | 100 | 295 | 55 | 30 | 65 | 9.00 |
| KV-6 | 150 | 460 | 65 | 40 | 114 | 28.0 |
| KV-8 | 200 | 620 | 82 | 58 | 150 | 53.0 |



直角式角固虎鉗 FIXED ANGLE VISE

LEMMA

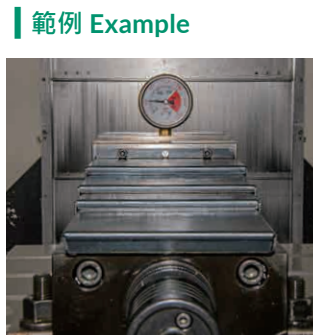


| 規格 Spec. | A | B | C | D | E | F | J | 重量 (KGS) Weight |
|-------------|-----|-----|-----|----|----|-----|-----|-----------------------|
| VAV-6 | 150 | 368 | 400 | 75 | 40 | 140 | 148 | 29.0 |

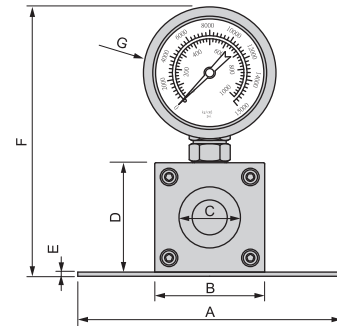


LM-PM 虎鉗測壓力計 LM-PM VISE PRESSURE GAUGE

LEMMA



範例 Example



特點 Feature

- 測量虎鉗壓力值 · 是否合乎標準值

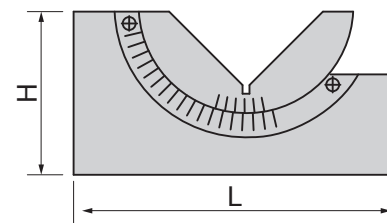
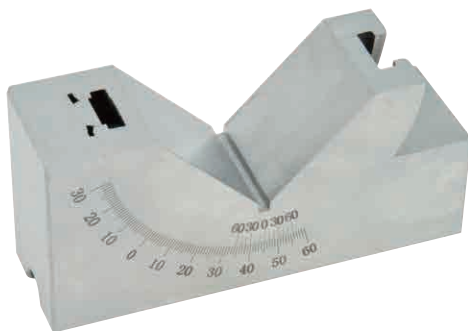
- Accurately measure the pressure of the vise clamping force. .

| 規格 Spec. | A | B | C | D | E | F | G | 重量 (KGS) Weight |
|-------------|-----|----|----|----|---|-----|----|-----------------------|
| LM-PM-1000 | 120 | 50 | 28 | 50 | 2 | 140 | 70 | 1.16 |



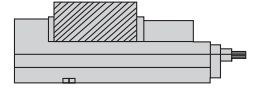
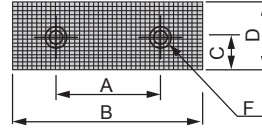
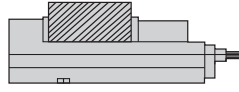
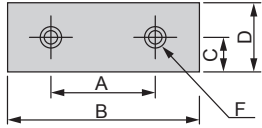
可調式角度規 ADJUSTABLE ANGLE PLATE

範例 Example



| 規格 Spec. | L | W | H | 重量 (KGS) Weight |
|-------------|-----|----|----|-----------------------|
| AP-1 | 102 | 46 | 47 | 1.50 |
| AP-2 | 102 | 30 | 47 | 1.00 |
| AP-3 | 75 | 25 | 32 | 0.50 |

• 長度單位 Unit of Length (mm)



※ 標配 Standard accessories

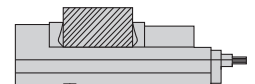
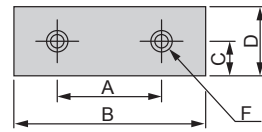
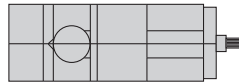
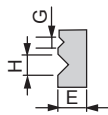
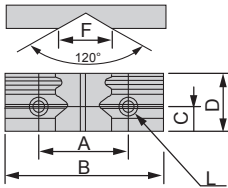
| 規格 Spec. | A | B | C | D | E | F | 重量 (KGS) Weight |
|----------|-----|-----|----|----|----|-----|-----------------|
| J1 - 100 | 70 | 98 | 25 | 48 | 15 | M8 | 1.06 |
| J1 - 130 | 100 | 128 | 25 | 53 | 15 | M8 | 1.54 |
| J1 - 160 | 100 | 158 | 25 | 63 | 18 | M10 | 2.7 |
| J1 - 200 | 120 | 198 | 28 | 63 | 18 | M12 | 3.38 |

數量：一組兩塊 Qty: two piece per set

※ 選配 Optional accessories

| 規格 Spec. | A | B | C | D | E | F | 重量 (KGS) Weight |
|----------|-----|-----|----|----|----|-----|-----------------|
| J2 - 100 | 70 | 98 | 25 | 48 | 15 | M8 | 1.06 |
| J2 - 130 | 100 | 128 | 25 | 53 | 15 | M8 | 1.5 |
| J2 - 160 | 100 | 158 | 25 | 63 | 18 | M10 | 2.66 |
| J2 - 200 | 120 | 198 | 28 | 63 | 18 | M12 | 3.00 |

數量：一組兩塊 Qty: two piece per set



※ 選配 Optional accessories

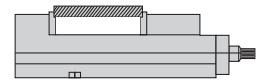
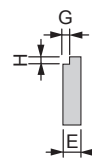
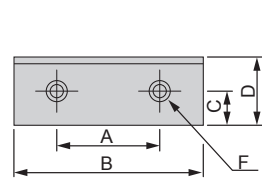
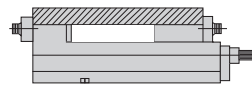
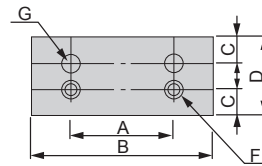
| 規格 Spec. | A | B | C | D | E | F | G | H | L | 重量 (KGS) Weight |
|----------|-----|-----|----|----|----|----|----|----|-----|-----------------|
| J3 - 100 | 70 | 98 | 25 | 48 | 30 | 25 | - | 25 | M8 | 0.96 |
| J3 - 130 | 100 | 128 | 25 | 53 | 30 | 25 | 12 | 25 | M8 | 1.38 |
| J3 - 160 | 100 | 158 | 25 | 63 | 30 | 25 | 12 | 27 | M10 | 1.98 |
| J3 - 200 | 120 | 198 | 28 | 63 | 34 | 30 | 12 | 30 | M12 | 2.78 |

數量：一組一塊 Qty: one piece per set

※ 選配 Optional accessories

| 規格 Spec. | A | B | C | D | E | F | 重量 (KGS) Weight |
|----------|-----|-----|----|----|----|-----|-----------------|
| J4 - 100 | 70 | 98 | 25 | 48 | 30 | M8 | - |
| J4 - 130 | 100 | 128 | 25 | 53 | 32 | M8 | - |
| J4 - 160 | 100 | 158 | 25 | 63 | 32 | M10 | 2.4 |
| J4 - 200 | 120 | 198 | 28 | 63 | 40 | M12 | - |

數量：一組兩塊 Qty: two piece per set



※ 選配 Optional accessories

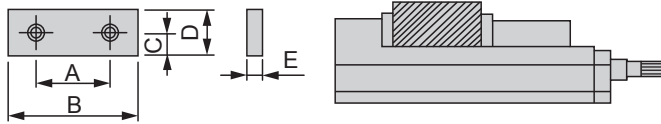
| 規格 Spec. | A | B | C | D | E | F | G | 重量 (KGS) Weight |
|----------|-----|-----|----|----|----|-----|-----|-----------------|
| J5 - 100 | 70 | 98 | 25 | 58 | 24 | M8 | M12 | 1.9 |
| J5 - 130 | 100 | 128 | 25 | 63 | 24 | M8 | M12 | 3.28 |
| J5 - 160 | 100 | 158 | 25 | 73 | 24 | M10 | M14 | 4.4 |
| J5 - 200 | 120 | 198 | 28 | 77 | 24 | M12 | M16 | 5.82 |

數量：一組兩塊 Qty: two piece per set

※ 選配 Optional accessories

| 規格 Spec. | A | B | C | D | E | F | G | H | 重量 (KGS) Weight |
|----------|-----|-----|----|----|----|-----|---|---|-----------------|
| J6 - 100 | 70 | 98 | 25 | 48 | 15 | M8 | 5 | 5 | 1.02 |
| J6 - 130 | 100 | 128 | 25 | 53 | 15 | M8 | 5 | 5 | 1.48 |
| J6 - 160 | 100 | 158 | 25 | 63 | 18 | M10 | 5 | 5 | 2.64 |
| J6 - 200 | 120 | 198 | 28 | 63 | 18 | M12 | 5 | 5 | 3.28 |

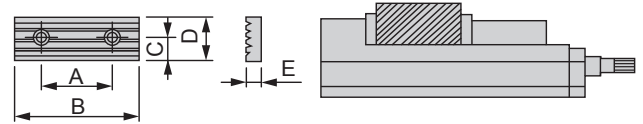
數量：一組兩塊 Qty: two piece per set



※ 標配 Standard accessories

| 規格 Spec. | A | B | C | D | E | 重量 (KGS) Weight |
|----------|-----|-----|----|----|----|-----------------|
| HJ-100 | 60 | 100 | 22 | 48 | 15 | 1.04 |
| HJ-130 | 90 | 130 | 25 | 55 | 15 | 1.58 |
| HJ-160 | 90 | 160 | 25 | 58 | 15 | 1.50 |
| HJ-200 | 120 | 200 | 28 | 63 | 18 | - |

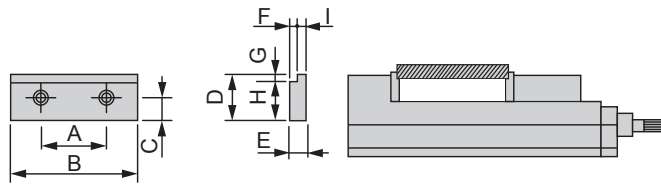
數量：一組兩塊 Qty: two piece per set



※ 選配 Optional accessories

| 規格 Spec. | A | B | C | D | E | 重量 (KGS) Weight |
|----------|-----|-----|----|----|----|-----------------|
| LJ-100 | 60 | 100 | 22 | 48 | 15 | - |
| LJ-130 | 90 | 130 | 25 | 55 | 15 | - |
| LJ-160 | 90 | 160 | 25 | 58 | 15 | - |
| LJ-200 | 120 | 200 | 28 | 63 | 18 | - |

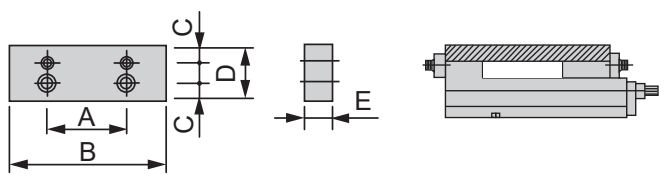
數量：一組兩塊 Qty: two piece per set



※ 選配 Optional accessories

| 規格 Spec. | A | B | C | D | E | F | G | H | I |
|----------|-----|-----|----|----|----|---|---|----|----|
| SJ-100 | 60 | 100 | 22 | 48 | 15 | 5 | 5 | 43 | 10 |
| SJ-130 | 90 | 130 | 25 | 55 | 15 | 5 | 5 | 50 | 10 |
| SJ-160 | 90 | 160 | 25 | 58 | 15 | 5 | 5 | 53 | 10 |
| SJ-200 | 120 | 200 | 28 | 63 | 18 | 5 | 5 | 58 | 13 |

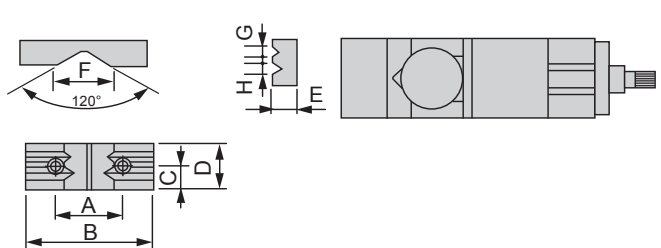
數量：一組兩塊 Qty: two piece per set



※ 選配 Optional accessories

| 規格 Spec. | A | B | C | D | E | 重量 (KGS) Weight |
|----------|-----|-----|----|----|----|-----------------|
| TJ-100 | 60 | 100 | 22 | 64 | 21 | - |
| TJ-130 | 90 | 130 | 25 | 69 | 24 | 3.34 |
| TJ-160 | 90 | 160 | 25 | 74 | 24 | - |
| TJ-200 | 120 | 200 | 28 | 88 | 31 | - |

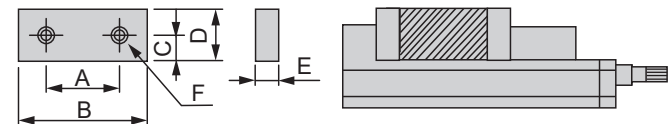
數量：一組兩塊 Qty: two piece per set



※ 選配 Optional accessories

| 規格 Spec. | A | B | C | D | E | F | G | H |
|----------|-----|-----|----|----|----|------|------|------|
| VJ-100 | 60 | 100 | 22 | 48 | 30 | 120° | 13.9 | 20.8 |
| VJ-130 | 90 | 130 | 25 | 55 | 32 | 120° | 13.9 | 31.2 |
| VJ-160 | 90 | 160 | 25 | 58 | 32 | 120° | 15.6 | 29.4 |
| VJ-200 | 120 | 200 | 28 | 63 | 40 | 120° | 12.1 | 24.6 |

數量：一組一塊 Qty: one piece per set



※ 選配 Optional accessories

| 規格 Spec. | A | B | C | D | E | F |
|----------|----|-----|----|-----|----|-----|
| FJ-1002 | 60 | 100 | 22 | 63 | 21 | M10 |
| FJ-1003 | 60 | 100 | 22 | 73 | 23 | M10 |
| FJ-1004 | 60 | 100 | 22 | 48 | 48 | M10 |
| FJ-1005 | 60 | 100 | 22 | 63 | 48 | M10 |
| FJ-1301 | 90 | 130 | 25 | 55 | 15 | M10 |
| FJ-1302 | 90 | 130 | 25 | 73 | 23 | M10 |
| FJ-1303 | 90 | 130 | 25 | 103 | 30 | M10 |
| FJ-1304 | 90 | 130 | 25 | 63 | 48 | M10 |
| FJ-1305 | 90 | 130 | 25 | 73 | 48 | M10 |

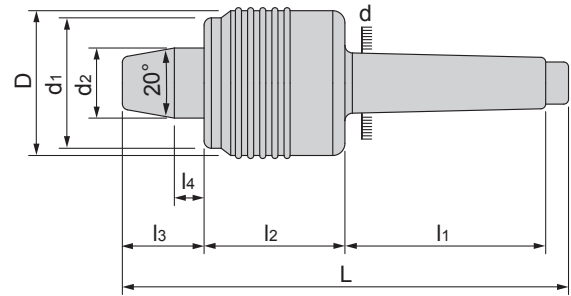
| 規格 Spec. | A | B | C | D | E | F |
|----------|-----|-----|----|-----|----|-----|
| FJ-1601 | 90 | 160 | 25 | 58 | 15 | M10 |
| FJ-1602 | 90 | 160 | 25 | 73 | 23 | M10 |
| FJ-1603 | 90 | 160 | 25 | 103 | 30 | M10 |
| FJ-1604 | 90 | 160 | 25 | 63 | 48 | M10 |
| FJ-1605 | 90 | 160 | 25 | 73 | 48 | M10 |
| FJ-2001 | 90 | 200 | 28 | 63 | 18 | M12 |
| FJ-2002 | 90 | 200 | 28 | 103 | 30 | M12 |
| FJ-2003 | 90 | 200 | 28 | 123 | 37 | M12 |
| FJ-2004 | 90 | 200 | 28 | 63 | 63 | M12 |
| FJ-2005 | 120 | 200 | 28 | 102 | 63 | M12 |

數量：一組兩塊 Qty: two piece per set

• 長度單位 Unit of Length (mm)

SC-68 標準型注油式替換頂尖

SC-68 STANDARD INTERCHANGEABLE LIVE CENTER



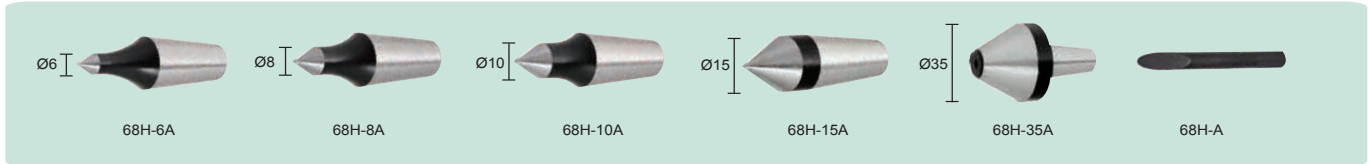
特點 Feature

- 有防水功能·本體易散熱
- 可定期注油增加使用壽命
- 頂尖子採用 SKS2(刀具鋼)
- 頂尖心軸採用 S45C
- 靜態精度 :8μ

- Characteristic of waterproof and heat dissipation.
- Regular oiling can increase the service life.
- Center adoption is made of SKS2 (tool steel)
- Center mandrel is made of S45C
- Static accuracy: 8μ.

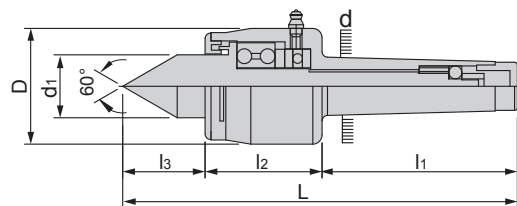
| 規格 Spec. | 柄徑 | 內附零件 Included Accessories | rpm | L | l ₁ | l ₂ | l ₃ | l ₄ | D | d | d ₁ | d ₂ | 重量 (KGS) Weight |
|------------|-----|---------------------------|------|-----|----------------|----------------|----------------|----------------|----|--------|----------------|----------------|-----------------|
| SC-68H-MT4 | MT4 | G 組 | 4500 | 199 | 96 | 58 | 33 | 13 | 64 | 31.267 | 58 | 31.6 | 2.24 |
| SC-68H-MT5 | MT5 | G 組 | 4500 | 226 | 120 | 58 | 33 | 13 | 64 | 44.399 | 58 | 31.6 | 3.10 |

零件圖 G 組 (頂尖中型) G set in drawing Medium for rotary center



MRC-MT 車床頂尖 (標準型)

STANDARD LIVE CENTER



特點 Feature

- 有防水功能·本體易散熱
- 可定期注油增加使用壽命
- 頂尖心軸及頂尖子採用 SKS2(刀具鋼)
- 靜態精度 :<5μ

- Characteristic of waterproof and heat dissipation.
- Regular oiling can increase the service life.
- Center mandrel and center adoption are made of SKS2 (tool steel)
- Static accuracy: <5μ

| 規格 Spec. | 柄徑 | rpm | L | l ₁ | l ₂ | l ₃ | D | d | d ₁ | 重量 (KGS) Weight |
|----------|-----|------|-------|----------------|----------------|----------------|----|--------|----------------|-----------------|
| MRC-MT2 | MT2 | 2800 | 171 | 69 | 52.5 | 43 | 49 | 17.78 | 35 | 1.60 |
| MRC-MT3 | MT3 | 2000 | 192.5 | 97 | 52.5 | 43 | 49 | 23.825 | 35 | 1.90 |
| MRC-MT4 | MT4 | 1500 | 213 | 117.5 | 52.5 | 43 | 49 | 31.267 | 35 | 2.30 |
| MRC-MT5 | MT5 | 1000 | 251.5 | 147 | 52.5 | 52 | 59 | 44.399 | 45 | 4.60 |
| MRC-MT6 | MT6 | 800 | - | - | - | - | - | 63.348 | - | - |

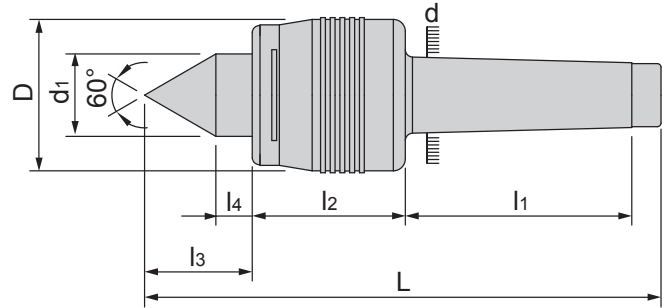
• 長度單位 Unit of Length (mm)



SC-69 標準型注油式頂尖

SC-69 STANDARD LIVE CENTER

LEMMA



特點 Feature

- 有防水功能·本體易散熱
- 可定期注油增加使用壽命
- 頂尖心軸採用 SUJ2
- 靜態精度 :5 μ

- Characteristic of waterproof and heat dissipation.
- Regular oiling can increase the service life
- Center mandrel is made of SUJ2.
- Static accuracy: 5 μ

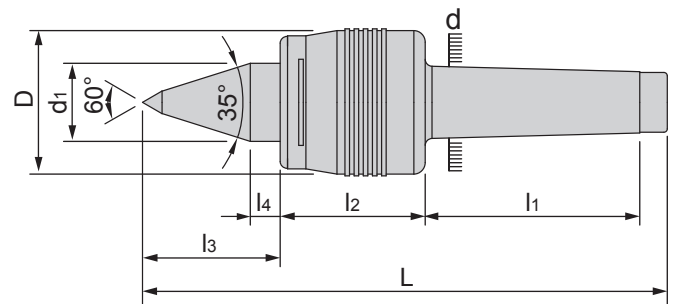
| 規格 Spec. | 柄徑 | rpm | L | l ₁ | l ₂ | l ₃ | l ₄ | D | d | d ₁ | 重量 (KGS) Weight |
|------------|-----|------|-----|----------------|----------------|----------------|----------------|----|--------|----------------|-----------------|
| SC-69M-MT4 | MT4 | 4500 | 210 | 96 | 58 | 42 | 14.5 | 64 | 31.267 | 31.6 | 1.86 |
| SC-69M-MT5 | MT5 | 4500 | 237 | 120 | 58 | 42 | 14.5 | 64 | 44.399 | 31.6 | 2.46 |



SC-70 標準型細物用注油式頂尖

SC-70 STANDARD EXTENDED LIVE CENTER

LEMMA



特點 Feature

- 有防水功能·本體易散熱
- 可定期注油增加使用壽命
- 頂尖心軸採用 SUJ2
- 靜態精度 :5 μ

- Characteristic of waterproof and heat dissipation.
- Regular oiling can increase the service life.
- Center mandrel is made of SUJ2.
- Static accuracy: 5 μ .

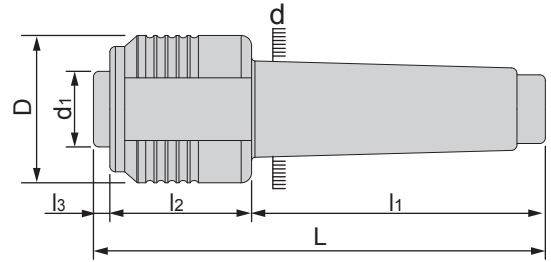
| 規格 Spec. | 柄徑 | rpm | L | l ₁ | l ₂ | l ₃ | l ₄ | D | d | d ₁ | 重量 (KGS) Weight |
|------------|-----|------|-----|----------------|----------------|----------------|----------------|----|--------|----------------|-----------------|
| SC-70L-MT4 | MT4 | 4500 | 224 | 108 | 58 | 58 | 11.5 | 64 | 31.267 | 31.5 | 2.24 |
| SC-70L-MT5 | MT5 | 4500 | 251 | 135 | 58 | 58 | 11.5 | 64 | 44.399 | 31.5 | 2.90 |

• 長度單位 Unit of Length (mm)

| SC-65H



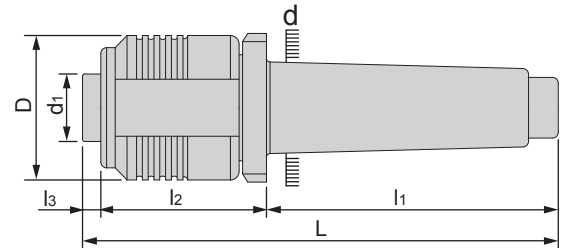
Fig.1



| SC-65HA



Fig.2



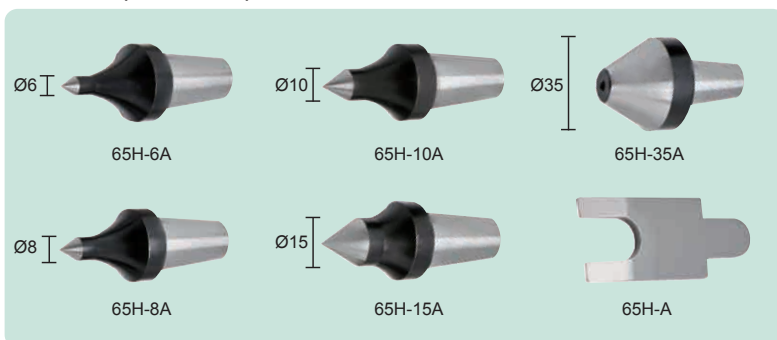
| 特點 Feature

- 增加強度使用大型頂尖子
- 有防水功能·本體易散熱
- 可定期注油增加使用壽命
- 頂尖子採用 SKS2(刀具鋼)
- 頂尖心軸採用 S45C
- 靜態精度 :8μ
- SC-65HA 型·用螺帽推出本體輕巧方便·不致產生卡死

- Use of large center adoption for increasing strength.
- Function of waterproof and heat dissipation.
- Regular oiling can increase the service life.
- Center adoption is made of SUJ2 (tool steel).
- Center mandrel is made of S45C.
- Static accuracy: 8μ.
- SC-65HA type launch with a nut body lightweight and convenient, preventing jammed shut.

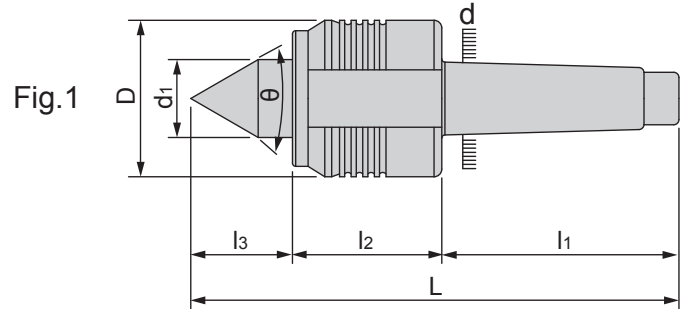
| 規格 Spec. | 柄徑 | 內附零件 Included Accessories | rpm | L | l ₁ | l ₂ | l ₃ | D | d | d ₁ | 徑向力 (KG) | 軸向力 (KG) | Fig. | 重量 (KGS) Weight |
|-------------|-----|---------------------------|------|-----|----------------|----------------|----------------|----|--------|----------------|----------|----------|------|-----------------|
| SC-65H-MT4 | MT4 | H 組 | 4000 | 178 | 108 | 56 | 14 | 68 | 31.267 | 31.6 | 1430 | 2700 | 1 | 3.16 |
| SC-65H-MT5 | MT5 | H 組 | 4000 | 205 | 135 | 56 | 14 | 68 | 44.399 | 31.6 | 1430 | 2700 | 1 | 3.72 |
| SC-65HA-MT4 | MT4 | H 組 | 4000 | 190 | 104 | 72 | 14 | 68 | 31.267 | 31.6 | 1430 | 2700 | 2 | 3.62 |
| SC-65HA-MT5 | MT5 | H 組 | 4000 | 217 | 131 | 72 | 14 | 68 | 44.399 | 31.6 | 1430 | 2700 | 2 | 4.22 |

零件圖 H 組 (頂尖加大型) H set in drawing Enlarged for rotary center

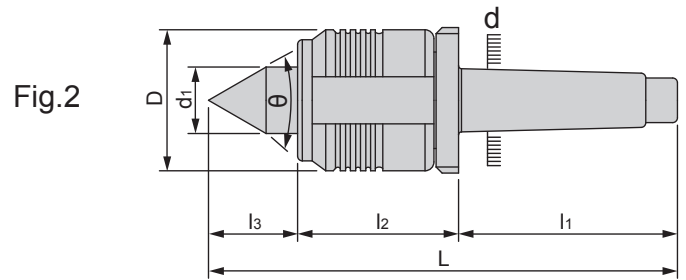


• 長度單位 Unit of Length (mm)

| SC-62H



| SC-62HA



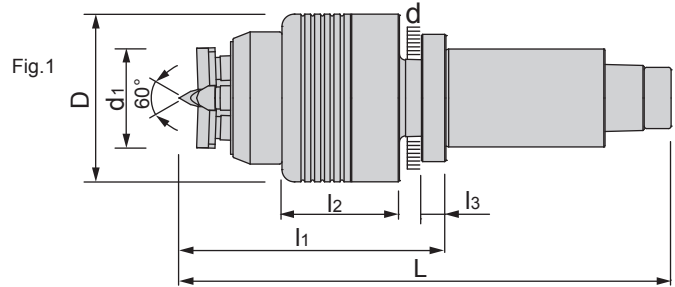
| 特點 Feature

- 有防水功能·本體易散熱
- 可定期注油增加使用壽命
- 頂尖心軸採用 SUJ2
- 靜態精度 :5 μ
- SC-62HA 型·用螺帽推出本體輕巧方便·不致產生卡死

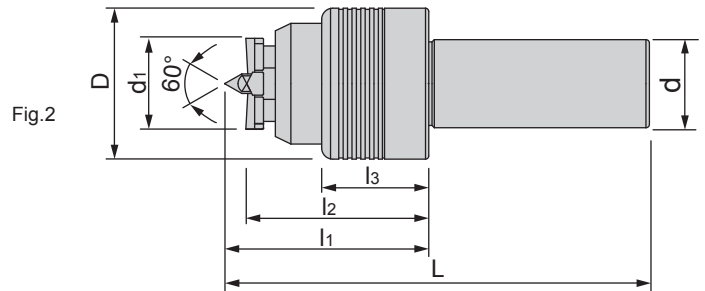
- Function of waterproof and heat dissipation.
- Regular oiling can increase the service life.
- Center mandrel using SUJ2.
- Static accuracy: 5 μ .
- SC-62HA type launch with a nut body lightweight and convenient, preventing jammed shut.

| 規格 Spec. | 柄徑 | rpm | L | l ₁ | l ₂ | l ₃ | D | d | d ₁ | θ | 徑向力 (KG) | 軸向力 (KG) | Fig. | 重量 (KGS) Weight |
|-------------|-----|------|-----|----------------|----------------|----------------|----|--------|----------------|----------|----------|----------|------|-----------------|
| SC-62H-MT4 | MT4 | 4000 | 212 | 108 | 56 | 48 | 68 | 31.267 | 31.6 | 60° | 1430 | 2700 | 1 | 2.20 |
| SC-62H-MT5 | MT5 | 4000 | 239 | 135 | 56 | 48 | 68 | 44.399 | 31.6 | 60° | 1430 | 2700 | 1 | 2.84 |
| SC-62HA-MT4 | MT4 | 4000 | 224 | 104 | 72 | 48 | 68 | 31.267 | 31.6 | 60° | 1430 | 2700 | 2 | 2.60 |
| SC-62HA-MT5 | MT5 | 4000 | 251 | 131 | 72 | 48 | 68 | 44.399 | 31.6 | 60° | 1430 | 2700 | 2 | 3.66 |

| SC-66A



| SC-66B



| 特點 Feature

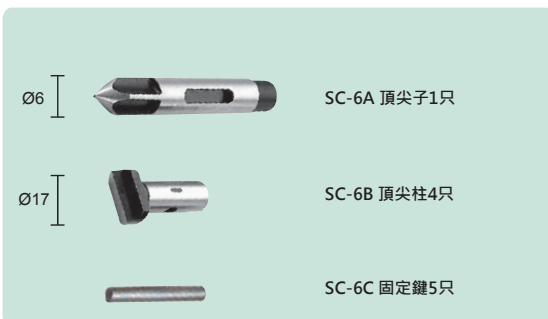
- 工作物不平時頂尖柱可自動調整穩固工作
- 頂尖子及頂尖柱可互換使用

- When workpiece is uneven, tip shaft can be adjusted automatically to stabilize the working process.
- Center tips and Center columns are used interchangeably.

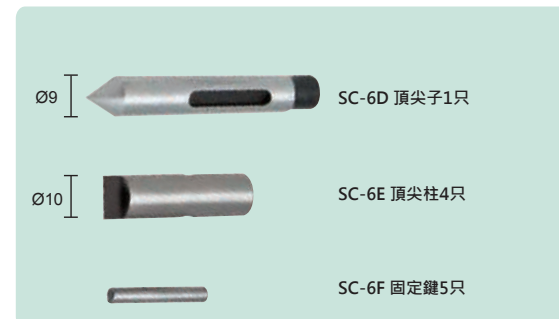
| 規格 Spec. | 柄徑 | 使用範圍 Range | 內附零件 Included Accessories | L | l ₁ | l ₂ | l ₃ | D | d | d ₁ | Fig. | 重量 (KGS) Weight |
|------------|-----|----------------------------|---------------------------|-----|----------------|----------------|----------------|------|--------|----------------|------|-----------------|
| SC-66A-MT4 | MT4 | A 組 Ø10~Ø60 B 組 Ø15~Ø35 | 零件圖 A 組 零件圖 B 組 | 203 | 109 | 48 | 10 | 68.5 | 31.267 | 40.5 | 1 | 3.29 |
| SC-66B-C40 | Ø40 | | | | 92 | 82.7 | 48 | | 40 | | | |

| 零件規格 Spec. | 重量 (KGS) Weight |
|------------|-----------------|
| SC-6A | 0.02 |
| SC-6B | 0.02 |
| SC-6C | 0.09 |
| SC-6D | 0.03 |
| SC-6E | 0.08 |
| SC-6F | 0.07 |

零件圖 A 組 A set in drawing



零件圖 B 組 B set in drawing

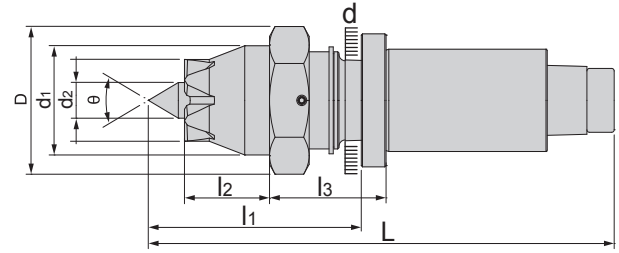


• 長度單位 Unit of Length (mm)

| SC-67A



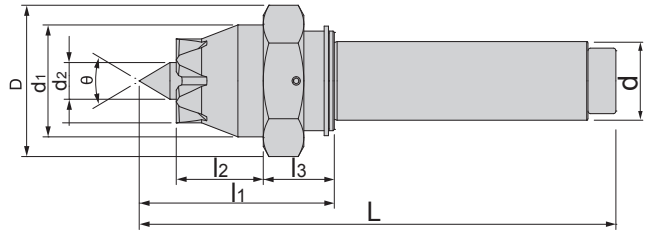
Fig.1



| SC-67B

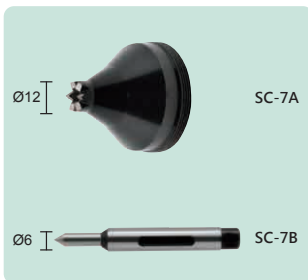


Fig.2

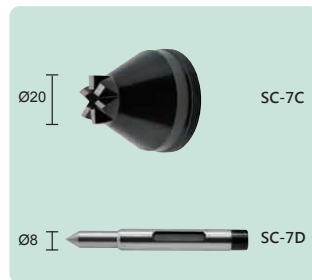


| 規格 Spec. | 柄徑 | 使用範圍 Range | 內附零件 Included Accessories | L | l ₁ | l ₂ | l ₃ | D | d | d ₁ | d ₂ | Fig. | 重量 (KGS) Weight | 零件規格 Spec. | 重量 (KGS) Weight |
|------------|-----|--|---------------------------|-------|----------------|----------------|----------------|----|--------|----------------|----------------|------|-----------------|------------|-----------------|
| SC-67A-MT4 | MT4 | C組 Ø10~Ø17 D組 Ø12~Ø25 E組 Ø14~Ø30 | C組 E組 D組 F組 | 184.9 | 84.6 | 34.3 | 47 | 57 | 31.267 | 42.7 | 25 | 1 | 2.22 | SC-7A | 0.18 |
| SC-67B-C30 | Ø30 | C組 Ø10~Ø17 D組 Ø12~Ø25 E組 Ø14~Ø30 | C組 E組 D組 | | | | | | | | | | | 73.9 | 28 |
| | | | | | | | | | | | | | | SC-7C | 0.21 |
| | | | | | | | | | | | | | | SC-7D | 0.42 |
| | | | | | | | | | | | | | | SC-7E | 0.21 |
| | | | | | | | | | | | | | | SC-7F | 0.22 |
| | | | | | | | | | | | | | | C45xMT4 | - |

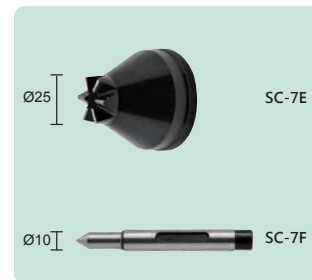
零件圖 C 組 C set in drawing



零件圖 D 組 D set in drawing



零件圖 E 組 E set in drawing

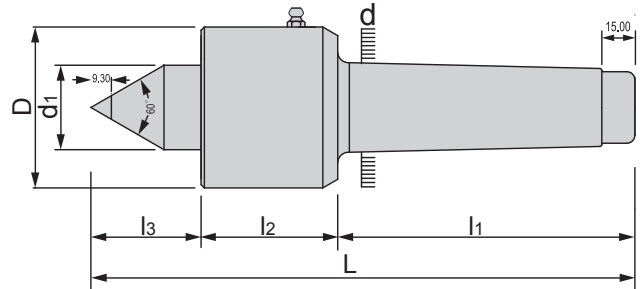


零件圖 F 組 F set in drawing



SC-100 強力重切削迴轉頂尖 (鎢鋼頂尖)

SC-100 CARBIDE LIVE CENTER FOR HEAVY TURNING

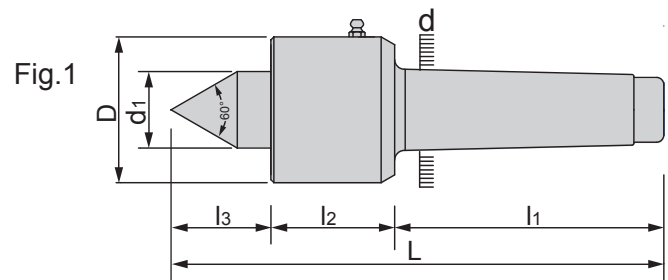


| 規格 Spec. | 柄徑 | L | l ₁ | l ₂ | l ₃ | D | d | d ₁ | 重量 (KGS) Weight |
|-------------|-----|-----|----------------|----------------|----------------|----|--------|----------------|-----------------|
| SC-100-MT4C | MT4 | 218 | 108 | 68 | 42 | 63 | 31.267 | 34.5 | 2.98 |
| SC-100-MT5C | MT5 | 255 | 135 | 69 | 51 | 73 | 44.399 | 44.2 | 4.02 |

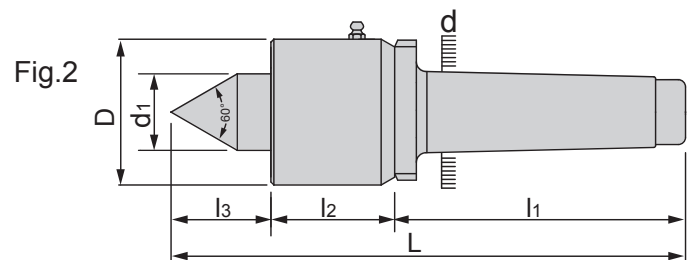
SC-60 強力型重負荷迴轉頂尖

SC-60 LIVE CENTER FOR HEAVY TURNING

| SC-60H



| SC-60HA



| 特點 Feature

- 剛性強、穩定性佳 · 適用於長軸心重負荷車削加工
- 靜態精度：5μ

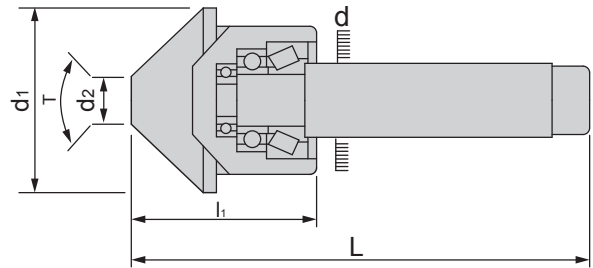
- The rigidity is strong, the stability is good, is suitable for the major axis grieving load lathe work.
- Static precision: 5μ.

| 規格 Spec. | 柄徑 | rpm | L | l ₁ | l ₂ | l ₃ | D | d | d ₁ | 徑向力 (KG) | 軸向力 (KG) | Fig. | 重量 (KGS) Weight |
|-------------|-----|------|-----|----------------|----------------|----------------|-----|--------|----------------|----------|----------|------|-----------------|
| SC-60H-MT4 | MT4 | 5000 | 205 | 108 | 58 | 44 | 78 | 31.267 | 34.3 | 1900 | 1600 | 1 | 2.98 |
| SC-60H-MT5 | MT5 | | 244 | 135 | 64 | 50 | 83 | 44.399 | 44.2 | 3000 | 2200 | 1 | 4.02 |
| SC-60HA-MT6 | MT6 | 3000 | 342 | 190 | 75 | 67 | 108 | 63.348 | 60 | 5000 | 3500 | 2 | 9.96 |

• 長度單位 Unit of Length (mm)



MT-BNC 傘型頂尖 MT-BNC BULL NOSE LIVE CENTER



特點 Feature

- HRC52°
- 同心度 : 0.005mm
- 真圓度 : 0.005mm
- 材質 : S45C

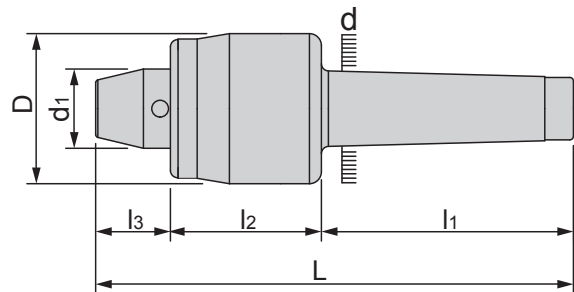
- HRC52°
- Concentricity: 0.005mm
- Roundness: 0.005mm
- Material: S45C

| 規格 Spec. | rpm | L | l ₁ | d | d ₁ | d ₂ | T | 重量 (KGS) Weight |
|----------|------|-----|----------------|--------|----------------|----------------|-----|-----------------|
| MT4xBNC3 | 2500 | 179 | 68 | 31.267 | 78 | 19 | 60° | 2.15 |
| MT4xBNC4 | 2000 | 181 | 70 | 31.267 | 106 | 32 | 70° | 3.10 |
| MT4xBNC5 | 1900 | 194 | 83 | 31.267 | 128 | 35 | 70° | 4.00 |
| MT4xBNC6 | 1900 | 204 | 93 | 31.267 | 156 | 50 | 70° | 7.00 |
| MT4xBNC8 | 1500 | 223 | 116 | 31.267 | 206 | 54 | 70° | 14.5 |
| MT5xBNC5 | 1900 | 227 | 83 | 44.399 | 128 | 35 | 70° | 5.50 |
| MT5xBNC6 | 1900 | 237 | 93 | 44.399 | 156 | 50 | 70° | 7.80 |
| MT5xBNC8 | 1500 | 257 | 113 | 44.399 | 206 | 54 | 75° | 14.5 |
| MT6xBNC8 | 1500 | 298 | 113 | 63.348 | 206 | 54 | 75° | 19.0 |



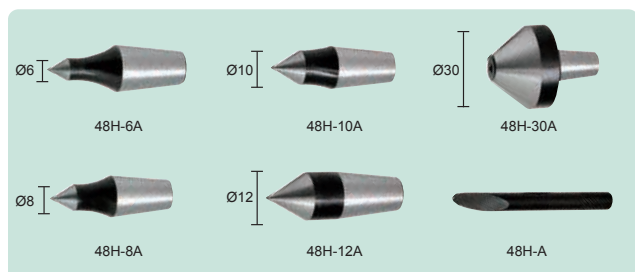
SC-48 經濟型替換頂尖 SC-48 ECONOMICAL INTERCHANGEABLE CENTER

LEMMA



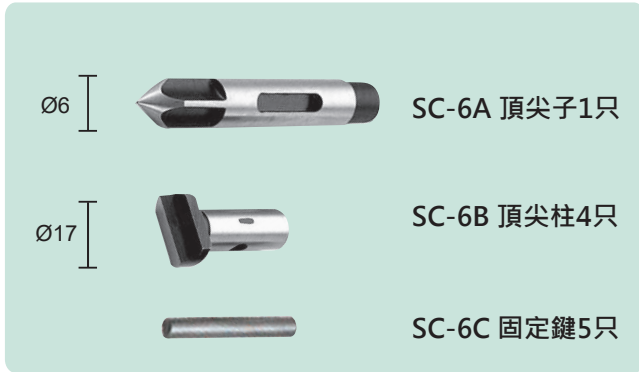
| 規格 Spec. | 柄徑 | rpm | L | l ₁ | l ₂ | l ₃ | D | d | d ₁ | 重量 (KGS) Weight |
|------------|-----|------|-------|----------------|----------------|----------------|------|--------|----------------|-----------------|
| SC-48H-MT4 | MT4 | 1800 | 186.5 | 108 | 53 | 25.5 | 48.5 | 31.267 | 29.5 | 2.20 |

零件圖 I 組 I set in drawing

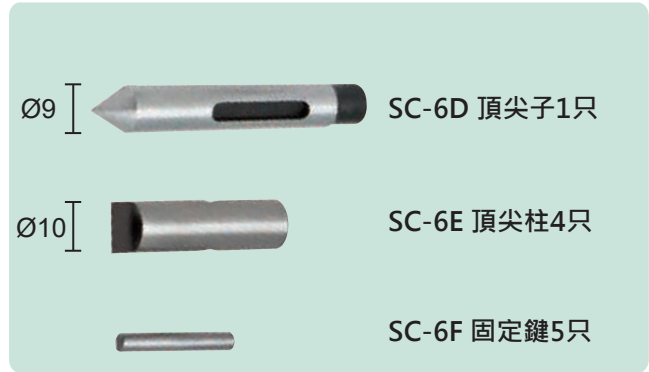


• 長度單位 Unit of Length (mm)

零件圖A組(適用:SC-66A)
A set in drawing(For use on SC-66A)



零件圖B組(適用:SC-66B)
B set in drawing(For use on SC-66B)



零件圖C組(適用:SC-67A/SC-67B)
C set in drawing(For use on SC-67A/67B)



零件圖D組(適用:SC-67A/SC-67B)
D set in drawing(For use on SC-67A/67B)



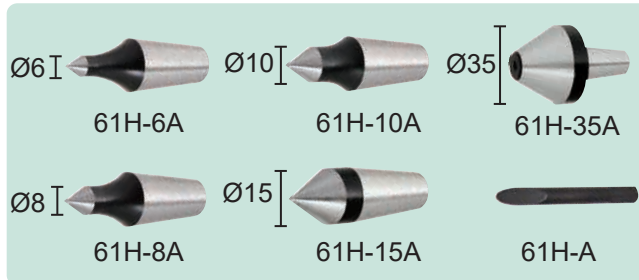
零件圖E組(適用:SC-67A/SC-67B)
E set in drawing(For use on SC-67A/67B)



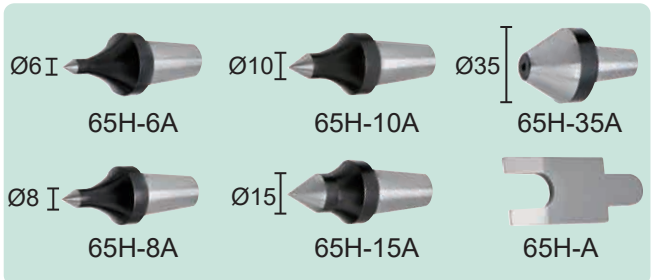
零件圖F組(適用:SC-67A/SC-67B)
F set in drawing(For use on SC-67A/67B)



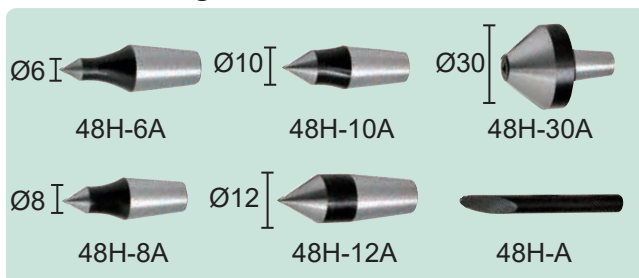
零件圖G組(頂尖中型)(適用:SC-61/SC-68)
G set in drawing - Medium(For use on SC-61 / SC-68)



零件圖H組(頂尖加大型)(適用:SC-65)
H set in drawing - Enlargement(For use on SC-65)



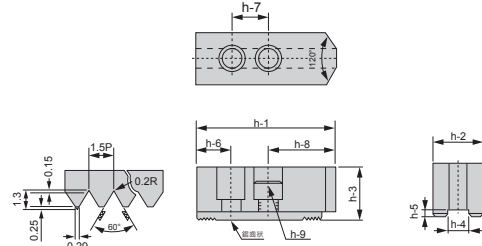
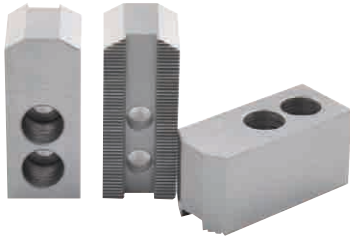
零件圖I組(頂尖小型)(適用:SC-48H)
I set in drawing - small(For use on SC-48H)





HKS 油壓生爪

HKS POWER PRESSURE SOFT JAW



| 規格 Spec. | h-1 | h-2 | h-3 | h-4 | h-5 | h-6 | h-7 | h-8 | h-9 | 鋸齒狀節具 Sprattion Pitch | 重量 (KGS) Weight |
|----------|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----------------------|-----------------|
| HKS-5 | 62 | 23 | 30 | 10 | 4 | 18 | 14 | 38 | M8 | 1.5x60° | - |
| HKS-6 | 73 | 31 | 36 | 12 | 20 | | 37 | M10 | - | | |
| HKS-8 | 95 | 35 | 38 | 14 | 22 | | 25 | 46 | M12 | | - |
| HKS-10 | 110 | 40 | 42 | 16 | 27 | | 30 | 50 | M12 | | - |
| HKS-12 | 129 | 50 | 50 | 18 21 | 30 | | 30 | 60 | M16 | | - |
| HKS-15 | 165 | 62 | 62 | 22 | 8 | 38 | 43 | 85 | M20 | | - |

5" 油壓生爪尺寸表 Spec. table

| 規格 Spec. | 長 h-1 | 寬 h-2 | 高 h-3 | 重量 (KGS) Weight |
|-----------------|-------|-------|-------|-----------------|
| HKS-5x62x23x30 | 62 | 23 | 30 | - |
| HKS-5x62x23x50 | 62 | 23 | 50 | - |
| HKS-5x62x23x70 | 62 | 23 | 70 | - |
| HKS-5x62x23x80 | 62 | 23 | 80 | - |
| HKS-5x62x23x100 | 62 | 23 | 100 | - |

8" 油壓生爪尺寸表 Spec. table

| 規格 Spec. | 長 h-1 | 寬 h-2 | 高 h-3 | 重量 (KGS) Weight |
|--------------------|-------|-------|-------|-----------------|
| HKS-8x95x35x37 | 95 | 35 | 37 | - |
| HKS-8x95x35x37x60 | 95 | 35 | 37 | - |
| HKS-8x95x35x37x90 | 95 | 35 | 37 | - |
| HKS-8x95x35x37x120 | 95 | 35 | 37 | - |
| HKS-8x95x35x50 | 95 | 35 | 50 | - |
| HKS-8x95x35x50x60 | 95 | 35 | 50 | - |
| HKS-8x95x35x50x120 | 95 | 35 | 50 | - |
| HKS-8x95x35x60 | 95 | 35 | 60 | - |
| HKS-8x95x35x60x60 | 95 | 35 | 60 | - |
| HKS-8x95x35x60x90 | 95 | 35 | 60 | - |
| HKS-8x95x35x60x120 | 95 | 35 | 60 | - |
| HKS-8x95x35x70 | 95 | 35 | 70 | - |
| HKS-8x95x35x70x60 | 95 | 35 | 70 | - |
| HKS-8x95x35x70x120 | 95 | 35 | 70 | - |
| HKS-8x95x35x80 | 95 | 35 | 80 | - |
| HKS-8x95x35x90 | 95 | 35 | 90 | - |
| HKS-8x95x35x100 | 95 | 35 | 100 | - |
| HKS-8x95x35x110 | 95 | 35 | 110 | - |
| HKS-8x95x35x120 | 95 | 35 | 120 | - |
| HKS-8x95x35x130 | 95 | 35 | 130 | - |
| HKS-8x95x35x140 | 95 | 35 | 140 | - |
| HKS-8x95x35x150 | 95 | 35 | 150 | - |
| HKS-8x95x35x160 | 95 | 35 | 160 | - |
| HKS-8x95x35x180 | 95 | 35 | 180 | - |
| HKS-8x95x35x200 | 95 | 35 | 200 | - |
| HKS-8x95x50x35 | 95 | 50 | 35 | - |
| HKS-8x95x50x35x120 | 95 | 50 | 35 | - |
| HKS-8x95x50x50 | 95 | 50 | 50 | - |
| HKS-8x95x50x60 | 95 | 50 | 60 | - |
| HKS-8x95x50x70 | 95 | 50 | 70 | - |
| HKS-8x95x50x80 | 95 | 50 | 80 | - |
| HKS-8x95x50x90 | 95 | 50 | 90 | - |
| HKS-8x95x50x100 | 95 | 50 | 100 | - |
| HKS-8x95x50x120 | 95 | 50 | 120 | 3.00 |
| HKS-8x95x50x150 | 95 | 50 | 150 | - |

6" 油壓生爪尺寸表 Spec. table

| 規格 Spec. | 長 h-1 | 寬 h-2 | 高 h-3 | 重量 (KGS) Weight |
|--------------------|-------|-------|-------|-----------------|
| HKS-6x73x31x36 | 73 | 31 | 36 | - |
| HKS-6x73x31x36x60 | 73 | 31 | 36 | - |
| HKS-6x73x31x36x90 | 73 | 31 | 36 | - |
| HKS-6x73x31x36x120 | 73 | 31 | 36 | - |
| HKS-6x73x31x50 | 73 | 31 | 50 | - |
| HKS-6x73x31x60 | 73 | 31 | 60 | - |
| HKS-6x73x31x70 | 73 | 31 | 70 | - |
| HKS-6x73x31x70x60 | 73 | 31 | 70 | - |
| HKS-6x73x31x80 | 73 | 31 | 80 | - |
| HKS-6x73x31x90 | 73 | 31 | 90 | - |
| HKS-6x73x31x100 | 73 | 31 | 100 | - |
| HKS-6x73x31x110 | 73 | 31 | 110 | - |
| HKS-6x73x31x120 | 73 | 31 | 120 | - |
| HKS-6x73x31x130 | 73 | 31 | 130 | - |
| HKS-6x73x31x150 | 73 | 31 | 150 | - |
| HKS-6x73x50x31 | 73 | 50 | 31 | - |
| HKS-6x73x50x36 | 73 | 50 | 36 | - |
| HKS-6x73x50x50 | 73 | 50 | 50 | - |
| HKS-6x73x50x60 | 73 | 50 | 60 | - |
| HKS-6x73x50x70 | 73 | 50 | 70 | - |
| HKS-6x73x60x31 | 73 | 60 | 31 | - |
| HKS-6x73x60x36 | 73 | 60 | 36 | - |
| HKS-6x73x60x50 | 73 | 60 | 50 | - |
| HKS-6x73x60x60 | 73 | 60 | 60 | - |
| HKS-6x73x70x36 | 73 | 70 | 36 | - |
| HKS-6x73x70x70 | 73 | 70 | 70 | - |
| HKS-6x73x80x36 | 73 | 80 | 36 | - |
| HKS-6x95x35x37 | 95 | 35 | 37 | - |

• 長度單位 Unit of Length (mm)



HKS 油壓生爪

HKS POWER PRESSURE SOFT JAW

8" 油壓生爪尺寸表 Spec. table

| 規格 Spec. | 長 h-1 | 寬 h-2 | 高 h-3 | 重量 (KGS) Weight |
|------------------|----------|----------|----------|--------------------|
| HKS-8x95x60x35 | 95 | 60 | 35 | - |
| HKS-8x95x60x50 | 95 | 60 | 50 | - |
| HKS-8x95x60x60 | 95 | 60 | 60 | - |
| HKS-8x95x60x70 | 95 | 60 | 70 | - |
| HKS-8x95x60x80 | 95 | 60 | 80 | - |
| HKS-8x95x60x90 | 95 | 60 | 90 | - |
| HKS-8x95x60x100 | 95 | 60 | 100 | - |
| HKS-8x95x60x120 | 95 | 60 | 120 | - |
| HKS-8x95x60x150 | 95 | 60 | 150 | - |
| HKS-8x95x70x35 | 95 | 70 | 35 | - |
| HKS-8x95x70x50 | 95 | 70 | 50 | - |
| HKS-8x95x70x60 | 95 | 70 | 60 | - |
| HKS-8x95x70x70 | 95 | 70 | 70 | - |
| HKS-8x95x80x40 | 95 | 80 | 40 | - |
| HKS-8x95x80x50 | 95 | 80 | 50 | - |
| HKS-8x95x80x60 | 95 | 80 | 60 | - |
| HKS-8x95x80x80 | 95 | 80 | 80 | - |
| HKS-8x95x90x90 | 95 | 90 | 90 | - |
| HKS-8x95x100x40 | 95 | 100 | 40 | - |
| HKS-8x95x100x50 | 95 | 100 | 50 | - |
| HKS-8x95x100x60 | 95 | 100 | 60 | - |
| HKS-8x95x100x100 | 95 | 100 | 100 | - |
| HKS-8x95x120x50 | 95 | 120 | 50 | - |
| HKS-8x130x35x40 | 130 | 35 | 40 | - |
| HKS-8x130x35x50 | 130 | 35 | 50 | - |
| HKS-8x150x35x50 | 150 | 35 | 50 | - |
| HKS-8x150x35x70 | 150 | 35 | 70 | - |

10" 油壓生爪尺寸表 Spec. table

| 規格 Spec. | 長 h-1 | 寬 h-2 | 高 h-3 | 重量 (KGS) Weight |
|----------------------|----------|----------|----------|--------------------|
| HKS-10x110x40x42 | 110 | 40 | 42 | - |
| HKS-10x110x40x42x60 | 110 | 40 | 42 | - |
| HKS-10x110x40x42x120 | 110 | 40 | 42 | - |
| HKS-10x110x40x50 | 110 | 40 | 50 | - |
| HKS-10x110x40x60 | 110 | 40 | 60 | - |
| HKS-10x110x40x70 | 110 | 40 | 70 | - |
| HKS-10x110x40x80 | 110 | 40 | 80 | - |
| HKS-10x110x40x80x60 | 110 | 40 | 80 | - |
| HKS-10x110x40x80x120 | 110 | 40 | 80 | - |
| HKS-10x110x40x90 | 110 | 40 | 90 | - |
| HKS-10x110x40x100 | 110 | 40 | 100 | - |
| HKS-10x110x40x110 | 110 | 40 | 110 | - |
| HKS-10x110x40x120 | 110 | 40 | 120 | - |
| HKS-10x110x40x130 | 110 | 40 | 130 | - |
| HKS-10x110x40x140 | 110 | 40 | 140 | - |
| HKS-10x110x40x150 | 110 | 40 | 150 | - |
| HKS-10x110x40x160 | 110 | 40 | 160 | - |
| HKS-10x110x40x180 | 110 | 40 | 180 | - |
| HKS-10x110x40x200 | 110 | 40 | 200 | - |
| HKS-10x110x40x220 | 110 | 40 | 220 | - |
| HKS-10x110x50x50 | 110 | 50 | 50 | - |
| HKS-10x110x50x60 | 110 | 50 | 60 | - |
| HKS-10x110x50x70 | 110 | 50 | 70 | - |
| HKS-10x110x50x80 | 110 | 50 | 80 | - |
| HKS-10x110x50x100 | 110 | 50 | 100 | - |

10" 油壓生爪尺寸表 Spec. table

| 規格 Spec. | 長 h-1 | 寬 h-2 | 高 h-3 | 重量 (KGS) Weight |
|---------------------|----------|----------|----------|--------------------|
| HKS-10x110x60x40 | 110 | 60 | 40 | - |
| HKS-10x110x60x50 | 110 | 60 | 50 | - |
| HKS-10x110x60x60 | 110 | 60 | 60 | - |
| HKS-10x110x60x70 | 110 | 60 | 70 | - |
| HKS-10x110x60x80 | 110 | 60 | 80 | - |
| HKS-10x110x60x100 | 110 | 60 | 100 | - |
| HKS-10x110x70x40 | 110 | 70 | 40 | - |
| HKS-10x110x70x50 | 110 | 70 | 50 | - |
| HKS-10x110x70x70 | 110 | 70 | 70 | - |
| HKS-10x110x70x70x60 | 110 | 70 | 70 | - |
| HKS-10x110x70x80 | 110 | 70 | 80 | - |
| HKS-10x110x80x40 | 110 | 80 | 40 | - |
| HKS-10x110x80x50 | 110 | 80 | 50 | - |
| HKS-10x110x80x80 | 110 | 80 | 80 | - |
| HKS-10x110x90x90 | 110 | 90 | 90 | - |
| HKS-10x110x100x40 | 110 | 100 | 40 | - |
| HKS-10x110x100x50 | 110 | 100 | 50 | - |
| HKS-10x110x100x60 | 110 | 100 | 60 | - |
| HKS-10x110x100x100 | 110 | 100 | 100 | - |
| HKS-10x110x120x50 | 110 | 120 | 50 | - |
| HKS-10x150x40x42 | 150 | 40 | 42 | - |
| HKS-10x150x40x50 | 150 | 40 | 50 | - |
| HKS-10x150x40x60 | 150 | 40 | 60 | - |
| HKS-10x150x40x70 | 150 | 40 | 70 | - |
| HKS-10x150x40x80 | 150 | 40 | 80 | - |
| HKS-10x180x40x60 | 180 | 40 | 60 | - |
| HKS-10x180x40x90 | 180 | 40 | 90 | - |
| HKS-10x200x40x50 | 200 | 40 | 50 | - |
| HKS-10x200x40x60 | 200 | 40 | 60 | - |
| HKS-10x200x40x90 | 200 | 40 | 90 | - |

12" 油壓生爪尺寸表 Spec. table

| 規格 Spec. | 長 h-1 | 寬 h-2 | 高 h-3 | 重量 (KGS) Weight |
|---------------------|----------|----------|----------|--------------------|
| HKS-12x130x50x50 | 130 | 50 | 50 | - |
| HKS-12x130x50x50x60 | 130 | 50 | 50 | - |
| HKS-12x130x50x60 | 130 | 50 | 60 | - |
| HKS-12x130x50x70 | 130 | 50 | 70 | - |
| HKS-12x130x50x80 | 130 | 50 | 80 | - |
| HKS-12x130x50x90 | 130 | 50 | 90 | - |
| HKS-12x130x50x100 | 130 | 50 | 100 | - |
| HKS-12x130x50x110 | 130 | 50 | 110 | - |
| HKS-12x130x50x120 | 130 | 50 | 120 | - |
| HKS-12x130x50x130 | 130 | 50 | 130 | - |
| HKS-12x130x50x140 | 130 | 50 | 140 | - |
| HKS-12x130x50x150 | 130 | 50 | 150 | - |
| HKS-12x130x50x160 | 130 | 50 | 160 | - |
| HKS-12x130x50x170 | 130 | 50 | 170 | - |
| HKS-12x130x50x180 | 130 | 50 | 180 | - |
| HKS-12x130x50x190 | 130 | 50 | 190 | - |
| HKS-12x130x50x200 | 130 | 50 | 200 | - |
| HKS-12x130x80x80 | 130 | 80 | 80 | - |

• 長度單位 Unit of Length (mm)



HKS 油壓生爪 HKS POWER PRESSURE SOFT JAW

12" 油壓生爪尺寸表 Spec. table

| 規格 Spec. | 長 h-1 | 寬 h-2 | 高 h-3 | 重量 (KGS) Weight |
|-------------------|----------|----------|----------|-----------------------|
| HKS-12x150x50x50 | 150 | 50 | 50 | - |
| HKS-12x150x50x60 | 150 | 50 | 60 | - |
| HKS-12x150x50x70 | 150 | 50 | 70 | - |
| HKS-12x150x50x80 | 150 | 50 | 80 | - |
| HKS-12x150x50x100 | 150 | 50 | 100 | - |
| HKS-12x180x50x50 | 180 | 50 | 50 | - |
| HKS-12x180x50x60 | 180 | 50 | 60 | - |
| HKS-12x180x50x80 | 180 | 50 | 80 | - |
| HKS-12x180x50x100 | 180 | 50 | 100 | - |
| HKS-12x200x50x50 | 200 | 50 | 50 | - |
| HKS-12x200x50x80 | 200 | 50 | 80 | - |
| HKS-12x220x50x50 | 220 | 50 | 50 | - |
| HKS-12x220x50x60 | 220 | 50 | 60 | - |
| HKS-12x220x50x80 | 220 | 50 | 80 | - |
| HKS-12x260x50x60 | 260 | 50 | 60 | - |
| HKS-12x450x40x80 | 450 | 40 | 80 | - |

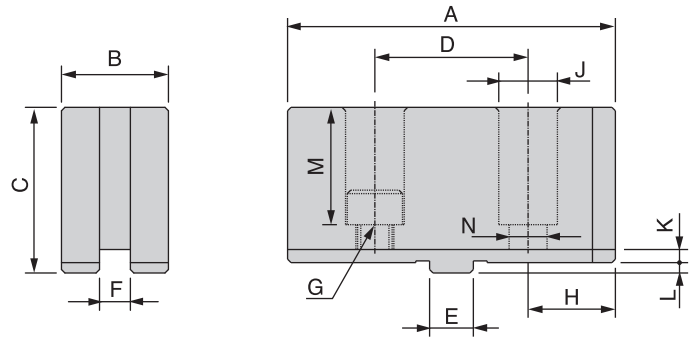
15" 油壓生爪尺寸表 Spec. table

| 規格 Spec. | 長 h-1 | 寬 h-2 | 高 h-3 | 重量 (KGS) Weight |
|-------------------|----------|----------|----------|-----------------------|
| HKS-15x165x62x62 | 165 | 62 | 62 | - |
| HKS-15x165x62x70 | 165 | 62 | 70 | - |
| HKS-15x165x62x80 | 165 | 62 | 80 | - |
| HKS-15x165x62x100 | 165 | 62 | 100 | - |
| HKS-15x165x62x120 | 165 | 62 | 120 | - |
| HKS-15x165x62x150 | 165 | 62 | 150 | - |
| HKS-15x165x62x180 | 165 | 62 | 180 | - |
| HKS-15x165x62x200 | 165 | 62 | 200 | - |
| HKS-15x200x62x70 | 200 | 62 | 70 | - |
| HKS-15x200x62x100 | 200 | 62 | 100 | - |
| HKS-15x250x62x70 | 250 | 62 | 70 | - |

- 材質為：中碳鋼
- 特殊規格尺寸可訂作
- 訂購前請註明角度
- 120° 平 標準型
- 120° 尖 特殊另外加價
- 60° 尖 特殊另外加價
- Material: Carbon steel
- Special specification is optional
- Before ordering, please inform the angle
- 120° flat, standard
- 120° sharp, special specification is price optional
- 60° sharp, special specification is price optional



SKS 強力生爪 SKS POWER PRESSURE SOFT JAW



特點 Feature

- 適用於強力三爪夾頭上，尺寸是國際規格，並有高可塑性
- 材質 S50C，不經熱處理，無硬度，可以修整成各種形狀尺寸來夾持工件

- Is suitable on the force universal chuck cartridge, the size is the international specification, and has the high plasticity.
- Material S50C, without heat treatment, no hardness, into various shapes and sizes can be trimmed to clamp workpiece.

| 規格 Spec. | A | B | C | D | E | F | G | H | J | K | L | M | N | 重量 (KGS) Weight |
|-------------|-----|----|----|------|-------|------|-----------|-------|----|-----|---|----|----|-----------------------|
| SKS-6 | 73 | 26 | 37 | 38.1 | 12.68 | 7.94 | M8x1.25P | 17.45 | 14 | 3.5 | 3 | 25 | 9 | 1.3 |
| SKS-7 | 95 | 31 | 48 | 44.4 | 12.68 | 7.94 | M10x1.5P | 23.5 | 17 | 3.8 | 3 | 34 | 11 | 2.6 |
| SKS-9 | 110 | 37 | | 54 | 19.03 | 12.7 | M12x1.75P | 28 | 19 | 4.2 | 3 | 34 | 13 | 3.6 |
| SKS-12 | 125 | 42 | 54 | 63.5 | 19.03 | 12.7 | M12x1.75P | 30.75 | 19 | 4.2 | 3 | 38 | 13 | 5.5 |

6" 強力生爪尺寸表 Spec. table

| 規格 Spec. | 長 A | 寬 B | 高 C | 重量 (KGS) Weight |
|------------------|--------|--------|--------|-----------------------|
| SKS-6-73-25-37H | 73 | 25 | 37 | - |
| SKS-6-73-25-50H | 73 | 25 | 50 | - |
| SKS-6-73-25-60H | 73 | 25 | 60 | - |
| SKS-6-73-25-70H | 73 | 25 | 70 | - |
| SKS-6-73-25-80H | 73 | 25 | 80 | - |
| SKS-6-73-25-90H | 73 | 25 | 90 | - |
| SKS-6-73-25-100H | 73 | 25 | 100 | - |
| SKS-6-85-32-32H | 85 | 32 | 32 | - |

7" 強力生爪尺寸表 Spec. table

| 規格 Spec. | 長 A | 寬 B | 高 C | 重量 (KGS) Weight |
|------------------|--------|--------|--------|-----------------------|
| SKS-7-95-31-48H | 95 | 31 | 48 | - |
| SKS-7-95-31-60H | 95 | 31 | 60 | - |
| SKS-7-95-31-70H | 95 | 31 | 70 | - |
| SKS-7-95-31-80H | 95 | 31 | 80 | - |
| SKS-7-95-31-90H | 95 | 31 | 90 | - |
| SKS-7-95-31-100H | 95 | 31 | 100 | - |
| SKS-7-95-31-120H | 95 | 31 | 120 | - |
| SKS-7-95-32-32H | 95 | 32 | 32 | - |
| SKS-7-95-50-56H | 95 | 50 | 56 | - |
| SKS-7-150-31-50H | 150 | 31 | 50 | - |
| SKS-7-180-31-50H | 180 | 31 | 50 | - |

9" 強力生爪尺寸表 Spec. table

| 規格 Spec. | 長 A | 寬 B | 高 C | 重量 (KGS) Weight |
|----------------------|--------|--------|--------|-----------------------|
| SKS-9-105-32-32H | 105 | 32 | 32 | - |
| SKS-9-105-32-32H-60 | 105 | 32 | 32 | - |
| SKS-9-110-37-48H | 110 | 37 | 48 | - |
| SKS-9-110-37-48H-120 | 110 | 37 | 48 | - |
| SKS-9-110-37-60H | 110 | 37 | 60 | - |
| SKS-9-110-37-70H | 110 | 37 | 70 | - |
| SKS-9-110-37-80H | 110 | 37 | 80 | - |
| SKS-9-110-37-100H | 110 | 37 | 100 | - |
| SKS-9-110-37-120H | 110 | 37 | 120 | - |
| SKS-9-110-37-130H | 110 | 37 | 130 | - |
| SKS-9-110-37-150H | 110 | 37 | 150 | - |
| SKS-9-110-37-180H | 110 | 37 | 180 | - |
| SKS-9-110-37-200H | 110 | 37 | 200 | - |
| SKS-9-110-54-56H | 110 | 54 | 56 | - |
| SKS-9-150-37-50H | 150 | 37 | 50 | - |
| SKS-9-150-37-60H | 150 | 37 | 60 | - |
| SKS-9-150-37-80H | 150 | 37 | 80 | - |
| SKS-9-180-37-60H | 180 | 37 | 60 | - |
| SKS-9-200-37-50H | 200 | 37 | 50 | - |
| SKS-9-200-37-60H | 200 | 37 | 60 | - |
| SKS-9-200-37-80H | 200 | 37 | 80 | - |

12" 強力生爪尺寸表 Spec. table

| 規格 Spec. | 長 A | 寬 B | 高 C | 重量 (KGS) Weight |
|--------------------|--------|--------|--------|-----------------------|
| SKS-12-125-40-54H | 125 | 40 | 54 | - |
| SKS-12-125-40-70H | 125 | 40 | 70 | - |
| SKS-12-125-40-80H | 125 | 40 | 80 | - |
| SKS-12-125-40-90H | 125 | 40 | 90 | - |
| SKS-12-125-40-100H | 125 | 40 | 100 | - |
| SKS-12-125-40-120H | 125 | 40 | 120 | - |
| SKS-12-125-40-150H | 125 | 40 | 150 | - |
| SKS-12-125-40-180H | 125 | 40 | 180 | - |
| SKS-12-125-40-200H | 125 | 40 | 200 | - |
| SKS-12-180-40-60H | 180 | 40 | 60 | - |
| SKS-12-200-40-60H | 200 | 40 | 60 | - |
| SKS-12-230-40-60H | 230 | 40 | 60 | - |
| SKS-12-250-50-60H | 250 | 50 | 60 | - |

15" 強力生爪尺寸表 Spec. table

| 規格 Spec. | 長 A | 寬 B | 高 C | 重量 (KGS) Weight |
|--------------------|--------|--------|--------|-----------------------|
| SKS-15-160-50-70H | 160 | 50 | 70 | - |
| SKS-15-160-50-100H | 160 | 50 | 100 | - |
| SKS-15-160-50-120H | 160 | 50 | 120 | - |
| SKS-15-160-50-150H | 160 | 50 | 150 | - |

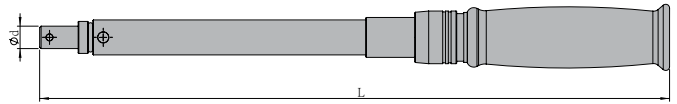
- SKS-7 與 SKS-8 共用 SKS-7 and SKS-8 altogether use.
- SKS-9 與 SKS-10 共用 SKS-9 and SKS-10 altogether use.



LM-TW 扭力扳手

LM-TW TORQUE WRENCH

NEW



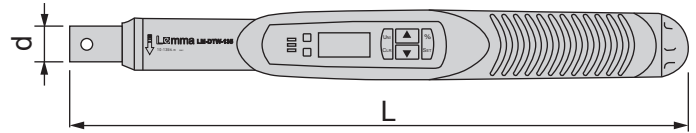
| 規格 Spec. | L | d | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|-------------|-----|----|------------------------|-----------------------|
| LM-TW-25 | 240 | 16 | 5~25 | |
| LM-TW-110 | 350 | | 10~110 | |
| LM-TW-210 | 435 | | 42~210 | |

範例 Example

警示聲響「**咔嚓**」即表示已達鎖固扭力，以避免施力過度。

扭力值：5~210 Nm





範例 Example



特點 Feature

- 特殊 $\phi 16$ 圓頭型設計
- 當施力達到目標扭力值時，紅色及綠色 LED 燈會同時亮起，並發出長響聲，來提醒使用者，以免超過扭力值而造成物件損壞
- 操作方便

- Special $\phi 16$ round head design.
- When application of force achieve object torsion value, red and green LED will light at the same time, and emit long bip sound, reminds the user, in order to avoid surpasses the torsion value to create the thing damage.
- Convenient to operate.

| 規格 Spec. | L | d | 扭力值 (N.m) Torque | 重量 (KGS) Weight |
|------------|-----|----|------------------|-----------------|
| LM-DTW-135 | 360 | 16 | 10-135 | 1.56 |
| LM-DTW-200 | 530 | | 20-200 | 1.96 |
| LM-DTW-340 | 740 | | 34-340 | 2.34 |

範例 Example

螢幕顯示 & 功能選項
Screen demonstration & Function demonstration

$\phi 16$ 模組化：

可有效更換多樣扳手樣式

$\phi 16$ Modularity: May replace effectively diverse wrench type.

手把
Handle

電池室後蓋
Battery room top plate

- ▶ 本產品不包含電池
Non inclusive battery
- ▶ 電池數量：6 顆
Number of battery: 6pcs
- ▶ 電池規格 Battery specification:
台灣 -4 號電池 / 大陸 -7 號電池
Taiwan - No.4 battery/China - No.7 battery





























直徑：10.5mm
Diameter: 10.5mm



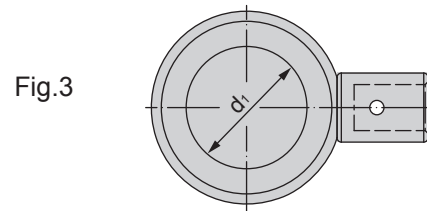
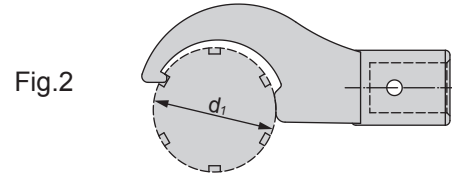
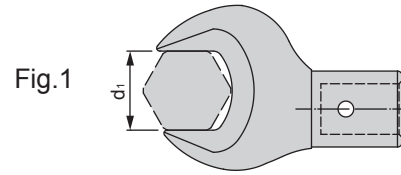
• 長度單位 Unit of Length (mm)

螺帽扳手 Nut Spanner

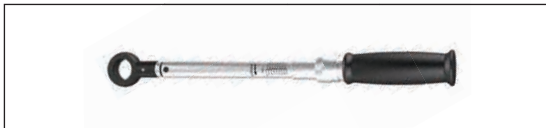
| 圖形 Form | 規格 Spec. | 扭力值 Torque | |
|---|-------------|------------|--------|
| | | N.m | ft-lbs |
|  | SKS6-LH | 25 | 18 |
|  | SKS10-LH | 45 | 33 |
|  | SKS16-LH | 70 | 51 |
|  | SKS25-LH | 100 | 73 |
|  | SKS6W-TDQ | 25 | 18 |
|  | SKS10W-TDQ | 45 | 33 |
|  | SKS16W-TDQ | 70 | 51 |
|  | SKS25W-TDQ | 100 | 73 |
|  | MLC20-LH | 60 | 45 |
|  | MLC32-LH | 80 | 60 |
|  | MLC42-LH | 110 | 80 |
|  | EOC25-LH | 200 | 147 |

| 圖形 Form | 規格 Spec. | 扭力值 Torque | |
|---|------------------|------------|--------|
| | | N.m | ft-lbs |
|  | ER11M-LH | 20 | 14 |
|  | ER16M-LH | 30 | 21 |
|  | ER20M-LH | 40 | 24 |
|  | ER25M-LH | 60 | 29 |
|  | ER16A-LH | 40 | 30 |
|  | ER20A-LH | 60 | 44 |
|  | ER25-UM、KM-LH/RD | 80 | 59 |
|  | ER32-UM、KM-LH/RD | 170 | 125 |
|  | ER40-UM、KM-LH/RD | 130 | 95 |
|  | ER11W-TDQ | 20 | 13 |
|  | ER16W-TDQ | 68 | 50 |
|  | ER20W-TDQ | 102 | 75 |
|  | ER25W-TDQ | 80 | 59 |
|  | ER32W-TDQ | 170 | 125 |

• 長度單位 Unit of Length (mm)



範例 Example

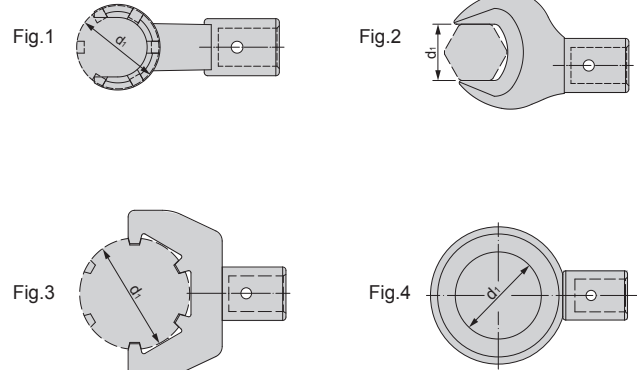


特點 Feature

- 搭配扭力扳手使用
- 參考規格，設定標準螺帽扭力值
- 預先設定好扭力值，可以預防加工時掉落，鎖緊後不容易鬆脫，也不會使筒夾彈性疲乏損壞

- Please use it with torque spanner.
- Set standard value for nut clamping torque, please see the type as below for your reference.
- Due to setting power in advance, it can prevent tool dropping when processing. Not easy to loosen for tightness and make the collets elastic fatigue.

| 規格 Spec. | d ₁ | 扭力值 Torque | | 配合螺帽 Nut | Fig. | 重量 (KGS) Weight |
|-------------|----------------|---------------|--------|-------------|------|-----------------------|
| | | N.m | ft-lbs | | | |
| SKS6-LH | 18 | 25 | 18 | SKS6-NUT | 1 | 0.08 |
| SKS10-LH | 30 | 45 | 33 | SKS10-NUT | 2 | 0.16 |
| SKS16-LH | 40 | 70 | 51 | SKS16-NUT | 2 | 0.18 |
| SKS25-LH | 55 | 100 | 73 | SKS25-NUT | 2 | 0.20 |
| SKS6W-TDQ | 18 | 25 | 18 | SKS6 | 3 | 0.16 |
| SKS10W-TDQ | 30 | 45 | 33 | SKS10 | 3 | 0.26 |
| SKS16W-TDQ | 40 | 70 | 51 | SKS16 | 3 | 0.30 |
| SKS25W-TDQ | 55 | 100 | 73 | SKS25 | 3 | 0.38 |
| MLC20-LH | 46 | 60 | 45 | MLC20 | 2 | - |
| MLC32-LH | 64 | 80 | 60 | MLC32 | 2 | 0.22 |
| MLC42-LH | 65 | 110 | 80 | MLC42 | 2 | 0.22 |
| EOC25-LH | 60 | 200 | 147 | EOC25 | 2 | 0.30 |



範例 Example

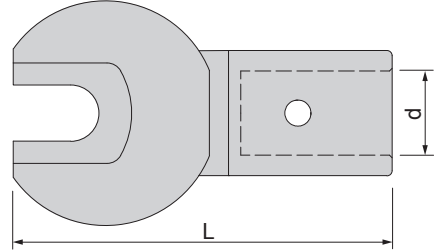


特點 Feature

- 搭配扭力扳手使用
- 參考規格，設定標準螺帽扭力值
- 預先設定好扭力值，可以預防加工時掉落，鎖緊後不容易鬆脫，也不會使筒夾彈性疲乏損壞

- Please use it with torque spanner.
- Set standard value for nut clamping torque, please see the type as below for your reference.
- Due to presetting torque value, it can prevent tool dropping when processing. Not easy to loosen for tightness and make the collets elastic fatigue.

| 規格 Spec. | d ₁ | 扭力值 Torque | | 配合螺帽 Nut | Fig. | 重量 (KGS) Weight |
|------------------|----------------|------------|--------|---------------|------|-----------------------|
| | | N.m | ft-lbs | | | |
| ER11M-LH | 16 | 20 | 14 | ER11M | 1 | 0.09 |
| ER16M-LH | 22 | 30 | 21 | ER16M | 1 | 0.10 |
| ER20M-LH | 28 | 40 | 24 | ER20M | 1 | 0.10 |
| ER25M-LH | 35 | 60 | 29 | ER25M | 1 | 0.10 |
| ER16A-LH | 25 | 40 | 30 | ER16A | 2 | 0.14 |
| ER20A-LH | 30 | 60 | 44 | ER20A | 2 | 0.20 |
| ER25-UM、KM-LH/RD | 42 | 80 | 59 | ER25-UM/KM/RD | 3 | 0.25 |
| ER32-UM、KM-LH/RD | 50 | 170 | 125 | ER32-UM/KM/RD | 3 | 0.30 |
| ER40-UM、KM-LH/RD | 63 | 130 | 95 | ER40-UM/KM/RD | 3 | 0.40 |
| ER11W-TDQ | 18 | 20 | 13 | ER11 | 3 | 0.16 |
| ER16W-TDQ | 30 | 68 | 50 | ER16 | 4 | 0.26 |
| ER20W-TDQ | 34 | 102 | 75 | ER20 | 4 | 0.26 |
| ER25W-TDQ | 42 | 80 | 59 | ER25 | 4 | 0.30 |
| ER32W-TDQ | 50 | 170 | 125 | ER32 | 4 | 0.34 |



特點 Feature

- 可施予正確的力距，鎖固拉頭

- Apply appropriate torque to lock the pull stud.

| 規格 Spec. | L | d | 配合拉頭 Pull Studs | 重量 (KGS) Weight |
|------------|----|----|-----------------|-----------------|
| PS-BT30-LH | 58 | 16 | BT30 拉頭 | 0.14 |
| PS-BT40-LH | 72 | 16 | BT40 拉頭 | 0.20 |
| PS-BT50-LH | 80 | 16 | BT50 拉頭 | - |

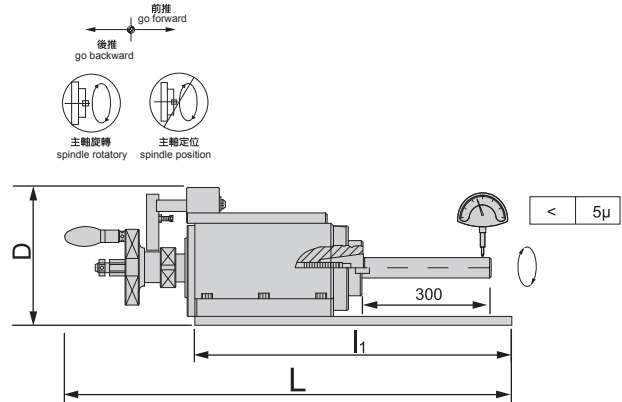
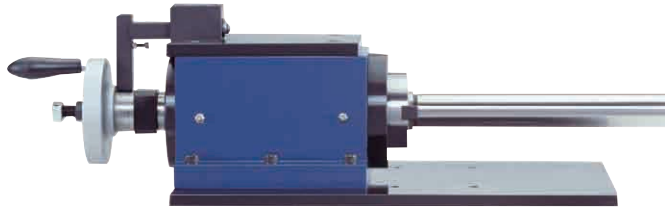
範例 Example



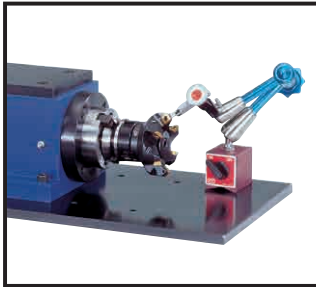
PS-BT40-LH 替換式拉頭扳手
PS-BT40-LH Indexable Spanner For Pull Stud

LM-TW-25 扭力扳手
LM-TW-25 Torque Wrench

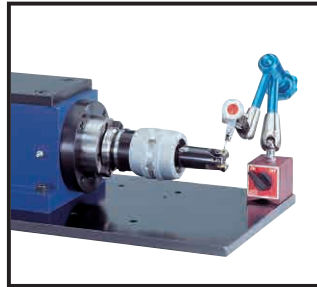
BT40 拉頭
BT40 Pull Stud



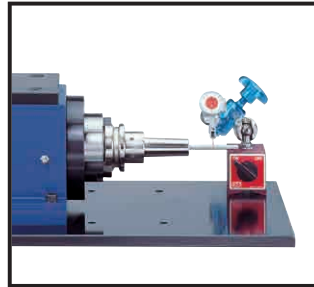
範例 Example



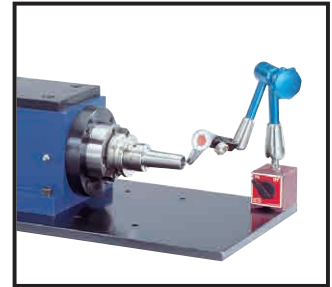
校正刀片公差
Correction insert tolerances



校正刀片公差
Correction insert tolerances



校正筒夾公差
Correction collet tolerances



校正刀桿公差
Correction shank tolerances

操作注意事項 Operation Instruction

- 檢查校正桿是否標準，轉動主軸是否清潔
- 主軸上固定鍵，定位並向右固定轉軸
- 螺桿上鎖校正，(約 15m/m 牙深) 上緊固定螺帽密合
- 主軸上固定鍵向左撥開，即可轉動主軸
- 將量錶置於檢驗位置上，即可檢驗及校正
- 量錶量測時，請確實掌握測試桿最高點為探測接觸點

- Check and ensure the aligner bar is standard. Turn the spindle and see if it is clean.
- Position the fixing key on spindle, turn right and fix the spindle.
- Lock and regulate the screw, (depth about 15m/m) locking nut.
- Turn the fixing key to the left. Turn the spindle.
- Place the scale at the testing position. Test and calibrate.
- When measuring with the scale, be sure to grasp the highest point of the test rod probe contact point.

注意事項 Notice

- 校正座必須置於水平固定架上
- 放置清潔，室溫保持 $20^{\circ} \pm 10^{\circ}$ 左右
- 禁止對校正座敲打或碰觸
- 隨時保持清潔及定期檢測、保養
- 將量錶置於檢驗位置上，即可檢驗及校正
- 量錶量測時，請確實掌握測試桿最高點為探測接觸點

- Calibration seat must be placed on a horizontal bracket.
- Place purifying, the temperature is maintained around $20^{\circ} \pm 10^{\circ}$.
- Do not knock or touch the calibration seat.
- Kept clean and regular testing, maintenance.
- The scale is placed on the testing position. Test and calibrate.
- Scale measurements, be sure to grasp the highest point of the test rod probe contact point.

| 規格 Spec. | 斜度 Taper | L | l ₁ | D | 螺桿尺寸 Rod Screw | 重量 (KGS) Weight |
|----------|-----------|-----|----------------|-----|----------------|-----------------|
| CHW-SK30 | NT30/BT30 | 650 | 500 | 210 | M12x1.75P | 50.0 |
| CHW-SK40 | NT40/BT40 | 680 | 500 | 240 | M16x2.0P | 70.0 |
| CHW-SK50 | NT50/BT50 | 900 | 700 | 260 | M24x2.0P | 110.0 |

* 主軸測試棒另外訂購 Spindle test bar is ordered separately.



範例 Example



A Z軸升降手輪 Shifting Structure of Z-axis **B** X軸位移手輪 Shifting Structure of X-axis

透過氣壓元件來進行量測支架在 X 軸及 Z 軸 上的大幅度移動
Use pneumatic components to measure the large movement of the bracket on the X and Z axes.

C 快送機構 Fast Moving Device

透過氣壓元件來進行量測支架在 X 軸及 Z 軸 上的大幅度移動
Use pneumatic components to measure the large movement of the bracket on the X and Z axes.

D 均採用高精度線軌、雙滑塊 結構 All adopt high-precision linear rail and double slider structure

X 軸及 Z 軸 均採用高精度線軌、雙滑塊 結構，確保長久量測上的穩定性
Both X-axis and Z-axis adopt high-precision linear rail and double-slider structure to ensure long-term measurement stability.

E 影像量測機構 Projection Measuring Structure

配備載遠新鏡頭及高解析度相機
Equipped with Zaiyuan's new lens and high-resolution camera.

F 螢幕 Screen

影像量測系統可進行刀具重要尺寸之測量，並具備將量測得到之刀長數進行整理輸出 CNC 刀長補正程式碼
The image measurement system can measure the important dimensions of the tool, and can sort the measured tool length and output the CNC tool length compensation code.

| | | | |
|-------------------------------|--|---|------------------|
| 規格 Spec. | LM-OM-PHC3125R | 機台重量 Weight of Machine | 110 Kg |
| 量測範圍 Range of Measuring | 直徑Diameter(X) : Ø125mm 高度Height(Z) : 70~300mm | 電源 Power | 220V 50-60Hz 15A |
| 機台外型尺寸 Size of Machine | 長(L)x 寬(W)x 高(H) 790x450x810mm | 工具櫃尺寸 (選配) Size of Tool Cabinet (Optional) | 50/60Hz±5% |
| 量測精度 Accuracy of Measuring | 0.005mm | 工具櫃重量 Weight of Tool Cabinet | 85 Kg |

標配 Standard

| 圖示 Image | 名稱 Description | 規格 Spec. |
|-------------|------------------------------|-------------|
| | BT50測試棒 BT50 Testing Bar | BT50-TS170L |
| | 主軸清潔棒 Spindle Cleaner Bar | W50 |
| | 六角扳手組 Hex Wrench set | LM-PHC-0012 |

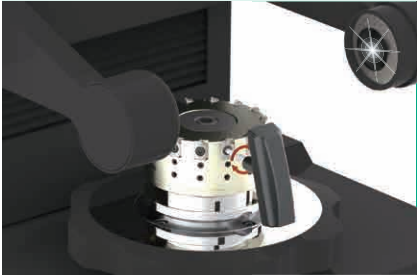
選配 Optional Accessories

| 圖示 Image | 名稱 Description | 規格 Spec. |
|-------------|--------------------------|-------------|
| | 工具櫃 Tool Cabinet | LM-PHC-0011 |
| | 主軸轉換套 Spindle Adapter | BT50 - BT40 |
| | | BT50 - BT30 |

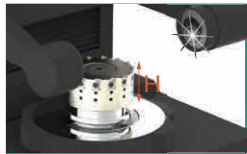
• 長度單位 Unit of Length (mm)

量測方式 Measurement method

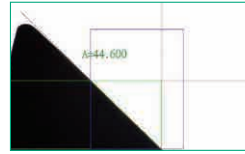
簡化校刀時間、降低生產成本
Simplify the adjusting time of cutting tool, reduce the production cost.



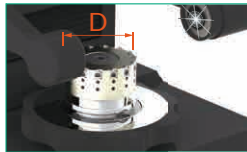
可在機台的外側進行量測，當要調整刀具刃高時，可直接進行調整及刀片鎖固螺絲的鎖固，不會有干涉產生，使調整效率更加快速
There's no interference when you adjust the height of cutter because you can adjust and lock the insert screw directly, measure it from the outside of machine. It is able to raise the efficiency of measurement.



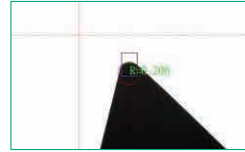
刃高校正
Insert height correction



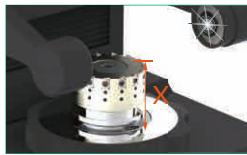
角度量測
Angle Measuring



刀刃外徑校正
Blade outer diameter correction



圓角量測
Radius Measuring



刀長補正
Tool Length Compensation

軟體主要功能及特點 Main functions and features of the software



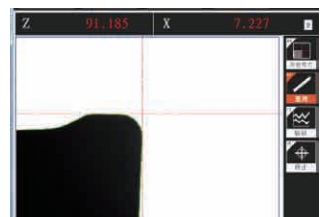
具動態十字線，可精準定位刀尖位置
With dynamic crosshairs, the position of the tool tip can be accurately positioned



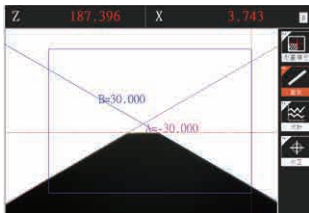
可以手動自由選取量測範圍
The measurement range can be freely selected manually



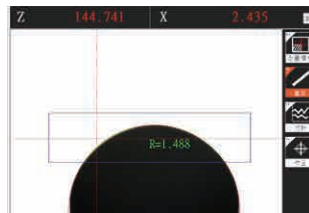
可選多種測量模組
Optional multiple measurement modules



刀長及刀徑之測量
Measurement of cutter length and diameter



刀具角度之測量
Tool angle measurement



刀具圓角之測量
Tool fillet measurement

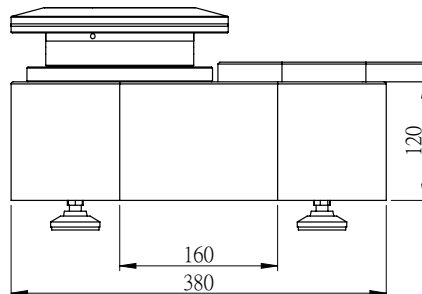


開啟正光，可檢視刀具刀口表面實際狀態
Turn on the positive light, you can view the actual state of the cutter edge surface



整理測量完畢刀具之刀長並輸出 CNC 刀長補正式碼
Sort out the tool length of the tool after measurement and output the CNC tool length compensate code

• 長度單位 Unit of Length (mm)



特點 Feature

- 安裝千分錶可針對刀具做偏擺的檢測
- 配合高度規可進行刀具之刀長量測
- 便利針對密齒刀、搪刀等刀具做調整設定
- 氣動結構增加真空吸附功能，改善刀桿定位重複精度

- Install a dial indicator to detect the deflection of the cutting tool.
- With height gauge, the length of cutting tool can be measured.
- Conveniently adjust settings for close-tooth cutters, boring cutters and other tools.
- The pneumatic structure increases the vacuum adsorption function to improve the positioning repeatability of the tool bar.

| 規格 Spec. | 量測範圍 Range of Measuring | 機台外型尺寸 Size of Machine | 量測精度 Accuracy of Measuring | 機台重量 Weight of Machine | 氣壓條件 Atmospheric conditions |
|--------------------|--|---|----------------------------|------------------------|-----------------------------|
| LM-CM-PHC3160-BT30 | 直徑Diameter(X) : Ø160mm 高度Height(Z) : 300 mm | 長(L)x 寬(W)x 高(H) =424.5x 220 x 225.25 mm | 0.003mm | 37.5 Kg | 0.4~0.6 Mpa |
| LM-CM-PHC3160-BT40 | | | | | |
| LM-CM-PHC3160-BT50 | | | | | |

標配 Standard

| 圖示 Image | 名稱 Name | 規格 Spec. |
|----------|------------------------------|-----------------|
| | 主軸清潔棒 Spindle Cleaner Bar | W30、W40、 W50 |

實際應用 Application



選配 Option

| 圖示 Image | 名稱 Name | 規格 Spec. |
|----------|--|---|
| | 測試棒 Testing Bar | BT30-TS250L BT40-TS300L BT50-TS300L |
| | 千分量錶 Dial Gauge | MITUTOYO-2109S-10 |
| | 萬向磁性錶座 Universal Arm Magnetic Base | LM-M120 |
| | 高度規 Height Gauge | MITUTOYO-570-312 |
| | 高度規比測台立柱 Comparator Stand Column | LM-MP25-350-C |

• 長度單位 Unit of Length (mm)



LM-DH3300R



LM-DH4400R



LM-DH6600R

操作注意事項 Operation Instruction

- 全系列立柱 (Z 軸) 採用超耐磨鋁合金，經特殊處理不易變形，搭配精密線性滑軌，操作簡便、精度更佳
- 全系列立柱 (Z 軸) 配備快速移動裝置，便捷性更加提升
- 全系列 X 軸、Z 軸皆裝置精密光學尺，螢幕顯示精確、易讀

- Made of super wear resistant aluminum alloy, Z-axis column is specially treated and free of deformation. Equipped with high precision linear scale, the column is easy to operate with higher accuracy.
- Z-axis column is equipped with rapid traverse for higher moving efficiency.
- Both X-axis and Z-axis are equipped with high precision D.R.O. Values shown on the monitor are more accurate and easy to read.

| 規格 Spec. | 量測範圍 Measurement range | | 數顯解析度 Resolution | 儀器外型尺寸 Machine size (LxWxH) | 工具櫃尺寸 (選配) Cabinet size (Optional) | 工具櫃重量 Cabinet weight | 電源 Power supply | 儀器重量 (KGS) Weight |
|------------|------------------------|--------|------------------|-----------------------------|------------------------------------|----------------------|---------------------------|-------------------|
| | 直徑 D | 高度 L | | | | | | |
| LM-DH3300R | Ø300 | 30~300 | 0.005 | 650x320x730 | 700x570x800 | 60 | AC 110V/220V 50Hz/60Hz | 49 |
| LM-DH4400R | Ø400 | 30~400 | 0.005 | 760x360x860 | 700x570x800 | 60 | | 75 |
| LM-DH6600R | Ø600 | 30~600 | 0.005 | 860x360x1060 | 800x570x650 | 60 | | 85 |

標配 Standard

| 圖示 Fig. | 圖示 Fig. | 圖示 Fig. | 圖示 Fig. |
|---|----------------------------------|-------------------------------|---|
| | | | |
| 測試棒 BT50 (Ø40mm · 長 200mm) X1 支 Test bar BT50 (Ø40mm · length 200mm) *1 pc | 百分錶 X2 只 Dial indicator *2pcs | 六角扳手 X1 組 Hex wrench *1set | 光學尺 (X 軸、Y 軸) 各一組 linear scale (X axis & Y axis 1 set of each) |

選配 Option

| 圖示 Fig. | 圖示 Fig. |
|--|---|
| | |
| 工具櫃 Selective accessories Tool cabinet | #50~#30 轉換套筒 #50~#30 convert sleeve |



LM-DH4400-C



LM-DH6600-C

| 規格 Spec. | 工具櫃適用機型 Cabinet For Type | 尺寸 (長 × 寬 × 高) Size (LxWxH) | 重量 (KGS) Weight |
|-------------|--------------------------|-----------------------------|-----------------|
| LM-DH4400-C | LM-DH3300、LM-DH4400 | 700x570x800 | 60.0 |
| LM-DH6600-C | LM-DH6600 | 800x570x650 | 60.0 |

• 長度單位 Unit of Length (mm)

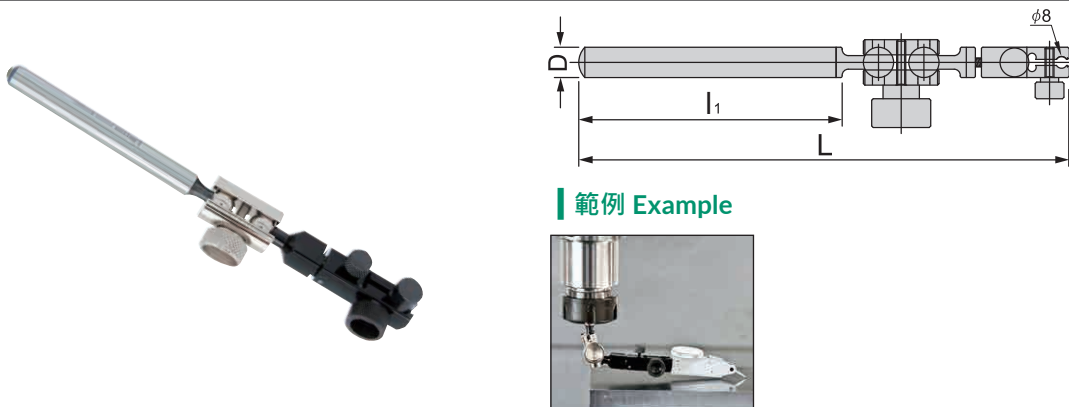


特點 Feature

- 萬向曲臂設計、方向可任意調整
- 槓桿旋臂上附有微調裝置 :Ø8mm 鳩尾槽座
- 適合各式樣之分釐錶、槓桿錶之夾持

- Indicators can be set at any point on 360°, very quick and convenient in operation.
- On the release lever arm attaches the vernier instrument: Ø8mm dove tail trough seat.
- Suitable for clamping various kinds of dial indicator and lever indicator.

| 規格 Spec. | 磁力 Holding Power | 方式 Manner | 臂長 Arm Length | 磁座尺寸 Base Dimension (mm) | | | 孔徑 Tapped Hold | 重量 (KGS) Weight |
|----------|------------------|----------------|---------------|--------------------------|-----|-----|----------------|-----------------|
| | | | | 長 L | 寬 W | 高 H | | |
| LM-020-A | 20kg | - | - | 35 | 30 | 35 | M8x1.25P | 0.2 |
| LM-080-A | 80kg | - | - | 60 | 50 | 55 | M8x1.25P | 1.05 |
| LM-100-A | 100kg | - | - | 75 | 50 | 55 | M8x1.25P | 1.15 |
| LM-120-A | 120kg | - | - | 85 | 50 | 55 | M8x1.25P | 1.32 |
| LM-B080 | 80kg | - | - | 60 | 50 | 55 | - | 1.60 |
| LM-M020 | 20kg | 機械式 Mechanical | 185mm | 35 | 30 | 35 | M8x1.25P | 0.24 |
| LM-M080 | 80kg | 機械式 Mechanical | 340mm | 60 | 50 | 55 | - | 1.50 |
| LM-M120 | 120kg | 機械式 Mechanical | 340mm | 85 | 50 | 55 | - | 2.20 |

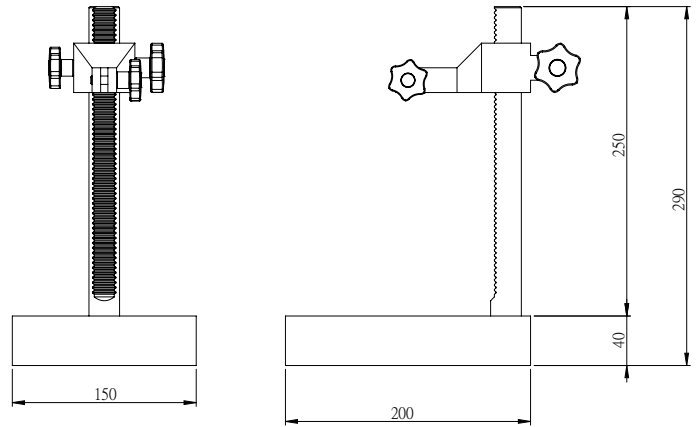
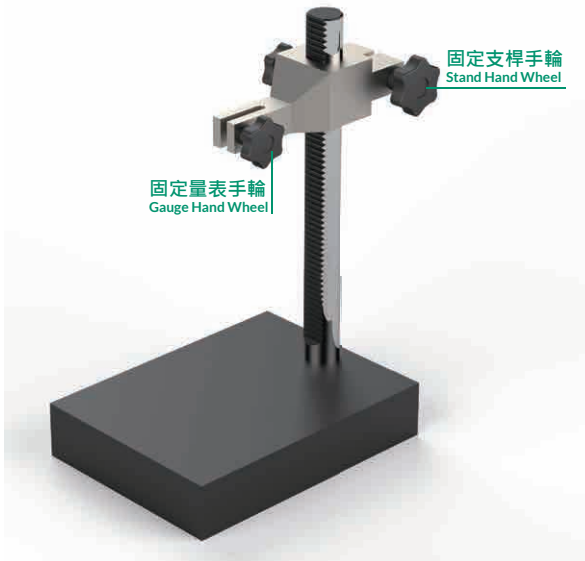


範例 Example



| 規格 Spec. | L | l ₁ | D | 重量 (KGS) Weight |
|------------|-----|----------------|----|-----------------|
| LM-AS-1060 | 180 | 90 | 10 | 0.20 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 精度穩定，不會受潮生鏽，使用維護都方便
- 耐酸鹼，耐腐蝕，抗磁，線脹系數小，受溫度影響小
- 工作面受碰撞或滑傷後只會產生凹坑，不會產生凸紋，毛刺對測量精度無影響
- 立柱採用不鏽鋼材料，防鏽抗腐蝕
- 立柱排齒結構設計，使量表不會快速降落造成損壞

- It's easy to use and maintain that it wouldn't be rusty. The accuracy is stable.
- Acid-resistant, corrosion-resistant, anti-magnetic, small coefficient of thermal expansion, small temperature coefficient.
- Only pits will be created after a collision or slip on the work surface. There wouldn't be deformation and burrs to affect the measuring accuracy.
- The column is made by stainless steel to avoid corrosion and rust.
- The rack design of column can avoid the damage from gauge caused by rapid fall.

● 附 M12-45L 六角螺絲

| 規格 Spec. | 平台尺寸 mm | 桿高 mm | 臂長 mm | 選配 | | 重量 (KGS) Weight |
|--------------|------------|-------|-------|-----|-----|-----------------|
| | | | | 千分錶 | 百分錶 | |
| LM-MP25-250 | 150*200*40 | 250 | 90 | 千分錶 | 百分錶 | 6.2 |
| LM-MP25-250M | 200*300*40 | 250 | 90 | | | - |





工件定位器 WORK STOP TOOL



範例 Example



| 規格 Spec. | 重量 (KGS) Weight |
|-------------|-----------------------|
| MAS-160B | 0.85 |

※ 萬向 360°大範圍使用 Universal 360° wide range of use



噴霧式切削冷卻器 MIST COOLANT



範例 Example



| 規格 Spec. | 長度 Length | 重量 (KGS) Weight |
|-------------|--------------|-----------------------|
| MCS-B | 500m/m | 0.72 |

• 長度單位 Unit of Length (mm)



銑刀刀柄座 TOOLING SHEATH

範例 Example



| 規格 Spec. | 重量 (KGS) Weight |
|-------------|-----------------------|
| TC-30S | 0.07 |
| TC-40S | 0.07 |
| TC-50S | 0.10 |
| TC-HSK63S | 0.04 |



刀具管理車 TOOL CARRIAGE



| 規格 Spec. | 刀柄座數量 Qty | 重量 (KGS) Weight |
|-------------|--------------|-----------------------|
| TC-30 | 32 | 40 |
| TC-40 | 28 | 40 |
| TC-50 | 20 | 40 |
| TC-HSK63 | 24 | 40 |
| TC-HSK100 | 19 | |

※ 不含展示刀具 Does not include display tools
 ※ 組裝費外加

• 長度單位 Unit of Length (mm)

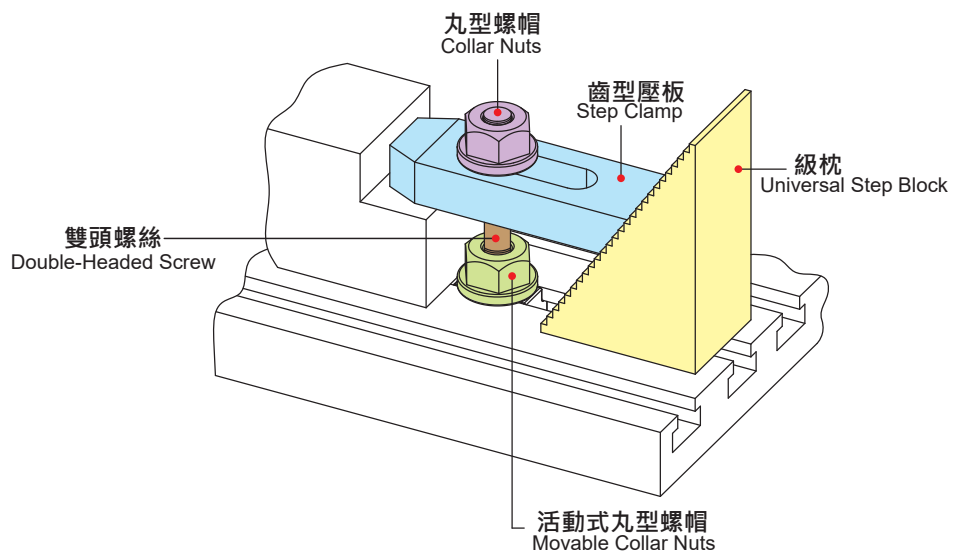
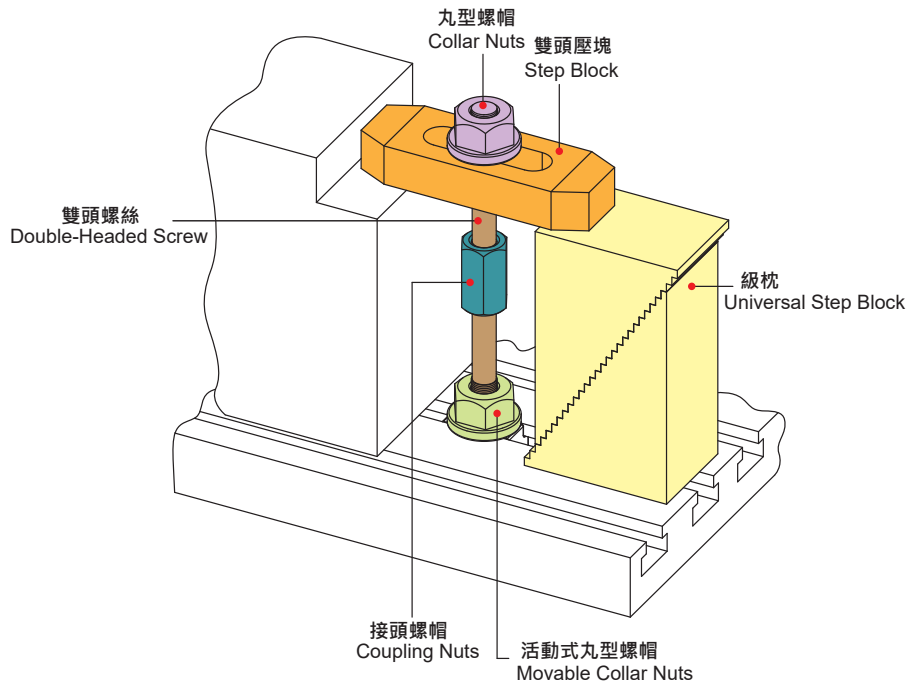
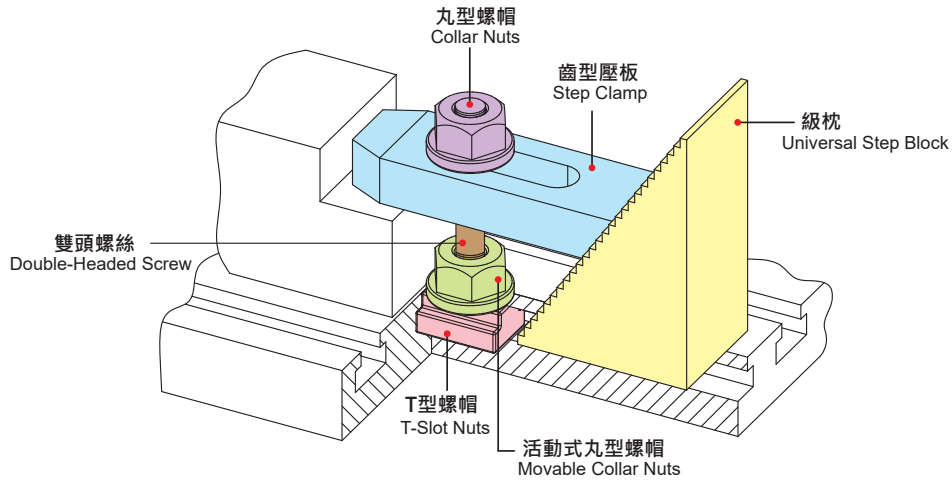


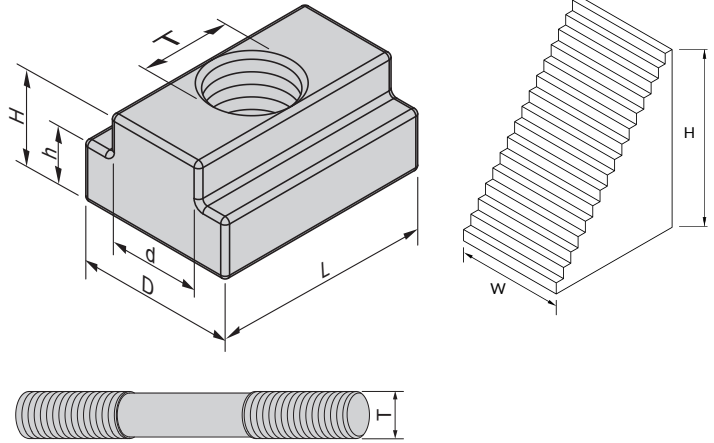
範例 Example



虎鉗平行板
VISE PARALLEL

| 規格 Spec. | 厚 x 寬 x 長 x 數量 | 重量 (KGS) Weight | 規格 Spec. | 厚 x 寬 x 長 x 數量 | 重量 (KGS) Weight |
|----------|-------------------|-----------------|----------|--------------------|-----------------|
| GP-18 | 5 x 16 x 100 x 2 | 10.0 | GP-150 | 8.5 x 14 x 150 x 2 | - |
| | 6 x 18 x 100 x 2 | | | 8.5 x 16 x 150 x 2 | |
| | 8 x 24 x 100 x 2 | | | 8.5 x 20 x 150 x 2 | |
| | 10 x 30 x 100 x 2 | | | 8.5 x 24 x 150 x 2 | |
| | 12 x 36 x 150 x 2 | | | 8.5 x 30 x 150 x 2 | |
| | 14 x 48 x 150 x 2 | | | 8.5 x 32 x 150 x 2 | |
| | 18 x 60 x 150 x 2 | | | 8.5 x 36 x 150 x 2 | |
| | 22 x 62 x 150 x 2 | | | 8.5 x 40 x 150 x 2 | |
| | 15 x 31 x 200 x 2 | | | 8.5 x 44 x 150 x 2 | |





內容物：

- 24 個雙頭螺絲：
- 英制螺絲桿規格長度有：3"、4"、5"、6"、7"、8" 各 4 支
- 公制螺絲桿規格長度有：75、100、125、150、175、200mm 各 4 支
- 6 個 T 型螺帽
- 6 個九型螺帽
- 4 個接頭螺帽
- 12 個級枕
- 6 個齒型壓板

Contents:

- 24 double-headed screws:
- spec. in inch: 3", 4", 5", 6", 7", 8" 4pcs of each.
- spec. in metric: 75, 100, 125, 150, 175, 200mm 4pcs of each.
- 6 T-shot nuts
- 6 Collar nuts
- 4 Coupling nuts
- 12 universal step block
- 6 step clamps

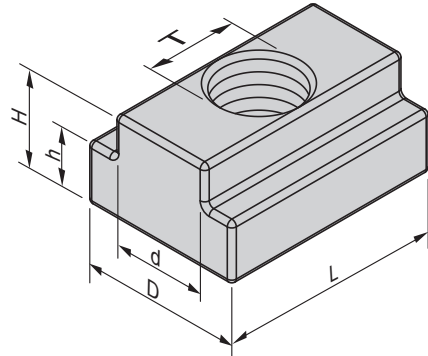
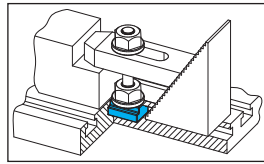
英制 (inch)

| 規格 Spec. | T | d | H | h | D | L | W | 重量 (KGS) Weight |
|----------|------------|--------|---------|--------|----------|----------|---------|-----------------|
| PK-103A | 3/8"-16UNC | 7/16" | 1/2" | 7/32" | 11/16" | 7/8" | 1" | 10.2 |
| PK-103B | 3/8"-16UNC | 1/2" | 1/2" | 9/32" | 7/8" | 7/8" | 1" | 10.2 |
| PK-104A | 1/2"-13UNC | 9/16" | 5/8" | 11/32" | 7/8" | 1"-1/8" | 1" | 12.36 |
| PK-104B | 1/2"-13UNC | 5/8" | 5/8" | 11/32" | 1" | 1"-1/8" | 1" | 12.36 |
| PK-105A | 5/8"-11UNC | 11/16" | 3/4" | 7/16" | 1"-1/8" | 1"-7/32" | 1"-1/4" | 12.46 |
| PK-105B | 5/8"-11UNC | 3/4" | 3/4" | 15/32" | 1"-1/4" | 1"-7/32" | 1"-1/4" | 12.46 |
| PK-206A | 3/4"-10UNC | 13/16" | 1" | 9/16" | 1"-9/32" | 1"-1/2" | 1"-1/2" | 18.20 |
| PK-206B | 3/4"-10UNC | 7/8" | 1"-1/8" | 9/16" | 1"-3/8" | 1"-1/2" | 1"-1/2" | 18.20 |

公制 (mm)

| 規格 Spec. | T | d | H | h | D | L | W | 重量 (KGS) Weight |
|----------|-------------|------|----|-----|------|----|----|-----------------|
| CK-10 | M10 x 1.5P | 11.5 | 12 | 6.8 | 17.5 | 22 | 25 | 10.2 |
| CK-12A | M12 x 1.75P | 13.8 | 16 | 8 | 22 | 28 | 25 | 10.5 |
| CK-12B | M12 x 1.75P | 13.8 | 16 | 8 | 22 | 28 | 32 | 11.4 |
| CK-16A | M16 x 2.0P | 17.5 | 19 | 11 | 28 | 31 | 25 | 13.4 |
| CK-16B | M16 x 2.0P | 17.5 | 19 | 11 | 28 | 31 | 32 | 14.3 |
| CK-20 | M20 x 2.5P | 21.7 | 28 | 14 | 35 | 38 | 38 | 29.0 |
| CK-24 | M24 x 3.0P | 27.5 | 36 | 18 | 44 | 49 | 50 | 63.0 |

• 長度單位 Unit of Length (mm)



特點 Feature

- 可配合公、英制 T 型槽使用

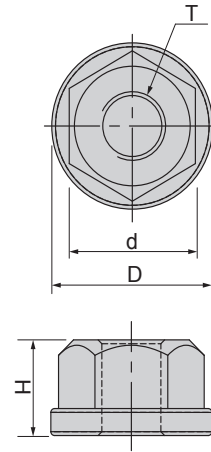
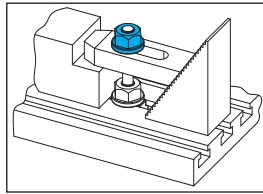
-With the mm、inch T-slots to use.

英制 (inch)

| 規格 Spec. | d | H | h | D | L | T | 重量 (KGS) Weight |
|----------|--------|---------|--------|----------|---------|---------|-----------------|
| 3/8-T-S | 7/16" | 1/2" | 7/32" | 11/16" | 7/8" | 3/8"-16 | 0.02 |
| 3/8-T-M | 1/2" | 1/2" | 9/32" | 7/8" | 7/8" | 3/8"-16 | 0.03 |
| 3/8-T-L | 9/16" | 5/8" | 5/16" | 7/8" | 1"-1/8" | 3/8"-16 | 0.05 |
| 1/2-T-S | 9/16" | 5/8" | 5/16" | 7/8" | 1"-1/8" | 1/2"-12 | 0.05 |
| 1/2-T-M | 5/8" | 5/8" | 5/16" | 1" | 1"-1/8" | 1/2"-12 | 0.06 |
| 1/2-T-L | 11/16" | 3/4" | 7/16" | 1"-1/8" | 1"-1/4" | 1/2"-12 | 0.09 |
| 5/8-T-S | 11/16" | 3/4" | 7/16" | 1"-1/8" | 1"-1/4" | 5/8"-11 | 0.08 |
| 5/8-T-M | 3/4" | 3/4" | 15/32" | 1"-1/4" | 1"-1/4" | 5/8"-11 | 0.10 |
| 5/8-T-L | 13/16" | 1" | 9/16" | 1"-1/4" | 1"-1/2" | 5/8"-11 | 0.16 |
| 3/4-T-S | 13/16" | 1" | 9/16" | 1"-1/4" | 1"-1/2" | 3/4"-10 | 0.15 |
| 3/4-T-M | 7/8" | 1"-1/8" | 9/16" | 1"-3/8" | 1"-3/4" | 3/4"-10 | 0.18 |
| 3/4-T-L | 1" | 1" | 5/8" | 1"-9/16" | 1"-3/4" | 3/4"-10 | 0.26 |

公制 (mm)

| 規格 Spec. | d | H | h | D | L | T | 重量 (KGS) Weight |
|----------|------|----|-----|------|----|-------------|-----------------|
| M8T | 9.7 | 12 | 6 | 16 | 22 | M8 x 1.25P | 0.02 |
| M10T | 11.5 | 12 | 6.8 | 17.5 | 22 | M10 x 1.5P | 0.02 |
| M12T-S | 13.8 | 16 | 8 | 22 | 28 | M12 x 1.75P | 0.05 |
| M12T-M | 15.5 | 16 | 8 | 25 | 28 | M12 x 1.75P | 0.06 |
| M16T | 17.5 | 19 | 11 | 28 | 31 | M16 x 2.0P | 0.08 |
| M20T | 21.7 | 28 | 14 | 35 | 38 | M20 x 2.5P | 0.17 |
| M24T | 27.5 | 36 | 18 | 44 | 49 | M24 x 3.0P | - |



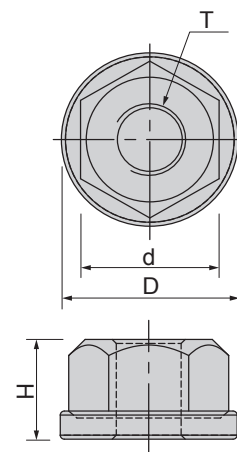
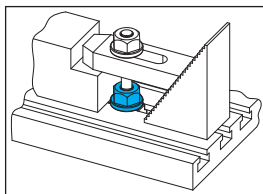
特點 Feature

- 可配合雙頭螺絲、壓板使用

- With the double-headed screw to use.

| 規格 Spec. | 英制 (inch) | | | | |
|-------------|-----------|----------|--------|---------|-----------------------|
| | d | D | H | T | 重量 (KGS) Weight |
| 3/8-F | 11/16" | 7/8" | 17/32" | 3/8"-16 | 0.02 |
| 1/2-F | 13/16" | 1"-3/16" | 11/16" | 1/2"-12 | 0.04 |
| 5/8-F | 1"-1/32" | 1"-3/8" | 13/16" | 5/8"-11 | 0.08 |
| 3/4-F | 1"-1/4" | 1"-5/8" | 1" | 3/4"-10 | 0.16 |

| 規格 Spec. | 公制 (mm) | | | | |
|-------------|---------|----|----|-------------|-----------------------|
| | d | D | H | T | 重量 (KGS) Weight |
| M8-F | 13 | 18 | 8 | M8 x 1.25P | 0.01 |
| M10-F | 17 | 22 | 13 | M10 x 1.5P | 0.02 |
| M12-F | 21 | 30 | 17 | M12 x 1.75P | 0.04 |
| M16-F | 26 | 35 | 22 | M16 x 2.0P | 0.07 |
| M20-F | 32 | 42 | 27 | M20 x 2.5P | 0.15 |
| M24-F | 41 | 50 | 32 | M24 x 3.0P | 0.29 |



特點 Feature

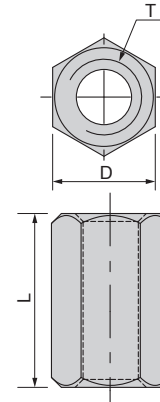
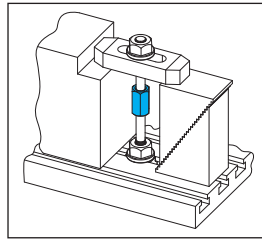
- 鎖上工物時底不卡死 · 不致工件物損壞

- When tighten the screw with workpiece, it won't cause jammed shut on the bottom to prevent the damage.

| 規格 Spec. | 英制 (inch) | | | | |
|-------------|-----------|---------|--------|---------|-----------------------|
| | d | D | H | T | 重量 (KGS) Weight |
| 1/2-R | 13/16" | 1"-1/8" | 5/8" | 1/2"-12 | - |
| 5/8-R | 1"-1/32" | 1"-3/8" | 11/16" | 5/8"-11 | 0.10 |
| 3/4-R | 1"-1/4" | 1"-5/8" | 1" | 3/4"-10 | 0.17 |

| 規格 Spec. | 公制 (mm) | | | | |
|-------------|---------|----|----|------------|-----------------------|
| | d | D | H | T | 重量 (KGS) Weight |
| M16-R | 26 | 35 | 23 | M16 x 2.0P | - |

• 長度單位 Unit of Length (mm)



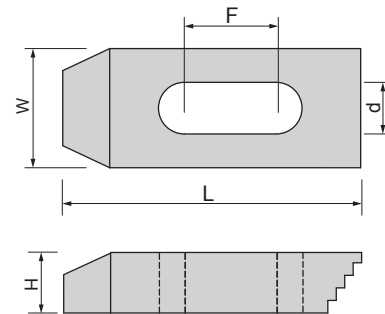
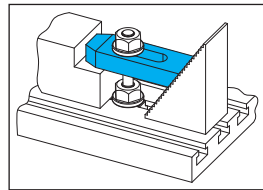
特點 Feature

- 可配合雙頭螺絲·延長或固定使用

-With the double-headed screw, extended or fixed to use.

| 規格 Spec. | D | L | T | 英制 (inch) | 重量 (KGS) Weight |
|-------------|----------|---------|---------|-----------|-----------------------|
| | | | | | |
| 3/8-C | 11/16" | 1" | 3/8"-16 | | - |
| 1/2-C | 13/16" | 1"-1/4" | 1/2"-12 | | 0.07 |
| 5/8-C | 1"-1/32" | 1"-5/8" | 5/8"-11 | | 0.13 |
| 3/4-C | 1"-1/4" | 1"-7/8" | 3/4"-10 | | 0.23 |

| 規格 Spec. | D | L | T | 公制 (mm) | 重量 (KGS) Weight |
|-------------|----|----|-------------|---------|-----------------------|
| | | | | | |
| M8-C | 13 | 22 | M8 x 1.25P | | 0.02 |
| M10-C | 17 | 25 | M10 x 1.5P | | - |
| M12-C | 21 | 32 | M12 x 1.75P | | 0.07 |
| M16-C | 26 | 40 | M16 x 2.0P | | 0.12 |
| M20-C | 32 | 48 | M20 x 2.5P | | 0.23 |
| M24-C | 41 | 63 | M24 x 3.0P | | - |



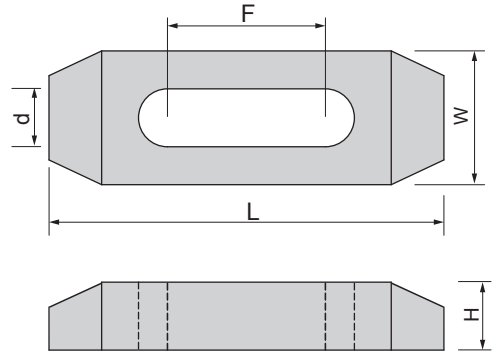
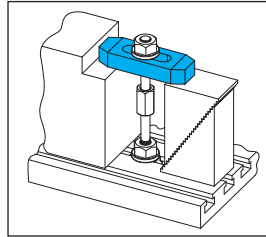
特點 Feature

- 可配合級枕使用·方便調整高低

-With the step blocks use, easy to adjust the height.

| 規格 Spec. | d | L | W | H | F | 適用範圍 Range | | 重量 (KGS) Weight |
|--------------|------|---------|---------|---------|-----------|------------|---------|-----------------------|
| | | | | | | 英制 (inch) | 公制 (mm) | |
| SC-3/8-2-1/2 | 3/8" | 2"-1/2" | 1" | 1/2" | 3/4" | 3/8" | M10 | 0.12 |
| SC-3/8-4 | 3/8" | 4" | 1" | 5/8" | 1"-3/16" | 3/8" | M10 | 0.23 |
| SC-3/8-6 | 3/8" | 6" | 1"-1/8" | 3/4" | 2"-1/8" | 3/8" | M10 | 0.50 |
| SC-1/2-2-1/2 | 1/2" | 2"-1/2" | 1"-1/8" | 1/2" | 11/16" | 1/2" | M12-M14 | 0.13 |
| SC-1/2-4 | 1/2" | 4" | 1"-1/4" | 3/4" | 1"-7/32" | 1/2" | M12-M14 | 0.32 |
| SC-1/2-6 | 1/2" | 6" | 1"-1/4" | 7/8" | 2"-11/64" | 1/2" | M12-M14 | 0.64 |
| SC-5/8-2-1/2 | 5/8" | 2"-1/2" | 1"-1/4" | 5/8" | 9/16" | 5/8" | M16 | 0.17 |
| SC-5/8-4 | 5/8" | 4" | 1"-1/2" | 3/4" | 1"-3/16" | 5/8" | M16 | 0.37 |
| SC-5/8-6 | 5/8" | 6" | 1"-1/2" | 7/8" | 2"-1/4" | 5/8" | M16 | 0.68 |
| SC-3/4-4 | 3/4" | 4" | 1"-1/2" | 3/4" | 1"-3/16" | 3/4" | M18-M20 | 0.35 |
| SC-3/4-6 | 3/4" | 6" | 1"-1/2" | 1" | 1"-31/32" | 3/4" | M18-M20 | 0.74 |
| SC-3/4-8 | 3/4" | 8" | 1"-3/4" | 1"-1/8" | 2"-3/4" | 3/4" | M18-M20 | 1.44 |

• 長度單位 Unit of Length (mm)



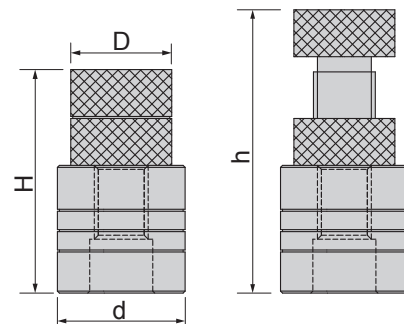
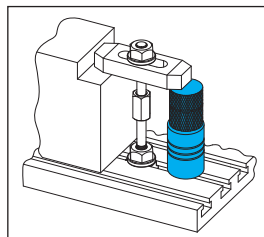
特點 Feature

- 可配合千斤頂使用 · 方便調整高低

- With the screw jack use, easy to adjust the height.

英制 (inch)

| 規格 Spec. | d | L | W | H | F | 重量 (KGS) Weight |
|-------------|----|---------|------|------|----|-----------------|
| PC-15-2-1/2 | 15 | 2"-1/2" | 30 | 13 | 16 | 0.25 |
| PC-15-4 | 15 | 4" | 32 | 19 | 31 | 0.67 |
| PC-15-6 | 15 | 6" | 32 | 22 | 55 | 1.2 |
| PC-18-2-1/2 | 18 | 2"-1/2" | 32 | 16 | 14 | 0.31 |
| PC-18-4 | 18 | 4" | 38 | 19 | 30 | 0.85 |
| PC-18-6 | 18 | 6" | 38 | 22 | 57 | 1.47 |
| PC-21-4 | 21 | 4" | 38 | 19 | 30 | 0.75 |
| PC-21-6 | 21 | 6" | 38 | 25 | 50 | 1.43 |
| PC-21-8 | 21 | 8" | 44.5 | 28.5 | 70 | 2.82 |
| PC-26-6 | 26 | 6" | 50 | 32 | 39 | 1.9 |
| PC-26-8 | 26 | 8" | 50 | 38 | 69 | 2.75 |
| PC-26-10 | 26 | 10" | 50 | 38 | 74 | 3.8 |



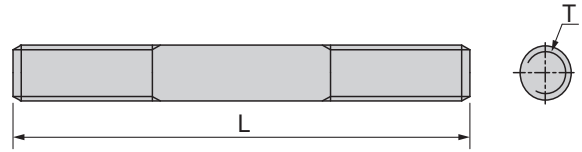
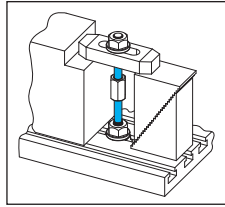
特點 Feature

- 可自由調整高低 · 承受重量

- Freely adjusting the level to withstand the weight.

| 規格 Spec. | H | D | d | 使用範圍 Range (H~h) | 重量 (KGS) Weight |
|----------|-----|----|----|------------------|-----------------|
| S-70 | 56 | 25 | 32 | 56~75 | 0.30 |
| S-150 | 102 | 40 | 50 | 102~160 | 1.40 |
| S-250 | 142 | 45 | 55 | 142~235 | 3.60 |

• 長度單位 Unit of Length (mm)



英制 (inch)

公制 (mm)

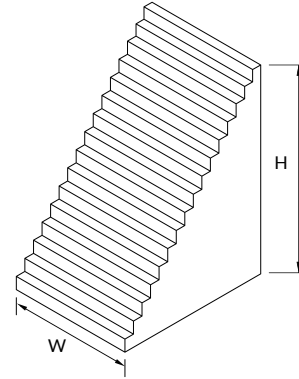
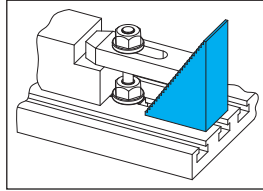
| 規格 Spec. | L | T | 重量 (KGS) Weight |
|----------|-----|---------|-----------------|
| O-3/8-3 | 3" | 3/8"-16 | 0.03 |
| O-3/8-4 | 4" | 3/8"-16 | 0.04 |
| O-3/8-5 | 5" | 3/8"-16 | 0.05 |
| O-3/8-6 | 6" | 3/8"-16 | 0.06 |
| O-3/8-7 | 7" | 3/8"-16 | 0.07 |
| O-3/8-8 | 8" | 3/8"-16 | - |
| O-1/2-3 | 3" | 1/2"-12 | 0.06 |
| O-1/2-4 | 4" | 1/2"-12 | 0.08 |
| O-1/2-5 | 5" | 1/2"-12 | 0.10 |
| O-1/2-6 | 6" | 1/2"-12 | 0.12 |
| O-1/2-7 | 7" | 1/2"-12 | 0.14 |
| O-1/2-8 | 8" | 1/2"-12 | 0.15 |
| O-5/8-3 | 3" | 5/8"-11 | 0.09 |
| O-5/8-4 | 4" | 5/8"-11 | 0.12 |
| O-5/8-5 | 5" | 5/8"-11 | 0.16 |
| O-5/8-6 | 6" | 5/8"-11 | 0.19 |
| O-5/8-7 | 7" | 5/8"-11 | 0.22 |
| O-5/8-8 | 8" | 5/8"-11 | 0.25 |
| O-5/8-9 | 9" | 5/8"-11 | 0.28 |
| O-5/8-10 | 10" | 5/8"-11 | 0.32 |
| O-5/8-12 | 12" | 5/8"-11 | 0.38 |
| O-5/8-14 | 14" | 5/8"-11 | 0.52 |
| O-5/8-16 | 16" | 5/8"-11 | 0.56 |
| O-5/8-18 | 18" | 5/8"-11 | 0.60 |
| O-5/8-20 | 20" | 5/8"-11 | 0.64 |
| O-3/4-3 | 3" | 3/4"-10 | 0.14 |
| O-3/4-4 | 4" | 3/4"-10 | 0.18 |
| O-3/4-5 | 5" | 3/4"-10 | 0.23 |
| O-3/4-6 | 6" | 3/4"-10 | 0.27 |
| O-3/4-7 | 7" | 3/4"-10 | 0.31 |
| O-3/4-8 | 8" | 3/4"-10 | 0.36 |
| O-3/4-9 | 9" | 3/4"-10 | 0.42 |
| O-3/4-10 | 10" | 3/4"-10 | 0.46 |
| O-3/4-12 | 12" | 3/4"-10 | 0.54 |
| O-3/4-14 | 14" | 3/4"-10 | 0.52 |
| O-3/4-16 | 16" | 3/4"-10 | 0.56 |
| O-3/4-18 | 18" | 3/4"-10 | 0.60 |
| O-3/4-20 | 20" | 3/4"-10 | 0.64 |

| 規格 Spec. | L | T | 重量 (KGS) Weight |
|----------|-----|-------------|-----------------|
| O-M8-3 | 75 | M8 x 1.25P | 0.02 |
| O-M8-4 | 100 | M8 x 1.25P | 0.03 |
| O-M8-5 | 125 | M8 x 1.25P | 0.04 |
| O-M8-6 | 150 | M8 x 1.25P | 0.05 |
| O-M8-7 | 175 | M8 x 1.25P | 0.05 |
| O-M8-8 | 200 | M8 x 1.25P | 0.06 |
| O-M10-3 | 75 | M10 x 1.5P | 0.04 |
| O-M10-4 | 100 | M10 x 1.5P | 0.05 |
| O-M10-5 | 125 | M10 x 1.5P | 0.06 |
| O-M10-6 | 150 | M10 x 1.5P | 0.07 |
| O-M10-7 | 175 | M10 x 1.5P | 0.08 |
| O-M10-8 | 200 | M10 x 1.5P | 0.09 |
| O-M12-3 | 75 | M12 x 1.75P | 0.05 |
| O-M12-4 | 100 | M12 x 1.75P | 0.07 |
| O-M12-5 | 125 | M12 x 1.75P | 0.09 |
| O-M12-6 | 150 | M12 x 1.75P | 0.11 |
| O-M12-7 | 175 | M12 x 1.75P | 0.13 |
| O-M12-8 | 200 | M12 x 1.75P | 0.14 |
| O-M16-3 | 75 | M16 x 2.0P | 0.10 |
| O-M16-4 | 100 | M16 x 2.0P | 0.13 |
| O-M16-5 | 125 | M16 x 2.0P | 0.16 |
| O-M16-6 | 150 | M16 x 2.0P | 0.19 |
| O-M16-7 | 175 | M16 x 2.0P | 0.22 |
| O-M16-8 | 200 | M16 x 2.0P | 0.26 |
| O-M16-9 | 225 | M16 x 2.0P | 0.3 |
| O-M16-10 | 250 | M16 x 2.0P | 0.32 |
| O-M16-12 | 300 | M16 x 2.0P | 0.38 |
| O-M16-14 | 350 | M16 x 2.0P | 0.38 |
| O-M16-16 | 400 | M16 x 2.0P | 0.41 |
| O-M16-18 | 450 | M16 x 2.0P | 0.44 |
| O-M16-20 | 500 | M16 x 2.0P | 0.47 |
| O-M20-3 | 75 | M20 x 2.5P | 0.16 |
| O-M20-4 | 100 | M20 x 2.5P | 0.20 |
| O-M20-5 | 125 | M20 x 2.5P | 0.25 |
| O-M20-6 | 150 | M20 x 2.5P | 0.30 |
| O-M20-7 | 175 | M20 x 2.5P | 0.36 |
| O-M20-8 | 200 | M20 x 2.5P | 0.41 |
| O-M24-3 | 75 | M24 x 3.0P | 0.20 |
| O-M24-4 | 100 | M24 x 3.0P | 0.3 |
| O-M24-5 | 125 | M24 x 3.0P | 0.80 |
| O-M24-6 | 150 | M24 x 3.0P | 1.40 |
| O-M24-7 | 175 | M24 x 3.0P | 2.00 |
| O-M24-8 | 200 | M24 x 3.0P | 2.60 |

• 長度單位 Unit of Length (mm)



級枕 UNIVERSAL STEP BLOCK



特點 Feature

- 可配合壓板使用 · 方便調整高低

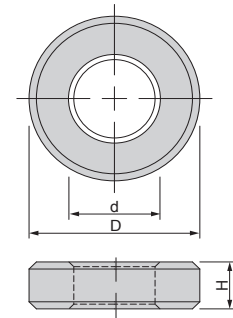
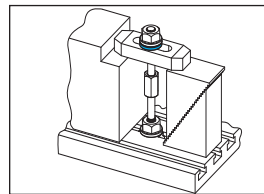
- With the step clamp use, easy to adjust the height.

英制 (inch)

| 規格 Spec. | 適用夾具 Suitable fixture | H | w | 重量 (KGS) Weight |
|-------------|--------------------------|---------|---------|-----------------------|
| 1 x 1¼ | 3/8" | 1"-1/4" | 1" | 0.06 |
| 1 x 1¾ | 3/8" | 1"-3/4" | 1" | 0.14 |
| 1 x 3¾ | 3/8" | 3"-7/8" | 1" | 0.58 |
| 1¼ x 1¼ | 1/2" · 5/8" | 1"-1/4" | 1"-1/4" | 0.08 |
| 1¼ x 1¾ | 1/2" · 5/8" | 1"-3/4" | 1"-1/4" | 0.16 |
| 1¼ x 3¾ | 1/2" · 5/8" | 3"-7/8" | 1"-1/4" | 0.75 |
| 1½ x 2½ | 3/4" | 2"-1/2" | 1"-1/2" | 0.38 |
| 1½ x 3¾ | 3/4" | 3"-7/8" | 1"-1/2" | 0.39 |
| 1½ x 5½ | 3/4" | 5"-1/2" | 1"-1/2" | 1.24 |



墊圈 WASHER



特點 Feature

- 可配合螺帽使用 · 方便做高低或延長的調整

- With the nut use, easy to adjust the height or extension.

| 規格 Spec. | 型式 Type | | d | D | H | 重量 (KGS) Weight |
|-------------|-----------|---------|------|----|----|-----------------------|
| | 英制 (inch) | 公制 (mm) | | | | |
| W-3 | 3/8" | M10 | 10.3 | 22 | 4 | 0.01 |
| W-4 | 1/2" | M12 | 13 | 30 | 6 | 0.03 |
| W-5 | 5/8" | M16 | 16.5 | 35 | 10 | 0.06 |
| W-6 | 3/4" | M20 | 20.5 | 38 | 10 | 0.06 |

• 長度單位 Unit of Length (mm)



LM-SG-213



標準附件 Standard mating parts

- ER 筒夾 2.5、3、4、5、6、7、8、9、10、11、12、13mm 共 12pcs
- CBN 鑽石砂輪 #200x1pcs(HSS 鑽頭專用)
砂輪規格:LM-GW-B200(B)
- 六角扳手 4mmx5mm 各 1pcs
- ER collets 2.5, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13mm, 12pcs in total.
- CBN Diamond Wheel #200*1pc (For HSS drill use).
Wheel spec: LM-GW-B200(B)
- Hex wrench 4mm*5mm 1pc of each

特殊附件 Special purpose mating parts

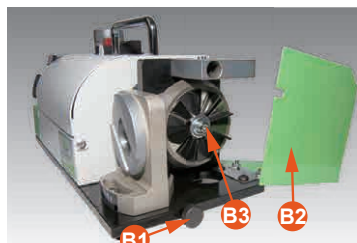
- SDC 鑽石砂輪 #400(鎢鋼鑽頭專用)
砂輪規格 :LM-GW-S400(C)
- CBN 鑽石砂輪 #400(4mm 以下 HSS 鑽頭專用)
砂輪規格 :LM-GW-B400(A)
- ER 筒夾 2.5、3.5mm~12.5mm 11pcs
- SDC diamond wheel#400 (for tungsten steel drill use)
Wheel spec.: LM-GW-S400(C)
- CBN diamond wheel#400 (for use on below 4mm HSS drill use)
Wheel spec.: LM-GW-B400(A)
- ER Collet 2.5, 3.5~12.5mm, 11pcs in total



更換鑽石砂輪步驟

1. 將本機右側旋鈕 **B1** 鬆開，並將側蓋 **B2** 掀開
2. 用4mm六角扳手逆時鐘方向將螺絲 **B3** 掀開
3. 更換新鑽石砂輪，再將螺絲鎖上即可
4. 將側蓋 **B2** 蓋好，並將旋鈕 **B1** 鎖緊

注意! 鑽石砂輪螺絲 **B3** 未鎖緊，側蓋 **B2** 未蓋好旋鈕 **B1** 未鎖緊前，不可將電源打開，以免發生危險



Procedures for changing the grinding wheel

1. Loosen the side knob **B1** and open the side cover **B2**.
2. Use a 4mm hexagon wrench to loosen the screw **B3**, unscrew it counter-clockwise.
3. Replace a new diamond grinding wheel and tighten the screw after the wheel is installed.
4. Be sure to close the side cover **B2** and fasten the side knob **B1** properly.

Attention!

1. Please make sure that the diamond wheel screw **B3** is tightened, the side cover **B2** is properly closed, and the side knob is fastened before turning ON the machine, in order to prevent any hazard from occurring.
2. The machine has an automatic 'power-off' device that will automatically turn the machine off when the cover is opened.

| 規格 Spec. | 研磨範圍 Drill Diameter | 先端角 Point Angle | 電源 Power | 馬達 Motor | 轉速 rpm | 重量 (KGS) Weight |
|-----------|------------------------|--------------------|-------------------|-------------|-----------|--------------------|
| LM-SG-213 | Ø2~Ø13 | 85°~140° | AC110AC220V(單相) | 200W | 6000 | 9.00 |
| LM-SG-830 | Ø8~Ø30 | 85°~140° | AC110AC220V(單相) | 450W | 4000 | 27.0 |

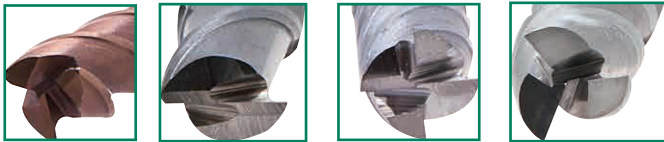
• 長度單位 Unit of Length (mm)



LM-SG-413



LM-SG-1225



標準附件 Standard mating parts

- 一組電源線
- 二支保險絲
- ER筒夾 4、5、6、7、8、9、10、11、12、13mm 共 10pcs
- 2、3、4 刃夾頭各一組
- SDC 鑽石砂輪 #270(Ø4~5mm 專用) 砂輪規格 :LM-GW-S300(E)
- SDC 鑽石砂輪 #270(Ø6~13mm 專用) 砂輪規格 :LM-GW-S300(G)
- 一隻六角扳手 4mm
- A set of power line
- Two fuses
- ER collets 4, 5, 6, 7, 8, 9, 10, 11, 12, 13mm, 10pcs in total
- 2, 3, 4 chuck for flutes, a set of each
- SDC diamond wheel#270 (for use on dia.4~5mm)
Wheel spec.: LM-GW-S300(E)
- SDC diamond wheel#270 (for use on dia.6~13mm)
Wheel spec.: LM-GW-S300(G)
- An allen wrench of 4mm

特殊附件 Special purpose mating parts

- CBN 鑽石砂輪 #270(Ø4~6mm 專用) 砂輪規格 :LM-GW-B300(D)
- CBN 鑽石砂輪 #270(Ø6~13mm 專用) 砂輪規格 :LM-GW-B300(F)
- CBN diamond wheel#270 (for use on dia.4~6mm)
Wheel spec.: LM-GW-B300(D)
- CBN diamond wheel#270 (for use on dia.6~13mm)
Wheel spec.: LM-GW-B300(F)

標準附件 Standard mating parts

- 一組電源線
- 一支保險絲
- ER筒夾 12、16、18、20、22、25mm 共 6pcs
- 2、3、4 刃夾頭各一組
- CBN 鑽石砂輪 #150(Ø12~25mm HSS 鑽頭專用) 砂輪規格 :LM-GW-B150(R)
- SDC 鑽石砂輪 #150(Ø12~25mm 鎢鋼鑽頭專用) 砂輪規格 :LM-GW-S150(S)
- 一隻六角扳手 4mm
- A set of power line
- One fuse
- ER collets 12, 16, 18, 20, 22, 25mm, 6pcs in total
- 2, 3, 4 chuck for flutes, a set of each
- CBN diamond wheel#150 (use on dia.12~25mm HSS Drill)
Wheel spec.: LM-GW-B150(R)
- SDC diamond wheel#150(use on dia.12~25mm Tungsten steel Drill)
Wheel spec.: LM-GW-S150(S)
- An allen wrench of 4mm

特殊附件 Special purpose mating parts

- CBN 鑽石砂輪 #150(2 刃專用) 砂輪規格 :LM-GW-B150(R)-2T
- SDC 鑽石砂輪 #150(2 刃專用) 砂輪規格 :LM-GW-S150(S)-2T
- ER40-32mm 筒夾 /C32-16、20、25mm 筒夾
- CBN diamond wheel#150 (use on 2T)
Wheel spec.: LM-GW-B150(R)-2T
- SDC diamond wheel#150 (use on 2T)
Wheel spec.: LM-GW-S150(S)-2T
- ER40-32mm collet / C32-16, 20, 25mm collet



| 規格 Spec. | 研磨範圍 Drill Diameter | 先端角 Point Angle | 電源 Power | 馬達 Motor | 轉速 rpm | 重量 (KGS) Weight |
|------------|------------------------|--------------------|-------------------|-------------|-----------|--------------------|
| LM-SG-413 | Ø4~Ø13 | 一番角 6° 一番角 20° | AC110 | 3/4HP 450W | 6000 | 17.0 |
| LM-SG-1225 | Ø12~Ø25 | 一番角 30° | AC220V 50/60Hz | 1000W | 4300 | 31.0 |

• 長度單位 Unit of Length (mm)



SG7572P 短刃鑽頭專用研磨機
SG7572P Duanren special drill grinding machine
SG-ESS Drills ドリル



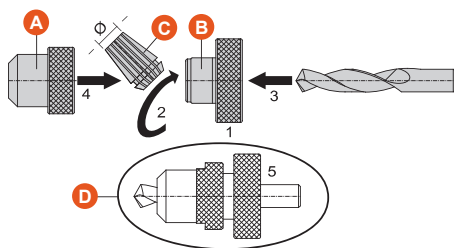
標準附件 Standard mating parts

- 一組電源線
- 一組保險絲
- PER20 筒夾 3、4、5、6、7、8、9、10、11、12 共 10pcs(後夾型)
- ER20 筒夾 13 共 1pcs(標準型)
- ER20 夾頭一組
- CBN 鑽石砂輪 #250 砂輪規格 :LM-GW-B250(T)
- CBN 鑽石砂輪 #400 砂輪規格 :LM-GW-B400(M)
- 六角扳手 4mm、5mm 各一支
- A set of power line
- One fuse
- PER20 collets 3, 4, 5, 6, 7, 8, 9, 10, 11, 12mm, 10pcs in total (rear clamping)ER20 collet 13, 1pc (standard)
- ER20 chuck a set
- CBN diamond wheel#250 Wheel spec.: LM-GW-B250(T)
- CBN diamond wheel#400 Wheel spec.: LM-GW-B400(M)
- An allen wrench of 4mm, & 5mm. 1pc of each

特殊附件 Special purpose mating parts

- ER20 筒夾 3.5、4.5、5.5、6.5、7.5、8.5、9.5、10.5、11.5、12.5 共 10pcs
- SDC 鑽石砂輪 #300
砂輪規格 :LM-GW-S300(N)
- ER20 collet 3.5, 4.5, 5.5, 6.5, 7.5, 8.5, 9.5, 10.5, 11.5, 12.5, 10pcs in total.
- SDC diamond wheel#300
Wheel spec.: LM-GW-S300(N)

如何完成鑽頭研磨前準備 How to prepare for drill grinding

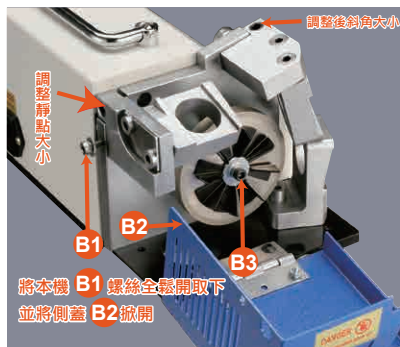


一. 鑽頭研磨前準備步驟 Procedures for changing the grinding wheel:

1. 首先確認鑽頭直徑，再選擇筒夾 (C) 直徑
2. 將選擇的筒夾以適當角度嵌入筒夾迫緊帽內 (B)
3. 鑽頭插入筒夾內，並伸出約35mm左右，但不可鎖緊
4. 筒夾環 (A) 套入筒夾 (C) 並鎖入筒夾迫緊帽 (B) 然後輕輕鎖入並保持鑽頭可用手旋轉
5. 以上步驟即完成鑽頭研磨前準備 (D)

二. 更換鑽石砂輪步驟 Procedures for changing the grinding wheel:

1. 將本機 (B1) 螺絲全鬆開取下，並將砂輪蓋 (B2) 掀開
 2. 用4mm六角扳手逆時鐘方向將螺絲 (B3) 鬆開
 3. 更換新鑽石砂輪，再將螺絲鎖上即可
 4. 將砂輪蓋 (B2) 蓋上，並將螺絲 (B1) 鎖緊
- 注意!** 鑽石砂輪螺絲 (B3) 未鎖緊，砂輪蓋 (B2) 未蓋好，螺絲 (B1) 未鎖緊前，不可將電源打開，以免發生危險



1. Loosen the side knob (B1) and open the side cover (B2).
2. Use a 4mm hexagon wrench to loosen the screw (B3), unscrew it counter-clockwise.
3. Replace a new diamond grinding wheel and tighten the screw after the wheel is installed.
4. Be sure to close the side cover (B2) and fasten the side knob (B1) properly.

Attention!

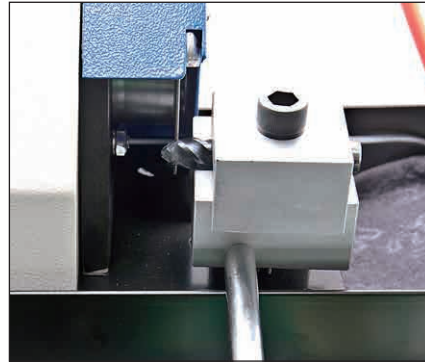
1. Please make sure that the diamond wheel screw (B3) is tightened, the side cover (B2) is properly closed, and the side knob is fastened before turning ON the machine, in order to prevent any hazard from occurring.
2. The machine has an automatic 'power-off' device that will automatically turn the machine off when the cover is opened.

| 規格 Spec. | 研磨範圍 Drill Diameter | 先端角 Point Angle | 電源 Power | 馬達 Motor | 轉速 rpm | 重量 (KGS) Weight |
|--------------|------------------------|--------------------|----------------------------|-------------|-----------|--------------------|
| LM-SG-313-SD | Ø3~Ø13 | 135° | AC110 AC220V 50/60Hz | 200W | 4500 | 12.85 |

• 長度單位 Unit of Length (mm)



範例 Example



標準附件 Standard mating parts

- 一組電源線
- 兩組保險絲
- SDC 鑽石砂輪 #100
砂輪規格 :LM-GW-S100 (X)(鎢鋼專用)
- 六角扳手 4mm、5mm、10mm 各一支
- 一組握把
- A set of power line
- Two fuses
- SDC diamond wheel#100
Wheel spec.: LM-GW-S100(X)(For tungsten use)
- An allen wrench of 4mm, 5mm,10mm. 1pc of each
- A set of handle

特殊附件 Special purpose mating parts

- CBN 鑽石砂輪 #100
砂輪規格 :LM-GW-B100(Y) HSS 專用
- CBN diamond wheel#100
Wheel spec.: LM-GW-B100(Y) (For HSS use).

選配表 Option

- 水箱 : LM-SG-316-WB
- Water box: LM-SG-316-WB

範例 Example



| 規格 Spec. | 切斷範圍 Cut Range | 電源 Power | 馬達 Motor | 轉速 rpm | 重量 (KGS) Weight |
|-----------|-------------------|----------------------------|-------------|-----------|--------------------|
| LM-SG-316 | 3mm~16mm | AC110 AC220V 50/60Hz | 600w | 6000 | 13.5 |



全球共28個

台灣 Taiwan

 台灣總公司 Head Office | 台中市清水區五權路232號
E-mail: info@chainheadway.com
No. 232, Wuquan Rd., Qingshui Dist., Taichung City 436, Taiwan
電話Tel : +886-4-26265252 傳真Fax : +886-4-26267941

台北分公司 Taipei Branch
電話Tel : +886-2-29788234 傳真Fax : +886-2-29788250

台中分公司 Taichung Branch
電話Tel : +886-4-22809292 傳真Fax : +886-4-22801909

豐原營業所 Feng Yuan Branch
電話Tel : +886-4-25237272 傳真Fax : +886-4-25233232

竹苗營業所 Miao Li Branch
電話Tel : +886-3-7462992 傳真Fax : +886-3-7462248

台南分公司 Tainan Branch
電話Tel : +886-6-2706525 傳真Fax : +886-6-2706527

彰化分公司 Changhua Branch
電話Tel : 0937 232987

菲律賓 Philippines

菲律賓分公司 Philippines Branch Office
2F RM# 7 BLK 1 LOT 50 SUGAR RD., CITYLAND SUBDIVISION
BRGY. MABUHAY, CARMONA, CAVITE, PHILIPPINES, 4116
電話Tel : (0917) 583 2702
信箱Mail : sales.ph@chainheadway.com

印度 India

印度清奈分公司 Chennai Branch Office
52, 49a, Dhanakotti Raja St, Ekkatuthangal, Chennai, Tamil Nadu
600032, India
電話Tel : +91-9884761375/ +91-8012233925
信箱Mail : sales.in@chainheadway.com

印尼 Indonesia

印尼分公司 PT. Jaya Chain Headway
Jl.Cisokan 5 Plot 5B-1A , EJIP Cikarang Selatan – Bekasi 17530
電話Tel : +62 21 8970433/ +62 21 8970434
信箱Mail : arief@jaya-chain.com

固服務據點



正河源總公司

大陸China

中國大陸營運本部 China Head Office

中國江蘇省昆山市陸豐東路模貝城J區12號樓
電話Tel : 0512-57874601 傳真Fax : 0512-57874602

南京 Nanjing

電話Tel : 025-85345030 傳真Fax : 025-85345031

淮安 Huai'an

電話Tel : 0517-86217575 傳真Fax : 0517-86217272

東莞 Dongguan

電話Tel : 0769- 85309396 傳真Fax : 0769-85316029

重慶 Chongqing

電話Tel : 023-68850991

北京 Beijing

電話Tel : 010-84725668

崑山銷售中心 Sales Service Support Center

電話Tel : 0512-57874530 傳真Fax : 0512-57079669

廈門 Xiamen

電話Tel : 0592-5653670 傳真Fax : 0592-5653663

佛山 Foshan

電話Tel : 18002723856

天津 Tianjin

電話Tel : 022-84810220 傳真Fax : 022-84810219

武漢 Wuhan

電話Tel : 027-87395596

鄭州 Zhengzhou

電話Tel : 0371-55932775

大連 Dalian

電話Tel : 0411-84357476 傳真Fax : 0411-84357478

瀋陽 Shenyang

電話Tel : 024-23196266 傳真Fax : 024-23196266

青島 Qingdao

電話Tel : 0532-83027701 傳真Fax : 0532-83027701

煙台 Yantai

電話Tel : 0535-4911722 傳真Fax : 0535-4911722

濟南 Jinan

電話Tel : 0531-61364589 傳真Fax : 0531-61364589

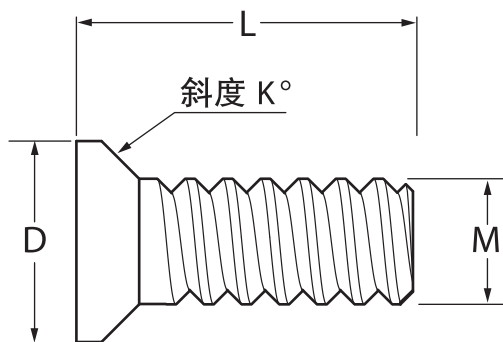
成都 Chengdu

電話Tel : 18960611190 傳真Fax : 028-61668132



螺絲規格示意圖

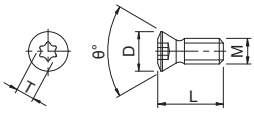
SCREW TYPE SCHEMATIC DRAWING



| 刀具代號 | M | L | | D |
|----------------------|-------|----------------------|---|----------------------|
| <input type="text"/> | -M1.8 | <input type="text"/> | X | <input type="text"/> |
| <input type="text"/> | -M2.0 | <input type="text"/> | X | <input type="text"/> |
| <input type="text"/> | -M2.5 | <input type="text"/> | X | <input type="text"/> |
| <input type="text"/> | -M3 | <input type="text"/> | X | <input type="text"/> |
| <input type="text"/> | -M3.5 | <input type="text"/> | X | <input type="text"/> |
| <input type="text"/> | -M4 | <input type="text"/> | X | <input type="text"/> |
| <input type="text"/> | -M4.5 | <input type="text"/> | X | <input type="text"/> |
| <input type="text"/> | -M5 | <input type="text"/> | X | <input type="text"/> |
| <input type="text"/> | -M6 | <input type="text"/> | X | <input type="text"/> |

本公司螺絲採用特殊鋼製造強化螺絲鋼性，螺絲斜度 W 採用車加工，穩定刀片及刀具鎖緊。
 PS. 採用本公司專用螺絲，刀片壽命增加。

| 圖型 Drawing | 規格 Spec. | 尺寸 (mm) | | | | |
|---------------|-------------------------|---------|------|------|----|--------|
| | | M | L | D | θ | T |
| | M1.8-3.8-2.4-60 | M1.8 | 3.8 | 2.4 | 60 | T6 |
| | M1.8-4.0-2.5-54 | M1.8 | 4.0 | 2.5 | 54 | T6 |
| | M1.8-4.2-2.5-54 | M1.8 | 4.2 | 2.5 | 54 | T6 |
| | M1.8-3.9-2.45-60-TP6-EU | M1.8 | 3.9 | 2.45 | 60 | TP6-EU |
| | M2-3.8-2.68-43 | M2 | 3.8 | 2.68 | 43 | T6 |
| | M2-4.3-2.7-60-T6-TIN | M2 | 4.3 | 2.7 | 60 | T6 |
| | M2-5.0-2.6-60 | M2 | 5.0 | 2.6 | 60 | T6 |
| | M2-5.0-2.7-60 | M2 | 5.0 | 2.7 | 60 | T6 |
| | M2.2-4.7-3.1-60 | M2.2 | 4.7 | 3.1 | 60 | T7 |
| | M2.2-5.2-3.1-60-T7-TIN | M2.2 | 5.2 | 3.1 | 60 | T7 |
| | M2.2-5.5-3.4-60 | M2.2 | 5.5 | 3.4 | 60 | T7 |
| | M2.2-4.7-3.1-60 | M2.2 | 4.7 | 3.1 | 60 | T7 |
| | M2.5-5.0-3.7-43 | M2.5 | 5.0 | 3.7 | 43 | T8 |
| | M2.5-5.5-3.35-60 | M2.5 | 5.5 | 3.35 | 60 | T8 |
| | M2.5-6.0-3.5-60 | M2.5 | 6.0 | 3.5 | 60 | T8 |
| | M2.5-6.3-3.7-43-T8-TIN | M2.5 | 6.3 | 3.7 | 43 | T8 |
| | M2.5-6.33-3.5-48-T8-TIN | M2.5 | 6.33 | 3.5 | 48 | T8 |
| | M2.5-6.0-3.5-60 | M2.5 | 6.0 | 3.6 | 60 | T8 |
| | M2.5-6.45-3.7-43 | M2.5 | 6.45 | 3.7 | 43 | T8 |
| | M2.5-8.0-3.5-60-T8 | M2.5 | 8.0 | 3.5 | 60 | T8 |
| | M3-3.5-5.0-90 | M3 | 3.5 | 5.0 | 90 | T7 |
| | M3-4.3-5.0-90 | M3 | 4.3 | 5.0 | 90 | T7 |
| | M3-6.0-3.7-43 | M3 | 6.0 | 3.7 | 43 | T10 |
| | M3-8.0-4.0-43 | M3 | 8.0 | 4.0 | 43 | T9 |
| | M3-7.5-4.2-53 | M3 | 7.5 | 4.2 | 53 | T9 |
| | M3-8.0-4.4-60 | M3 | 8.0 | 4.4 | 60 | T9 |
| | M3.5-6.0-5.0-60 | M3.5 | 6.0 | 5.0 | 60 | T15 |
| | M3.5-6.2-5.0-60 | M3.5 | 6.2 | 5.0 | 60 | T15 |
| | M3.5-7.5-5.1-60 | M3.5 | 7.5 | 5.1 | 60 | T15 |
| | M3.5-7.6-5.1-60 | M3.5 | 7.6 | 5.1 | 60 | T15 |
| | M3.5-8.0-5.0-60 | M3.5 | 8.0 | 5.0 | 60 | T15 |
| | M3.5-8.0-5.5-60 | M3.5 | 8.0 | 5.5 | 60 | T15 |
| | M3.5-8.4-5.0-60-T10-TIN | M3.5 | 8.4 | 5.0 | 60 | T10 |
| | M3.5-9.0-5.3-60 | M3.5 | 9.0 | 5.3 | 60 | T15 |
| | M3.5-10-5.2-43-T15-TIN | M3.5 | 10 | 5.2 | 43 | T15 |
| | M3.5-11.7-5.3-60 | M3.5 | 11.7 | 5.3 | 60 | T15 |
| | M3.5-12.0-5.4-67 | M3.5 | 12.0 | 5.4 | 67 | T15 |
| | M4-5.0-6.2-90 | M4 | 5.0 | 6.2 | 90 | T15 |
| | M4-7.8-5.6-60 | M4 | 7.8 | 5.6 | 60 | T15 |
| | M4-7.1-13.6-60 | M4 | 7.1 | 13.6 | 60 | T15 |
| | M4-8.0-5.0-43 | M4 | 8.0 | 5.0 | 43 | T15 |
| | M4-8.0-5.7-60 | M4 | 8.0 | 5.7 | 60 | T15 |





刀具零件尺寸表

CUTTING TOOL SPARE PARTS

| 圖型 Drawing | 規格 Spec. | 尺寸 (mm) | | | | |
|---------------|-------------------------|---------|------|------|----|-----|
| | | M | L | D | θ | T |
| | M4-8.0-5.7-60 | M4 | 8.0 | 5.7 | 60 | T15 |
| | M4-8.2-6.2-90 | M4 | 8.2 | 6.2 | 90 | T15 |
| | M4-8.75-5.6-60 | M4 | 8.8 | 5.4 | | T15 |
| | M4-8.75-5.6-60 | M4 | 8.75 | 5.6 | 60 | T15 |
| | M4-9.35-5.65-60-T15-TIN | M4 | 9.35 | 5.65 | 60 | T15 |
| | M4-9.5-5.5-55 | M4 | 9.5 | 5.5 | 55 | T15 |
| | M4-10-5.0-43 | M4 | 10 | 5.0 | 43 | T15 |
| | M4-10-5.7-60 | M4 | 10 | 5.7 | 60 | T15 |
| | M4-11-6.2-90-T15-TIN | M4 | 11 | 6.2 | 90 | T15 |
| | M4-13-5.2-43-T15-TIN | M4 | 13 | 5.2 | 43 | T15 |
| | M5-10-6.3-43 | M5 | 10 | 6.3 | 43 | T20 |
| | M5-11-6.4-43 | M5 | 11 | 6.4 | 43 | T20 |
| | M5-11-7.0-55 | M5 | 11 | 7.0 | 55 | T20 |
| | M5-11-7.5-60 | M5 | 11 | 7.5 | 60 | T20 |
| | M5-12.8-7.0-60-T20-TIN | M5 | 12.8 | 7.0 | 60 | T20 |
| | M5-14-7.0-43 | M5 | 14 | 7.0 | 43 | T20 |
| | M6-12-8.4-60 | M6 | 12 | 8.4 | 60 | T25 |

| 圖型 Drawing | 規格 Spec. | 尺寸 (mm) | | | | |
|---------------|----------------------|---------|------|------|-----|-------|
| | | M | L | D | θ | T |
| | M3-7.0-4.0(BR4) | M3 | 7 | 4 | - | T8 |
| | M4-8.5-6.0(BR5) | M4 | 8.5 | 6 | - | T15 |
| | M5-9.0-6.7(BR6) | M5 | 9 | 6.7 | - | T20 |
| | M5-12.5-7.5(BR8) | M5 | 12.5 | 7.5 | - | T20 |
| | M5-15.4-8(BR10) | M5 | 15.4 | 8 | - | T20 |
| | M6-20-9.5(BR12.5) | M6 | 20 | 9.5 | - | T30 |
| | M8-24.5-12(BR16) | M8 | 24.5 | 12 | - | T30 |
| | M2-6.5-3.1(RG-M8) | M2 | 4.5 | 3.1 | - | T6 |
| | M2.5-7.3-4.0(RG-M10) | M2.5 | 7.3 | 4 | - | T7 |
| | M3.5-9.0-5.3(RG-M12) | M3.5 | 9 | 5.3 | - | T10 |
| | M4-12-6.5(RG-M16) | M4 | 12 | 6.5 | - | T15 |
| | M5-15-7.5(RG-M20) | M5 | 15 | 7.5 | - | T20 |
| | M5-19.9-7.5(RG-M25) | M5 | 19.9 | 7.5 | - | T20 |
| | | M5-0.8P | M5 | 13 | 9.5 | - |
| M5-0.8P-16L | | M5 | 16 | 9.3 | - | PL3.5 |
| M6-0.75P | | M6 | 17.2 | 13 | - | P4 |
| M6-U1/4-28P | | M6 | 17.3 | 13 | - | P4 |
| M8-1.0P | | M8 | 21.2 | 17 | - | P5 |
| M8-U5/16-24P | | M8 | 21.2 | 17 | - | P5 |
| | BH-M8-20 | M8 | 20 | 13.7 | - | P5 |
| | BH-M8-22 | M8 | 22 | 13.7 | - | P5 |
| | HR-5R | - | 10.2 | 3.8 | - | - |
| | HR-6R | - | 13 | 5.3 | - | - |
| | GR-5R | - | 10.2 | 3.8 | - | - |
| | GR-6R | - | 13 | 5.3 | - | - |
| | HTM309 | M3 | 8.9 | 5.4 | - | P2.5 |
| | SH-M5-21 | M5 | 21 | 8.5 | - | P4 |
| | SH-M6-20 | M6 | 20 | 10 | - | P5 |
| | SH-M6-25 | M6 | 25 | 10 | - | P5 |
| | ASP2 | M4 | 10 | 5 | - | P2.5 |
| | TAP2 | M4 | 8 | 7 | - | #1 |
| | M5-0.8P-25L | M5 | 25 | 8.3 | - | P4 |
| | D8-d0.8-10L | - | 10 | 8 | - | - |



刀具零件尺寸表

CUTTING TOOL SPARE PARTS

| 圖型 Drawing | 規格 Spec. | 尺寸 (mm) | | | | |
|---------------|-------------|-----------|-------|------|---|------|
| | | M | L | D | θ | T |
| | MS520 | M5 | 20 | - | - | T10 |
| | | | | | | |
| | MS620 | M6 | 20 | - | - | P3 |
| | MS625 | M6 | 25 | - | - | P3 |
| | MS630 | M6 | 30 | - | - | P3 |
| | ASP1 | M8 | 17 | - | - | P4 |
| | MC515 | M5 | 14.7 | 4 | - | - |
| | MC620 | M6 | 18.6 | 4 | - | - |
| | MC622 | M6 | 21.5 | 4.8 | - | - |
| | DCP-2 | M5-20-4.9 | 26 | 13 | - | PL4 |
| | | | | | | |
| | MCW3 | - | 10 | 13.7 | - | - |
| | | | | | | |
| | ASP3 | M8 | 15 | 9.7 | - | - |
| | | | | | | |
| | MCS3 | M5 | 24.5 | 10 | - | P4 |
| | | | | | | |
| | MCS3S-09 | M6 | 9 | - | - | P3 |
| | MCS3S-11 | M6 | 11 | - | - | P3 |
| | MLP33L | M5 | 10.4 | - | - | P2 |
| | MLP34L | M5 | 13.1 | - | - | P2 |
| | MLP44 | M6.3 | 13.2 | - | - | P2.5 |
| | MLP46 | M6.3 | 17.2 | - | - | P2.5 |
| | MCP3 | 5 | 15 | 3.7 | - | - |
| | | | | | | |
| | MDS053512 | M5 | 8.65 | 6.3 | - | P3.5 |
| | MDS05035 | M5xP0.5 | 7.0 | 6.3 | - | P3.5 |
| | FMA-1231-CB | - | 31.75 | - | - | - |
| | FMA-5838-CB | - | 38.1 | - | - | - |
| | FMB-1035-CB | - | 35 | - | - | - |
| | FMB-1230-CB | - | 30 | - | - | - |
| | FMB-1240-CB | - | 40 | - | - | - |
| | FMB-1645-CB | - | 45 | - | - | - |

| 圖型 Drawing | 規格 Spec. | 尺寸 (mm) | | | |
|---------------|-------------|---------|------|------|---|
| | | d | i | s | r |
| | CMS432 | 12.5 | 12.5 | 4.8 | - |
| | | | | | |
| | CNS1204 | 12.57 | - | 4.76 | - |
| | | | | | |
| | WMS432 | 12.2 | 15 | 4.8 | - |
| | | | | | |
| | TMS322 | 9.1 | 12.9 | 3.2 | - |
| | TWS322 | 8.9 | 12.4 | 3.2 | - |
| | VSS322 | 8.4 | 8.4 | 3.2 | - |
| | VMS322 | 9.2 | 9.2 | 3.2 | - |
| | GXE16 | 9.5 | 13.1 | 3.2 | - |
| | | | | | |
| | GXN16 | 9.5 | 13.1 | 3.2 | - |
| | | | | | |
| | ASP4 | 14.6 | 15.2 | 5.8 | - |
| | | | | | |
| | E5 | 11 | - | 0.5 | - |
| | | | | | |
| | E4 | 7.4 | - | 0.5 | - |
| | | | | | |
| | TAP3 | 17.55 | - | 3.13 | - |
| | | | | | |



刀具零件尺寸表

CUTTING TOOL SPARE PARTS

| 圖型 Drawing | 規格 Spec. | 尺寸 (mm) | | | | | | | |
|---------------|----------------|-----------------|------|-------|------|--------|-----|---|----|
| | | L | D | d | S | T | | | |
| | BIT-T5-25L | 25 | - | - | 1/4" | T5 | | | |
| | BIT-T6-25L | | - | - | | T6 | | | |
| | BIT-T7-25L | | - | - | | T7 | | | |
| | BIT-T8-25L | | - | - | | T8 | | | |
| | BIT-T9-25L | | - | - | | T9 | | | |
| | BIT-T10-25L | | - | - | | T10 | | | |
| | BIT-T15-25L | | - | - | | T15 | | | |
| | BIT-T20-25L | | - | - | | T20 | | | |
| | BIT-T5-50L | 50 | - | - | 1/4" | T5 | | | |
| | BIT-T6-50L | | - | - | | T6 | | | |
| | BIT-T7-50L | | - | - | | T7 | | | |
| | BIT-T8-50L | | - | - | | T8 | | | |
| | BIT-T9-50L | | - | - | | T9 | | | |
| | BIT-T10-50L | | - | - | | T10 | | | |
| | BIT-T15-50L | | - | - | | T15 | | | |
| | BIT-T20-50L | | - | - | | T20 | | | |
| | BIT-T25-50L | | - | - | | T25 | | | |
| | BIT-T10-100L | 100 | - | - | 1/4" | T10 | | | |
| | BIT-T15-100L | | - | - | | T15 | | | |
| | BIT-T20-100L | | - | - | | T20 | | | |
| | BIT-P4-100L | | - | - | | P4 | | | |
| | BIT-P5-100L | | - | - | | P5 | | | |
| | BIT-P6-100L | | - | - | | P6 | | | |
| | BIT-P8-100L | | - | - | | P8 | | | |
| | BIT-P10-100L | | - | - | | P10 | | | |
| | BIT-1/4"-50L | 45 | - | 10 | 1/4" | - | | | |
| | BIT-T5-55L-HSS | 55 | - | - | 1/4" | T5 | | | |
| | BIT-T6-55L-HSS | | - | - | | T6 | | | |
| | BIT-T7-55L-HSS | | - | - | | T7 | | | |
| | BIT-T8-55L-HSS | | - | - | | T8 | | | |
| | BIT-T9-55L-HSS | | - | - | | T9 | | | |
| | | BIT-T10-56L-HSS | 56 | - | - | 1/4" | T10 | | |
| | | BIT-T15-56L-HSS | | - | - | | T15 | | |
| | | BIT-T20-56L-HSS | | - | - | | T20 | | |
| | | TW-05 | | 76.25 | 52 | | 10 | - | T5 |
| | | TW-06 | | | | | | | T6 |
| TW-09 | T7 | | | | | | | | |
| TW-12 | T8 | | | | | | | | |
| TW-14 | T9 | | | | | | | | |
| TW-20 | T10 | | | | | | | | |
| TW-30 | T15 | | | | | | | | |
| TW-50 | T20 | | | | | | | | |
| | TW-60-SB | 64.5 | 80.5 | 12 | - | P5 | | | |
| | TW-80-SB | | | | | T25/P6 | | | |
| | TW-120-SB | | | | | P8 | | | |

| 圖型 Drawing | 規格 Spec. | 尺寸 (mm) | | | | |
|---------------|-------------|---------|---|---|----|------|
| | | L | D | d | W | T |
| | T6 | 83 | - | - | - | T6 |
| | T7 | | - | - | - | T7 |
| | T8 | | - | - | - | T8 |
| | T9 | | - | - | - | T9 |
| | T10 | | - | - | - | T10 |
| | T15 | 86.5 | - | - | - | T15 |
| | T20 | | - | - | - | T20 |
| | T5K | 120 | - | - | - | T5 |
| | T6K | 130 | - | - | - | T6 |
| | T7K | 140 | - | - | - | T7 |
| | T8K | 150 | - | - | - | T8 |
| | T9K | 165 | - | - | - | T9 |
| | T10K | | - | - | - | T10 |
| | T15K | 190 | - | - | - | T15 |
| | T20K | 195 | - | - | - | T20 |
| | PL1.5 | 46 | - | - | - | P1.5 |
| | PL2 | 50 | - | - | - | P2 |
| | PL2.5 | 56 | - | - | - | P2.5 |
| | PL3 | 63 | - | - | - | P3 |
| | PL3.5 | 70 | - | - | - | P3.5 |
| | PL4 | | - | - | - | P4 |
| | PL5 | 80 | - | - | - | P5 |
| | PL6 | 90 | - | - | - | P6 |
| | PL8 | | - | - | - | P8 |
| | PT2 | 99 | - | - | - | P2 |
| | PT2.5 | | - | - | - | P2.5 |
| | PT3 | | - | - | - | P3 |
| | PT4 | | - | - | - | P4 |
| | PT5 | | - | - | - | P5 |
| | PT6 | 107 | - | - | - | P6 |
| | PT8 | | - | - | - | P8 |
| | DW-70 | 70 | - | - | 27 | - |
| | | | | | | |
| | | | | | | |



螺絲車削分刀對照建議表

| Threads Per Inch 每英制牙數 (T.P.I) Pitch 節距 (mm) | | 24 | 20 | 16 | 14 | 12 | 10 | 8 | |
|---|---------------------------|---------------------------------|------|------|------|------|------|-------|-------|
| | | 1 | 1.25 | 1.5 | 1.75 | 2 | 2.5 | 3 | |
| ISO 分類 | Material 加工材質 | Material Strength 工件抗拉強度 | 分刀量 | | | | | | |
| P | Unalloyed Steels 非合金鋼類 | <600N/mm2 | 4-5 | 5-6 | 6-7 | 7-8 | 7-8 | 8-9 | 10-11 |
| | | <950N/mm2 | 4-6 | 5-7 | 7-8 | 7-9 | 7-9 | 9-10 | 11-12 |
| | Alloyed Steels 合金鋼類 | 700~950N/mm2 | 4-6 | 5-7 | 7-8 | 7-9 | 7-9 | 9-10 | 11-12 |
| | | 950~1200N/mm2 1200~1400N/mm2 | 5-6 | 6-9 | 7-10 | 8-10 | 8-10 | 10-12 | 12-14 |
| M | Stainless Steels 不鏽鋼類 | 沃斯系 + 肥粒系 | 4-6 | 5-7 | 7-8 | 8-9 | 8-9 | 10-13 | 12-15 |
| | | 麻田散系 | 5-6 | 6-9 | 7-10 | 8-10 | 8-10 | 9-11 | 9-12 |
| | | 析出強化系 | 5-8 | 6-10 | 7-12 | 8-11 | 8-11 | 9-12 | 10-14 |
| K | Cast Iron 鑄鐵類 | 灰鑄鐵 | 4-6 | 5-7 | 7-8 | 8-11 | 8-11 | 10-14 | 12-16 |
| | | 延性鑄鐵 展性鑄鐵 | 4-8 | 5-9 | 7-10 | 8-11 | 8-11 | 8-14 | 10-16 |
| N | Aluminum & Al 鋁及鋁合金 | <16% 含矽量 >16% 含矽量 | 4-6 | 5-7 | 7-10 | 8-11 | 8-11 | 8-14 | 10-16 |
| S | Superalloy 高溫合金 | 鐵基合金 鈷基合金 | 4-6 | 5-7 | 7-8 | 8-10 | 8-10 | 9-11 | 9-12 |
| | | 鎳基合金 鈦基合金 | 5-6 | 6-9 | 7-10 | 8-11 | 8-11 | 9-12 | 10-14 |
| H | Hard Material 高硬度材 | HRC 48~52 | 6-8 | 6-10 | 7-12 | 9-12 | 9-12 | 12-14 | 14-16 |
| | | HRC 52~56 | 6-8 | 6-10 | 7-12 | 9-12 | 9-12 | 12-14 | 14-16 |

| Recommend Number of Passes | | |
|----------------------------|-----------------|------------------------|
| Threading Pitch(mm) | Threading T.P.I | Recommend NO:of Passes |
| 0,5 | 48 | 4-6 |
| 1,0 | 24 | 4-8 |
| 1,25 | 20 | 5-10 |
| 1,5 | 16 | 6-12 |
| 2 | 12 | 7-12 |
| 3 | 8 | 9-16 |
| 4 | 6 | 11-18 |
| 5 | 5 | 12-20 |
| 6 | 4 | 12-22 |
| 8 | 3 | 15-24 |

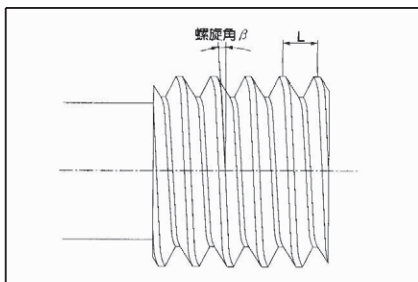
螺紋的切削方式

| 徑向進刀法 | Radial In-Feed | A | 適合螺距 1.5mm 或是 16T.P.I 以內使用 |
|-------|---------------------------|---|----------------------------|
| | | B | 因切入方向問題會有切屑排除不易的情形 |
| | | C | 刀片的前緣與後沿的磨耗較一致性 |
| | | D | 適用於加工硬度高或短屑片的材質 |
| | | E | 加工面後沿可以得到較好的表面光滑 |
| 斜向進刀法 | Modified Flank In-feed | A | 適合大螺距 4mm 使用以上，並可降低切削阻力 |
| | | B | 切削第 2 刀開始只有單邊切削 |
| | | C | 刀片磨耗集中在有切削的一端 |
| | | D | 屑片會從切邊遠離 |
| | | E | 此法可降低切削噪音 |
| 雙向進刀法 | Alternating Flank In-feed | A | 適合大螺距，專用於 ACME 螺紋或其他梯型螺紋 |
| | | B | 用於易生加工硬化的材質 |
| | | C | 工作屑片長或不易斷屑的情形使用 |
| | | D | 切削所生阻力較小 |
| | | E | 磨耗會集中於刀片前緣 |

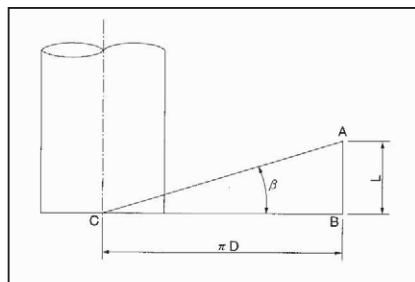
螺紋的螺旋角：螺紋的螺旋角 β 是由被加工件的節徑、導程來決定

$$\tan \beta = \frac{L}{\pi D} = \frac{nP}{\pi D}$$

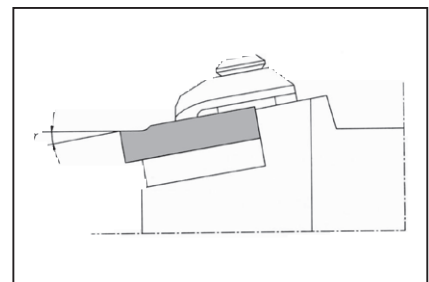
β : 螺旋角 D: 節徑 n: 牙數 P: 節距
 L: 導程(1牙螺紋等於節距、n牙螺紋等於n x p)



(圖1)



(圖2)



(圖3)

牙刀片的區分

| 泛稱 | 備註 | 刀片實體 | 加工狀態圖 | 特點 |
|-----|------|------|-------|--|
| 專用牙 | 附倒角刃 | | | 1 加工件表面較光滑 2 需考慮倒角刃的預留量 3 牙頂有倒角精修 4 牙的節距決定刀片規格 |
| 通用牙 | 無倒角刃 | | | 1 加工件表面易生毛邊 2 公稱直徑需修到一定值 3 牙頂無法倒角精修 4 刀片可加工範圍較廣 |



攻牙下孔徑加工尺寸表

DRILL HOLE SIZE OF CUTTING TAPS DIMENSION

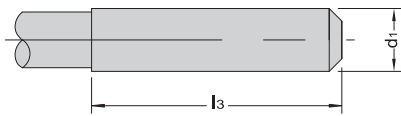
| | | |
|--------|-------|-------|
| 公制標準螺紋 | 公制細螺紋 | 英制粗螺紋 |
|--------|-------|-------|

| 螺紋尺寸 | 標準徑 | 2級螺紋內徑 | | 螺紋尺寸 | 標準徑 | 2級螺紋內徑 | | 螺紋尺寸 | 標準徑 | 2級螺紋內徑 | | 螺紋尺寸 | 標準徑 | 2級螺紋內徑 | | | |
|-----------|-------|-------------------|-------------------|-----------|-------|-------------------|-------------------|-----------|-------|-------------------|-------------------|-----------|-------|-------------------|-------------------|--|--|
| | | D ₁ 上限 | D ₁ 下限 | | | D ₁ 上限 | D ₁ 下限 | | | D ₁ 上限 | D ₁ 下限 | | | D ₁ 上限 | D ₁ 下限 | | |
| M1 ×0.25 | 0.75 | 0.729 | — | M2.5×0.35 | 2.15 | 2.121 | 2.221 | M1 ×0.25 | 0.75 | 0.729 | — | No.1 -64 | 1.50 | 1.435 | 1.582 | | |
| M1.1×0.25 | 0.85 | 0.829 | — | M3 ×0.35 | 2.65 | 2.621 | 2.271 | M1.1×0.25 | 0.85 | 0.829 | — | No.2 -64 | 1.85 | 1.694 | 1.872 | | |
| M1.2×0.25 | 0.95 | 0.929 | — | M3 ×0.35 | 3.15 | 3.121 | 3.221 | M1.2×0.25 | 0.95 | 0.929 | — | No.3 -64 | 2.10 | 1.941 | 2.146 | | |
| M1.4×0.3 | 1.10 | 1.075 | — | M4 ×0.5 | 3.50 | 3.459 | 3.599 | M1.4×0.3 | 1.10 | 1.075 | — | No.4 -64 | 2.35 | 2.385 | 2.156 | | |
| M1.6×0.35 | 1.25 | 1.221 | 1.321 | M4.5×0.5 | 4.00 | 3.959 | 4.099 | M1.6×0.35 | 1.25 | 1.221 | 1.321 | No.5 -64 | 2.65 | 2.697 | 2.487 | | |
| M1.8×0.35 | 1.45 | 1.421 | 1.521 | M5 ×0.5 | 4.50 | 4.459 | 4.599 | M1.8×0.35 | 1.45 | 1.421 | 1.521 | No.6 -64 | 2.85 | 2.642 | 2.896 | | |
| M2 ×0.4 | 1.60 | 1.567 | 1.679 | M5.5×0.5 | 5.00 | 4.959 | 5.099 | M2 ×0.4 | 1.60 | 1.567 | 1.679 | No.8 -64 | 3.50 | 3.302 | 3.531 | | |
| M2.2×0.45 | 1.75 | 1.713 | 1.838 | M6 ×0.75 | 5.20 | 5.188 | 5.378 | M2.2×0.45 | 1.75 | 1.713 | 1.838 | No.10 -64 | 3.90 | 3.683 | 3.962 | | |
| M2.5×0.45 | 2.05 | 2.013 | 2.138 | M7 ×0.75 | 6.20 | 6.188 | 6.378 | M2.5×0.45 | 2.05 | 2.013 | 2.138 | No.12 -64 | 4.50 | 4.343 | 4.597 | | |
| M3 ×0.5 | 2.50 | 2.459 | 2.599 | M8 ×0.75 | 7.20 | 7.188 | 7.378 | M3 ×0.5 | 2.50 | 2.459 | 2.599 | 1/4 -64 | 5.10 | 4.976 | 5.268 | | |
| M3.5×0.6 | 2.90 | 2.850 | 3.010 | M8 ×1 | 7.00 | 6.917 | 7.153 | M3.5×0.6 | 2.90 | 2.850 | 3.010 | 5/16 -64 | 6.60 | 6.411 | 6.734 | | |
| M4 ×0.7 | 3.30 | 3.242 | 3.422 | M9 ×0.75 | 8.20 | 8.188 | 8.378 | M4 ×0.7 | 3.30 | 3.242 | 3.422 | 3/8 -64 | 8.00 | 7.805 | 8.164 | | |
| M4.5×0.75 | 3.70 | 3.688 | 3.878 | M9 ×1 | 8.00 | 7.917 | 8.153 | M4.5×0.75 | 3.70 | 3.688 | 3.878 | 7/16 -64 | 9.40 | 9.149 | 8.550 | | |
| M5 ×0.8 | 4.20 | 4.134 | 4.334 | M10×0.75 | 9.20 | 9.188 | 9.378 | M5 ×0.8 | 4.20 | 4.134 | 4.334 | 1/2 -64 | 10.80 | 10.584 | 11.013 | | |
| M6 ×1 | 5.00 | 4.917 | 5.153 | M10×1 | 9.00 | 8.917 | 9.153 | M6 ×1 | 5.00 | 4.917 | 5.153 | 9/16 -64 | 12.20 | 11.996 | 12.456 | | |
| M7 ×1 | 6.00 | 5.917 | 6.153 | M10×1.25 | 8.80 | 8.647 | 8.912 | M7 ×1 | 6.00 | 5.917 | 6.153 | 5/8 -64 | 13.50 | 13.376 | 13.868 | | |
| M8 ×1.25 | 6.80 | 6.647 | 6.912 | M11×0.75 | 10.20 | 10.188 | 10.378 | M8 ×1.25 | 6.80 | 6.647 | 6.912 | 3/4 -64 | 16.50 | 16.299 | 16.833 | | |
| M9 ×1.25 | 7.80 | 7.647 | 7.912 | M11×1 | 10.00 | 9.917 | 10.153 | M9 ×1.25 | 7.80 | 7.647 | 7.912 | 7/8 -64 | 19.50 | 19.169 | 19.748 | | |
| M10×1.5 | 8.50 | 8.376 | 8.676 | M12×1 | 11.00 | 10.917 | 11.153 | M10×1.5 | 8.50 | 8.376 | 8.676 | 1 -64 | 22.25 | 21.963 | 22.598 | | |
| M11×1.5 | 9.50 | 9.376 | 9.676 | M12×1.25 | 10.80 | 10.647 | 10.192 | M11×1.5 | 9.50 | 9.376 | 9.676 | 1 1/8 -64 | 25.00 | 24.648 | 25.349 | | |
| M12×1.75 | 10.20 | 10.106 | 10.441 | M12×1.5 | 10.50 | 10.376 | 10.676 | M12×1.75 | 10.20 | 10.106 | 10.441 | 1 1/4 -64 | 28.00 | 27.823 | 28.514 | | |
| M14×2 | 12.00 | 11.835 | 12.210 | M14×1 | 13.00 | 12.917 | 13.153 | M14×2 | 12.00 | 11.835 | 12.210 | 1 3/8 -64 | 30.75 | 30.343 | 31.120 | | |
| M16×2 | 14.00 | 13.835 | 14.210 | M14×1.25 | 12.80 | 12.647 | 12.912 | M16×2 | 14.00 | 13.835 | 14.210 | 1 1/2 -64 | 34.00 | 33.518 | 34.295 | | |
| M18×2.5 | 15.50 | 15.294 | 15.744 | M14×1.5 | 12.50 | 12.376 | 12.676 | M18×2.5 | 15.50 | 15.294 | 15.744 | 1 3/4 -64 | 39.50 | 38.951 | 39.814 | | |
| M20×2.5 | 17.50 | 17.294 | 17.744 | M15×1 | 14.00 | 13.917 | 14.153 | M20×2.5 | 17.50 | 17.294 | 17.744 | 2 -64 | 45.00 | 44.689 | 45.598 | | |
| M22×2.5 | 19.50 | 19.294 | 19.744 | M15×1.5 | 13.50 | 13.376 | 13.676 | M22×2.5 | 19.50 | 19.294 | 19.744 | | | | | | |
| M24×3 | 21.00 | 20.752 | 21.252 | M16×1 | 15.00 | 14.197 | 15.153 | M24×3 | 21.00 | 20.752 | 21.252 | | | | | | |
| M27×3 | 24.00 | 23.752 | 24.252 | M16×1.5 | 14.50 | 14.376 | 14.676 | M27×3 | 24.00 | 23.752 | 24.252 | | | | | | |
| M30×3.5 | 26.50 | 26.211 | 26.711 | M17×1 | 16.00 | 15.917 | 16.153 | M30×3.5 | 26.50 | 26.211 | 26.711 | | | | | | |
| M33×3.5 | 29.50 | 29.211 | 29.711 | M17×1.5 | 15.50 | 15.376 | 15.676 | M33×3.5 | 29.50 | 29.211 | 29.711 | | | | | | |
| M36×4 | 32.00 | 31.670 | 32.270 | M18×1 | 17.00 | 15.917 | 17.153 | M36×4 | 32.00 | 31.670 | 32.270 | | | | | | |
| M39×4 | 35.00 | 34.670 | 35.270 | M18×1.5 | 16.50 | 16.376 | 16.676 | M39×4 | 35.00 | 34.670 | 35.270 | | | | | | |
| M42×4.5 | 37.50 | 37.129 | 37.799 | M18×2 | 16.00 | 15.835 | 16.210 | M42×4.5 | 37.50 | 37.129 | 37.799 | | | | | | |
| M45×4.5 | 40.50 | 40.129 | 40.799 | M20×1 | 19.00 | 18.917 | 19.153 | M45×4.5 | 40.50 | 40.129 | 40.799 | | | | | | |
| M48×5 | 43.00 | 42.587 | 43.297 | M20×1.5 | 18.50 | 18.376 | 18.678 | M48×5 | 43.00 | 42.587 | 43.297 | | | | | | |
| M52×5 | 47.00 | 46.587 | 47.287 | M20×2 | 18.00 | 17.835 | 18.210 | M52×5 | 47.00 | 46.587 | 47.287 | | | | | | |
| M56×5.5 | 50.50 | 50.046 | 50.796 | M22×1 | 21.00 | 20.917 | 21.153 | M56×5.5 | 50.50 | 50.046 | 50.796 | | | | | | |
| | | | | M22×1.5 | 20.50 | 20.376 | 20.676 | | | | | | | | | | |
| | | | | M22×2 | 20.00 | 19.835 | 20.210 | | | | | | | | | | |
| | | | | M24×1 | 23.00 | 22.917 | 23.153 | | | | | | | | | | |

| | |
|-------|-------|
| 公制粗螺紋 | 公制粗螺紋 |
|-------|-------|

| 螺紋尺寸 | 標準徑 | 螺紋尺寸 | 標準徑 | 螺紋尺寸 | 標準徑 | 螺紋尺寸 | 標準徑 |
|------------|------|------------|-------|-----------|-------|-----------|-------|
| M1 ×0.25 | 0.88 | M4.5 ×0.75 | 4.15 | M5 ×0.5 | 4.75 | M12 ×1.5 | 11.30 |
| M1.1 ×0.25 | 0.98 | M5 ×0.8 | 4.65 | M5.5 ×0.5 | 5.25 | M14 ×1 | 13.55 |
| M1.2 ×0.25 | 1.08 | M6 ×1 | 5.55 | M6 ×0.75 | 5.65 | M14 ×1.25 | 13.40 |
| M1.4 ×0.3 | 1.25 | M7 ×1 | 6.55 | M7 ×0.75 | 6.65 | M14 ×1.5 | 13.30 |
| M1.6 ×0.35 | 1.45 | M8 ×1.25 | 7.40 | M8 ×0.75 | 7.65 | M15 ×1 | 13.55 |
| M1.7 ×0.35 | 1.55 | M9 ×1.25 | 8.40 | M8 ×0.1 | 7.55 | M15 ×1.5 | 14.30 |
| M1.8 ×0.35 | 1.65 | M10 ×1.5 | 9.25 | M9 ×0.75 | 8.65 | M16 ×1 | 15.55 |
| M2 ×0.4 | 1.80 | M11 ×1.5 | 10.25 | M9 ×0.1 | 8.55 | M16 ×1.5 | 15.30 |
| M2.2 ×0.45 | 2.00 | M12 ×1.75 | 11.20 | M10 ×0.75 | 9.65 | M17 ×1 | 16.55 |
| M2.3 ×0.4 | 2.10 | M14 ×2 | 13.10 | M10 ×0.1 | 9.55 | M17 ×1.5 | 16.30 |
| M2.5 ×0.45 | 2.30 | M16 ×2 | 15.10 | M10 ×0.25 | 9.40 | M18 ×1 | 17.55 |
| M2.6 ×0.45 | 2.40 | M18 ×2.5 | 16.90 | M10 ×0.75 | 10.65 | M18 ×1.5 | 17.30 |
| M3 ×0.5 | 2.80 | M20 ×2.5 | 18.90 | M11 ×1 | 10.55 | M18 ×2 | 17.10 |
| M3.5 ×0.6 | 3.25 | | | M12 ×1 | 11.55 | M20 ×1 | 19.55 |
| M4 ×0.4 | 3.70 | | | M12 ×1.25 | 11.40 | | |

Form HA

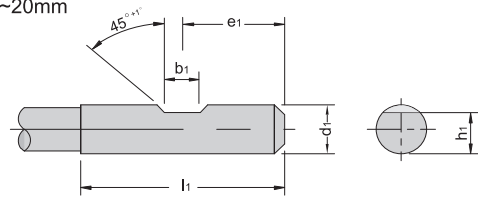


(單位:mm)

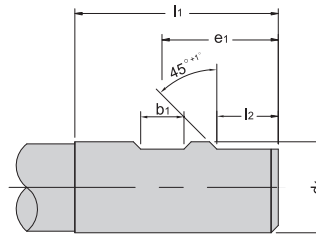
| d1 | l3 |
|----|---------|
| h6 | +2 0 |
| 2 | 28 |
| 3 | |
| 4 | |
| 5 | |
| 6 | 36 |
| 8 | |
| 10 | 40 |
| 12 | 45 |
| 14 | |
| 16 | 48 |
| 18 | |
| 20 | 50 |
| 25 | 56 |
| 32 | 60 |

Form HB

d1=6~20mm



d1=25&32mm

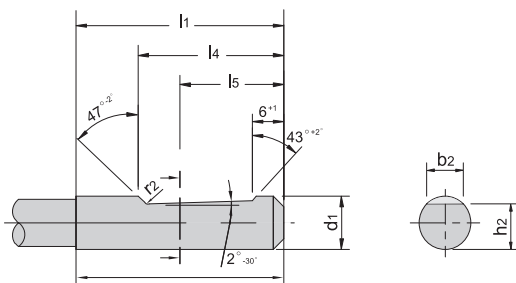


(單位:mm)

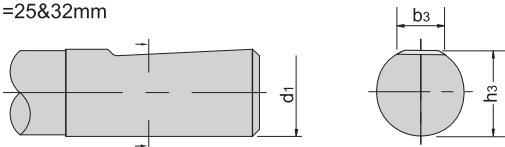
| d1 | b1 | e1 | h1 | l1 | l2 | |
|----|------------|---------|------|---------|---------|----|
| h6 | +0.05 0 | 0 -1 | h11 | +2 0 | +1 0 | |
| 6 | 4.2 | 18 | 5.1 | 36 | - | |
| 8 | 5.5 | | 6.9 | | | |
| 10 | 7 | 20 | 8.5 | 40 | | |
| 12 | 8 | 22.5 | 10.4 | 45 | | |
| 14 | | | 12.7 | | | |
| 16 | 10 | 24 | 14.2 | 48 | | |
| 18 | | | 16.2 | | | |
| 20 | 11 | 25 | 18.2 | 50 | | |
| 25 | 12 | 32 | 23 | 56 | | 17 |
| 32 | 14 | 36 | 30 | 60 | | 19 |

Form HE

d1=6~20mm



d1=25&32mm



| d1 | (b2) | (b3) | h2 | (h3) | l1 | l4 | l5 | r2 | | |
|----|------|------|------|------|---------|---------|----|------|----|----|
| h6 | = | | h11 | | +2 0 | 0 -1 | | min. | | |
| 6 | 4.3 | - | 5.1 | - | 36 | 25 | 18 | 1.2 | | |
| 8 | 5.5 | | 6.9 | | | | | | | |
| 10 | 7.1 | | 8.5 | | | | | | | |
| 12 | 8.2 | | 10.4 | | | | | | | |
| 14 | 8.1 | | 12.7 | | | | | | | |
| 16 | 10.1 | | 14.2 | | 48 | 36 | 24 | 1.6 | | |
| 18 | 10.8 | | 16.2 | | | | | | | |
| 20 | 11.4 | | 18.2 | | | | | | | |
| 25 | 13.6 | | 9.3 | | 23.0 | 24.1 | 56 | | 44 | 32 |
| 32 | 15.5 | | 9.9 | | 30.0 | 31.2 | 60 | | 48 | 35 |



表面粗糙度 SURFACE ROUGHNESS

| 種類 | 代號 | 計算方法 | 計算方法 例 (圖) |
|----------|------|--|------------|
| 中心線平均粗糙度 | Ra | 從粗度曲線往中心線方向抽取測定長度 L 的部分，此抽取部分的中心線為 X 軸，以 Y=f(x) 表示時依下式計算之，所得值以微米 (μm) 表示之。 $Ra = 1/L \int_0^L f(x) dx$ | |
| 最大高度 | Rmax | 從斷面曲線抽取基準長度部分的平均線以平行 2 直線包含上抽取部分時，以 2 線的間接為曲線縱倍率，方向測定此值即為最大高度，以微米 (μm) 表示之。 Rmax: 應對基準長度 L 的抽取部分最大高度。 | |
| 十點平均粗糙度 | Rz | 在斷面曲線只抽取基準長對平均線平行且不橫越斷面曲線的直線往縱倍率方向測定最高至第 5 螺紋頂標高的平均值與最深至第 5 齒根標高的平均值的差值，以微米 (μm) 表示之。 $Rz = (R_1 + R_3 + R_5 + R_7 + R_9) / 5 + (R_2 + R_4 + R_6 + R_8 + R_{10}) / 5$ | |

| 中心線平均粗糙度 Ra | 最大高度 Rmax | 十點平均粗糙度 Rz | 粗糙度 N | 三角記號 |
|----------------|--------------|---------------|----------|------|
| 0.0013a | 0.05S | 0.05Z | — | ▽▽▽▽ |
| 0.025a | 0.1S | 0.1Z | N1 | |
| 0.05a | 0.2S | 0.2Z | N2 | |
| 0.10a | 0.4S | 0.4Z | N3 | |
| 0.20a | 0.8S | 0.8Z | N4 | |
| 0.40a | 1.6S | 1.6Z | N5 | ▽▽▽ |
| 0.80a | 3.2S | 3.2Z | N6 | |
| 1.6a | 6.3S | 6.3Z | N7 | |
| 3.2a | 12.5S | 12.5Z | N8 | ▽▽ |
| 6.3a | 25S | 25Z | N9 | |
| 12.5a | 50S | 50Z | N10 | ▽ |
| 25a | 100S | 100Z | N11 | |
| 50a | 200S | 200Z | N12 | |
| 100a | 400S | 400Z | — | |

表示方法
例：
1.Ra 為 1.6μm 時 → 1.6μmRa
2.Ry 為 6.3μm 時 → 6.3μmRa
3.Rz 為 6.3μm 時 → 6.3μmRa

銑削表面粗糙度 (理論值)

● 有刀尖R角時

$$h = \frac{f^2}{8R} \times 1000 (\mu m)$$

● 無刀尖R角時

$$h = f \cdot \left(\frac{\tan \alpha \cdot \tan \beta}{\tan \alpha + \tan \beta} \right) \times 1000 (\mu m)$$

h: 理論粗糙度 (μm)
f: 每刃進給 (mm/rev)
R: 刀尖圓弧半徑 (mm)
α: 餘偏角
β: 副偏角

例：
f=0.2mm/rev. R=0.4 代入公式 $h = \frac{0.2^2}{8 \times 0.4} \times 1000 = 12.5 \mu m$
理論加工面粗糙度為約 12μ

例：
f=0.25mm/rev. tanα=45°. tanβ=45° 代入公式 $h = f \cdot \left(\frac{\tan 45^\circ \cdot \tan 45^\circ}{\tan 45^\circ + \tan 45^\circ} \right) \times 1000 = 125 \mu m$
理論加工面粗糙度為約 125μ

幾何公差符號

| 公差種類 | 公差性質 | 符號 |
|-------|-----------|----|
| 形狀公差 | 真直度 | — |
| | 真平面度 | □ |
| | 真圓度 | ○ |
| | 圓柱度 | ∅ |
| | 曲線輪廓度 | ⌒ |
| 方向公差 | 平行度 | // |
| | 垂直度 | ⊥ |
| | 傾斜度 | ∠ |
| 定位公差 | 位置度 | ⊕ |
| | 同心度 / 同軸度 | ◎ |
| | 對稱度 | ≡ |
| 偏移度公差 | 圓偏轉度 | ↻ |
| | 總偏轉度 | ↻↻ |

(1) 切削速度

車削加工及銑削加工之切削速度，可由下式計算：

$$V = \frac{\pi \times D \times S}{1000} \text{ (m/min)}$$

$$S = \frac{1000 \times V}{\pi \times D} \text{ (rpm)}$$

(2) 銑床抬 (TABLE) 進給及每刃進給

$$F = f \times z \times s \text{ (mm/min)}$$

(3) 加工時間的求法

(A) 一般外徑加工之場合

$$T = \frac{60l}{f \times N}$$

(B) 端面加工及切斷加工之場合

$$T = \frac{60l}{f \times Z \times N}$$

(C) 銑削加工之場合

$$T = \frac{30D}{f \times N}$$

V: 切削速度 (m/min)

π : 圓周率

D: 被削材的直徑 (mm) 亦即銑刀盤直徑 (mm)

N: 被削材的回轉數 (rpm) 亦即主軸的回轉數

f: 每刃之進給率 (mm/刃)

F: 床檯進給率 (m/min)

Z: 銑刀盤上之刀刃數

N: 主軸回轉數

T: 切削之時間

l: 加工長度

D: 加工物的直徑

f: 每一回之進給量或每一分之進給量

N: 主軸回轉數

Z: 銑刀盤上之刀刃數

V: 切削速度 (mm/min)

d: 切深 (mm)

f: 進給率 (mm/rev)

η : 機械效率 (0.7-0.8)

ks: 切削抵抗值 (Kg/mm²)

(4) 消耗動力

(a) 車削加工

$$P_{KW} = \frac{ks \times Ae \times Ap \times F}{6120 \times \eta} \text{ (KW)}$$

$$P_{HP} = \frac{ks \times Ae \times Ap}{F \times 4500 \times \eta} \text{ (HP)}$$

(b) 銑削加工

$$P_{KW} = \frac{ks \times Ae \times Ap \times F}{6120000 \times \eta} \text{ (KW)}$$

Ae: 切削寬 (mm)

Ap: 切深 (mm)

F: 床檯 (TABLE) 進給 (mm/min)

η : 機械效率 (0.7-0.8)

ks: 切削抵抗值 (Kg/mm²)

| Ks 概略值 | |
|--------|-----|
| 軟鋼 | 190 |
| 中炭素鋼 | 210 |
| 高炭素鋼 | 240 |
| 低合金鋼 | 190 |
| 高合金鋼 | 245 |
| 鑄鐵 | 93 |
| 可鍛鑄鐵 | 120 |
| 青銅、黃銅 | 70 |



車削測試報告表

TEST REPORT FOR TURNING

客戶名稱 Company name :

填表日期 Date: 年 Year/ 月 Month/ 日 Day

填表人 Name:

| | | | | | | | |
|----------------------------------|--|--|--|-----------|--|--|-------------------------------|
| 公司名稱 CUSTOMER | | | | 電話 TEL | | | 備註 REMARK |
| 機械型式 MACHINE TYPE | | | | 馬力 HP | | | |
| 加工材質 WORKPIECE MATERIAL | | | | | | | |
| 刀柄規格 TOOL HOLDER | | | | | | | |
| 刀片規格 INSERT | | | | | | | |
| 原使用刀片廠牌規格 ORIGINAL USE INSERT | | | | | | | |
| 刀片材質 INSERT GARDE | | | | | | | 使用效果 EFFECT |
| 工件直徑 DIA | | | | | | | 崩裂 CRACKING |
| 工件長度 LENGTH | | | | | | | 熱熔著 MELTING |
| 轉速·轉/分 RPM | | | | | | | 刃口積屑 BUILD-UP EDGE |
| 線速·米/分 CUTTING SPEED MM | | | | | | | 耐磨耗 ABRASION RESISTANCE |
| 切深·MM D.O.C·MM | | | | | | | 熱裂 HEAT TEARING |
| 進給·MM/轉 FEED·MM/REV | | | | | | | 刃邊磨耗 EDGE WEAR |
| 床檯進給·MM/分 TABLE FEED | | | | | | | |
| 刀具壽命 TOOL LIFE | | | | | | | |
| 圖形 WORKPIECE DWG | | | | | | | |



銑削測試報告表

TEST REPORT FOR MILLING

客戶名稱 Company name :

填表日期 Date: 年 Year/ 月 Month/ 日 Day
填表人 Name:

| | | | |
|--|---------------------------|---|------------------|
| 1. 機械型號 (廠牌) Machine Model | | 主軸錐度 Spindle Tapper | |
| 2. 刀具型號 Cutter Model | | 3. 刀具直徑 Cutter Diameter | |
| 4. 刀具刃數 Cutter Flutes | | 5. 刀具材質 Cutter Material | |
| 6. 加工材質 Cutting Material | | 工件硬度 Workpiece Hardness | |
| 7. 加工型態 Cutting Process Type | | 備註 (加工圖面) Remark (Drawing) | |
| <input type="checkbox"/> 凹槽加工 Grooving <input type="checkbox"/> 精銑 Finishing <input type="checkbox"/> 鑽銑 Drilling <input type="checkbox"/> 精銑 Finishing <input type="checkbox"/> 肩銑 Shoulder Milling <input type="checkbox"/> 面銑 Face Milling | | | |
| 8. 主軸轉速 RPM | | 9. 線速度 (米速) Linear Speed | |
| 10. 機械工作台進給 Table Feed | | 11. 進給 (mm/ 齒) Feed | |
| 12. 切深速度 cutting depth speed | | 13. 切幅寬 width of cutting | |
| 14. 加工壽命 Tool Life | 工作數量 / 角 Working Piece | 工作長 / 角 Length | 加工時間 / 角 Time |
| 15. 使用效果 Effect | | <input type="checkbox"/> 非常良好 Superior <input type="checkbox"/> 良好 Good <input type="checkbox"/> 普通 Normal <input type="checkbox"/> 非常不良 Bad | |
| 16. 目前使用之刀片 Current Use Insert | | 品 牌 Brand _____ 規 格 Spec. _____ 材 質 Material _____ 斷屑槽 Chipbreaker _____ | |
| 17. 刀片損壞原因 Reason of breaking insert | | 屑片 Chip | |
| 18. 是否有冷卻液 Coolant Usage | | <input type="checkbox"/> 是 Yes <input type="checkbox"/> 否 No <input type="checkbox"/> 氣冷 Air Cooling | |
| 19. 加工狀況 Cutting Condition | | <input type="checkbox"/> 斷續切削 Interrupted <input type="checkbox"/> 連續切削 Continuous | |
| 20. 採取對策 Action plan | | | |

INSERT
CUTTING

BT

SBT

DAT

CAT&NT

ISO

HSK

HSK-T

VDI

PSC

角度頭
ANGLE HEAD

可調式刀桿
ROUND
ADJUSTABLE
HOLDER

TAP

ACCESSORIES

BORING

AID



搪孔切削測試報告表

TEST REPORT FOR BORING

客戶名稱 Company name :

填表日期 Date: 年 Year/ 月 Month/ 日 Day
填表人 Name: 主管 Director:

| | | | | | |
|--|--|--|---|---|--|
| 機械條件 Machining condition | 廠牌型號 Machine Model | | | 主軸內孔錐度 Spindle Tapper of inside hole | |
| | 控制器 Controller | | | 主軸驅動方式 Spindle driver | |
| 床檯驅動方式 Table driver | | | | | |
| 刀具條件 Cutter feature | | | | | |
| 搪孔刀具規格 Boring cutter spec. | 搪孔刀柄 Boring holder | | 搪孔頭 Boring head | | 小搪孔桿 Small boring bar |
| 搪孔刀片規格 Boring insert spec. | | | 待加工圖面 rough drawing | | |
| 搪孔刀具刃數 Number of Flutes for boring cutter | | | | | |
| 切削條件 Cutting process | | | | | |
| 搪孔型式 Boring process | <input type="checkbox"/> 粗搪 rough boring | <input type="checkbox"/> 中搪 medium boring | <input type="checkbox"/> 精搪 fine boring | | |
| 線速度 Linear Speed | | | m/min | | |
| 主軸轉速 RPM | | | rpm | | |
| 床檯進給 Table speed | | | mm/min | | |
| 每刃進給 feed per tooth | | | mm/t | | |
| 搪孔切屑量 Chip amount of boring | | | mm/min | | |
| 搪孔直徑 Diameter of boring | | | mm/min | | |
| 搪孔深度 Depth of boring | | | mm/min | | |
| 搪孔狀況 Boring process | <input type="checkbox"/> 連續切削 continuous | | <input type="checkbox"/> 斷續切削 interrupted | | 鐵屑現況 Iron chip status |
| 相關配套 Relevant Supporting data | | | | | |
| 加工材質 Cutting material | | | | | |
| 工件硬度 Workpiece hardness | | | HRC | HB | |
| 加工時間 Cutting time | | | sec/min | | |
| 使用切削液 Coolant usage | <input type="checkbox"/> 有 Yes | | <input type="checkbox"/> 沒有 No | | <input type="checkbox"/> 氣冷 Air Cooling |
| 出水方式 coolant way | <input type="checkbox"/> 中心出水 Through Coolant | | <input type="checkbox"/> 端面出水 Coolant from face-end | | <input type="checkbox"/> 側邊出水 Coolant from side-end |
| 夾持工件方式 Method of clamping workpiece | <input type="checkbox"/> 治具鎖定 (螺絲) Fixture screwed in (screw) | | <input type="checkbox"/> 治具固定 (空、油壓方式) Fixture fixed (by air / hydraulic) | | <input type="checkbox"/> 虎鉗夾持 Vise clamping |
| 排屑情況 Chip status | <input type="checkbox"/> 長屑 Long chip | | <input type="checkbox"/> 短屑 Short chip | | <input type="checkbox"/> 卷屑 Coil chip |
| 採取對策方式 Action plan | | | | | |
| | | | | | |



正河源股份有限公司
CHAIN HEADWAY CO.,LTD.

☎ TEL : +886-4-26265252

☎ FAX : +886-4-26267941

📍 地址 : 台灣台中市清水區五權路232號
No. 232, Wuquan Rd., Qingshui Dist., Taichung City 436, Taiwan

🌐 網址 : www.chain-headway.com



Website(中文)



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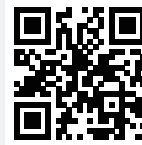
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