

# MEDIA PACKAGE

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No. 230420002

### 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

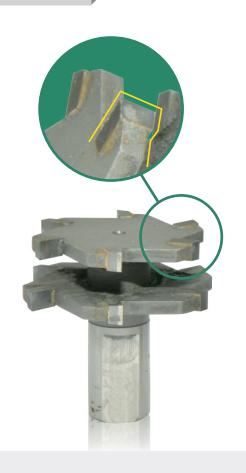
material processing solutions and the best possible customer service.





## 量身打造專區

**CUTTING EDGE SOLUTIONS** 



### **BEFORE**

### 一體式焊刃刀具 Carbide Welded Cutter

刃口磨損後即回磨或需更換整支刀具, 成本過高、效益性低,需程式補正校刀。 Need to grind the cutter or replace a new tool whenever the cutting edge is worn, which is expensive and inefficient. Moreover, performing cutter compensation can also be time-consuming.

## **AFTER**

### 替換式優化刀具 Indexable Milling Cutter

替換成捨棄式刀具,損耗更換刀片即

可,提升整體刀具效益,降低刀具成

本,程式免補正。

Replacing with an indexable milling cutter only requires changing the insert, which can improve efficiency and reduce the cost of purchasing a brand new cutter.

Additionally, save times for performing cutter compensation.

	焊刃式 Carbide Welded Cutter	替換式 Indexable Cutter
加工件數 Workpiece	30000pcs	120000pcs
校刀時間 Presetting time	30 mins	5 mins
回磨 Re-grinding	~	×



## 量身打造專區



#### **CUTTING EDGE SOLUTIONS**

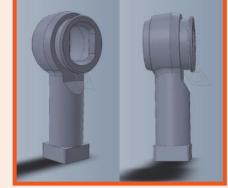
- 協助客戶製程優化。
- 降低停機校刀時間的浪費。
- 焊刃式刀具轉換捨棄式刀具及刀片。
- 提升加工效率、減少刀具庫存空間, 實現生產自動化。
- Optimize customer production efficency.
- Decrease the presetting time to setup the machine.
- Replace carbide welded tools with indexable cutters and inserts.

 Improve machining efficiency, reduce tool inventory space, and achieve production automation.

#### 效率提升6倍

Efficiency Increased by 6 Times

減少因換刀產生的停機時間 30 mins → 5 mins Reduce machine downtime due to tool changes from 30 mins  $\rightarrow$  5 mins.







### **AFTER**

替換式優化刀具 **Indexable Milling Cutter** 



# 工具設備



### LM-CM-PHC3160

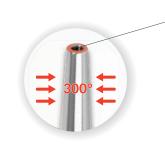
### 輕量型 µ 級校正儀 Micron Grade Tool Presetter

- ●具真空吸附功能,重複定位佳
- ●量測刀具及刃差
- ◆大幅降低佔用主軸量測時間
- The pneumatic structure increases the vacuum adsorption function to improve the positioning and show repeatability of the tool bar.
- Measurement of tool and edge differences with a height gauge.
- Decrease the measuring time on machine spindle.



### LM-HM-12400

### 熱風式加熱器 (不鏽鋼) Hot-Air Heater for Stainless Steel



最小夾持孔徑3mm Min. clamping dia.: 3mm

加熱70sec Heating 70 seconds

3

冷卻180sec Cooling 180 seconds

適用範圍Ø3mm-Ø12mm Available Ø3mm-Ø12mm

### 加值服務 **VALUE-ADDED SERVICES**







歐製晶片 European-made chips



### 管理系統 RFID

### **Tool Management System RFID**

- 整合導入 RFID 系統
- RFID 晶片提供
- 新刀桿植入 RFID(含動平衡)
- 廠內舊刀桿植入 RFID(含動平衡)
- RFID 晶片符合 DIN69873 規格
- **RFID** system Integration
- RFID chips avaiable
- Implant RFID to new tool holders
- with dynamic balance
- Implant RFID to old tool holders
- with dynamic balance
- RFID chips are designed to conform to DIN69873 Standard





## 微調精修面銑系列

**MICRO-ADJUSTMENT SERIES** 









## SCM / ACM 替換式刀頭 Changeable Milling Cutter

- ●本體有鋁合金與合金鋼材質可供選擇。
- AP、SE、TE、RP 刀片替換角座,可依需求選擇。
- ●可進行 µ 級高低刃差調整。
- TEEN1503 金屬陶瓷刀片修光刃設計,可精修合金鋼材料使工件呈現
- The cutter body is available in a selection of aluminum and alloy
- Various options for the changeable insert seats: AP, SE, TE, and RP type.
- μ-level adjustment of the insert height.
- TEEN 1503 metal ceramic insert features a polishing edge design, which can finely polish alloy steel material to give the workpiece a shiny appearance.

#### HCM 鋁合金密齒型替換式刀頭 **Aluminum Changeable Milling Cutter**

- ●密齒型刃數設計。
- ●可中心出水。
- ●刀座 V 槽定位設計,加工更穩定。
- ●多種替換角座,可依需求選擇。
- ●可進行 µ 級調整。
- Close-pitch insert design.
- With coolant system.
- V-groove positioning designed and show stablility while machining.
- Changeable insert seat with various options.
- Available for micro-adjustment.

### ATP 可調式三角刀片面銑刀具 Adjustable Triangle Inserts Milling Cutter

V 槽定位設計

V-groove positioning design

- ●刀片可進行高精度調整。
- ●刀座設計,可避免高速切削下所產生的震動。
- ●加工穩定,良好刀具壽命。
- TEEN1503 金屬陶瓷刀片修光刃設計,可精修合金鋼材料 使工件呈現亮面效果。
- High precision adjustment of the insert.
- The insert seat design prevents vibration on high speed
- Machining stability and excellent tool life.
- TEEN1503 metal ceramic insert features a polishing edge design, which can finely polish alloy steel material to give the workpiece a shiny appearance.

## 鏟形鑽系列







#### ZSD 側固式鏟形鑽頭 Side Fixed Spiral Flute Spade Drill

●加工直徑: Ø13~34mm。

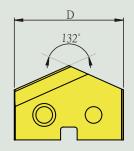
●刀長倍數: **D7**。 ●適用於深孔加工。

Drilling diameter: Ø13mm~Ø34mm

Drilling depth : D7

Suitable for deep hole drilling.

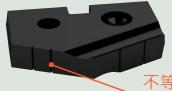
### SDZ 銑削刀片 SDZ Milling Inserts



穩定性佳的雙螺孔 High Stability Dual Screw Hole



高精度的定位槽 Locating Slot for Maintaining Radial Positioning Accuracy



不等距斷腐設計 強化斷腐效果 Non-Equidistant Design to Improve Chip Removal Ability





## 出水鑽孔系列

#### **DRILL WITH COOLANT HOLE SERIES**



#### TSD 四角刀片快速鑽頭 Square Insert High Speed Drill

●新增加工直徑: Ø12~12.5mm。

●加工直徑: Ø12~50mm。

迷你鑽 Mini type drill

●刀長倍數: D2~D5。

●刀片採用四刃口,有效降低刀片成本。

● New drilling diameter: Ø12mm~Ø12.5mm

Drilling diameter: Ø12mm~Ø50mm

Drilling depth: D2~D5

• 4 cutting edges for cost-saving efficiency.



#### SD/CSD 捨棄式快速鑽頭 Indexable High Speed Drill

●加工直徑: Ø16~80mm。

●刀長倍數: D2~D4。

Drilling diameter: Ø16mm~Ø80mm

Drilling depth: D2~D4



#### DR 碳化鎢鋼出水鑽 Solid Carbide Drill With Internal Coolant

●加工直徑: Ø2.5~16mm。

●鑽孔深度: D5~D15。

●採用鎢鋼材質,中心出水設計。

●加工類型:P、M、K。

Drilling diameter: Ø2.5mm~Ø16mm

Drilling depth: D5~D15

Made by tungsten steel with coolant design.

Cutting Material: P, M, K

## 去毛刺系列

**DEBURRING/REMOVING MACHINING MARKS/ POLISHING** 





## **DMB**

### 鑽石研磨刷 **Diamond Brush**

- DMB 直柄鑽石研磨刷 Ø=10~25
- DMB 鑽石研磨刷 Ø=50~100
- DMB 直柄 T 型鑽石研磨刷 Ø=25.4~63.5
- Straight Shank Diamond Brush Ø=10~25
- Diamond Brush Ø=50~100
- Flat Shank Diamond Brush Ø=25.4~63.5



使用研磨刷相比設備抛光,可節省

Compare with other devices, DMB diamond brush saves 50% time to do polishing.

#### 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、鎳基合金和所有熱處理後 之金屬的表面拋光。

#### Suitable Workpiece Materials:

Aluminum, copper, metal, nickel alloy, tungsten steel, hard and brittle materials.

e.g. Polishing for honing tools, glass-ceramic, quartz, nickel alloys, and heat-treated metals surfaces.

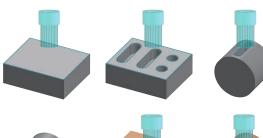
### DDB 鑽石整修板

**Diamond Dressing Board** 



去除切削刀痕 **Tool Marks Removal**  表面抛光 **Polishing** 

去除毛刺 **Deburring** 











### 側銑溝槽系列

#### SIDE DISC CUTTER/GROOVING CUTTER SERIES



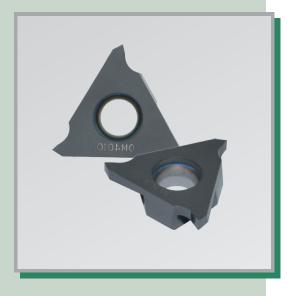
#### TGC 捨棄式槽銑刀 Indexable Groove Milling Cutter

- ●加工槽寬: 1.25~4.0mm。
- ●刀片多刃設計,替換方便,提升加工效率。
- ●適用加工 O 型環槽
- ●可搭配標準刀片及接受不同 r 角訂製刀片。
- Grooving range: 1.25~4.00mm
- Multi-edge design of the cutting tool facilitates replacement and improves machining efficiency.
- Suitable for processing O-ring grooves.
- Available with standard inserts or customized R angle inserts.



#### SGHR 內徑開槽刀架 Internal Grooving Tool

- ●加工槽寬: 1.25-4.0mm。
- ●刀片替換方便,提升加工效率。
- ●刀具中心出水、利於排屑。
- ●接受不同 R 角訂製刀片。
- Grooving range: 1.25~4.0mm
- Easy exchange of inserts can enhance machining efficiency.
- The coolant design facilitates chip removal.
- Accepts customization of inserts with different R angles.



## TGAL 切槽刀片 Grooving Insert

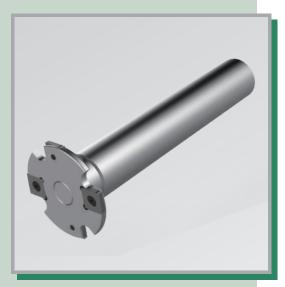
- ●加工槽寬:1.25-4.0mm。
- ●可搭配 TGC、SGHR 刀具使用。
- ●可依需求客製槽型、R 角、牙型 ... 等。
- Grooving range: 1.25~4.0mm
- Available on TGC and SGHR cutter.
- Accepts customization of inserts with various groove patterns, R angles, and thread types.

## 側銑溝槽系列











#### SDC 鎖牙式小徑側銑刀 **Indexable Side Disc Cutter For Small Diameter**

●加工槽寬:4~6mm。

●盤徑尺寸: 40、50mm 小徑設計。

●可搭配標準刀片及接受不同 R 角訂製刀片。

• Grooving range : 4~6mm

• Cutter Diameter: 40mm or 50mm small diameter desian.

 Available with standard inserts or customized R angle inserts.

#### SDC 直柄小徑側銑刀 **Indexable Side Disc Cutter For** Small Diameter

●加工槽寬:4~5mm。

●盤徑尺寸:50、63mm 小徑設計。

●可搭配標準刀桿使用。

●可搭配標準刀片及接受不同 R 角訂製刀片。

■ Grooving range : 4~5mm

• Cutter Diameter: 50mm or 63mm small diameter design.

Applicable to use with standard tool holders.

• Available with standard inserts or customized R angle inserts.

### SDC 捨棄式側銑刀 Indexable Side Disc Cutter

●加工槽寬: 4~14mm。

●可搭配標準刀片及接受不同 R 角訂製刀片。

• Grooving range: 4~14mm

 Available with standard inserts or customized R angle inserts.



## 側銑溝槽系列

#### SIDE DISC CUTTER/GROOVING CUTTER SERIES



## TDC 捨棄式側銑刀 Indexable Side Disc Cutter

- ●刀片多刃設計,替换方便,提升加工效率。
- ●專為槽寬 3mm 設計。
- Multi-edge design of the cutting tool facilitates replacement and improves machining efficiency.
- Designed specifically for a groove width of 3mm.



## BTST型槽端銑刀

- ●加工槽寬:8~25mm。
- ●刀具中心出水、利於排屑。
- ●可接受特殊尺寸設計。
- Grooving range: 8~25mm
- The coolant design facilitates chip removal.
- Special customized sizes are accepted.

## 多功能倒角系列







#### SSP 倒角刀 **Indexable Chamfer Milling Cutter**

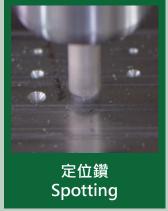
- ●提供 30°、45°、60°角度需求。
- ●搭配高硬度適用刀片 提升壽命。
- ●定位、倒角、刻字、V 槽加工多功能應用。
- ●搭配有色金屬適用刀片,刃口鋒利,提升很面光滑度。
- ●不易起二次毛邊。
- Provide cutters with angles of 30°, 45°, and 60°.
- Using specialized inserts for hard materials to improve
- Multiple function for spotting, inner and outer chamfering, carving, and v-grooving.
- Using specialized inserts with sharp cutting edges for non-ferrous materials to improve surface roughness.
- Free of burrs when chamfering.



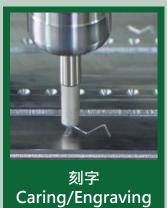
#### MSP / CMSP 小徑倒角刀 **MINI-Chamfering End Mill**

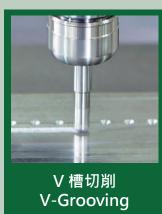
- ●小徑尺寸,減少干涉。
- ●替換方便,有效提升效率。
- ●定位、倒角、刻字、V 槽加工多功能應用。
- ●不易起二次毛邊。
- CMSP 鎢鋼材質設計,強化整體鋼性,加工效率再提升。
- Small diameter size to reduce interference.
- Easy exchange for improved efficiency.
- Multiple applications include spotting, inner and outer chamfering, engraving, and V-grooving.
- Free of burrs when chamfering.
- CMSP made of tungsten carbide material for high rigidity and improved machining efficiency.

#### **■ 範例 Examples**











## 多功能倒角系列

#### **MULTI-FUNCTIONAL CHAMFERING SERIES**



## AAC 可調式倒角刀 Adjustable Angle Chamfering Cutter

- ●可自行調整 1°~90°倒角應用。
- ●可進行面銑及肩銑加工複合加工。
- ●有效降低購刀成本。
- ●可內外孔倒角加工。
- Adjustable chamfer angle from 1° to 90°.
- Multiple machining methods for face milling and shoulder milling.
- Effectively reduce the cost of purchasing cutting tools.
- Available for inner and outer chamfering.



#### MDC多軸鑽床倒角刀 Multi-Axis Chamfering Cutter

- ●內孔倒角範圍 Ø4.5~21。
- ●鎢鋼導塊設計,加強承靠與提升耐磨性。
- ●操作便利,捨棄式刀片替換即可使用。
- Chamfering range Ø4.5~Φ21.
- Carbide support guide pad designed to strengthen contact surface and wear resistance.
- Easy operation with indexable inserts.



## 負角面銑刀系列



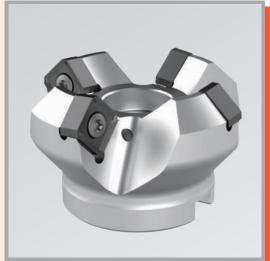






#### NAC45°/HN06 負角殼形銑刀 45° Negative Angle (HN06) Shell Milling Cutter

- HN06 刀片採負角設計,具有 12 個切削刃。
- ●切削刃數增加,降低成本。
- ●適合大量移除材料。
- ●中心出水,利於排屑、散熱。
- HN06 insert is designed with a negative rake angle and can be used with 12 cutting edges.
- Effective cost savings are achieved by increasing the number of cutting edges.
- Ideal for removing large amount of workpiece at once.
- Through-coolant design is beneficial for chip removal and heat dissipation.



### NAC45°/SN12 負角殼形銑刀

45° Negative Angle (SN12) Shell Milling Cutter

- SN12 刀片採負角設計,具有 8 個切削刃。
- ●切削刃數增加,降低成本。
- ●適合大量移除材料。
- ●中心出水,利於排屑、散熱。
- SN12 insert is designed with a negative rake angle and can be used with 8 cutting edges.
- Effective cost savings are achieved by increasing the number of cutting edges.
- Ideal for removing large amount of workpiece at once.
- Through-coolant design is beneficial for chip removal and heat dissipation.



#### NAC88°/SN12 負角殼型銑刀

88° Negative Angle (SN12) Shell Milling Cutter

- SN12 刀片採負角設計,具有 8 個切削刃。
- ●切削刃數增加,降低成本。
- ●適合大量移除材料。
- ●中心出水,利於排屑、散熱。
- SN12 insert is designed with a negative rake angle and can be used with 8 cutting edges.
- Effective cost savings are achieved by increasing the number of cutting edges.
- Ideal for removing large amount of workpiece at once.
- Through-coolant design is beneficial for chip removal and heat dissipation.



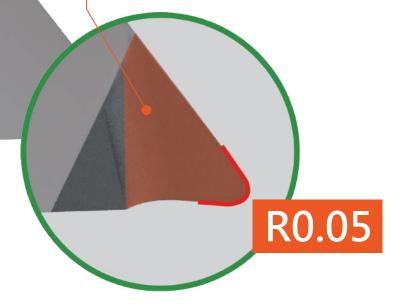
### PCD&PCBN 精密刀片

PCD&PCBN PRECISION INSERT

#### 斷屑槽 Chip breaker

斷屑槽設計和優越的切削刃,解決排屑 問題,可穩定加工提高工作效率。

The design of chip breaker and cutting edge solves the chip removal problem, and makes stable machining to increase the efficiency.



倒角及鈍圓 Chamfer and hone

刃口鈍圓 Honed edge

倒角/T-LAND Chamfer / T-LAND

重複精度可達 0.01mm

全自動研磨

Repeatability is 0.01mm

**Automatic grinding process** 

高精度刀具幾何 High accuracy inserts

### 適用切削多種材料

Applicable to a Wide Range of Materials.

PCBN適用材料 Ideal Materials for PCBN

- 合金鋼 Alloy steel
- 高溫合金HRC35以上 **Epoxy resins**
- 鑄鐵 Cast iron

- 鎳基合金 Nickel-based alloy
- 高鈷粉末金屬 Poedered metal with more cobalt
- 工具鋼 Tool steel
- 硬鎳鑄鐵 Hardened ni cast iron
- 鈷基合金 Cobalt-based alloy
- 冷激鑄鐵 Chilled cast iron

### PCD&PCBN 精密刀片



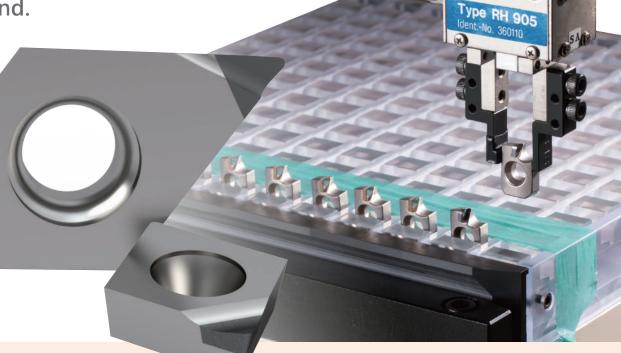
**PCD&PCBN PRECISION INSERT** 



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.



PCD適用材料 Ideal Materials for PCD

- 塑膠 Plastic
- 黃銅青銅合金 Brass&Bronze alloys
- 矽鋁合金 Silicon-aluminum alloys
- 預燒結或全燒結碳化鎢 Presintered or sintered tungsten carbide
- 絽合金 Nickel-based allov
- 鎂合金 Magnesium alloy
- 石墨 Graphite
- 銅合金 Copper alloys
- 氧基樹脂 **Epoxy resins**
- 硬質橡膠 Hard rubber
- 木材、複合木材 Wood, compound wood
- 陶瓷 Ceramics
- 碳、石碳酸 Carbon-phenolic
- 玻璃纖維 Fibre glass composites



## D 型車刀系列

**TURNING TOOL SERIES** 







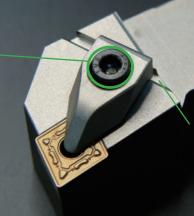
NEW

DCLNR 外徑車刀 DCLNR External Turning Tool NEW

DWLNR 外徑車刀 DWLNR External Turning Tool NEW

DTJNR 外徑車刀 DTJNR External Turning Tool

- 単顆螺絲鎖固,方便快速。
- ●D型壓板設計,輕鬆轉位。
- 雙向加固,穩定切削。
- Quick and easy screw replacement with single operation.
- D-type clamping design features easy to switch positions.
- Double-sided clamping reinforces stable cutting.



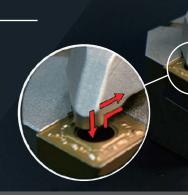
45°承靠面 穩固剛性佳

45° Clamping Surface Provides a Stable & Rigid Cutting.

### D型壓板車刀

**D-Type Turning Tool** 

刀片鎖固 Insert Tightening



雙向鎖緊

**Double-Sided Clamping** 

剛性夾持 / 強力鎖固 / 定位性佳 Rigid Clamping / Strong Tightening / Accurate Positioning

## 走心車刀系列





NEW

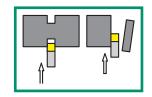
#### NEW

SCCI 走心式車刀片 Turning Inserts for Swiss-Type Lathes

**Turning Inserts for Swiss-Type Lathes** 

切斷 / 切槽 Cut off / Grooving





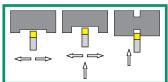
SCCI-BL 走心式車刀片 Turning Inserts for Swiss-Type Lathes 後掃 Back Turning



NEW SCCI-AD 走心式車刀片

插掃 / 橫掃 Side Turning

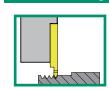




NEW SCCI-T 走心式車刀片 **Turning Inserts for Swiss-Type Lathes** 

牙刀 Threading





- ●材質應用多。
- ●刀型樣式多。
- Various Materials: P, M, K, and N.
- Multiple operations: cut-off, grooving, back turning, side turning, and threading.





#### ER-M 型棘輪扳手 **ER-M Ratchet Wrench**

- 旋鈕 360 度,5 度/齒。
- 可微調對準螺帽溝槽位置及鎖固。
- ER11、ER16、ER20 三種尺寸。
- 360° Rotation, 5° /Teeth.
- Adjustable alignment and locking of nut groove position.
- Available in ER11, ER16, and ER20.



## 大切深加工系列

#### **DEEP AND LARGE AREA CUTTING SERIES**

#### 鋁合金專用 For Aluminum



#### 32mm



- Designed specifically for milling and contouring of aluminum alloys and non-ferrous metals.
- For performing deep cutting, rough and precision machining.

  Max. cutting depth is up to 30mm.
- The insert is available with five types of corner radius.
- The insert is fully ground to improve precision and consistency, and it is designed with a high rake cutting angle for better chip evacuation and surface finish.

### AECX32T3 颶風銑刀刀片

**Hurricane Long Edge Cutting Insert** 

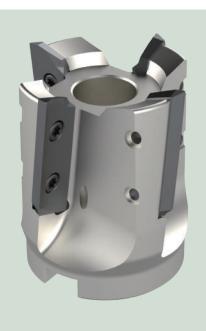
- ■專為鋁合金及非鐵金屬腔體銑削和曲面銑削加工設計。
- ■可進行大切深,粗精加工切削,最大切深可達 30mm。
- ■此刀片提供有 5 種規格刀尖圓弧半徑。
- □ 刀片採用高仰角切削角度設計、刀片整體加工採全研磨製程。

### **HRCN**

### 颶風銑刀系列

**Hurricane Long Edge 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。
- 銑刀具中心出水設計,可使排屑順暢並提高 推給率。
- The milling tool body is designed with high rigidity and shock absorption features for high-speed cutting.
- Through coolant design improves chip evacuation and increases feed rates.





## 大切深加工系列





## 加工合金鋼精修用

### Suitable for Cutting Alloy Steel for Finishing

特殊的刃口設計搭配特殊鍍層處理有效降低表面的磨擦系數、提高切屑抗熱溫度。

Special cutting edge and coating design decrease surface friction coefficient and show thermal resistance to improve machining efficiency.



### CLM 長刃倒角刀

**Long Edge Chamfering Cutter** 

- ■採用 AECX32T3 刀片,可加大範圍倒角,倒角範圍 Ø13~58mm。
- 夾持柄徑: Ø20mm、Ø32mm。
- Using AECX32T3 long edge insert to extend the chamfering range (from Ø13~58mm).
- Shank dia.: Ø20mm × Ø32mm.





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