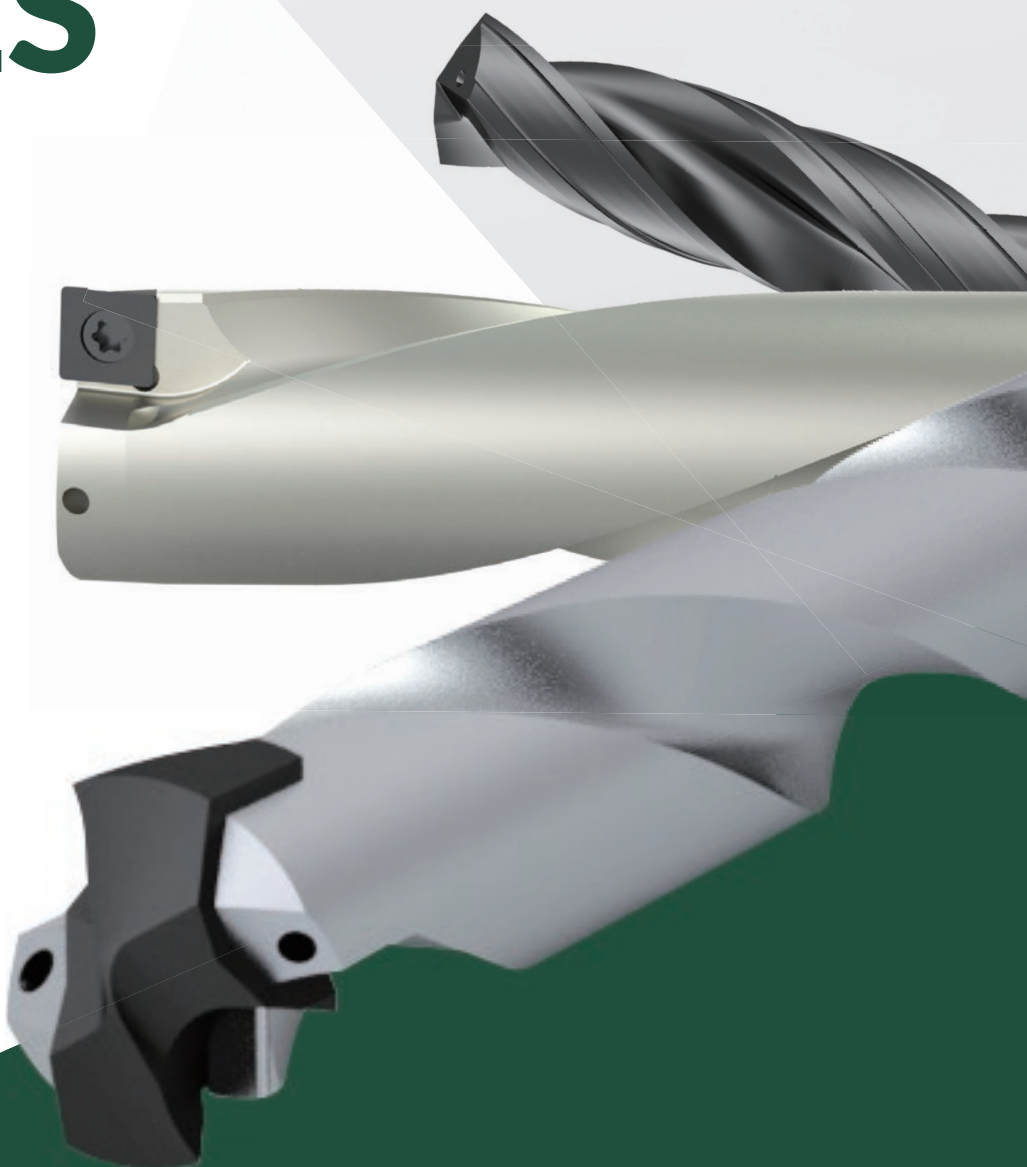




# DRILL SERIES

鑽孔系列

No. 251022-1



# 孔鑽系列 產品發展歷史

## Drill Development History



年 度  
Year

2005-2010

2010-2015

SD 捨棄式快速鑽頭

- Ø16~Ø60mm
- DX2、DX3、DX4

SD INDEXABLE HIGH SPEED DRILL

- Ø16~Ø60mm
- DX2, DX3, DX4

CSD 大孔徑快速鑽頭

- Ø61~Ø80mm
- DX3

CSD LARGE DIAMETER HIGH SPEED DRILL

- Ø61~Ø80mm
- DX3

TSD 四角刀片快速鑽頭

- Ø13~Ø50mm
- DX2、DX3、DX4、DX5

- Ø12mm

- DX2、DX3

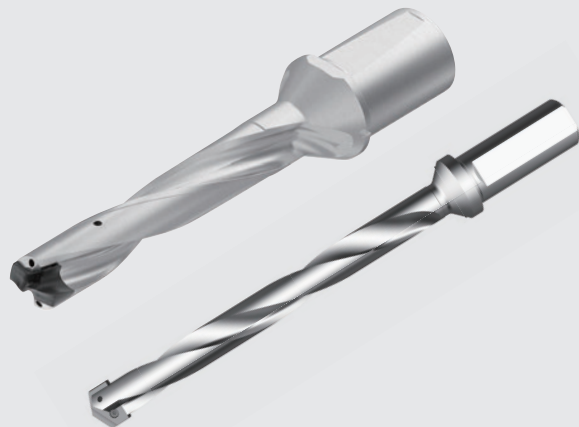
TSD SQUARE HIGH SPEED DRILL

- Ø13~Ø50mm

- DX2, DX3, DX4, DX5

- Ø12mm

- DX2, DX3



## 2015-2020

- DR 碳化鎢鋼出水鑽頭
- Ø3~Ø15.5mm
- DX5、DX8、DX12、DX15

DR TUNGSTEN CARBIDE DRILL WITH  
INTERNAL COOLANT

- Ø3~Ø15.5mm
- DX5, DX8, DX12, DX15

## 2020-2024

- ZSD 側固式鏟型鑽頭
- Ø13~ Ø34mm
- DX7

ZSD SIDE FIXED SPIRAL FLUTE  
SPADE DRILL

- Ø13~ Ø34mm
- DX7

- DR 超微粒鎢鋼定點鑽
- Ø3~ Ø12mm
- 60 度、90 度、120 度

DR ULTRA-MICRON SOLID  
CARBIDE SPOT DRILL

- Ø3~ Ø12mm
- 60°, 90°, 120°

# DR 碳化鎢鋼出水鑽頭

DR TUNGSTEN CARBIDE DRILL

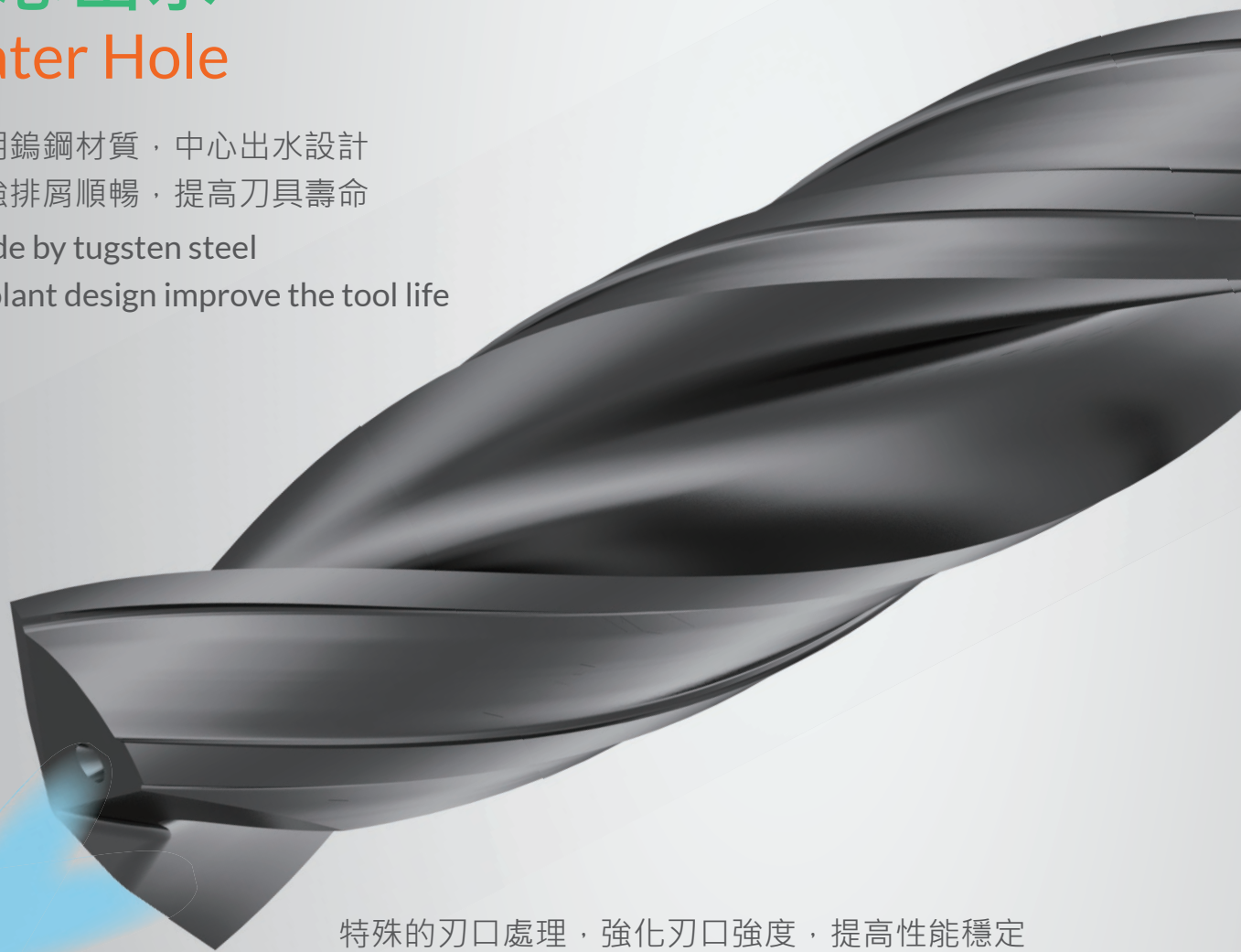
# Feature

## 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

# DR 碳化鎢鋼出水鑽頭系列

DR Tungster Carbide Drill With Internal Coolant Series

## 碳化鎢鋼出水鑽頭編碼規範

DR Solid Carbide Drill With Internal Coolant Coding Key

| 記號<br>Symbol | 被加工材質<br>Machining Material |
|--------------|-----------------------------|
| DR20P        | 一般鋼<br>P-Alloyed Steels     |
| DR30M        | 不鏽鋼<br>M-Stainless Steels   |
| DR40K        | 鑄鐵<br>K-Cast Iron           |
| DR50N        | 非鐵合金<br>N-Aluminum &Al      |
| DR60S        | 高溫合金<br>S-Refractory Alloys |
| DR70H        | 高硬度<br>H-Hard Material      |

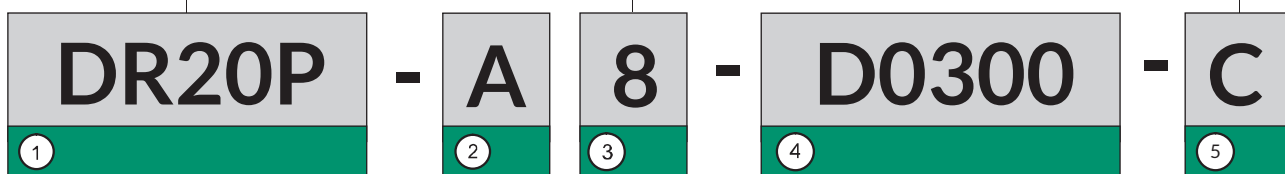
① 類別  
Category

| 記號<br>Symbol | 深度<br>Depth |
|--------------|-------------|
| 3            | ≤ 3xD       |
| 5            | ≤ 5xD       |
| 8            | ≤ 8xD       |
| 12           | ≤ 12xD      |
| 15           | ≤ 15xD      |

③ 鑽孔深度  
Drilling Depth

| 記號<br>Symbol | 功能<br>Function           |
|--------------|--------------------------|
| C            | 內部給水<br>Internal Coolant |
| N            | 外部給水<br>External Coolant |

⑤ 冷卻方式  
Coolant Way



| ② 柄徑形式<br>Shank Style |                                            |
|-----------------------|--------------------------------------------|
| 記號<br>Symbol          | 形式<br>Style                                |
| A                     | 直柄 DIN-6535HA<br>Straight Shank DIN-6535HA |
| B                     | 削平柄 DIN-6535HB<br>Flatted Shank DIN-6535HB |
| E                     | 斜削柄 DIN-6535HE<br>Bevel Shank DIN-6535HE   |
| M                     | 莫氏錐度 MT<br>Morse MT                        |

| ④ 刃徑<br>Edge Diameter |                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------|
| 記號<br>Symbol          | 刃徑<br>Edge Diameter                                                                   |
| D                     |  |

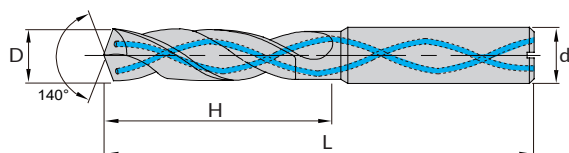
# DR 碳化鎢鋼出水鑽頭系列

## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR20P-A5-C 碳化鎢鋼出水鑽頭 (DX5)

DR Solid Carbide Drill With Internal Coolant



先端角  
140°

Spiral Pointed Angle

加工類型



Cutting Material

| 規格<br>Spec.      | L  | D    | d | H  | T | 重量<br>(KGS)<br>Weight |
|------------------|----|------|---|----|---|-----------------------|
| DR20P-A5-D0170-C | 55 | 1.7  | 4 | 12 | 2 | -                     |
| DR20P-A5-D0180-C | 55 | 1.8  | 4 | 12 | 2 | -                     |
| DR20P-A5-D0200-C | 62 | 2    | 4 | 18 | 2 | -                     |
| DR20P-A5-D0210-C | 62 | 2.1  | 4 | 18 | 2 | -                     |
| DR20P-A5-D0220-C | 62 | 2.2  | 4 | 18 | 2 | -                     |
| DR20P-A5-D0230-C | 62 | 2.3  | 4 | 18 | 2 | -                     |
| DR20P-A5-D0240-C | 62 | 2.4  | 4 | 22 | 2 | -                     |
| DR20P-A5-D0250-C | 62 | 2.5  | 4 | 22 | 2 | -                     |
| DR20P-A5-D0260-C | 62 | 2.6  | 4 | 22 | 2 | -                     |
| DR20P-A5-D0270-C | 62 | 2.7  | 4 | 22 | 2 | -                     |
| DR20P-A5-D0280-C | 62 | 2.8  | 4 | 22 | 2 | -                     |
| DR20P-A5-D0290-C | 62 | 2.9  | 4 | 22 | 2 | -                     |
| 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                  |

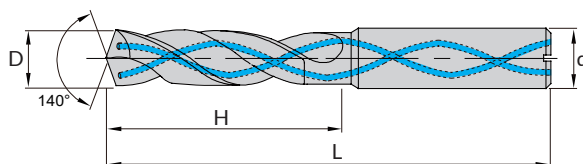
# DR 碳化鎢鋼出水鑽頭系列

## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR20P-A5-C 碳化鎢鋼出水鑽頭 (DX5)

DR Solid Carbide Drill With Internal Coolant



先端角  
140°

Spiral Pointed Angle

加工類型



Cutting Material

| 規格<br>Spec.      | L   | D    | d  | H  | T | 重量<br>(KGS)<br>Weight |
|------------------|-----|------|----|----|---|-----------------------|
| 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                  |
| 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                  |

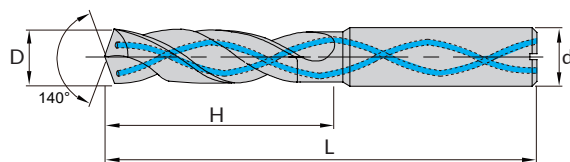
# DR 碳化鎢鋼出水鑽頭系列

## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR20P-A5-C 碳化鎢鋼出水鑽頭 (DX5)

DR Solid Carbide Drill With Internal Coolant



先端角  
140°

Spiral Pointed Angle

加工類型



Cutting Material

| 規格<br>Spec.      | L   | D    | d  | H  | T | 重量<br>(KGS)<br>Weight |
|------------------|-----|------|----|----|---|-----------------------|
| 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                  |
| 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                   |

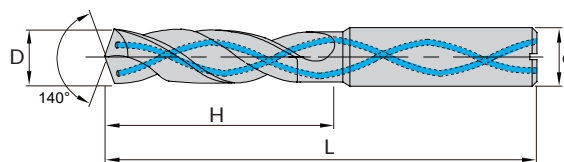
# DR 碳化鎢鋼出水鑽頭系列

## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR20P-A5-C 碳化鎢鋼出水鑽頭 (DX5)

DR Solid Carbide Drill With Internal Coolant



先端角  
140°

Spiral Pointed Angle

加工類型

P M K

Cutting Material

| 規格<br>Spec.      | L   | D    | d  | H  | T | 重量<br>(KGS)<br>Weight |
|------------------|-----|------|----|----|---|-----------------------|
| 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 | -                     |

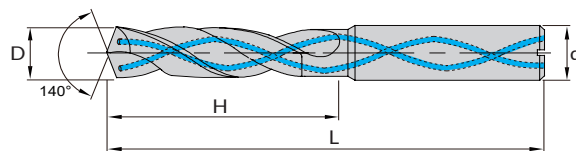
# DR 碳化鎢鋼出水鑽頭系列

## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR20P-A8-C 碳化鎢鋼出水鑽頭 (DX8)

DR Solid Carbide Drill With Internal Coolant



先端角  
140°

Spiral Pointed Angle

加工類型



Cutting Material

| 規格<br>Spec.      | L   | D    | d | H  | T | 重量<br>(KGS)<br>Weight |
|------------------|-----|------|---|----|---|-----------------------|
| DR20P-A8-D0205-C | 66  | 2.05 | 4 | 26 | 2 | -                     |
| DR20P-A8-D0215-C | 66  | 2.15 | 4 | 26 | 2 | -                     |
| DR20P-A8-D0250-C | 66  | 2.5  | 4 | 31 | 2 | -                     |
| DR20P-A8-D0280-C | 66  | 2.8  | 4 | 31 | 2 | -                     |
| DR20P-A8-D0290-C | 66  | 2.9  | 4 | 31 | 2 | -                     |
| 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 | -                     |

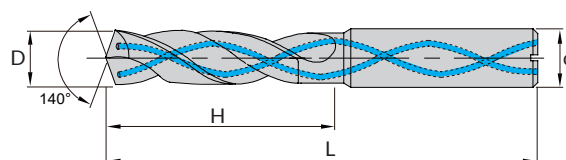
# DR 碳化鎢鋼出水鑽頭系列

## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR20P-A8-C 碳化鎢鋼出水鑽頭 (DX8)

DR Solid Carbide Drill With Internal Coolant



先端角  
140°

Spiral Pointed Angle

加工類型



Cutting Material

| 規格<br>Spec.      | L   | D   | d  | H  | T | 重量<br>(KGS)<br>Weight |
|------------------|-----|-----|----|----|---|-----------------------|
| DR20P-A8-D0620-C | 114 | 6.2 | 8  | 76 | 2 | -                     |
| 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-D0940-C | 142 | 9.4 | 10 | 95 | 2 | -                     |
| 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 | -                     |

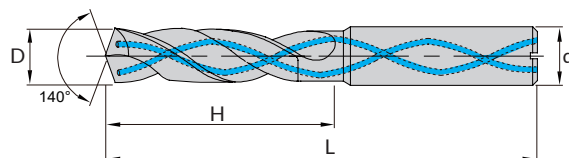
# DR 碳化鎢鋼出水鑽頭系列

## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR20P-A8-C 碳化鎢鋼出水鑽頭 (DX8)

DR Solid Carbide Drill With Internal Coolant



先端角

140°

Spiral Pointed Angle

加工類型

P M K

Cutting Material

| 規格<br>Spec.      | L   | D    | d  | H   | T | 重量<br>(KGS)<br>Weight |
|------------------|-----|------|----|-----|---|-----------------------|
| 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 | -                     |

# DR 碳化鎢鋼出水鑽頭系列

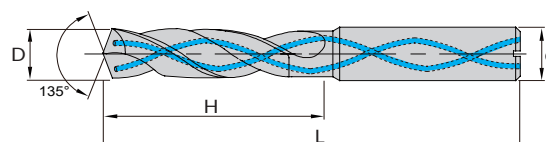
## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR20P-A12-C 碳化鎢鋼出水鑽頭 (DX12)

#### DR Solid Carbide Drill With Internal Coolant

- 深孔鑽需採用 A5 相同尺寸規格鑽頭作為引導鑽  
For deep hole drilling, use a pilot drill with the same size specification as the A5 drill.



先端角  
135°

Spiral Pointed Angle

加工類型



Cutting Material

| 規格<br>Spec.       | L   | D   | d  | H   | T | 重量<br>(KGS)<br>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 | -                     |

# DR 碳化鎢鋼出水鑽頭系列

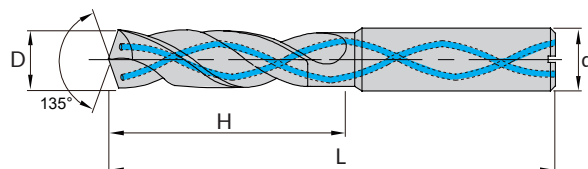
## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR20P-A15-C 碳化鎢鋼出水鑽頭 (DX15)

#### DR Solid Carbide Drill With Internal Coolant

- 深孔鑽需採用 A5 相同尺寸規格鑽頭作為引導鑽  
For deep hole drilling, use a pilot drill with the same size specification as the A5 drill.



先端角  
135°

Spiral Pointed Angle

加工類型

P M K

Cutting Material

| 規格<br>Spec.       | L   | D   | d  | H   | T | 重量<br>(KGS)<br>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 | -                     |

# DR 碳化鎢鋼出水鑽頭系列

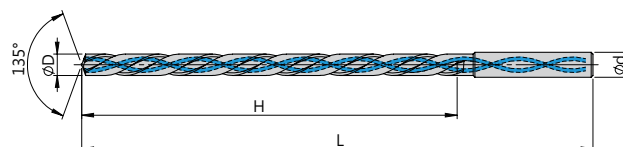
## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR20P-A20-C 碳化鎢鋼出水鑽頭 (DX20)

#### DR Solid Carbide Drill With Internal Coolant

- 深孔鑽需採用 A5 相同尺寸規格鑽頭作為引導鑽  
For deep hole drilling, use a pilot drill with the same size specification as the A5 drill.



先端角  
135°

Spiral Pointed Angle

加工類型

P M K

Cutting Material

| 規格<br>Spec.       | L   | D   | d  | H   | T | 重量<br>(KGS)<br>Weight |
|-------------------|-----|-----|----|-----|---|-----------------------|
| DR20P-A20-D0300-C | 110 | 3   | 6  | 70  | 2 | -                     |
| DR20P-A20-D0350-C | 136 | 3.5 | 6  | 96  | 2 | -                     |
| DR20P-A20-D0400-C | 136 | 4   | 6  | 96  | 2 | -                     |
| DR20P-A20-D0450-C | 158 | 4.5 | 6  | 118 | 2 | -                     |
| DR20P-A20-D0500-C | 158 | 5.5 | 6  | 118 | 2 | -                     |
| DR20P-A20-D0550-C | 180 | 5.5 | 6  | 140 | 2 | -                     |
| DR20P-A20-D0600-C | 180 | 6   | 6  | 140 | 2 | -                     |
| DR20P-A20-D0650-C | 202 | 6.5 | 8  | 162 | 2 | -                     |
| DR20P-A20-D0700-C | 202 | 7   | 8  | 162 | 2 | -                     |
| DR20P-A20-D0750-C | 223 | 7.5 | 8  | 183 | 2 | -                     |
| DR20P-A20-D0800-C | 223 | 8   | 8  | 183 | 2 | -                     |
| DR20P-A20-D0850-C | 249 | 8.5 | 8  | 202 | 2 | -                     |
| DR20P-A20-D0900-C | 249 | 9   | 10 | 205 | 2 | -                     |
| DR20P-A20-D0950-C | 271 | 9.5 | 10 | 227 | 2 | -                     |
| DR20P-A20-D1000-C | 271 | 10  | 10 | 227 | 2 | -                     |
| DR20P-A20-D1100-C | 302 | 11  | 12 | 253 | 2 | -                     |
| DR20P-A20-D1200-C | 323 | 12  | 12 | 274 | 2 | -                     |

# DR 碳化鎢鋼出水鑽頭系列

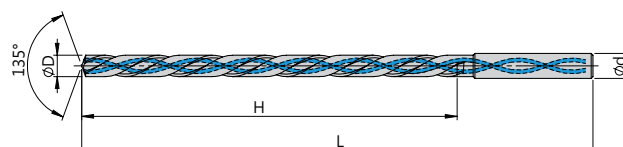
## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR20P-A25-C 碳化鎢鋼出水鑽頭 (DX25)

#### DR Solid Carbide Drill With Internal Coolant

- 深孔鑽需採用 A5 相同尺寸規格鑽頭作為引導鑽  
For deep hole drilling, use a pilot drill with the same size specification as the A5 drill.



先端角  
135°

Spiral Pointed Angle

加工類型



Cutting Material

| 規格<br>Spec.       | L   | D   | d  | H   | T | 重量<br>(KGS)<br>Weight |
|-------------------|-----|-----|----|-----|---|-----------------------|
| DR20P-A25-D0300-C | 125 | 3   | 6  | 85  | 2 | -                     |
| DR20P-A25-D0350-C | 156 | 3.5 | 6  | 116 | 2 | -                     |
| DR20P-A25-D0400-C | 156 | 4   | 6  | 116 | 2 | -                     |
| DR20P-A25-D0450-C | 183 | 4.5 | 6  | 143 | 2 | -                     |
| DR20P-A25-D0500-C | 183 | 5.5 | 6  | 143 | 2 | -                     |
| DR20P-A25-D0550-C | 210 | 5.5 | 6  | 170 | 2 | -                     |
| DR20P-A25-D0600-C | 210 | 6   | 6  | 170 | 2 | -                     |
| DR20P-A25-D0650-C | 237 | 6.5 | 8  | 197 | 2 | -                     |
| DR20P-A25-D0700-C | 237 | 7   | 8  | 197 | 2 | -                     |
| DR20P-A25-D0750-C | 263 | 7.5 | 8  | 223 | 2 | -                     |
| DR20P-A25-D0800-C | 263 | 8   | 8  | 223 | 2 | -                     |
| DR20P-A25-D0850-C | 294 | 8.5 | 8  | 250 | 2 | -                     |
| DR20P-A25-D0900-C | 294 | 9   | 10 | 250 | 2 | -                     |
| DR20P-A25-D0950-C | 321 | 9.5 | 10 | 277 | 2 | -                     |
| DR20P-A25-D1000-C | 321 | 10  | 10 | 277 | 2 | -                     |
| DR20P-A25-D1100-C | 359 | 11  | 12 | 310 | 2 | -                     |
| DR20P-A25-D1200-C | 386 | 12  | 12 | 337 | 2 | -                     |

# DR 碳化鎢鋼出水鑽頭系列

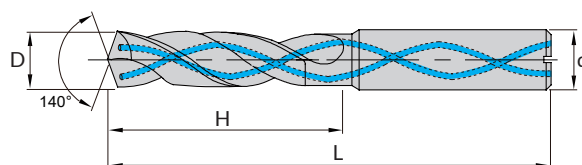
## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR30M-A5-C 碳化鎢鋼出水鑽頭 (DX5)

DR Solid Carbide Drill With Internal Coolant

• 不鏽鋼專用 For Stainless Steel



先端角

140°

Spiral Pointed Angle

加工類型

M K

Cutting Material

| 規格<br>Spec.      | L   | D    | d  | H  | T | 重量<br>(KGS)<br>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 | -                     |

# DR 碳化鎢鋼出水鑽頭系列

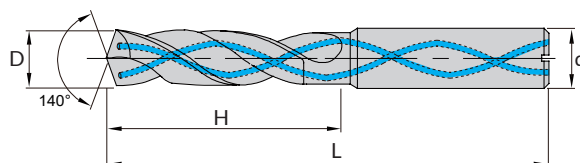
## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR30M-A5-C 碳化鎢鋼出水鑽頭 (DX5)

#### DR Solid Carbide Drill With Internal Coolant

• 不鏽鋼專用 For Stainless Steel



先端角

140°

Spiral Pointed Angle

加工類型

M K

Cutting Material

| 規格<br>Spec.      | L   | D     | d  | H  | T | 重量<br>(KGS)<br>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 | -                     |

# DR 碳化鎢鋼出水鑽頭系列

## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### 碳化鎢鋼出水鑽頭切削數據

### DR Solid Carbide Drill With Internal Coolant Cutting Parameters

#### DR20P-A5C

| 被加工材質<br>Machining<br>Materials  | 切削速度<br>Speed          | 進給率 (mm/rev)        |                     |                     |                     |                     |                     |                     |
|----------------------------------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                                  | V <sub>C</sub> (m/min) | Ø3                  | Ø4                  | Ø6                  | Ø8                  | Ø10                 | Ø12                 | Ø16                 |
| <b>P</b> 合金鋼<br>Alloyed Steels   | 80<br>(60~110)         | 0.13<br>(0.09-0.16) | 0.17<br>(0.12-0.23) | 0.20<br>(0.14-0.28) | 0.20<br>(0.14-0.28) | 0.20<br>(0.14-0.30) | 0.23<br>(0.15-0.32) | 0.25<br>(0.18-0.35) |
| <b>M</b> 不鏽鋼<br>Stainless Steels | 50<br>(40~60)          | 0.06<br>(0.04-0.08) | 0.06<br>(0.04-0.08) | 0.08<br>(0.06-0.10) | 0.08<br>(0.06-0.10) | 0.10<br>(0.08-0.12) | 0.10<br>(0.08-0.12) | 0.12<br>(0.10-0.14) |
| <b>K</b> 鑄鐵<br>Cast Iron         | 100<br>(60~140)        | 0.15<br>(0.11-0.18) | 0.17<br>(0.13-0.20) | 0.20<br>(0.15-0.25) | 0.25<br>(0.17-0.32) | 0.28<br>(0.20-0.36) | 0.30<br>(0.22-0.42) | 0.35<br>(0.25-0.45) |

#### DR20P-A8C

| 被加工材質<br>Machining<br>Materials  | 切削速度<br>Speed          | 進給率 (mm/rev)        |                 |                     |                     |                     |                     |                     |
|----------------------------------|------------------------|---------------------|-----------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                                  | V <sub>C</sub> (m/min) | Ø3                  | Ø4              | Ø6                  | Ø8                  | Ø10                 | Ø12                 | Ø16                 |
| <b>P</b> 合金鋼<br>Alloyed Steels   | 80<br>(60~110)         | 0.13<br>(0.09-0.16) | 0.17(0.12-0.23) | 0.20<br>(0.14-0.28) | 0.20<br>(0.14-0.28) | 0.20<br>(0.14-0.30) | 0.23<br>(0.15-0.32) | 0.25<br>(0.18-0.35) |
| <b>M</b> 不鏽鋼<br>Stainless Steels | 50<br>(40~60)          | 0.06<br>(0.04-0.08) | 0.06(0.04-0.08) | 0.08<br>(0.06-0.10) | 0.08<br>(0.06-0.10) | 0.10<br>(0.08-0.12) | 0.10<br>(0.08-0.12) | 0.12<br>(0.10-0.14) |
| <b>K</b> 鑄鐵<br>Cast Iron         | 100<br>(60~140)        | 0.15<br>(0.11-0.18) | 0.17(0.13-0.20) | 0.20<br>(0.15-0.25) | 0.25<br>(0.17-0.32) | 0.28<br>(0.20-0.36) | 0.30<br>(0.22-0.42) | 0.35<br>(0.25-0.45) |

#### DR20P-A12C/15C/A20C/A25C

| 被加工材質<br>Machining<br>Materials  | 切削速度<br>Speed          | 進給率 (mm/rev)        |                     |                     |                     |                     |                     |                     |
|----------------------------------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                                  | V <sub>C</sub> (m/min) | Ø3                  | Ø4                  | Ø6                  | Ø8                  | Ø10                 | Ø12                 | Ø16                 |
| <b>P</b> 合金鋼<br>Alloyed Steels   | 80<br>(40~120)         | 0.13<br>(0.05-0.18) | 0.17<br>(0.05-0.18) | 0.20<br>(0.07-0.25) | 0.20<br>(0.09-0.30) | 0.20<br>(0.10-0.32) | 0.23<br>(0.12-0.38) | 0.25<br>(0.14-0.42) |
| <b>M</b> 不鏽鋼<br>Stainless Steels | 50<br>(40~60)          | 0.06<br>(0.05-0.08) | 0.06<br>(0.05-0.08) | 0.08<br>(0.05-0.10) | 0.08<br>(0.05-0.10) | 0.10<br>(0.08-0.12) | 0.10<br>(0.08-0.12) | 0.12<br>(0.10-0.14) |
| <b>K</b> 鑄鐵<br>Cast Iron         | 100<br>(60~140)        | 0.15<br>(0.12-0.18) | 0.17<br>(0.12-0.20) | 0.20<br>(0.12-0.26) | 0.25<br>(0.12-0.30) | 0.28<br>(0.16-0.36) | 0.30<br>(0.22-0.42) | 0.35<br>(0.25-0.45) |

#### DR30M-A5C

| 被加工材質<br>Machining<br>Materials       | 切削速度<br>Speed          | 進給率 (mm/rev)        |                     |                     |                     |                     |                     |                     |
|---------------------------------------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                                       | V <sub>C</sub> (m/min) | Ø3                  | Ø4                  | Ø6                  | Ø8                  | Ø10                 | Ø12                 | Ø16                 |
| <b>M</b> 不鏽鋼<br>Stainless Steels      | 60<br>(40~80)          | 0.08<br>(0.04-0.10) | 0.08<br>(0.06-0.10) | 0.08<br>(0.06-0.12) | 0.10<br>(0.08-0.14) | 0.12<br>(0.10-0.18) | 0.14<br>(0.10-0.18) | 0.25<br>(0.18-0.35) |
| <b>S</b> 高溫合金<br>Refractory<br>Alloys | 35<br>(20~50)          | 0.06<br>(0.04-0.08) | 0.08<br>(0.05-0.10) | 0.09<br>(0.06-0.12) | 0.10<br>(0.08-0.12) | 0.12<br>(0.10-0.16) | 0.14<br>(0.10-0.18) | 0.12<br>(0.10-0.14) |

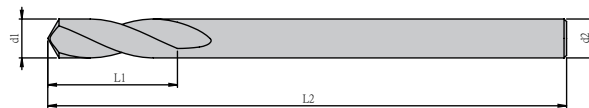
# DR 碳化鎢鋼出水鑽頭系列

## DR TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT SERIES



### DR10U 超微粒鎢鋼定點鑽

#### DR10U -Ultra-Micron Solid Carbide Spot Drill



#### 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 | 75 | 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 | 75 | 10   | 60       |                |
| DR10U-D120-60  | 12 | 30 | 75 | 12   | 60       |                |

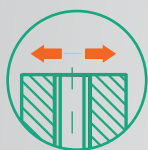
| 被加工材質<br>Machining Materials |                       | 切削速度<br>Speed          | 進給率 (mm/rev) |           |           |           |           |           |
|------------------------------|-----------------------|------------------------|--------------|-----------|-----------|-----------|-----------|-----------|
|                              |                       | V <sub>C</sub> (m/min) | ψ3           | ψ4        | ψ6        | ψ8        | ψ10       | ψ12       |
| P                            | 合金鋼<br>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<br>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<br>(HRC38-48)              | 高硬度材<br>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 |

# TSD多孔類型加工

TSD VARIETY OF HOLE TYPES MACHINING



斜面孔  
Oblique Face



擴孔  
Enlarge Hole



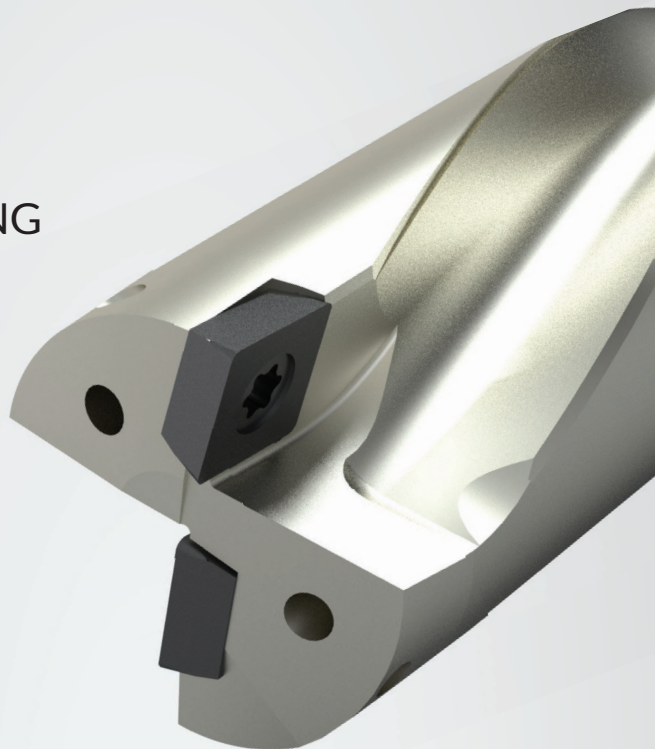
交叉孔  
Cross Hole



半邊孔  
Half Hole



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5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.

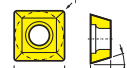


# Feature

# TSD 四角刀片快速鑽頭

## TSD SQUARE HIGH SPEED DRILL



|                                                                                     |                |                        |                                      |        |        |        |  |                                            |        |  |  |  |         |   |                                                                                                                   |     |                                                                                       |
|-------------------------------------------------------------------------------------|----------------|------------------------|--------------------------------------|--------|--------|--------|--|--------------------------------------------|--------|--|--|--|---------|---|-------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------------------------------|
| ISO<br>分類                                                                           | P              | 合金鋼 Alloyed Steels     | ○                                    |        | ○      | ○      |  |                                            |        |  |  |  |         |   | 切削狀態 Cutting Condition :<br><br>● 連續切削 Continuous Cutting<br>○ 一般切削 General Cutting<br>■ 斷續切削 Interrupted Cutting |     |                                                                                       |
|                                                                                     | M              | 不銹鋼 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<br>Shape                                                                         | 規格<br>Spec.    |                        | 鍍層超微粒<br>Layer coated<br>micro grain |        |        |        |  | 超微粒硬質合金<br>Micro grain cemented<br>carbide |        |  |  |  | 尺寸 (mm) |   |                                                                                                                   |     | 圖形<br>Drawing                                                                         |
|                                                                                     |                |                        | CHF                                  |        |        |        |  | HF                                         |        |  |  |  | Size    |   |                                                                                                                   |     |                                                                                       |
|                                                                                     |                |                        | RM4025                               | RM3130 | RM4030 | OM4025 |  | 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 |                                                                                       |
|  | NEW            | SOMT040204             |                                      |        |        | ●      |  |                                            |        |  |  |  | 4.6     | - | 2.0                                                                                                               | 0.4 |                                                                                       |
|                                                                                     |                |                        |                                      |        |        |        |  |                                            |        |  |  |  |         |   |                                                                                                                   |     |                                                                                       |
|                                                                                     |                |                        |                                      |        |        |        |  |                                            |        |  |  |  |         |   |                                                                                                                   |     |                                                                                       |

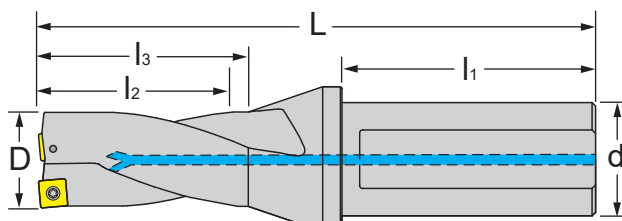
### SP\_05.06.07.09.11.14/SO\_04 切削條件數據表 Cutting Parameter

| 被加工材質 Machining Materials |                       | 刀片材質 Grade | 切削速度 Vc(m/min) | 進給率 (mm/rev) |           |           |           |           |           |
|---------------------------|-----------------------|------------|----------------|--------------|-----------|-----------|-----------|-----------|-----------|
|                           |                       |            |                | ø12-ø12.5    | 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 |
|                           | 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 |
|                           |                       | OM4025     | 120~160        | 0.05~0.08    |           |           |           |           |           |
| M                         | 不銹鋼 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 |
|                           |                       | OM4025     | 80~120         | 0.04~0.08    |           |           |           |           |           |
| 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 |



## TSD 四角刀片快速鑽頭 (2 倍長) TSD Square Insert High Speed Drill

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.

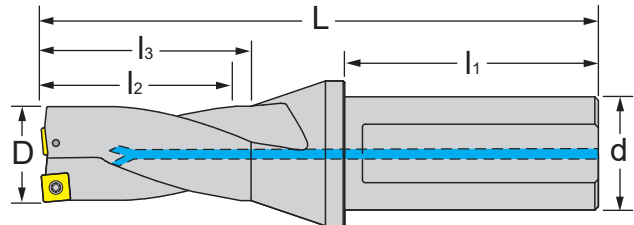
| 規格<br>Spec.       | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D  | d  | 刀片<br>Insert | 重量<br>(KGS)<br>Weight |
|-------------------|-----|----------------|----------------|----------------|----|----|--------------|-----------------------|
| NEW C20-TSD12-24L | 96  | 50             | 24             | 29             | 12 | 20 | SO..0402     | 0.18                  |
| 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                  |

# TSD 四角刀片快速鑽頭 TSD SQUARE INSERT HIGH SPEED DRILL



## TSD 四角刀片快速鑽頭 (2 倍點數) TSD Square Insert High Speed Drill

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<br>Spec.         | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D    | d  | 刀片<br>Insert | 重量<br>(KGS)<br>Weight |
|---------------------|-----|----------------|----------------|----------------|------|----|--------------|-----------------------|
| NEW C20-TSD12.5-25L | 96  | 50             | 25             | 30             | 12.5 | 20 | SO..0402     | 0.18                  |
| 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                  |

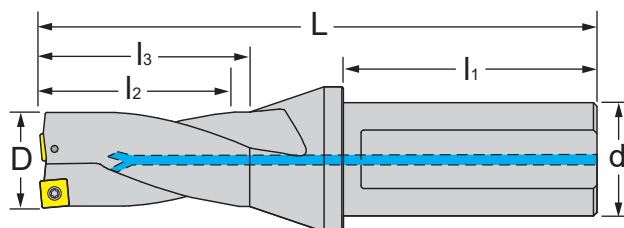
### 配件表 Accessories

| 刀片<br>Insert | 螺絲<br>Screw             | 扳手<br>Wrench | 扭力值<br>(N.m)<br>Torque |
|--------------|-------------------------|--------------|------------------------|
| SO..0402     | M2-4.3-2.7-60-T6-TIN    | T6           | 0.6                    |
| 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                    |



## TSD 四角刀片快速鑽頭 (3 倍長) TSD Square Insert High Speed Drill

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<br>Spec.       | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D  | d  | 刀片<br>Insert | 重量<br>(KGS)<br>Weight |
|-------------------|-----|----------------|----------------|----------------|----|----|--------------|-----------------------|
| NEW C20-TSD12-36L | 108 | 50             | 36             | 40             | 12 | 20 | SO..0402     | 0.21                  |
| 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                  |

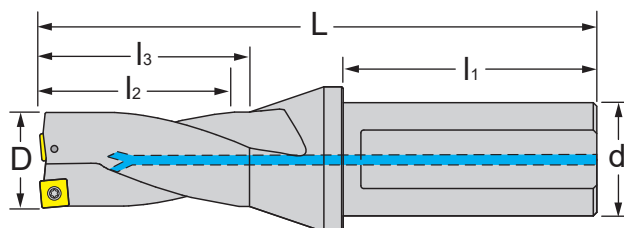
### 配件表 Accessories

| 刀片<br>Insert | 螺絲<br>Screw             | 扳手<br>Wrench | 扭力值<br>(N.m)<br>Torque |
|--------------|-------------------------|--------------|------------------------|
| SO..0402     | M2-4.3-2.7-60-T6-TIN    | T6           | 0.6                    |
| 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                    |



## TSD 四角刀片快速鑽頭 (3 倍長) TSD Square Insert High Speed Drill

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<br>Spec.    | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D  | d  | 刀片<br>Insert | 重量<br>(KGS)<br>Weight |
|----------------|-----|----------------|----------------|----------------|----|----|--------------|-----------------------|
| C32-TSD30-90L  | 180 | 60             | 90             | 95             | 30 | 32 | SP..0904     | 0.83                  |
| 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                  |

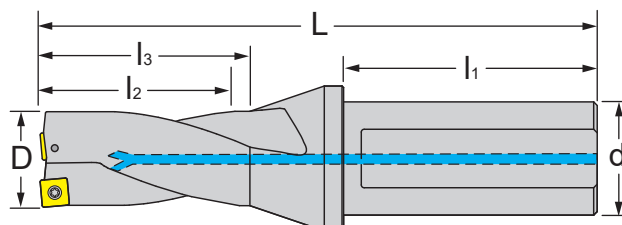
### 配件表 Accessories

| 刀片<br>Insert | 螺絲<br>Screw             | 扳手<br>Wrench | 扭力值<br>(N.m)<br>Torque |
|--------------|-------------------------|--------------|------------------------|
| SO..0402     | M2-4.3-2.7-60-T6-TIN    | T6           | 0.6                    |
| 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                    |



## TSD 四角刀片快速鑽頭 (3 倍長) TSD Square Insert High Speed Drill

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<br>Spec.       | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D  | d  | 刀片<br>Insert | 重量<br>(KGS)<br>Weight |
|-------------------|-----|----------------|----------------|----------------|----|----|--------------|-----------------------|
| NEW C20-TSD12-36L | 108 | 50             | 36             | 40             | 12 | 20 | SO..0402     | 0.21                  |
| 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                  |

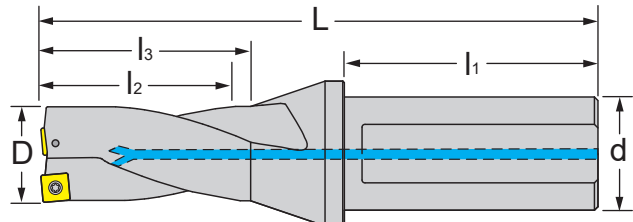
### 配件表 Accessories

| 刀片<br>Insert | 螺絲<br>Screw             | 扳手<br>Wrench | 扭力值<br>(N.m)<br>Torque |
|--------------|-------------------------|--------------|------------------------|
| SO..0402     | M2-4.3-2.7-60-T6-TIN    | T6           | 0.6                    |
| 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                    |



## TSD 四角刀片快速鑽頭 (3 倍長) TSD Square Insert High Speed Drill

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<br>Spec.    | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D  | d  | 刀片<br>Insert | 重量<br>(KGS)<br>Weight |
|----------------|-----|----------------|----------------|----------------|----|----|--------------|-----------------------|
| C32-TSD30-90L  | 180 | 60             | 90             | 95             | 30 | 32 | SP..0904     | 0.83                  |
| 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                  |

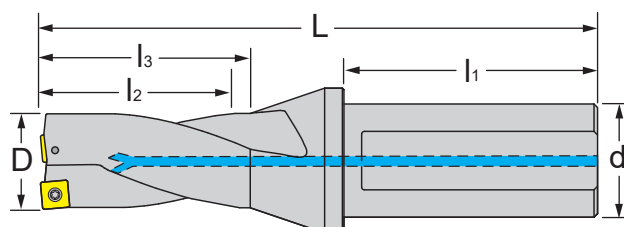
### 配件表 Accessories

| 刀片<br>Insert | 螺絲<br>Screw             | 扳手<br>Wrench | 扭力值<br>(N.m)<br>Torque |
|--------------|-------------------------|--------------|------------------------|
| SO..0402     | M2-4.3-2.7-60-T6-TIN    | T6           | 0.6                    |
| 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                    |



## TSD 四角刀片快速鑽頭 (3 倍長) TSD Square Insert High Speed Drill

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<br>Spec.       | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D  | d  | 刀片<br>Insert | 重量<br>(KGS)<br>Weight |
|-------------------|-----|----------------|----------------|----------------|----|----|--------------|-----------------------|
| NEW C20-TSD12-36L | 108 | 50             | 36             | 40             | 12 | 20 | SO..0402     | 0.21                  |
| 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                  |

### 配件表 Accessories

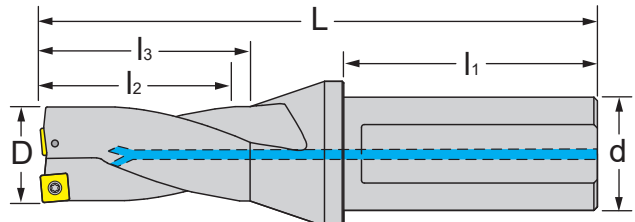
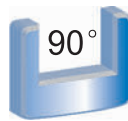
| 刀片<br>Insert | 螺絲<br>Screw             | 扳手<br>Wrench | 扭力值<br>(N.m)<br>Torque |
|--------------|-------------------------|--------------|------------------------|
| SO..0402     | M2-4.3-2.7-60-T6-TIN    | T6           | 0.6                    |
| SP..0502     | M2-4.3-2.7-60-T6-TIN    | T6           | 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                    |

# TSD 四角刀片快速鑽頭 TSD SQUARE INSERT HIGH SPEED DRILL



## TSD 四角刀片快速鑽頭 (3 倍長) TSD Square Insert High Speed Drill

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<br>Spec.    | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D  | d  | 刀片<br>Insert | 重量<br>(KGS)<br>Weight |
|----------------|-----|----------------|----------------|----------------|----|----|--------------|-----------------------|
| C32-TSD30-90L  | 180 | 60             | 90             | 95             | 30 | 32 | SP..0904     | 0.83                  |
| 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                  |

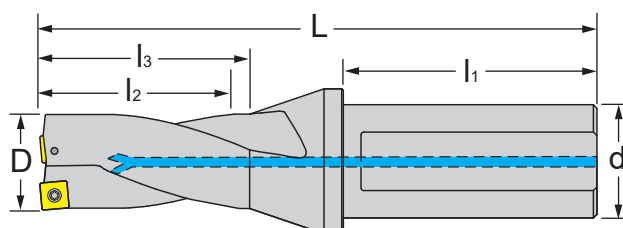
### 配件表 Accessories

| 刀片<br>Insert | 螺絲<br>Screw             | 扳手<br>Wrench | 扭力值<br>(N.m)<br>Torque |
|--------------|-------------------------|--------------|------------------------|
| SO..0402     | M2-4.3-2.7-60-T6-TIN    | T6           | 0.6                    |
| 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                    |



## TSD 四角刀片快速鑽頭 (4 倍長) TSD Square Insert High Speed Drill

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<br>Spec.    | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D  | d  | 刀片<br>Insert | 重量<br>(KGS)<br>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                  |

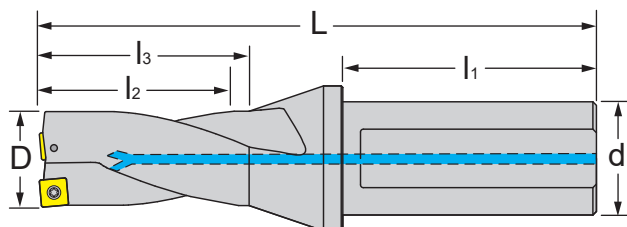
### 配件表 Accessories

| 刀片<br>Insert | 螺絲<br>Screw             | 扳手<br>Wrench | 扭力值<br>(N.m)<br>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                    |



## TSD 四角刀片快速鑽頭 (5 倍長) TSD Square Insert High Speed Drill

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.

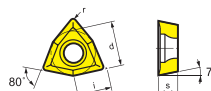
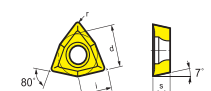
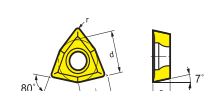
| 規格<br>Spec.    | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D  | d  | 刀片<br>Insert | 重量<br>(KGS)<br>Weight |
|----------------|-----|----------------|----------------|----------------|----|----|--------------|-----------------------|
| C25-TSD16-80L  | 162 | 56             | 80             | 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<br>Insert | 螺絲<br>Screw             | 扳手<br>Wrench | 扭力值<br>(N.m)<br>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                    |

# SD 捨棄式快速鑽頭

## SD INDEXABLE HIGH SPEED DRILL

|                                                                                     |                |                                         |       |        |   |  |  |         |     |      |                                                                                                                   |                                                                                       |
|-------------------------------------------------------------------------------------|----------------|-----------------------------------------|-------|--------|---|--|--|---------|-----|------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| ISO<br>分類                                                                           | P              | 合金鋼 Alloyed Steels                      |       | ○      | ○ |  |  |         |     |      | 切削狀態 Cutting Condition :<br><br>● 連續切削 Continuous Cutting<br>○ 一般切削 General Cutting<br>■ 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<br>Refractory Alloys               |       |        |   |  |  |         |     |      |                                                                                                                   |                                                                                       |
|                                                                                     | H              | 高硬度材 Hard Material                      |       |        |   |  |  |         |     |      |                                                                                                                   |                                                                                       |
| 形狀<br>Shape                                                                         | 規格<br>Spec.    | 超微粒硬質合金<br>Micro grain cemented carbide |       |        |   |  |  | 尺寸 (mm) |     |      |                                                                                                                   | 圖形<br>Drawing                                                                         |
|                                                                                     |                | HF                                      |       |        |   |  |  | Size    |     |      |                                                                                                                   |                                                                                       |
|                                                                                     |                | GH05                                    | PTE30 | OM4025 |   |  |  |         | d   | i    | s                                                                                                                 |                                                                                       |
|   | 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                                                                                                               |                                                                                       |
|                                                                                     |                |                                         |       |        |   |  |  |         |     |      |                                                                                                                   |                                                                                       |
|  | WCMX030208-M02 |                                         |       | ●      |   |  |  | 5.56    | 3.8 | 2.38 | 0.8                                                                                                               |  |
|                                                                                     | WCMT040208-M02 |                                         |       | ●      |   |  |  | 6.35    | 4.3 | 2.38 | 0.8                                                                                                               |                                                                                       |
|                                                                                     | WCMT050308-M02 |                                         |       | ●      |   |  |  | 7.94    | 5.4 | 3.18 | 0.8                                                                                                               |                                                                                       |
|                                                                                     | WCMT06T308-M02 |                                         |       | ●      |   |  |  | 9.525   | 6.5 | 3.97 | 0.8                                                                                                               |                                                                                       |
|                                                                                     | WCMX080412-M02 |                                         |       | ●      |   |  |  | 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<br>Machining Materials |                       | 刀片材質<br>Grade | 切削速度<br>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 |
|                              |                       | OM4025        |                   |              |            |            |           |
|                              | 合金鋼 Alloyed Steels    | PET30         | 80~160            | 0.05~0.12    | 0.06~0.15  | 0.08~0.17  | 0.10~0.20 |
|                              |                       | OM4025        |                   |              |            |            |           |
| 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 |
|                              |                       | OM4025        |                   |              |            |            |           |
| 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 |

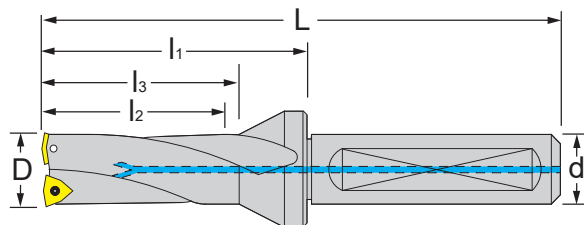


## SD 捨棄式快速鑽頭 (2 倍長)

### SD Indexable High Speed Drill



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.

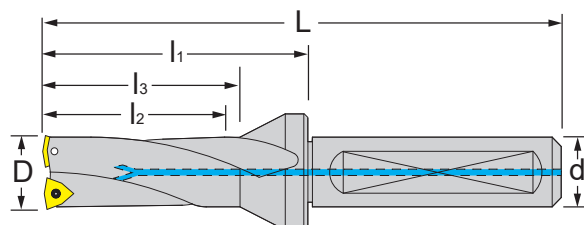
| 規格<br>Spec.   | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D  | d  | 刀 片<br>Insert | 重量<br>(KGS)<br>Weight |
|---------------|-----|----------------|----------------|----------------|----|----|---------------|-----------------------|
| C25-SD16-32L  | 119 | 63             | 32             | 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                  |



## SD 捨棄式快速鑽頭 (3 倍長)

### SD Indexable High Speed Drill

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<br>Spec.   | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D  | d  | 刀片<br>Insert | 重量<br>(KGS)<br>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

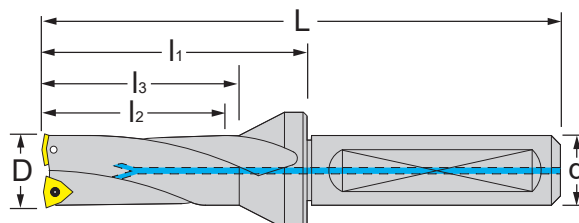
| 刀片<br>Insert | 螺絲<br>Screw     | 扳手<br>Wrench | 扭力值<br>(N.m)<br>Torque |
|--------------|-----------------|--------------|------------------------|
| WC..06T3     | M3.5-8.0-5.0-60 | T15          | 3.0                    |
| WC..0804     | M4-10-5.7-60    | T15          | 3.0                    |

# SD 捨棄式快速鑽頭 SD INDEXABLE HIGH SPEED DRILL



## SD 捨棄式快速鑽頭 (4 倍長) SD Indexable High Speed Drill

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<br>Spec.   | L   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | D  | d  | 刀片<br>Insert | 重量<br>(KGS)<br>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

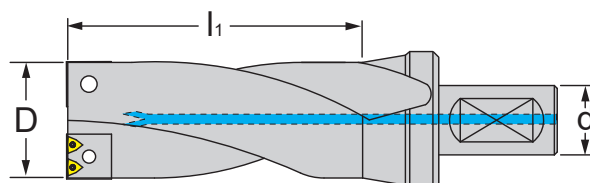
| 刀片<br>Insert | 螺絲<br>Screw      | 扳手<br>Wrench | 扭力值<br>(N.m)<br>Torque |
|--------------|------------------|--------------|------------------------|
| WC..0302     | M2.5-5.5-3.35-60 | T8           | 1.2                    |
| WC..0402     | M2.5-6.0-3.5-60  | T8           | 1.2                    |
| 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                    |

# CSD 大孔徑快速鑽頭 CSD LARGE DIAMETER HIGH SPEED DRILL



## CSD 大孔徑快速鑽頭 CSD Large Diameter High Speed Drill

加工直徑 Cutting Dia.: Ø61~Ø80



CSD 大孔徑內刃刀片座  
CSD Large Diameter  
Inside Edge Insert seat



CSD 大孔徑外刃刀片座  
CSD Large Diameter  
Outside Edge Insert seat

### 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.

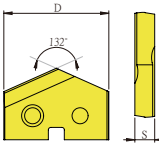
| 規格<br>Spec.      | l <sub>1</sub> | D  | d  | 內刃<br>Inner Edge | 外刃<br>Outer Edge | 鑽孔範圍<br>Range | 鎖固螺絲<br>Lock Screw | 刀片<br>Insert | 重量<br>(KGS)<br>Weight |
|------------------|----------------|----|----|------------------|------------------|---------------|--------------------|--------------|-----------------------|
| 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

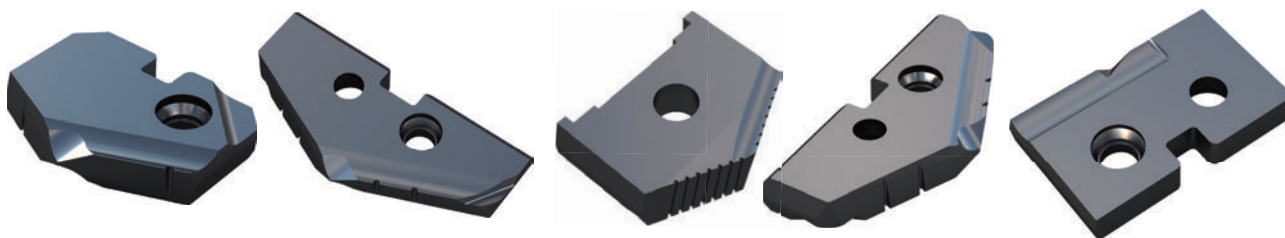
| 刀片<br>Insert | 螺絲<br>Screw     | 扳手<br>Wrench | 扭力值<br>(N.m)<br>Torque | 扳手<br>Wrench |
|--------------|-----------------|--------------|------------------------|--------------|
| WC..06T3     | M3.5-8.0-5.0-60 | T15K         | 3.0                    | PT5          |

# ZSD 側固式鏟形鑽頭

## ZSD SIDE FIXED SPIRAL FLUTE SPADE DRILL

|                                                                                     |             |                                   |        |        |        |               |          |         |                                                                                                                   |   |      |               |                                                                                       |  |
|-------------------------------------------------------------------------------------|-------------|-----------------------------------|--------|--------|--------|---------------|----------|---------|-------------------------------------------------------------------------------------------------------------------|---|------|---------------|---------------------------------------------------------------------------------------|--|
| ISO<br>分類                                                                           | P           | 合金鋼 Alloyed Steels                | ○      | ○      |        |               | ○        | ○       | 切削狀態 Cutting Condition :<br><br>● 連續切削 Continuous Cutting<br>○ 一般切削 General Cutting<br>■ 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<br>Shape                                                                         | 規格<br>Spec. | 鍍層超微粒<br>Layer coated micro grain |        |        |        | 高速鋼<br>HSS-Co |          | 尺寸 (mm) |                                                                                                                   |   |      | 圖形<br>Drawing |                                                                                       |  |
|                                                                                     |             | CHF                               |        |        |        |               |          | Size    |                                                                                                                   |   |      |               |                                                                                       |  |
|                                                                                     |             | OM4025                            | RM3125 | OM5035 | OM5005 | RM4025HS      | RM4025HP | 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 | -             |                                                                                       |  |

●可接受非標客製 Custom non-standard designs available.



# ZSD 側固式鏟形鑽頭 ZSD SIDE FIXED SPIRAL FLUTE SPADE DRILL

## SDZ13~34 鎢鋼刀片切削條件數據表 Cutting Parameter

| 被加工材質<br>Machining Materials |                                                             | 刀片材質<br>Materials | 切削速度<br>Vc(m/min) | 每刃進給<br>fz(mm/rev) |             |             |
|------------------------------|-------------------------------------------------------------|-------------------|-------------------|--------------------|-------------|-------------|
|                              |                                                             |                   |                   | Ø13.0-Ø17.5        | Ø18.0-Ø24.0 | Ø25.0-Ø35.0 |
| <b>P</b>                     | 高碳鋼及中碳鋼 (<25HRC)<br>High Carbon Steel & Medium Carbon Steel | OM4025            | 60-80-100         | 0.12-0.18          | 0.16-0.24   | 0.22-0.30   |
|                              |                                                             | RM3125            |                   |                    |             |             |
|                              | 合金鋼、工具鋼 (<35HRC)<br>Alloyed Steels                          | OM4025            | 60-80-100         | 0.12-0.16          | 0.16-0.22   | 0.22-0.28   |
|                              |                                                             | RM3125            |                   |                    |             |             |
| <b>M</b>                     | 不鏽鋼 (<25HRC)<br>Stainless Steels                            | OM5035            | 20-40-50          | 0.08-0.14          | 0.12-0.20   | 0.14-0.22   |
|                              |                                                             | RM3125            |                   |                    |             |             |
| <b>K</b>                     | 鑄鐵 (<28HRC)<br>Cast Iron                                    | OM4025            | 80-100-120        | 0.15-0.20          | 0.18-0.26   | 0.22-0.32   |
|                              |                                                             | RM3125            |                   |                    |             |             |
| <b>N</b>                     | 鋁合金<br>Aluminum&Al                                          | OM5005            |                   |                    |             |             |

## SDZ13~34 高速鋼刀片切削條件數據表 Cutting Parameter

| 被加工材質<br>Machining Materials |                                                             | 刀片材質<br>Materials | 切削速度<br>Vc(m/min) | 每刃進給<br>fz(mm/rev) |             |             |
|------------------------------|-------------------------------------------------------------|-------------------|-------------------|--------------------|-------------|-------------|
|                              |                                                             |                   |                   | Ø13.0-Ø17.5        | Ø18.0-Ø24.0 | Ø25.0-Ø35.0 |
| <b>P</b>                     | 高碳鋼及中碳鋼 (<25HRC)<br>High Carbon Steel & Medium Carbon Steel | RM4025HS          | 30-50-55          | 0.12-0.18          | 0.16-0.24   | 0.22-0.30   |
|                              |                                                             | RM4025HP          |                   |                    |             |             |
|                              | 合金鋼、工具鋼 (<35HRC)<br>Alloyed Steels                          | RM4025HP          | 16-20-25          | 0.12-0.16          | 0.16-0.22   | 0.22-0.28   |
| <b>M</b>                     | 不鏽鋼 (<25HRC)<br>Stainless Steels                            | RM4025HP          | 18-20-22          | 0.08-0.14          | 0.12-0.20   | 0.14-0.22   |
| <b>K</b>                     | 鑄鐵 (<28HRC)<br>Cast Iron                                    | RM4025HP          | 25-35-50          | 0.15-0.20          | 0.18-0.26   | 0.22-0.32   |

## 鏟鑽刀片材質應用 Material Applications of Spade Drill Inserts

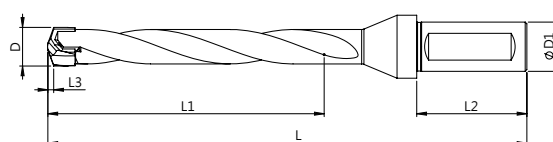
| 材質<br>Materials | 底材<br>Substrate                                       | 顏色<br>Color       | 塗層<br>Coating  | 加工材質<br>Workpiece Material                                                         | 應用<br>Application                                                                                                                                                                                             |
|-----------------|-------------------------------------------------------|-------------------|----------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OM4025/RM3125   | 鎢鋼<br>Carbide                                         | 鐵灰<br>Dark Gray   | 鋁鈦<br>AlTiN    | 合金鋼、不銹鋼、鑄鐵的通用加工<br>Alloy steel, stainless steel, cast iron (general purpose)       | 切削速度 Vc=50~120 或更高效<br>率、精度、表粗等品質要求<br>Cutting speed Vc = 50~120 or<br>higher. Suitable for applications<br>requiring efficiency, precision,<br>and surface finish quality.                                   |
| OM5035          | 鎢鋼<br>Carbide                                         | 淡金色<br>Light Gold | 鋁鉻鈦<br>AlCrTiN | 不銹鋼<br>Stainless steel                                                             |                                                                                                                                                                                                               |
| OM5005/RM5005   | 鎢鋼<br>Carbide                                         | 無<br>None         | 無<br>None      | 非鐵合金<br>Non-ferrous alloys                                                         |                                                                                                                                                                                                               |
| RM4025HS        | 高速鋼含鈷<br>High-speed steel<br>with cobalt              | 鐵灰<br>Dark Gray   | 鋁鈦<br>AlTiN    | 合金鋼<br>Alloy steel,                                                                | 切削速度 Vc=30 以下<br>夾持不穩、機台剛性弱等不穩定<br>工況小批量生產<br>Cutting speed Vc ≤ 30. Suitable<br>for unstable conditions such as<br>poor clamping or low machine<br>rigidity. Also recommended for<br>small-batch production. |
| RM4025HP        | 粉末高速鋼含鈷<br>Powder high-<br>speed steel with<br>cobalt | 鐵灰<br>Dark Gray   | 鋁鈦<br>AlTiN    | 合金鋼、不銹鋼<br>鑄鐵的通用加工<br>Alloy steel, stainless steel, cast<br>iron (general purpose) |                                                                                                                                                                                                               |

## ZSD 側固式鏟形鑽頭 ZSD SIDE FIXED SPIRAL FLUTE SPADE DRILL



### ZSD 側固式鏟形鑽頭 (5 倍長) ZSD Side Fixed Spiral Flute Spade Drill

Dx5

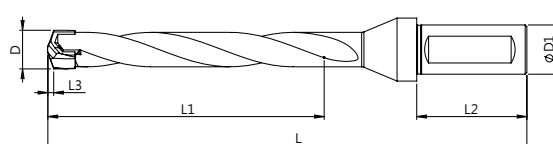


| 規格<br>Spec.      | D     | d  | d1   | L   | L1 | L2  | 重量<br>(KGS)<br>Weight |
|------------------|-------|----|------|-----|----|-----|-----------------------|
| C20-ZSD1315-175L | 13-15 | 20 | 12.4 | 192 | 50 | 114 |                       |
| C20-ZSD1517-175L | 15-17 | 20 | 14.7 | 192 | 50 | 114 |                       |
| C25-ZSD1821-215L | 18-21 | 25 | 17   | 210 | 56 | 118 |                       |
| C25-ZSD2224-270L | 22-24 | 25 | 21.3 | 210 | 56 | 118 |                       |
| C32-ZSD2529-290L | 25-29 | 32 | 24   | 290 | 60 | 187 |                       |
| C32-ZSD3034-400L | 30-34 | 32 | 29.3 | 290 | 60 | 187 |                       |



### ZSD 側固式鏟形鑽頭 (7 倍長) ZSD Side Fixed Spiral Flute Spade Drill

Dx7



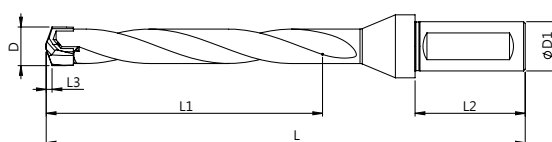
| 規格<br>Spec.      | D     | d  | L   | L1 | L2  | 重量<br>(KGS)<br>Weight |
|------------------|-------|----|-----|----|-----|-----------------------|
| C20-ZSD1315-105L | 13-15 | 20 | 190 | 50 | 105 | 0.30                  |
| C20-ZSD1517-120L | 15-17 | 20 | 205 | 50 | 120 | 0.45                  |
| C25-ZSD1821-150L | 18-21 | 25 | 244 | 55 | 150 | 0.55                  |
| C25-ZSD2224-170L | 22-24 | 25 | 265 | 55 | 170 | 0.70                  |
| C32-ZSD2529-205L | 25-29 | 32 | 305 | 60 | 205 | 1.10                  |
| C32-ZSD3034-240L | 30-34 | 32 | 340 | 60 | 240 | 1.35                  |

# ZSD 側固式鏟形鑽頭 ZSD SIDE FIXED SPIRAL FLUTE SPADE DRILL



## ZSD 側固式鏟形鑽頭 (10 倍長) ZSD Side Fixed Spiral Flute Spade Drill

Dx10



| 規格<br>Spec.      | D     | d  | d1   | L   | L1 | L2  | 重量<br>(KGS)<br>Weight |
|------------------|-------|----|------|-----|----|-----|-----------------------|
| C20-ZSD1315-175L | 13-15 | 20 | 12.4 | 256 | 50 | 175 |                       |
| C20-ZSD1517-175L | 15-17 | 20 | 14.7 | 256 | 50 | 175 |                       |
| C25-ZSD1821-215L | 18-21 | 25 | 17   | 311 | 56 | 215 |                       |
| C25-ZSD2224-270L | 22-24 | 25 | 21.3 | 363 | 56 | 270 |                       |
| C32-ZSD2529-290L | 25-29 | 32 | 24   | 392 | 60 | 290 |                       |
| C32-ZSD3034-400L | 30-34 | 32 | 29.3 | 502 | 60 | 400 |                       |

※ 錐度柄或其他尺寸，可來電洽詢

※ Taper shank or other sizes available upon request.

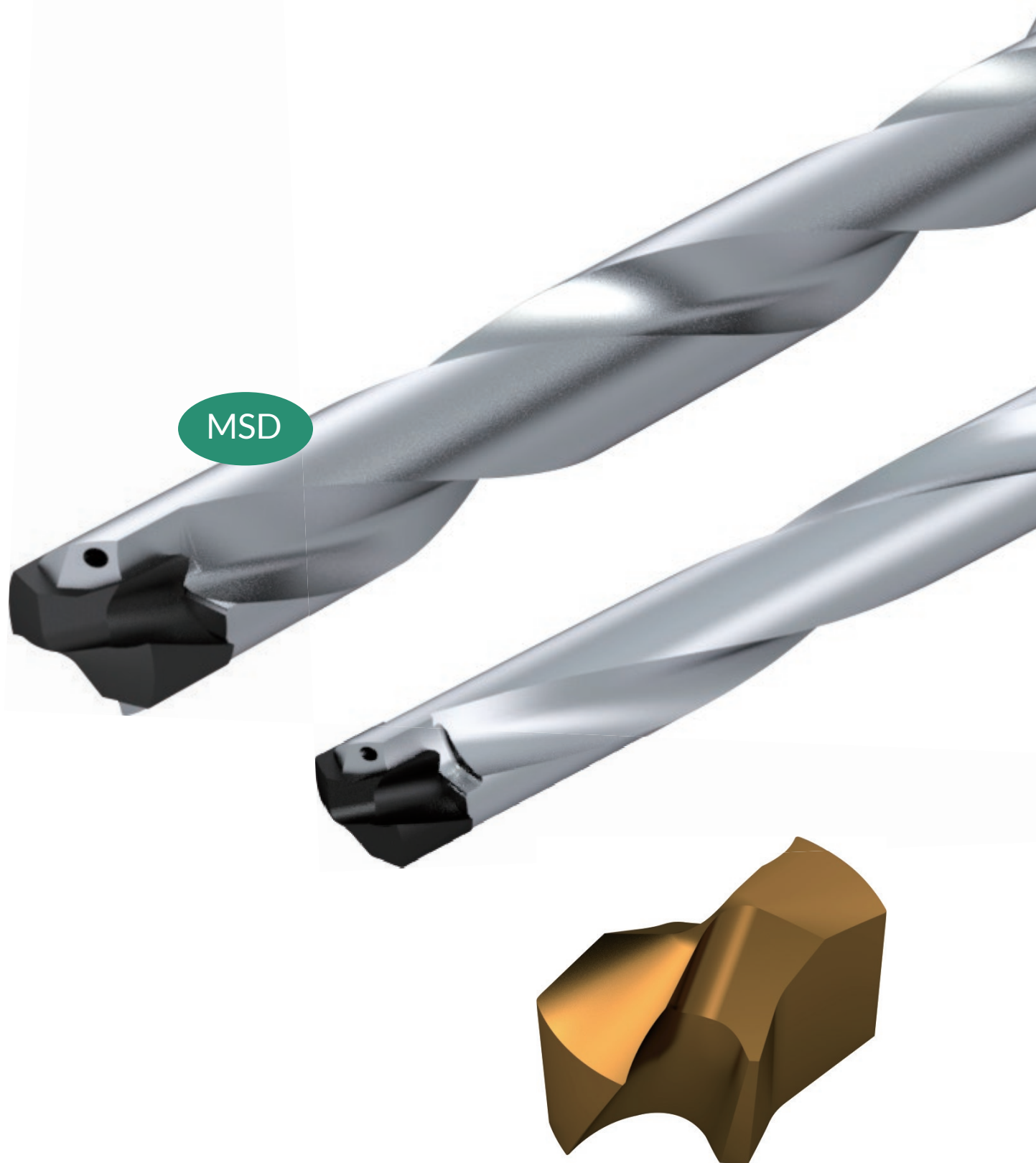
### 配件表 Accessories

| 刀 片<br>Insert | 螺 絲<br>Screw                 | 扳 手<br>Wrench | 扭力值<br>(N.m)<br>Torque |
|---------------|------------------------------|---------------|------------------------|
| SDZ13~SDZ15   | M2.5-5.5-3.3-60-T8-TIN       | T8            | 1.2                    |
| SDZ15~SDZ17   | M2.5-5.5-3.3-60-T8-TIN       | T8            | 1.2                    |
| SDZ18~SDZ21   | M3-8.0-4.4-60/M3-7.5-4.2-53  | T9            | 1.4                    |
| SDZ22~SDZ24   | M3-8.0-4.4-60/M3-7.5-4.2-53  | T9            | 1.4                    |
| SDZ25~SDZ29   | M4-8.75-5.6-60/M4-9.0-5.4-60 | T15           | 3.0                    |
| SDZ30~SDZ34   | M4-8.75-5.6-60/M4-9.0-5.4-60 | T15           | 3.0                    |



# 高性能模組化皇冠鑽頭

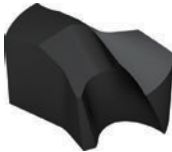
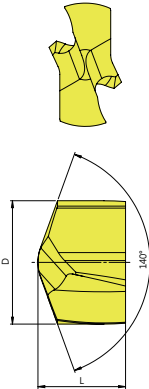
## HIGH PERFORMANCE MODULAR DRILLS





## 高性能模組化皇冠鑽

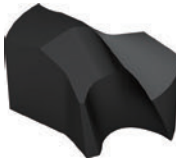
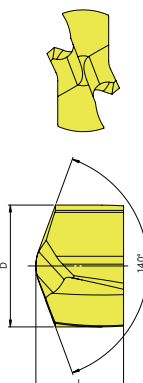
### MSD Carbide Inserts

|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |      |                                                                                       |
|-------------------------------------------------------------------------------------|-------------|-----------------------------------|--------|---|--|-----------------|-------------------------------------------------------------------------------------------------------------------|------|------|---------------------------------------------------------------------------------------|
| ISO<br>分類                                                                           | P           | 合金鋼 Alloyed Steels                | ○      |   |  |                 | 切削狀態 Cutting Condition :<br><br>● 連續切削 Continuous Cutting<br>○ 一般切削 General Cutting<br>■ 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<br>Shape                                                                         | 規格<br>Spec. | 鍍層超微粒<br>Layer coated micro grain |        |   |  | 尺寸 (mm)<br>Size |                                                                                                                   |      |      | 圖形<br>Drawing                                                                         |
|                                                                                     |             | RM4025                            | RM5005 |   |  | d               | i                                                                                                                 | L    | 螺牙   |                                                                                       |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |      |                                                                                       |
|  | MSD12.5-PM  | ●                                 |        |   |  | 12.5            | -                                                                                                                 | 9.6  | M2.5 |  |
|                                                                                     | MSD13.0-PM  | ●                                 |        |   |  | 13.0            | -                                                                                                                 | 9.6  | M2.5 |                                                                                       |
|                                                                                     | MSD13.5-PM  | ●                                 |        |   |  | 13.5            | -                                                                                                                 | 9.6  | M2.5 |                                                                                       |
|                                                                                     | MSD14.0-PM  | ●                                 |        |   |  | 14.0            | -                                                                                                                 | 10.1 | M2.5 |                                                                                       |
|                                                                                     | MSD14.5-PM  | ●                                 |        |   |  | 14.5            | -                                                                                                                 | 10.1 | M2.5 |                                                                                       |
|                                                                                     | MSD15.0-PM  | ●                                 |        |   |  | 15.0            | -                                                                                                                 | 10.6 | M2.5 |                                                                                       |
|                                                                                     | MSD15.5-PM  | ●                                 |        |   |  | 15.5            | -                                                                                                                 | 10.6 | M2.5 |                                                                                       |
|                                                                                     | MSD16.0-PM  | ●                                 |        |   |  | 16.0            | -                                                                                                                 | 11.6 | M3   |                                                                                       |
|                                                                                     | MSD16.5-PM  | ●                                 |        |   |  | 16.5            | -                                                                                                                 | 11.6 | M3   |                                                                                       |
|                                                                                     | MSD17.0-PM  | ●                                 |        |   |  | 17.0            | -                                                                                                                 | 11.6 | M3   |                                                                                       |
|                                                                                     | MSD17.5-PM  | ●                                 |        |   |  | 17.5            | -                                                                                                                 | 11.6 | M3   |                                                                                       |
|                                                                                     | MSD18.0-PM  | ●                                 |        |   |  | 18.0            | -                                                                                                                 | 11.6 | M3   |                                                                                       |
|                                                                                     | MSD18.5-PM  | ●                                 |        |   |  | 18.5            | -                                                                                                                 | 12.6 | M3   |                                                                                       |
|                                                                                     | MSD19.0-PM  | ●                                 |        |   |  | 19.0            | -                                                                                                                 | 12.6 | M3   |                                                                                       |
|                                                                                     | MSD19.5-PM  | ●                                 |        |   |  | 19.5            | -                                                                                                                 | 12.6 | M3   |                                                                                       |
|                                                                                     | MSD20.0-PM  | ●                                 |        |   |  | 20.0            | -                                                                                                                 | 13.6 | M3   |                                                                                       |
|                                                                                     | MSD20.5-PM  | ●                                 |        |   |  | 20.5            | -                                                                                                                 | 13.6 | M3   |                                                                                       |
|                                                                                     | MSD21.0-PM  | ●                                 |        |   |  | 21.0            | -                                                                                                                 | 13.6 | M3   |                                                                                       |
|                                                                                     | MSD21.5-PM  | ●                                 |        |   |  | 21.5            | -                                                                                                                 | 13.6 | M3   |                                                                                       |
|                                                                                     | MSD22.0-PM  | ●                                 |        |   |  | 22.0            | -                                                                                                                 | 13.6 | M3   |                                                                                       |
|                                                                                     | MSD22.5-PM  | ●                                 |        |   |  | 22.5            | -                                                                                                                 | 14.6 | M3   |                                                                                       |
|                                                                                     | MSD23.0-PM  | ●                                 |        |   |  | 23.0            | -                                                                                                                 | 14.6 | M3   |                                                                                       |
|                                                                                     | MSD23.5-PM  | ●                                 |        |   |  | 23.5            |                                                                                                                   | 14.6 | M3   |                                                                                       |
|                                                                                     | MSD24.0-PM  | ●                                 |        |   |  | 24.0            |                                                                                                                   | 14.6 | M3   |                                                                                       |
|                                                                                     | MSD24.5-PM  | ●                                 |        |   |  | 24.5            |                                                                                                                   | 15.6 | M4   |                                                                                       |
|                                                                                     | MSD25.0-PM  | ●                                 |        |   |  | 25.0            |                                                                                                                   | 15.6 | M4   |                                                                                       |
|                                                                                     | MSD25.5-PM  | ●                                 |        |   |  | 25.5            |                                                                                                                   | 15.6 | M4   |                                                                                       |
|                                                                                     | MSD26.0-PM  | ●                                 |        |   |  | 26.0            |                                                                                                                   | 15.6 | M4   |                                                                                       |
|                                                                                     | MSD26.5-PM  | ●                                 |        |   |  | 26.5            |                                                                                                                   | 16.6 | M4   |                                                                                       |
|                                                                                     | MSD27.0-PM  | ●                                 |        |   |  | 27.0            |                                                                                                                   | 16.6 | M4   |                                                                                       |
|                                                                                     | MSD27.5-PM  | ●                                 |        |   |  | 27.5            |                                                                                                                   | 16.6 | M4   |                                                                                       |
|                                                                                     | MSD28.0-PM  | ●                                 |        |   |  | 28.0            |                                                                                                                   | 16.6 | M4   |                                                                                       |
|                                                                                     | MSD28.5-PM  | ●                                 |        |   |  | 28.5            |                                                                                                                   | 17.6 | M5   |                                                                                       |



## 高性能模組化皇冠鑽

### MSD Carbide Inserts

|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|-------------------------------------------------------------------------------------|-------------|-----------------------------------|--------|---|--|-----------------|-------------------------------------------------------------------------------------------------------------------|------|--------------|---------------------------------------------------------------------------------------|--|
| ISO<br>分類                                                                           | P           | 合金鋼 Alloyed Steels                | ○      |   |  |                 | 切削狀態 Cutting Condition :<br><br>● 連續切削 Continuous Cutting<br>○ 一般切削 General Cutting<br>■ 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<br>Shape                                                                         | 規格<br>Spec. | 鍍層超微粒<br>Layer coated micro grain |        |   |  | 尺寸 (mm)<br>Size |                                                                                                                   |      |              | 圖形<br>Drawing                                                                         |  |
|                                                                                     |             | RM4025                            | RM5005 |   |  | d               | i                                                                                                                 | L    | 螺牙<br>Thread |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|  | MSD29.0-PM  | ●                                 |        |   |  | 29.0            | -                                                                                                                 | 17.6 | M5           |  |  |
|                                                                                     | MSD29.5-PM  | ●                                 |        |   |  | 29.5            | -                                                                                                                 | 17.6 | M5           |                                                                                       |  |
|                                                                                     | MSD30.0-PM  | ●                                 |        |   |  | 30.0            | -                                                                                                                 | 17.6 | M5           |                                                                                       |  |
|                                                                                     | MSD30.5-PM  | ●                                 |        |   |  | 30.5            | -                                                                                                                 | 18.6 | M5           |                                                                                       |  |
|                                                                                     | MSD31.0-PM  | ●                                 |        |   |  | 31.0            | -                                                                                                                 | 18.6 | M5           |                                                                                       |  |
|                                                                                     | MSD31.5-PM  | ●                                 |        |   |  | 31.5            | -                                                                                                                 | 18.6 | M5           |                                                                                       |  |
|                                                                                     | MSD32.0-PM  | ●                                 |        |   |  | 32.0            | -                                                                                                                 | 18.6 | M5           |                                                                                       |  |
|                                                                                     | MSD32.5-PM  | ●                                 |        |   |  | 32.5            | -                                                                                                                 | 20.6 | M6           |                                                                                       |  |
|                                                                                     | MSD33.0-PM  | ●                                 |        |   |  | 33.0            | -                                                                                                                 | 20.6 | M6           |                                                                                       |  |
|                                                                                     | MSD33.5-PM  | ●                                 |        |   |  | 33.5            | -                                                                                                                 | 20.6 | M6           |                                                                                       |  |
|                                                                                     | MSD34.0-PM  | ●                                 |        |   |  | 34.0            | -                                                                                                                 | 20.6 | M6           |                                                                                       |  |
|                                                                                     | MSD34.5-PM  | ●                                 |        |   |  | 34.5            | -                                                                                                                 | 20.6 | M6           |                                                                                       |  |
|                                                                                     | MSD35.0-PM  | ●                                 |        |   |  | 35.0            | -                                                                                                                 | 20.6 | M6           |                                                                                       |  |
|                                                                                     | MSD35.5-PM  | ●                                 |        |   |  | 35.5            | -                                                                                                                 | 20.6 | M6           |                                                                                       |  |
|                                                                                     | MSD36.0-PM  | ●                                 |        |   |  | 36.0            | -                                                                                                                 | 20.6 | M6           |                                                                                       |  |
|                                                                                     | MSD36.5-PM  | ●                                 |        |   |  | 36.5            | -                                                                                                                 | 22.6 | M6           |                                                                                       |  |
|                                                                                     | MSD37.0-PM  | ●                                 |        |   |  | 37.0            | -                                                                                                                 | 22.6 | M6           |                                                                                       |  |
|                                                                                     | MSD37.5-PM  | ●                                 |        |   |  | 37.5            | -                                                                                                                 | 22.6 | M6           |                                                                                       |  |
|                                                                                     | MSD38.0-PM  | ●                                 |        |   |  | 38.0            | -                                                                                                                 | 22.6 | M6           |                                                                                       |  |
|                                                                                     | MSD38.5-PM  | ●                                 |        |   |  | 38.5            | -                                                                                                                 | 22.6 | M6           |                                                                                       |  |
|                                                                                     | MSD39.0-PM  | ●                                 |        |   |  | 39.0            | -                                                                                                                 | 22.6 | M6           |                                                                                       |  |
|                                                                                     | MSD39.5-PM  | ●                                 |        |   |  | 39.5            | -                                                                                                                 | 22.6 | M6           |                                                                                       |  |
|                                                                                     | MSD40.0-PM  | ●                                 |        |   |  | 40.0            | -                                                                                                                 | 22.6 | M6           |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
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|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
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|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
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|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
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|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
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|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
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|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |
|                                                                                     |             |                                   |        |   |  |                 |                                                                                                                   |      |              |                                                                                       |  |

※OM5005 鋁合金材質採接單生產  
 ※OM5005 aluminum alloy is produced upon order.



## MSD 切削條件數據表

## MSD Dutting Parameter

| 被加工材質<br>Machining Materials |                          | 刀片材質<br>Grade | 切削速度<br>Vc(m/min) | 進給率<br>fz(mm/rev) |           |           |           |           |
|------------------------------|--------------------------|---------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
|                              |                          |               |                   | Ø12.5-Ø15         | Ø16-Ø19   | Ø20-Ø24   | Ø25-Ø31   | Ø32-Ø33   |
| P                            | 低合金鋼<br>Low-Alloy Steels | RM4025        | 90~120            | 0.15~0.34         | 0.17~0.40 | 0.19~0.45 | 0.25~0.58 | 0.29~0.66 |
|                              | 合金鋼<br>Alloyed Steels    | RM4025        | 50~95             | 0.15~0.28         | 0.17~0.34 | 0.19~0.40 | 0.25~0.51 | 0.23~0.58 |
| M                            | 不鏽鋼<br>Stainless Steels  | RM4025        | 50~80             | 0.12~0.17         | 0.14~0.20 | 0.16~0.23 | 0.20~0.28 | 0.23~0.32 |
| K                            | 鑄鐵<br>Cast Iron          | RM4025        | 90~125            | 0.18~0.33         | 0.21~0.41 | 0.25~0.44 | 0.31~0.48 | 0.37~0.53 |

## ■ 安裝

### Installation Instruction

1

將中心螺絲調整到正確位置

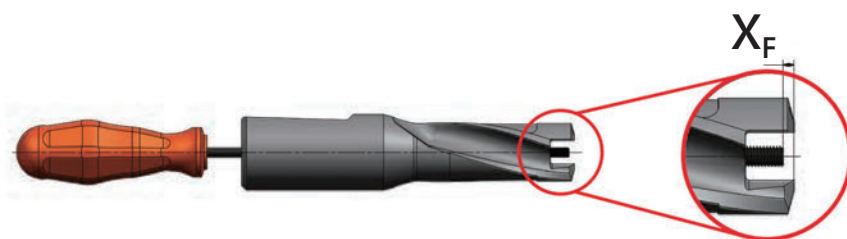
12.5-32.0時,  $X_F=0$

32.1-40.0時,  $X_F=2$

Adjust the center screw to the correct position:

When 12.5-32.0,  $X_F=0$

When 32.1-40.0,  $X_F=2$ "



2

順時針旋轉扳手，將刀片拉入刀片槽，  
注意鬆緊度，太鬆和太緊都是不正常的。

Rotate the wrench clockwise, Pull the insert into the chip breaker,

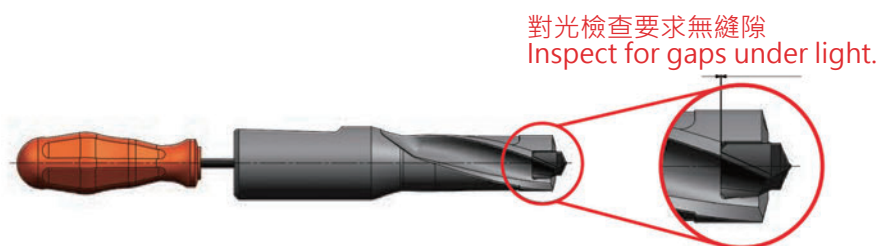
Pay attention to the tightness, both too loose or too tight are incorrect tightness.



3

對光檢查無縫隙。

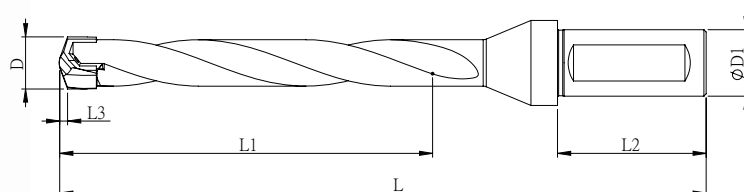
Inspect for gaps under light.





## MSD 3xD 高性能模組化鑽頭

MSD 3xD High Performance Internal Cooling Modular Drills

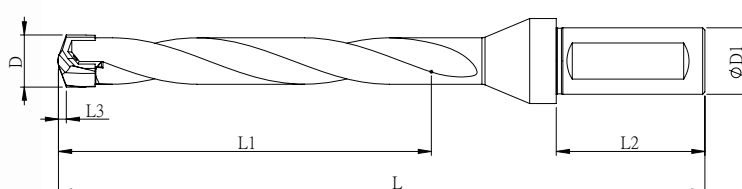


| 規格 Spec.        | 鑽頭直徑<br>D  | 最大鑽深<br>L1 | 鑽尖長<br>L3 | 柄長<br>L2 | 柄徑<br>d |
|-----------------|------------|------------|-----------|----------|---------|
| C20-MSD12.5-38L | 12.5-13.0  | 38         | 2.0       | 48       | 20      |
| C20-MSD13.0-39L | 13.0-13.5  | 39         | 2.1       | 48       | 20      |
| C20-MSD13.6-42L | 13.51-14.0 | 42         | 2.2       | 48       | 20      |
| C20-MSD14.0-42L | 14.0-14.5  | 42         | 2.2       | 48       | 20      |
| C20-MSD14.6-45L | 14.51-15.0 | 45         | 2.3       | 50       | 20      |
| C20-MSD15.0-45L | 15.0-15.5  | 45         | 2.4       | 50       | 20      |
| C20-MSD15.5-47L | 15.5-15.88 | 47         | 2.5       | 50       | 20      |
| C20-MSD15.6-48L | 15.89-16.5 | 48         | 2.5       | 50       | 20      |
| C20-MSD16.5-50L | 16.5-17.0  | 50         | 2.6       | 50       | 20      |
| C20-MSD17.0-51L | 17.0-17.5  | 51         | 2.7       | 50       | 20      |
| C20-MSD17.5-53L | 17.5-18.0  | 53         | 2.8       | 50       | 20      |
| C25-MSD18.1-56L | 18.01-18.5 | 56         | 2.9       | 56       | 25      |
| C25-MSD18.5-56L | 18.5-19.0  | 56         | 2.9       | 56       | 25      |
| C25-MSD19.0-57L | 19.0-19.5  | 57         | 3.0       | 56       | 25      |
| C25-MSD19.5-59L | 19.5-19.99 | 59         | 3.1       | 56       | 25      |
| C25-MSD20.0-60L | 20.0-20.5  | 60         | 3.2       | 56       | 25      |
| C25-MSD20.5-62L | 20.5-21.0  | 62         | 3.3       | 56       | 25      |
| C25-MSD21.0-63L | 21.0-21.5  | 63         | 3.3       | 56       | 25      |
| C25-MSD21.5-65L | 21.5-22.0  | 65         | 3.4       | 56       | 25      |
| C25-MSD22.1-68L | 22.01-22.5 | 68         | 3.5       | 56       | 25      |
| C25-MSD22.5-68L | 22.5-23.0  | 68         | 3.6       | 56       | 25      |
| C25-MSD23.0-69L | 23.0-23.5  | 69         | 3.7       | 56       | 25      |
| C25-MSD23.5-71L | 23.5-24.0  | 71         | 3.7       | 56       | 25      |
| C32-MSD24.1-74L | 24.01-24.5 | 74         | 3.8       | 60       | 32      |
| C32-MSD24.5-74L | 24.5-25.0  | 74         | 3.9       | 60       | 32      |
| C32-MSD25.0-75L | 25.0-25.5  | 75         | 3.8       | 60       | 32      |
| C32-MSD25.5-77L | 25.5-26.0  | 77         | 3.9       | 60       | 32      |



## MSD 3xD 高性能模組化鑽頭

MSD 3xD High Performance Internal Cooling Modular Drills

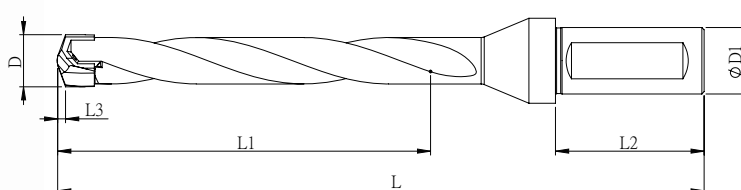


| 規格 Spec.         | 鑽頭直徑<br>D  | 最大鑽深<br>L1 | 鑽尖長<br>L3 | 柄長<br>L2 | 柄徑<br>d |
|------------------|------------|------------|-----------|----------|---------|
| C32-MSD26.1-80L  | 26.01-26.5 | 80         | 4.0       | 60       | 32      |
| C32-MSD26.5-80L  | 26.5-27.0  | 80         | 4.1       | 60       | 32      |
| C32-MSD27.0-81L  | 27.0-27.5  | 81         | 4.2       | 60       | 32      |
| C32-MSD27.5-83L  | 27.5-28.0  | 83         | 4.2       | 60       | 32      |
| C32-MSD28.1-86L  | 28.01-28.5 | 86         | 4.3       | 60       | 32      |
| C32-MSD28.5-86L  | 28.5-29.0  | 86         | 4.4       | 60       | 32      |
| C32-MSD29.0-87L  | 29.0-29.5  | 87         | 4.5       | 60       | 32      |
| C32-MSD29.5-89L  | 29.5-30.0  | 89         | 4.5       | 60       | 32      |
| C32-MSD30.1-91L  | 30.01-30.5 | 91         | 4.6       | 60       | 32      |
| C32-MSD30.5-91L  | 30.5-31.0  | 91         | 4.7       | 60       | 32      |
| C32-MSD31.0-93L  | 31.0-31.5  | 93         | 4.8       | 60       | 32      |
| C32-MSD31.5-95L  | 31.5-32.0  | 95         | 4.8       | 60       | 32      |
| C40-MSD32.1-99L  | 32.01-33.0 | 99         | 4.9       | 70       | 40      |
| C40-MSD33.0-99L  | 33.0-34.0  | 99         | 5.1       | 70       | 40      |
| C40-MSD34.0-102L | 34.0-35.0  | 102        | 5.2       | 70       | 40      |
| C40-MSD35.0-105L | 35.0-36.0  | 105        | 5.4       | 70       | 40      |
| C40-MSD36.1-111L | 36.01-37.0 | 111        | 5.5       | 70       | 40      |
| C40-MSD37.0-111L | 37.0-38.0  | 111        | 5.7       | 70       | 40      |
| C40-MSD38.0-114L | 38.0-39.0  | 114        | 5.8       | 70       | 40      |
| C40-MSD39.0-117L | 39.0-40.0  | 117        | 6.0       | 70       | 40      |
| C40-MSD40.0-120L | 40.0       | 120        | 6.2       | 70       | 40      |



## MSD 5xD 高性能模組化鑽頭

MSD 5xD High Performance Internal Cooling Modular Drills

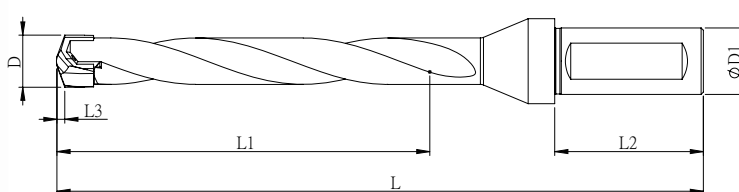


| 規格 Spec.         | 鑽頭直徑<br>D  | 最大鑽深<br>L1 | 鑽尖長<br>L3 | 柄長<br>L2 | 柄徑<br>d |
|------------------|------------|------------|-----------|----------|---------|
| C20-MSD12.5-63L  | 12.5-13.0  | 63         | 2.0       | 48       | 20      |
| C20-MSD13.0-65L  | 13.0-13.5  | 65         | 2.1       | 48       | 20      |
| C20-MSD13.6-69L  | 13.51-14.0 | 69         | 2.2       | 48       | 20      |
| C20-MSD14.0-70L  | 14.0-14.5  | 70         | 2.2       | 48       | 20      |
| C20-MSD14.6-74L  | 14.51-15.0 | 74         | 2.3       | 50       | 20      |
| C20-MSD15.0-75L  | 15.0-15.5  | 75         | 2.4       | 50       | 20      |
| C20-MSD15.5-78L  | 15.5-15.88 | 78         | 2.5       | 50       | 20      |
| C20-MSD15.9-80L  | 15.89-16.5 | 80         | 2.5       | 50       | 20      |
| C20-MSD16.5-83L  | 16.5-17.0  | 83         | 2.6       | 50       | 20      |
| C20-MSD17.0-85L  | 17.0-17.5  | 85         | 2.7       | 50       | 20      |
| C20-MSD17.5-88L  | 17.5-18.0  | 88         | 2.8       | 50       | 20      |
| C25-MSD18.1-92L  | 18.01-18.5 | 92         | 2.9       | 56       | 25      |
| C25-MSD18.5-93L  | 18.5-19.0  | 93         | 2.9       | 56       | 25      |
| C25-MSD19.0-95L  | 19.0-19.5  | 95         | 3.0       | 56       | 25      |
| C25-MSD19.5-98L  | 19.5-19.99 | 98         | 3.1       | 56       | 25      |
| C25-MSD20.0-100L | 20.0-20.5  | 100        | 3.2       | 56       | 25      |
| C25-MSD20.5-103L | 20.5-21.0  | 103        | 3.3       | 56       | 25      |
| C25-MSD21.0-105L | 21.0-21.5  | 105        | 3.3       | 56       | 25      |
| C25-MSD21.5-108L | 21.5-22.0  | 108        | 3.4       | 56       | 25      |
| C25-MSD22.1-112L | 22.01-22.5 | 112        | 3.5       | 56       | 25      |
| C25-MSD22.5-113L | 22.5-23.0  | 113        | 3.6       | 56       | 25      |
| C25-MSD23.0-115L | 23.0-23.5  | 115        | 3.7       | 56       | 25      |
| C25-MSD23.5-118L | 23.5-24.0  | 118        | 3.7       | 56       | 25      |
| C32-MSD24.1-122L | 24.01-24.5 | 122        | 3.8       | 60       | 32      |
| C32-MSD24.5-123L | 24.5-25.0  | 123        | 3.9       | 60       | 32      |
| C32-MSD25.0-125L | 25.0-25.5  | 125        | 3.8       | 60       | 32      |
| C32-MSD25.5-128L | 25.5-26.0  | 128        | 3.9       | 60       | 32      |



## MSD 5xD 高性能模組化鑽頭

MSD 5xD High Performance Internal Cooling Modular Drills

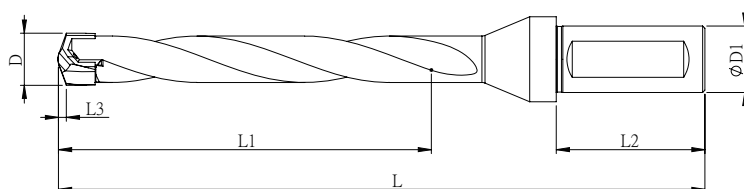


| 規格 Spec.         | 鑽頭直徑<br>D  | 最大鑽深<br>L1 | 鑽尖長<br>L3 | 柄長<br>L2 | 柄徑<br>d |
|------------------|------------|------------|-----------|----------|---------|
| C32-MSD26.1-132L | 26.01-26.5 | 132        | 4.0       | 60       | 32      |
| C32-MSD26.5-133L | 26.5-27.0  | 133        | 4.1       | 60       | 32      |
| C32-MSD27.0-135L | 27.0-27.5  | 135        | 4.2       | 60       | 32      |
| C32-MSD27.5-138L | 27.5-28.0  | 138        | 4.2       | 60       | 32      |
| C32-MSD28.1-142L | 28.01-28.5 | 142        | 4.3       | 60       | 32      |
| C32-MSD28.5-143L | 28.5-29.0  | 143        | 4.4       | 60       | 32      |
| C32-MSD29.0-145L | 29.0-29.5  | 145        | 4.5       | 60       | 32      |
| C32-MSD29.5-143L | 29.5-30.0  | 143        | 4.5       | 60       | 32      |
| C32-MSD30.1-151L | 30.01-30.5 | 151        | 4.6       | 60       | 32      |
| C32-MSD30.5-152L | 30.5-31.0  | 152        | 4.7       | 60       | 32      |
| C32-MSD31.0-155L | 31.0-31.5  | 155        | 4.8       | 60       | 32      |
| C32-MSD31.5-158L | 31.5-32.0  | 158        | 4.8       | 60       | 32      |
| C40-MSD32.1-163L | 32.01-33.0 | 163        | 4.9       | 70       | 40      |
| C40-MSD33.0-165L | 33.0-34.0  | 165        | 5.1       | 70       | 40      |
| C40-MSD34.0-170L | 34.0-35.0  | 170        | 5.2       | 70       | 40      |
| C40-MSD35.0-175L | 35.0-36.0  | 175        | 5.4       | 70       | 40      |
| C40-MSD36.1-183L | 36.01-37.0 | 183        | 5.5       | 70       | 40      |
| C40-MSD37.0-185L | 37.0-38.0  | 185        | 5.7       | 70       | 40      |
| C40-MSD38.0-190L | 38.0-39.0  | 190        | 5.8       | 70       | 40      |
| C40-MSD39.0-195L | 39.0-40.0  | 195        | 6.0       | 70       | 40      |
| C40-MSD40.0-200L | 40.0       | 200        | 6.2       | 70       | 40      |



## MSD 7xD 高性能模組化鑽頭

MSD 7xD High Performance Internal Cooling Modular Drills

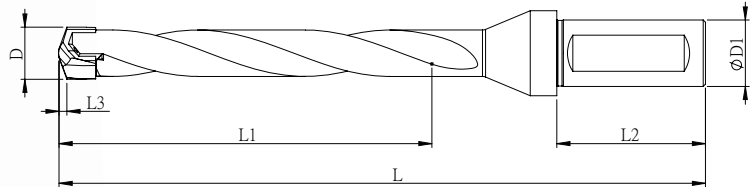


| 規格 Spec.         | 鑽頭直徑<br>D  | 最大鑽深<br>L1 | 鑽尖長<br>L3 | 柄長<br>L2 | 柄徑<br>d |
|------------------|------------|------------|-----------|----------|---------|
| C20-MSD12.5-88L  | 12.5-13.0  | 88         | 2.0       | 48       | 20      |
| C20-MSD13.0-91L  | 13.0-13.5  | 91         | 2.1       | 48       | 20      |
| C20-MSD13.6-96L  | 13.51-14.0 | 96         | 2.2       | 48       | 20      |
| C20-MSD14.0-98L  | 14.0-14.5  | 98         | 2.2       | 48       | 20      |
| C20-MSD14.6-103L | 14.51-15.0 | 103        | 2.3       | 50       | 20      |
| C20-MSD15.0-105L | 15.0-15.5  | 105        | 2.4       | 50       | 20      |
| C20-MSD15.5-109L | 15.5-15.88 | 109        | 2.5       | 50       | 20      |
| C20-MSD15.9-112L | 15.89-16.5 | 112        | 2.5       | 50       | 20      |
| C20-MSD16.5-116L | 16.5-17.0  | 116        | 2.6       | 50       | 20      |
| C20-MSD17.0-119L | 17.0-17.5  | 119        | 2.7       | 50       | 20      |
| C20-MSD17.5-123L | 17.5-18.0  | 123        | 2.8       | 50       | 20      |
| C25-MSD18.1-128L | 18.01-18.5 | 128        | 2.9       | 56       | 25      |
| C25-MSD18.5-130L | 18.5-19.0  | 130        | 2.9       | 56       | 25      |
| C25-MSD19.0-133L | 19.0-19.5  | 133        | 3.0       | 56       | 25      |
| C25-MSD19.5-137L | 19.5-19.99 | 137        | 3.1       | 56       | 25      |
| C25-MSD20.0-140L | 20.0-20.5  | 140        | 3.2       | 56       | 25      |
| C25-MSD20.5-144L | 20.5-21.0  | 144        | 3.3       | 56       | 25      |
| C25-MSD21.0-147L | 21.0-21.5  | 147        | 3.3       | 56       | 25      |
| C25-MSD21.5-151L | 21.5-22.0  | 151        | 3.4       | 56       | 25      |
| C25-MSD22.1-156L | 22.01-22.5 | 156        | 3.5       | 56       | 25      |
| C25-MSD22.5-158L | 22.5-23.0  | 158        | 3.6       | 56       | 25      |
| C25-MSD23.0-161L | 23.0-23.5  | 161        | 3.7       | 56       | 25      |
| C25-MSD23.5-165L | 23.5-24.0  | 165        | 3.7       | 56       | 25      |
| C32-MSD24.1-170L | 24.01-24.5 | 170        | 3.8       | 60       | 32      |
| C32-MSD24.5-172L | 24.5-25.0  | 172        | 3.9       | 60       | 32      |
| C32-MSD25.0-175L | 25.0-25.5  | 175        | 3.8       | 60       | 32      |
| C32-MSD25.6-179L | 25.51-26.0 | 179        | 3.9       | 60       | 32      |



## MSD 7xD 高性能模組化鑽頭

MSD 7xD High Performance Internal Cooling Modular Drills

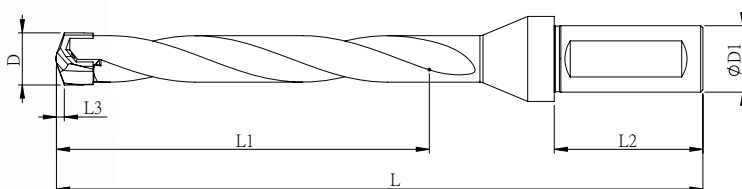


| 規格 Spec.         | 鑽頭直徑<br>D  | 最大鑽深<br>L1 | 鑽尖長<br>L3 | 柄長<br>L2 | 柄徑<br>d |
|------------------|------------|------------|-----------|----------|---------|
| C32-MSD26.1-184L | 26.01-26.5 | 184        | 4.0       | 60       | 32      |
| C32-MSD26.5-186L | 26.5-27.0  | 186        | 4.1       | 60       | 32      |
| C32-MSD27.0-189L | 27.0-27.5  | 189        | 4.2       | 60       | 32      |
| C32-MSD27.5-193L | 27.5-28.0  | 193        | 4.2       | 60       | 32      |
| C32-MSD28.1-198L | 28.01-28.5 | 198        | 4.3       | 60       | 32      |
| C32-MSD28.5-200L | 28.5-29.0  | 200        | 4.4       | 60       | 32      |
| C32-MSD29.0-203L | 29.0-29.5  | 203        | 4.5       | 60       | 32      |
| C32-MSD29.5-207L | 29.5-30.0  | 207        | 4.5       | 60       | 32      |
| C32-MSD30.1-211L | 30.01-30.5 | 211        | 4.6       | 60       | 32      |
| C32-MSD30.5-213L | 30.5-31.0  | 213        | 4.7       | 60       | 32      |
| C32-MSD31.0-217L | 31.0-31.5  | 217        | 4.8       | 60       | 32      |
| C32-MSD31.5-221L | 31.5-32.0  | 221        | 4.8       | 60       | 32      |
| C40-MSD32.1-227L | 32.01-33.0 | 227        | 4.9       | 70       | 40      |
| C40-MSD33.0-231L | 33.0-34.0  | 231        | 5.1       | 70       | 40      |
| C40-MSD34.0-238L | 34.0-35.0  | 238        | 5.2       | 70       | 40      |
| C40-MSD35.0-245L | 35.0-36.0  | 245        | 5.4       | 70       | 40      |
| C40-MSD36.1-255L | 36.01-37.0 | 255        | 5.5       | 70       | 40      |
| C40-MSD37.0-259L | 37.0-38.0  | 259        | 5.7       | 70       | 40      |
| C40-MSD38.0-266L | 38.0-39.0  | 266        | 5.8       | 70       | 40      |
| C40-MSD39.0-273L | 39.0-40.0  | 273        | 6.0       | 70       | 40      |
| C40-MSD40.0-280L | 40.0       | 280        | 6.2       | 70       | 40      |



## MSD 10xD 高性能模組化鑽頭

MSD 10xD High Performance Internal Cooling Modular Drills

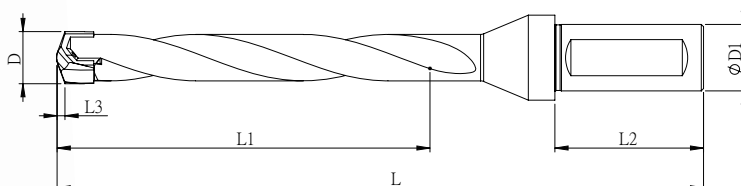


| 規格 Spec.         | 鑽頭直徑<br>D  | 最大鑽深<br>L1 | 鑽尖長<br>L3 | 柄長<br>L2 | 柄徑<br>d |
|------------------|------------|------------|-----------|----------|---------|
| C20-MSD12.5-125L | 12.5-13.0  | 125        | 2.0       | 48       | 20      |
| C20-MSD13.0-130L | 13.0-13.5  | 130        | 2.1       | 48       | 20      |
| C20-MSD13.6-136L | 13.51-14.0 | 136        | 2.2       | 48       | 20      |
| C20-MSD14.0-140L | 14.0-14.5  | 140        | 2.2       | 48       | 20      |
| C20-MSD14.6-146L | 14.51-15.0 | 146        | 2.3       | 50       | 20      |
| C20-MSD15.0-150L | 15.0-15.5  | 150        | 2.4       | 50       | 20      |
| C20-MSD15.5-155L | 15.5-15.88 | 155        | 2.5       | 50       | 20      |
| C20-MSD15.9-160L | 15.89-16.5 | 160        | 2.5       | 50       | 20      |
| C20-MSD16.5-165L | 16.5-17.0  | 165        | 2.6       | 50       | 20      |
| C20-MSD17.0-170L | 17.0-17.5  | 170        | 2.7       | 50       | 20      |
| C20-MSD17.5-175L | 17.5-18.0  | 175        | 2.8       | 50       | 20      |
| C25-MSD18.1-182L | 18.01-18.5 | 182        | 2.9       | 56       | 25      |
| C25-MSD18.5-185L | 18.5-19.0  | 185        | 2.9       | 56       | 25      |
| C25-MSD19.0-190L | 19.0-19.5  | 190        | 3.0       | 56       | 25      |
| C25-MSD19.5-195L | 19.5-19.99 | 195        | 3.1       | 56       | 25      |
| C25-MSD20.0-200L | 20.0-20.5  | 200        | 3.2       | 56       | 25      |
| C25-MSD20.5-205L | 20.5-21.0  | 205        | 3.3       | 56       | 25      |
| C25-MSD21.0-210L | 21.0-21.5  | 210        | 3.3       | 56       | 25      |
| C25-MSD21.5-215L | 21.5-22.0  | 215        | 3.4       | 56       | 25      |
| C25-MSD22.1-222L | 22.01-22.5 | 222        | 3.5       | 56       | 25      |
| C25-MSD22.5-225L | 22.5-23.0  | 225        | 3.6       | 56       | 25      |
| C25-MSD23.0-230L | 23.0-23.5  | 230        | 3.7       | 56       | 25      |
| C25-MSD23.5-235L | 23.5-24.0  | 235        | 3.7       | 56       | 25      |
| C32-MSD24.1-242L | 24.01-24.5 | 242        | 3.8       | 60       | 32      |
| C32-MSD24.5-245L | 24.5-25.0  | 245        | 3.9       | 60       | 32      |
| C32-MSD25.0-250L | 25.0-25.5  | 250        | 3.8       | 60       | 32      |
| C32-MSD25.5-255L | 25.5-26.0  | 255        | 3.9       | 60       | 32      |



## MSD 10xD 高性能模組化鑽頭

MSD 10xD High Performance Internal Cooling Modular Drills



| 規格 Spec.         | 鑽頭直徑<br>D  | 最大鑽深<br>L1 | 鑽尖長<br>L3 | 柄長<br>L2 | 柄徑<br>d |
|------------------|------------|------------|-----------|----------|---------|
| C32-MSD26.1-262L | 26.01-26.5 | 262        | 4.0       | 60       | 32      |
| C32-MSD26.5-265L | 26.5-27.0  | 265        | 4.1       | 60       | 32      |
| C32-MSD27.0-270L | 27.0-27.5  | 270        | 4.2       | 60       | 32      |
| C32-MSD27.5-275L | 27.5-28.0  | 275        | 4.2       | 60       | 32      |
| C32-MSD28.1-282L | 28.01-28.5 | 282        | 4.3       | 60       | 32      |
| C32-MSD28.5-285L | 28.5-29.0  | 285        | 4.4       | 60       | 32      |
| C32-MSD29.0-290L | 29.0-29.5  | 290        | 4.5       | 60       | 32      |
| C32-MSD29.5-295L | 29.5-30.0  | 295        | 4.5       | 60       | 32      |
| C32-MSD30.1-302L | 30.01-30.5 | 302        | 4.6       | 60       | 32      |
| C32-MSD30.5-305L | 30.5-31.0  | 305        | 4.7       | 60       | 32      |
| C32-MSD31.0-310L | 31.0-31.5  | 310        | 4.8       | 60       | 32      |
| C32-MSD31.5-315L | 31.5-32.0  | 315        | 4.8       | 60       | 32      |
| C40-MSD32.1-323L | 32.01-33.0 | 323        | 4.9       | 70       | 40      |
| C40-MSD33.0-330L | 33.0-34.0  | 330        | 5.1       | 70       | 40      |
| C40-MSD34.0-340L | 34.0-35.0  | 340        | 5.2       | 70       | 40      |
| C40-MSD35.0-350L | 35.0-36.0  | 350        | 5.4       | 70       | 40      |
| C40-MSD36.1-363L | 36.01-37.0 | 363        | 5.5       | 70       | 40      |
| C40-MSD37.0-370L | 37.0-38.0  | 370        | 5.7       | 70       | 40      |
| C40-MSD38.0-380L | 38.0-39.0  | 380        | 5.8       | 70       | 40      |
| C40-MSD39.0-390L | 39.0-40.0  | 390        | 6.0       | 70       | 40      |
| C40-MSD40.0-400L | 40.0       | 400        | 6.2       | 70       | 40      |

# 刀具再研磨服務

Re-sharpening Service

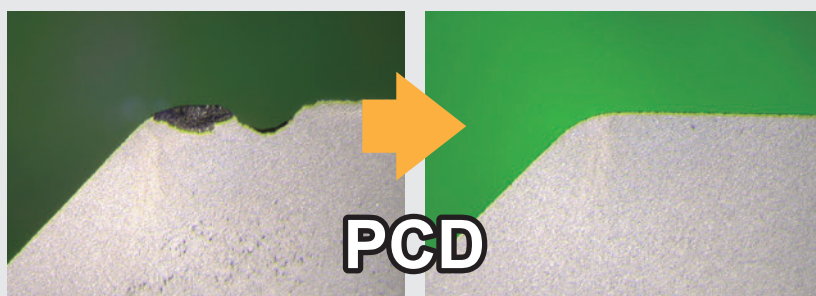
再研磨 · 免浪費 · 重環保

## 重複研磨 好處

- ① 減少購買新刀具的需求
- ② 刀具壽命延長，**降低成本**
- ③ 可重新研磨至所需尺寸
- ④ 節省至少**75%**的費用
- ⑤ 重新研磨後，刀片仍可達到傑出的加工效能
- ⑥ **重新鍍膜**  
(有最低數量要求)

修磨前

修磨後



MEMO

[illegible]

[illegible]



☎ 電話 TEL /  
+886-4-26265252

📠 傳真 FAX /  
+886-4-26267941

📍 地址 Address /  
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 Website /  
[www.chain-headway.com](http://www.chain-headway.com)



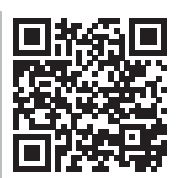
公司官網(中文)



Website(EN)



LINE



WeChat



Facebook



YouTube