HOL T&M Series　Turning & Milling Tools

# HOL 歐樂

## HOL T&M Series

瑞士型CNC走心式自動車床刀具
SWISS Type CNC
Head-Sliding
Lathe Tool




HOL 歐樂
鶴峻實業有限公司
HOLER CUTTING TOOL CO., LTD.

E-mail:sales@hol-drill.com.tw
http:// www.hol-drill.com.tw

工廠:414 台中市烏日區慶光路112之26號
Tel: +886-4-2335 2345
Fax:+886-4-2335 2255

FACTORY: No.112-26, Qingguang Rd.,
Wuji Distric, Taichung 414, Taiwan
Tel: +886-4-2335 2345
Fax:+886-4-2335 2255



20120813


www.hol-drill.com.tw

2013-2014

# HOL T&M 系列
# HOL T&M SERIES
TURNING & MILLIMG TOOLS

## 瑞士型CNC走心式自動車床刀具
SWISS Type CNC Head-Sliding Lathe Tool

HOL T & M 系列CNC走心式自動車床刀具之卓越特性在展現高效率車削，高精度與耐磨耗性。鶴峻公司秉持豐富的車床車削與銑削技術經驗，成功開發出全系列的車銑刀具，廣泛應用在各種材質的加工，例如:快削鋼，一般鋼材，不鏽鋼與鈦合金等。HOL T&M車銑刀具可有效提升CNC 走心式自動車床之加工效率，表面精度且使用壽命長。

The HOL T&M series exhibits extra high cutting efficiency, high accuracy and high wear resistance. Based on the extensive experience of lathe turning and milling technology, HOLER widely applied for cutting applications for carious material such as fast-cut steel, general steel, stainless steel and titanium alloy…etc. HOL T&M series tool will greatly upgrade machining efficiency, surface accuracy, products' life time while working with CNC traveling spindle automatic lathe.



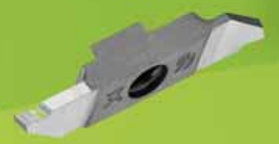
## HOL T&M系列 產品特性
## Features of HOL T&M series tool

◊ 一種刀架可使用多種刀片，增加調用靈活性。
◊ 刀片更換簡易雖非成熟技術員，亦可輕鬆完成。
◊ 材種齊全，設計多樣，價格公道。

◊ One holder applies with various inserts, which increases tool's flexibility.
◊ The inserts are easy to change. Even an unskilled operator can change inserts independently.
◊ Our tools with comprehensive types, diversity of designs, and competitive prices.



## 常用鍍膜
## Frequently Used Coating

| | | |
|---|---|---|
|  up60 沉金色 Gold |  X21 灰色 Gray |  NA01 酒紅色 Burgundy -violet |
|  Hc83 黃金色 Gold |  NC02 輝黑色 Metal-silver | |

## 內徑車刀
## Micro Bar-Boring



# 索引 INDEX


| | 頁次 Page |
|---|---|
| 右向前掃刀 Right Hand Front Turn 33.**** 33.****D 33.****V | P.5 |
| 倒角刀片 Chamfering Blae 35.**** | P.8 |
| 右向後掃刀 Right Hand Back Turn 67.**** 69.**** 674.**** 694.**** | P.9 P.43 |
| 左向後掃刀 Left Hand Back Turn 68.**** 70.**** 684.**** 694.**** 704.**** | P.12 P.45 |
| 右向牙刀 Right Hand Threading 49.**** 494.**** | P.13 P.46 |
| 左向牙刀 Left Hand Threading 50.**** 504.**** | P.13 P.46 |
| 右向切斷刀 Right Hand Part Off 43.**** 433.**** | P.14 P.47 |
| 左向切斷刀 Left Hand Part Off 44.**** 443.**** | P.22 P.50 |
| 左向右切切斷刀 Left Hand Right Cutting Part Off 44.***R 443.***R | P.30 P.52 |
| 端面切溝刀 Face Grooving 21.**** 214.**** | P.38 P.42 |
| 右向切槽刀 Right Hand Groove 71.**** 714.**** | P.39 P.54 |
| 右向圓槽刀 Right Hand Radius 71.***R 714.***R | P.40 P.55 |
| 右向插掃刀 Right Hand Groove and Turn 75.**** 774.**** | P.40 P.56 |
| 刀架 Holder | P.57 |
| 內徑車刀 Micro Bar-Boring 25.**** TW 25.**** ATW 25.**** | P.60 P.61 |
| 內徑車刀 Micro Bar-Boring 27.**** TW 27.**** ATW 27.**** | P.62 P.63 |
| 內徑車刀 Micro Bar-Boring 29.**** TW 29.**** ATW 29.**** | P.64 P.65 |
| 內徑車刀 Micro Bar-Boring 37.**** TW 37.**** ATW 37.**** | P.66 P.67 |
| 內徑車刀 Micro Bar-Boring 45.**** TW 45.**** ATW 45.**** | P.68 P.69 |
| 內徑車刀 Micro Bar-Boring 47.**** TW 47.**** ATW 47.**** | P.70 P.71 |
| 內徑牙刀 Micro Internal Threading 51.**** TW 51.**** ATW 51.**** | P.72 |
| 內徑槽刀 Micro Internal 53.**** TW 53.**** ATW 53.**** | P.73 P.74 |
| 內徑圓槽刀 Internal radius turning tool B53.**** TW B53.**** ATW B53.**** | P.75 P.76 |
| 內徑倒角刀 Internal chamfering blae 57.**** TW 57.**** ATW 57.**** | P.77 P.78 |
| 平面槽刀 Micro Internal Face Grooving 73.**** TW 73.**** ATW 73.**** | P.79 P.80 |
| 右向端面圓槽刀 Right hand end face eadius turning tool B73.**** TW B73.**** ATW B73.**** | P.81 P.82 |
| 端面槽刀 Micro End Face Grooving 74.**** TW 74.**** ATW 74.**** | P.83 P.84 |
| 左向端面圓槽刀 Left hand end face eadius turning tool B74.**** TW B74.**** ATW B74.**** | P.85 P.86 |
| 套筒 Sleeve | P.87 |
| 套筒 Sleeve | P.88 |
| 套筒 Sleeve | P.89 |





| 鎢鋼鑽頭 Solid Carbide Drills | 頁次 Page |
|---|---|
| 全鎢鋼被覆鑽頭 Tungsten Carbide Coates Drill | P.90 |
| 全鎢鋼鉸刀 Tungsten Carbide Reamers | P.95 |
| 全鎢鋼單頭NC定位鑽頭 Solid Carbide NC Positioning Drill | P.98 |
| 全鎢鋼三刃倒角刀 Tungsten Carbide 3-Flute Cahmfering End Mill | P.99 |

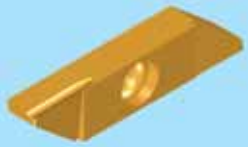
| 鎢鋼立銑刀 Solid Carbide End Mills | 頁次 Page |
|---|---|
| 全鎢鋼鋁用立銑刀 Tungsten Carbide End Mill | P.100 |
| 鎢鋼2刃點數型立銑刀 Tungsten Carbide 2-Flute Decimal End Mill | P.101 |
| 鎢鋼口袋型立銑刀 Tungsten Carbide 4-Flute Pocket End Mill | P.102 |
| 鎢鋼2刃球形立銑刀 Tungsten Carbide 2-Flute Ball NOSE End Mill | P.103 |
| 鎢鋼4刃點數型立銑刀 TTungsten Carbide 4-Flute Decimal End Mill | P.104 |

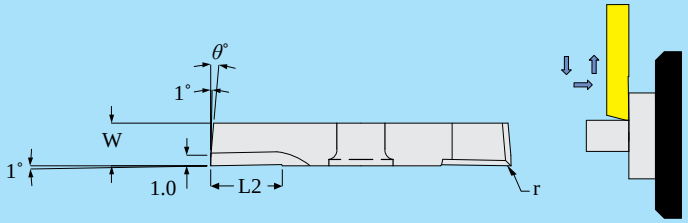
| 圓鋸片 Circular Sawblade | 頁次 Page |
|---|---|
| 全鎢鋼金屬圓鋸片 Solid Tungsten Metal Circular Sawblade | P.113 |
| HSS小徑槽鋸片 Hss Small Diameter Slotting Circular Sawblade | P.115 |
| 側銑刀系列 SIDE MILLING CUTTERS | P.117 |
| 夾頭 導套系列 COLLET GUIDE BUSH | P.121 |

| 切削條件表 Cutting Test Report | 頁次 Page |
|---|---|
| 車刀切削條件 Cutting Test Report | P.105 |
| 切削排屑:應用介紹 Chip Evacuation: Applications | P.106 |
| 鑽頭切削實例 Drill Cutting Test Report | P.107 |
| 端銑刀切削條件 End Mill Cutting Test Report | P.108 |
| 側銑刀切削條件加工參考指數 RECOMMENDED SLOT MACHINING DATA FOR SIDE MILLING CUTTER | P.125 |
| 尺寸公差表 Dimensional Tolerance | P.126 |
| PVD 各種硬質薄膜特性 PVD Hard Coating Properties | P.126 |
| 鎢鋼鑽頭之故障排除 TROUBLE SHOOTING FOR SOLID CARBIDE DRILL | P.127 |
| 技術資料 Technical Information | P.129 |
| 切削刀具使用上注意事項 NOTICE FOR USING CUTTING TOOL | P.131 |
| 對應鋼的韋氏之近似換算值 | P.132 |
| 車刀加工示意圖 | P.133 |

# 右向前掃刀 Right Hand Front Turn

## MU 斷屑槽 MU Breaker

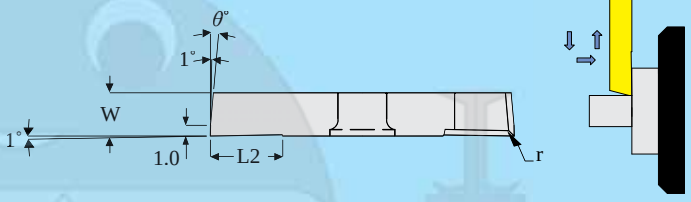





| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 33.6330-00 MU | 3.0 | 5° | 0.0 | 8.5 | | ● | | CS789R****-63 |
| 33.6330-01 MU | 3.0 | | 0.1 | | | ● | | |
| 33.6330-02 MU | 3.0 | | 0.2 | | | ● | | |

## 無 斷屑槽 NO Breaker

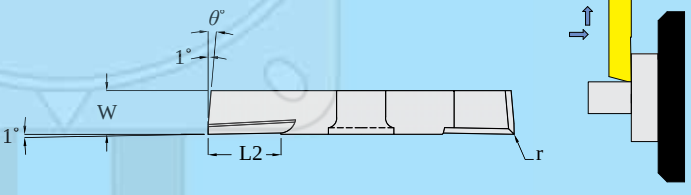





| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 33.6330-00 NB | 3.0 | 5° | 0.0 | 8.5 | ● | ● | | CS789R****-63 |
| 33.6330-01 NB | 3.0 | | 0.1 | | ● | ● | | |
| 33.6330-02 NB | 3.0 | | 0.2 | | ● | ● | | |

## ME 斷屑槽 ME Breaker





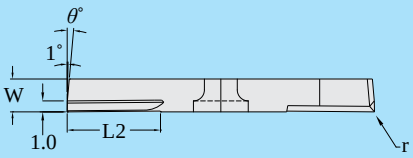

| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 33.6330-00 ME | 3.0 | 5° | 0.0 | 8.5 | ● | ● | | CS789R****-63 |
| 33.6330-005 ME | 3.0 | | 0.05 | | | | | |
| 33.6330-01 ME | 3.0 | | 0.1 | | ● | ● | | |
| 33.6330-02 ME | 3.0 | | 0.2 | | ● | ● | | |
| 33.6330-04 ME | 3.0 | | 0.4 | | | | | |

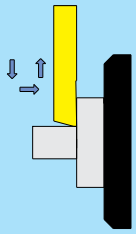
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向前掃刀 Right Hand Front Turn

## MF 斷屑槽 MF Breaker

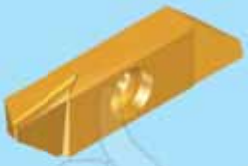


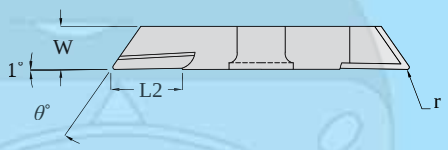


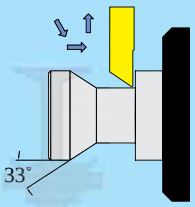



| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 33.6330-00 MF | 3.0 | 5° | 0.0 | 8.5 | ● | ● | ● | CS789R****-63 |
| 33.6330-005 MF | 3.0 | | 0.05 | | | | | |
| 33.6330-01 MF | 3.0 | | 0.1 | | ● | ● | ● | |
| 33.6330-02 MF | 3.0 | | 0.2 | | ● | ● | ● | |

## ME 斷屑槽 ME Breaker



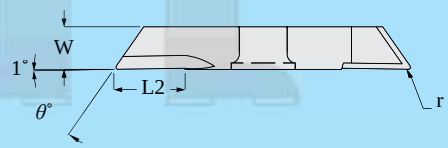


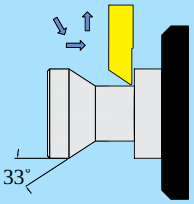




| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 33.6330D-00 ME | 3.0 | 55° | 0.0 | 8.5 | ● | ● | | CS789R****-63 |
| 33.6330D-005 ME | 3.0 | | 0.05 | | | | | |
| 33.6330D-01 ME | 3.0 | | 0.1 | | ● | ● | | |
| 33.6330D-02 ME | 3.0 | | 0.2 | | ● | ● | | |
| 33.6330D-04 ME | 3.0 | | 0.4 | | | | | |

## MU 斷屑槽 MU Breaker





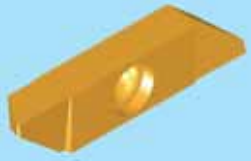



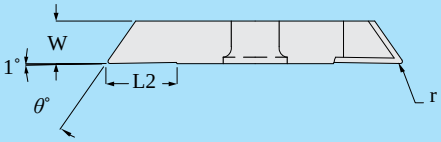

| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 33.6330D-00 MU | 3.0 | 55° | 0.0 | 8.5 | ● | ● | | CS789R****-63 |
| 33.6330D-01 MU | 3.0 | | 0.1 | | ● | ● | | |
| 33.6330D-02 MU | 3.0 | | 0.2 | | ● | ● | | |

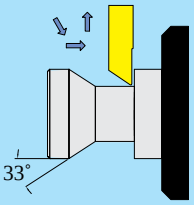
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向前掃刀 Right Hand Front Turn

## 無 斷屑槽 NO Breaker



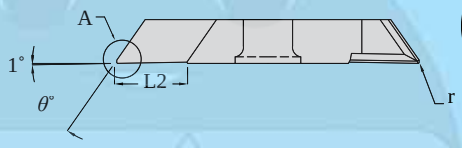


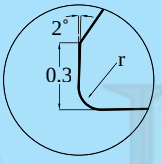



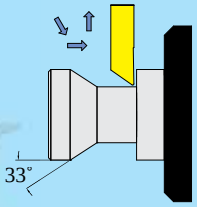

| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 33.6330D-00 NB | 3.0 | 55° | 0.0 | 8.5 | ● | ● | | CS789R****-63 |
| 33.6330D-01 NB | 3.0 | | 0.1 | | ● | ● | | |
| 33.6330D-02 NB | 3.0 | | 0.2 | | ● | ● | | |

## MY 斷屑槽 MY Breaker





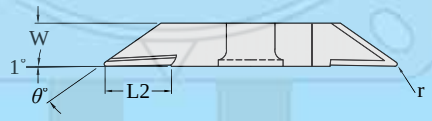



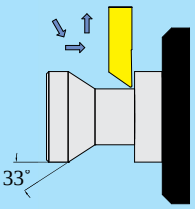




| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 33.6330-00 MY | 3.0 | 60° | 0.0 | 8.5 | ● | ● | | CS789R****-63 |
| 33.6330-01 MY | 3.0 | | 0.1 | | ● | ● | | |
| 33.6330-02 MY | 3.0 | | 0.2 | | ● | ● | | |

## ME 斷屑槽 ME Breaker





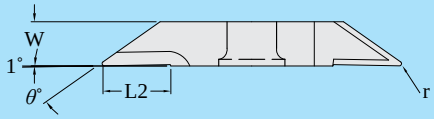

| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 33.6330V-00 ME | 3.0 | 35° | 0.0 | 8.5 | ● | ● | | CS789R****-63 |
| 33.6330V-01 ME | 3.0 | | 0.1 | | ● | ● | | |
| 33.6330V-02 ME | 3.0 | | 0.2 | | ● | ● | | |
| 33.6330V-04 ME | 3.0 | | 0.4 | | | | | |

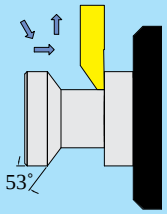
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向前掃刀 Right Hand Front Turn

### MU 斷屑槽 MU Breaker





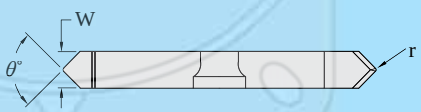



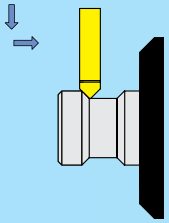

| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 33.6330V-00 MU | 3.0 | 35° | 0.0 | 8.5 | | ● | | CS789R****-63 |
| 33.6330V-01 MU | 3.0 | | 0.1 | | | ● | | |
| 33.6330V-02 MU | 3.0 | | 0.2 | | | ● | | |

# 倒角刀片 Chamfering Blade

### 無 斷屑槽 NO Breaker





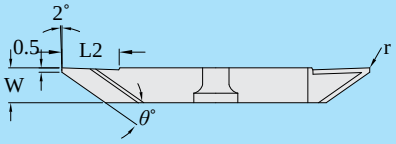
| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 35.6330-00 | 3.0 | 90° | 0.0 | | | | | CS789R****-63 |
| 35.6330-01 | 3.0 | | 0.1 | | | | | |
| 35.6330-02 | 3.0 | | 0.2 | | | | ● | |
| 35.8440-00 | 4.0 | 90° | 0.0 | | | | | CS668R****-84 |
| 35.8440-01 | 4.0 | | 0.1 | | | | | |
| 35.8440-02 | 4.0 | | 0.2 | | | | ● | |

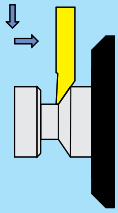
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向後掃刀 Right Hand Back Turn

## CE 斷屑槽 CE Breaker



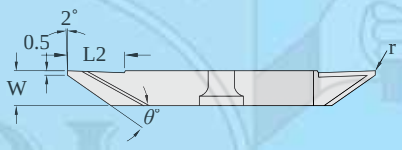


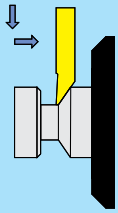



| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 67.6330-00 CE | 3.0 | 35° | 0.0 | 8.5 | | | | CS789R****-63 |
| 67.6330-01 CE | 3.0 | | 0.1 | | | ● | | |
| 67.6330-02 CE | 3.0 | | 0.2 | | | | | |
| 67.8440-00 CE | 4.0 | 35° | 0.0 | 8.5 | | | | CS668R****-84 |
| 67.8440-01 CE | 4.0 | | 0.1 | | | ● | | |
| 67.8440-02 CE | 4.0 | | 0.2 | | | ● | | |

## ME 斷屑槽 ME Breaker





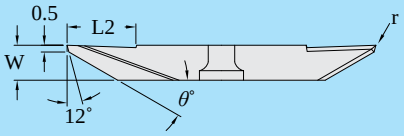
| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 67.6330-00 ME | 3.0 | 35° | 0.0 | 8.5 | | | | CS789R****-63 |
| 67.6330-01 ME | 3.0 | | 0.1 | | | ● | | |
| 67.6330-02 ME | 3.0 | | 0.2 | | | ● | | |
| 67.8440-00 ME | 4.0 | 35° | 0.0 | 8.5 | | | | CS668R****-84 |
| 67.8440-01 ME | 4.0 | | 0.1 | | | ● | | |
| 67.8440-02 ME | 4.0 | | 0.2 | | | ● | | |

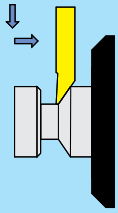
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向後掃刀 Right Hand Back Turn

## MD 斷屑槽 MD Breaker



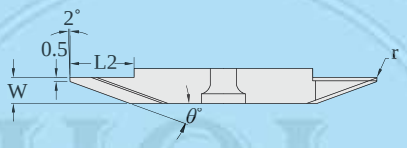


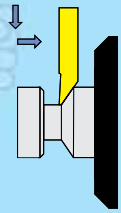



| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 67.6330-00 MD | 3.0 | 30° | 0.0 | 8.5 | | | | CS789R****-63 |
| 67.6330-01 MD | 3.0 | | 0.1 | | | ● | | |
| 67.6330-02 MD | 3.0 | | 0.2 | | | ● | | |
| 67.8440-00 MD | 4.0 | 30° | 0.0 | 8.5 | | | | CS668R****-84 |
| 67.8440-01 MD | 4.0 | | 0.1 | | | ● | | |
| 67.8440-02 MD | 4.0 | | 0.2 | | | ● | | |

## CE 斷屑槽 CE Breaker





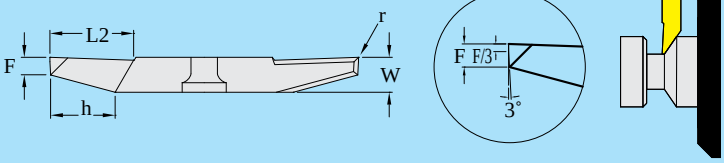
| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 69.6320-01 CE | 2.0 | 20° | 0.1 | 8.5 | | | | CS789R****-63 |
| 69.6320-02 CE | 2.0 | | 0.2 | | | | | |
| 69.6330-01 CE | 3.0 | 20° | 0.1 | 8.5 | | ● | | CS789R****-63 |
| 69.6330-02 CE | 3.0 | | 0.2 | | | ● | | |
| 69.8430-01 CE | 3.0 | 20° | 0.1 | 8.5 | | | ● | CS668R****-84 |
| 69.8430-02 CE | 3.0 | | 0.2 | | | | ● | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向後掃刀 Right Hand Back Turn

## MA 斷屑槽 MA Breaker

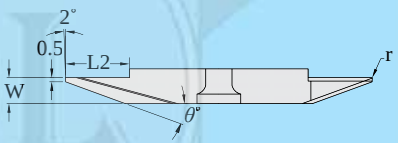





| 型號 EDP NO. | W | θ° | r | F | h | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 69.6310-00 MA | 3.0 | 15° | 0.0 | 1.0 | 8.5 | 8.5 | | ● | | CS789R****-63 |
| 69.6310-01 MA | | | 0.1 | | | | | ● | | |
| 69.6310-02 MA | | | 0.2 | | | | | | | |
| 69.6315-00 MA | 3.0 | 15° | 0.0 | 1.5 | 8.5 | 8.5 | | ● | | CS789R****-63 |
| 69.6315-01 MA | | | 0.1 | | | | | | | |
| 69.6315-02 MA | | | 0.2 | | | | | ● | | |
| 69.8415-00 MA | 3.5 | 15° | 0.0 | 1.5 | 8.5 | 8.5 | | ● | | CS668R****-84 |
| 69.8415-01 MA | | | 0.1 | | | | | | | |
| 69.8415-02 MA | | | 0.2 | | | | | ● | | |
| 69.8420-00 MA | 4.0 | 15° | 0.0 | 2.0 | 8.5 | 8.5 | | ● | | CS668R****-84 |
| 69.8420-01 MA | | | 0.1 | | | | | | | |
| 69.8420-02 MA | | | 0.2 | | | | | ● | | |

## ME 斷屑槽 ME Breaker






| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 69.6320-01 ME | 2.0 | 20° | 0.1 | 8.5 | | | | CS789R****-63 |
| 69.6320-02 ME | 2.0 | | 0.2 | | | | | |
| 69.6330-01 ME | 3.0 | 20° | 0.1 | 8.5 | | ● | | CS789R****-63 |
| 69.6330-02 ME | 3.0 | | 0.2 | | | ● | | |
| 69.8430-01 ME | 3.0 | 20° | 0.1 | 8.5 | | | ● | CS668R****-84 |
| 69.8430-02 ME | 3.0 | | 0.2 | | | | ● | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.





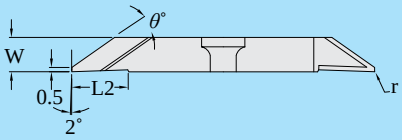


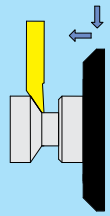


# 左向後掃刀 Left Hand Back Turn

## CE 斷屑槽 CE Breaker



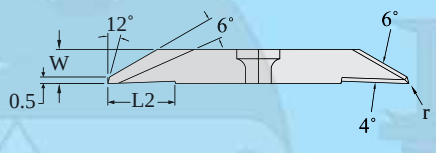


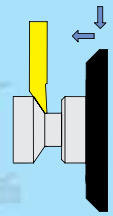



| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 68.6330-00 CE | 3.0 | 35° | 0.0 | 8.5 | | | | CS789L****-63 |
| 68.6330-01 CE | 3.0 | | 0.1 | | | | | |
| 68.6330-02 CE | 3.0 | | 0.2 | | | | | |
| 68.8440-00 CE | 4.0 | 35° | 0.0 | 8.5 | | | | CS668L****-84 |
| 68.8440-01 CE | 4.0 | | 0.1 | | | | | |
| 68.8440-02 CE | 4.0 | | 0.2 | | | | | |

## MD 斷屑槽 MD Breaker



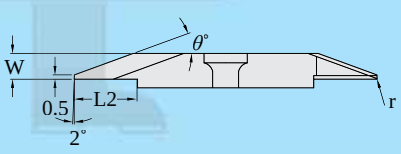


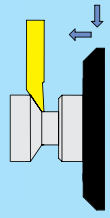



| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 68.6330-00 MD | 3.0 | 30° | 0.0 | 8.5 | | | | CS789L****-63 |
| 68.6330-01 MD | 3.0 | | 0.1 | | | | | |
| 68.6330-02 MD | 3.0 | | 0.2 | | | | | |
| 68.8440-00 MD | 4.0 | 30° | 0.0 | 8.5 | | | | CS668L****-84 |
| 68.8440-01 MD | 4.0 | | 0.1 | | | | | |
| 68.8440-02 MD | 4.0 | | 0.2 | | | | | |

## CE 斷屑槽 CE Breaker



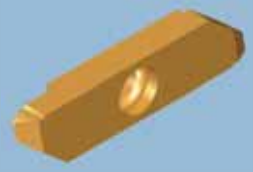


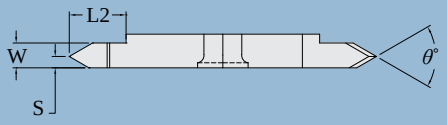



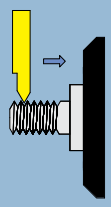
| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 70.6330-01 CE | 3.0 | 20° | 0.1 | 8.5 | | | | CS789L****-63 |
| 70.6330-02 CE | 3.0 | | 0.2 | | | | | |
| 70.8430-01 CE | 3.0 | 20° | 0.1 | 8.5 | | | | CS668L****-84 |
| 70.8430-02 CE | 3.0 | | 0.2 | | | | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向牙刀 Right Hand Threading



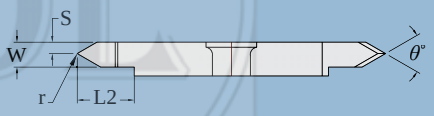


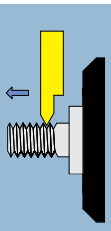



| 型號 EDP NO. | W | θ° | r1 | L2 | S | X21 | NC03 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 49.6315-6000 | 1.5 | 60° | 0.0 | 5 | 0.65 | | | CS789R****-63 |
| 49.6315-60005 | 1.5 | | 0.05 | | | ● | ● | |
| 49.6315-6001 | 1.5 | | 0.1 | | | ● | ● | |
| 49.6320-6001 | 2.0 | | 0.1 | 6 | 0.8 | ● | ● | |
| 49.6320-55005 | 1.5 | 55° | 0.05 | | | | | |
| 49.6320-5501 | 2.0 | | 0.1 | | | ● | ● | |
| 49.6330-5502 | 3.0 | | 0.2 | 8.5 | 1.3 | ● | ● | |
| 49.6330-6001 | 3.0 | 60° | 0.1 | | | | | |
| 49.6330-6002 | 3.0 | | 0.2 | | | | | |
| 49.8420-55005 | 1.5 | 55° | 0.05 | 6 | 0.8 | | | |
| 49.8420-5501 | 2.0 | | 0.1 | | | ● | ● | CS668R****-84 |
| 49.8430-5501 | 3.0 | | 0.1 | 8.5 | 1.3 | ● | ● | |
| 49.8430-5502 | 3.0 | | 0.2 | | | | | |
| 49.8420-60005 | 2.0 | 60° | 0.05 | 6 | 0.8 | ● | ● | |
| 49.8420-6001 | 2.0 | | 0.1 | | | ● | ● | |
| 49.8430-6001 | 3.0 | | 0.1 | 8.5 | 1.3 | ● | ● | |
| 49.8430-6002 | 3.0 | | 0.2 | | | ● | ● | |

# 左向牙刀 Left Hand Threading





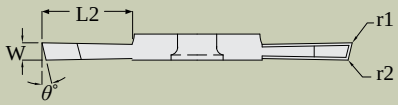
| 型號 EDP NO. | W | θ° | r1 | L2 | S | X21 | NC03 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 50.6315-6000 | 1.5 | 60° | 0.0 | 5 | 0.65 | | | CS789L****-63 |
| 50.6315-60005 | 1.5 | | 0.05 | | | ● | ● | |
| 50.6315-6001 | 1.5 | | 0.1 | | | ● | ● | |
| 50.6320-6001 | 2.0 | | 0.1 | 6 | 0.8 | ● | ● | |
| 50.6320-5501 | 2.0 | 55° | 0.1 | | | ● | ● | |
| 50.6330-5502 | 3.0 | | 0.2 | 8.5 | 1.3 | ● | ● | |
| 50.6330-6001 | 3.0 | 60° | 0.1 | | | | | |
| 50.6330-6002 | 3.0 | | 0.2 | | | | | |
| 50.8420-5501 | 2.0 | 55° | 0.1 | 6 | 0.8 | ● | ● | CS668L****-84 |
| 50.8430-5501 | 3.0 | | 0.1 | 8.5 | 1.3 | ● | ● | |
| 50.8430-5502 | 3.0 | | 0.2 | | | | | |
| 50.8420-60005 | 2.0 | 60° | 0.05 | 6 | 0.8 | ● | ● | |
| 50.8420-6001 | 2.0 | | 0.1 | | | ● | ● | |
| 50.8430-6001 | 3.0 | | 0.1 | 8.5 | 1.3 | ● | ● | |
| 50.8430-6002 | 3.0 | | 0.2 | | | ● | ● | |

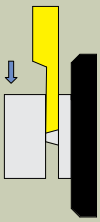
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向切斷刀 Right Hand Part Off

CE 斷屑槽 CE Breaker





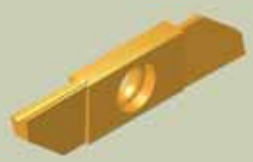



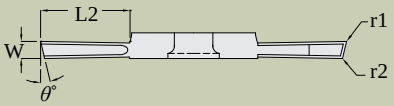
| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 43.6310-00 CE | 1.0 | 15° | 0.0 | 0.0 | 5 | | ● | | CS789R****-63 |
| 43.6315-00 CE | 1.5 | | 0.0 | 0.0 | | | ● | | |
| 43.6315-005 CE | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789R****-63 |
| 43.6315-01 CE | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.6320-00 CE | 2.0 | | 0.0 | 0.0 | | | ● | | |
| 43.6320-005 CE | 2.0 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789R****-63 |
| 43.6320-01 CE | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 43.6325-00 CE | 2.5 | | 0.0 | 0.0 | | | ● | | |
| 43.6325-005 CE | 2.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789R****-63 |
| 43.6325-01 CE | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8315-00 CE | 1.5 | | 0.0 | 0.0 | | | ● | | |
| 43.8315-005 CE | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS668R****-83 |
| 43.8315-01 CE | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8320-00 CE | 2.0 | | 0.0 | 0.0 | | | ● | | |
| 43.8320-005 CE | 2.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668R****-83 |
| 43.8320-01 CE | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8325-00 CE | 2.5 | | 0.0 | 0.0 | | | ● | | |
| 43.8325-005 CE | 2.5 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668R****-83 |
| 43.8325-01 CE | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8330-00 CE | 3.0 | | 0.0 | 0.0 | | | ● | | |
| 43.8330-005 CE | 3.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668R****-83 |
| 43.8330-01 CE | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 43.6320-00 WCE | 2.0 | | 0.1 | 0.0 | | | ● | | |
| 43.6320-005 WCE | 2.0 | 20° | 0.05 | 0.05 | 12 | | | | CS789R****-63 |
| 43.6320-01 WCE | 2.0 | | 0.1 | 0.1 | | | | | |
| 43.8320-00 WCE | 2.0 | | 0.1 | 0.0 | | ● | ● | | |
| 43.8320-005 WCE | 2.0 | 20° | 0.05 | 0.05 | 10.5 | | | | CS668R****-83 |
| 43.8320-01 WCE | 2.0 | | 0.1 | 0.1 | | | | | |

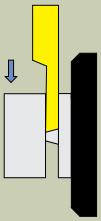
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向切斷刀 Right Hand Part Off

CU 斷屑槽 CU Breaker





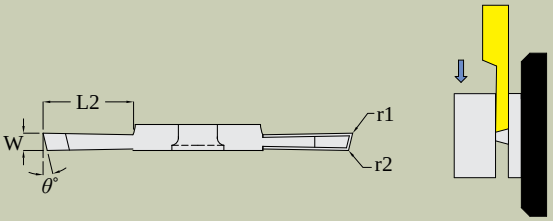
| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 43.6315-00 CU | 1.5 | 15° | 0.0 | 0.0 | 8.5 | | ● | | CS789R****-63 |
| 43.6315-005 CU | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 43.6315-01 CU | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.6320-00 CU | 2.0 | 15° | 0.0 | 0.0 | 8.5 | | ● | | CS789R****-63 |
| 43.6320-005 CU | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 43.6320-01 CU | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 43.6325-00 CU | 2.5 | 15° | 0.0 | 0.0 | 8.5 | | ● | | CS789R****-63 |
| 43.6325-005 CU | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 43.6325-01 CU | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8315-00 CU | 1.5 | 15° | 0.0 | 0.0 | 8.5 | | ● | | CS668R****-83 |
| 43.8315-005 CU | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 43.8315-01 CU | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8320-00 CU | 2.0 | 15° | 0.0 | 0.0 | 10.5 | | ● | | CS668R****-83 |
| 43.8320-005 CU | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 43.8320-01 CU | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8325-00 CU | 2.5 | 15° | 0.0 | 0.0 | 10.5 | | ● | | CS668R****-83 |
| 43.8325-005 CU | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 43.8325-01 CU | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8330-00 CU | 3.0 | 15° | 0.0 | 0.0 | 10.5 | | ● | | CS668R****-83 |
| 43.8330-005 CU | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 43.8330-01 CU | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 43.6320-00 WCU | 2.0 | 20° | 0.1 | 0.0 | 8.5 | ● | ● | | CS789R****-63 |
| 43.6320-005 WCU | 2.0 | | 0.05 | 0.05 | | | | | |
| 43.6320-01 WCU | 2.0 | | 0.1 | 0.1 | | | | | |
| 43.8320-00 WCU | 2.0 | 20° | 0.1 | 0.0 | 10.5 | ● | ● | | CS668R****-83 |
| 43.8320-005 WCU | 2.0 | | 0.05 | 0.05 | | | | | |
| 43.8320-01 WCU | 2.0 | | 0.1 | 0.1 | | | | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向切斷刀 Right Hand Part Off

CX 斷屑槽 CX Breaker





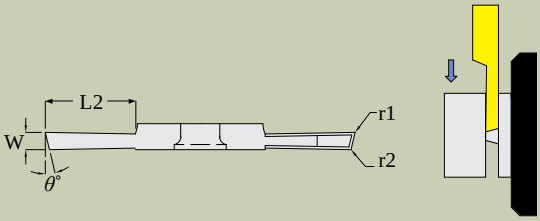

| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 43.6310-00 CX | 1.0 | 15° | 0.0 | 0.0 | 5 | | ● | | CS789R****-63 |
| 43.6315-00 CX | 1.5 | | 0.0 | 0.0 | | | | | |
| 43.6315-005 CX | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789R****-63 |
| 43.6315-01 CX | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.6320-00 CX | 2.0 | | 0.0 | 0.0 | | | ● | | |
| 43.6320-005 CX | 2.0 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789R****-63 |
| 43.6320-01 CX | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 43.6325-00 CX | 2.5 | | 0.0 | 0.0 | | | ● | | |
| 43.6325-005 CX | 2.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789R****-63 |
| 43.6325-01 CX | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8315-00 CX | 1.5 | | 0.0 | 0.0 | | | ● | | |
| 43.8315-005 CX | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS668R****-83 |
| 43.8315-01 CX | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8320-00 CX | 2.0 | | 0.0 | 0.0 | | | ● | | |
| 43.8320-005 CX | 2.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668R****-83 |
| 43.8320-01 CX | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8325-00 CX | 2.5 | | 0.0 | 0.0 | | | ● | | |
| 43.8325-005 CX | 2.5 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668R****-83 |
| 43.8325-01 CX | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8330-00 CX | 3.0 | | 0.0 | 0.0 | | | ● | | |
| 43.8330-005 CX | 3.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668R****-83 |
| 43.8330-01 CX | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 43.6320-00 WCX | 2.0 | | 0.1 | 0.0 | | ● | ● | ● | |
| 43.6320-005 WCX | 2.0 | 20° | 0.05 | 0.05 | 8.5 | | | | CS789R****-63 |
| 43.6320-01 WCX | 2.0 | | 0.1 | 0.1 | | | | | |
| 43.8320-00 WCX | 2.0 | | 0.1 | 0.0 | | ● | ● | ● | |
| 43.8320-005 WCX | 2.0 | 20° | 0.05 | 0.05 | 10.5 | | | | CS668R****-83 |
| 43.8320-01 WCX | 2.0 | | 0.1 | 0.1 | | | | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向切斷刀 Right Hand Part Off

無 斷屑槽 NO Breaker





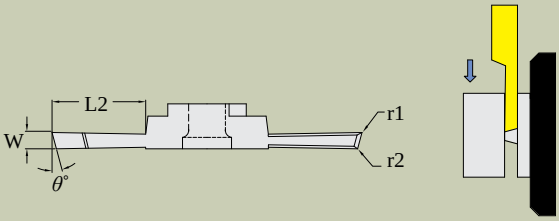

| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 43.6310-00 NB | 1.0 | 15° | 0.0 | 0.0 | 5 | ● | ● | | CS789R****-63 |
| 43.6315-00 NB | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS789R****-63 |
| 43.6315-005 NB | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 43.6315-01 NB | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.6320-00 NB | 2.0 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS789R****-63 |
| 43.6320-005 NB | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 43.6320-01 NB | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 43.6325-00 NB | 2.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS789R****-63 |
| 43.6325-005 NB | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 43.6325-01 NB | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8315-00 NB | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS668R****-83 |
| 43.8315-005 NB | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 43.8315-01 NB | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8320-00 NB | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS668R****-83 |
| 43.8320-005 NB | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 43.8320-01 NB | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8325-00 NB | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS668R****-83 |
| 43.8325-005 NB | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 43.8325-01 NB | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 43.8330-00 NB | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS668R****-83 |
| 43.8330-005 NB | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 43.8330-01 NB | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 43.6320-00 WNB | 2.0 | 20° | 0.1 | 0.0 | 8.5 | ● | ● | ● | CS789R****-63 |
| 43.6320-005 WNB | 2.0 | | 0.05 | 0.05 | | | | | |
| 43.6320-01 WNB | 2.0 | | 0.1 | 0.1 | | | | | |
| 43.8320-00 WNB | 2.0 | 20° | 0.1 | 0.0 | 10.5 | ● | ● | ● | CS668R****-83 |
| 43.8320-005 WNB | 2.0 | | 0.05 | 0.05 | | | | | |
| 43.8320-01 WNB | 2.0 | | 0.1 | 0.1 | | | | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向切斷刀 Right Hand Part Off

CE 斷屑槽 CE Breaker






| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | UP60 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 43.47615-00 CE | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458R**** |
| 43.47615-01 CE | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47620-00 CE | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47620-005 CE | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47620-01 CE | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47625-00 CE | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47625-005 CE | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47625-01 CE | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47630-00 CE | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47630-005 CE | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47630-01 CE | 3.0 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47615-00 WCE | 1.5 | 20° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458R**** |
| 43.47615-01 WCE | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47620-00 WCE | 2.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47620-005 WCE | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47620-01 WCE | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47625-00 WCE | 2.5 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47625-005 WCE | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47625-01 WCE | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47630-00 WCE | 3.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47630-005 WCE | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47630-01 WCE | 3.0 | | 0.1 | 0.1 | | ● | | ● | |

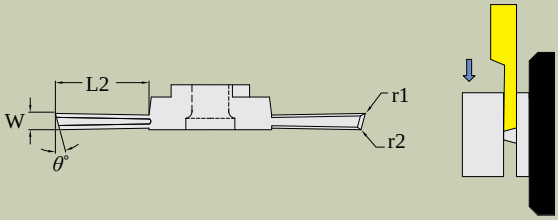
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

台灣專利 第：M390832號
中國專利 字號：ZL 2009 2 0136227.3
日本專利 實願：2010-005365

# 右向切斷刀 Right Hand Part Off

CU 斷屑槽 CU Breaker






| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | UP60 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 43.47615-00 CU | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458R**** |
| 43.47615-005 CU | 1.5 | | 0.05 | 0.05 | | | | | |
| 43.47615-01 CU | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47620-00 CU | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47620-005 CU | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47620-01 CU | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47625-00 CU | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47625-005 CU | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47625-01 CU | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47630-00 CU | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47630-005 CU | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47630-01 CU | 3.0 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47615-00 WCU | 1.5 | 20° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458R**** |
| 43.47615-005 WCU | 1.5 | | 0.05 | 0.05 | | | | | |
| 43.47615-01 WCU | 1.5 | | 0.01 | 0.1 | | ● | | ● | |
| 43.47620-00 WCU | 2.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47620-005 WCU | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47620-01 WCU | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47625-00 WCU | 2.5 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47625-005 WCU | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47625-01 WCU | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47630-00 WCU | 3.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47630-005 WCU | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47630-01 WCU | 3.0 | | 0.1 | 0.1 | | ● | | ● | |

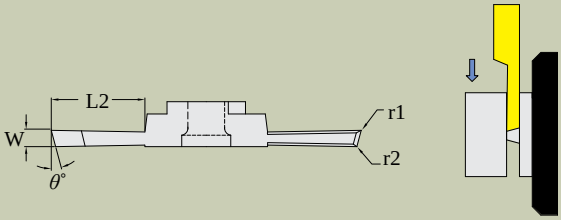
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

台灣專利 第：M390832號
中國專利 字號：ZL 2009 2 0136227.3
日本專利 實願：2010-005365

# 右向切斷刀 Right Hand Part Off

CX 斷屑槽 CX Breaker






| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | UP60 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 43.47615-00 CX | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458R**** |
| 43.47615-005 CX | 1.5 | | 0.05 | 0.05 | | | | | |
| 43.47615-01 CX | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47620-00 CX | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47620-005 CX | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47620-01 CX | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47625-00 CX | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47625-005 CX | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47625-01 CX | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47630-00 CX | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47630-005 CX | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47630-01 CX | 3.0 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47615-00 WCX | 1.5 | 20° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458R**** |
| 43.47615-005 WCX | 1.5 | | 0.05 | 0.05 | | | | | |
| 43.47615-01 WCX | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47620-00 WCX | 2.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47620-005 WCX | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47620-01 WCX | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47625-00 WCX | 2.5 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47625-005 WCX | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47625-01 WCX | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47630-00 WCX | 3.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47630-005 WCX | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47630-01 WCX | 3.0 | | 0.1 | 0.1 | | ● | | ● | |

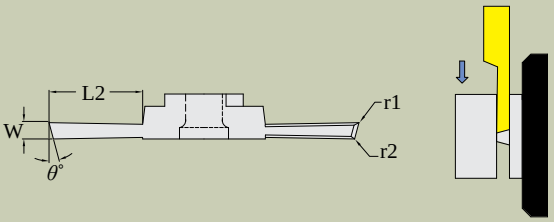
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

台灣專利 第：M390832號
中國專利 字號：ZL 2009 2 0136227.3
日本專利 實願：2010-005365

# 右向切斷刀 Right Hand Part Off

無 斷屑槽 NO Breaker






| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | UP60 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 43.47615-00 NB | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458R**** |
| 43.47615-005 NB | 1.5 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47615-01 NB | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47620-00 NB | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47620-005 NB | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47620-01 NB | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47625-00 NB | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47625-005 NB | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47625-01 NB | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47630-00 NB | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47630-005 NB | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47630-01 NB | 3.0 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47615-00 WNB | 1.5 | 20° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458R**** |
| 43.47615-005 WNB | 1.5 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47615-01 WNB | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47620-00 WNB | 2.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47620-005 WNB | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47620-01 WNB | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47625-00 WNB | 2.5 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47625-005 WNB | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47625-01 WNB | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 43.47630-00 WNB | 3.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458R**** |
| 43.47630-005 WNB | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 43.47630-01 WNB | 3.0 | | 0.1 | 0.1 | | ● | | ● | |

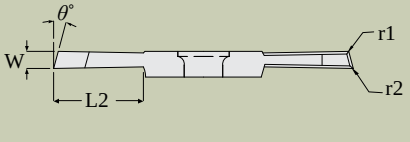
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

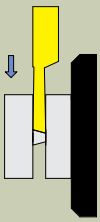
台灣專利 第：M390832號
中國專利 字號：ZL 2009 2 0136227.3
日本專利 實願：2010-005365

# 左向切斷刀 Left Hand Part Off

CE 斷屑槽 CE Breakea





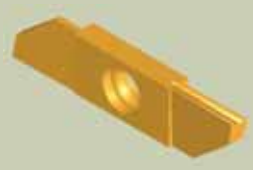



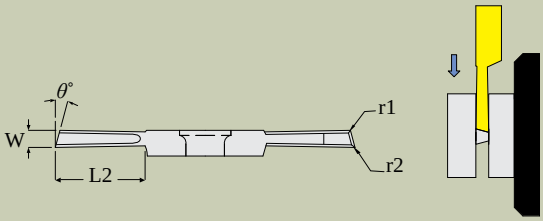
| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.6310-00 CE | 1.0 | 15° | 0.0 | 0.0 | 5 | | ● | | CS789L****-63 |
| 44.6315-00 CE | 1.5 | | 0.0 | 0.0 | | | ● | | |
| 44.6315-005 CE | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6315-01 CE | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6320-00 CE | 2.0 | | 0.0 | 0.0 | | | ● | | |
| 44.6320-005 CE | 2.0 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6320-01 CE | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6325-00 CE | 2.5 | | 0.0 | 0.0 | | | ● | | |
| 44.6325-005 CE | 2.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6325-01 CE | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8315-00 CE | 1.5 | | 0.0 | 0.0 | | | ● | | |
| 44.8315-005 CE | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS668L****-83 |
| 44.8315-01 CE | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8320-00 CE | 2.0 | | 0.0 | 0.0 | | | ● | | |
| 44.8320-005 CE | 2.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8320-01 CE | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8325-00 CE | 2.5 | | 0.0 | 0.0 | | | ● | | |
| 44.8325-005 CE | 2.5 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8325-01 CE | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8330-00 CE | 3.0 | | 0.0 | 0.0 | | | ● | | |
| 44.8330-005 CE | 3.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8330-01 CE | 3.0 | | 0.1 | 0.1 | | ● | ● | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向切斷刀 Left Hand Part Off

CU 斷屑槽 CU Breaker



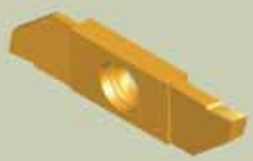


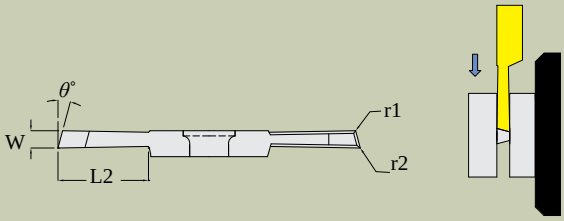

| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.6315-00 CU | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6315-005 CU | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.6315-01 CU | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6320-00 CU | 2.0 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6320-005 CU | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.6320-01 CU | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6325-00 CU | 2.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6325-005 CU | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.6325-01 CU | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8315-00 CU | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS668L****-83 |
| 44.8315-005 CU | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.8315-01 CU | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8320-00 CU | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8320-005 CU | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.8320-01 CU | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8325-00 CU | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8325-005 CU | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.8325-01 CU | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8330-00 CU | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8330-005 CU | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.8330-01 CU | 3.0 | | 0.1 | 0.1 | | ● | ● | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向切斷刀 Left Hand Part Off

CX 斷屑槽 CX Breakea





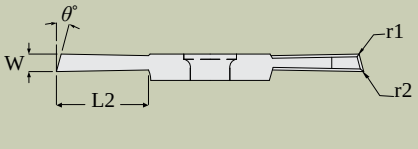

| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.6310-00 CX | 1.0 | 15° | 0.0 | 0.0 | 5 | | ● | | CS789L****-63 |
| 44.6315-00 CX | 1.5 | | 0.0 | 0.0 | | | ● | | |
| 44.6315-005 CX | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6315-01 CX | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6320-00 CX | 2.0 | | 0.0 | 0.0 | | | ● | | |
| 44.6320-005 CX | 2.0 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6310-01 CX | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6325-00 CX | 2.5 | | 0.0 | 0.0 | | | ● | | |
| 44.6325-005 CX | 2.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6325-01 CX | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8315-00 CX | 1.5 | | 0.0 | 0.0 | | | ● | | |
| 44.8315-005 CX | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS668L****-83 |
| 44.8315-01 CX | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8320-00 CX | 2.0 | | 0.0 | 0.0 | | | ● | | |
| 44.8320-005 CX | 2.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8320-01 CX | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8325-00 CX | 2.5 | | 0.0 | 0.0 | | | ● | | |
| 44.8325-005 CX | 2.5 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8325-01 CX | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8330-00 CX | 3.0 | | 0.0 | 0.0 | | | ● | | |
| 44.8330-005 CX | 3.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8330-01 CX | 3.0 | | 0.1 | 0.1 | | ● | ● | | |

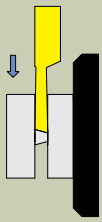
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向切斷刀 Left Hand Part Off

無 斷屑槽 NO Breaker





| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.6310-00 NB | 1.0 | 15° | 0.0 | 0.0 | 5 | ● | ● | | CS789L****-63 |
| 44.6315-00 NB | 1.5 | | 0.0 | 0.0 | | ● | ● | | |
| 44.6315-005 NB | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6315-01 NB | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6320-00 NB | 2.0 | | 0.0 | 0.0 | | ● | ● | | |
| 44.6320-005 NB | 2.0 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6320-01 NB | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6325-00 NB | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 44.6325-005 NB | 2.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6325-01 NB | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8315-00 NB | 1.5 | | 0.0 | 0.0 | | ● | ● | | |
| 44.8315-005 NB | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS668L****-83 |
| 44.8315-01 NB | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8320-00 NB | 2.0 | | 0.0 | 0.0 | | ● | ● | | |
| 44.8320-005 NB | 2.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8320-01 NB | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8325-00 NB | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 44.8325-005 NB | 2.5 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8325-01 NB | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8330-00 NB | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 44.8330-005 NB | 3.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8330-01 NB | 3.0 | | 0.1 | 0.1 | | ● | ● | | |

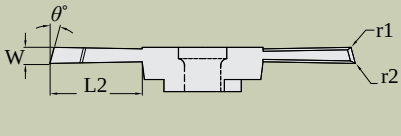
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

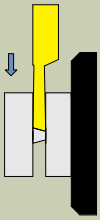


# 左向切斷刀 Left Hand Part Off

CE 斷屑槽 CE Breaker





| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | UP60 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.47615-00 CE | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458L**** |
| 44.47615-01 CE | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47620-00 CE | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47620-005 CE | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47620-01 CE | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47625-00 CE | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47625-005 CE | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47625-01 CE | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47630-00 CE | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47630-005 CE | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47630-01 CE | 3.0 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47615-00 WCE | 1.5 | 20° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458L**** |
| 44.47615-01 WCE | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47620-00 WCE | 2.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47620-005 WCE | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47620-01 WCE | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47625-00 WCE | 2.5 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47625-005 WCE | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47625-01 WCE | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47630-00 WCE | 3.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47630-005 WCE | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47630-01 WCE | 3.0 | | 0.1 | 0.1 | | ● | | ● | |

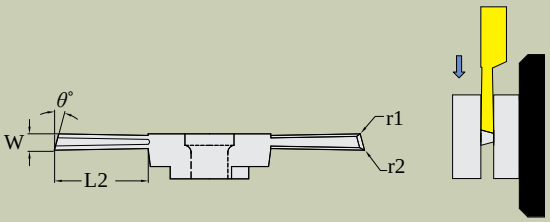
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

台灣專利 第：M390832號
中國專利 字號：ZL 2009 2 0136227.3
日本專利 實願：2010-005365

# 左向切斷刀 Left Hand Part Off

CU 斷屑槽 CU Breaker





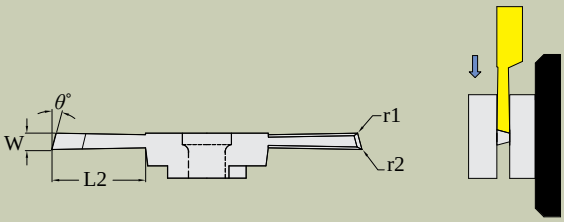

| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | UP60 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.47615-00 CU | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458L**** |
| 44.47615-01 CU | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47620-00 CU | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47620-005 CU | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47620-01 CU | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47625-00 CU | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47625-005 CU | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47625-01 CU | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47630-00 CU | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47630-005 CU | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47630-01 CU | 3.0 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47615-00 WCU | 1.5 | 20° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458L**** |
| 44.47615-01 WCU | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47620-00 WCU | 2.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47620-005 WCU | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47620-01 WCU | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47625-00 WCU | 2.5 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47625-005 WCU | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47625-01 WCU | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47630-00 WCU | 3.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47630-005 WCU | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47630-01 WCU | 3.0 | | 0.1 | 0.1 | | ● | | ● | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向切斷刀 Left Hand Part Off

CX 斷屑槽 CX Breaker






| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | UP60 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.47615-00 CX | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458L**** |
| 44.47615-01 CX | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47620-00 CX | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47620-005 CX | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47620-01 CX | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47625-00 CX | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47625-005 CX | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47625-01 CX | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47630-00 CX | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47630-005 CX | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47630-01 CX | 3.0 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47615-00 WCX | 1.5 | 20° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458L**** |
| 44.47615-01 WCX | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47620-00 WCX | 2.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47620-005 WCX | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47620-01 WCX | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47625-00 WCX | 2.5 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47625-005 WCX | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47625-01 WCX | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47630-00 WCX | 3.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47630-005 WCX | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47630-01 WCX | 3.0 | | 0.1 | 0.1 | | ● | | ● | |

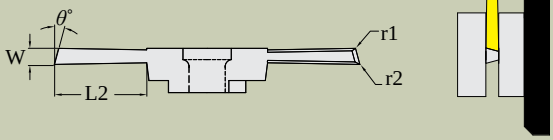
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

台灣專利 第：M390832號
中國專利 字號：ZL 2009 2 0136227.3
日本專利 實願：2010-005365

# 左向切斷刀 Left Hand Part Off

NB 斷屑槽 NB Breaker





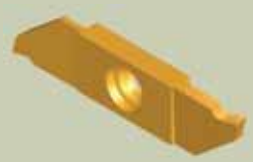

| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | UP60 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.47615-00 NB | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458L**** |
| 44.47615-01 NB | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47620-00 NB | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47620-005 NB | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47620-01 NB | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47625-00 NB | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47625-005 NB | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47625-01 NB | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47630-00 NB | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47630-005 NB | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47630-01 NB | 3.0 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47615-00 WNB | 1.5 | 20° | 0.0 | 0.0 | 8.5 | ● | | ● | CS458L**** |
| 44.47615-01 WNB | 1.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47620-00 WNB | 2.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47620-005 WNB | 2.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47620-01 WNB | 2.0 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47625-00 WNB | 2.5 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47625-005 WNB | 2.5 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47625-01 WNB | 2.5 | | 0.1 | 0.1 | | ● | | ● | |
| 44.47630-00 WNB | 3.0 | 20° | 0.0 | 0.0 | 10.5 | ● | | ● | CS458L**** |
| 44.47630-005 WNB | 3.0 | | 0.05 | 0.05 | | ● | | ● | |
| 44.47630-01 WNB | 3.0 | | 0.1 | 0.1 | | ● | | ● | |

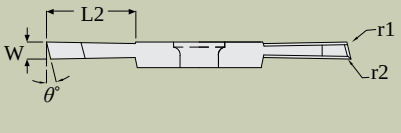
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

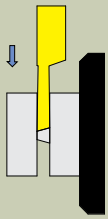
台灣專利 第：M390832號
中國專利 字號：ZL 2009 2 0136227.3
日本專利 實願：2010-005365

# 左向右切切斷刀 Left Hand Right Cutting Part Off

CE 斷屑槽 CE Breaker





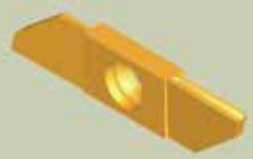



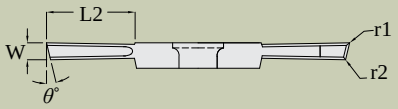
| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.6310-00R CE | 1.0 | 15° | 0.0 | 0.0 | 5 | ● | ● | | CS789L****-63 |
| 44.6315-00R CE | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6315-005R CE | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.6315-01R CE | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6320-00R CE | 2.0 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6320-005R CE | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.6320-01R CE | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6325-00R CE | 2.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6325-005R CE | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.6325-01R CE | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8315-00R CE | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS668L****-83 |
| 44.8315-005R CE | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.8315-01R CE | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8320-00R CE | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8320-005R CE | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.8320-01R CE | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8325-00R CE | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8325-005R CE | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.8325-01R CE | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8330-00R CE | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8330-005R CE | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.8330-01R CE | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6320-00R WCE | 2.0 | 20° | 0.1 | 0.0 | 8.5 | ● | ● | ● | CS789L****-63 |
| 44.6320-005R WCE | 2.0 | | 0.05 | 0.05 | | | | | |
| 44.6320-01R WCE | 2.0 | | 0.1 | 0.1 | | | | | |
| 44.8320-00R WCE | 2.0 | 20° | 0.1 | 0.0 | 10.5 | ● | ● | ● | CS668L****-83 |
| 44.8320-005R WCE | 2.0 | | 0.05 | 0.05 | | | | | |
| 44.8320-01R WCE | 2.0 | | 0.1 | 0.1 | | | | | |

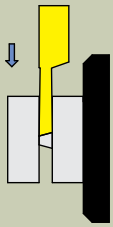
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向右切切斷刀 Left Hand Right Cutting Part Off

CU 斷屑槽 CU Breaker





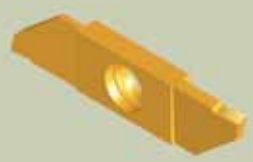



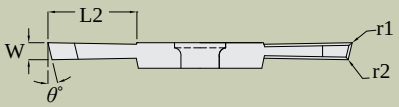
| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.6315-00R CU | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6315-005R CU | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.6315-01R CU | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6320-00R CU | 2.0 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6320-005R CU | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.6320-01R CU | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6325-00R CU | 2.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6325-005R CU | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.6325-01R CU | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8315-00R CU | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS668L****-83 |
| 44.8315-005R CU | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.8315-01R CU | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8320-00R CU | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8320-005R CU | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.8320-01R CU | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8325-00R CU | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8325-005R CU | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.8325-01R CU | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8330-00R CU | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8330-005R CU | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.8330-01R CU | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6320-00R WCU | 2.0 | 20° | 0.1 | 0.0 | 8.5 | ● | ● | ● | CS789L****-63 |
| 44.6320-005R WCU | 2.0 | | 0.05 | 0.05 | | | | | |
| 44.6320-01R WCU | 2.0 | | 0.1 | 0.1 | | | | | |
| 44.8320-00R WCU | 2.0 | 205° | 0.1 | 0.0 | 10.5 | ● | ● | ● | CS668L****-83 |
| 44.8320-005R WCU | 2.0 | | 0.05 | 0.05 | | | | | |
| 44.8320-01R WCU | 2.0 | | 0.1 | 0.1 | | | | | |

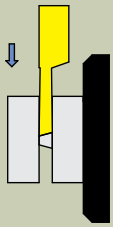
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向右切切斷刀 Left Hand Right Cutting Part Off

CX 斷屑槽 CX Breaker





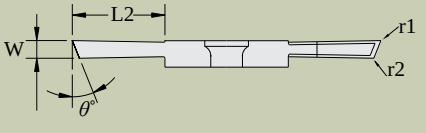
| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.6310-00R CX | 1.0 | 15° | 0.0 | 0.0 | 5 | ● | ● | | CS789L****-63 |
| 44.6315-00R CX | 1.5 | | 0.0 | 0.0 | | ● | ● | | |
| 44.6315-005R CX | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6315-01R CX | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6320-00R CX | 2.0 | | 0.0 | 0.0 | | ● | ● | | |
| 44.6320-005R CX | 2.0 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6320-01R CX | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6325-00R CX | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 44.6325-005R CX | 2.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6325-01R CX | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8315-00R CX | 1.5 | | 0.0 | 0.0 | | ● | ● | | |
| 44.8315-005R CX | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS668L****-83 |
| 44.8315-01R CX | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8320-00R CX | 2.0 | | 0.0 | 0.0 | | ● | ● | | |
| 44.8320-005R CX | 2.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8320-01R CX | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8325-00R CX | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 44.8325-005R CX | 2.5 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8325-01R CX | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8330-00R CX | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 44.8330-005R CX | 3.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8330-01R CX | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6320-00R CX | 2.0 | | 0.1 | 0.0 | | ● | ● | ● | |
| 44.6320-005R CX | 2.0 | 20° | 0.05 | 0.05 | 8.5 | | | | CS789L****-63 |
| 44.6320-01R WCX | 2.0 | | 0.1 | 0.1 | | | | | |
| 44.8320-00R WCX | 2.0 | | 0.1 | 0.0 | | ● | ● | ● | |
| 44.8320-005R WCX | 2.0 | 20° | 0.05 | 0.05 | 10.5 | | | | CS668L****-83 |
| 44.8320-01R WCX | 2.0 | | 0.1 | 0.1 | | | | | |

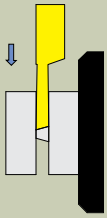
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向右切切斷刀 Left Hand Right Cutting Part Off

無 斷屑槽 NO Breaker





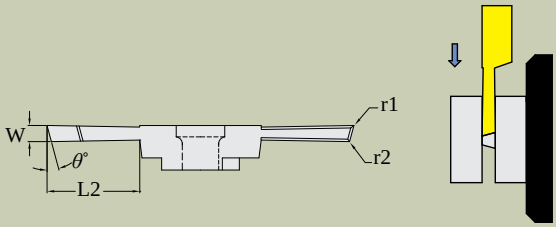
| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.6310-00R NB | 1.0 | 15° | 0.0 | 0.0 | 5 | ● | ● | | CS789L****-63 |
| 44.6315-00R NB | 1.5 | | 0.0 | 0.0 | | ● | ● | | |
| 44.6315-005R NB | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6315-01R NB | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6320-00R NB | 2.0 | | 0.0 | 0.0 | | ● | ● | | |
| 44.6320-005R NB | 2.0 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6320-01R NB | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6325-00R NB | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 44.6325-005R NB | 2.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS789L****-63 |
| 44.6325-01R NB | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8315-00R NB | 1.5 | | 0.0 | 0.0 | | ● | ● | | |
| 44.8315-005R NB | 1.5 | 15° | 0.05 | 0.05 | 8.5 | ● | ● | | CS668L****-83 |
| 44.8315-01R NB | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8320-00R NB | 2.0 | | 0.0 | 0.0 | | ● | ● | | |
| 44.8320-005R NB | 2.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8320-01R NB | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8325-00R NB | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 44.8325-005R NB | 2.5 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8325-01R NB | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.8330-00R NB | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 44.8330-005R NB | 3.0 | 15° | 0.05 | 0.05 | 10.5 | ● | ● | | CS668L****-83 |
| 44.8330-01R NB | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.6320-00R WNB | 2.0 | | 0.1 | 0.0 | | ● | ● | ● | |
| 44.6320-005R WNB | 2.0 | 20° | 0.05 | 0.05 | 8.5 | | | | CS789L****-63 |
| 44.6320-01R WNB | 2.0 | | 0.1 | 0.1 | | | | | |
| 44.8320-00R WNB | 2.0 | | 0.1 | 0.0 | | ● | ● | ● | |
| 44.8320-005R WNB | 2.0 | 20° | 0.05 | 0.05 | 10.5 | | | | CS668L****-83 |
| 44.8320-01R WNB | 2.0 | | 0.1 | 0.1 | | | | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向右切切斷刀 Left Hand Right Cutting Part Off

CE 斷屑槽 CE Breaker






| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | UP60 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 44.47615-00R CE | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | CS458L**** |
| 44.47615-01R CE | 1.5 | | 0.1 | 0.1 | | ● | ● | |
| 44.47620-00R CE | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47620-005R CE | 2.0 | | 0.05 | 0.05 | | ● | ● | |
| 44.47620-01R CE | 2.0 | | 0.1 | 0.1 | | ● | ● | |
| 44.47625-00R CE | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47625-005R CE | 2.5 | | 0.05 | 0.05 | | ● | ● | |
| 44.47625-01R CE | 2.5 | | 0.1 | 0.1 | | ● | ● | |
| 44.47630-00R CE | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47630-005R CE | 3.0 | | 0.05 | 0.05 | | ● | ● | |
| 44.47630-01R CE | 3.0 | | 0.1 | 0.1 | | ● | ● | |
| 44.47615-00R WCE | 1.5 | 20° | 0.0 | 0.0 | 8.5 | ● | ● | CS458L**** |
| 44.47615-01R WCE | 1.5 | | 0.1 | 0.1 | | ● | ● | |
| 44.47620-00R WCE | 2.0 | 20° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47620-005R WCE | 2.0 | | 0.05 | 0.05 | | ● | ● | |
| 44.47620-01R WCE | 2.0 | | 0.1 | 0.1 | | ● | ● | |
| 44.47625-00R WCE | 2.5 | 20° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47625-005R WCE | 2.5 | | 0.05 | 0.05 | | ● | ● | |
| 44.47625-01R WCE | 2.5 | | 0.1 | 0.1 | | ● | ● | |
| 44.47630-00R WCE | 3.0 | 20° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47630-005R WCE | 3.0 | | 0.05 | 0.05 | | ● | ● | |
| 44.47630-01R WCE | 3.0 | | 0.1 | 0.1 | | ● | ● | |

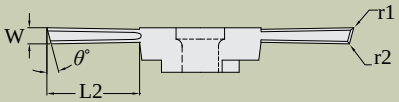
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

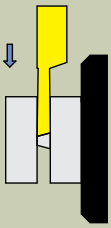
台灣專利 第：M390832號
中國專利 字號：ZL 2009 2 0136227.3
日本專利 實願：2010-005365

# 左向右切切斷刀 Left Hand Right Cutting Part Off

CU 斷屑槽 CU Breaker





| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | UP60 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 44.47615-00R CU | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS458L**** |
| 44.47615-01R CU | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.47620-00R CU | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS458L**** |
| 44.47620-005R CU | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.47620-01R CU | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.47625-00R CU | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS458L**** |
| 44.47625-005R CU | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.47625-01R CU | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.47630-00R CU | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | | CS458L**** |
| 44.47630-005R CU | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.47630-01R CU | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.47615-00R WCU | 1.5 | 20° | 0.0 | 0.0 | 8.5 | ● | ● | | CS458L**** |
| 44.47615-01R WCU | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.47620-00R WCU | 2.0 | 20° | 0.0 | 0.0 | 10.5 | ● | ● | | CS458L**** |
| 44.47620-005R WCU | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.47620-01R WCU | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 44.47625-00R WCU | 2.5 | 20° | 0.0 | 0.0 | 10.5 | ● | ● | | CS458L**** |
| 44.47625-005R WCU | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 44.47625-01R WCU | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 44.47630-00R WCU | 3.0 | 20° | 0.0 | 0.0 | 10.5 | ● | ● | | CS458L**** |
| 44.47630-005R WCU | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 44.47630-01R WCU | 3.0 | | 0.1 | 0.1 | | ● | ● | | |

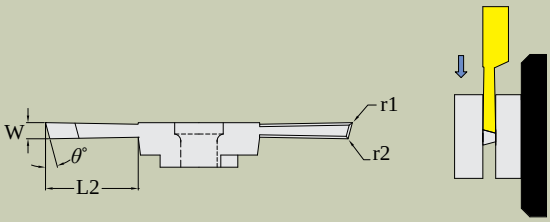
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

台灣專利 第：M390832號
中國專利 字號：ZL 2009 2 0136227.3
日本專利 實願：2010-005365

# 左向右切切斷刀 Left Hand Right Cutting Part Off

CX 斷屑槽 CX Breaker






| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | UP60 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 44.47615-00R CX | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | CS458L**** |
| 44.47615-01R CX | 1.5 | | 0.1 | 0.1 | | ● | ● | |
| 44.47620-00R CX | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47620-005R CX | 2.0 | | 0.05 | 0.05 | | ● | ● | |
| 44.47620-01R CX | 2.0 | | 0.1 | 0.1 | | ● | ● | |
| 44.47625-00R CX | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47625-005R CX | 2.5 | | 0.05 | 0.05 | | ● | ● | |
| 44.47625-01R CX | 2.5 | | 0.1 | 0.1 | | ● | ● | |
| 44.47630-00R CX | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47630-005R CX | 3.0 | | 0.05 | 0.05 | | ● | ● | |
| 44.47630-01R CX | 3.0 | | 0.1 | 0.1 | | ● | ● | |
| 44.47615-00R WCX | 1.5 | 20° | 0.0 | 0.0 | 8.5 | ● | ● | CS458L**** |
| 44.47615-01R WCX | 1.5 | | 0.1 | 0.1 | | ● | ● | |
| 44.47620-00R WCX | 2.0 | 20° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47620-005R WCX | 2.0 | | 0.05 | 0.05 | | ● | ● | |
| 44.47620-01R WCX | 2.0 | | 0.1 | 0.1 | | ● | ● | |
| 44.47625-00R WCX | 2.5 | 20° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47625-005R WCX | 2.5 | | 0.05 | 0.05 | | ● | ● | |
| 44.47625-01R WCX | 2.5 | | 0.1 | 0.1 | | ● | ● | |
| 44.47630-00R WCX | 3.0 | 20° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47630-005R WCX | 3.0 | | 0.05 | 0.05 | | ● | ● | |
| 44.47630-01R WCX | 3.0 | | 0.1 | 0.1 | | ● | ● | |

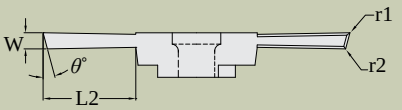
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

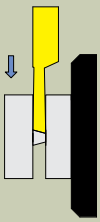
台灣專利 第：M390832號
中國專利 字號：ZL 2009 2 0136227.3
日本專利 實願：2010-005365

# 左向右切切斷刀 Left Hand Right Cutting Part Off

無 斷屑槽 NO Breaker





| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | UP60 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 44.47615-00R NB | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | CS458L**** |
| 44.47615-01R NB | 1.5 | | 0.1 | 0.1 | | ● | ● | |
| 44.47620-00R NB | 2.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47620-005R NB | 2.0 | | 0.05 | 0.05 | | ● | ● | |
| 44.47620-01R NB | 2.0 | | 0.1 | 0.1 | | ● | ● | |
| 44.47625-00R NB | 2.5 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47625-005R NB | 2.5 | | 0.05 | 0.05 | | ● | ● | |
| 44.47625-01R NB | 2.5 | | 0.1 | 0.1 | | ● | ● | |
| 44.47630-00R NB | 3.0 | 15° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47630-005R NB | 3.0 | | 0.05 | 0.05 | | ● | ● | |
| 44.47630-01R NB | 3.0 | | 0.1 | 0.1 | | ● | ● | |
| 44.47615-00R WNB | 1.5 | 20° | 0.0 | 0.0 | 8.5 | ● | ● | CS458L**** |
| 44.47615-01R WNB | 1.5 | | 0.1 | 0.1 | | ● | ● | |
| 44.47620-00R WNB | 2.0 | 20° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47620-005R WNB | 2.0 | | 0.05 | 0.05 | | ● | ● | |
| 44.47620-01R WNB | 2.0 | | 0.1 | 0.1 | | ● | ● | |
| 44.47625-00R WNB | 2.5 | 20° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47625-005R WNB | 2.5 | | 0.05 | 0.05 | | ● | ● | |
| 44.47625-01R WNB | 2.5 | | 0.1 | 0.1 | | ● | ● | |
| 44.47630-00R WNB | 3.0 | 20° | 0.0 | 0.0 | 10.5 | ● | ● | CS458L**** |
| 44.47630-005R WNB | 3.0 | | 0.05 | 0.05 | | ● | ● | |
| 44.47630-01R WNB | 3.0 | | 0.1 | 0.1 | | ● | ● | |

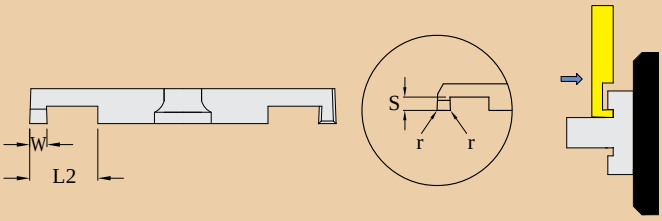
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

台灣專利 第：M390832號
中國專利 字號：ZL 2009 2 0136227.3
日本專利 實願：2010-005365

# 端面切溝刀 Face Grooving

## CX 斷屑槽 CX Breaker

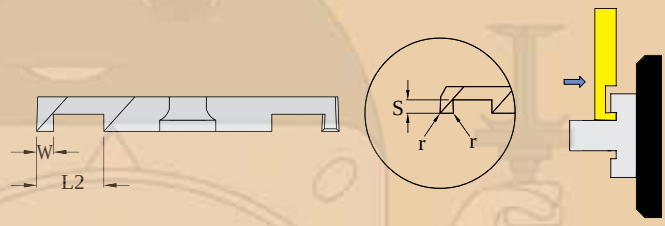





| 型號 EDP NO. | W | S | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 21.6410-01 CX | 1.0 | 2.0 | 0.1 | 6.0 | | | | CS789R****-64 |
| 21.6415-02 CX | 1.5 | | 0.2 | | | ● | | |
| 21.6420-02 CX | 2.0 | | 0.2 | | | ● | | |
| 21.8410-01 CX | 1.0 | | 0.1 | 8.0 | | ● | | CS668R****-84 |
| 21.8415-02 CX | 1.5 | | 0.2 | | | ● | | |
| 21.8420-02 CX | 2.0 | | 0.2 | | | ● | | |

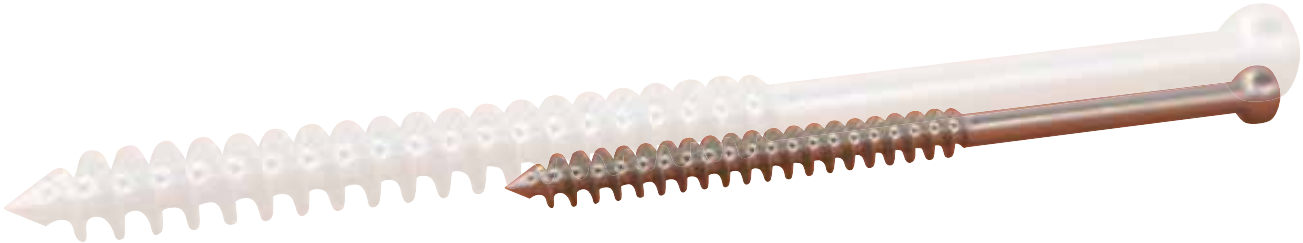
## MA 切屑槽 MA Breaker





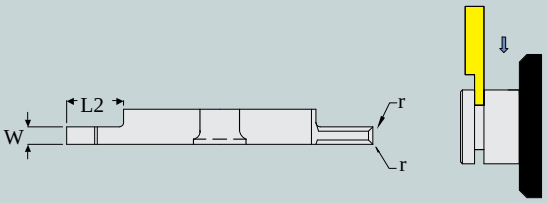

| 型號 EDP NO. | W | S | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 21.6410-01 MA | 1.0 | 2.0 | 0.1 | 6.0 | | ● | | CS789R****-64 |
| 21.6415-02 MA | 1.5 | | 0.2 | | | ● | | |
| 21.6420-02 MA | 2.0 | | 0.2 | | | ● | | |
| 21.8410-01 MA | 1.0 | | 0.1 | 8.0 | | ● | | CS668R****-84 |
| 21.8415-02 MA | 1.5 | | 0.2 | | | ● | | |
| 21.8420-02 MA | 2.0 | | 0.2 | | | ● | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.



# 右向切槽刀 Right Hand Groove



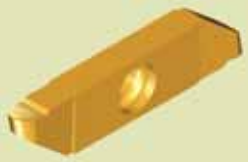


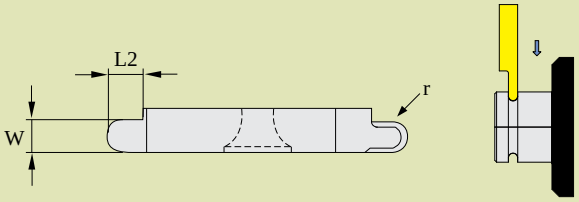

| 型號 EDP NO. | W | θ° | r / c | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 71.63 050 | 0.50 | | 0.05C | 1.2 | | | | CS789R****-63 |
| 71.63 075 | 0.75 | | 0.05C | 2.0 | | | | |
| 71.63 095 | 0.95 | | 0.1 | 2.5 | | ● | | |
| 71.63 100 | 1.00 | | 0.1 | | | ● | | |
| 71.63 125 | 1.25 | | 0.2 | 3.0 | | ● | | |
| 71.63 145 | 1.45 | | 0.2 | 4.0 | | ● | | |
| 71.63 150 | 1.50 | | 0.2 | 5.0 | | ● | | |
| 71.63 175 | 1.75 | | 0.2 | | | ● | | |
| 71.63 200 | 2.00 | | 0.2 | 6.0 | | ● | | |
| 71.63 250 | 2.50 | | 0.2 | 8.0 | | ● | | |
| 71.84 100 | 1.00 | | 0.1 | 2.5 | | ● | | CS668R****-84 |
| 71.84 125 | 1.25 | | 0.2 | 3.0 | | ● | | |
| 71.84 145 | 1.45 | | 0.2 | 4.0 | | ● | | |
| 71.84 150 | 1.50 | | 0.2 | 5.0 | | ● | | |
| 71.84 175 | 1.75 | | 0.2 | | | ● | | |
| 71.84 200 | 2.00 | | 0.2 | 6.0 | | ● | | |
| 71.84 250 | 2.50 | | 0.2 | 8.0 | | ● | | |
| 71.84 300 | 3.00 | | 0.3 | | | ● | | |
| 71.84 350 | 3.50 | | 0.3 | | | ● | | |
| 71.84 400 | 4.00 | | 0.4 | | | ● | | |
| 71.85 450 | 4.50 | | 0.4 | 10.0 | | | | CS668R****-85 |
| 71.85 500 | 5.00 | | 0.4 | | | | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.



# 右向圓槽刀 Right Hand Radius



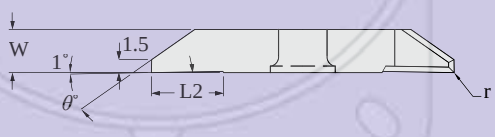


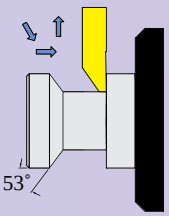

| 型　號<br>EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適 用 刀 架<br>HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 71.63 050 R | 1.0 | | 0.50 | 2.5 | | ● | | |
| 71.63 075 R | 1.5 | | 0.25 | 3.0 | | ● | | |
| 71.63 100 R | 2.0 | | 1.00 | 4.0 | | ● | | CS789R****-63 |
| 71.63 125 R | 2.5 | | 1.25 | 6.0 | | ● | | |
| 71.63 150 R | 3.0 | | 1.50 | 8.0 | | ● | | |
| 71.84 050 R | 1.0 | | 0.50 | 2.5 | | ● | | |
| 71.84 075 R | 1.5 | | 0.75 | 3.0 | | ● | | |
| 71.84 100 R | 2.0 | | 1.00 | 4.0 | | ● | | |
| 71.84 125 R | 2.5 | | 1.25 | 6.0 | | ● | | CS668R****-84 |
| 71.84 150 R | 3.0 | | 1.50 | 8.0 | | ● | | |
| 71.84 175 R | 3.5 | | 1.75 | 8.0 | | ● | | |
| 71.84 200 R | 4.0 | | 2.00 | 8.0 | | ● | | |
| 71.85 250 R | 5.0 | | 2.50 | 10.0 | | ● | | CS668R****-85 |

# 右向插掃刀 Right Hand Groove and Turn

無 斷屑槽　NO Breaker





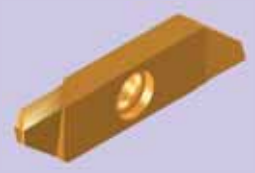



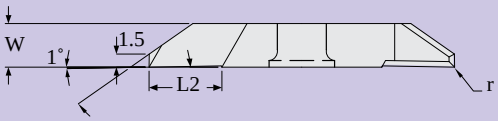

| 型　號<br>EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適 用 刀 架<br>HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 75.6330-00 NB | 4.0 | | 0.0 | | | | | |
| 75.6330-01 NB | 4.0 | 35° | 0.1 | 8.5 | ● | ● | | CS789R****-63 |
| 75.6330-02 NB | 4.0 | | 0.2 | | ● | ● | | |
| 75.8440-00 NB | 4.0 | | 0.0 | | | | | |
| 75.8440-01 NB | 4.0 | 35° | 0.1 | 8.5 | ● | ● | | CS668R****-84 |
| 75.8440-02 NB | 4.0 | | 0.2 | | ● | ● | | |

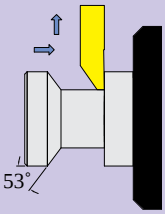
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向插掃刀 Right Hand Groove and Turn

## MA 斷屑槽 MA Breaker





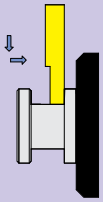




| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 75.6330-00 MA | 3.0 | 35° | 0.0 | 8.5 | ● | ● | ● | CS789R****-63 |
| 75.6330-01 MA | 3.0 | | 0.1 | | ● | ● | ● | |
| 75.6330-02 MA | 3.0 | | 0.2 | | ● | ● | ● | |
| 75.8440-00 MA | 4.0 | 35° | 0.0 | 8.5 | ● | ● | ● | CS668R****-84 |
| 75.8440-01 MA | 4.0 | | 0.1 | | ● | ● | ● | |
| 75.8440-02 MA | 4.0 | | 0.2 | | ● | ● | ● | |

## MA 斷屑槽 MA Breaker





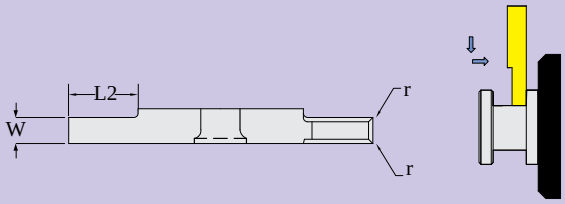
| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 77.6310-01 MA | 1.0 | | 0.1 | 2.5 | | ● | ● | CS789R****-63 |
| 77.6310-02 MA | 1.0 | | 0.2 | | | | | |
| 77.6315-01 MA | 1.5 | | 0.1 | 3.0 | | ● | ● | |
| 77.6315-02 MA | 1.5 | | 0.2 | | | | | |
| 77.6320-01 MA | 2.0 | | 0.1 | 4.0 | | ● | ● | |
| 77.6320-02 MA | 2.0 | | 0.2 | | | ● | ● | |
| 77.6325-01 MA | 2.5 | | 0.1 | 6.0 | | ● | ● | |
| 77.6325-02 MA | 2.5 | | 0.2 | | | ● | ● | |
| 77.6330-01 MA | 3.0 | | 0.1 | 8.0 | | | | |
| 77.6330-02 MA | 3.0 | | 0.2 | | | | | |
| 77.8410-01 MA | 1.0 | | 0.1 | 2.5 | | ● | | CS668R****-84 |
| 77.8410-02 MA | 1.0 | | 0.2 | | | | | |
| 77.8415-01 MA | 1.5 | | 0.1 | 3.0 | | ● | | |
| 77.8415-02 MA | 1.5 | | 0.2 | | | | | |
| 77.8420-01 MA | 2.0 | | 0.1 | 4.0 | | | | |
| 77.8420-02 MA | 2.0 | | 0.2 | | | ● | | |
| 77.8425-01 MA | 2.5 | | 0.1 | 6.0 | | | | |
| 77.8425-02 MA | 2.5 | | 0.2 | | | ● | | |
| 77.8430-01 MA | 3.0 | | 0.1 | 8.0 | | | | |
| 77.8430-02 MA | 3.0 | | 0.2 | | | ● | | |
| 77.8440-01 MA | 4.0 | | 0.1 | 8.0 | | | | |
| 77.8440-02 MA | 4.0 | | 0.2 | | | ● | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向插掃刀 Right Hand Groove and Turn

## 無 斷削槽 NO Breaker



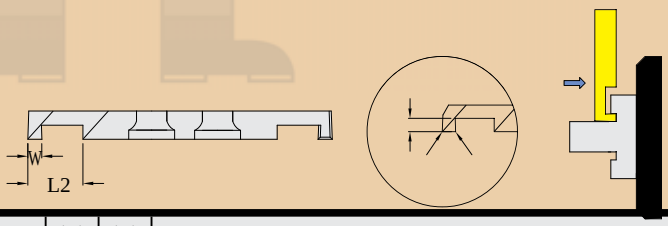



| 型號 EDP NO. | W | θ° | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 77.6310-01 NB | 1.0 | | 0.1 | 2.5 | | ● | | CS789R****-63 |
| 77.6310-02 NB | 1.0 | | 0.2 | | | | | |
| 77.6315-01 NB | 1.5 | | 0.1 | 3.0 | | ● | | |
| 77.6315-02 NB | 1.5 | | 0.2 | | | | | |
| 77.6320-01 NB | 2.0 | | 0.1 | 4.0 | | ● | | |
| 77.6320-02 NB | 2.0 | | 0.2 | | | ● | | |
| 77.6325-01 NB | 2.5 | | 0.1 | 6.0 | | ● | | |
| 77.6325-02 NB | 2.5 | | 0.2 | | | ● | | |
| 77.6330-01 NB | 3.0 | | 0.1 | 8.0 | | | | |
| 77.6330-02 NB | 3.0 | | 0.2 | | | ● | | |
| 77.8410-01 NB | 1.0 | | 0.1 | 2.5 | | ● | | CS668R****-84 |
| 77.8410-02 NB | 1.0 | | 0.2 | | | | | |
| 77.8415-01 NB | 1.5 | | 0.1 | 3.0 | | ● | | |
| 77.8415-02 NB | 1.5 | | 0.2 | | | | | |
| 77.8420-01 NB | 2.0 | | 0.1 | 4.0 | | ● | | |
| 77.8420-02 NB | 2.0 | | 0.2 | | | ● | | |
| 77.8425-01 NB | 2.5 | | 0.1 | 6.0 | | | | |
| 77.8425-02 NB | 2.5 | | 0.2 | | | ● | | |
| 77.8430-01 NB | 3.0 | | 0.1 | 8.0 | | | | CS668R****-84 |
| 77.8430-02 NB | 3.0 | | 0.2 | | | ● | | |
| 77.8440-01 NB | 4.0 | | 0.1 | 8.0 | | | | |
| 77.8440-02 NB | 4.0 | | 0.2 | | | | | |

# 端面切溝刀 Face Grooving

## MA 切屑槽 MA Breaker





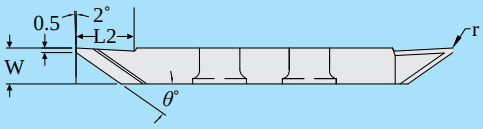

| 型號 EDP NO. | W | S | r | L2 | X21 | NC02 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 214.10-01 MA | 1.0 | 2.0 | 0.1 | 8.0 | | ● | | CS900R****-84 |
| 214.15-02 MA | 1.5 | | 0.2 | | | ● | | |
| 214.20-02 MA | 2.0 | | 0.2 | | | ● | | |

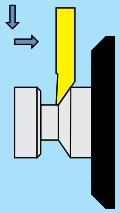
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向後掃刀 Right Hand Back Turn

## CE 斷屑槽 CE Breaker



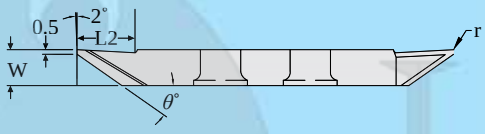


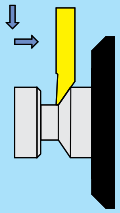



| 型號 EDP NO. | W | θ° | r | L2 | KC | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 674.40-00 CE | 4.0 | 35° | 0.0 | 8.5 | | | | CS900R****84 |
| 674.40-01 CE | 4.0 | | 0.1 | | | | | |
| 674.40-02 CE | 4.0 | | 0.2 | | ● | ● | | |

## ME 斷屑槽 ME Breaker



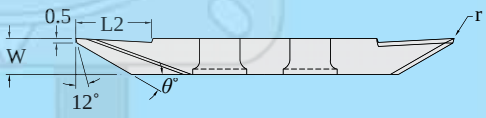


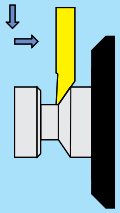



| 型號 EDP NO. | W | θ° | r | L2 | KC | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 674.40-00 ME | 4.0 | 35° | 0.0 | 8.5 | | | | CS900R****84 |
| 674.40-01 ME | 4.0 | | 0.1 | | | | | |
| 674.40-02 ME | 4.0 | | 0.2 | | ● | ● | | |

## MD 斷屑槽 MD Breaker





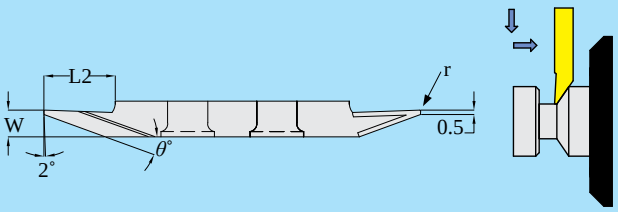
| 型號 EDP NO. | W | θ° | r | L2 | KC | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 674.40-00 MD | 4.0 | 30° | 0.0 | 8.5 | | | | CS900R****84 |
| 674.40-01 MD | 4.0 | | 0.1 | | | | | |
| 674.40-02 MD | 4.0 | | 0.2 | | ● | ● | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向後掃刀 Right Hand Back Turn

## CE 斷屑槽 CE Breaker

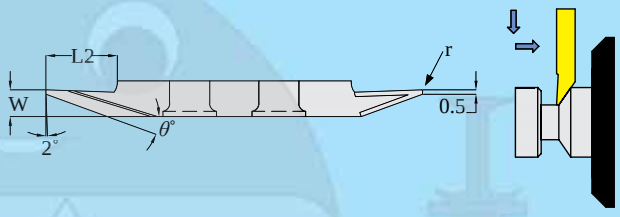





| 型號 EDP NO. | W | θ° | r | L2 | KC | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 694.20-01 CE | 2.0 | 20° | 0.1 | 8.5 | | | | CS900R****-84 |
| 694.20-02 CE | 2.0 | | 0.2 | | | | | |
| 694.30-01 CE | 3.0 | | 0.1 | 8.5 | ● | ● | | |
| 694.30-02 CE | 3.0 | | 0.2 | | ● | ● | | |
| 694.40-01 CE | 4.0 | | 0.1 | 8.5 | | | | |
| 694.40-02 CE | 4.0 | | 0.2 | | | | | |

## ME 斷屑槽 ME Breaker

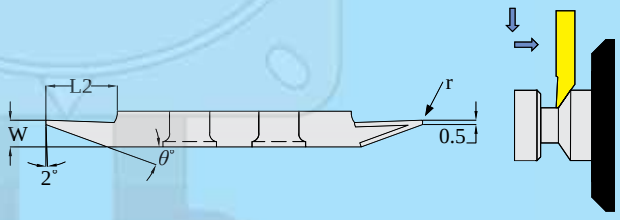





| 型號 EDP NO. | W | θ° | r | L2 | KC | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 694.20-01 ME | 2.0 | 20° | 0.1 | 8.5 | | | | CS900R****-84 |
| 694.20-02 ME | 2.0 | | 0.2 | | | | | |
| 694.30-01 ME | 3.0 | | 0.1 | 8.5 | ● | ● | | |
| 694.30-02 ME | 3.0 | | 0.2 | | ● | ● | | |
| 694.40-01 ME | 4.0 | | 0.1 | 8.5 | | | | |
| 694.40-02 ME | 4.0 | | 0.2 | | | | | |

## 無 斷削槽 NO Breaker





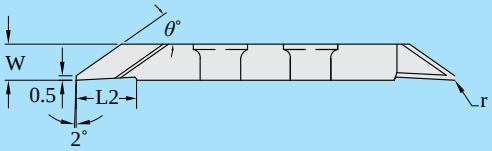

| 型號 EDP NO. | W | θ° | r | L2 | KC | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 694.20-01 NB | 2.0 | 20° | 0.1 | 8.5 | | | | CS900R****-84 |
| 694.20-02 NB | 2.0 | | 0.2 | | | | | |
| 694.30-01 NB | 3.0 | | 0.1 | 8.5 | ● | ● | | |
| 694.30-02 NB | 3.0 | | 0.2 | | ● | ● | | |
| 694.40-01 NB | 4.0 | | 0.1 | 8.5 | | | | |
| 694.40-02 NB | 4.0 | | 0.2 | | | | | |

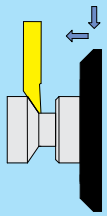
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向後掃刀 Left Hand Back Turn

## CE 斷屑槽 CE Breaker



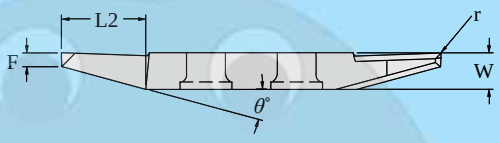


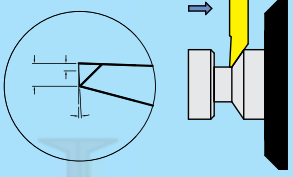



| 型號 EDP NO. | W | θ° | r | L2 | KC | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 684.40-00 CE | 4.0 | 35° | 0.0 | 8.5 | | | | CS900L****84 |
| 684.40-01 CE | 4.0 | | 0.1 | | | | | |
| 684.40-02 CE | 4.0 | | 0.2 | | | | | |

## MA 斷屑槽 MA Breaker



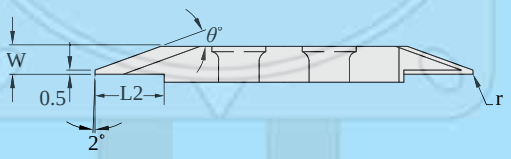


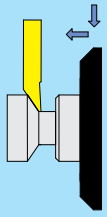



| 型號 EDP NO. | W | θ° | r | F | h | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| 694.15-00 MA | 3.5 | 15° | 0.0 | 1.5 | 6.5 | 8.5 | | | | CS900R****-84 |
| 694.15-01 MA | | | 0.1 | | | | | ● | | |
| 694.15-02 MA | | | 0.2 | | | | | ● | | |
| 694.20-00 MA | 4.0 | 15° | 0.0 | 2.0 | 6.5 | 8.5 | | | | |
| 694.20-01 MA | | | 0.1 | | | | | ● | | |
| 694.20-02 MA | | | 0.2 | | | | | ● | | |

## CE 斷屑槽 CE Breaker



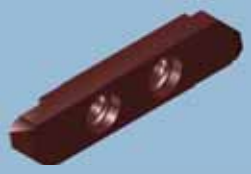


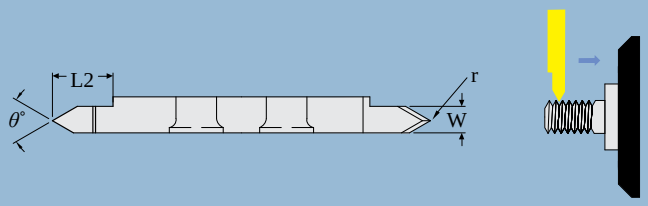



| 型號 EDP NO. | W | θ° | r | L2 | KC | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 704.20-01 CE | 2.0 | 20° | 0.1 | 8.5 | | | | CS900L****84 |
| 704.20-02 CE | 2.0 | | 0.2 | | | | | |
| 704.30-01 CE | 3.0 | | 0.1 | 8.5 | | | | |
| 704.30-02 CE | 3.0 | | 0.2 | | | | | |
| 704.40-01 CE | 4.0 | | 0.1 | 8.5 | | | | |
| 704.40-02 CE | 4.0 | | 0.2 | | | | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向牙刀 Right Hand Threading

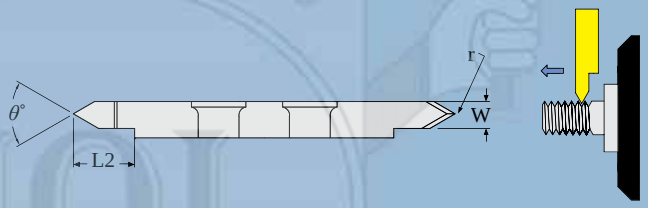





| 型　號<br>EDP NO. | W | θ° | r | L2 | KC | NA01 | HC83 | 適 用 刀 架<br>HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 494.20-60005 | 2.0 | 60° | 0.05 | 6 | | | | CS900R****84 |
| 494.20-6001 | 2.0 | | 0.1 | | ● | ● | | |
| 494.30-5501 | 3.0 | 55° | 0.1 | 8.5 | ● | ● | | |
| 494.30-5502 | 3.0 | | 0.2 | | | | | |
| 494.30-6001 | 3.0 | 60° | 0.1 | | ● | ● | | |
| 494.30-6002 | 3.0 | | 0.2 | | | ● | | |

# 左向牙刀 Left Hand Threading





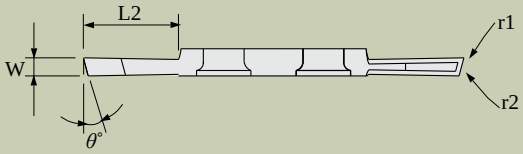

| 型　號<br>EDP NO. | W | θ° | r | L2 | KC | NA01 | HC83 | 適 用 刀 架<br>HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 504.20-60005 | 2.0 | 60° | 0.05 | 6 | | | | CS900L****84 |
| 504.20-6001 | 2.0 | | 0.1 | | | | | |
| 504.30-5501 | 3.0 | 55° | 0.1 | 8.5 | | | | |
| 504.30-5502 | 3.0 | | 0.2 | | | | | |
| 504.30-6001 | 3.0 | 60° | 0.1 | | | | | |
| 504.30-6002 | 3.0 | | 0.2 | | | | | |

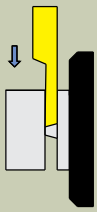
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向切斷刀 Right Hand Part Off

## CE 斷削槽 CE Breaker



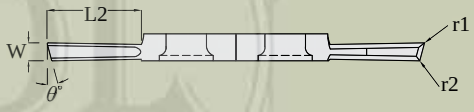


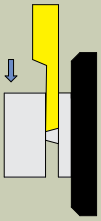



| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 433.10-00 CE | 1.0 | 15° | 0.0 | 0.0 | 5 | ● | ● | | CS900R****83 |
| 433.15-00 CE | 1.5 | | 0.0 | 0.0 | 8.5 | ● | ● | | |
| 433.15-005 CE | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 433.15-01 CE | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 433.20-00 CE | 2.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 433.20-005 CE | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 433.20-01 CE | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 433.25-00 CE | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 433.25-005 CE | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 433.25-01 CE | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 433.30-00 CE | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 433.30-005 CE | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 433.30-01 CE | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 433.20-00 WCE | 2.0 | 20° | 0.1 | 0.0 | 12 | | ● | | CS900R****83 |
| 433.20-005 WCE | 2.0 | | 0.05 | 0.05 | | | | | |
| 433.20-01 WCE | 2.0 | | 0.1 | 0.1 | | | | | |

## CU 斷屑槽 CU Breaker





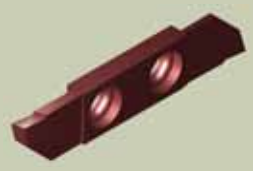



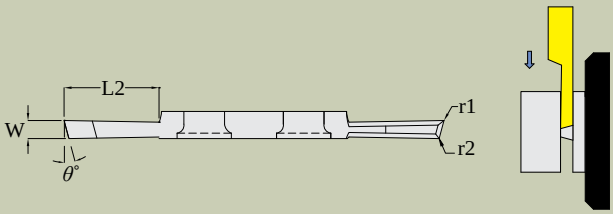
| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 433.15-00 CU | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS900R****83 |
| 433.15-005 CU | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 433.15-01 CU | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 433.20-00 CU | 2.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 433.20-005 CU | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 433.20-01 CU | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 433.25-00 CU | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 433.25-005 CU | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 433.25-01 CU | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 433.30-00 CU | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 433.30-005 CU | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 433.30-01 CU | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 433.20-00 WCU | 2.0 | 20° | 0.1 | 0.0 | 11.5 | ● | ● | | CS900R****83 |
| 433.20-005 WCU | 2.0 | | 0.05 | 0.05 | | | | | |
| 433.20-01 WCU | 2.0 | | 0.1 | 0.1 | | | | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向切斷刀 Right Hand Part Off

## CX 斷屑槽 CX Breaker

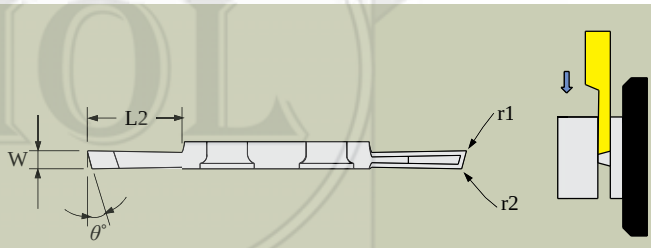





| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 433.10-00 CX | 1.0 | 15° | 0.0 | 0.0 | 5 | ● | ● | | CS900R****83 |
| 433.15-00 CX | 1.5 | | 0.0 | 0.0 | 8.5 | ● | ● | | |
| 433.15-005 CX | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 433.15-01 CX | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 433.20-00 CX | 2.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 433.20-005 CX | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 433.20-01 CX | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 433.25-00 CX | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 433.25-005 CX | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 433.25-01 CX | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 433.30-00 CX | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 433.30-005 CX | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 433.30-01 CX | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 433.20-00 WCX | 2.0 | 20° | 0.1 | 0.0 | 11.5 | | ● | | CS900R****83 |
| 433.20-005 WCX | 2.0 | | 0.05 | 0.05 | | | | | |
| 433.20-01 WCX | 2.0 | | 0.1 | 0.1 | | | | | |

## CX 斷削槽 CX Breaker





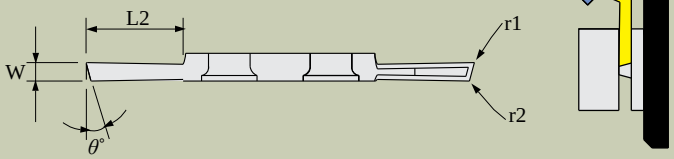

| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 433.10025-00 CX | 2.5 | 15° | 0.0 | 0.0 | 14 | | ● | | CS320R****103 |
| 433.10025-01 CX | 2.5 | | 0.1 | 0.1 | | | | | |
| 433.10030-00 CX | 3.0 | | 0.0 | 0.0 | 17 | | ● | | |
| 433.10030-01 CX | 3.0 | | 0.1 | 0.1 | | | ● | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向切斷刀 Right Hand Part Off

## 無 斷削槽 NO Breaker

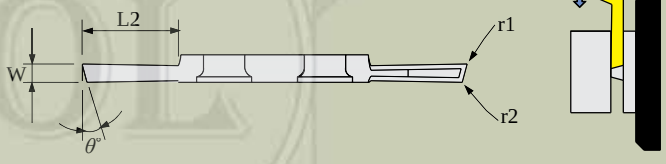





| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 433.10-00 NB | 1.0 | 15° | 0.0 | 0.0 | 5 | ● | ● | | CS900R****83 |
| 433.15-00 NB | 1.5 | | 0.0 | 0.0 | 8.5 | ● | ● | | |
| 433.15-005 NB | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 433.15-01 NB | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 433.20-00 NB | 2.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 433.20-005 NB | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 433.20-01 NB | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 433.25-00 NB | 2.5 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 433.25-005 NB | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 433.25-01 NB | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 433.30-00 NB | 3.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 433.30-005 NB | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 433.30-01 NB | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 433.20-00 WNB | 2.0 | 20° | 0.1 | 0.0 | 11.5 | ● | ● | | CS900R****83 |
| 433.20-005 WNB | 2.0 | | 0.05 | 0.05 | | | | | |
| 433.20-01 WNB | 2.0 | | 0.1 | 0.1 | | | | | |

## 無 斷削槽 NO Breaker



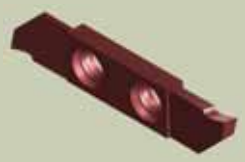


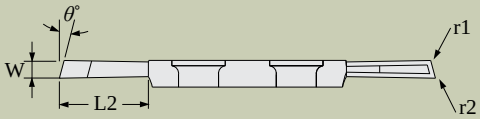

| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 433.10025-00 NB | 2.5 | 15° | 0.0 | 0.0 | 14 | | ● | | CS320R****103 |
| 433.10025-01 NB | 2.5 | | 0.1 | 0.1 | | | | | |
| 433.10030-00 NB | 3.0 | | 0.0 | 0.0 | 17 | | ● | | |
| 433.10030-01 NB | 3.0 | | 0.1 | 0.1 | | | ● | | |

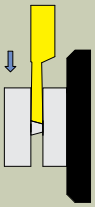
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向切斷刀 Left Hand Part Off

## CE 斷削槽 CE Breaker



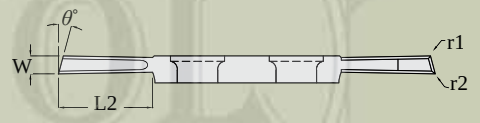


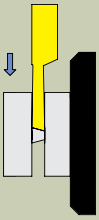



| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 443.10-00 CE | 1.0 | 15° | 0.0 | 0.0 | 5 | | ● | | CS900L****83 |
| 443.15-00 CE | 1.5 | | 0.0 | 0.0 | 8.5 | ● | ● | | |
| 443.15-005 CE | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.15-01 CE | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 CE | 2.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 443.20-005 CE | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.20-01 CE | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.25-00 CE | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 443.25-005 CE | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.25-01 CE | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.30-00 CE | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 443.30-005 CE | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.30-01 CE | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 WCE | 2.0 | 20° | 0.1 | 0.0 | 11.5 | ● | ● | | CS900L****83 |
| 443.20-005 WCE | 2.0 | | 0.05 | 0.05 | | | | | |
| 443.20-01 WCE | 2.0 | | 0.1 | 0.1 | | | | | |

## CU 斷屑槽 CU Breaker





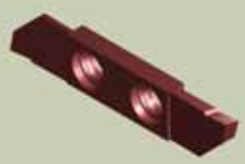



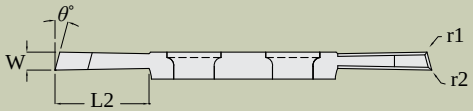
| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 443.15-00 CU | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS900L****83 |
| 443.15-005 CU | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.15-01 CU | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 CU | 2.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 443.20-005 CU | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.20-01 CU | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.25-00 CU | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 443.25-005 CU | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.25-01 CU | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.30-00 CU | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 443.30-005 CU | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.30-01 CU | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 WCU | 2.0 | 20° | 0.1 | 0.0 | 11.5 | ● | ● | | CS900L****83 |
| 443.20-005 WCU | 2.0 | | 0.05 | 0.05 | | | | | |
| 443.20-01 WCU | 2.0 | | 0.1 | 0.1 | | | | | |

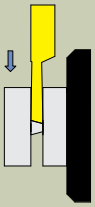
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向切斷刀 Left Hand Part Off

## CX 斷屑槽 CX Breaker



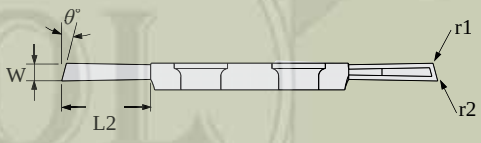


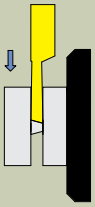



| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 443.10-00 CX | 1.0 | 15° | 0.0 | 0.0 | 5 | ● | ● | | CS900L****83 |
| 443.15-00 CX | 1.5 | | 0.0 | 0.0 | 8.5 | ● | ● | | |
| 443.15-005 CX | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.15-01 CX | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 CX | 2.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 443.20-005 CX | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.20-01 CX | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.25-00 CX | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 443.25-005 CX | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.25-01 CX | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.30-00 CX | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 443.30-005 CX | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.30-01 CX | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 WCX | 2.0 | 20° | 0.1 | 0.0 | 11.5 | ● | ● | | CS900L****83 |
| 443.20-005 WCX | 2.0 | | 0.05 | 0.05 | | | | | |
| 443.20-01 WCX | 2.0 | | 0.1 | 0.1 | | | | | |

## 無 斷削槽 NO Breaker





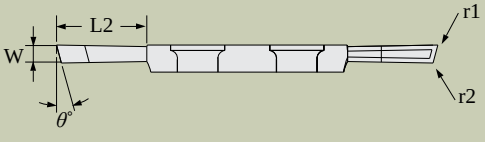
| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 443.10-00 NB | 1.0 | 15° | 0.0 | 0.0 | 5 | ● | ● | | CS900L****83 |
| 443.15-00 NB | 1.5 | | 0.0 | 0.0 | 8.5 | ● | ● | | |
| 443.15-005 NB | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.15-01 NB | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 NB | 2.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 443.20-005 NB | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.20-01 NB | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.25-00 NB | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 443.25-005 NB | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.25-01 NB | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.30-00 NB | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 443.30-005 NB | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.30-01 NB | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 WNB | 2.0 | 20° | 0.1 | 0.0 | 11.5 | ● | ● | | CS900L****83 |
| 443.20-005 WNB | 2.0 | | 0.05 | 0.05 | | | | | |
| 443.20-01 WNB | 2.0 | | 0.1 | 0.1 | | | | | |

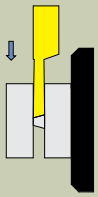
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向右切切斷刀 Left Hand Right Cutting Part Off

## CE 斷削槽 CE Breaker





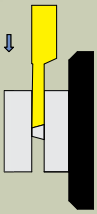



| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 443.10-00 R CE | 1.0 | 15° | 0.0 | 0.0 | 5 | ● | ● | | CS900L****83 |
| 443.15-00 R CE | 1.5 | | 0.0 | 0.0 | 8.5 | ● | ● | | |
| 443.15-005 R CE | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.15-01 R CE | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 R CE | 2.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 443.20-005 R CE | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.20-01 R CE | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.25-00 R CE | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 443.25-005 R CE | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.25-01 R CE | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.30-00 R CE | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 443.30-005 R CE | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.30-01 R CE | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 R WCE | 2.0 | 20° | 0.1 | 0.0 | 11.5 | ● | ● | | CS900L****83 |
| 443.20-005 R WCE | 2.0 | | 0.05 | 0.05 | | | | | |
| 443.20-01 R WCE | 2.0 | | 0.1 | 0.1 | | | | | |

## CU 斷屑槽 CU Breaker





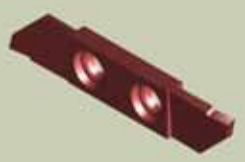



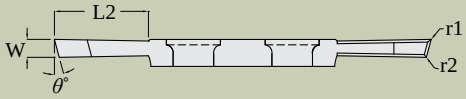
| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 443.15-00 R CU | 1.5 | 15° | 0.0 | 0.0 | 8.5 | ● | ● | | CS900L****83 |
| 443.15-005 R CU | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.15-01 R CU | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 R CU | 2.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 443.20-005 R CU | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.20-01 R CU | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.25-00 R CU | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 443.25-005 R CU | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.25-01 R CU | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.30-00 R CU | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 443.30-005 R CU | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.30-01 R CU | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 R WCU | 2.0 | 20° | 0.1 | 0.0 | 11.5 | ● | ● | | CS900L****83 |
| 443.20-005 R WCU | 2.0 | | 0.05 | 0.05 | | | | | |
| 443.20-01 R WCU | 2.0 | | 0.1 | 0.1 | | | | | |

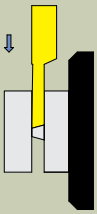
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向右切切斷刀 Left Hand Right Cutting Part Off

## CX 斷屑槽 CX Breaker



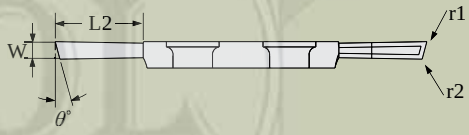


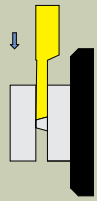



| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 443.10-00 R CX | 1.0 | 15° | 0.0 | 0.0 | 5 | ● | ● | | CS900L****83 |
| 443.15-00 R CX | 1.5 | | 0.0 | 0.0 | 8.5 | ● | ● | | |
| 443.15-005 R CX | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.15-01 R CX | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 R CX | 2.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 443.20-005 R CX | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.20-01 R CX | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.25-00 R CX | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 443.25-005 R CX | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.25-01 R CX | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.30-00 R CX | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 443.30-005 R CX | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.30-01 R CX | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 R WCX | 2.0 | 20° | 0.1 | 0.0 | 11.5 | ● | ● | | CS900L****83 |
| 443.20-005 R WCX | 2.0 | | 0.05 | 0.05 | | | | | |
| 443.20-01 R WCX | 2.0 | | 0.1 | 0.1 | | | | | |

## 無 斷削槽 NO Breaker



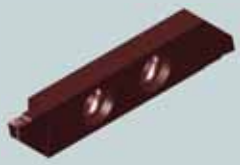


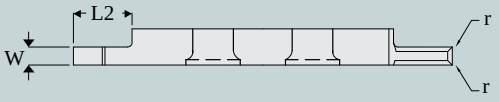



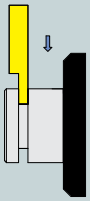
| 型號 EDP NO. | W | θ° | r1 | r2 | L2 | X21 | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|---|
| 443.10-00 R NB | 1.5 | 15° | 0.0 | 0.0 | 5.0 | ● | ● | | CS900L****83 |
| 443.15-00 R NB | 1.5 | | 0.0 | 0.0 | 8.5 | ● | ● | | |
| 443.15-005 R NB | 1.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.15-01 R NB | 1.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 R NB | 2.0 | | 0.0 | 0.0 | 11.5 | ● | ● | | |
| 443.20-005 R NB | 2.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.20-01 R NB | 2.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.25-00 R NB | 2.5 | | 0.0 | 0.0 | | ● | ● | | |
| 443.25-005 R NB | 2.5 | | 0.05 | 0.05 | | ● | ● | | |
| 443.25-01 R NB | 2.5 | | 0.1 | 0.1 | | ● | ● | | |
| 443.30-00 R NB | 3.0 | | 0.0 | 0.0 | | ● | ● | | |
| 443.30-005 R NB | 3.0 | | 0.05 | 0.05 | | ● | ● | | |
| 443.30-01 R NB | 3.0 | | 0.1 | 0.1 | | ● | ● | | |
| 443.20-00 R WNB | 2.0 | 20° | 0.1 | 0.0 | 11.5 | ● | ● | | CS900L****83 |
| 443.20-005 R WNB | 2.0 | | 0.05 | 0.05 | | | | | |
| 443.20-01 R WNB | 2.0 | | 0.1 | 0.1 | | | | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向切槽刀 Right Hand Groove





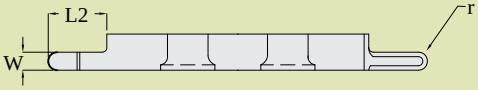
| 型　號<br>EDP NO. | W | θ° | r / c | L2 | KC | NA01 | HC83 | 適 用 刀 架<br>HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 714.050 | 0.50 | | 0.05c | 1.2 | | ● | | CS900R****84 |
| 714.075 | 0.75 | | 0.05c | 2.0 | | ● | | |
| 714.100 | 1.0 | | 0.1 | 2.5 | | ● | | |
| 714.125 | 1.25 | | 0.2 | 3.0 | | ● | | |
| 714.145 | 1.45 | | 0.2 | 4.0 | | ● | | |
| 714.150 | 1.5 | | 0.2 | 5.0 | | ● | | |
| 714.175 | 1.75 | | 0.2 | 5.0 | | ● | | |
| 714.200 | 2.0 | | 0.2 | 6.0 | | ● | | |
| 714.250 | 2.5 | | 0.2 | 8.0 | | ● | | |
| 714.300 | 3.0 | | 0.3 | 8.0 | | ● | | |
| 714.350 | 3.5 | | 0.3 | 8.0 | | ● | | |
| 714.400 | 4.0 | | 0.4 | 8.0 | | ● | | |
| 714.450 | 4.5 | | 0.4 | 10.0 | | ● | | CS900R****85 |
| 715.500 | 5.0 | | 0.4 | 10.0 | | ● | | |

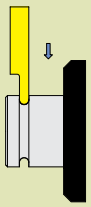
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.



# 右向圓槽刀 Right Hand Radius





| 型　號<br>EDP NO. | W | θ° | r | L2 | KC | NA01 | HC83 | 適 用 刀 架<br>HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 714.050 R | 1.0 | | 0.50 | 2.5 | | ● | | CS900R****84 |
| 714.075 R | 1.5 | | 0.75 | 3.0 | | ● | | |
| 714.100 R | 2.0 | | 1.00 | 4.0 | | ● | | |
| 714.125 R | 2.5 | | 1.25 | 6.0 | | ● | | |
| 714.150 R | 3.0 | | 1.50 | 8.0 | | ● | | |
| 714.175 R | 3.5 | | 1.75 | 8.0 | | ● | | |
| 714.200 R | 4.0 | | 2.00 | 8.0 | | ● | | CS900R****85 |
| 714.250 R | 5.0 | | 2.50 | 10.0 | | ● | | |

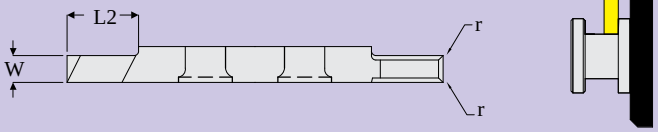
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.



# 右向插掃刀 Right Hand Groove And Turn

## MA 斷屑槽 MA Breaker

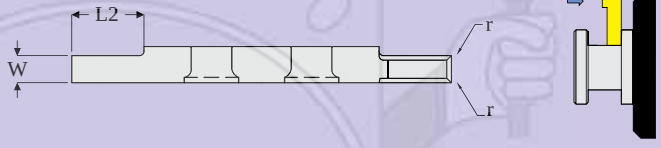





| 型號 EDP NO. | W | θ° | r | L2 | KC | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 774.10-01 MA | 1.0 | | 0.1 | 2.0 | ● | ● | | CS900R****84 |
| 774.15-01 MA | 1.5 | | 0.1 | 3.0 | ● | ● | | |
| 774.15-02 MA | 1.5 | | 0.2 | | | | | |
| 774.20-01 MA | 2.0 | | 0.1 | 4.0 | ● | ● | | |
| 774.20-02 MA | 2.0 | | 0.2 | | ● | ● | | |
| 774.25-01 MA | 2.5 | | 0.1 | 6.0 | | | | |
| 774.25-02 MA | 2.5 | | 0.2 | | ● | ● | | |
| 774.30-01 MA | 3.0 | | 0.1 | 8.0 | | | | |
| 774.30-02 MA | 3.0 | | 0.2 | | ● | ● | | |

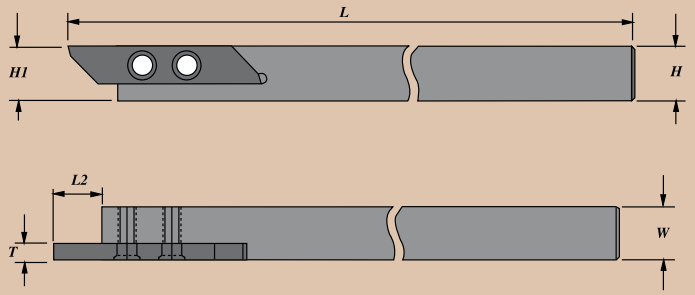
## 無 斷屑槽 NO Breaker



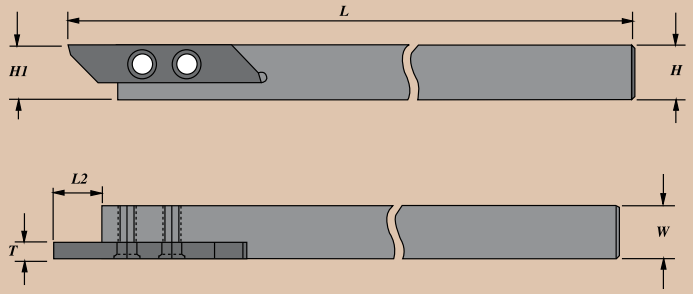



| 型號 EDP NO. | W | θ° | r1 | L2 | KC | NA01 | HC83 | 適用刀架 HOLDER NO. |
|---|---|---|---|---|---|---|---|---|
| 774.10-01 NB | 1.0 | | 0.1 | 2.0 | ● | ● | | CS900R****84 |
| 774.15-01 NB | 1.5 | | 0.1 | 3.0 | ● | ● | | |
| 774.15-02 NB | 1.5 | | 0.2 | | | | | |
| 774.20-01 NB | 2.0 | | 0.1 | 4.0 | ● | ● | | |
| 774.20-02 NB | 2.0 | | 0.2 | | ● | ● | | |
| 774.25-01 NB | 2.5 | | 0.1 | 6.0 | | | | |
| 774.25-02 NB | 2.5 | | 0.2 | | ● | ● | | |
| 774.30-01 NB | 3.0 | | 0.1 | 8.0 | | | | |
| 774.30-02 NB | 3.0 | | 0.2 | | ● | ● | | |

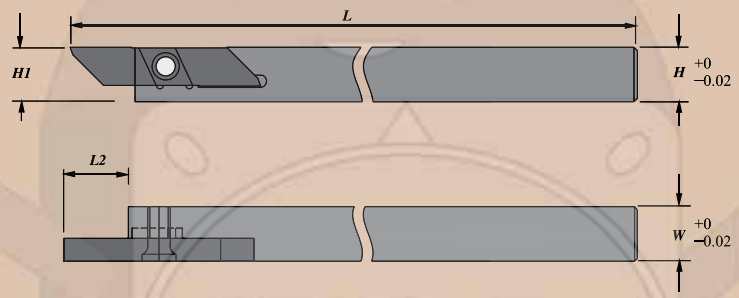
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.




| 型　號<br>EDP NO. | H=H1 | W | L2 | L | T | 適　用　刀　片<br>Applicable Inserts |
|---|---|---|---|---|---|---|
| CS 900R/L 1010 J-83 | 10 | 10 | 12 | 110 | 3 | 433.***<br>443.*** |
| CS 900R/L 1212 J-83 | 12 | 12 | 12 | 110 | 3 | |
| CS 900R/L 1616 J-83 | 16 | 16 | 12 | 110 | 3 | |
| CS 900R/L 2020 K-83 | 20 | 20 | 12 | 125 | 3 | |
| CS 900R/L 2525 M-83 | 25 | 25 | 12 | 150 | 3 | |
| CS 900R/L 1010 J-84 | 10 | 10 | 12 | 110 | 4 | 674.40-**<br>714.40***<br>774.40**<br>334.40-**<br>694.40*** |
| CS 900R/L 1212 J-84 | 12 | 12 | 12 | 110 | 4 | |
| CS 900R/L 1616 J-84 | 16 | 16 | 12 | 110 | 4 | |
| CS 900R/L 2020 K-84 | 20 | 20 | 12 | 125 | 4 | |
| CS 900R/L 2525 M-84 | 25 | 25 | 12 | 150 | 4 | |
| CS 900R/L 1212 J-85 | 12 | 12 | 12 | 110 | 5 | 714.50*** |
| CS 900R/L 1616 J-85 | 16 | 16 | 12 | 110 | 5 | |
| CS 900R/L 2020 K-85 | 20 | 20 | 12 | 125 | 5 | |
| CS 900R/L 2525 M-85 | 25 | 25 | 12 | 150 | 5 | |

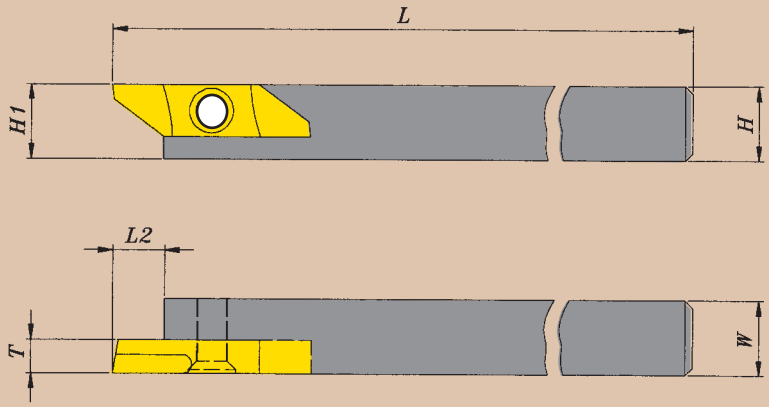



| 型　號<br>EDP NO. | H=H1 | W | L2 | L | T | 適　用　刀　片<br>Applicable Inserts |
|---|---|---|---|---|---|---|
| CS 320R/L 1212 J-103 | 12 | 12 | 17 | 110 | 3 | 433.10030-** |
| CS 320R/L 1616 M-103 | 16 | 16 | 17 | 150 | 3 | |
| CS 320R/L 2020 K-103 | 20 | 20 | 17 | 125 | 3 | |
| CS 320R/L 2525 M-103 | 25 | 25 | 17 | 150 | 3 | |




| 型　號<br>EDP NO. | H=H1 | W | L2 | L | 適　用　刀　片<br>Applicable Inserts |
|---|---|---|---|---|---|
| CS 458R/L 1010 J | 10 | 10 | 12 | 110 | 43.476-**<br>44.476-** |
| CS 458R/L 1212 J | 12 | 12 | 12 | 110 | |
| CS 458R/L 1616 J | 16 | 16 | 12 | 110 | |
| CS 458R/L 2020 K | 20 | 20 | 12 | 125 | |
| CS 458R/L 2525 M | 25 | 25 | 2 | 150 | |

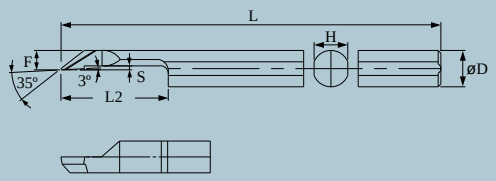
# 刀架 Holder




| 型　號<br>EDP NO. | H=H1 | W | L2 | L | T | 適　用　刀　片<br>Applicable Inserts |
|---|---|---|---|---|---|---|
| CS 668R/L 1010 J-83 | 10 | 10 | 11 | 110 | 3 | 43.83** |
| CS 668R/L 1212 J-83 | 12 | 12 | 11 | 110 | 3 | 43.83**<br>44.83** |
| CS 668R/L 1616 J-83 | 16 | 16 | 11 | 110 | 3 | |
| CS 668R/L 2020 K-83 | 20 | 20 | 11 | 125 | 3 | |
| CS 668R/L 2525 M-83 | 25 | 25 | 11 | 150 | 3 | |
| CS 668R/L 1010 J-84 | 10 | 10 | 11 | 110 | 4 | 67.84-**<br>71.84***<br>77.84**<br>33.84**<br>49.84-***<br>69.84-*** |
| CS 668R/L 1212 J-84 | 12 | 12 | 11 | 110 | 4 | |
| CS 668R/L 1616 J-84 | 16 | 16 | 11 | 110 | 4 | |
| CS 668R/L 2020 K-84 | 20 | 20 | 11 | 125 | 4 | |
| CS 668R/L 2525 M-84 | 25 | 25 | 11 | 150 | 4 | |
| CS 668R/L 1010 J-85 | 10 | 10 | 11 | 110 | 5 | 71.85***<br>訂製刀片 |
| CS 668R/L 1212 J-85 | 12 | 12 | 11 | 110 | 5 | |
| CS 668R/L 1616 J-85 | 16 | 16 | 11 | 110 | 5 | |
| CS 668R/L 2020 K-85 | 20 | 20 | 11 | 125 | 5 | |
| CS 668R/L 2525 M-85 | 25 | 25 | 11 | 150 | 5 | |
| CS 789R/L 0707 H-63 | 7 | 7 | 9 | 100 | 3 | 43.63-***<br>44.63-***<br>49.63-*** |
| CS 789R/L 0808 H-63 | 8 | 8 | 9 | 100 | 3 | |
| CS 789R/L 1010 J-63 | 10 | 10 | 9 | 110 | 3 | |
| CS 789R/L 1212 J-63 | 12 | 12 | 9 | 110 | 3 | |
| CS 789R/L 1616 J-63 | 16 | 16 | 9 | 110 | 3 | |
| CS 789R/L 2020 K-63 | 20 | 20 | 9 | 125 | 3 | |
| CS 789R/L 2525 M-63 | 25 | 25 | 9 | 150 | 3 | |
| CS 789R/L 0707 H-64 | 7 | 7 | 9 | 100 | 4 | 67.64-***<br>71.64-***<br>77.64-***<br>33.64-***<br>69.64-*** |
| CS 789R/L 0808 H-64 | 8 | 8 | 9 | 100 | 4 | |
| CS 789R/L 1010 J-64 | 10 | 10 | 9 | 110 | 4 | |
| CS 789R/L 1212 J-64 | 12 | 12 | 9 | 110 | 4 | |
| CS 789R/L 1616 J-64 | 16 | 16 | 9 | 110 | 4 | |
| CS 789R/L 2020 K-64 | 20 | 20 | 9 | 125 | 4 | |
| CS 789R/L 2525 M-64 | 25 | 25 | 9 | 150 | 4 | |
| CS 789R/L 1010 J-65 | 10 | 10 | 9 | 110 | 5 | 71.66***<br>71.65***<br>訂製刀片 |
| CS 789R/L 1212 J-65 | 12 | 12 | 9 | 110 | 5 | |
| CS 789R/L 1616 J-65 | 16 | 16 | 9 | 110 | 5 | |
| CS 789R/L 2020 K-65 | 20 | 20 | 9 | 125 | 5 | |
| CS 789R/L 2525 M-65 | 25 | 25 | 9 | 150 | 5 | |
| CS 789R/L 1616 J-66 | 16 | 16 | 9 | 110 | 6 | |
| CS 789R/L 2020 K-66 | 20 | 20 | 9 | 125 | 6 | |
| CS 789R/L 2525 M-66 | 25 | 25 | 9 | 150 | 6 | |

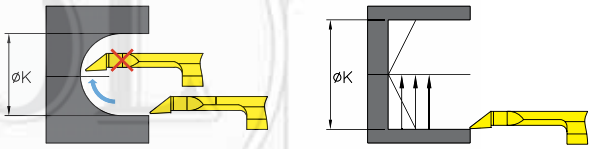
# 內徑車刀 Micro Bar-Boring






| 型號 EDP NO. | ØK | F | L2 | L | r | S | ØD | H | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|
| 25.3009-01 ME | 3 | 1.65 | 9.0 | 40 | 0.1 | 0.3 | 4 | 3.7 | | SP.5650-04** |
| 25.3015-01 ME | 3 | 1.65 | 15.0 | 45 | 0.1 | 0.3 | 4 | 3.7 | | |
| 25.4012-01 ME | 4 | 2.15 | 12.0 | 42 | 0.1 | 0.5 | 4 | 3.7 | | |
| 25.4020-01 ME | 4 | 2.15 | 20.0 | 50 | 0.1 | 0.5 | 4 | 3.7 | | |
| 25.5015-02 ME | 5 | 2.7 | 15.0 | 50 | 0.2 | 0.6 | 6 | 5.6 | | SP.5650-06** |
| 25.5025-02 ME | 5 | 2.7 | 25.0 | 60 | 0.2 | 0.6 | 6 | 5.6 | | |
| 25.6020-02 ME | 6 | 3.2 | 20.0 | 55 | 0.2 | 0.6 | 6 | 5.6 | | |
| 25.6030-02 ME | 6 | 3.2 | 30.0 | 65 | 0.2 | 0.6 | 6 | 5.6 | | |
| 25.7021-02 ME | 7 | 3.8 | 21.0 | 60 | 0.2 | 0.6 | 8 | 7.4 | | SP.250-08** SP.5650-08** |
| 25.7035-02 ME | 7 | 3.8 | 35.0 | 75 | 0.2 | 0.6 | 8 | 7.4 | | |
| 25.8025-02 ME | 8 | 4.3 | 25.0 | 65 | 0.2 | 0.6 | 8 | 7.4 | | |
| 25.8040-02 ME | 8 | 4.3 | 40.0 | 80 | 0.2 | 0.6 | 8 | 7.4 | | |
| 25.10030-02 ME | 10 | 5.5 | 30.0 | 75 | 0.4 | 0.8 | 10 | 9.3 | | SP.250-10** SP.5650-10** |
| 25.10050-02 ME | 10 | 5.5 | 50.0 | 95 | 0.4 | 0.8 | 10 | 9.3 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.



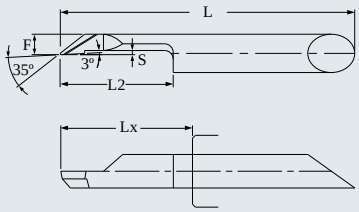

做圓弧加工時刀尖勿超越中心線
While doing arc machining, please don't make tool nose exceed the center line.



# 內徑車刀 Micro Bar-Boring

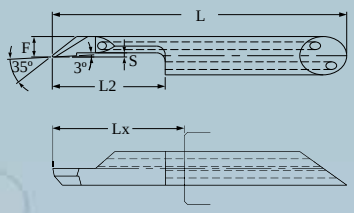
TW





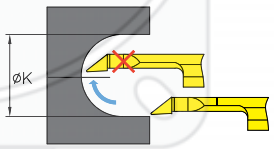

ATW 內冷式

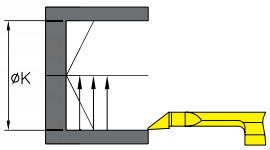





| 型號 EDP NO. | 內冷式 型號 EDP NO. | ØK | F | L2 | Lx | r | S | ØD | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|
| TW 25.3009-01 ME | ATW 25.3009-01 ME | 3 | 1.65 | 9.0 | 11.0 | 0.1 | 0.3 | 4 | | SP.380-04** |
| TW 25.3015-01 ME | ATW 25.3015-01 ME | 3 | 1.65 | 15.0 | 17.0 | 0.1 | 0.3 | 4 | | |
| TW 25.4012-01 ME | ATW 25.4012-01 ME | 4 | 2.15 | 12.0 | 14.0 | 0.1 | 0.5 | 4 | | |
| TW 25.4020-01 ME | ATW 25.4020-01 ME | 4 | 2.15 | 20.0 | 22.0 | 0.1 | 0.5 | 4 | | |
| TW 25.5015-01 ME | ATW 25.5015-01 ME | 5 | 2.7 | 15.0 | 17.0 | 0.2 | 0.6 | 5 | | SP.380-05** |
| TW 25.5025-01 ME | ATW 25.5025-01 ME | 5 | 2.7 | 25.0 | 27.0 | 0.2 | 0.6 | 5 | | |
| TW 25.6020-01 ME | ATW 25.6020-01 ME | 6 | 3.2 | 20.0 | 23.0 | 0.2 | 0.6 | 6 | | SP.380-06** |
| TW 25.6030-01 ME | ATW 25.6030-01 ME | 6 | 3.2 | 30.0 | 45.0 | 0.2 | 0.6 | 6 | | |
| TW 25.7021-01 ME | ATW 25.7021-01 ME | 7 | 3.8 | 21.0 | 24.0 | 0.2 | 0.6 | 7 | | SP.380-07** |
| TW 25.7035-01 ME | ATW 25.7035-01 ME | 7 | 3.8 | 35.0 | 38.0 | 0.2 | 0.6 | 7 | | |
| TW 25.8025-01 ME | ATW 25.8025-01 ME | 8 | 4.3 | 24.0 | 27.0 | 0.2 | 0.6 | 8 | | SP.380-08** |
| TW 25.8040-01 ME | ATW 25.8040-01 ME | 8 | 4.3 | 40.0 | 43.0 | 0.2 | 0.6 | 8 | | |

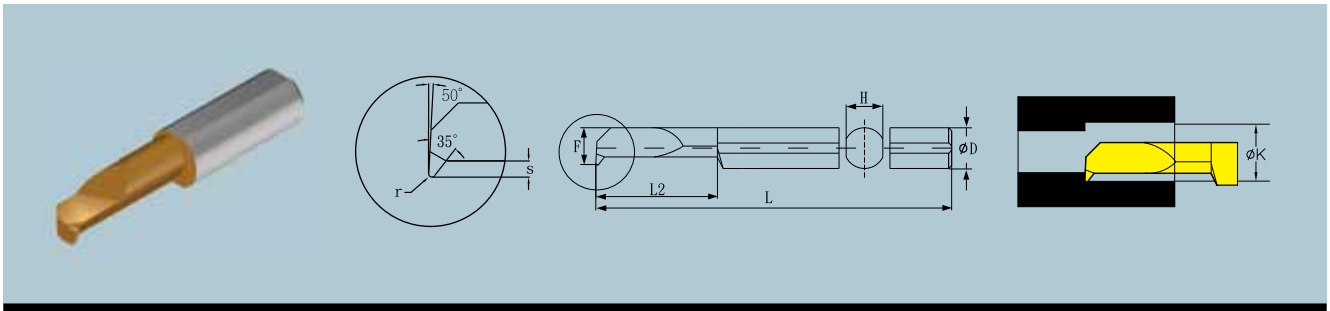
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.




做圓弧加工時刀尖勿超越中心線
While doing arc machining, please don't make tool nose exceed the center line.

# 內徑車刀 Micro Bar-Boring



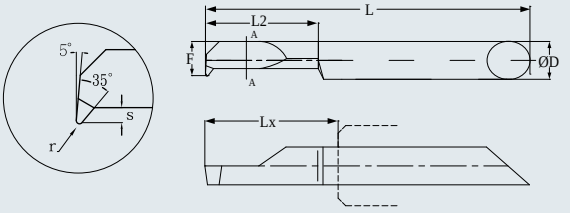

| 型號 EDP NO. | ØK | F | L2 | L | r | S | ØD | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|
| 27.3009-01 | 3 | 2.8 | 9.0 | 40 | 0.1 | 0.4 | 4 | ● | SP.250-04** SP.5650-04** |
| 27.3015-01 | 3 | 2.8 | 15.0 | 45 | 0.1 | 0.4 | 4 | ● | |
| 27.3021-01 | 3 | 2.8 | 21.0 | 52 | 0.1 | 0.4 | 4 | | |
| 27.4012-01 | 4 | 3.8 | 12.0 | 42 | 0.1 | 0.7 | 4 | ● | |
| 27.4012-02 | 4 | 3.8 | 12.0 | 42 | 0.2 | 0.7 | 4 | ● | |
| 27.4020-01 | 4 | 3.8 | 20.0 | 50 | 0.1 | 0.7 | 4 | ● | |
| 27.4020-02 | 4 | 3.8 | 20.0 | 50 | 0.2 | 0.7 | 4 | ● | |
| 27.4028-01 | 4 | 3.8 | 28.0 | 60 | 0.1 | 0.7 | 4 | | |
| 27.4028-02 | 4 | 3.8 | 28.0 | 60 | 0.2 | 0.7 | 4 | | |
| 27.5015-01 | 5 | 4.8 | 15.0 | 50 | 0.1 | 1.0 | 6 | | SP.250-06** SP.5650-06** |
| 27.5015-02 | 5 | 4.8 | 15.0 | 50 | 0.2 | 1.0 | 6 | ● | |
| 27.5025-01 | 5 | 4.8 | 25.0 | 60 | 0.1 | 1.0 | 6 | | |
| 27.5025-02 | 5 | 4.8 | 25.0 | 60 | 0.2 | 1.0 | 6 | ● | |
| 27.5035-01 | 5 | 4.8 | 35.0 | 70 | 0.1 | 1.0 | 6 | | |
| 27.5035-02 | 5 | 4.8 | 35.0 | 70 | 0.2 | 1.0 | 6 | | |
| 27.6020-02 | 6 | 5.8 | 20.0 | 55 | 0.2 | 1.5 | 6 | ● | |
| 27.6030-02 | 6 | 5.8 | 30.0 | 65 | 0.2 | 1.5 | 6 | ● | |
| 27.6042-02 | 6 | 5.8 | 42.0 | 77 | 0.2 | 1.5 | 6 | | |
| 27.7021-02 | 7 | 6.8 | 21.0 | 60 | 0.2 | 2.0 | 8 | | SP.250-08** SP.5650-08** |
| 27.7035-02 | 7 | 6.8 | 35.0 | 75 | 0.2 | 2.0 | 8 | | |
| 27.7049-02 | 7 | 6.8 | 49.0 | 90 | 0.2 | 2.0 | 8 | | |
| 27.8025-02 | 8 | 7.8 | 25.0 | 65 | 0.2 | 2.0 | 8 | | |
| 27.8040-02 | 8 | 7.8 | 40.0 | 80 | 0.2 | 2.0 | 8 | | |
| 27.8056-02 | 8 | 7.8 | 56.0 | 100 | 0.2 | 2.0 | 8 | | |
| 27.10030-02 | 10 | 9.8 | 30.0 | 75 | 0.2 | 2.5 | 10 | | SP.250-10** SP.5650-10** |
| 27.10050-02 | 10 | 9.8 | 50.0 | 95 | 0.2 | 2.5 | 10 | | |
| 27.10070-02 | 10 | 9.8 | 70.0 | 115 | 0.2 | 2.5 | 10 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 內徑車刀 Micro Bar-Boring

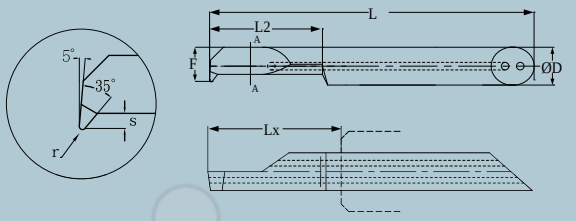
TW






ATW 內冷式

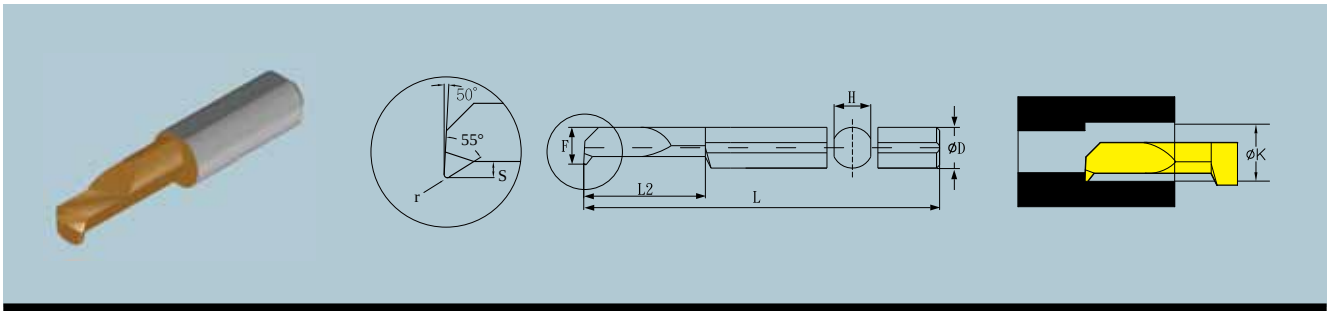





| 型　號<br>EDP NO. | 內冷式 型號<br>EDP NO. | ØK | F | L2 | Lx | r | S | ØD | 在庫<br>stock | 適　用　套　筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|
| TW 27.3009-01 | ATW 27.3009-01 | 3 | 2.8 | 9.0 | 11.0 | 0.1 | 0.4 | 4 | | SP.380-04** |
| TW 27.3015-01 | ATW 27.3015-01 | 3 | 2.8 | 15.0 | 17.0 | 0.1 | 0.4 | 4 | | |
| TW 27.3021-01 | ATW 27.3021-01 | 3 | 2.8 | 21.0 | 23.0 | 0.1 | 0.4 | 4 | | |
| TW 27.4012-01 | ATW 27.4012-01 | 4 | 3.8 | 12.0 | 14.0 | 0.1 | 0.7 | 4 | | |
| TW 27.4012-02 | ATW 27.4012-02 | 4 | 3.8 | 12.0 | 14.0 | 0.2 | 0.7 | 4 | | |
| TW 27.4020-01 | ATW 27.4020-01 | 4 | 3.8 | 20.0 | 22.0 | 0.1 | 0.7 | 4 | | |
| TW 27.4020-02 | ATW 27.4020-02 | 4 | 3.8 | 20.0 | 22.0 | 0.2 | 0.7 | 4 | | |
| TW 27.4028-01 | ATW 27.4028-01 | 4 | 3.8 | 28.0 | 30.0 | 0.1 | 0.7 | 4 | | |
| TW 27.4028-02 | ATW 27.4028-02 | 4 | 3.8 | 28.0 | 30.0 | 0.2 | 0.7 | 4 | | |
| TW 27.5015-02 | ATW 27.5015-02 | 5 | 4.8 | 15.0 | 17.0 | 0.2 | 1.0 | 5 | | SP.380-05** |
| TW 27.5025-02 | ATW 27.5025-02 | 5 | 4.8 | 25.0 | 27.0 | 0.2 | 1.0 | 5 | | |
| TW 27.5035-02 | ATW 27.5035-02 | 5 | 4.8 | 35.0 | 37.0 | 0.2 | 1.0 | 5 | | |
| TW 27.6020-02 | ATW 27.6020-02 | 6 | 5.8 | 20.0 | 23.0 | 0.2 | 1.5 | 6 | | SP.380-06** |
| TW 27.6030-02 | ATW 27.6030-02 | 6 | 5.8 | 30.0 | 33.0 | 0.2 | 1.5 | 6 | | |
| TW 27.6042-02 | ATW 27.6042-02 | 6 | 5.8 | 42.0 | 45.0 | 0.2 | 1.5 | 6 | | |
| TW 27.7021-02 | ATW 27.7021-02 | 7 | 6.8 | 21.0 | 24.0 | 0.2 | 2.0 | 7 | | SP.380-07** |
| TW 27.7035-02 | ATW 27.7035-02 | 7 | 6.8 | 35.0 | 38.0 | 0.2 | 2.0 | 7 | | |
| TW 27.7049-02 | ATW 27.7049-02 | 7 | 6.8 | 49.0 | 52.0 | 0.2 | 2.0 | 7 | | |
| TW 27.8025-02 | ATW 27.8025-02 | 8 | 7.8 | 24.0 | 27.0 | 0.2 | 2.0 | 8 | | SP.380-08** |
| TW 27.8040-02 | ATW 27.8040-02 | 8 | 7.8 | 40.0 | 43.0 | 0.2 | 2.0 | 8 | | |
| TW 27.8056-02 | ATW 27.8056-02 | 8 | 7.8 | 56.0 | 59.0 | 0.2 | 2.0 | 8 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 內徑車刀 Micro Bar-Boring



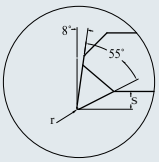

| 型號 EDP NO. | ØK | F | L2 | L | r | S | ØD | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|
| 29.3009-01 | 3 | 2.8 | 9.0 | 40 | 0.1 | 0.4 | 4 | ● | SP.250-04** SP.5650-04** |
| 29.3015-01 | 3 | 2.8 | 15.0 | 45 | 0.1 | 0.4 | 4 | ● | |
| 29.3021-01 | 3 | 2.8 | 21.0 | 52 | 0.1 | 0.4 | 4 | | |
| 29.4012-01 | 4 | 3.8 | 12.0 | 42 | 0.1 | 0.7 | 4 | ● | |
| 29.4012-02 | 4 | 3.8 | 12.0 | 42 | 0.2 | 0.7 | 4 | ● | |
| 29.4020-01 | 4 | 3.8 | 20.0 | 50 | 0.1 | 0.7 | 4 | ● | |
| 29.4020-02 | 4 | 3.8 | 20.0 | 50 | 0.2 | 0.7 | 4 | ● | |
| 29.4028-01 | 4 | 3.8 | 28.0 | 60 | 0.1 | 0.7 | 4 | | |
| 29.4028-02 | 4 | 3.8 | 28.0 | 60 | 0.2 | 0.7 | 4 | | |
| 29.5015-01 | 5 | 4.8 | 15.0 | 50 | 0.1 | 1.0 | 6 | | SP.250-06** SP.5650-06** |
| 29.5015-02 | 5 | 4.8 | 15.0 | 50 | 0.2 | 1.0 | 6 | ● | |
| 29.5025-01 | 5 | 4.8 | 25.0 | 60 | 0.1 | 1.0 | 6 | | |
| 29.5025-02 | 5 | 4.8 | 25.0 | 60 | 0.2 | 1.0 | 6 | ● | |
| 29.5035-01 | 5 | 4.8 | 35.0 | 70 | 0.1 | 1.0 | 6 | | |
| 29.5035-02 | 5 | 4.8 | 35.0 | 70 | 0.2 | 1.0 | 6 | | |
| 29.6020-02 | 6 | 5.8 | 20.0 | 55 | 0.2 | 1.5 | 6 | ● | |
| 29.6030-02 | 6 | 5.8 | 30.0 | 65 | 0.2 | 1.5 | 6 | ● | |
| 29.6042-02 | 6 | 5.8 | 42.0 | 77 | 0.2 | 1.5 | 6 | | |
| 29.7021-02 | 7 | 6.8 | 21.0 | 60 | 0.2 | 2.0 | 8 | ● | SP.250-08** SP.5650-08** |
| 29.7035-02 | 7 | 6.8 | 35.0 | 75 | 0.2 | 2.0 | 8 | ● | |
| 29.7049-02 | 7 | 6.8 | 49.0 | 95 | 0.2 | 2.0 | 8 | | |
| 29.8025-02 | 8 | 7.8 | 25.0 | 65 | 0.2 | 2.0 | 8 | ● | |
| 29.8040-02 | 8 | 7.8 | 40.0 | 80 | 0.2 | 2.0 | 8 | ● | |
| 29.8056-02 | 8 | 7.8 | 56.0 | 100 | 0.2 | 2.0 | 8 | | |
| 29.10030-02 | 10 | 9.8 | 30.0 | 75 | 0.2 | 2.5 | 10 | | SP.250-10** SP.5650-10** |
| 29.10050-02 | 10 | 9.8 | 50.0 | 95 | 0.2 | 2.5 | 10 | | |
| 29.10070-02 | 10 | 9.8 | 70.0 | 115 | 0.2 | 2.5 | 10 | | |

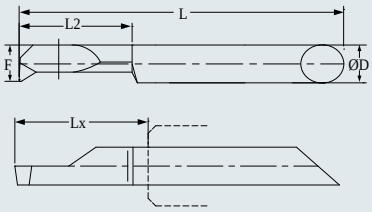
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

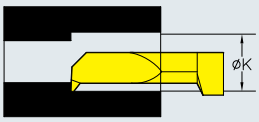
# 內徑車刀 Micro Bar-Boring

TW



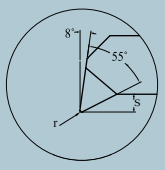


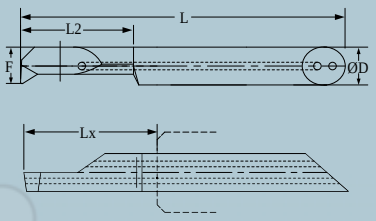



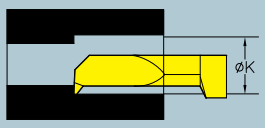




ATW 內冷式





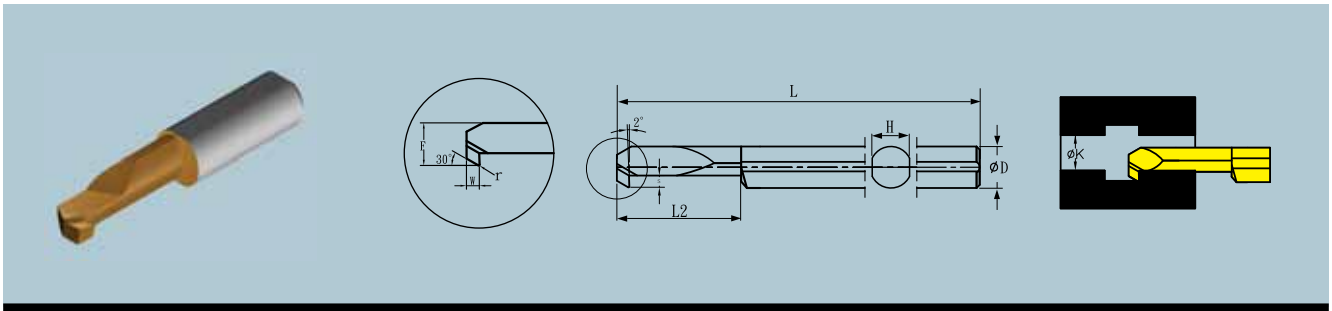




| 型　號<br>EDP NO. | 內冷式 型號<br>EDP NO. | ØK | F | L2 | Lx | r | S | ØD | 在庫<br>stock | 適　用　套　筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|
| TW 29.2006-005 | ATW 29.2006-005 | 2 | 1.8 | 6.0 | 8.0 | 0.05 | 0.3 | 4 | | SP.380-04** |
| TW 29.2010-005 | ATW 29.2010-005 | 2 | 1.8 | 10.0 | 12.0 | 0.05 | 0.3 | 4 | | |
| TW 29.2014-005 | ATW 29.2014-005 | 2 | 1.8 | 14.0 | 16.0 | 0.05 | 0.3 | 4 | | |
| TW 29.2508-005 | ATW 29.2508-005 | 2.5 | 2.3 | 8.0 | 10.0 | 0.05 | 0.3 | 4 | | SP.380-04** |
| TW 29.2513-005 | ATW 29.2513-005 | 2.5 | 2.3 | 13.0 | 15.0 | 0.05 | 0.3 | 4 | | |
| TW 29.2518-005 | ATW 29.2518-005 | 2.5 | 2.3 | 18.0 | 20.0 | 0.05 | 0.3 | 4 | | |
| TW 29.3009-01 | ATW 29.3009-01 | 3 | 2.8 | 9.0 | 11.0 | 0.1 | 0.4 | 4 | | SP.380-04** |
| TW 29.3015-01 | ATW 29.3015-01 | 3 | 2.8 | 15.0 | 17.0 | 0.1 | 0.4 | 4 | | |
| TW 29.3021-01 | ATW 29.3021-01 | 3 | 2.8 | 21.0 | 23.0 | 0.1 | 0.4 | 4 | | |
| TW 29.4012-01 | ATW 29.4012-01 | 4 | 3.8 | 12.0 | 14.0 | 0.1 | 0.7 | 4 | | |
| TW 29.4012-02 | ATW 29.4012-02 | 4 | 3.8 | 12.0 | 14.0 | 0.2 | 0.7 | 4 | | |
| TW 29.4020-01 | ATW 29.4020-01 | 4 | 3.8 | 20.0 | 22.0 | 0.1 | 0.7 | 4 | | |
| TW 29.4020-02 | ATW 29.4020-02 | 4 | 3.8 | 20.0 | 22.0 | 0.2 | 0.7 | 4 | | |
| TW 29.4028-01 | ATW 29.4028-01 | 4 | 3.8 | 28.0 | 30.0 | 0.1 | 0.7 | 4 | | |
| TW 29.4028-02 | ATW 29.4028-02 | 4 | 3.8 | 28.0 | 30.0 | 0.2 | 0.7 | 4 | | |
| TW 29.5015-02 | ATW 29.5015-02 | 5 | 4.8 | 15.0 | 17.0 | 0.2 | 1.0 | 5 | | SP.380-05** |
| TW 29.5025-02 | ATW 29.5025-02 | 5 | 4.8 | 25.0 | 27.0 | 0.2 | 1.0 | 5 | | |
| TW 29.5035-02 | ATW 29.5035-02 | 5 | 4.8 | 35.0 | 37.0 | 0.2 | 1.0 | 5 | | |
| TW 29.6020-02 | ATW 29.6020-02 | 6 | 5.8 | 20.0 | 23.0 | 0.2 | 1.5 | 6 | | SP.380-06** |
| TW 29.6030-02 | ATW 29.6030-02 | 6 | 5.8 | 30.0 | 33.0 | 0.2 | 1.5 | 6 | | |
| TW 29.6042-02 | ATW 29.6042-02 | 6 | 5.8 | 42.0 | 45.0 | 0.2 | 1.5 | 6 | | |
| TW 29.7021-02 | ATW 29.7021-02 | 7 | 6.8 | 21.0 | 24.0 | 0.2 | 2.0 | 7 | | SP.380-07** |
| TW 29.7035-02 | ATW 29.7035-02 | 7 | 6.8 | 35.0 | 38.0 | 0.2 | 2.0 | 7 | | |
| TW 29.7049-02 | ATW 29.7049-02 | 7 | 6.8 | 49.0 | 52.0 | 0.2 | 2.0 | 7 | | |
| TW 29.8025-02 | ATW 29.8025-02 | 8 | 7.8 | 24.0 | 27.0 | 0.2 | 2.0 | 8 | | SP.380-08** |
| TW 29.8040-02 | ATW 29.8040-02 | 8 | 7.8 | 40.0 | 43.0 | 0.2 | 2.0 | 8 | | |
| TW 29.8056-02 | ATW 29.8056-02 | 8 | 7.8 | 56.0 | 59.0 | 0.2 | 2.0 | 8 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 內徑車刀 Micro Bar-Boring




| 型號 EDP NO. | ØK | F | W±0.03 | L2 | L | r | S | ØD | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|
| 37.4010-1502 | 4 | 3.5 | 1.5 | 10 | 40 | 0.1 | 0.8 | 4 | ● | SP.250-04** SP.5650-04** |
| 37.4015-1502 | 4 | 3.5 | 1.5 | 15 | 45 | 0.2 | 0.8 | 4 | ● | |
| 37.5012-1502 | 5 | 3.8 | 1.5 | 12 | 45 | 0.1 | 1.2 | 4 | ● | |
| 37.5018-1502 | 5 | 3.8 | 1.5 | 18 | 50 | 0.2 | 1.2 | 4 | ● | |
| 37.6015-2002 | 6 | 4.8 | 2.0 | 15 | 50 | 0.2 | 1.5 | 6 | ● | SP.250-06** SP.5650-06** |
| 37.6022-2002 | 6 | 4.8 | 2.0 | 22 | 55 | 0.2 | 1.5 | 6 | ● | |
| 37.7020-2002 | 7 | 5.8 | 2.0 | 20 | 55 | 0.2 | 2.0 | 6 | ● | |
| 37.7025-2002 | 7 | 5.8 | 2.0 | 25 | 60 | 0.2 | 2.0 | 6 | ● | |
| 37.8020-2002 | 8 | 6.8 | 2.0 | 20 | 60 | 0.2 | 2.5 | 8 | ● | SP.250-08** SP.5650-08** |
| 37.8035-2002 | 8 | 6.8 | 2.0 | 30 | 65 | 0.2 | 2.5 | 8 | ● | |
| 37.10030-3002 | 10 | 8.5 | 3.0 | 30 | 75 | 0.2 | 2.5 | 10 | ● | SP.250-10** SP.5650-10** |
| 37.10040-3002 | 10 | 8.5 | 3.0 | 40 | 85 | 0.2 | 2.5 | 10 | ● | |

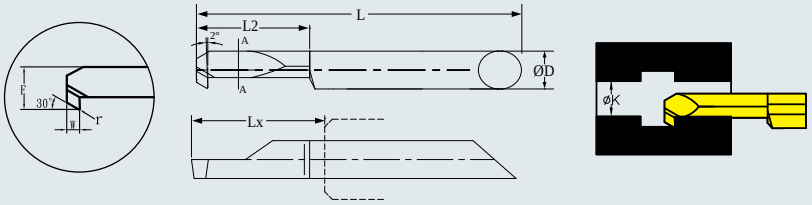
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.



# 內徑車刀 Micro Bar-Boring

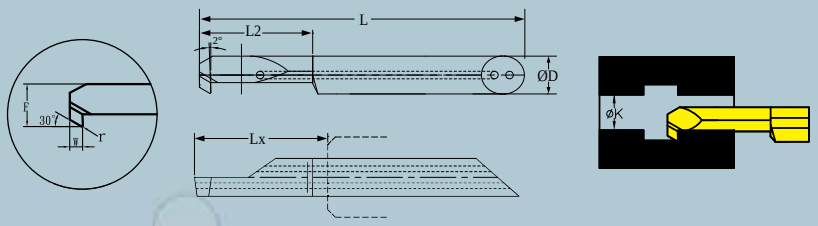
TW





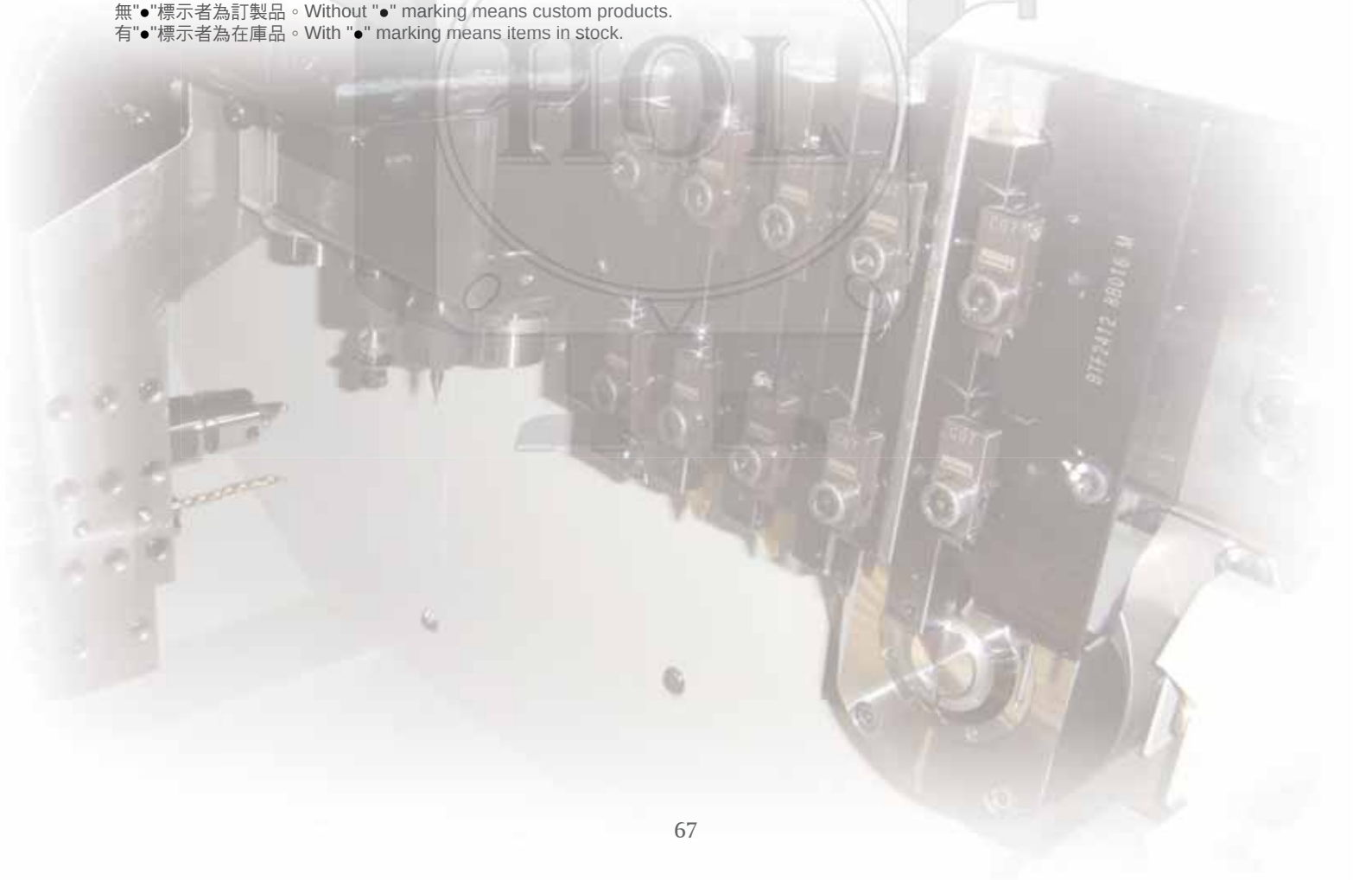

ATW 內冷式



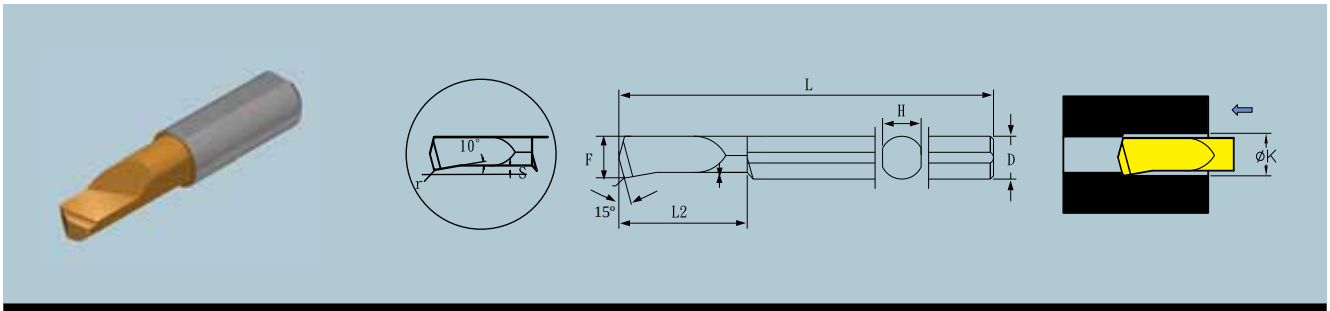



| 型　　號<br>EDP NO. | 內冷式 型號<br>EDP NO. | ØK | F | W±0.03 | L2 | Lx | r | S | ØD | 在庫<br>stock | 適用套筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TW 37.4010-1502 | ATW 37.4010-1502 | 4 | 3.8 | 1.5 | 10 | 12 | 0.2 | 0.8 | 4 | | SP.380-04** |
| TW 37.4015-1502 | ATW 37.4015-1502 | 4 | 3.8 | 1.5 | 15 | 17 | 0.2 | 0.8 | 4 | | |
| TW 37.5012-1502 | ATW 37.5012-1502 | 5 | 4.8 | 1.5 | 12 | 15 | 0.2 | 1.2 | 5 | | SP.380-05** |
| TW 37.5018-1502 | ATW 37.5018-1502 | 5 | 4.8 | 1.5 | 18 | 21 | 0.2 | 1.2 | 5 | | |
| TW 37.6015-2002 | ATW 37.6015-2002 | 6 | 5.8 | 2.0 | 15 | 18 | 0.2 | 1.5 | 6 | | SP.380-06** |
| TW 37.6022-2002 | ATW 37.6022-2002 | 6 | 5.8 | 2.0 | 22 | 25 | 0.2 | 1.5 | 6 | | |
| TW 37.7020-2002 | ATW 37.7020-2002 | 7 | 6.8 | 2.0 | 20 | 23 | 0.2 | 2.0 | 7 | | SP.380-07** |
| TW 37.7025-2002 | ATW 37.7025-2002 | 7 | 6.8 | 2.0 | 25 | 28 | 0.2 | 2.0 | 7 | | |
| TW 37.8020-2502 | ATW 37.8020-2502 | 8 | 7.8 | 2.5 | 20 | 23 | 0.2 | 2.5 | 8 | | SP.380-08** |
| TW 37.8030-2502 | ATW 37.8030-2502 | 8 | 7.8 | 2.5 | 30 | 33 | 0.2 | 2.5 | 8 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.



# 內徑車刀 Micro Bar-Boring



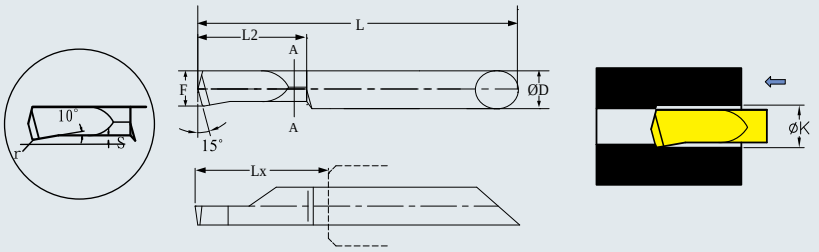

| 型號 EDP NO. | ØK | F | L2 | L | r | S | ØD | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|
| 45.2006-005 | 2 | 1.8 | 6.0 | 40 | 0.05 | 0.3 | 4 | | SP.250-04** SP.5650-04** |
| 45.2010-005 | 2 | 1.8 | 10.0 | 40 | 0.05 | 0.3 | 4 | | |
| 45.2014-005 | 2 | 1.8 | 14.0 | 45 | 0.05 | 0.3 | 4 | | |
| 45.3009-01 | 3 | 2.8 | 9.0 | 40 | 0.1 | 0.3 | 4 | | |
| 45.3015-01 | 3 | 2.8 | 15.0 | 45 | 0.1 | 0.3 | 4 | | |
| 45.3021-01 | 3 | 2.8 | 21.0 | 52 | 0.1 | 0.3 | 4 | | |
| 45.4012-02 | 4 | 3.8 | 12.0 | 42 | 0.2 | 0.5 | 4 | | |
| 45.4020-02 | 4 | 3.8 | 20.0 | 50 | 0.2 | 0.5 | 4 | | |
| 45.4028-02 | 4 | 3.8 | 28.0 | 60 | 0.2 | 0.5 | 4 | | |
| 45.5015-02 | 5 | 4.8 | 15.0 | 50 | 0.2 | 0.5 | 6 | | SP.250-06** SP.5650-06** |
| 45.5025-02 | 5 | 4.8 | 25.0 | 60 | 0.2 | 0.5 | 6 | | |
| 45.5035-02 | 5 | 4.8 | 35.0 | 70 | 0.2 | 0.5 | 6 | | |
| 45.6020-02 | 6 | 5.8 | 29.0 | 55 | 0.2 | 0.5 | 6 | | |
| 45.6030-02 | 6 | 5.8 | 30.0 | 65 | 0.2 | 0.5 | 6 | | |
| 45.6042-02 | 6 | 5.8 | 42.0 | 77 | 0.2 | 0.5 | 6 | | |
| 45.7021-02 | 7 | 6.8 | 21.0 | 60 | 0.2 | 0.5 | 8 | | SP.250-08** SP.5650-08** |
| 45.7035-02 | 7 | 6.8 | 35.0 | 75 | 0.2 | 0.5 | 8 | | |
| 45.7049-02 | 7 | 6.8 | 49.0 | 90 | 0.2 | 0.5 | 8 | | |
| 45.8025-02 | 8 | 7.8 | 25.0 | 65 | 0.2 | 0.7 | 8 | | |
| 45.8040-02 | 8 | 7.8 | 40.0 | 80 | 0.2 | 0.7 | 8 | | |
| 45.8056-02 | 8 | 7.8 | 56.0 | 100 | 0.2 | 0.7 | 8 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 內徑車刀 Micro Bar-Boring

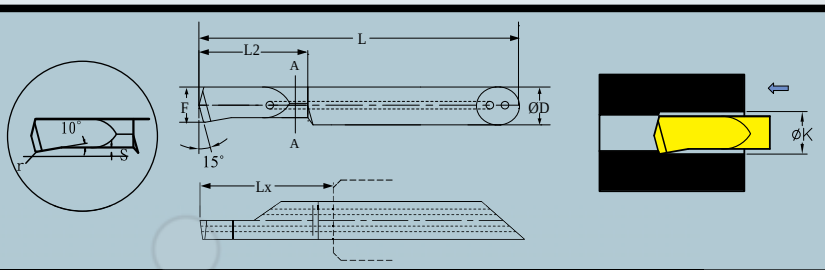
TW






ATW 內冷式

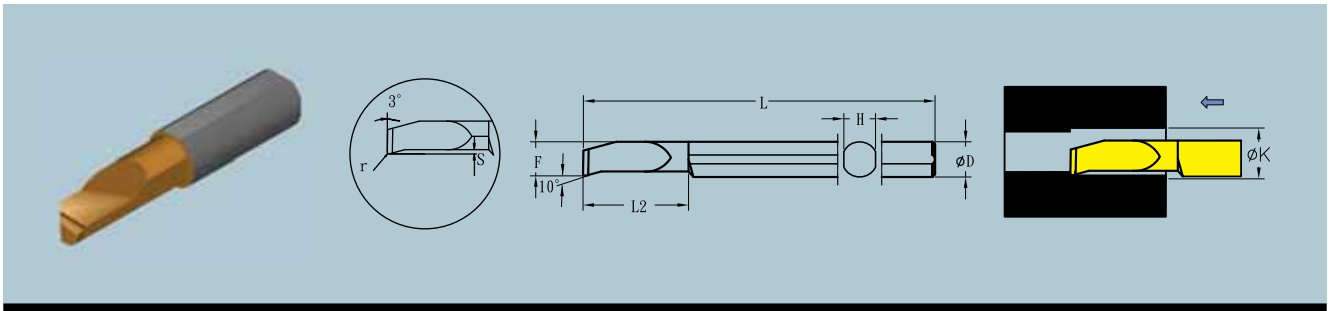





| 型　　號<br>EDP NO. | 內冷式 型號<br>EDP NO. | ØK | F | L2 | Lx | r | S | ØD | 在庫<br>stock | 適用套筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|
| TW 45.2006-005 | ATW 45.2006-005 | 2 | 1.8 | 6.0 | 8.0 | 0.05 | 0.3 | 4 | | SP.380-04** |
| TW 45.2010-005 | ATW 45.2010-005 | 2 | 1.8 | 10.0 | 12.0 | 0.05 | 0.3 | 4 | | |
| TW 45.2014-005 | ATW 45.2014-005 | 2 | 1.8 | 14.0 | 16.0 | 0.05 | 0.3 | 4 | | |
| TW 45.3009-01 | ATW 45.3009-01 | 3 | 2.8 | 9.0 | 11.0 | 0.1 | 0.3 | 4 | | |
| TW 45.3015-01 | ATW 45.3015-01 | 3 | 2.8 | 15.0 | 17.0 | 0.1 | 0.3 | 4 | | |
| TW 45.3021-01 | ATW 45.3021-01 | 3 | 2.8 | 21.0 | 23.0 | 0.1 | 0.3 | 4 | | |
| TW 45.4012-02 | ATW 45.4012-02 | 4 | 3.8 | 12.0 | 14.0 | 0.2 | 0.5 | 4 | | |
| TW 45.4020-02 | ATW 45.4020-02 | 4 | 3.8 | 20.0 | 22.0 | 0.2 | 0.5 | 4 | | |
| TW 45.4028-02 | ATW 45.4028-02 | 4 | 3.8 | 28.0 | 30.0 | 0.2 | 0.5 | 4 | | |
| TW 45.5015-02 | ATW 45.5015-02 | 5 | 4.8 | 15.0 | 17.0 | 0.2 | 0.5 | 5 | | SP.380-05** |
| TW 45.5025-02 | ATW 45.5025-02 | 5 | 4.8 | 25.0 | 27.0 | 0.2 | 0.5 | 5 | | |
| TW 45.5035-02 | ATW 45.5035-02 | 5 | 4.8 | 35.0 | 37.0 | 0.2 | 0.5 | 5 | | |
| TW 45.6020-02 | ATW 45.6020-02 | 6 | 5.8 | 20.0 | 23.0 | 0.2 | 0.5 | 6 | | SP.380-06** |
| TW 45.6030-02 | ATW 45.6030-02 | 6 | 5.8 | 30.0 | 33.0 | 0.2 | 0.5 | 6 | | |
| TW 45.6042-02 | ATW 45.6042-02 | 6 | 5.8 | 42.0 | 45.0 | 0.2 | 0.5 | 6 | | |
| TW 45.7021-02 | ATW 45.7021-02 | 7 | 6.8 | 21.0 | 24.0 | 0.2 | 0.5 | 7 | | SP.380-07** |
| TW 45.7035-02 | ATW 45.7035-02 | 7 | 6.8 | 35.0 | 38.0 | 0.2 | 0.5 | 7 | | |
| TW 45.7049-02 | ATW 45.7049-02 | 7 | 6.8 | 49.0 | 52.0 | 0.2 | 0.5 | 7 | | |
| TW 45.8024-02 | ATW 45.8024-02 | 8 | 7.8 | 24.0 | 27.0 | 0.2 | 0.7 | 8 | | SP.380-08** |
| TW 45.8040-02 | ATW 45.8040-02 | 8 | 7.8 | 40.0 | 43.0 | 0.2 | 0.7 | 8 | | |
| TW 45.8056-02 | ATW 45.8056-02 | 8 | 7.8 | 56.0 | 59.0 | 0.2 | 0.7 | 8 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 內徑車刀 Micro Bar-Boring



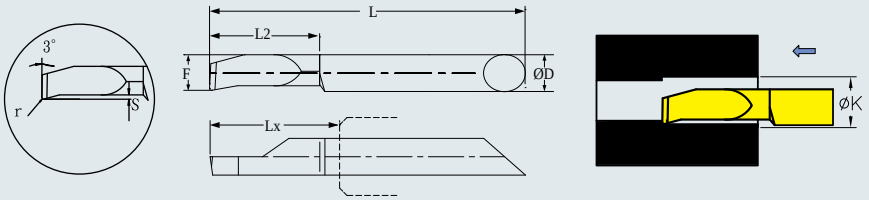

| 型號 EDP NO. | ØK | F | L2 | L | r | S | ØD | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|
| 47.2006-005 | 2 | 1.8 | 6.0 | 40 | 0.05 | 0.3 | 4 | ● | SP.250-04** SP.5650-04** |
| 47.2010-005 | 2 | 1.8 | 10.0 | 40 | 0.05 | 0.3 | 4 | ● | |
| 47.2014-005 | 2 | 1.8 | 14.0 | 45 | 0.05 | 0.3 | 4 | | |
| 47.3009-01 | 3 | 2.8 | 9.0 | 40 | 0.1 | 0.3 | 4 | ● | |
| 47.3015-01 | 3 | 2.8 | 15.0 | 45 | 0.1 | 0.3 | 4 | ● | |
| 47.3021-01 | 3 | 2.8 | 21.0 | 52 | 0.1 | 0.3 | 4 | | |
| 47.4012-01 | 4 | 3.8 | 12.0 | 42 | 0.1 | 0.5 | 4 | ● | |
| 47.4020.01 | 4 | 3.8 | 20.0 | 50 | 0.1 | 0.5 | 4 | ● | |
| 47.4020.02 | 4 | 3.8 | 20.0 | 50 | 0.2 | 0.5 | 4 | ● | |
| 47.4028-01 | 4 | 3.8 | 28.0 | 60 | 0.1 | 0.5 | 4 | | |
| 47.4028-02 | 4 | 3.8 | 28.0 | 60 | 0.2 | 0.5 | 4 | | |
| 47.5015-01 | 5 | 4.8 | 15.0 | 50 | 0.1 | 0.5 | 6 | | SP.250-06** SP.5650-06** |
| 47.5015-02 | 5 | 4.8 | 15.0 | 50 | 0.2 | 0.5 | 6 | ● | |
| 47.5025-01 | 5 | 4.8 | 25.0 | 60 | 0.1 | 0.5 | 6 | | |
| 47.5025-02 | 5 | 4.8 | 25.0 | 60 | 0.2 | 0.5 | 6 | ● | |
| 47.5035-01 | 5 | 4.8 | 35.0 | 70 | 0.1 | 0.5 | 6 | | |
| 47.5035-02 | 5 | 4.8 | 35.0 | 70 | 0.2 | 0.5 | 6 | | |
| 47.6020-02 | 6 | 5.8 | 20.0 | 55 | 0.2 | 0.5 | 6 | ● | |
| 47.6030-02 | 6 | 5.8 | 30.0 | 65 | 0.2 | 0.5 | 6 | ● | |
| 47.6042-02 | 6 | 5.8 | 42.0 | 77 | 0.2 | 0.5 | 6 | | |
| 47.7021-02 | 7 | 6.8 | 21.0 | 60 | 0.2 | 0.5 | 8 | | |
| 47.7035-02 | 7 | 6.8 | 35.0 | 75 | 0.2 | 0.5 | 8 | | SP.250-08** SP.5650-08** |
| 47.7049-02 | 7 | 6.8 | 49.0 | 90 | 0.2 | 0.5 | 8 | | |
| 47.8024-02 | 8 | 7.8 | 25.0 | 65 | 0.2 | 0.7 | 8 | | |
| 47.8040-02 | 8 | 7.8 | 40.0 | 80 | 0.2 | 0.7 | 8 | | |
| 47.8056-02 | 8 | 7.8 | 56.0 | 100 | 0.2 | 0.7 | 8 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 內徑車刀 Micro Bar-Boring

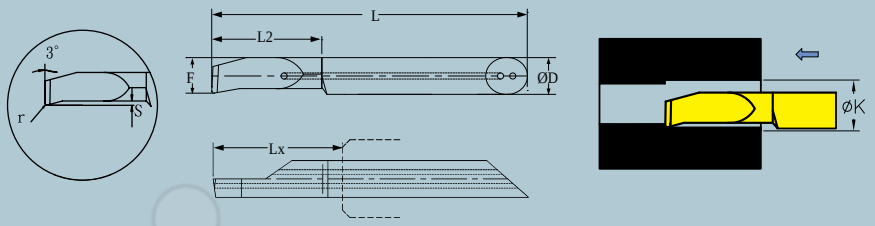
TW






ATW 內冷式

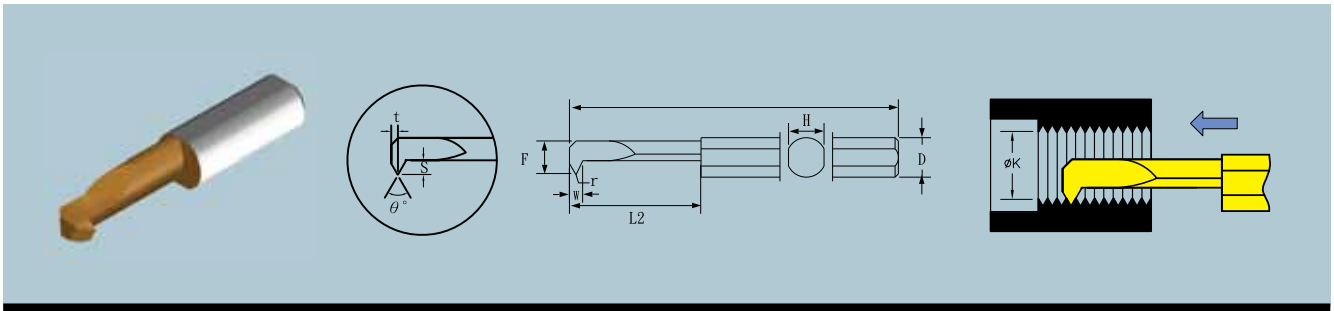





| 型　　號<br>EDP NO. | 內冷式 型號<br>EDP NO. | ØK | F | L2 | Lx | r | S | ØD | 在庫<br>stock | 適用套筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|
| TW 47.1004-005 | ATW 47.1004-005 | 1.0 | 0.9 | 4.0 | 8.0 | 0.05 | 0.15 | 4 | | SP.380-04** |
| TW 47.1006-005 | ATW 47.1006-005 | 1.0 | 0.9 | 6.0 | 8.0 | 0.05 | 0.15 | 4 | | |
| TW 47.1505-005 | ATW 47.1505-005 | 1.5 | 1.3 | 5.0 | 8.0 | 0.05 | 0.25 | 4 | | |
| TW 47.1508-005 | ATW 47.1508-005 | 1.5 | 1.3 | 8.0 | 10.0 | 0.05 | 0.25 | 4 | | |
| TW 47.2006-005 | ATW 47.2006-005 | 2.0 | 1.8 | 6.0 | 8.0 | 0.05 | 0.3 | 4 | | |
| TW 47.2010-005 | ATW 47.2010-005 | 2.0 | 1.8 | 10.0 | 12.0 | 0.05 | 0.3 | 4 | | |
| TW 47.2014-005 | ATW 47.2014-005 | 2.0 | 1.8 | 14.0 | 16.0 | 0.05 | 0.3 | 4 | | |
| TW 47.2508-005 | ATW 47.2508-005 | 2.5 | 2.3 | 8.0 | 10.0 | 0.05 | 0.3 | 4 | | |
| TW 47.2513-005 | ATW 47.2513-005 | 2.5 | 2.3 | 13.0 | 15.0 | 0.05 | 0.3 | 4 | | |
| TW 47.2518-005 | ATW 47.2518-005 | 2.5 | 2.3 | 18.0 | 20.0 | 0.05 | 0.3 | 4 | | |
| TW 47.3009-01 | ATW 47.3009-01 | 3.0 | 2.8 | 9.0 | 11.0 | 0.1 | 0.3 | 4 | | |
| TW 47.3015-01 | ATW 47.3015-01 | 3.0 | 2.8 | 15.0 | 17.0 | 0.1 | 0.3 | 4 | | |
| TW 47.3021-01 | ATW 47.3021-01 | 3.0 | 2.8 | 21.0 | 23.0 | 0.1 | 0.3 | 4 | | |
| TW 47.4012-02 | ATW 47.4012-02 | 4.0 | 3.8 | 12.0 | 14.0 | 0.2 | 0.5 | 4 | | |
| TW 47.4020.02 | ATW 47.4020.02 | 4.0 | 3.8 | 20.0 | 22.0 | 0.2 | 0.5 | 4 | | |
| TW 47.4028-02 | ATW 47.4028-02 | 4.0 | 3.8 | 28.0 | 30.0 | 0.2 | 0.5 | 4 | | |
| TW 47.5015-02 | ATW 47.5015-02 | 5.0 | 4.8 | 15.0 | 17.0 | 0.2 | 0.5 | 5 | | SP.380-05** |
| TW 47.5025-02 | ATW 47.5025-02 | 5.0 | 4.8 | 25.0 | 27.0 | 0.2 | 0.5 | 5 | | |
| TW 47.5035-02 | ATW 47.5035-02 | 5.0 | 4.8 | 35.0 | 37.0 | 0.2 | 0.5 | 5 | | |
| TW 47.6020-02 | ATW 47.6020-02 | 6.0 | 5.8 | 20.0 | 23.0 | 0.2 | 0.5 | 6 | | SP.380-06** |
| TW 47.6030-02 | ATW 47.6030-02 | 6.0 | 5.8 | 30.0 | 33.0 | 0.2 | 0.5 | 6 | | |
| TW 47.6042-02 | ATW 47.6042-02 | 6.0 | 5.8 | 42.0 | 45.0 | 0.2 | 0.5 | 6 | | |
| TW 47.7021-02 | ATW 47.7021-02 | 7.0 | 6.8 | 21.0 | 24.0 | 0.2 | 0.5 | 7 | | SP.380-07** |
| TW 47.7035-02 | ATW 47.7035-02 | 7.0 | 6.8 | 35.0 | 38.0 | 0.2 | 0.5 | 7 | | |
| TW 47.7049-02 | ATW 47.7049-02 | 7.0 | 6.8 | 49.0 | 52.0 | 0.2 | 0.5 | 7 | | |
| TW 47.8024-02 | ATW 47.8024-02 | 8.0 | 7.8 | 25.0 | 27.0 | 0.2 | 0.7 | 8 | | SP.380-08** |
| TW 47.8040-02 | ATW 47.8040-02 | 8.0 | 7.8 | 40.0 | 43.0 | 0.2 | 0.7 | 8 | | |
| TW 47.8056-02 | ATW 47.8056-02 | 8.0 | 7.8 | 56.0 | 59.0 | 0.2 | 0.7 | 8 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

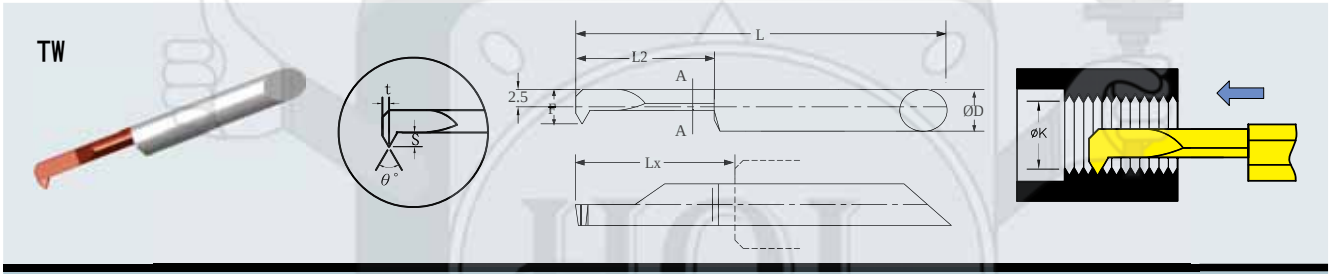
# 內徑牙刀 Micro Internal Threading



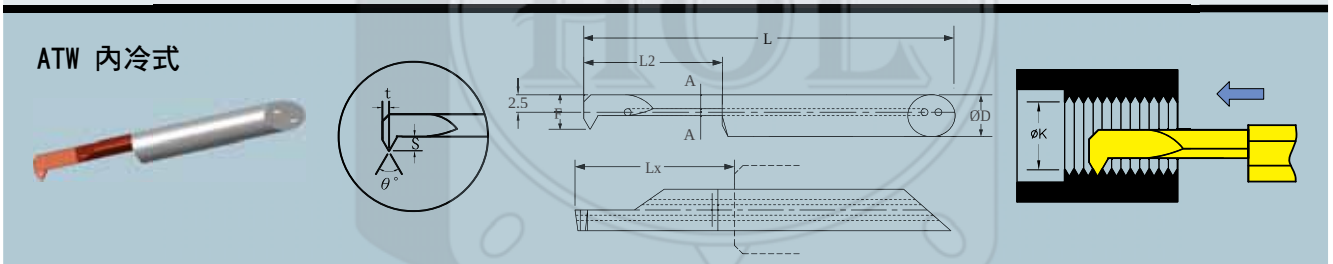

| 型　號<br>EDP NO. | θ° | ØK | F | t | W | L2 | L | r | S | ØD | Pich | TPI | 在庫<br>stock | 適用套筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 51.4015-60004 | 60 | 4.5 | 3.8 | 0.7 | 1.5 | 15 | 45 | 0.04 | 1.3 | 4 | p0.5~p1.25 | 48~24 | ● | SP.250-04** |
| 51.6020-60005 | 60 | 6.0 | 5.0 | 0.8 | 1.8 | 20 | 55 | 0.05 | 1.6 | 6 | p0.75~p1.5 | 28~16 | ● | SP.250-06** |
| 51.8030-60007 | 60 | 8.0 | 7.0 | 1.2 | 2.5 | 30 | 75 | 0.07 | 2.0 | 8 | p1.0~p2.0 | 20~12 | ● | SP.250-08** |
| 51.4015-55005 | 55 | 4.5 | 3.8 | 0.7 | 1.5 | 15 | 45 | 0.05 | 1.3 | 4 | | 32~24 | | SP.250-04** |
| 51.6020-5501 | 55 | 6.0 | 5.0 | 0.8 | 1.8 | 20 | 55 | 0.1 | 1.6 | 6 | | 28~20 | | SP.250-06** |
| 51.8030-5501 | 55 | 8.0 | 7.0 | 1.2 | 2.5 | 30 | 75 | 0.1 | 2.0 | 8 | | 28~14 | | SP.250-08** |

# 內徑牙刀 Micro Internal Threading

TW



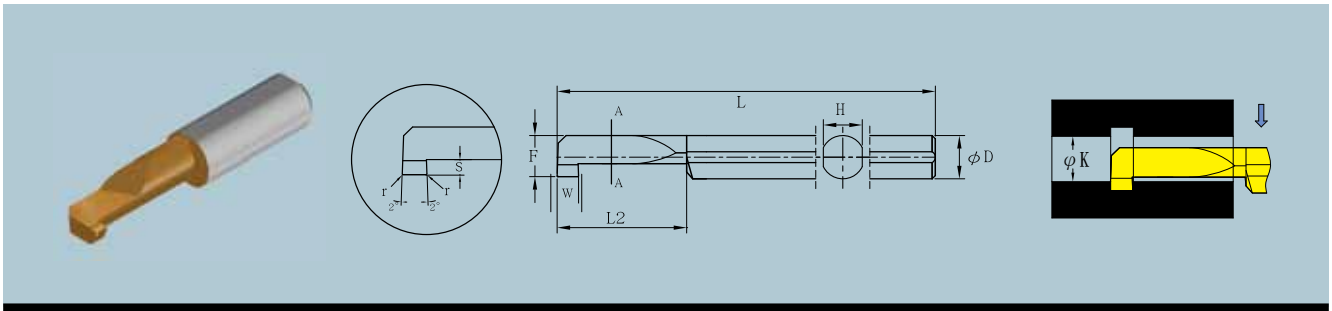

ATW 內冷式




| 型　號<br>EDP NO. | 內冷式 型號<br>EDP NO. | θ° | ØK | F | t | W | L2 | Lx | r | S | ØD | Pich | TPI | 在庫<br>stock | 適用套筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TW 51.4015-60004 | ATW 51.4015-60004 | 60 | 4.5 | 3.8 | 0.7 | 1.5 | 15 | 17 | 0.04 | 1.3 | 4 | p0.5~p1.25 | 48~24 | | SP.250-04** |
| TW 51.5015-60005 | ATW 51.5015-60005 | 60 | 5.5 | 4.8 | 0.7 | 1.5 | 15 | 17 | 0.05 | 1.3 | 5 | p0.75~p1.25 | 48~24 | | SP.250-05** |
| TW 51.6020-60005 | ATW 51.6020-60005 | 60 | 7.0 | 5.8 | 0.8 | 1.7 | 20 | 23 | 0.05 | 1.6 | 6 | p0.75~p1.5 | 28~16 | | SP.250-06** |
| TW 51.7025-60005 | ATW 51.7025-60005 | 60 | 8.0 | 6.8 | 0.8 | 1.7 | 25 | 28 | 0.05 | 1.8 | 7 | p0.75~p1.5 | 28~16 | | SP.250-07** |
| TW 51.8030-60007 | ATW 51.8030-60007 | 60 | 9.0 | 7.8 | 1.2 | 2.5 | 30 | 33 | 0.07 | 2.0 | 8 | p1.0~p2.0 | 20~12 | | SP.250-08** |
| TW 51.4015-55005 | ATW 51.4015-55005 | 55 | 4.5 | 3.8 | 0.7 | 1.5 | 15 | 17 | 0.05 | 1.3 | 4 | | 32~24 | | SP.250-04** |
| TW 51.5015-55005 | ATW 51.5015-55005 | 55 | 5.5 | 4.8 | 0.7 | 1.5 | 15 | 17 | 0.05 | 1.3 | 5 | | 32~24 | | SP.250-05** |
| TW 51.6020-5501 | ATW 51.6020-5501 | 55 | 7.0 | 5.8 | 0.8 | 1.7 | 20 | 23 | 0.1 | 1.6 | 6 | | 28~20 | | SP.250-06** |
| TW 51.7025-5501 | ATW 51.7025-5501 | 55 | 8.0 | 6.8 | 0.8 | 1.7 | 25 | 28 | 0.1 | 1.8 | 7 | | 28~20 | | SP.250-07** |
| TW 51.8030-5501 | ATW 51.8030-5501 | 55 | 9.0 | 7.8 | 1.2 | 2.5 | 30 | 33 | 0.1 | 2.0 | 8 | | 28~14 | | SP.250-08** |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 內徑槽刀 Micro Internal Grooving



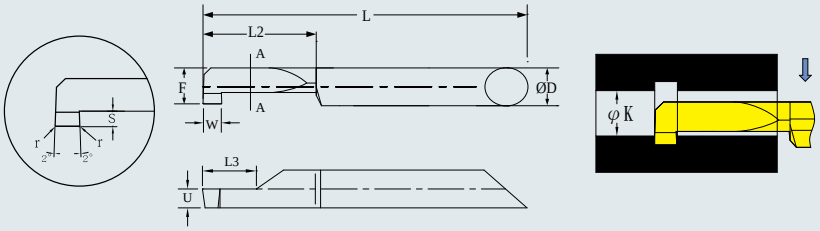

| 型號 EDP NO. | ØK | F | W±0.03 | L2 | L | r/c | S | ØD | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|
| 53.4010-05 | 4 | 3.5 | 0.5 | 10 | 40 | 0.05c | 0.8 | 4 | | SP.250-04** SP.5650-04** |
| 53.4010-10 | 4 | 3.5 | 1.0 | 10 | 40 | 0.1 | 0.8 | 4 | ● | |
| 53.4010-15 | 4 | 3.5 | 1.5 | 10 | 40 | 0.2 | 0.8 | 4 | | |
| 53.4010-20 | 4 | 3.5 | 2.0 | 10 | 40 | 0.2 | 0.8 | 4 | ● | |
| 53.5015-05 | 5 | 3.8 | 0.5 | 15 | 45 | 0.05c | 1.0 | 4 | | |
| 53.5015-10 | 5 | 3.8 | 1.0 | 15 | 45 | 0.1 | 1.0 | 4 | ● | |
| 53.5015-15 | 5 | 3.8 | 1.5 | 15 | 45 | 0.2 | 1.0 | 4 | | |
| 53.5015-20 | 5 | 3.8 | 2.0 | 15 | 45 | 0.2 | 1.0 | 4 | ● | |
| 53.6015-10 | 6 | 5.5 | 1.0 | 15 | 50 | 0.1 | 1.5 | 6 | ● | SP.250-06** SP.5650-06** |
| 53.6015-15 | 6 | 5.5 | 1.5 | 15 | 50 | 0.2 | 1.5 | 6 | | |
| 53.6015-20 | 6 | 5.5 | 2.0 | 15 | 50 | 0.2 | 1.5 | 6 | ● | |
| 53.7020-10 | 7 | 5.8 | 1.0 | 20 | 55 | 0.1 | 1.8 | 6 | ● | |
| 53.7020-15 | 7 | 5.8 | 1.5 | 20 | 55 | 0.2 | 1.8 | 6 | | |
| 53.7020-20 | 7 | 5.8 | 2.0 | 20 | 55 | 0.2 | 1.8 | 6 | ● | |
| 53.8025-10 | 8 | 7.8 | 1.0 | 25 | 60 | 0.1 | 2.0 | 8 | ● | SP.250-08** SP.5650-08** |
| 53.8025-15 | 8 | 7.8 | 1.5 | 25 | 60 | 0.2 | 2.0 | 8 | | |
| 53.8025-20 | 8 | 7.8 | 2.0 | 25 | 60 | 0.2 | 2.0 | 8 | ● | |
| 53.10030-10 | 10 | 9.8 | 1.0 | 30 | 75 | 0.1 | 2.5 | 10 | | SP.250-10** SP.5650-10** |
| 53.10030-15 | 10 | 9.8 | 1.5 | 30 | 75 | 0.2 | 2.5 | 10 | ● | |
| 53.10030-20 | 10 | 9.8 | 2.0 | 30 | 75 | 0.2 | 2.5 | 10 | ● | |
| 53.10030-30 | 10 | 9.8 | 3.0 | 30 | 75 | 0.2 | 2.5 | 10 | | |
| 53.12035-10 | 12 | 11.8 | 1.0 | 35 | 80 | 0.1 | 2.5 | 12 | | |
| 53.12035-15 | 12 | 11.8 | 1.5 | 35 | 80 | 0.2 | 3.0 | 12 | ● | |
| 53.12035-20 | 12 | 11.8 | 2.0 | 35 | 80 | 0.2 | 3.0 | 12 | ● | |
| 53.12035-30 | 12 | 11.8 | 3.0 | 35 | 80 | 0.2 | 3.0 | 12 | ● | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 內徑槽刀 Micro Internal Grooving

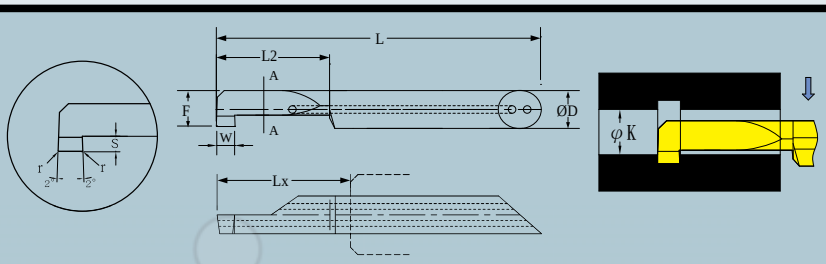
TW






ATW 內冷式



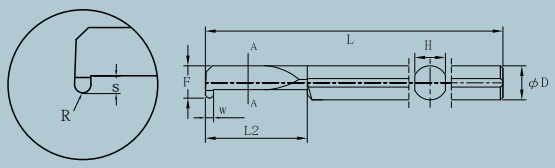


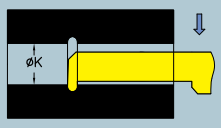

| 型　號<br>EDP NO. | 內冷式 型號<br>EDP NO. | ØK | F | W±0.03 | L2 | Lx | r / c | S | ØD | U | L3 | 在庫<br>stock | 適用套筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TW 53.4010-05 | ATW 53.4010-05 | 4 | 3.7 | 0.5 | 10 | 12 | 0.05C | 0.8 | 4 | 2.1 | 4 | | SP.380-04** |
| TW 53.4010-10 | ATW 53.4010-10 | 4 | 3.7 | 1.0 | 10 | 12 | 0.1 | 0.8 | 4 | 2.1 | 4 | | |
| TW 53.4010-15 | ATW 53.4010-15 | 4 | 3.7 | 1.5 | 10 | 12 | 0.2 | 0.8 | 4 | 2.1 | 4 | | |
| TW 53.4010-20 | ATW 53.4010-20 | 4 | 3.7 | 2.0 | 10 | 12 | 0.2 | 0.8 | 4 | 2.1 | 4 | | |
| TW 53.5015-05 | ATW 53.5015-05 | 5 | 4.8 | 0.5 | 15 | 17 | 0.05C | 1.0 | 5 | 2.6 | 5 | | SP.380-05** |
| TW 53.5015-10 | ATW 53.5015-10 | 5 | 4.8 | 1.0 | 15 | 17 | 0.1 | 1.0 | 5 | 2.6 | 5 | | |
| TW 53.5015-15 | ATW 53.5015-15 | 5 | 4.8 | 1.5 | 15 | 17 | 0.2 | 1.0 | 5 | 2.6 | 5 | | |
| TW 53.5015-20 | ATW 53.5015-20 | 5 | 4.8 | 2.0 | 15 | 17 | 0.2 | 1.0 | 5 | 2.6 | 5 | | |
| TW 53.6020-10 | ATW 53.6020-10 | 6 | 5.8 | 1.0 | 20 | 23 | 0.1 | 1.5 | 6 | 3.1 | 7 | | SP.380-06** |
| TW 53.6020-15 | ATW 53.6020-15 | 6 | 5.8 | 1.5 | 20 | 23 | 0.2 | 1.5 | 6 | 3.1 | 7 | | |
| TW 53.6020-20 | ATW 53.6020-20 | 6 | 5.8 | 2.0 | 20 | 23 | 0.2 | 1.5 | 6 | 3.1 | 7 | | |
| TW 53.7025-10 | ATW 53.7025-10 | 7 | 6.8 | 1.0 | 25 | 28 | 0.1 | 1.8 | 7 | 3.6 | 9 | | SP.380-07** |
| TW 53.7025-15 | ATW 53.7025-15 | 7 | 6.8 | 1.5 | 25 | 28 | 0.2 | 1.8 | 7 | 3.6 | 9 | | |
| TW 53.7025-20 | ATW 53.7025-20 | 7 | 6.8 | 2.0 | 25 | 28 | 0.2 | 1.8 | 7 | 3.6 | 9 | | |
| TW 53.8030-10 | ATW 53.8030-10 | 8 | 7.8 | 1.0 | 30 | 33 | 0.1 | 2.0 | 8 | 4.1 | 12 | | SP.380-08** |
| TW 53.8030-15 | ATW 53.8030-15 | 8 | 7.8 | 1.5 | 30 | 33 | 0.2 | 2.0 | 8 | 4.1 | 12 | | |
| TW 53.8030-20 | ATW 53.8030-20 | 8 | 7.8 | 2.0 | 30 | 33 | 0.2 | 2.0 | 8 | 4.1 | 12 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 內徑圓槽刀 Internal radius turning tool





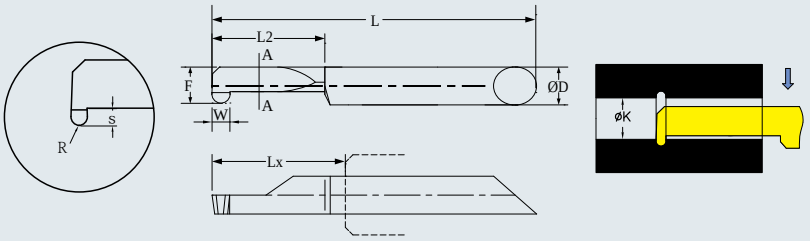

| 型號 EDP NO. | ØK | F | W±0.03 | L2 | L | r | S | ØD | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|
| B53.4010-050R | 4 | 3.6 | 1.0 | 10 | 40 | 0.5 | 0.8 | 4 | ● | SP.250-04** SP.5650-04** |
| B53.4010-075R | 4 | 3.6 | 1.5 | 10 | 40 | 0.75 | 0.8 | 4 | ● | |
| B53.4010-100R | 4 | 3.6 | 2.0 | 10 | 40 | 1.0 | 1.0 | 4 | | |
| B53.5015-050R | 5 | 3.8 | 1.0 | 15 | 45 | 0.5 | 1.0 | 4 | ● | |
| B53.5015-075R | 5 | 3.8 | 1.5 | 15 | 45 | 0.75 | 1.0 | 4 | ● | |
| B53.5015-100R | 5 | 3.8 | 2.0 | 15 | 45 | 1.0 | 1.2 | 4 | | |
| B53.6015-050R | 6 | 5.8 | 1.0 | 15 | 50 | 0.5 | 1.5 | 6 | ● | SP.250-06** SP.5650-06** |
| B53.6015-075R | 6 | 5.8 | 1.5 | 15 | 50 | 0.75 | 1.5 | 6 | ● | |
| B53.6015-100R | 6 | 5.8 | 2.0 | 15 | 50 | 1.0 | 1.5 | 6 | ● | |
| B53.8025-050R | 8 | 7.8 | 1.0 | 25 | 62 | 0.5 | 2.0 | 8 | ● | SP.250-08** SP.5650-08** |
| B53.8025-075R | 8 | 7.8 | 1.5 | 25 | 62 | 0.75 | 2.0 | 8 | ● | |
| B53.8025-100R | 8 | 7.8 | 2.0 | 25 | 62 | 1.0 | 2.0 | 8 | ● | |
| B53.10030-050R | 10 | 9.8 | 1.0 | 30 | 75 | 0.5 | 2.5 | 10 | ● | SP.250-10** SP.5650-10** |
| B53.10030-075R | 10 | 9.8 | 1.5 | 30 | 75 | 0.75 | 2.5 | 10 | ● | |
| B53.10030-100R | 10 | 9.8 | 2.0 | 30 | 75 | 1.0 | 2.5 | 10 | ● | |
| B53.10030-125R | 10 | 9.8 | 2.5 | 30 | 75 | 1.25 | 2.5 | 10 | | |
| B53.10030-150R | 10 | 9.8 | 3.0 | 30 | 75 | 2.0 | 2.5 | 10 | | |
| B53.12035-050R | 12 | 11.8 | 1.0 | 35 | 80 | 0.5 | 2.5 | 12 | | |
| B53.12035-075R | 12 | 11.8 | 1.5 | 35 | 80 | 0.75 | 3.0 | 12 | | |
| B53.12035-100R | 12 | 11.8 | 2.0 | 35 | 80 | 1.0 | 3.0 | 12 | | |
| B53.12035-125R | 12 | 11.8 | 2.5 | 35 | 80 | 1.25 | 3.0 | 12 | | |
| B53.12035-150R | 12 | 11.8 | 3.0 | 35 | 80 | 2.0 | 3.0 | 12 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 內徑圓槽刀 Internal radius turning tool

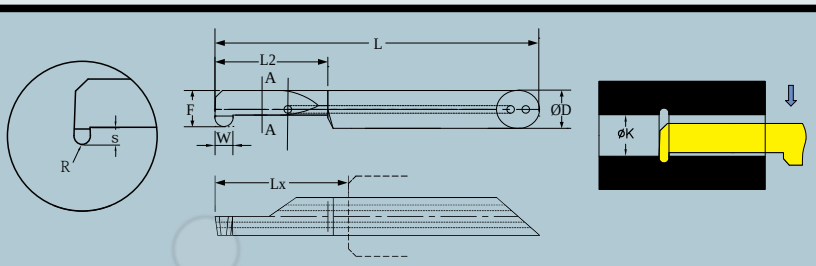
TW






ATW 內冷式



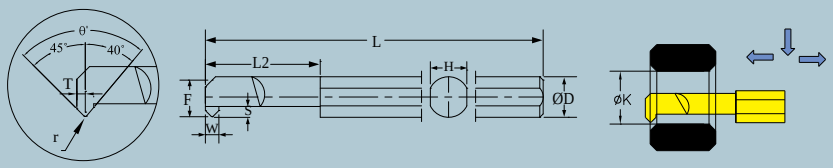



| 型　　號<br>EDP NO. | 內冷式 型號<br>EDP NO. | ØK | F | W±0.03 | L2 | Lx | r | S | ØD | 在庫<br>stock | 適用套筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TW B53.4010-050R | ATW B53.4010-050R | 4 | 3.8 | 1.0 | 10 | 12 | 0.5 | 0.8 | 4 | | SP.380-04** |
| TW B53.4010-075R | ATW B53.4010-075R | 4 | 3.8 | 1.5 | 10 | 12 | 0.75 | 0.8 | 4 | | |
| TW B53.4010-100R | ATW B53.4010-100R | 4 | 3.8 | 2.0 | 10 | 12 | 1.0 | 1.0 | 4 | | |
| TW B53.5015-050R | ATW B53.5015-050R | 5 | 4.8 | 1.0 | 15 | 17 | 0.5 | 1.0 | 5 | | SP.380-05** |
| TW B53.5015-075R | ATW B53.5015-075R | 5 | 4.8 | 1.5 | 15 | 17 | 0.75 | 1.0 | 5 | | |
| TW B53.5015-100R | ATW B53.5015-100R | 5 | 4.8 | 2.0 | 15 | 17 | 1.0 | 1.2 | 5 | | |
| TW B53.6020-050R | ATW B53.6020-050R | 6 | 5.8 | 1.0 | 20 | 23 | 0.5 | 1.5 | 6 | | SP.380-06** |
| TW B53.6020-075R | ATW B53.6020-075R | 6 | 5.8 | 1.5 | 20 | 23 | 0.75 | 1.5 | 6 | | |
| TW B53.6020-100R | ATW B53.6020-100R | 6 | 5.8 | 2.0 | 20 | 23 | 1.0 | 1.5 | 6 | | |
| TW B53.7025-050R | ATW B53.7025-050R | 7 | 6.8 | 1.0 | 25 | 28 | 0.5 | 1.8 | 7 | | SP.380-07** |
| TW B53.7025-075R | ATW B53.7025-075R | 7 | 6.8 | 1.5 | 25 | 28 | 0.75 | 1.8 | 7 | | |
| TW B53.7025-100R | ATW B53.7025-100R | 7 | 6.8 | 2.0 | 25 | 28 | 1.0 | 1.8 | 7 | | |
| TW B53.8030-050R | ATW B53.8030-050R | 8 | 7.8 | 1.0 | 30 | 33 | 0.5 | 2.0 | 8 | | SP.380-08** |
| TW B53.8030-075R | ATW B53.8030-075R | 8 | 7.8 | 1.5 | 30 | 33 | 0.75 | 2.0 | 8 | | |
| TW B53.8030-100R | ATW B53.8030-100R | 8 | 7.8 | 2.0 | 30 | 33 | 1.0 | 2.0 | 8 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 內徑倒角刀 Internal Chamfering Blae





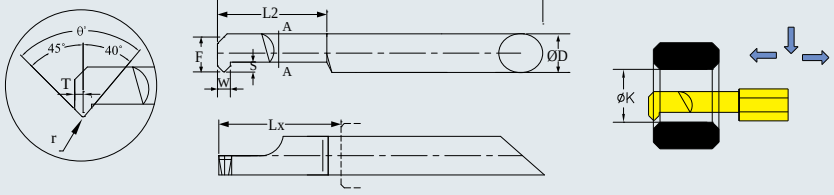

| 型號 EDP NO. | θ° | ØK | F | T | W | L2 | L | r | S | ØD | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 57.4010-2002 | 85 | 4 | 3.8 | 1.0 | 2.0 | 10 | 40 | 0.2 | 1.0 | 4 | ● | SP.250-04** SP.5650-04** |
| 57.4015-2002 | 85 | 4 | 3.8 | 1.0 | 2.0 | 15 | 45 | 0.2 | 1.0 | 4 | ● | |
| 57.6015-2502 | 85 | 6 | 5.8 | 1.25 | 2.5 | 15 | 50 | 0.2 | 1.5 | 6 | ● | SP.250-06** SP.5650-06** |
| 57.6025-2502 | 85 | 6 | 5.8 | 1.25 | 2.5 | 25 | 60 | 0.2 | 1.5 | 6 | ● | |
| 57.8020-3002 | 85 | 8 | 7.8 | 1.5 | 3.0 | 20 | 60 | 0.2 | 2.0 | 8 | ● | SP.250-08** SP.5650-08** |
| 57.8030-3002 | 85 | 8 | 7.8 | 1.5 | 3.0 | 30 | 70 | 0.2 | 2.0 | 8 | ● | |
| 57.10025-3002 | 85 | 10 | 9.8 | 1.5 | 3.0 | 25 | 70 | 0.2 | 2.5 | 10 | | SP.250-10** SP.5650-10** |
| 57.10040-3002 | 85 | 10 | 9.8 | 1.5 | 3.0 | 40 | 85 | 0.2 | 2.5 | 10 | | |
| 57.4010S-2002 | 90 | 4 | 3.8 | 1.0 | 2.0 | 10 | 40 | 0.2 | 1.0 | 4 | | SP.250-04** SP.5650-04** |
| 57.4015S-2002 | 90 | 4 | 3.8 | 1.0 | 2.0 | 15 | 45 | 0.2 | 1.0 | 4 | | |
| 57.6015S-2502 | 90 | 6 | 5.8 | 1.25 | 2.5 | 15 | 50 | 0.2 | 1.5 | 6 | | SP.250-06** SP.5650-06** |
| 57.6025S-2502 | 90 | 6 | 5.8 | 1.25 | 2.5 | 25 | 60 | 0.2 | 1.5 | 6 | | |
| 57.8020S-3002 | 90 | 8 | 7.8 | 1.5 | 3.0 | 20 | 60 | 0.2 | 2.0 | 8 | | SP.250-08** SP.5650-08** |
| 57.8030S-3002 | 90 | 8 | 7.8 | 1.5 | 3.0 | 30 | 70 | 0.2 | 2.0 | 8 | | |
| 57.10025S-3002 | 90 | 10 | 9.8 | 1.5 | 3.0 | 25 | 70 | 0.2 | 2.5 | 10 | | SP.250-10** SP.5650-10** |
| 57.10040S-3002 | 90 | 10 | 9.8 | 1.5 | 3.0 | 40 | 85 | 0.2 | 2.5 | 10 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 內徑倒角刀 Internal Chamfering Blae

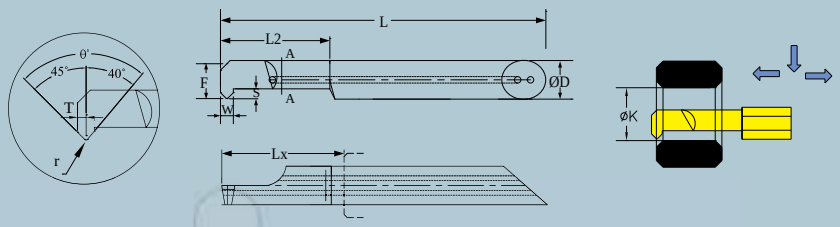
TW






ATW 內冷式

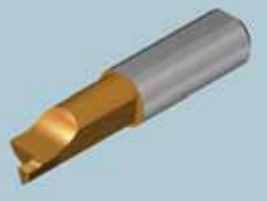


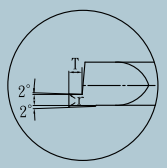


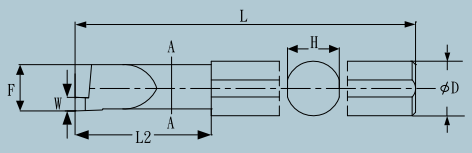

| 型　　號<br>EDP NO. | 內冷式 型號<br>EDP NO. | θ° | ØK | F | t | W | L2 | Lx | r | S | ØD | 在庫<br>stock | 適用套筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TW 57.4010-2002 | ATW 57.4010-2002 | 85 | 4 | 3.8 | 1.0 | 2.0 | 10 | 12 | 0.2 | 1.0 | 4 | | SP.380-04** |
| TW 57.4015-2002 | ATW 57.4015-2002 | 85 | 4 | 3.8 | 1.0 | 2.0 | 15 | 17 | 0.2 | 1.0 | 4 | | |
| TW 57.6015-2502 | ATW 57.6015-2502 | 85 | 6 | 5.8 | 1.25 | 2.5 | 15 | 18 | 0.2 | 1.5 | 6 | | SP.380-06** |
| TW 57.6025-2502 | ATW 57.6025-2502 | 85 | 6 | 5.8 | 1.25 | 2.5 | 25 | 28 | 0.2 | 1.5 | 6 | | |
| TW 57.8020-3002 | ATW 57.8020-3002 | 85 | 8 | 7.8 | 1.5 | 3.0 | 20 | 23 | 0.2 | 2.0 | 8 | | SP.380-08** |
| TW 57.8030-3002 | ATW 57.8030-3002 | 85 | 8 | 7.8 | 1.5 | 3.0 | 30 | 33 | 0.2 | 2.0 | 8 | | |
| TW 57.4010S-2002 | ATW 57.4010S-2002 | 90 | 4 | 3.8 | 1.0 | 2.0 | 10 | 12 | 0.2 | 1.0 | 4 | | SP.380-04** |
| TW 57.4015S-2002 | ATW 57.4015S-2002 | 90 | 4 | 3.8 | 1.0 | 2.0 | 15 | 17 | 0.2 | 1.0 | 4 | | |
| TW 57.6015S-2502 | ATW 57.6015S-2502 | 90 | 6 | 5.8 | 1.25 | 2.5 | 15 | 18 | 0.2 | 1.5 | 6 | | SP.380-06** |
| TW 57.6025S-2502 | ATW 57.6025S-2502 | 90 | 6 | 5.8 | 1.25 | 2.5 | 25 | 28 | 0.2 | 1.5 | 6 | | |
| TW 57.8020S-3002 | ATW 57.8020S-3002 | 90 | 8 | 7.8 | 1.5 | 3.0 | 20 | 23 | 0.2 | 2.0 | 8 | | SP.380-08** |
| TW 57.8030S-3002 | ATW 57.8030S-3002 | 90 | 8 | 7.8 | 1.5 | 3.0 | 30 | 33 | 0.2 | 2.0 | 8 | | |

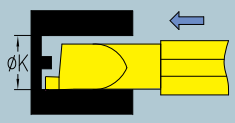
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 平面槽刀 Micro Internal Face Grooving



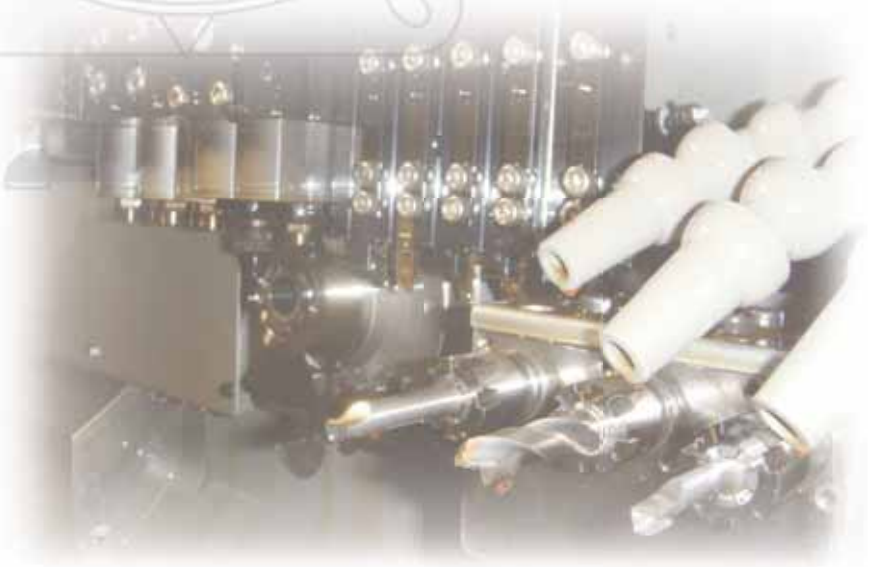



| 型號 EDP NO. | ØK | F | W±0.03 | T | L2 | L | r | ØD | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|
| 73.6020-10 | 6 | 5.8 | 1.0 | 2.0 | 20 | 55 | 0.1 | 6 | ● | SP.250-06** SP.5650-06** |
| 73.6020-15 | 6 | 5.8 | 1.5 | 2.0 | 20 | 55 | 0.1 | 6 | | |
| 73.6020-20 | 6 | 5.8 | 2.0 | 3.0 | 20 | 55 | 0.2 | 6 | ● | |
| 73.8025-10 | 8 | 7.8 | 1.0 | 2.0 | 25 | 65 | 0.1 | 8 | ● | SP.250-08** SP.5650-08** |
| 73.8025-15 | 8 | 7.8 | 1.5 | 3.0 | 25 | 65 | 0.2 | 8 | | |
| 73.8025-20 | 8 | 7.8 | 2.0 | 3.0 | 25 | 65 | 0.2 | 8 | ● | |
| 73.8025-30 | 8 | 7.8 | 3.0 | 4.0 | 25 | 65 | 0.2 | 8 | | |
| 73.10030-10 | 10 | 9.8 | 1.0 | 2.0 | 30 | 75 | 0.1 | 10 | ● | SP.250-10** SP.5650-10** |
| 73.10030-15 | 10 | 9.8 | 1.5 | 3.0 | 30 | 75 | 0.2 | 10 | | |
| 73.10030-20 | 10 | 9.8 | 2.0 | 4.0 | 30 | 75 | 0.2 | 10 | ● | |
| 73.10030-30 | 10 | 9.8 | 3.0 | 5.0 | 30 | 75 | 0.3 | 10 | ● | |
| 73.12035-10 | 12 | 11.7 | 1.0 | 2.0 | 35 | 80 | 0.1 | 12 | | SP.250-12** SP.5650-12** |
| 73.12035-20 | 12 | 11.7 | 2.0 | 4.0 | 35 | 80 | 0.2 | 12 | | |
| 73.12035-30 | 12 | 11.7 | 3.0 | 5.0 | 35 | 80 | 0.3 | 12 | | |
| 73.16045-10 | 16 | 15.7 | 1.0 | 2.0 | 45 | 100 | 0.1 | 16 | | SP.250-16** SP.5650-16** |
| 73.16045-20 | 16 | 15.7 | 2.0 | 4.0 | 45 | 100 | 0.2 | 16 | | |
| 73.16045-30 | 16 | 15.7 | 3.0 | 5.0 | 45 | 100 | 0.3 | 16 | | |
| 73.16045-40 | 16 | 15.7 | 4.0 | 6.0 | 45 | 100 | 0.3 | 16 | | |

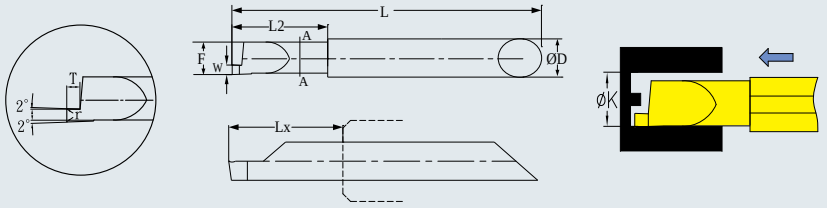
無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.



# 平面槽刀 Micro Internal Face Grooving

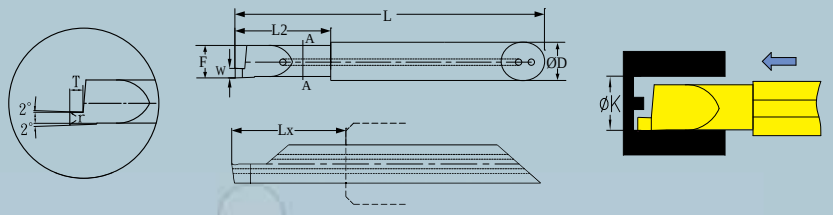
TW






ATW 內冷式

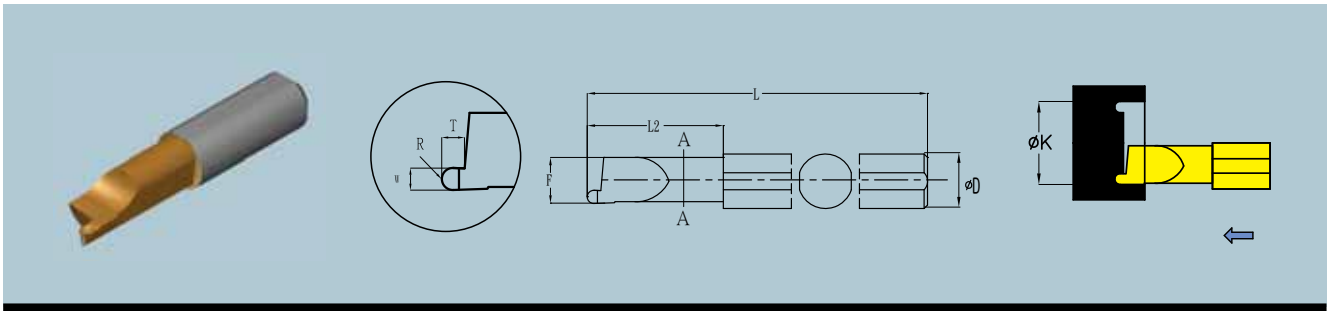





| 型　號<br>EDP NO. | 內冷式 型號<br>EDP NO. | ØK | F | W±0.03 | T | L2 | Lx | r | ØD | 在庫<br>stock | 適　用　套　筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TW 73.4010-10 | ATW 73.4010-10 | 4 | 3.8 | 1.0 | 2.0 | 10 | 12 | 0.1 | 4 | | SP.380-04** |
| TW 73.4010-15 | ATW 73.4010-15 | 4 | 3.8 | 1.5 | 3.0 | 10 | 12 | 0.2 | 4 | | |
| TW 73.4010-20 | ATW 73.4010-20 | 4 | 3.8 | 2.0 | 3.0 | 10 | 12 | 0.2 | 4 | | |
| TW 73.6020-10 | ATW 73.6020-10 | 6 | 5.8 | 1.0 | 2.0 | 20 | 23 | 0.1 | 6 | | SP.380-06** |
| TW 73.6020-15 | ATW 73.6020-15 | 6 | 5.8 | 1.5 | 3.0 | 20 | 23 | 0.2 | 6 | | |
| TW 73.6020-20 | ATW 73.6020-20 | 6 | 5.8 | 2.0 | 3.0 | 20 | 23 | 0.2 | 6 | | |
| TW 73.8025-10 | ATW 73.8025-10 | 8 | 7.8 | 1.0 | 2.0 | 25 | 28 | 0.1 | 8 | | SP.380-08** |
| TW 73.8025-15 | ATW 73.8025-15 | 8 | 7.8 | 1.5 | 3.0 | 25 | 28 | 0.2 | 8 | | |
| TW 73.8025-20 | ATW 73.8025-20 | 8 | 7.8 | 2.0 | 3.0 | 25 | 28 | 0.2 | 8 | | |
| TW 73.8025-25 | ATW 73.8025-25 | 8 | 7.8 | 2.5 | 4.0 | 25 | 28 | 0.2 | 8 | | |
| TW 73.8025-30 | ATW 73.8025-30 | 8 | 7.8 | 3.0 | 4.0 | 25 | 28 | 0.3 | 8 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向端面圓槽刀 Right hand end face radius turning tool



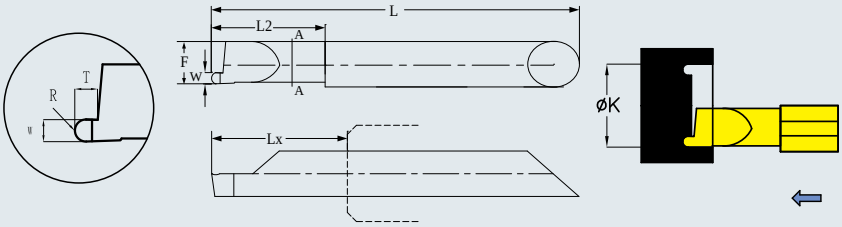

| 型號 EDP NO. | ØK | F | R±0.03 | T | L2 | L | r | ØD | H | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B73.6020-050R | 6 | 5.8 | 1.0 | 2.0 | 20 | 55 | 0.5 | 6 | 5.5 | ● | SP.250-06** SP.5650-06** |
| B73.6020-075R | 6 | 5.8 | 1.5 | 2.0 | 20 | 55 | 0.75 | 6 | 5.5 | ● | |
| B73.6020-100R | 6 | 5.8 | 2.0 | 3.0 | 20 | 55 | 1.0 | 6 | 5.5 | ● | |
| B73.8025-050R | 8 | 7.8 | 1.0 | 2.0 | 25 | 65 | 0.5 | 8 | 7.3 | ● | SP.250-08** SP.5650-08** |
| B73.8025-075R | 8 | 7.8 | 1.5 | 3.0 | 25 | 65 | 0.75 | 8 | 7.3 | ● | |
| B73.8025-100R | 8 | 7.8 | 2.0 | 3.0 | 25 | 65 | 1.0 | 8 | 7.3 | ● | |
| B73.8025-125R | 8 | 7.8 | 2.5 | 4.0 | 25 | 65 | 1.25 | 8 | 7.3 | | |
| B73.8025-150R | 8 | 7.8 | 3.0 | 4.0 | 25 | 65 | 1.5 | 8 | 7.3 | | |
| B73.10030-050R | 10 | 9.8 | 1.0 | 2.0 | 30 | 75 | 0.5 | 10 | 9.2 | | SP.250-10** SP.5650-10** |
| B73.10030-075R | 10 | 9.8 | 1.5 | 3.0 | 30 | 75 | 0.75 | 10 | 9.2 | | |
| B73.10030-100R | 10 | 9.8 | 2.0 | 3.0 | 30 | 75 | 1.0 | 10 | 9.2 | | |
| B73.10030-125R | 10 | 9.8 | 2.5 | 4.0 | 25 | 75 | 1.25 | 10 | 9.2 | | |
| B73.10030-150R | 10 | 9.8 | 3.0 | 4.0 | 30 | 75 | 1.5 | 10 | 9.2 | | |
| B73.12040-050R | 12 | 11.7 | 1.0 | 2.0 | 40 | 85 | 0.5 | 12 | 11 | | SP.250-12** SP.5650-12** |
| B73.12040-075R | 12 | 11.7 | 1.5 | 3.0 | 40 | 85 | 0.75 | 12 | 11 | | |
| B73.12040-100R | 12 | 11.7 | 2.0 | 3.0 | 40 | 85 | 1.0 | 12 | 11 | | |
| B73.12040-125R | 12 | 11.7 | 2.5 | 4.0 | 25 | 85 | 1.25 | 12 | 11 | | |
| B73.12040-150R | 12 | 11.7 | 3.0 | 5.0 | 40 | 85 | 1.5 | 12 | 11 | | |
| B73.16045-050R | 16 | 15.7 | 1.0 | 2.0 | 45 | 100 | 0.5 | 16 | 4.7 | | SP.250-16** SP.5650-16** |
| B73.16045-075R | 16 | 15.7 | 1.5 | 3.0 | 45 | 100 | 0.75 | 16 | 4.7 | | |
| B73.16045-100R | 16 | 15.7 | 2.0 | 3.0 | 45 | 100 | 1.0 | 16 | 4.7 | | |
| B73.16045-125R | 16 | 15.7 | 2.5 | 4.0 | 45 | 100 | 1.25 | 16 | 4.7 | | |
| B73.16045-150R | 16 | 15.7 | 3.0 | 5.0 | 45 | 100 | 1.5 | 16 | 4.7 | | |
| B73.16045-200R | 16 | 15.7 | 4.0 | 6.0 | 45 | 100 | 2.0 | 16 | 14.7 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 右向端面圓槽刀 Right hand end face radius turning tool

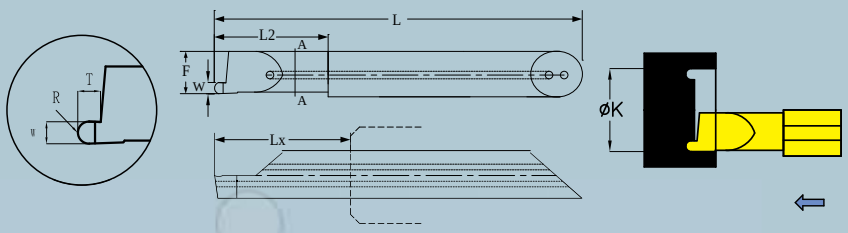
TW






ATW 內冷式

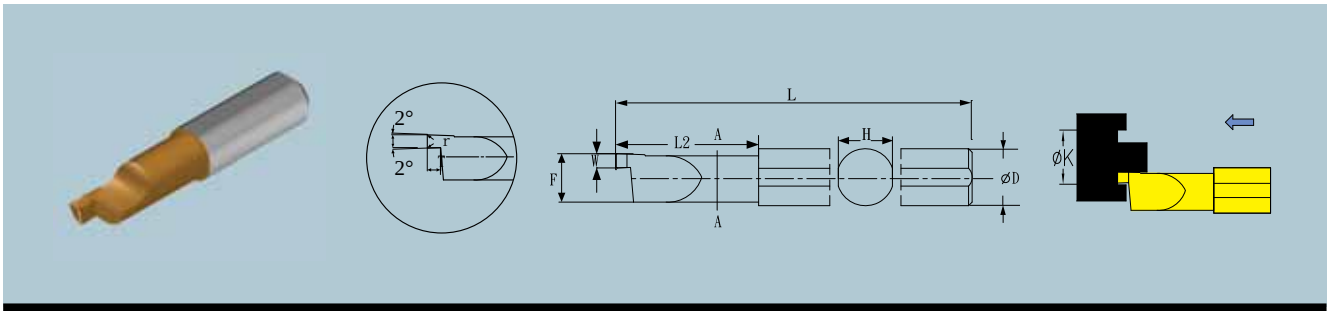





| 型　號<br>EDP NO. | 內冷式 型號<br>EDP NO. | ØK | F | R±0.03 | T | L2 | Lx | r | ØD | 在庫<br>stock | 適　用　套　筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TW B73.4010-050R | ATW B73.4010-050R | 4 | 3.8 | 1.0 | 2.0 | 10 | 12 | 0.5 | 4 | | SP.380-04** |
| TW B73.4010-075R | ATW B73.4010-075R | 4 | 3.8 | 1.5 | 2.0 | 10 | 12 | 0.75 | 4 | | |
| TW B73.4010-100R | ATW B73.4010-100R | 4 | 3.8 | 2.0 | 3.0 | 10 | 12 | 1.0 | 4 | | |
| TW B73.6020-050R | ATW B73.6020-050R | 6 | 5.8 | 1.0 | 2.0 | 20 | 23 | 0.5 | 6 | | SP.380-06** |
| TW B73.6020-075R | ATW B73.6020-075R | 6 | 5.8 | 1.5 | 3.0 | 20 | 23 | 0.75 | 6 | | |
| TW B73.6020-100R | ATW B73.6020-100R | 6 | 5.8 | 2.0 | 3.0 | 20 | 23 | 1.0 | 6 | | |
| TW B73.8025-050R | ATW B73.8025-050R | 8 | 7.8 | 1.0 | 2.0 | 25 | 28 | 0.5 | 8 | | SP.380-08** |
| TW B73.8025-075R | ATW B73.8025-075R | 8 | 7.8 | 1.5 | 3.0 | 25 | 28 | 0.75 | 8 | | |
| TW B73.8025-100R | ATW B73.8025-100R | 8 | 7.8 | 2.0 | 3.0 | 25 | 28 | 1.0 | 8 | | |
| TW B73.8025-125R | ATW B73.8025-125R | 8 | 7.8 | 2.5 | 4.0 | 25 | 28 | 1.25 | 8 | | |
| TW B73.8025-150R | ATW B73.8025-150R | 8 | 7.8 | 3.0 | 4.0 | 25 | 28 | 1.5 | 8 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 端面槽刀 Micro End Face Grooving



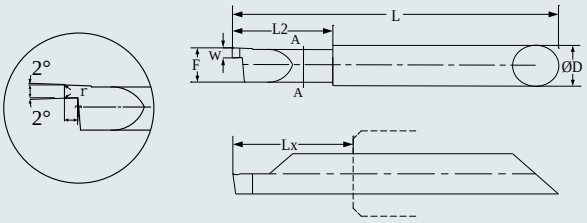

| 型號 EDP NO. | ØK | F | W±0.03 | T | L2 | L | r | ØD | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|
| 74.6020-10 | 6 | 5.8 | 1.0 | 2.0 | 20 | 50 | 0.1 | 6 | ● | SP.250-06** SP.5650-06** |
| 74.6020-15 | 6 | 5.8 | 1.5 | 2.0 | 20 | 50 | 0.2 | 6 | | |
| 74.6020-20 | 6 | 5.8 | 2.0 | 3.0 | 20 | 50 | 0.2 | 6 | ● | |
| 74.8025-10 | 8 | 7.8 | 1.0 | 2.0 | 25 | 65 | 0.1 | 8 | ● | SP.250-08** SP.5650-08** |
| 74.8025-15 | 8 | 7.8 | 1.5 | 3.0 | 25 | 65 | 0.2 | 8 | | |
| 74.8025-20 | 8 | 7.8 | 2.0 | 3.0 | 25 | 65 | 0.2 | 8 | ● | |
| 74.8025-30 | 8 | 7.8 | 3.0 | 4.0 | 25 | 65 | 0.3 | 8 | | |
| 74.10030-10 | 10 | 9.8 | 1.0 | 2.0 | 30 | 75 | 0.1 | 10 | ● | SP.250-10** SP.5650-10** |
| 74.10030-15 | 10 | 9.8 | 1.5 | 3.0 | 30 | 75 | 0.2 | 10 | | |
| 74.10030-20 | 10 | 9.8 | 2.0 | 3.0 | 30 | 75 | 0.2 | 10 | ● | |
| 74.10030-30 | 10 | 9.8 | 3.0 | 4.0 | 30 | 75 | 0.3 | 10 | | |
| 74.12035-10 | 12 | 11.7 | 1.0 | 2.0 | 35 | 80 | 0.1 | 12 | | SP.250-12** SP.5650-12** |
| 74.12035-20 | 12 | 11.7 | 2.0 | 3.0 | 35 | 80 | 0.2 | 12 | | |
| 74.12035-30 | 12 | 11.7 | 3.0 | 4.0 | 35 | 80 | 0.3 | 12 | | |
| 74.16045-10 | 16 | 15.7 | 1.0 | 2.0 | 45 | 100 | 0.1 | 16 | | SP.250-16** SP.5650-16** |
| 74.16045-20 | 16 | 15.7 | 2.0 | 3.0 | 45 | 100 | 0.2 | 16 | | |
| 74.16045-30 | 16 | 15.7 | 3.0 | 5.0 | 45 | 100 | 0.3 | 16 | | |
| 74.16045-40 | 16 | 15.7 | 4.0 | 6.0 | 45 | 100 | 0.3 | 16 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 端面槽刀 Micro End Face Grooving

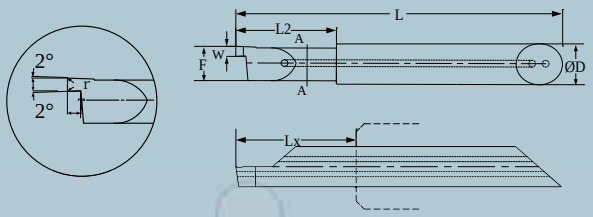
TW






ATW 內冷式

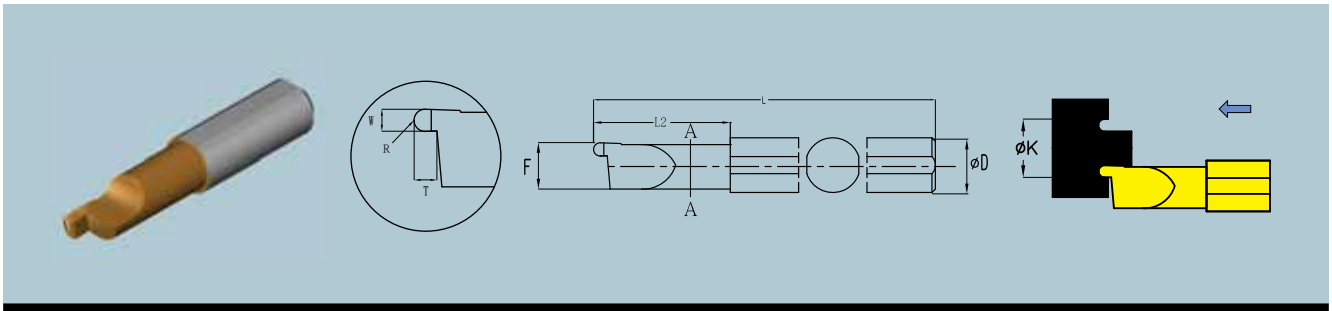





| 型　號<br>EDP NO. | 內冷式 型號<br>EDP NO. | ØK | F | W±0.03 | T | L2 | Lx | r | ØD | 在庫<br>stock | 適 用 套 筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TW 74.4010-10 | ATW 74.4010-10 | 4 | 3.8 | 1.0 | 2.0 | 10 | 12 | 0.1 | 4 | | SP.380-04** |
| TW 74.4010-15 | ATW 74.4010-15 | 4 | 3.8 | 1.5 | 2.0 | 10 | 12 | 0.2 | 4 | | |
| TW 74.4010-20 | ATW 74.4010-20 | 4 | 3.8 | 2.0 | 3.0 | 10 | 12 | 0.2 | 4 | | |
| TW 74.6020-10 | ATW 74.6020-10 | 6 | 5.8 | 1.0 | 2.0 | 20 | 23 | 0.1 | 6 | | SP.380-06** |
| TW 74.6020-15 | ATW 74.6020-15 | 6 | 5.8 | 1.5 | 3.0 | 20 | 23 | 0.2 | 6 | | |
| TW 74.6020-20 | ATW 74.6020-20 | 6 | 5.8 | 2.0 | 3.0 | 20 | 23 | 0.2 | 6 | | |
| TW 74.8025-10 | ATW 74.8025-10 | 8 | 7.8 | 1.0 | 2.0 | 25 | 28 | 0.1 | 8 | | SP.380-08** |
| TW 74.8025-15 | ATW 74.8025-15 | 8 | 7.8 | 1.5 | 3.0 | 25 | 28 | 0.2 | 8 | | |
| TW 74.8025-20 | ATW 74.8025-20 | 8 | 7.8 | 2.0 | 3.0 | 25 | 28 | 0.2 | 8 | | |
| TW 74.8025-25 | ATW 74.8025-25 | 8 | 7.8 | 2.5 | 4.0 | 25 | 28 | 0.2 | 8 | | |
| TW 74.8025-30 | ATW 74.8025-30 | 8 | 7.8 | 3.0 | 4.0 | 25 | 28 | 0.3 | 8 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向端面圓槽刀 Left hand end face radius turning tool



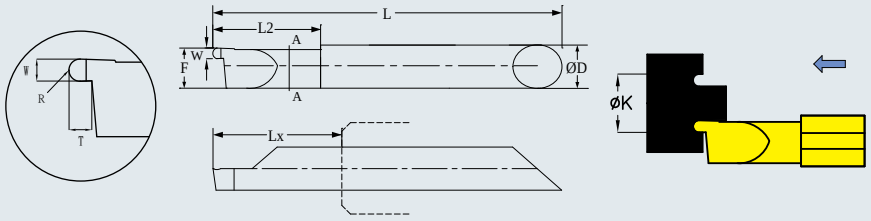

| 型號 EDP NO. | ØK | F | W±0.03 | T | L2 | L | r | ØD | 在庫 stock | 適用套筒 Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|
| B74.6020-050R | 6 | 5.8 | 1.0 | 2.0 | 20 | 55 | 0.5 | 6 | ● | SP.250-06** SP.5650-06** |
| B74.6020-075R | 6 | 5.8 | 1.5 | 2.0 | 20 | 55 | 0.75 | 6 | ● | |
| B74.6020-100R | 6 | 5.8 | 2.0 | 3.0 | 20 | 55 | 1.0 | 6 | ● | |
| B74.8025-050R | 8 | 7.8 | 1.0 | 2.0 | 25 | 65 | 0.5 | 8 | ● | SP.250-08** SP.5650-08** |
| B74.8025-075R | 8 | 7.8 | 1.5 | 3.0 | 25 | 65 | 0.75 | 8 | ● | |
| B74.8025-100R | 8 | 7.8 | 2.0 | 3.0 | 25 | 65 | 1.0 | 8 | ● | |
| B74.8025-125R | 8 | 7.8 | 2.5 | 4.0 | 25 | 65 | 1.25 | 8 | | |
| B74.8025-150R | 8 | 7.8 | 3.0 | 4.0 | 25 | 65 | 1.5 | 8 | | |
| B74.10030-050R | 10 | 9.8 | 1.0 | 2.0 | 30 | 75 | 0.5 | 10 | | SP.250-10** SP.5650-10** |
| B74.10030-075R | 10 | 9.8 | 1.5 | 3.0 | 30 | 75 | 0.75 | 10 | | |
| B74.10030-100R | 10 | 9.8 | 2.0 | 3.0 | 30 | 75 | 1.0 | 10 | | |
| B74.10030-125R | 10 | 9.8 | 2.5 | 4.0 | 25 | 75 | 1.25 | 10 | | |
| B74.10030-150R | 12 | 9.8 | 3.0 | 4.0 | 30 | 85 | 1.5 | 12 | | |
| B74.12040-050R | 12 | 11.7 | 1.0 | 2.0 | 40 | 85 | 0.5 | 12 | | SP.250-12** SP.5650-12** |
| B74.12040-075R | 12 | 11.7 | 1.5 | 3.0 | 40 | 85 | 0.75 | 12 | | |
| B74.12040-100R | 12 | 11.7 | 2.0 | 3.0 | 40 | 85 | 1.0 | 12 | | |
| B74.12040-125R | 12 | 11.7 | 2.5 | 4.0 | 25 | 85 | 1.25 | 12 | | |
| B74.12040-150R | 12 | 11.7 | 3.0 | 5.0 | 40 | 85 | 1.5 | 12 | | |
| B74.16045-050R | 16 | 15.7 | 1.0 | 2.0 | 45 | 100 | 0.5 | 16 | | SP.250-16** SP.5650-16** |
| B74.16045-075R | 16 | 15.7 | 1.5 | 3.0 | 45 | 100 | 0.75 | 16 | | |
| B74.16045-100R | 16 | 15.7 | 2.0 | 3.0 | 45 | 100 | 1.0 | 16 | | |
| B74.16045-125R | 16 | 15.7 | 2.5 | 4.0 | 25 | 85 | 1.25 | 16 | | |
| B74.16045-150R | 16 | 15.7 | 3.0 | 5.0 | 45 | 100 | 1.5 | 16 | | |
| B74.16045-200R | 16 | 15.7 | 4.0 | 6.0 | 45 | 100 | 2.0 | 16 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

# 左向端面圓槽刀 Left hand end face radius turning tool

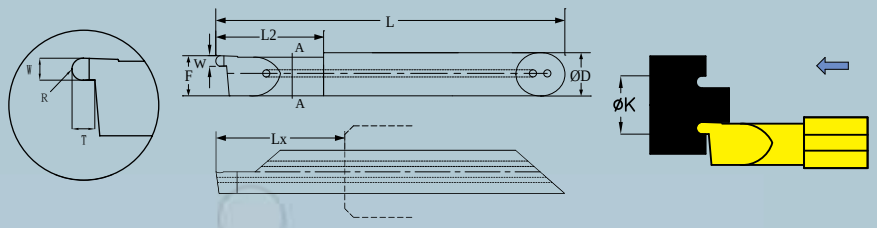
TW






ATW 內冷式



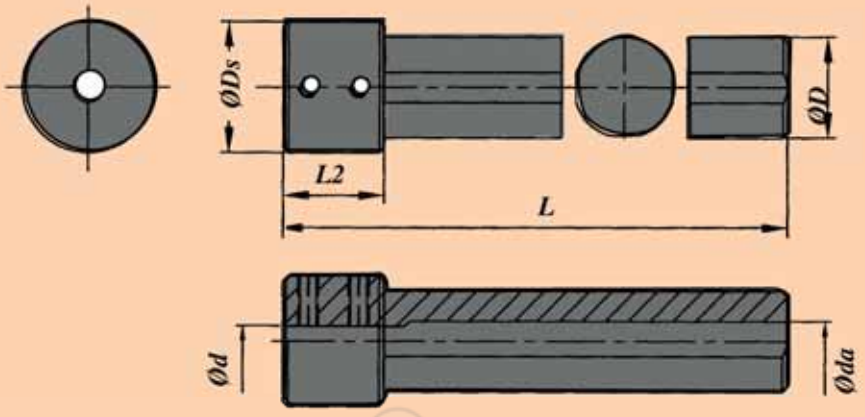



| 型　號<br>EDP NO. | 型　號<br>EDP NO. | ØK | F | W±0.03 | T | L2 | Lx | r | ØD | 在庫<br>stock | 適用套筒<br>Applicable Sleeve |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TW B74.4010-050R | ATW B74.4010-050R | 4 | 3.8 | 1.0 | 2.0 | 10 | 12 | 0.5 | 4 | | SP.380-04** |
| TW B74.4010-075R | ATW B74.4010-075R | 4 | 3.8 | 1.5 | 2.0 | 10 | 12 | 0.75 | 4 | | |
| TW B74.4010-100R | ATW B74.4010-100R | 4 | 3.8 | 2.0 | 3.0 | 10 | 12 | 1.0 | 4 | | |
| TW B74.6020-050R | ATW B74.6020-050R | 6 | 5.8 | 1.0 | 2.0 | 20 | 23 | 0.5 | 6 | | SP.380-06** |
| TW B74.6020-075R | ATW B74.6020-075R | 6 | 5.8 | 1.5 | 3.0 | 20 | 23 | 0.75 | 6 | | |
| TW B74.6020-100R | ATW B74.6020-100R | 6 | 5.8 | 2.0 | 3.0 | 20 | 23 | 1.0 | 6 | | |
| TW B74.8025-050R | ATW B74.8025-050R | 8 | 7.8 | 1.0 | 2.0 | 25 | 28 | 0.5 | 8 | | SP.380-08** |
| TW B74.8025-075R | ATW B74.8025-075R | 8 | 7.8 | 1.5 | 3.0 | 25 | 28 | 0.75 | 8 | | |
| TW B74.8025-100R | ATW B74.8025-100R | 8 | 7.8 | 2.0 | 3.0 | 25 | 28 | 1.0 | 8 | | |
| TW B74.8025-125R | ATW B74.8025-125R | 8 | 7.8 | 2.5 | 4.0 | 25 | 28 | 1.25 | 8 | | |
| TW B74.8025-150R | ATW B74.8025-150R | 8 | 7.8 | 3.0 | 4.0 | 25 | 28 | 1.5 | 8 | | |

無"●"標示者為訂製品。Without "●" marking means custom products.
有"●"標示者為在庫品。With "●" marking means items in stock.

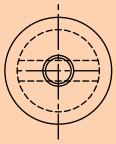


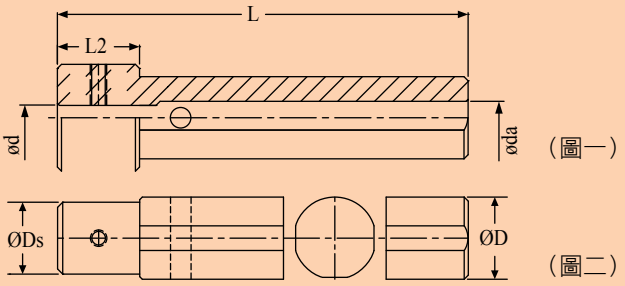
# 套筒 Sleeve



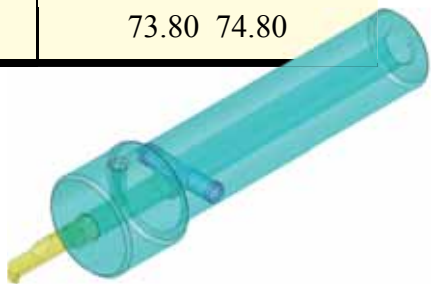

| 品名型號 EDP NO. | Ød | ØD | L2 | L | ØDs | Øda | 螺絲 | 板手 | 適 用 刀具 Applicable Tools |
|---|---|---|---|---|---|---|---|---|---|
| SP250.0416 | 4.0 | 16 | 20 | 100 | 22 | 6.0 | M4 *6 | LT-2 | XX.20.XXX<br>XX.30.XXX<br>XX.40.XXX |
| SP250.041905 | 4.0 | 19.05 | 20 | 100 | 25 | 6.0 | | | |
| SP250.0420 | 4.0 | 20 | 20 | 100 | 26 | 6.0 | | | |
| SP250.0422 | 4.0 | 22 | 20 | 100 | 28 | 6.0 | M4 *12 | | |
| SP250.0423 | 4.0 | 23 | 20 | 100 | 29 | 6.0 | | | |
| SP250.0425 | 4.0 | 25 | 20 | 100 | 31 | 6.0 | | | |
| SP250.04254 | 4.0 | 25.4 | 20 | 100 | 31 | 6.0 | | | |
| SP250.0616 | 6.0 | 16 | 20 | 100 | 22 | 8.0 | M5 *6 | LT-2.5 | XX.50.XXX<br>XX.60.XXX |
| SP250.061905 | 6.0 | 19.05 | 20 | 100 | 25 | 8.0 | | | |
| SP250.0620 | 6.0 | 20 | 20 | 100 | 26 | 8.0 | | | |
| SP250.0622 | 6.0 | 22 | 20 | 100 | 28 | 8.0 | M5 *10 | | |
| SP250.0623 | 6.0 | 23 | 20 | 100 | 29 | 8.0 | | | |
| SP250.0625 | 6.0 | 25 | 20 | 100 | 31 | 8.0 | | | |
| SP250.06254 | 6.0 | 25.4 | 20 | 100 | 31 | 8.0 | | | |
| SP250.0816 | 8.0 | 16 | 20 | 100 | 22 | 10.0 | M5 *6 | LT-2.5 | XX.70.XXX<br>XX.80.XXX |
| SP250.081905 | 8.0 | 19.05 | 20 | 100 | 25 | 10.0 | | | |
| SP250.0820 | 8.0 | 20 | 20 | 100 | 26 | 10.0 | | | |
| SP250.0822 | 8.0 | 22 | 20 | 100 | 28 | 10.0 | M5 *10 | | |
| SP250.0823 | 8.0 | 23 | 20 | 100 | 29 | 10.0 | | | |
| SP250.0825 | 8.0 | 25 | 20 | 100 | 31 | 10.0 | | | |
| SP250.08254 | 8.0 | 25.4 | 20 | 100 | 31 | 10.0 | | | |
| SP250.101905 | 10.0 | 19.05 | 20 | 100 | 25 | 12.0 | M6 *6 | LT-3 | XX.100.XXX |
| SP250.1020 | 10.0 | 20 | 20 | 100 | 26 | 12.0 | | | |
| SP250.1022 | 10.0 | 22 | 20 | 100 | 28 | 12.0 | | | |
| SP250.1023 | 10.0 | 23 | 20 | 100 | 29 | 12.0 | M6 *8 | | |
| SP250.1025 | 10.0 | 25 | 20 | 100 | 31 | 12.0 | | | |
| SP250.10254 | 10.0 | 25.4 | 20 | 100 | 31 | 12.0 | | | |
| SP250.121905 | 12.0 | 19.05 | 20 | 100 | 25 | 14.0 | M6 *6 | LT-3 | XX.120.XXX |
| SP250.1220 | 12.0 | 20 | 20 | 100 | 26 | 14.0 | | | |
| SP250.1222 | 12.0 | 22 | 20 | 100 | 28 | 14.0 | M6 *8 | | |
| SP250.1223 | 12.0 | 23 | 20 | 100 | 29 | 14.0 | | | |
| SP250.1225 | 12.0 | 25 | 20 | 100 | 31 | 14.0 | | | |
| SP250.12254 | 12.0 | 25.4 | 20 | 100 | 31 | 14.0 | | | |

# 套筒 Sleeve

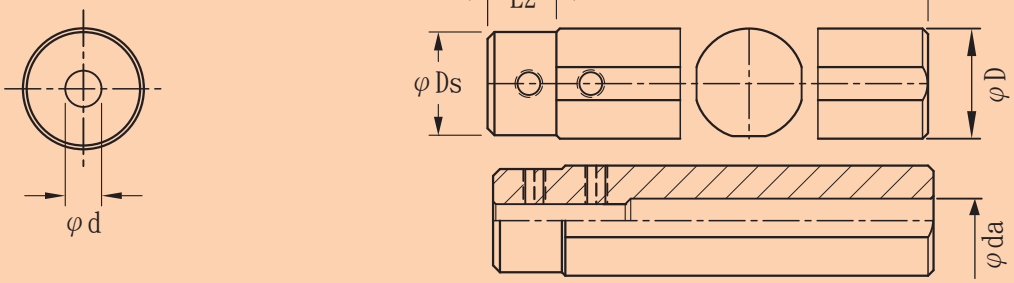





| 品名型號 EDP NO. | Ød | ØD | L2 | L | ØDs | Øda | 圖示 | 螺絲 | 板手 | 適 用 刀具 Applicable Tools |
|---|---|---|---|---|---|---|---|---|---|---|
| SP380.0416 | 4.0 | 16 | 13 | 100 | 20 | 6.0 | | M4 *6 | | TW |
| SP380.041905 | 4.0 | 19.05 | 13 | 100 | 22 | 6.0 | | | | 27.30 27.40 |
| SP380.0420 | 4.0 | 20 | 13 | 100 | 24 | 6.0 | 圖一 | | | 29.30 29.40 37.40 |
| SP380.0422 | 4.0 | 22 | 13 | 100 | 25 | 6.0 | | M4 *8 | LT-2 | 47.20 47.30 47.40 |
| SP380.0423 | 4.0 | 23 | 13 | 100 | 25 | 6.0 | | | | 45.20 45.30 45.40 |
| SP380.0425 | 4.0 | 25 | 13 | 100 | 24 | 6.0 | 圖二 | | | 51.40 53.40 |
| SP380.04254 | 4.0 | 25.4 | 13 | 100 | 24 | 6.0 | | | | 73.40 74.40 |
| SP380.0516 | 5.0 | 16 | 13 | 100 | 20 | 6.0 | | M4 *6 | | |
| SP380.051905 | 5.0 | 19.05 | 13 | 100 | 22 | 6.0 | | | | TW |
| SP380.0520 | 5.0 | 20 | 13 | 100 | 24 | 6.0 | 圖一 | | | 27.50 29.60 |
| SP380.0522 | 5.0 | 22 | 13 | 100 | 25 | 6.0 | | M4 *8 | LT-2 | 37.50 |
| SP380.0523 | 5.0 | 23 | 13 | 100 | 25 | 6.0 | | | | 47.50 45.50 |
| SP380.0525 | 5.0 | 25 | 13 | 100 | 24 | 6.0 | 圖二 | | | 51.50 53.50 |
| SP380.05254 | 5.0 | 25.4 | 13 | 100 | 24 | 6.0 | | | | |
| SP380.0616 | 6.0 | 16 | 13 | 100 | 20 | 8.0 | | M5 *6 | | |
| SP380.061905 | 6.0 | 19.05 | 13 | 100 | 22 | 8.0 | | | | TW |
| SP380.0620 | 6.0 | 20 | 13 | 100 | 24 | 8.0 | 圖一 | | | 27.60 29.60 |
| SP380.0622 | 6.0 | 22 | 13 | 100 | 25 | 10.0 | | M8 *8 | LT-2.5 | 37.60 |
| SP380.0623 | 6.0 | 23 | 13 | 100 | 25 | 10.0 | | | | 47.60 45.60 |
| SP380.0625 | 6.0 | 25 | 13 | 100 | 24 | 10.0 | 圖二 | | | 51.60 53.60 |
| SP380.06254 | 6.0 | 25.4 | 13 | 100 | 24 | 10.0 | | | | 73.60 74.60 |
| SP380.0716 | 7.0 | 16 | 13 | 100 | 20 | 10.0 | | M6 *6 | | |
| SP380.071905 | 7.0 | 19.05 | 13 | 100 | 22 | 10.0 | | | | TW |
| SP380.0720 | 7.0 | 20 | 13 | 100 | 24 | 10.0 | 圖一 | | | 27.70 29.70 |
| SP380.0722 | 7.0 | 22 | 13 | 100 | 25 | 10.0 | | M6 *8 | LT-3 | 37.70 |
| SP380.0723 | 7.0 | 23 | 13 | 100 | 25 | 10.0 | | | | 47.70 45.70 |
| SP380.0725 | 7.0 | 25 | 13 | 100 | 24 | 10.0 | 圖二 | | | 51.70 53.70 |
| SP380.07254 | 7.0 | 25.4 | 13 | 100 | 24 | 10.0 | | | | |
| SP380.0816 | 8.0 | 16 | 13 | 100 | 20 | 10.0 | | M6 *6 | LT-2 | |
| SP380.081905 | 8.0 | 19.05 | 13 | 100 | 22 | 10.0 | | | | TW |
| SP380.0820 | 8.0 | 20 | 13 | 100 | 24 | 10.0 | 圖一 | | | 27.80 29.80 |
| SP380.0822 | 8.0 | 22 | 13 | 100 | 25 | 10.0 | | M6 *8 | LT-3 | 37.80 |
| SP380.0823 | 8.0 | 23 | 13 | 100 | 25 | 10.0 | | | | 47.80 45.80 |
| SP380.0825 | 8.0 | 25 | 13 | 100 | 24 | 10.0 | 圖二 | | | 51.80 53.80 |
| SP380.08254 | 8.0 | 25.4 | 13 | 100 | 24 | 10.0 | | | | 73.80 74.80 |



# 套筒 Sleeve




| 品名型號 EDP NO. | Ød | ØD | L2 | L | ØDs | Øda | 螺絲 | 板手 | 適 用 刀具 Applicable Tools |
|---|---|---|---|---|---|---|---|---|---|
| SP5650.0416 | 4.0 | 16 | 10 | 75 | 15 | 6.0 | M4 *6 | LT-2 | XX.20.XXX<br>XX.30.XXX<br>XX.40.XXX |
| SP5650.0417 | 4.0 | 17 | 10 | 75 | 15 | 6.0 | | | |
| SP5650.041905 | 4.0 | 19.05 | 10 | 75 | 18 | 6.0 | | | |
| SP5650.0420 | 4.0 | 20 | 10 | 75 | 18 | 6.0 | | | |
| SP5650.0420-L100 | 4.0 | 20 | 10 | 100 | 18 | 6.0 | | | |
| SP5650.0422 | 4.0 | 22 | 10 | 75 | 20 | 6.0 | M4 *8 | | |
| SP5650.0423 | 4.0 | 23 | 10 | 75 | 21 | 6.0 | | | |
| SP5650.0423-L100 | 4.0 | 23 | 12 | 100 | 21 | 6.0 | | | |
| SP5650.0425 | 4.0 | 25 | 12 | 75 | 22 | 6.0 | M4 *10 | | |
| SP5650.04254 | 4.0 | 25.4 | 12 | 75 | 22 | 6.0 | | | |
| SP5650.0616 | 6.0 | 16 | 10 | 75 | 15 | 8.0 | M5 *5 | LT-2.5 | XX.50.XXX<br>XX.60.XXX |
| SP5650.0617 | 6.0 | 17 | 10 | 75 | 15 | 8.0 | | | |
| SP5650.061905 | 6.0 | 19.05 | 10 | 75 | 18 | 8.0 | | | |
| SP5650.0620 | 6.0 | 20 | 10 | 75 | 18 | 8.0 | | | |
| SP5650.0620-L100 | 6.0 | 20 | 10 | 100 | 18 | 8.0 | | | |
| SP5650.0622 | 6.0 | 22 | 10 | 75 | 20 | 8.0 | M5 *8 | | |
| SP5650.0623 | 6.0 | 23 | 10 | 75 | 21 | 8.0 | | | |
| SP5650.0623-L100 | 6.0 | 23 | 15 | 100 | 21 | 8.0 | | | |
| SP5650.0625 | 6.0 | 25 | 15 | 75 | 22 | 8.0 | | | |
| SP5650.06254 | 6.0 | 25.4 | 15 | 75 | 22 | 8.0 | | | |
| SP5650.0816 | 8.0 | 16 | 10 | 75 | 15 | 10.0 | M4 *4 | LT-2 | XX.70.XXX<br>XX.80.XXX |
| SP5650.0817 | 8.0 | 17 | 10 | 75 | 15 | 10.0 | | | |
| SP5650.081905 | 8.0 | 19.05 | 10 | 75 | 18 | 10.0 | M5 *5 | LT-2.5 | |
| SP5650.0820 | 8.0 | 20 | 10 | 75 | 18 | 10.0 | | | |
| SP5650.0822 | 8.0 | 22 | 10 | 75 | 20 | 10.0 | M5 *6 | | |
| SP5650.0823 | 8.0 | 23 | 10 | 75 | 21 | 10.0 | | | |
| SP5650.0823-L100 | 8.0 | 23 | 15 | 100 | 21 | 10.0 | | | |
| SP5650.0825 | 8.0 | 25 | 15 | 100 | 22 | 10.0 | M5 *8 | | |
| SP5650.08254 | 8.0 | 25.4 | 15 | 100 | 22 | 10.0 | | | |
| SP5650.101905 | 10.0 | 19.05 | 15 | 70 | 18 | 12.0 | M4 *4 | LT-2 | XX.100.XXX |
| SP5650.1020 | 10.0 | 20 | 15 | 70 | 18 | 12.0 | M5 *5 | LT-2.5 | |
| SP5650.1022 | 10.0 | 22 | 15 | 70 | 20 | 12.0 | | | |
| SP5650.1023 | 10.0 | 23 | 15 | 70 | 21 | 12.0 | M6 *6 | LT-3 | |
| SP5650.1023-L100 | 10.0 | 23 | 15 | 100 | 21 | 12.0 | | | |
| SP5650.1025 | 10.0 | 25 | 15 | 70 | 22 | 12.0 | | | |
| SP5650.10254 | 10.0 | 25.4 | 15 | 70 | 22 | 12.0 | | | |

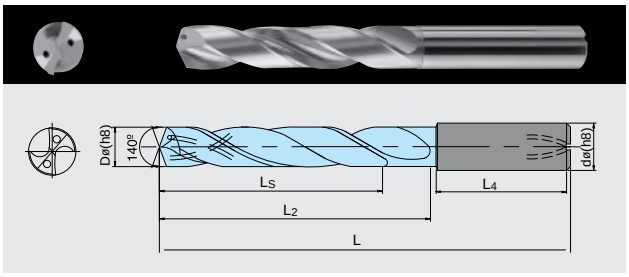
# 全鎢鋼被覆鑽頭

# TUNGSTEN CARBIDE COATED DRILL

TIALN

λ 30°

- 中心内冷
- Internal Coolant




**適合材質：**

一般鋼料、合金鋼、模具鋼、不鏽鋼、銅、鋁、鑄鐵、快削鋼。

**Applicable materials:**

General steel,alloy steel, mold steel, stainless steel, copper, aluminum, cast iron.

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| HOD- 4030 | 3.0 | 3 | 18 | 52 | 32 | 13 |
| HOD- 4031 | 3.1 | 4 | 20 | 56 | 34 | 15 |
| HOD- 4032 | 3.2 | | | | | |
| HOD- 4033 | 3.3 | | | | | |
| HOD- 4034 | 3.4 | | | | | |
| HOD- 4035 | 3.5 | | | | | |
| HOD- 4036 | 3.6 | | 22 | 58 | 34 | 16 |
| HOD- 4037 | 3.7 | | | | | |
| HOD- 4038 | 3.8 | | | | | |
| HOD- 4039 | 3.9 | | | | | |
| HOD- 4040 | 4.0 | | | | | |
| HKD- 3038 | 3.8 | 6 | 26 | 66 | 36 | 17 |
| HKD- 3039 | 3.9 | | | | | |
| HKD- 3040 | 4.0 | | | | | |
| HKD- 3041 | 4.1 | | | | | |
| HKD- 3042 | 4.2 | | | | | |
| HKD- 3043 | 4.3 | | | | | |
| HKD- 3044 | 4.4 | | | | | |
| HKD- 3045 | 4.5 | | | | | |
| HKD- 3046 | 4.6 | | | | | |
| HKD- 3047 | 4.7 | | | | | |
| HKD- 3048 | 4.8 | 6 | 30 | 66 | 36 | 20 |
| HKD- 3049 | 4.9 | | | | | |
| HKD- 3050 | 5.0 | | | | | |
| HKD- 3051 | 5.1 | | | | | |
| HKD- 3052 | 5.2 | | | | | |
| HKD- 3053 | 5.3 | | | | | |
| HKD- 3054 | 5.4 | | | | | |
| HKD- 3055 | 5.5 | | | | | |
| HKD- 3056 | 5.6 | | | | | |
| HKD- 3057 | 5.7 | | | | | |
| HKD- 3058 | 5.8 | | | | | |
| HKD- 3059 | 5.9 | | | | | |
| HKD- 3060 | 6.0 | | | | | |
| HKD- 3061 | 6.1 | 8 | 38 | 79 | 36 | 24 |
| HKD- 3062 | 6.2 | | | | | |
| HKD- 3063 | 6.3 | | | | | |
| HKD- 3064 | 6.4 | | | | | |
| HKD- 3065 | 6.5 | | | | | |
| HKD- 3066 | 6.6 | | | | | |
| HKD- 3067 | 6.7 | | | | | |
| HKD- 3068 | 6.8 | | | | | |
| HKD- 3069 | 6.9 | | | | | |
| HKD- 3070 | 7.0 | | | | | |
| HKD- 3071 | 7.1 | 8 | 42 | 79 | 36 | 29 |
| HKD- 3072 | 7.2 | | | | | |
| HKD- 3073 | 7.3 | | | | | |
| HKD- 3074 | 7.4 | | | | | |
| HKD- 3075 | 7.5 | | | | | |
| HKD- 3076 | 7.6 | | | | | |
| HKD- 3077 | 7.7 | | | | | |
| HKD- 3078 | 7.8 | | | | | |

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| HKD- 3079 | 7.9 | 8 | 42 | 79 | 36 | 29 |
| HKD- 3080 | 8.0 | | | | | |
| HKD- 3081 | 8.1 | 10 | 49 | 89 | 40 | 35 |
| HKD- 3082 | 8.2 | | | | | |
| HKD- 3083 | 8.3 | | | | | |
| HKD- 3084 | 8.4 | | | | | |
| HKD- 3085 | 8.5 | | | | | |
| HKD- 3086 | 8.6 | | | | | |
| HKD- 3087 | 8.7 | | | | | |
| HKD- 3088 | 8.8 | | | | | |
| HKD- 3089 | 8.9 | | | | | |
| HKD- 3090 | 9.0 | | | | | |
| HKD- 3091 | 9.1 | 10 | 49 | 89 | 40 | 35 |
| HKD- 3092 | 9.2 | | | | | |
| HKD- 3093 | 9.3 | | | | | |
| HKD- 3094 | 9.4 | | | | | |
| HKD- 3095 | 9.5 | | | | | |
| HKD- 3096 | 9.6 | | | | | |
| HKD- 3097 | 9.7 | | | | | |
| HKD- 3098 | 9.8 | | | | | |
| HKD- 3099 | 9.9 | | | | | |
| HKD- 3100 | 10.0 | | | | | |
| HKD- 3101 | 10.1 | 12 | 56 | 102 | 45 | 40 |
| HKD- 3102 | 10.2 | | | | | |
| HKD- 3103 | 10.3 | | | | | |
| HKD- 3104 | 10.4 | | | | | |
| HKD- 3105 | 10.5 | | | | | |
| HKD- 3106 | 10.6 | | | | | |
| HKD- 3107 | 10.7 | | | | | |
| HKD- 3108 | 10.8 | | | | | |
| HKD- 3109 | 10.9 | | | | | |
| HKD- 3110 | 11.0 | | | | | |
| HKD- 3111 | 11.1 | 12 | 56 | 102 | 45 | 40 |
| HKD- 3112 | 11.2 | | | | | |
| HKD- 3113 | 11.3 | | | | | |
| HKD- 3114 | 11.4 | | | | | |
| HKD- 3115 | 11.5 | | | | | |
| HKD- 3116 | 11.6 | | | | | |
| HKD- 3117 | 11.7 | | | | | |
| HKD- 3118 | 11.8 | | | | | |
| HKD- 3119 | 11.9 | | | | | |
| HKD- 3120 | 12.0 | | | | | |
| HKD- 3121 | 12.1 | 14 | 61 | 107 | 45 | 43 |
| HKD- 3122 | 12.2 | | | | | |
| HKD- 3123 | 12.3 | | | | | |
| HKD- 3124 | 12.4 | | | | | |
| HKD- 3125 | 12.5 | | | | | |
| HKD- 3126 | 12.6 | | | | | |
| HKD- 3127 | 12.7 | | | | | |
| HKD- 3128 | 12.8 | | | | | |
| HKD- 3129 | 12.9 | | | | | |
| HKD- 3130 | 13.0 | | | | | |

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| HKD- 3131 | 13.1 | 14 | 61 | 107 | 45 | 43 |
| HKD- 3132 | 13.2 | | | | | |
| HKD- 3133 | 13.3 | | | | | |
| HKD- 3134 | 13.4 | | | | | |
| HKD- 3135 | 13.5 | | | | | |
| HKD- 3136 | 13.6 | | | | | |
| HKD- 3137 | 13.7 | | | | | |
| HKD- 3138 | 13.8 | | | | | |
| HKD- 3139 | 13.9 | | | | | |
| HKD- 3140 | 14.0 | | | | | |
| HKD- 3141 | 14.1 | 16 | 65 | 115 | 48 | 45 |
| HKD- 3142 | 14.2 | | | | | |
| HKD- 3143 | 14.3 | | | | | |
| HKD- 3144 | 14.4 | | | | | |
| HKD- 3145 | 14.5 | | | | | |
| HKD- 3146 | 14.6 | | | | | |
| HKD- 3147 | 14.7 | | | | | |
| HKD- 3148 | 14.8 | | | | | |
| HKD- 3149 | 14.9 | | | | | |
| HKD- 3150 | 15.0 | | | | | |
| HKD- 3151 | 15.1 | 16 | 65 | 115 | 48 | 45 |
| HKD- 3152 | 15.2 | | | | | |
| HKD- 3153 | 15.3 | | | | | |
| HKD- 3154 | 15.4 | | | | | |
| HKD- 3155 | 15.5 | | | | | |
| HKD- 3156 | 15.6 | | | | | |
| HKD- 3157 | 15.7 | | | | | |
| HKD- 3158 | 15.8 | | | | | |
| HKD- 3159 | 15.9 | | | | | |
| HKD- 3160 | 16.0 | | | | | |
| HKD- 3165 | 16.5 | 18 | 73 | 123 | 48 | 51 |
| HKD- 3170 | 17.0 | | | | | |
| HKD- 3175 | 17.5 | | | | | |
| HKD- 3180 | 18.0 | | | | | |
| HKD- 3185 | 18.5 | 20 | 79 | 131 | 50 | 55 |
| HKD- 3190 | 19.0 | | | | | |
| HKD- 3195 | 19.5 | | | | | |
| HKD- 3200 | 20.0 | | | | | |

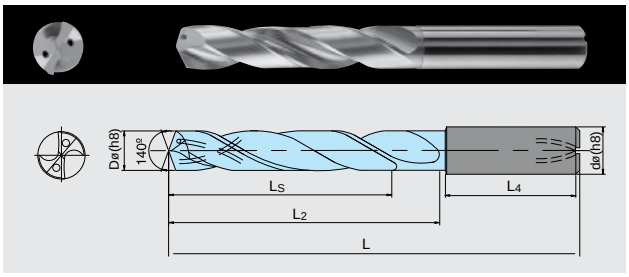
**Dø/** Diameter
**dø/** Shank Diameter
**L2/** Flute Length
**L/** Overall Length
**L4/** Shank Length
**Ls/** Length of Cut

# 全鎢鋼被覆鑽頭

# TUNGSTEN CARBIDE COATED DRILL

TIALN λ 30°

- 中心内冷
- Internal Coolant




**適合材質：**

一般鋼料、合金鋼、模具鋼、不鏽鋼、銅、鋁、鑄鐵、快削鋼。

**Applicable materials:**

General steel,alloy steel, mold steel, stainless steel, copper, aluminum, cast iron.

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| HOD- 6030 | 3.0 | 3 | 24 | 62 | 32 | 19 |
| HOD- 6031 | 3.1 | 4 | 28 | 64 | 34 | 21 |
| HOD- 6032 | 3.2 | | | | | |
| HOD- 6033 | 3.3 | | | | | |
| HOD- 6034 | 3.4 | | | | | |
| HOD- 6035 | 3.5 | | | | | |
| HOD- 6036 | 3.6 | | 30 | 66 | 34 | 24 |
| HOD- 6037 | 3.7 | | | | | |
| HOD- 6038 | 3.8 | | | | | |
| HOD- 6039 | 3.9 | | | | | |
| HOD- 6040 | 4.0 | | | | | |
| HKD- 5038 | 3.8 | 6 | 36 | 74 | 36 | 29 |
| HKD- 5039 | 3.9 | | | | | |
| HKD- 5040 | 4.0 | | | | | |
| HKD- 5041 | 4.1 | | | | | |
| HKD- 5042 | 4.2 | | | | | |
| HKD- 5043 | 4.3 | | | | | |
| HKD- 5044 | 4.4 | | | | | |
| HKD- 5045 | 4.5 | | | | | |
| HKD- 5046 | 4.6 | | | | | |
| HKD- 5047 | 4.7 | | | | | |
| HKD- 5048 | 4.8 | 6 | 44 | 82 | 36 | 35 |
| HKD- 5049 | 4.9 | | | | | |
| HKD- 5050 | 5.0 | | | | | |
| HKD- 5051 | 5.1 | | | | | |
| HKD- 5052 | 5.2 | | | | | |
| HKD- 5053 | 5.3 | | | | | |
| HKD- 5054 | 5.4 | | | | | |
| HKD- 5055 | 5.5 | | | | | |
| HKD- 5056 | 5.6 | | | | | |
| HKD- 5057 | 5.7 | | | | | |
| HKD- 5058 | 5.8 | | | | | |
| HKD- 5059 | 5.9 | | | | | |
| HKD- 5060 | 6.0 | | | | | |
| HKD- 5061 | 6.1 | 8 | 53 | 91 | 36 | 43 |
| HKD- 5062 | 6.2 | | | | | |
| HKD- 5063 | 6.3 | | | | | |
| HKD- 5064 | 6.4 | | | | | |
| HKD- 5065 | 6.5 | | | | | |
| HKD- 5066 | 6.6 | | | | | |
| HKD- 5067 | 6.7 | | | | | |
| HKD- 5068 | 6.8 | | | | | |
| HKD- 5069 | 6.9 | | | | | |
| HKD- 5070 | 7.0 | | | | | |
| HKD- 5071 | 7.1 | 8 | 53 | 91 | 36 | 43 |
| HKD- 5072 | 7.2 | | | | | |
| HKD- 5073 | 7.3 | | | | | |
| HKD- 5074 | 7.4 | | | | | |
| HKD- 5075 | 7.5 | | | | | |
| HKD- 5076 | 7.6 | | | | | |
| HKD- 5077 | 7.7 | | | | | |
| HKD- 5078 | 7.8 | | | | | |

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| HKD- 5079 | 7.9 | 8 | 53 | 91 | 36 | 43 |
| HKD- 5080 | 8.0 | | | | | |
| HKD- 5081 | 8.1 | 10 | 61 | 103 | 40 | 49 |
| HKD- 5082 | 8.2 | | | | | |
| HKD- 5083 | 8.3 | | | | | |
| HKD- 5084 | 8.4 | | | | | |
| HKD- 5085 | 8.5 | | | | | |
| HKD- 5086 | 8.6 | | | | | |
| HKD- 5087 | 8.7 | | | | | |
| HKD- 5088 | 8.8 | | | | | |
| HKD- 5089 | 8.9 | | | | | |
| HKD- 5090 | 9.0 | | | | | |
| HKD- 5091 | 9.1 | 10 | 61 | 103 | 40 | 49 |
| HKD- 5092 | 9.2 | | | | | |
| HKD- 5093 | 9.3 | | | | | |
| HKD- 5094 | 9.4 | | | | | |
| HKD- 5095 | 9.5 | | | | | |
| HKD- 5096 | 9.6 | | | | | |
| HKD- 5097 | 9.7 | | | | | |
| HKD- 5098 | 9.8 | | | | | |
| HKD- 5099 | 9.9 | | | | | |
| HKD- 5100 | 10.0 | | | | | |
| HKD- 5101 | 10.1 | 12 | 71 | 118 | 45 | 56 |
| HKD- 5102 | 10.2 | | | | | |
| HKD- 5103 | 10.3 | | | | | |
| HKD- 5104 | 10.4 | | | | | |
| HKD- 5105 | 10.5 | | | | | |
| HKD- 5106 | 10.6 | | | | | |
| HKD- 5107 | 10.7 | | | | | |
| HKD- 5108 | 10.8 | | | | | |
| HKD- 5109 | 10.9 | | | | | |
| HKD- 5110 | 11.0 | | | | | |
| HKD- 5111 | 11.1 | 12 | 71 | 118 | 45 | 56 |
| HKD- 5112 | 11.2 | | | | | |
| HKD- 5113 | 11.3 | | | | | |
| HKD- 5114 | 11.4 | | | | | |
| HKD- 5115 | 11.5 | | | | | |
| HKD- 5116 | 11.6 | | | | | |
| HKD- 5117 | 11.7 | | | | | |
| HKD- 5118 | 11.8 | | | | | |
| HKD- 5119 | 11.9 | | | | | |
| HKD- 5120 | 12.0 | | | | | |
| HKD- 5121 | 12.1 | 14 | 77 | 124 | 45 | 60 |
| HKD- 5122 | 12.2 | | | | | |
| HKD- 5123 | 12.3 | | | | | |
| HKD- 5124 | 12.4 | | | | | |
| HKD- 5125 | 12.5 | | | | | |
| HKD- 5126 | 12.6 | | | | | |
| HKD- 5127 | 12.7 | | | | | |
| HKD- 5128 | 12.8 | | | | | |
| HKD- 5129 | 12.9 | | | | | |
| HKD- 5130 | 13.0 | | | | | |

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| HKD- 5131 | 13.1 | 14 | 77 | 124 | 45 | 60 |
| HKD- 5132 | 13.2 | | | | | |
| HKD- 5133 | 13.3 | | | | | |
| HKD- 5134 | 13.4 | | | | | |
| HKD- 5135 | 13.5 | | | | | |
| HKD- 5136 | 13.6 | | | | | |
| HKD- 5137 | 13.7 | | | | | |
| HKD- 5138 | 13.8 | | | | | |
| HKD- 5139 | 13.9 | | | | | |
| HKD- 5140 | 14.0 | | | | | |
| HKD- 5141 | 14.1 | 16 | 83 | 133 | 48 | 63 |
| HKD- 5142 | 14.2 | | | | | |
| HKD- 5143 | 14.3 | | | | | |
| HKD- 5144 | 14.4 | | | | | |
| HKD- 5145 | 14.5 | | | | | |
| HKD- 5146 | 14.6 | | | | | |
| HKD- 5147 | 14.7 | | | | | |
| HKD- 5148 | 14.8 | | | | | |
| HKD- 5149 | 14.9 | | | | | |
| HKD- 5150 | 15.0 | | | | | |
| HKD- 5151 | 15.1 | 16 | 83 | 133 | 48 | 63 |
| HKD- 5152 | 15.2 | | | | | |
| HKD- 5153 | 15.3 | | | | | |
| HKD- 5154 | 15.4 | | | | | |
| HKD- 5155 | 15.5 | | | | | |
| HKD- 5156 | 15.6 | | | | | |
| HKD- 5157 | 15.7 | | | | | |
| HKD- 5158 | 15.8 | | | | | |
| HKD- 5159 | 15.9 | | | | | |
| HKD- 5160 | 16.0 | | | | | |
| HKD- 5165 | 16.5 | 18 | 93 | 143 | 48 | 71 |
| HKD- 5170 | 17.0 | | | | | |
| HKD- 5175 | 17.5 | | | | | |
| HKD- 5180 | 18.0 | | | | | |
| HKD- 5185 | 18.5 | 20 | 101 | 153 | 50 | 77 |
| HKD- 5190 | 19.0 | | | | | |
| HKD- 5195 | 19.5 | | | | | |
| HKD- 5200 | 20.0 | | | | | |

**Dø/** Diameter
**dø/** Shank Diameter
**L2/** Flute Length
**L/** Overall Length
**L4/** Shank Length
**Ls/** Length of Cut

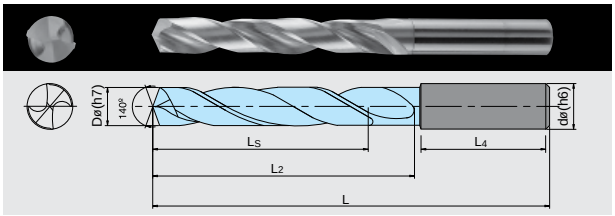
# 全鎢鋼被覆鑽頭

# TUNGSTEN CARBIDE COATED DRILL

TIALN

λ 30°

- 中心内冷
- Internal Coolant




**適合材質：**

一般鋼料、合金鋼、模具鋼、不鏽鋼、銅、鋁、鑄鐵。

**Applicable materials:**

General steel,alloy steel, mold steel, stainless steel, copper, aluminum, cast iron.

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| CCD- 4010 | 1.0 | 1.5 | 7 | 38 | 28 | 5 |
| CCD- 4011 | 1.1 | | | | | |
| CCD- 4012 | 1.2 | 1.5 | 8 | 38 | 28 | 6 |
| CCD- 4013 | 1.3 | | | | | |
| CCD- 4014 | 1.4 | 1.5 | 9 | 38 | 28 | 7 |
| CCD- 4015 | 1.5 | | | | | |
| CCD- 4016 | 1.6 | 2.0 | 10 | 42 | 30 | 8 |
| CCD- 4017 | 1.7 | 2.0 | 12 | 42 | 30 | 9 |
| CCD- 4018 | 1.8 | | | | | |
| CCD- 4019 | 1.9 | | | | | |
| CCD- 4020 | 2.0 | | | | | |
| CCD- 4021 | 2.1 | 3.0 | 14 | 46 | 32 | 10 |
| CCD- 4022 | 2.2 | | | | | |
| CCD- 4023 | 2.3 | | | | | |
| CCD- 4024 | 2.4 | | | | | |
| CCD- 4025 | 2.5 | | | | | |
| CCD- 4026 | 2.6 | 3.0 | 18 | 52 | 32 | 13 |
| CCD- 4027 | 2.7 | | | | | |
| CCD- 4028 | 2.8 | | | | | |
| CCD- 4029 | 2.9 | | | | | |
| CCD- 4030 | 3.0 | | | | | |

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| CCD- 6010 | 1.0 | 1.5 | 9 | 40 | 28 | 7.0 |
| CCD- 6011 | 1.1 | | | | | |
| CCD- 6012 | 1.2 | 1.5 | 11 | 40 | 28 | 9.0 |
| CCD- 6013 | 1.3 | | | | | |
| CCD- 6014 | 1.4 | 1.5 | 12 | 40 | 28 | 10 |
| CCD- 6015 | 1.5 | | | | | |
| CCD- 6016 | 1.6 | 2.0 | 14 | 46 | 30 | 11 |
| CCD- 6017 | 1.7 | 2.0 | 16 | 48 | 30 | 13 |
| CCD- 6018 | 1.8 | | | | | |
| CCD- 6019 | 1.9 | | | | | |
| CCD- 6020 | 2.0 | | | | | |
| CCD- 6021 | 2.1 | 3.0 | 20 | 52 | 32 | 16 |
| CCD- 6022 | 2.2 | | | | | |
| CCD- 6023 | 2.3 | | | | | |
| CCD- 6024 | 2.4 | | | | | |
| CCD- 6025 | 2.5 | | | | | |
| CCD- 6026 | 2.6 | 3.0 | 24 | 62 | 32 | 19 |
| CCD- 6027 | 2.7 | | | | | |
| CCD- 6028 | 2.8 | | | | | |
| CCD- 6029 | 2.9 | | | | | |
| CCD- 6030 | 3.0 | | | | | |

**Dø/** Diameter
**L2/** Flute Length
**L4/** Shank Length
**dø/** Shank Diameter
**L/** Overall Length
**Ls/** Length of Cut

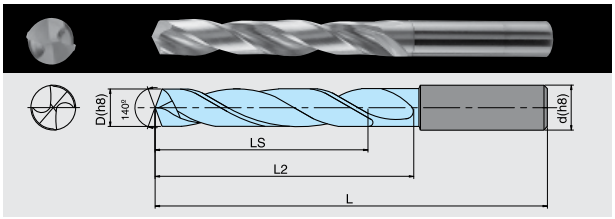
# 全鎢鋼被覆鑽頭

# TUNGSTEN CARBIDE COATED DRILL

TIALN

λ 30°

- 中心内冷
- Internal Coolant




**適合材質：**

一般鋼料、合金鋼、模具鋼、不鏽鋼、銅、鋁、鑄鐵。

**Applicable materials:**

General steel,alloy steel, mold steel, stainless steel, copper, aluminum, cast iron.

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| CCD- 4030 | 3.0 | 3.0 | 18 | 52 | 32 | 13 |
| CCD- 4031 | 3.1 | 4 | 20 | 56 | 34 | 15 |
| CCD- 4032 | 3.2 | | | | | |
| CCD- 4033 | 3.3 | | | | | |
| CCD- 4034 | 3.4 | | | | | |
| CCD- 4035 | 3.5 | | | | | |
| CCD- 4036 | 3.6 | | 22 | 58 | 34 | 16 |
| CCD- 4037 | 3.7 | | | | | |
| CCD- 4038 | 3.8 | | | | | |
| CCD- 4039 | 3.9 | | | | | |
| CCD- 4040 | 4.0 | | | | | |
| CFD- 3038 | 3.8 | 6 | 28 | 66 | 36 | 17 |
| CFD- 3039 | 3.9 | | | | | |
| CFD- 3040 | 4.0 | | | | | |
| CFD- 3041 | 4.1 | | | | | |
| CFD- 3042 | 4.2 | | | | | |
| CFD- 3043 | 4.3 | | | | | |
| CFD- 3044 | 4.4 | | | | | |
| CFD- 3045 | 4.5 | | | | | |
| CFD- 3046 | 4.6 | | | | | |
| CFD- 3047 | 4.7 | | | | | |
| CFD- 3048 | 4.8 | 6 | 30 | 66 | 36 | 20 |
| CFD- 3049 | 4.9 | | | | | |
| CFD- 3050 | 5.0 | | | | | |
| CFD- 3051 | 5.1 | | | | | |
| CFD- 3052 | 5.2 | | | | | |
| CFD- 3053 | 5.3 | | | | | |
| CFD- 3054 | 5.4 | | | | | |
| CFD- 3055 | 5.5 | | | | | |
| CFD- 3056 | 5.6 | | | | | |
| CFD- 3057 | 5.7 | | | | | |
| CFD- 3058 | 5.8 | | | | | |
| CFD- 3059 | 5.9 | | | | | |
| CFD- 3060 | 6.0 | | | | | |
| CFD- 3061 | 6.1 | 8 | 38 | 79 | 36 | 24 |
| CFD- 3062 | 6.2 | | | | | |
| CFD- 3063 | 6.3 | | | | | |
| CFD- 3064 | 6.4 | | | | | |
| CFD- 3065 | 6.5 | | | | | |
| CFD- 3066 | 6.6 | | | | | |
| CFD- 3067 | 6.7 | | | | | |
| CFD- 3068 | 6.8 | | | | | |
| CFD- 3069 | 6.9 | | | | | |
| CFD- 3070 | 7.0 | | | | | |
| CFD- 3071 | 7.1 | 8 | 42 | 79 | 36 | 29 |
| CFD- 3072 | 7.2 | | | | | |
| CFD- 3073 | 7.3 | | | | | |
| CFD- 3074 | 7.4 | | | | | |
| CFD- 3075 | 7.5 | | | | | |
| CFD- 3076 | 7.6 | | | | | |
| CFD- 3077 | 7.7 | | | | | |
| CFD- 3078 | 7.8 | | | | | |

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| CFD- 3079 | 7.9 | 8 | 42 | 79 | 36 | 29 |
| CFD- 3080 | 8.0 | | | | | |
| CFD- 3081 | 8.1 | 10 | 49 | 89 | 40 | 35 |
| CFD- 3082 | 8.2 | | | | | |
| CFD- 3083 | 8.3 | | | | | |
| CFD- 3084 | 8.4 | | | | | |
| CFD- 3085 | 8.5 | | | | | |
| CFD- 3086 | 8.6 | | | | | |
| CFD- 3087 | 8.7 | | | | | |
| CFD- 3088 | 8.8 | | | | | |
| CFD- 3089 | 8.9 | | | | | |
| CFD- 3090 | 9.0 | | | | | |
| CFD- 3091 | 9.1 | 10 | 49 | 89 | 40 | 35 |
| CFD- 3092 | 9.2 | | | | | |
| CFD- 3093 | 9.3 | | | | | |
| CFD- 3094 | 9.4 | | | | | |
| CFD- 3095 | 9.5 | | | | | |
| CFD- 3096 | 9.6 | | | | | |
| CFD- 3097 | 9.7 | | | | | |
| CFD- 3098 | 9.8 | | | | | |
| CFD- 3099 | 9.9 | | | | | |
| CFD- 3100 | 10.0 | | | | | |
| CFD- 3101 | 10.1 | 12 | 56 | 102 | 45 | 40 |
| CFD- 3102 | 10.2 | | | | | |
| CFD- 3103 | 10.3 | | | | | |
| CFD- 3104 | 10.4 | | | | | |
| CFD- 3105 | 10.5 | | | | | |
| CFD- 3106 | 10.6 | | | | | |
| CFD- 3107 | 10.7 | | | | | |
| CFD- 3108 | 10.8 | | | | | |
| CFD- 3109 | 10.9 | | | | | |
| CFD- 3110 | 11.0 | | | | | |
| CFD- 3111 | 11.1 | 12 | 56 | 102 | 45 | 40 |
| CFD- 3112 | 11.2 | | | | | |
| CFD- 3113 | 11.3 | | | | | |
| CFD- 3114 | 11.4 | | | | | |
| CFD- 3115 | 11.5 | | | | | |
| CFD- 3116 | 11.6 | | | | | |
| CFD- 3117 | 11.7 | | | | | |
| CFD- 3118 | 11.8 | | | | | |
| CFD- 3119 | 11.9 | | | | | |
| CFD- 3120 | 12.0 | | | | | |
| CFD- 3121 | 12.1 | 14 | 61 | 107 | 45 | 43 |
| CFD- 3122 | 12.2 | | | | | |
| CFD- 3123 | 12.3 | | | | | |
| CFD- 3124 | 12.4 | | | | | |
| CFD- 3125 | 12.5 | | | | | |
| CFD- 3126 | 12.6 | | | | | |
| CFD- 3127 | 12.7 | | | | | |
| CFD- 3128 | 12.8 | | | | | |
| CFD- 3129 | 12.9 | | | | | |
| CFD- 3130 | 13.0 | | | | | |

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| CFD- 3131 | 13.1 | 14 | 61 | 107 | 45 | 43 |
| CFD- 3132 | 13.2 | | | | | |
| CFD- 3133 | 13.3 | | | | | |
| CFD- 3134 | 13.4 | | | | | |
| CFD- 3135 | 13.5 | | | | | |
| CFD- 3136 | 13.6 | | | | | |
| CFD- 3137 | 13.7 | | | | | |
| CFD- 3138 | 13.8 | | | | | |
| CFD- 3139 | 13.9 | | | | | |
| CFD- 3140 | 14.0 | | | | | |
| CFD- 3141 | 14.1 | 16 | 65 | 115 | 48 | 45 |
| CFD- 3142 | 14.2 | | | | | |
| CFD- 3143 | 14.3 | | | | | |
| CFD- 3144 | 14.4 | | | | | |
| CFD- 3145 | 14.5 | | | | | |
| CFD- 3146 | 14.6 | | | | | |
| CFD- 3147 | 14.7 | | | | | |
| CFD- 3148 | 14.8 | | | | | |
| CFD- 3149 | 14.9 | | | | | |
| CFD- 3150 | 15.0 | | | | | |
| CFD- 3151 | 15.1 | 16 | 65 | 115 | 48 | 45 |
| CFD- 3152 | 15.2 | | | | | |
| CFD- 3153 | 15.3 | | | | | |
| CFD- 3154 | 15.4 | | | | | |
| CFD- 3155 | 15.5 | | | | | |
| CFD- 3156 | 15.6 | | | | | |
| CFD- 3157 | 15.7 | | | | | |
| CFD- 3158 | 15.8 | | | | | |
| CFD- 3159 | 15.9 | | | | | |
| CFD- 3160 | 16.0 | | | | | |
| CFD- 3165 | 16.5 | 18 | 73 | 123 | 48 | 51 |
| CFD- 3170 | 17.0 | | | | | |
| CFD- 3175 | 17.5 | | | | | |
| CFD- 3180 | 18.0 | | | | | |
| CFD- 3185 | 18.5 | 20 | 79 | 131 | 50 | 55 |
| CFD- 3190 | 19.0 | | | | | |
| CFD- 3195 | 19.5 | | | | | |
| CFD- 3200 | 20.0 | | | | | |

**Dø/** Diameter
**dø/** Shank Diameter
**L2/** Flute Length
**L/** Overall Length
**L4/** Shank Length
**Ls/** Length of Cut

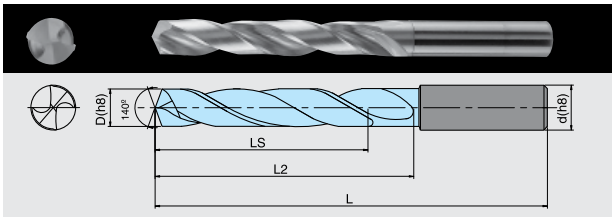
# 全鎢鋼被覆鑽頭

# TUNGSTEN CARBIDE COATED DRILL

TIALN

λ 30°

- 中心内冷
- Internal Coolant




**適合材質：**

一般鋼料、合金鋼、模具鋼、不鏽鋼、銅、鋁、鑄鐵。

**Applicable materials:**

General steel,alloy steel, mold steel, stainless steel, copper, aluminum, cast iron.

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| CCD- 6030 | 3.0 | 3.0 | 24 | 62 | 32 | 19 |
| CCD- 6031 | 3.1 | 4 | 28 | 64 | 34 | 21 |
| CCD- 6032 | 3.2 | | | | | |
| CCD- 6033 | 3.3 | | | | | |
| CCD- 6034 | 3.4 | | | | | |
| CCD- 6035 | 3.5 | | | | | |
| CCD- 6036 | 3.6 | | 30 | 66 | 34 | 24 |
| CCD- 6037 | 3.7 | | | | | |
| CCD- 6038 | 3.8 | | | | | |
| CCD- 6039 | 3.9 | | | | | |
| CCD- 6040 | 4.0 | | | | | |
| CFD- 5038 | 3.8 | 6 | 36 | 74 | 36 | 29 |
| CFD- 5039 | 3.9 | | | | | |
| CFD- 5040 | 4.0 | | | | | |
| CFD- 5041 | 4.1 | | | | | |
| CFD- 5042 | 4.2 | | | | | |
| CFD- 5043 | 4.3 | | | | | |
| CFD- 5044 | 4.4 | | | | | |
| CFD- 5045 | 4.5 | | | | | |
| CFD- 5046 | 4.6 | | | | | |
| CFD- 5047 | 4.7 | | | | | |
| CFD- 5048 | 4.8 | 6 | 44 | 82 | 36 | 35 |
| CFD- 5049 | 4.9 | | | | | |
| CFD- 5050 | 5.0 | | | | | |
| CFD- 5051 | 5.1 | | | | | |
| CFD- 5052 | 5.2 | | | | | |
| CFD- 5053 | 5.3 | | | | | |
| CFD- 5054 | 5.4 | | | | | |
| CFD- 5055 | 5.5 | | | | | |
| CFD- 5056 | 5.6 | | | | | |
| CFD- 5057 | 5.7 | | | | | |
| CFD- 5058 | 5.8 | | | | | |
| CFD- 5059 | 5.9 | | | | | |
| CFD- 5060 | 6.0 | | | | | |
| CFD- 5061 | 6.1 | 8 | 53 | 91 | 36 | 43 |
| CFD- 5062 | 6.2 | | | | | |
| CFD- 5063 | 6.3 | | | | | |
| CFD- 5064 | 6.4 | | | | | |
| CFD- 5065 | 6.5 | | | | | |
| CFD- 5066 | 6.6 | | | | | |
| CFD- 5067 | 6.7 | | | | | |
| CFD- 5068 | 6.8 | | | | | |
| CFD- 5069 | 6.9 | | | | | |
| CFD- 5070 | 7.0 | | | | | |
| CFD- 5071 | 7.1 | 8 | 53 | 91 | 36 | 43 |
| CFD- 5072 | 7.2 | | | | | |
| CFD- 5073 | 7.3 | | | | | |
| CFD- 5074 | 7.4 | | | | | |
| CFD- 5075 | 7.5 | | | | | |
| CFD- 5076 | 7.6 | | | | | |
| CFD- 5077 | 7.7 | | | | | |
| CFD- 5078 | 7.8 | | | | | |

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| CFD- 5079 | 7.9 | 8 | 53 | 91 | 36 | 43 |
| CFD- 5080 | 8.0 | | | | | |
| CFD- 5081 | 8.1 | 10 | 61 | 103 | 40 | 49 |
| CFD- 5082 | 8.2 | | | | | |
| CFD- 5083 | 8.3 | | | | | |
| CFD- 5084 | 8.4 | | | | | |
| CFD- 5085 | 8.5 | | | | | |
| CFD- 5086 | 8.6 | | | | | |
| CFD- 5087 | 8.7 | | | | | |
| CFD- 5088 | 8.8 | | | | | |
| CFD- 5089 | 8.9 | | | | | |
| CFD- 5090 | 9.0 | | | | | |
| CFD- 5091 | 9.1 | 10 | 61 | 103 | 40 | 49 |
| CFD- 5092 | 9.2 | | | | | |
| CFD- 5093 | 9.3 | | | | | |
| CFD- 5094 | 9.4 | | | | | |
| CFD- 5095 | 9.5 | | | | | |
| CFD- 5096 | 9.6 | | | | | |
| CFD- 5097 | 9.7 | | | | | |
| CFD- 5098 | 9.8 | | | | | |
| CFD- 5099 | 9.9 | | | | | |
| CFD- 5100 | 10.0 | | | | | |
| CFD- 5101 | 10.1 | 12 | 71 | 118 | 45 | 56 |
| CFD- 5102 | 10.2 | | | | | |
| CFD- 5103 | 10.3 | | | | | |
| CFD- 5104 | 10.4 | | | | | |
| CFD- 5105 | 10.5 | | | | | |
| CFD- 5106 | 10.6 | | | | | |
| CFD- 5107 | 10.7 | | | | | |
| CFD- 5108 | 10.8 | | | | | |
| CFD- 5109 | 10.9 | | | | | |
| CFD- 5110 | 11.0 | | | | | |
| CFD- 5111 | 11.1 | 12 | 71 | 118 | 45 | 56 |
| CFD-5112 | 11.2 | | | | | |
| CFD- 5113 | 11.3 | | | | | |
| CFD- 5114 | 11.4 | | | | | |
| CFD- 5115 | 11.5 | | | | | |
| CFD- 5116 | 11.6 | | | | | |
| CFD- 5117 | 11.7 | | | | | |
| CFD- 5118 | 11.8 | | | | | |
| CFD- 5119 | 11.9 | | | | | |
| CFD- 5120 | 12.0 | | | | | |
| CFD- 5121 | 12.1 | 14 | 77 | 124 | 45 | 60 |
| CFD- 5122 | 12.2 | | | | | |
| CFD- 5123 | 12.3 | | | | | |
| CFD- 5124 | 12.4 | | | | | |
| CFD- 5125 | 12.5 | | | | | |
| CFD- 5126 | 12.6 | | | | | |
| CFD- 5127 | 12.7 | | | | | |
| CFD- 5128 | 12.8 | | | | | |
| CFD- 5129 | 12.9 | | | | | |
| CFD- 5130 | 13.0 | | | | | |

| EDP NO. | Dø | dø | L2 | L | L4 | Ls |
|---|---|---|---|---|---|---|
| CFD- 5131 | 13.1 | 14 | 77 | 124 | 45 | 60 |
| CFD- 5132 | 13.2 | | | | | |
| CFD- 5133 | 13.3 | | | | | |
| CFD- 5134 | 13.4 | | | | | |
| CFD- 5135 | 13.5 | | | | | |
| CFD- 5136 | 13.6 | | | | | |
| CFD- 5137 | 13.7 | | | | | |
| CFD- 5138 | 13.8 | | | | | |
| CFD- 5139 | 13.9 | | | | | |
| CFD- 5140 | 14.0 | | | | | |
| CFD- 5141 | 14.1 | 16 | 83 | 133 | 48 | 63 |
| CFD- 5142 | 14.2 | | | | | |
| CFD- 5143 | 14.3 | | | | | |
| CFD- 5144 | 14.4 | | | | | |
| CFD- 5145 | 14.5 | | | | | |
| CFD- 5146 | 14.6 | | | | | |
| CFD- 5147 | 14.7 | | | | | |
| CFD- 5148 | 14.8 | | | | | |
| CFD- 5149 | 14.9 | | | | | |
| CFD- 5150 | 15.0 | | | | | |
| CFD- 5151 | 15.1 | 16 | 83 | 133 | 48 | 63 |
| CFD- 5152 | 15.2 | | | | | |
| CFD- 5153 | 15.3 | | | | | |
| CFD- 5154 | 15.4 | | | | | |
| CFD- 5155 | 15.5 | | | | | |
| CFD- 5156 | 15.6 | | | | | |
| CFD- 5157 | 15.7 | | | | | |
| CFD- 5158 | 15.8 | | | | | |
| CFD- 5159 | 15.9 | | | | | |
| CFD- 5160 | 16.0 | | | | | |
| CFD- 5165 | 16.5 | 18 | 93 | 143 | 48 | 71 |
| CFD- 5170 | 17.0 | | | | | |
| CFD- 5175 | 17.5 | | | | | |
| CFD- 5180 | 18.0 | | | | | |
| CFD- 5185 | 18.5 | 20 | 101 | 153 | 50 | 77 |
| CFD- 5190 | 19.0 | | | | | |
| CFD- 5195 | 19.5 | | | | | |
| CFD- 5200 | 20.0 | | | | | |

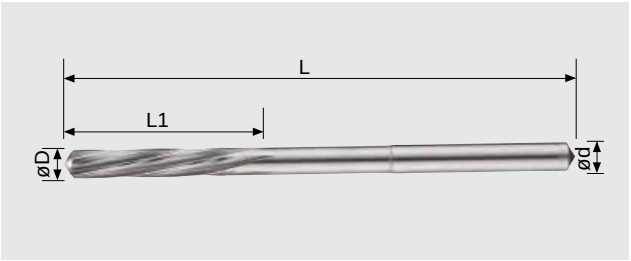
**Dø/** Diameter
**dø/** Shank Diameter
**L2/** Flute Length
**L/** Overall Length
**L4/** Shank Length
**Ls/** Length of Cut

# 全鎢鋼鉸刀

# TUNGSTEN CARBIDE REAMERS

**適合材質：**
一般鋼料、合金鋼、模具鋼、不鏽鋼、銅、鋁、鑄鐵。

**Applicable material:**
General steel,alloy steel, mold steel, stainless steel, copper, aluminum, cast iron.




單位:Unit: mm 公差 H7

| 型 號 EDP NO. | 直徑 DØ Diameter | 刃長 L1 Length of Cut | 全長 L Overall Length | 柄徑 d Shank Diameter | 刃數 Flute Number |
|---|---|---|---|---|---|
| SRM478-D2.00 | 2.00 | 11 | 50 | 2.0 | 4 |
| SRM478-D2.10 | 2.10 | 15 | 60 | 3.0 | 4 |
| SRM478-D2.20 | 2.20 | 15 | 60 | 3.0 | 4 |
| SRM478-D2.30 | 2.30 | 15 | 60 | 3.0 | 4 |
| SRM478-D2.40 | 2.40 | 15 | 60 | 3.0 | 4 |
| SRM478-D2.50 | 2.50 | 15 | 60 | 3.0 | 4 |
| SRM478-D2.60 | 2.60 | 15 | 60 | 3.0 | 4 |
| SRM478-D2.70 | 2.70 | 15 | 60 | 3.0 | 4 |
| SRM478-D2.80 | 2.80 | 15 | 60 | 3.0 | 4 |
| SRM478-D2.90 | 2.90 | 15 | 60 | 3.0 | 4 |
| SRM478-D3.00 | 3.00 | 15 | 60 | 3.0 | 4 |
| SRM478-D3.10 | 3.10 | 16 | 65 | 4.0 | 4 |
| SRM478-D3.20 | 3.20 | 16 | 65 | 4.0 | 4 |
| SRM478-D3.30 | 3.30 | 16 | 65 | 4.0 | 4 |
| SRM478-D3.40 | 3.40 | 18 | 70 | 4.0 | 4 |
| SRM478-D3.50 | 3.50 | 18 | 70 | 4.0 | 4 |
| SRM478-D3.60 | 3.60 | 18 | 70 | 4.0 | 4 |
| SRM478-D3.70 | 3.70 | 18 | 70 | 4.0 | 4 |
| SRM478-D3.80 | 3.80 | 20 | 75 | 4.0 | 4 |
| SRM478-D3.90 | 3.90 | 20 | 75 | 4.0 | 4 |
| SRM478-D4.00 | 4.00 | 20 | 75 | 4.0 | 4 |
| SRM478-D4.10 | 4.10 | 20 | 75 | 6.0 | 4 |
| SRM478-D4.20 | 4.20 | 20 | 75 | 6.0 | 4 |
| SRM478-D4.30 | 4.30 | 20 | 75 | 6.0 | 4 |
| SRM478-D4.40 | 4.40 | 20 | 75 | 6.0 | 4 |
| SRM478-D4.50 | 4.50 | 20 | 75 | 6.0 | 4 |
| SRM478-D4.60 | 4.60 | 20 | 75 | 6.0 | 4 |
| SRM478-D4.70 | 4.70 | 20 | 75 | 6.0 | 4 |
| SRM478-D4.80 | 4.80 | 23 | 86 | 6.0 | 4 |
| SRM478-D4.90 | 4.90 | 23 | 86 | 6.0 | 4 |
| SRM678-D5.00 | 5.00 | 23 | 86 | 6.0 | 6 |
| SRM678-D5.10 | 5.10 | 23 | 86 | 6.0 | 6 |
| SRM678-D5.20 | 5.20 | 23 | 86 | 6.0 | 6 |
| SRM678-D5.30 | 5.30 | 23 | 86 | 6.0 | 6 |

註:有●者表示有庫存 NOTE:●means items in stock

# 全鎢鋼鉸刀

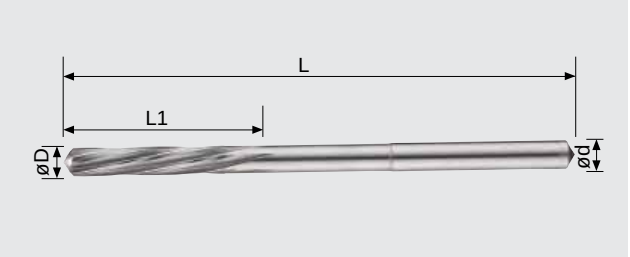
# TUNGSTEN CARBIDE REAMERS

**適合材質：**

一般鋼料、合金鋼、模具鋼、不鏽鋼、銅、鋁、鑄鐵。

**Applicable material:**

General steel,alloy steel, mold steel, stainless steel, copper, aluminum, cast iron.




單位:Unit: mm 公差 H7

| 型 號<br>EDP NO. | 直徑 DØ<br>Diameter | 刃長 L1<br>Length of Cut | 全長 L<br>Overall Length | 柄徑 d<br>Shank Diameter | 刃數<br>Flute Number |
|---|---|---|---|---|---|
| SRM678-D5.40 | 5.40 | 26 | 95 | 6.0 | 6 |
| SRM478-D5.50 | 5.50 | 26 | 95 | 6.0 | 6 |
| SRM678-D5.60 | 5.60 | 26 | 95 | 6.0 | 6 |
| SRM478-D5.70 | 5.70 | 26 | 95 | 6.0 | 6 |
| SRM678-D5.80 | 5.80 | 26 | 95 | 6.0 | 6 |
| SRM678-D5.90 | 5.90 | 26 | 95 | 6.0 | 6 |
| SRM678-D6.00 | 6.00 | 26 | 95 | 6.0 | 6 |
| SRM678-D6.10 | 6.10 | 28 | 100 | 8.0 | 6 |
| SRM678-D6.20 | 6.20 | 28 | 100 | 8.0 | 6 |
| SRM678-D6.30 | 6.30 | 28 | 100 | 8.0 | 6 |
| SRM678-D6.40 | 6.40 | 28 | 100 | 8.0 | 6 |
| SRM678-D6.50 | 6.50 | 28 | 100 | 8.0 | 6 |
| SRM678-D6.60 | 6.60 | 28 | 100 | 8.0 | 6 |
| SRM678-D6.70 | 6.70 | 28 | 100 | 8.0 | 6 |
| SRM678-D6.80 | 6.80 | 31 | 110 | 8.0 | 6 |
| SRM678-D6.90 | 6.90 | 31 | 110 | 8.0 | 6 |
| SRM678-D7.00 | 7.00 | 31 | 110 | 8.0 | 6 |
| SRM678-D7.10 | 7.10 | 31 | 110 | 8.0 | 6 |
| SRM678-D7.20 | 7.20 | 31 | 110 | 8.0 | 6 |
| SRM678-D7.30 | 7.30 | 31 | 110 | 8.0 | 6 |
| SRM678-D7.40 | 7.40 | 31 | 110 | 8.0 | 6 |
| SRM678-D7.50 | 7.50 | 31 | 110 | 8.0 | 6 |
| SRM678-D7.60 | 7.60 | 31 | 110 | 8.0 | 6 |
| SRM678-D7.70 | 7.70 | 31 | 110 | 8.0 | 6 |
| SRM678-D7.80 | 7.80 | 31 | 110 | 8.0 | 6 |
| SRM678-D7.90 | 7.90 | 31 | 110 | 8.0 | 6 |
| SRM678-D8.00 | 8.00 | 31 | 110 | 8.0 | 6 |
| SRM678-D8.10 | 8.10 | 33 | 117 | 10.0 | 6 |
| SRM678-D8.20 | 8.20 | 33 | 117 | 10.0 | 6 |
| SRM678-D8.30 | 8.30 | 33 | 117 | 10.0 | 6 |
| SRM678-D8.40 | 8.40 | 33 | 117 | 10.0 | 6 |
| SRM678-D8.50 | 8.50 | 33 | 117 | 10.0 | 6 |
| SRM678-D8.60 | 8.60 | 36 | 125 | 10.0 | 6 |
| SRM678-D8.70 | 8.70 | 36 | 125 | 10.0 | 6 |

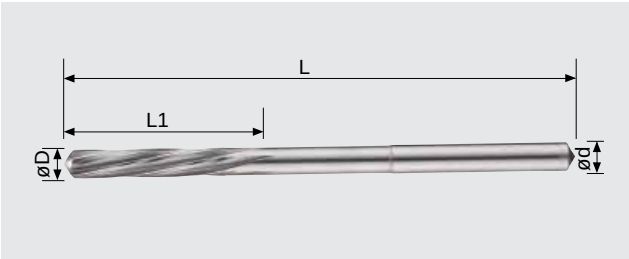
註:有●者表示有庫存 NOTE:●means items in stock

# 全鎢鋼鉸刀

# TUNGSTEN CARBIDE REAMERS

**適合材質：**
一般鋼料、合金鋼、模具鋼、不鏽鋼、銅、鋁、鑄鐵。

**Applicable material:**
General steel,alloy steel, mold steel, stainless steel, copper, aluminum, cast iron.




單位:Unit: mm 公差 H7

| 型 號 EDP NO. | 直徑 DØ Diameter | 刃長 L1 Length of Cut | 全長 L Overall Length | 柄徑 d Shank Diameter | 刃數 Flute Number |
|---|---|---|---|---|---|
| SRM678-D8.80 | 8.80 | 36 | 125 | 10.0 | 6 |
| SRM678-D8.90 | 8.90 | 36 | 125 | 10.0 | 6 |
| SRM678-D9.00 | 9.00 | 36 | 125 | 10.0 | 6 |
| SRM678-D9.10 | 9.10 | 36 | 125 | 10.0 | 6 |
| SRM678-D9.20 | 9.20 | 36 | 125 | 10.0 | 6 |
| SRM678-D9.30 | 9.30 | 36 | 125 | 10.0 | 6 |
| SRM678-D9.40 | 9.40 | 36 | 125 | 10.0 | 6 |
| SRM678-D9.50 | 9.50 | 36 | 125 | 10.0 | 6 |
| SRM678-D9.60 | 9.60 | 38 | 130 | 10.0 | 6 |
| SRM678-D9.70 | 9.70 | 38 | 130 | 10.0 | 6 |
| SRM678-D9.80 | 9.80 | 38 | 130 | 10.0 | 6 |
| SRM678-D9.90 | 9.90 | 38 | 130 | 10.0 | 6 |
| SRM678-D10.00 | 10.00 | 38 | 130 | 10.0 | 6 |
| SRM678-D10.10 | 10.10 | 38 | 130 | 12.0 | 6 |
| SRM678-D10.20 | 10.20 | 38 | 130 | 12.0 | 6 |
| SRM678-D10.30 | 10.30 | 38 | 130 | 12.0 | 6 |
| SRM678-D10.40 | 10.40 | 38 | 130 | 12.0 | 6 |
| SRM678-D10.50 | 10.50 | 38 | 130 | 12.0 | 6 |
| SRM678-D10.60 | 10.60 | 38 | 130 | 12.0 | 6 |
| SRM678-D10.70 | 10.70 | 42 | 142 | 12.0 | 6 |
| SRM678-D10.80 | 10.80 | 42 | 142 | 12.0 | 6 |
| SRM678-D10.90 | 10.90 | 42 | 142 | 12.0 | 6 |
| SRM678-D11.00 | 11.00 | 42 | 142 | 12.0 | 6 |
| SRM678-D11.10 | 11.10 | 42 | 142 | 12.0 | 6 |
| SRM678-D11.20 | 11.20 | 42 | 142 | 12.0 | 6 |
| SRM678-D11.30 | 11.30 | 42 | 142 | 12.0 | 6 |
| SRM678-D11.40 | 11.40 | 42 | 142 | 12.0 | 6 |
| SRM678-D11.50 | 11.50 | 42 | 142 | 12.0 | 6 |
| SRM678-D11.60 | 11.60 | 42 | 142 | 12.0 | 6 |
| SRM678-D11.70 | 11.70 | 42 | 142 | 12.0 | 6 |
| SRM678-D11.80 | 11.80 | 42 | 142 | 12.0 | 6 |
| SRM678-D11.90 | 11.90 | 45 | 151 | 12.0 | 6 |
| SRM678-D12.00 | 12.00 | 45 | 151 | 12.0 | 6 |
| | | | | | |

註:有●者表示有庫存 NOTE:●means items in stock

# 全鎢鋼單頭NC定位鑽頭

# SOLID CARBIDE NC POSITIONING DRILL

鎢鋼材質 高硬度、耐摩耗，鑽頂角90°、120°。
Tungsten Carbide material, high hardness, high wear resistance, point angle 90°or 120°

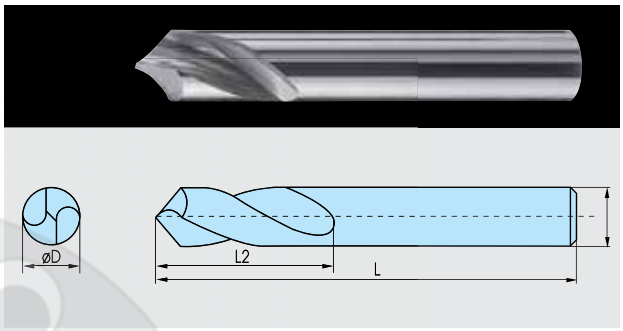
**適用材質：**
銅一般鋼料、合金鋼、不鏽鋼、銅、鋁、鑄鐵。

**Applicable materials:**
General steel, alloy steel, stainless steel, copper, aluminum, cast iron.

## 全鎢鋼單頭NC 定位鑽頭

SOLID TUNGSTEN SINGLE END NC POSITIONING DRILL

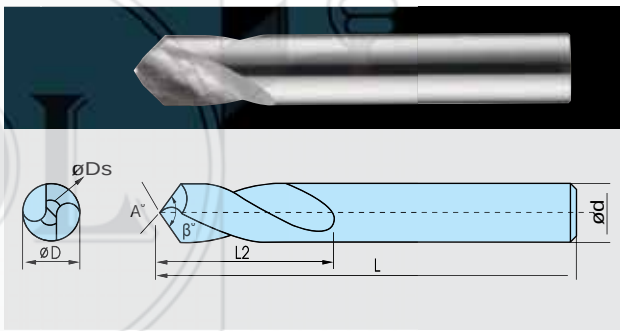
| 型號 EDP NO. | ß° | 直徑 ØD | 刃長 L2 | 全長 L | 柄徑 Ød |
|---|---|---|---|---|---|
| NSP-9003 | 90˚ | 3.0 | 8 | 38 | 3.0 |
| NSP-9004 | 90˚ | 4.0 | 10 | 40 | 4.0 |
| NSP-9005 | 90˚ | 5.0 | 15 | 50 | 5.0 |
| NSP-9006 | 90˚ | 6.0 | 20 | 60 | 6.0 |
| NSP-9008 | 90˚ | 8.0 | 25 | 60 | 8.0 |
| NSP-9010 | 90˚ | 10.0 | 25 | 76 | 10.0 |
| NSP-9012 | 90˚ | 12.0 | 30 | 76 | 12.0 |
| NSP-12005 | 120˚ | 5.0 | 15 | 50 | 5.0 |
| NSP-12006 | 120˚ | 6.0 | 20 | 60 | 6.0 |
| NSP-12008 | 120˚ | 8.0 | 25 | 60 | 8.0 |
| NSP-12010 | 120˚ | 10.0 | 25 | 76 | 10.0 |
| NSP-12012 | 120˚ | 12.0 | 30 | 76 | 12.0 |




## 全鎢鋼單頭NC 定位鑽頭

SOLID TUNGSTEN SINGLE END NC POSITIONING DRILL

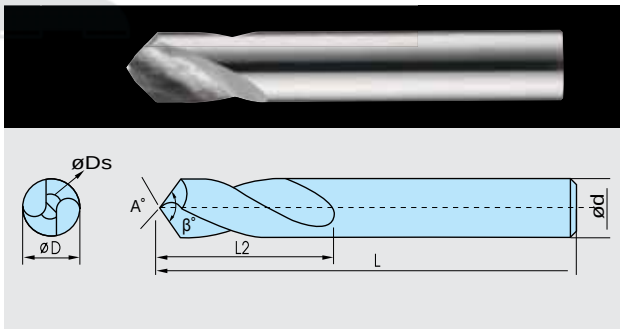
| 型號 EDP NO. | ß° | A˚ | 直徑 ØD | 刃徑 ØDs | 刃長 L2 | 全長 L | 柄徑 Ød |
|---|---|---|---|---|---|---|---|
| PNSP-03 | 90˚ | 118˚ | 3.0 | 1.5 | 8 | 38 | 3.0 |
| PNSP-04 | 90˚ | 118˚ | 4.0 | 2.0 | 10 | 40 | 4.0 |
| PNSP-05 | 90˚ | 118˚ | 5.0 | 2.5 | 12 | 45 | 5.0 |
| PNSP-06 | 90˚ | 118˚ | 6.0 | 3.0 | 15 | 50 | 6.0 |
| PNSP-08 | 90˚ | 118˚ | 8.0 | 4.0 | 20 | 60 | 8.0 |
| PNSP-10 | 90˚ | 118˚ | 10.0 | 5.0 | 22 | 75 | 10.0 |
| PNSP-12 | 90˚ | 118˚ | 12.0 | 6.0 | 25 | 75 | 12.0 |
| PNSP-16 | 90˚ | 118˚ | 16.0 | 8.0 | 40 | 100 | 16.0 |
| PNSPS-08 | 90˚ | 118˚ | 8.0 | 4.0 | 20 | 50 | 8.0 |
| PNSPS-10 | 90˚ | 118˚ | 10.0 | 5.0 | 20 | 50 | 10.0 |
| PNSPS-12 | 90˚ | 118˚ | 12.0 | 6.0 | 20 | 50 | 12.0 |




## 全鎢鋼單頭NC 定位鑽頭

SOLID TUNGSTEN SINGLE END NC POSITIONING DRILL

| 型號 EDP NO. | ß° | A˚ | 直徑 ØD | 刃徑 ØDs | 刃長 L2 | 全長 L | 柄徑 Ød |
|---|---|---|---|---|---|---|---|
| HNSP-03 | 90˚ | 140˚ | 3.0 | 1.5 | 8 | 38 | 3.0 |
| HNSP-04 | 90˚ | 140˚ | 4.0 | 2.0 | 10 | 40 | 4.0 |
| HNSP-05 | 90˚ | 140˚ | 5.0 | 2.5 | 12 | 45 | 5.0 |
| HNSP-06 | 90˚ | 140˚ | 6.0 | 3.0 | 15 | 50 | 6.0 |
| HNSP-08 | 90˚ | 140˚ | 8.0 | 4.0 | 20 | 60 | 8.0 |
| HNSP-10 | 90˚ | 140˚ | 10.0 | 5.0 | 22 | 75 | 10.0 |
| HNSP-12 | 90˚ | 140˚ | 12.0 | 6.0 | 25 | 75 | 12.0 |
| HNSP-16 | 90˚ | 140˚ | 16.0 | 8.0 | 40 | 100 | 16.0 |
| HNSPS-08 | 90˚ | 140˚ | 8.0 | 4.0 | 20 | 50 | 8.0 |
| HNSPS-10 | 90˚ | 140˚ | 10.0 | 5.0 | 20 | 50 | 10.0 |
| HNSPS-12 | 90˚ | 140˚ | 12.0 | 6.0 | 20 | 50 | 12.0 |



# 全鎢鋼三刃倒角刀

# TUNGSTEN CARBIDE 3-FLUTE CAHMFERING END MILL

鎢鋼材質 高硬度、耐摩耗，鑽頂角90°、120°。
Tungsten Carbide material, high hardness, high wear resistance, point angle 90°or 120°

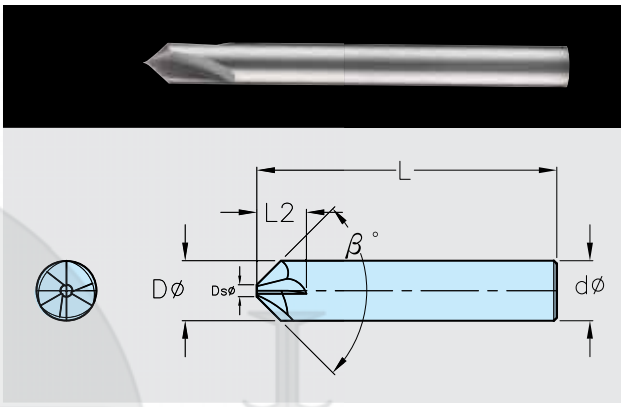
**適用材質：**
銅一般鋼料、合金鋼、不鏽鋼、銅、鋁、鑄鐵。

**Applicable materials:**
General steel, alloy steel, stainless steel, copper, aluminum, cast iron.

## 全鎢鋼單頭NC 定位鑽頭

WELDING TYPE SINGLE END NC POSITIONING DRILL

| 型號 EDP NO. | ß° | 直徑 ØD | 刃長 L2 | 全長 L | 柄徑 Ød | 柄徑 Ød |
|---|---|---|---|---|---|---|
| 3CMF-D4.0L38 | 90° | 4.0 | 8 | 38 | 4.0 | 4.0 |
| 3CMF-D6.0L45 | 90° | 6.0 | 12 | 45 | 6.0 | 6.0 |
| 3CMF-D8.0L50 | 90° | 8.0 | 15 | 50 | 8.0 | 8.0 |
| 3CMFS-D12.0L50-10 | 90° | 12.0 | 20 | 50 | 10.0 | 10.0 |
| 3CMFS-D16.0L50-10 | 90° | 16.0 | 20 | 50 | 10.0 | 10.0 |

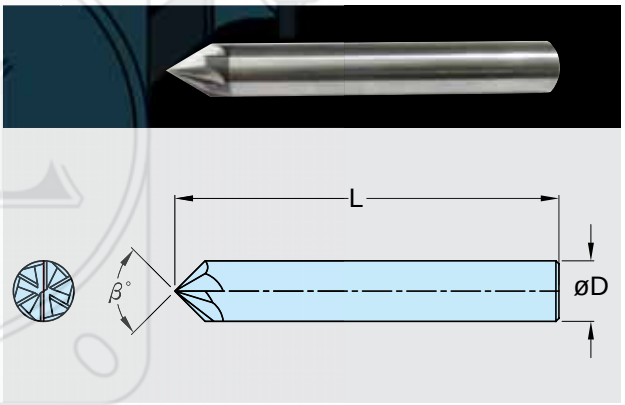



## 全鎢鋼倒角

TUNGSTEN CARBIDE END DRILL

| 型號 EDP NO. | ß° | 直徑 ØD | 全長 L | 柄徑 Ød | 刃數 Z | AK45 |
|---|---|---|---|---|---|---|
| 4CMFS-6004L38 | 60° | 4.0 | 38 | 4.0 | 4 | ● |
| 4CMFS-6006L50 | 60° | 6.0 | 50 | 6.0 | 4 | ● |
| 5CMFS-6008L50 | 60° | 8.0 | 50 | 8.0 | 5 | ● |
| 6CMFS-6010L50 | 60° | 10.0 | 50 | 10.0 | 6 | ● |
| 6CMFS-6012L50-10 | 60° | 12.0 | 50 | 10.0 | 6 | ● |

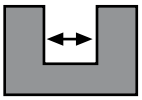
| 型號 EDP NO. | ß° | 直徑 ØD | 全長 L | 柄徑 Ød | 刃數 Z | AK45 |
|---|---|---|---|---|---|---|
| 4CMFS-9004L38 | 90° | 4.0 | 38 | 4.0 | 4 | ● |
| 4CMFS-9006L50 | 90° | 6.0 | 50 | 6.0 | 4 | ● |
| 5CMFS-9008L50 | 90° | 8.0 | 50 | 8.0 | 5 | ● |
| 6CMFS-9010L50 | 90° | 10.0 | 50 | 10.0 | 6 | ● |
| 6CMFS-9012L50-10 | 90° | 12.0 | 50 | 10.0 | 6 | ● |



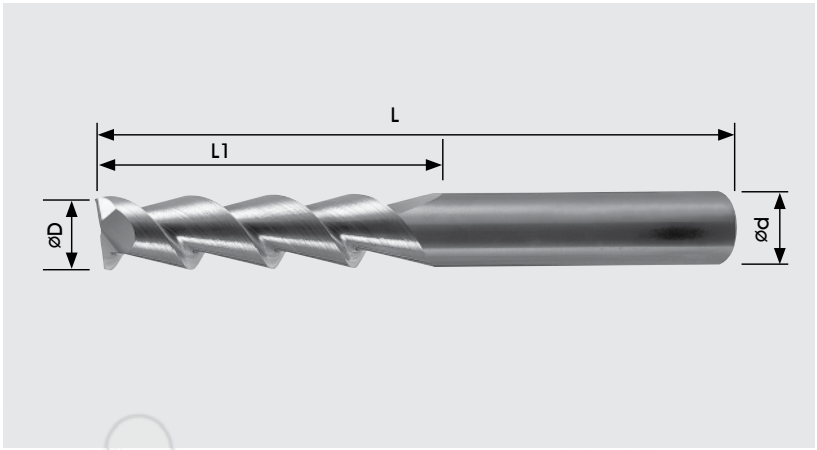
# 全鎢鋼鋁用立銑刀

# TUNGSTEN CARBIDE END MILL



| | |
|---|---|
| d≦ 3 | -0.005 ~ -0.028 |
| 3 < d≦ 6 | -0.015 ~ -0.038 |
| 6 < d≦18 | -0.020 ~ -0.047 |
| 18 < d | -0.020 ~ -0.053 |




- 超細微粒碳化鎢材質
- 鋁合金加工專用
- **Micro-Grain Tungsten Carbide**
- **Ideal for Aluminum Alloy Machining**

**適合材質：**

鐵鋁合金、銅合金、鎂合金、各種軟質材料。

**主要特性：**

排屑槽較寬大之設計，適合軟質材料之切削，切刃口
銳利較不易黏屑，精銑時可得到極佳之表面光滑度
可在高速M/C上進行高速切削

**Applicable materials:**

Iron aluminum alloy, copper alloy, magnesium alloy, and various soft materials,

**Features:**

The end mill features oversized flute, and it's ideal for cutting soft materials, The sharp edge avoids chip adhering and provides extremely fine surface effect. Ideal for use on a high speed machining center.

單位: Unit : mm

| 型 號 EDP NO. | 直徑 ØD Flute Dia. | 刃長L1 Length of Cut | 全長 L Overall Length | 柄徑 Ød Shank Diameter | 刃數 Flute Number | AK45 |
|---|---|---|---|---|---|---|
| 2EAL-D2.0L38 | 2.0 | 6.0 | 38 | 3.0 | 2 | ● |
| 2EAL-D2.5L38 | 2.5 | 7.0 | 38 | 3.0 | 2 | ● |
| 2EAL-D3.0L38 | 3.0 | 8.0 | 38 | 3.0 | 2 | ● |
| 2EAL-D4.0L50 | 4.0 | 12.0 | 50 | 4.0 | 2 | ● |
| 2EAL-D5.0L50 | 5.0 | 15.0 | 50 | 6.0 | 2 | ● |
| 2EAL-D6.0L50 | 6.0 | 15.0 | 50 | 6.0 | 2 | ● |
| 3EAL-D6.0L50 | 6.0 | 15.0 | 50 | 6.0 | 3 | ● |
| 3EAL-D8.0L50 | 8.0 | 15.0 | 50 | 8.0 | 3 | ● |
| 3EAL-D10.0L50 | 10.0 | 15.0 | 50 | 10.0 | 3 | ● |
| 3EAL-D12.0L50-10 | 12.0 | 15.0 | 50 | 10.0 | 3 | ● |

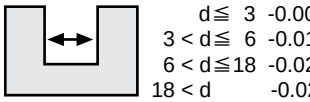
註: 有●者表示有庫存

NOTE: ● means items in stock

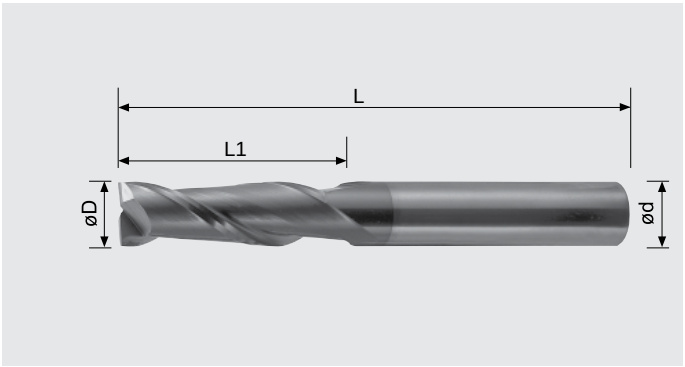
# 鎢鋼2刃點數型立銑刀

# TUNGSTEN CARBIDE 2FLUTE DECIMAL END MILL

TIALN | λ 30°



d≦ 3 -0.005 ~ -0.028
3 < d≦ 6 -0.015 ~ -0.038
6 < d≦18 -0.020 ~ -0.047
18 < d -0.020 ~ -0.053




- 超細微粒碳化材質
- Micro-Grain Tungsten Carbide

**適合材質：**
碳素鋼、模具鋼、合金鋼、工具鋼、不鏽鋼、鑄鐵、熱處理鋼料、焊補鋼料

**Applicable materials:**
Carbon steel,mold steel,alloy steel, cast iron, stainless steel, heat treated steel, welded steel.

單位:Unit: mm

| 型 號 EDP NO. | 直徑 DØ | 刃長 L1 Length of Cut | 全長 L Overall Length | 柄徑 d Shank Diameter | 刃數 Flute Number | AK45 |
|---|---|---|---|---|---|---|
| 2E-D1.1L38 | 1.1 | 3 | 38 | 3.0 | 2 | ● |
| 2E-D1.2L38 | 1.2 | 3 | 38 | 3.0 | 2 | ● |
| 2E-D1.3L38 | 1.3 | 3 | 38 | 3.0 | 2 | ● |
| 2E-D1.4L38 | 1.4 | 4 | 38 | 3.0 | 2 | ● |
| 2E-D1.5L38 | 1.5 | 4 | 38 | 3.0 | 2 | ● |
| 2E-D1.6L38 | 1.6 | 4 | 38 | 3.0 | 2 | ● |
| 2E-D1.7L38 | 1.7 | 5 | 38 | 3.0 | 2 | ● |
| 2E-D1.8L38 | 1.8 | 5 | 38 | 3.0 | 2 | ● |
| 2E-D1.9L38 | 1.9 | 5 | 38 | 3.0 | 2 | ● |
| 2E-D2.0L38 | 2.0 | 5 | 38 | 3.0 | 2 | ● |

| 型 號 EDP NO. | 直徑 DØ | 刃長 L1 Length of Cut | 全長 L Overall Length | 柄徑 d Shank Diameter | 刃數 Flute Number | AK45 |
|---|---|---|---|---|---|---|
| 2E-D1.0L38 | 1.0 | 3.0 | 38 | 3.0 | 2 | ● |
| 2E-D1.5L38 | 1.5 | 4.0 | 38 | 3.0 | 2 | ● |
| 2E-D2.0L38 | 2.0 | 6.0 | 38 | 3.0 | 2 | ● |
| 2E-D2.5L38 | 2.5 | 7.0 | 38 | 3.0 | 2 | ● |
| 2E-D3.0L38 | 3.0 | 8.0 | 38 | 3.0 | 2 | ● |
| 2E-D3.5L38 | 3.5 | 10.0 | 40 | 4.0 | 2 | ● |
| 2E-D4.0L50 | 4.0 | 12.0 | 50 | 4.0 | 2 | ● |
| 2E-D4.5L50 | 4.5 | 13.0 | 50 | 6.0 | 2 | ● |
| 2E-D5.0L50 | 5.0 | 13.0 | 50 | 6.0 | 2 | ● |
| 2E-D6.0L50 | 6.0 | 15.0 | 50 | 6.0 | 2 | ● |
| 2E-D7.0L50 | 7.0 | 15.0 | 50 | 8.0 | 2 | ● |
| 2E-D8.0L50 | 8.0 | 15.0 | 50 | 8.0 | 2 | ● |
| 2E-D9.0L50 | 9.0 | 15.0 | 50 | 10.0 | 2 | ● |
| 2E-D10.0L50 | 10.0 | 15.0 | 50 | 10.0 | 2 | ● |
| 2E-D12.0L50-10 | 12.0 | 15.0 | 50 | 10.0 | 2 | ● |

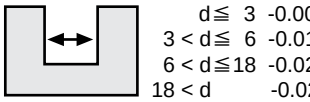
| 型 號 EDP NO. | 直徑 DØ | 刃長 L1 Length of Cut | 全長 L Overall Length | 柄徑 d Shank Diameter | 刃數 Flute Number | AK45 |
|---|---|---|---|---|---|---|
| 3E-D2.0L38 | 3.0 | 6.0 | 38 | 3.0 | 3 | ● |
| 3E-D2.5L38 | 3.0 | 7.0 | 38 | 3.0 | 3 | ● |
| 3E-D3.0L38 | 3.0 | 8.0 | 38 | 3.0 | 3 | ● |
| 3E-D4.0L50 | 4.0 | 12.0 | 50 | 4.0 | 3 | ● |
| 3E-D5.0L50 | 5.0 | 13.0 | 50 | 6.0 | 3 | ● |
| 3E-D6.0L50 | 6.0 | 15.0 | 50 | 6.0 | 3 | ● |
| 3E-D8.0L50 | 8.0 | 15.0 | 50 | 8.0 | 3 | ● |
| 3E-D10.0L50 | 10.0 | 15.0 | 50 | 10.0 | 3 | ● |
| 3E-D12.0L50-10 | 12.0 | 15.0 | 50 | 10.0 | 3 | ● |

註:有●者表示有庫存 NOTE:●means items in stock

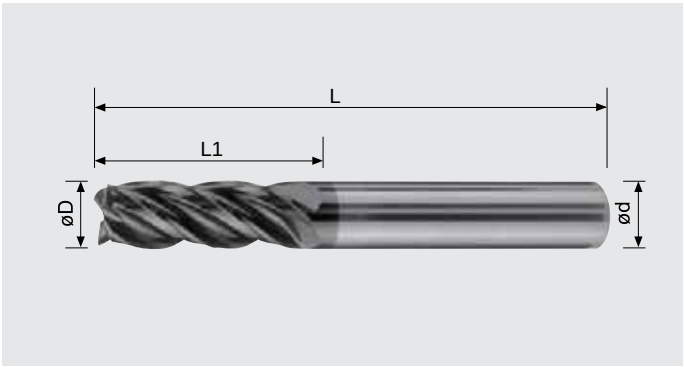
# 鎢鋼口袋型立銑刀

# TUNGSTEN CARBIDE 4-FLUTE POCKET TYPE END MILL

TIALN | λ 45°



d≦ 3 -0.005 ~ -0.028
3 < d≦ 6 -0.015 ~ -0.038
6 < d≦18 -0.020 ~ -0.047
18 < d -0.020 ~ -0.053




- 超細微粒碳化材質
- Micro-Grain Tungsten Carbide

**適合材質：**
碳素鋼、模具鋼、合金鋼、
工具鋼、不鏽鋼、鑄鐵、熱處理鋼料

強力推薦使用于不鏽鋼加工

**Applicable materials:**
Carbon steel, mold steel, alloy steel,
tool steel, stainless, cast iron, heat treated steel.

Especially ideal for cutting staimless steel.

單位:Unit: mm

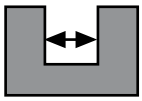
| 型 號 EDP NO. | 直徑 DØ | 刃長 L1 Length of Cut | 全長 L Overall Length | 柄徑 d Shank Diameter | 刃數 Flute Number | AK45 |
|---|---|---|---|---|---|---|
| 4EP-D3.0L38 | 3.0 | 8 | 38 | 3.0 | 4 | ● |
| 4EP-D4.0L50 | 4.0 | 11 | 50 | 4.0 | 4 | ● |
| 4EP-D5.0L50 | 5.0 | 13 | 50 | 6.0 | 4 | ● |
| 4EP-D6.0L50 | 6.0 | 15 | 50 | 6.0 | 4 | ● |
| 4EP-D8.0L50 | 8.0 | 15 | 50 | 8.0 | 4 | ● |
| 4EP-D10.0L50 | 10.0 | 15 | 50 | 10.0 | 4 | ● |
| 4EP-D12.0L50-10 | 12.0 | 15 | 50 | 10.0 | 4 | ● |
| 4EP-D16.0L50-10 | 16.0 | 15 | 50 | 10.0 | 4 | ● |

註:有●者表示有庫存 NOTE:●means items in stock

# 鎢鋼 2刃球形立銑刀

## TUNGSTEN CARBIDE 2-FLUTE BALL NOSE END MILL

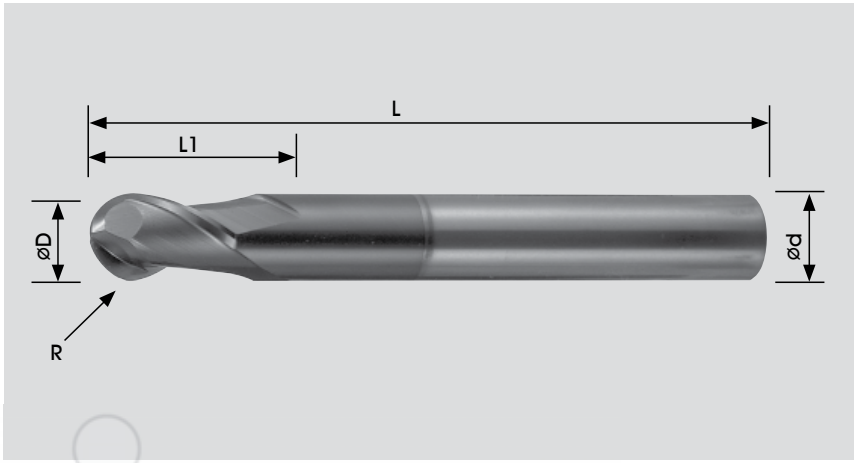


3 < d≦ 6 -0.015 ~ -0.038
6 < d≦18 -0.020 ~ -0.047
18 < d -0.020 ~ -0.053




R = ± 0.02




● 超細微粒碳化鎢材質
● **Micro-Grain Tungsten Carbide**

適用材質：
鐵材、碳素鋼、鑄鐵、模具鋼、
合金鋼、工具鋼、不鏽鋼、
熱處理鋼、焊補鋼料。

**Applicable materials:**
Ferous metal, carbon steel,
cast iron, mold steel, alloy steel, tool steel,
stainless steel, heat-treated steel, welded steel.

單位: Unit : mm

| 型 號 EDP NO. | 直徑 DØ | 圓徑 R | 刃長 L2 | 全長 L Overall Length | 柄徑 d Shank Diameter | 刃數 Flute Number | AK45 |
|---|---|---|---|---|---|---|---|
| 2BE-R0.5L38 | 1.0 | 0.5 | 2.0 | 38 | 3.0 | 2 | ● |
| 2BE-R0.75L38 | 1.5 | 0.75 | 3.0 | 38 | 3.0 | 2 | ● |
| 2BE-R1.0L38 | 2.0 | 1.0 | 4.0 | 38 | 3.0 | 2 | ● |
| 2BE-R1.25L38 | 2.5 | 1.25 | 5.0 | 38 | 3.0 | 2 | ● |
| 2BE-R1.5L38 | 3.0 | 1.5 | 6.0 | 38 | 3.0 | 2 | ● |
| 2BE-R2.0L50 | 4.0 | 2.0 | 8.0 | 50 | 4.0 | 2 | ● |
| 2BE-R2.5L50 | 5.0 | 2.5 | 10.0 | 50 | 6.0 | 2 | ● |
| 2BE-R3.0L50 | 6.0 | 3.0 | 12.0 | 50 | 6.0 | 2 | ● |
| 2BE-R3.5L50 | 7.0 | 3.5 | 15.0 | 50 | 8.0 | 2 | ● |
| 2BE-R4.0L50 | 8.0 | 4.0 | 15.0 | 50 | 8.0 | 2 | ● |
| 2BE-R4.5L50 | 9.0 | 4.5 | 15.0 | 50 | 10.0 | 2 | ● |
| 2BE-R5.0L50 | 10.0 | 5.0 | 15.0 | 50 | 10.0 | 2 | ● |
| 2BE-R6.0L50-10 | 12.0 | 6.0 | 15.0 | 50 | 10.0 | 2 | ● |

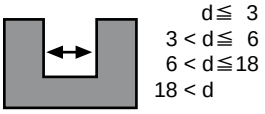
註:有●者表示有庫存 NOTE:●means items in stock

# 鎢鋼 4刃點數型立銑刀

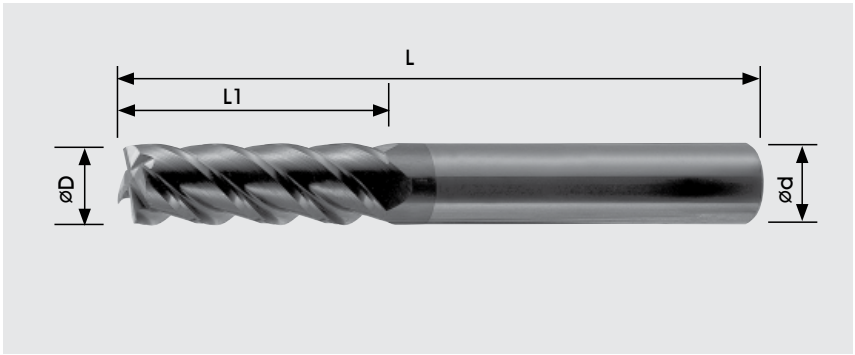
## TUNGSTEN CARBIDE 4-FLUTE DECIMAL END MILL

TIALN

λ 45°



d≦ 3 -0.005 ~ -0.028
3 < d≦ 6 -0.015 ~ -0.038
6 < d≦18 -0.020 ~ -0.047
18 < d -0.020 ~ -0.053




- 超細微粒碳化鎢材質
- **Micro-Grain Tungsten Carbide**

適用材質：
碳素鋼、模具鋼、合金鋼、工具鋼、鑄鐵、
不鏽鋼、熱處理鋼料、焊補鋼料。

**Applicable material:**
Carbon steel, mold steel,alloy steel, stainless steel,
tool steel, cast iron, heat-treated steel, welded steel.

單位: Unit : mm

| 型 號 EDP NO. | 直徑 DØ | 刃長 L1 Length of Cut | 全長 L Overall Length | 柄徑 d Shank Diameter | 刃數 Flute Number | AK45 |
|---|---|---|---|---|---|---|
| 4E-D2.1L38 | 2.1 | 6 | 38 | 3.0 | 4 | ● |
| 4E-D2.2L38 | 2.2 | 6 | 38 | 3.0 | 4 | ● |
| 4E-D2.3L38 | 2.3 | 6 | 38 | 3.0 | 4 | ● |
| 4E-D2.4L38 | 2.4 | 7 | 38 | 3.0 | 4 | ● |
| 4E-D2.5L38 | 2.5 | 7 | 38 | 3.0 | 4 | ● |
| 4E-D2.6L38 | 2.6 | 7 | 38 | 3.0 | 4 | ● |
| 4E-D2.7L38 | 2.7 | 8 | 38 | 3.0 | 4 | ● |
| 4E-D2.8L38 | 2.8 | 8 | 38 | 3.0 | 4 | ● |
| 4E-D2.9L38 | 2.9 | 8 | 38 | 3.0 | 4 | ● |
| 4E-D3.0L38 | 3.0 | 8 | 38 | 3.0 | 4 | ● |
| 4E-D3.1L40 | 3.1 | 9 | 40 | 4.0 | 4 | ● |
| 4E-D3.2L40 | 3.2 | 9 | 40 | 4.0 | 4 | ● |
| 4E-D3.3L40 | 3.3 | 9 | 40 | 4.0 | 4 | ● |
| 4E-D3.4L40 | 3.4 | 9 | 40 | 4.0 | 4 | ● |
| 4E-D3.5L40 | 3.5 | 9 | 40 | 4.0 | 4 | ● |
| 4E-D3.6L40 | 3.6 | 10 | 50 | 4.0 | 4 | ● |
| 4E-D3.7L50 | 3.7 | 10 | 50 | 4.0 | 4 | ● |
| 4E-D3.8L50 | 3.8 | 10 | 50 | 4.0 | 4 | ● |
| 4E-D3.9L50 | 3.9 | 10 | 50 | 4.0 | 4 | ● |
| 4E-D4.0L50 | 4.0 | 10 | 50 | 4.0 | 4 | ● |
| 4E-D4.1L50 | 4.1 | 12 | 50 | 6.0 | 4 | ● |
| 4E-D4.2L50 | 4.2 | 12 | 50 | 6.0 | 4 | ● |
| 4E-D4.3L50 | 4.3 | 12 | 50 | 6.0 | 4 | ● |
| 4E-D4.4L50 | 4.4 | 12 | 50 | 6.0 | 4 | ● |
| 4E-D4.5L50 | 4.5 | 12 | 50 | 6.0 | 4 | ● |
| 4E-D4.6L50 | 4.6 | 13 | 50 | 6.0 | 4 | ● |
| 4E-D4.7L50 | 4.7 | 13 | 50 | 6.0 | 4 | ● |
| 4E-D4.8L50 | 4.8 | 13 | 50 | 6.0 | 4 | ● |
| 4E-D4.9L50 | 4.9 | 13 | 50 | 6.0 | 4 | ● |
| 4E-D5.0L50 | 5.0 | 13 | 50 | 6.0 | 4 | ● |
| 4E-D5.1L50 | 5.1 | 15 | 50 | 6.0 | 4 | ● |
| 4E-D5.2L50 | 5.2 | 15 | 50 | 6.0 | 4 | ● |
| 4E-D5.3L50 | 5.3 | 15 | 50 | 6.0 | 4 | ● |
| 4E-D5.4L50 | 5.4 | 15 | 50 | 6.0 | 4 | ● |
| 4E-D5.5L50 | 5.5 | 15 | 50 | 6.0 | 4 | ● |
| 4E-D5.6L50 | 5.6 | 15 | 50 | 6.0 | 4 | ● |
| 4E-D5.7L50 | 5.7 | 15 | 50 | 6.0 | 4 | ● |
| 4E-D5.8L50 | 5.8 | 15 | 50 | 6.0 | 4 | ● |
| 4E-D5.9L50 | 5.9 | 15 | 50 | 6.0 | 4 | ● |
| 4E-D6.0L50 | 6.0 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D6.1L50 | 6.1 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D6.2L50 | 6.2 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D6.3L50 | 6.3 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D6.4L50 | 6.4 | 15 | 50 | 8.0 | 4 | ● |

註:有●者表示有庫存 NOTE:●means items in stock

# 鎢鋼 4刃點數型立銑刀

## TUNGSTEN CARBIDE 4-FLUTE DECIMAL END MILL

TIALN λ 45°

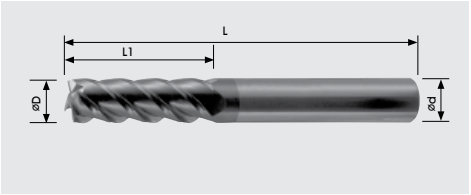
| | |
|---|---|
| d≦ 3 | -0.005 ~ -0.028 |
| 3 < d≦ 6 | -0.015 ~ -0.038 |
| 6 < d≦18 | -0.020 ~ -0.047 |
| 18 < d | -0.020 ~ -0.053 |

● 超細微粒碳化鎢材質

● **Micro-Grain Tungsten Carbide**

適用材質：
碳素鋼、模具鋼、合金鋼、工具鋼、
鑄鐵、不鏽鋼、熱處理鋼料、焊補鋼料。

**Applicable material:**
Carbon steel, mold steel,alloy steel, stainless steel,
tool steel, cast iron, heat-treated steel, welded steel.




單位: Unit : mm

| 型號 EDP NO. | 直徑 DØ | 刃長 L1 Length of Cut | 全長 L Overall Length | 柄徑 d Shank Diameter | 刃數 Flute Number | AK45 |
|---|---|---|---|---|---|---|
| 4E-D6.5L50 | 6.5 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D6.6L50 | 6.6 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D6.7L50 | 6.7 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D6.8L50 | 6.8 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D6.9L50 | 6.9 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D7.0L50 | 7.0 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D7.1L50 | 7.0 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D7.2L50 | 7.2 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D7.3L50 | 7.3 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D7.4L50 | 7.4 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D7.5L50 | 7.5 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D7.6L50 | 7.6 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D7.7L50 | 7.7 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D7.8L50 | 7.8 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D7.9L50 | 7.9 | 15 | 50 | 8.0 | 4 | ● |
| 4E-D8.0L50 | 8.0 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D8.1L50 | 8.1 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D8.2L50 | 8.2 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D8.3L50 | 8.3 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D8.4L50 | 8.4 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D8.5L50 | 8.5 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D8.6L50 | 8.6 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D8.7L50 | 8.7 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D8.8L50 | 8.8 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D8.9L50 | 8.9 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D9.0L50 | 9.0 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D9.1L50 | 9.1 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D9.2L50 | 9.2 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D9.3L50 | 9.3 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D9.4L50 | 9.4 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D9.5L50 | 9.5 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D9.6L50 | 9.6 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D9.7L50 | 9.7 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D9.8L50 | 9.8 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D10.0L50-10 | 9.9 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D10.1L50-10 | 10.0 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D10.1L50-10 | 10.1 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D10.2L50-10 | 10.2 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D10.3L50-10 | 10.3 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D10.4L50-10 | 10.4 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D10.5L50-10 | 10.5 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D10.6L50-10 | 10.6 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D10.7L50-10 | 10.7 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D10.8L50-10 | 10.8 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D10.9L50-10 | 10.9 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D11.0L50-10 | 11.0 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D11.1L50-10 | 11.1 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D11.2L50-10 | 11.2 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D11.3L50-10 | 11.3 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D11.4L50-10 | 11.4 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D11.5L50-10 | 11.5 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D11.6L50-10 | 11.6 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D11.7L50-10 | 11.7 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D11.8L50-10 | 11.8 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D11.9L50-10 | 11.9 | 15 | 50 | 10.0 | 4 | ● |
| 4E-D12.0L50-10 | 12.0 | 15 | 50 | 10.0 | 4 | ● |

註:有●者表示有庫存 NOTE:●means items in stock

# 切削條件 CUTTING TEST REPORT

| 被削材 Workpiece | 材質 Coating Material | 車削加工 Turning | | | 切斷加工 Cutting | | |
|---|---|---|---|---|---|---|---|
| | | 切削速度 (m/min) | 切深 (mm) | 進給 (mm/rev) | 切削速度 (m/min) | 切深 (mm) | 進給 (mm/rev) |
| 快削鋼 | NA01 | 100 - 200 | 0.05 - 1.0 | 0.01 - 0.15 | 70 - 150 | 0.50 - 1.50 | 0.01 - 0.08 |
| | HC83 | | 1.0 - 4.0 | 0.05 - 0.25 | | 1.50 - 3.50 | 0.03 - 0.15 |
| 鋼 <600N/mm$^2$ | NA01 | 70 - 160 | 0.05 - 1.0 | 0.01 - 0.15 | 60 - 120 | 0.50 - 1.50 | 0.01 - 0.06 |
| | HC83 | | 1.0 - 4.0 | 0.05 - 0.25 | | 1.50 - 3.50 | 0.03 - 0.12 |
| 鋼 <800N/mm$^2$ | NA01 | 55 - 120 | 0.05 - 1.0 | 0.01 - 0.15 | 50 - 100 | 0.50 - 1.50 | 0.01 - 0.05 |
| | HC83 | | 1.0 - 4.0 | 0.05 - 0.20 | | 1.50 - 3.50 | 0.03 -0.10 |
| 鋼 >600N/mm$^2$ | NA01 | 45 - 100 | 0.05 - 1.0 | 0.01 - 0.08 | 35 - 80 | 0.50 - 1.50 | 0.01 - 0.04 |
| | HC83 | | 1.0 - 4.0 | 0.05 - 0.15 | | 1.50 - 3.50 | 0.03 - 0.08 |
| 不鏽鋼 | NA01 | 50 - 120 | 0.05 - 1.0 | 0.01 - 0.08 | 50 - 100 | 0.50 - 1.50 | 0.01 - 0.04 |
| | HC83 | | 1.0 - 4.0 | 0.05 - 0.15 | | 1.50 - 3.50 | 0.03 -0.08 |
| 鋁合金 | NA01 | 160 - 1000 | 0.05 - 1.0 | 0.01 - 0.20 | 140 - 400 | 0.50 - 1.50 | 0.01 - 0.10 |
| | X21 | | 1.0 - 4.0 | 0.05 - 0.40 | | 1.50 - 3.50 | 0.03 - 0.20 |
| 鈦合金 | NA01 | 25 - 70 | 0.05 - 1.0 | 0.01 - 0.08 | 25 - 50 | 0.50 - 1.50 | 0.01 - 0.03 |
| | X21 | | 1.0 - 4.0 | 0.05 - 0.15 | | 1.50 - 3.50 | 0.03 - 0.06 |
| 銅 | HC83 | 90 - 500 | 0.05 - 1.0 | 0.01 - 0.20 | 90 - 300 | 0.50 - 1.50 | 0.01 - 0.10 |
| | X21 | | 1.0 - 4.0 | 0.05 - 0.35 | | 1.50 - 3.50 | 0.03 - 0.20 |

# 切削排屑:應用介紹 CHIP EVACUATION: APPLICATIONS

| | 斷屑槽型 號 | 快削鋼 Free-cutting steel | 鈦合金 | 不鏽鋼 304/316 SUS 304/316 | 不鏽鋼 303 SUS303 | 鋼 Steel | 鋁 Aluminium | 銅合金 Copper | |
|---|---|---|---|---|---|---|---|---|---|
| 車削系列 turning | NB | ● | △ | △ | ● | △ | △ | △ | 方便刀片重複研磨 allows easy regrinding |
| | MA | ● | ○ | ● | ● | ● | ● | ● | 標準正角排屑量大 standard positive geometry |
| | CE / MU | ● | △ | ○ | ○ | ● | ○ | ○ | 全效排屑控制 ver efficient chip control |
| | ME | ○ | ○ | ● | | ● | ● | ● | 非常有效排屑控制 ver efficient chip control |
| | MY | ○ | | ○ | | ○ | △ | △ | 段屑輕加工使用 chip-dreaker for light finishing operation |
| 切斷刀系列 parting off | NB | ● | ○ | △ | ○ | ○ | △ | △ | 易於刀片重複研磨 allows easy regrinding |
| | CU | ○ | ● | ● | ● | ● | | ○ | 難加工材使用可重複研磨 |
| | CX | | ○ | ● | | | ● | ● | 非常有效排屑控制 for long chipping sticky material |
| | CE / NB | | | ○ | | | ○ | ○ | 長屑材料使用 to narrow the cuips easy regrinding |

註:●首選 lst choice ○建議使用 recommended △用於太小易碎的工件 for fragile and very small workpieces

# 鑽頭切削實例 DRILL CUTTING TEST REPORT

## 全鎢鋼鉸刀 Tungsten Carbide Reamers

| 被削材 Workpiece | 切削速度 Cutting Speed (m/min) | 進給 Feed Rate (mm/rev) | | |
|---|---|---|---|---|
| | | Ø1~Ø4 | Ø4~Ø8 | Ø8~Ø12 |
| 快削鋼 | 15~22 | 0.1~0.12 | 0.12~0.16 | 0.2~0.25 |
| 鋼 <600N/mm$^2$ | 10~18 | 0.08~0.12 | 0.12~0.16 | 0.18~0.22 |
| 鋼 <800N/mm$^2$ | 8~15 | 0.08~0.12 | 0.1~0.13 | 0.12~0.16 |
| 鋼 <600N/mm$^2$ | 5~12 | 0.05~0.08 | 0.08~0.12 | 0.01~0.13 |
| 耐熱鋼 | 5~10 | 0.02~0.03 | 0.04~0.05 | 0.06~0.08 |
| 鑄鐵 | 8~12 | 0.18~0.22 | 0.02~0.25 | 0.25~0.3 |
| 不鏽鋼 | 8~12 | 0.03~0.04 | 0.05~0.06 | 0.06~0.08 |
| 鋁合金Si<12% | 18~35 | 0.18~0.22 | 0.02~0.25 | 0.25~0.3 |
| 鋁合金Si<12% | 10~23 | 0.08~0.12 | 0.12~0.16 | 0.18~0.22 |
| 鈦合金 | 5~10 | 0.05~0.08 | 0.08~0.12 | 0.1~0.13 |
| 銅 | 15~40 | 0.12~0.6 | 0.18~0.22 | 0.25~0.32 |

## 型式 MODEL: HOD.CCD

| 被削材 WORKPIECE | 硬度 HARDNESS | Ø4~Ø7 | | Ø7~Ø10 | | Ø10~Ø15 | | Ø15~Ø20 | |
|---|---|---|---|---|---|---|---|---|---|
| | | V m/min | f m/rev | V m/min | f m/rev | V m/min | f m/rev | V m/min | f m/rev |
| 低碳鋼 LOW CARBON STEEL | ~200HB | 40~70 | 0.08~0.2 | 50~100 | 0.1~0.3 | 50~100 | 0.15~0.4 | 60~120 | 0.2~0.5 |
| 中碳鋼 MEDIUM CARBON STEEL | ~300HB | 40~60 | 0.08~0.15 | 50~100 | 0.1~0.25 | 50~100 | 0.15~0.4 | 50~120 | 0.2~0.5 |
| 模具鋼 MOLD STEEL | ~300HB | 30~60 | 0.05~0.15 | 30~60 | 0.1~0.25 | 40~80 | 0.1~0.3 | 40~100 | 0.15~0.4 |
| 不鏽鋼 STAINESS STEEL | ~200HB | 20~40 | 0.06~0.15 | 30~60 | 0.08~0.25 | 30~70 | 0.1~0.3 | 30~70 | 0.1~0.4 |
| 高硬度材 TOUGH MATERIAL | HRC40~50 | 10~40 | 0.03~0.1 | 10~40 | 0.05~0.15 | 15~40 | 0.08~0.2 | 20~50 | 0.1~0.25 |
| 球墨鑄鐵 DUCTILE IRON | 170~240HB | 40~80 | 0.08~0.15 | 50~100 | 0.1~0.3 | 50~100 | 0.15~0.4 | 50~100 | 0.2~0.5 |

# 端銑刀切削條件 END MILL CUTTING TEST REPORT

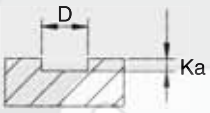
## ZEAL

### 鎢鋼 2刃立銑刀

- 超細微粒碳化鎢材質
- 鋁合金加工專用

### TUNGSTEN CARBIDE 2-FLUTE END MILL

- Micro-Grain Tungsten carbide
- Ideal for Aluminum Alloy Machining

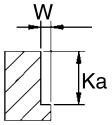
| 被切削材 WORKPIECE | 純鋁 Aluminum | | 鋁合金 Alumium Alloy | | 鋁合金 Alumium Alloy | | 鋁合金 Alumium Alloy | | 銅合金 Copper Alloy | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1070 | | Si系(4032) | | Mg系(5052) | | Zn-Mg系(7075) | | C1100 | |
| 立銑刀 R徑 mm END MILL "radius" mm | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) |
| D3.0 | 28000~35000 | 700~1100 | 2500~3000 | 120~200 | 12000~15000 | 360~570 | 25000~29000 | 600~900 | 12000~15000 | 400~1000 |
| D4.0 | 22000~26000 | 800~1300 | 1800~2200 | 120~200 | 9000~12000 | 350~680 | 18000~22000 | 700~1000 | 9000~12000 | 500~1000 |
| D5.0 | 17000~21000 | 800~1300 | 1500~1800 | 120~200 | 7000~9500 | 350~680 | 15000~17500 | 700~1000 | 7000~95000 | 500~1000 |
| D6.0 | 15000~17500 | 1000~1600 | 1200~1600 | 160~280 | 6000~8000 | 350~680 | 12500~15000 | 700~1000 | 6000~8000 | 500~1100 |
| D8.0 | 11000~13000 | 1000~1600 | 900~1200 | 160~280 | 4000~6000 | 300~680 | 9000~11000 | 700~1000 | 4000~6000 | 500~1100 |
| D10.0 | 9000~11000 | 1000~1600 | 700~1000 | 150~250 | 3500~5000 | 300~680 | 7000~9000 | 700~1000 | 3500~5000 | 500~1100 |
| D12.0 | 7000~9000 | 1000~1600 | 600~800 | 120~230 | 3000~4500 | 300~680 | 6000~7000 | 700~1000 | 3000~4500 | 500~1000 |
| D16.0 | 5000~7000 | 800~1400 | 450~600 | 90~170 | 2200~3500 | 350~680 | 4000~6000 | 700~1000 | 2200~3500 | 500~1000 |
| D20.0 | 4000~5500 | 800~1400 | 350~500 | 90~170 | 1800~2200 | 350~680 | 3200~4500 | 700~1000 | 1800~2200 | 500~1000 |
| 最大切削量 Max. Cutting |   Ka = ~1.0 D | | | | | | | | | |

### 鎢鋼 2刃立銑刀

- 超細微粒碳化鎢材質
- 鋁合金加工專用

### TUNGSTEN CARBIDE 2-FLUTE END MILL

- Micro-Grain Tungsten carbide
- Ideal for Aluminum Alloy Machining

| 被切削材 WORKPIECE | 純鋁 Aluminum | | 鋁合金 Alumium Alloy | | 鋁合金 Alumium Alloy | | 鋁合金 Alumium Alloy | | 銅合金 Copper Alloy | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1070 | | Si系(4032) | | Mg系(5052) | | Zn-Mg系(7075) | | C1100 | |
| 立銑刀 R徑 mm END MILL "radius" mm | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) |
| D3.0 | 28000~35000 | 1700~2200 | 2500~3000 | 120~220 | 12000~15000 | 600~1000 | 25000~29000 | 1000~1350 | 12000~15000 | 400~1350 |
| D4.0 | 22000~26000 | 1700~2200 | 1800~2200 | 120~220 | 9000~12000 | 400~1000 | 18000~22000 | 800~1100 | 9000~12000 | 500~1100 |
| D5.0 | 17000~21000 | 1500~2200 | 1500~1800 | 120~220 | 7000~9500 | 400~1000 | 15000~17500 | 800~1100 | 7000~95000 | 500~1100 |
| D6.0 | 15000~17500 | 1900~2700 | 1200~1600 | 160~320 | 6000~8000 | 500~1100 | 12500~15000 | 800~1100 | 6000~8000 | 700~1350 |
| D8.0 | 11000~13000 | 1900~2700 | 900~1200 | 160~320 | 4000~6000 | 400~1000 | 9000~11000 | 800~1100 | 4000~6000 | 700~1350 |
| D10.0 | 9000~11000 | 1900~2700 | 700~1000 | 150~270 | 3500~5000 | 400~1000 | 7000~9000 | 800~1100 | 3500~5000 | 600~1350 |
| D12.0 | 7000~9000 | 1600~2200 | 600~800 | 120~250 | 3000~4500 | 400~1000 | 6000~7000 | 800~1100 | 3000~4500 | 600~1100 |
| D16.0 | 5000~7000 | 1600~2200 | 450~600 | 100~200 | 2200~3500 | 400~1000 | 4000~6000 | 700~1350 | 2200~3500 | 600~1100 |
| D20.0 | 4000~5500 | 1600~2200 | 350~500 | 100~200 | 1800~2200 | 400~1000 | 3200~4500 | 700~1350 | 1800~2200 | 600~1100 |
| 最大切削量 Max. Cutting |   Ka = ~1.5D W = ~0.1 D | | | | | | | | | |

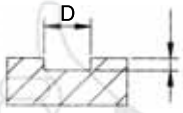
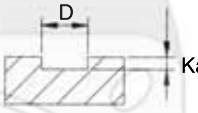
2E

## 鎢鋼 2刃立銑刀

- 超細微粒碳化鎢材質

## TUNGSTEN CARBIDE 2-FLUTE BALL END MILL

- Micro-Grain Tungsten carbide

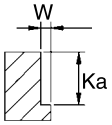
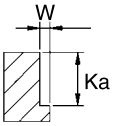
| 被切削材 WORKPIECE | 鐵材、碳素鋼、鑄鐵、合金鋼、工具鋼 SS41 S45C S50C SCM SNCM SK SKS FC250 FCD | | 合金鋼、工具鋼、模具鋼、不鏽鋼 SCM SKD NAK55 NAK101 SUS304 | | 熱處理鋼、鈦合金 HEAT RESISTANT ALLOY STEELS TITANIUM ALLOYS | | 熱處理鋼、耐熱合金、鎳基合金 HARDENED STEELS | |
|---|---|---|---|---|---|---|---|---|
| 硬度 HARDNESS | ~ 300 HB | | 30 ~ 45 HRC | | 45 ~55 HRC | | 55 ~65 HRC | |
| 立銑刀 R徑 mm END MILL "radius" mm | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) |
| D1.0 | 14000~19500 | 55~90 | 7000~11000 | 35~65 | 4000~7000 | 25~45 | 3000~4000 | 10~35 |
| D2.0 | 8500~11000 | 75~120 | 4000~6350 | 40~80 | 3000~4000 | 25~45 | 1500~2200 | 15~40 |
| D3.0 | 6000~9000 | 130~180 | 3000~5000 | 50~100 | 2000~2800 | 30~60 | 1000~1700 | 20~50 |
| D4.0 | 5000~7500 | 160~240 | 2700~4500 | 70~140 | 1500~2200 | 30~60 | 900~1500 | 25~60 |
| D5.0 | 4500~7000 | 150~300 | 2200~4000 | 80~160 | 1200~1900 | 30~60 | 600~1200 | 30~70 |
| D6.0 | 4000~6500 | 150~420 | 2000~3600 | 100~210 | 1000~1600 | 30~60 | 500~1100 | 40~80 |
| D8.0 | 2800~5000 | 150~420 | 1400~3000 | 100~210 | 800~1200 | 25~60 | 350~850 | 40~80 |
| D10.0 | 2200~4000 | 150~420 | 1000~2200 | 100~210 | 600~980 | 25~60 | 300~700 | 40~80 |
| D12.0 | 1800~3000 | 120~380 | 900~1900 | 100~210 | 500~800 | 25~60 | 280~600 | 40~80 |
| D16.0 | 1800~2500 | 160~300 | 800~1400 | 80~180 | 350~600 | 20~65 | 250~450 | 30~70 |
| D18.0 | 1400~2200 | 150~260 | 700~1200 | 60~150 | 250~550 | 20~65 | 200~400 | 25~60 |
| D20.0 | 1200~2000 | 120~240 | 600~1100 | 50~140 | 200~500 | 20~50 | 180~350 | 20~50 |
| D25.0 | 1000~1800 | 100~190 | 500~900 | 50~120 | 150~400 | 15~50 | 130~280 | 15~50 |
| 最大切削量 Max. Cutting |  | | D = ~3 mm Ka = ~0.3 D<br>D = 3 mm ~Ka = ~0.5 D | |  | | D = ~3 mm Ka = ~0.02D<br>D = 3 mm ~Ka = ~0.05 D | |

## 鎢鋼 2刃立銑刀

- 超細微粒碳化鎢材質

## TUNGSTEN CARBIDE 2-FLUTE FLUTE END MILL

- Micro-Grain Tungsten carbide

| 被切削材 WORKPIECE | 鐵材、碳素鋼、鑄鐵、合金鋼、工具鋼 SS41 S45C S50C SCM SNCM SK SKS FC250 FCD | | 合金鋼、工具鋼、模具鋼、不鏽鋼 SCM SKD NAK55 NAK101 SUS304 | | 熱處理鋼、鈦合金 HEAT RESISTANT ALLOY STEELS TITANIUM ALLOYS | | 熱處理鋼、耐熱合金、鎳基合金 HARDENED STEELS | |
|---|---|---|---|---|---|---|---|---|
| 硬度 HARDNESS | ~ 300 HB | | 30 ~ 45 HRC | | 45 ~55 HRC | | 55 ~65 HRC | |
| 立銑刀 R徑 mm END MILL "radius" mm | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) |
| D1.0 | 14000~19500 | 80~110 | 8000~11000 | 35~80 | 4000~7000 | 25~60 | 3000~4000 | 10~35 |
| D2.0 | 8500~11000 | 90~150 | 4000~6350 | 50~100 | 3000~4000 | 25~70 | 1500~2200 | 15~40 |
| D3.0 | 6500~9000 | 130~250 | 3000~5000 | 60~140 | 2000~2800 | 30~90 | 1000~1700 | 30~60 |
| D4.0 | 5500~7500 | 160~320 | 2700~4500 | 800~180 | 1500~2200 | 30~90 | 900~1500 | 30~60 |
| D5.0 | 5000~7000 | 200~450 | 2500~4000 | 100~240 | 1200~1900 | 40~120 | 600~1200 | 30~70 |
| D6.0 | 4500~5500 | 250~450 | 2200~3600 | 120~300 | 1000~1600 | 40~120 | 500~1100 | 30~70 |
| D8.0 | 3200~4500 | 250~450 | 1600~3000 | 120~300 | 800~1200 | 40~120 | 350~850 | 30~70 |
| D10.0 | 2800~3600 | 250~420 | 1200~2500 | 120~300 | 600~980 | 40~120 | 300~700 | 30~70 |
| D12.0 | 2200~3000 | 250~320 | 1100~1900 | 120~270 | 500~800 | 30~90 | 280~600 | 25~60 |
| D16.0 | 1800~2500 | 200~300 | 800~1500 | 100~240 | 350~600 | 30~90 | 250~450 | 25~60 |
| D18.0 | 1500~2200 | 180~300 | 700~1300 | 80~216 | 250~550 | 30~90 | 200~400 | 25~60 |
| D20.0 | 1200~1800 | 150~250 | 600~1200 | 70~150 | 200~500 | 20~90 | 180~350 | 15~60 |
| D25.0 | 1000~1430 | 120~220 | 500~900 | 60~130 | 150~400 | 20~90 | 130~280 | 15~60 |
| 最大切削量 Max. Cutting |  | | Ka = ~2.5 D<br>W = ~0.05 D | |  | | Ka = ~2.5 D<br>W = ~0.025 D | |

# 端銑刀切削條件 END MILL CUTTING TEST REPORT

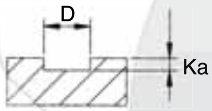
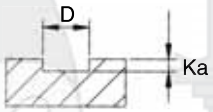
## 4EP

### 鎢鋼 4刃口袋型立銑刀

- 超細微粒碳化鎢材質

### TUNGSTEN CARBIDE 4-FLUTE ROUND NOSE END MILL

- Micro-Grain Tungsten carbide

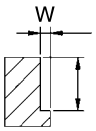
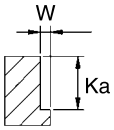
| 被切削材 WORKPIECE | 鐵材、碳素鋼、鑄鐵、合金鋼、工具鋼 SS41 S45C S50C SCM SNCM SK SKS FC250 FCD | | 合金鋼、工具鋼、模具鋼 SCM SKD NAK55 NAK101 | | 熱處理鋼、鈦合金、不鏽鋼 SUS304 SUS316 Ti-6Al-4V | | 熱處理鋼、鈦合金 HEAT RESISTANT ALLOY STEELS TITANIUM ALLOYS | | 熱處理鋼、耐熱合金、鎳基合金 HARDENED STEELS | |
|---|---|---|---|---|---|---|---|---|---|---|
| 硬度 HARDNESS | ~ 300 HB | | 30 ~ 35 HRC | | 35 ~45HRC | | 45 ~ 50 HRC | | 45 ~55 HRC | |
| 立銑刀 R徑 mm END MILL "radius" mm | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) |
| D3.0 | 7500~9000 | 600~850 | 5000~6000 | 350~550 | 4800~5500 | 300~450 | 3800~4500 | 250~360 | 1500~2100 | 75~120 |
| D4.0 | 5500~6500 | 600~850 | 3800~4600 | 350~550 | 3500~4200 | 300~500 | 2800~3500 | 250~400 | 1200~1600 | 75~135 |
| D5.0 | 4500~5500 | 600~850 | 3000~3700 | 350~500 | 2800~3300 | 300~570 | 2200~2700 | 250~460 | 1000~1300 | 70~140 |
| D6.0 | 3500~4500 | 600~850 | 2500~3000 | 300~500 | 2200~2800 | 300~570 | 1900~2300 | 250~460 | 800~1100 | 60~140 |
| D8.0 | 3000~3500 | 500~800 | 1800~2400 | 300~700 | 1700~2100 | 250~570 | 1400~1700 | 250~460 | 600~800 | 60~140 |
| D10.0 | 2300~2800 | 450~750 | 1500~1900 | 250~570 | 1400~1700 | 250~570 | 1100~1400 | 250~460 | 500~650 | 50~135 |
| D12.0 | 1900~2300 | 450~750 | 1200~1600 | 250~570 | 1100~1400 | 250~500 | 900~1200 | 200~400 | 400~550 | 50~135 |
| D14.0 | 1600~2000 | 450~750 | 1000~1400 | 200~460 | 900~1200 | 200~450 | 800~1000 | 200~350 | 350~460 | 40~120 |
| D16.0 | 1400~1800 | 400~750 | 900~1200 | 200~460 | 800~1100 | 200~450 | 700~900 | 180~350 | 300~400 | 40~120 |
| D18.0 | 1200~1700 | 300~630 | 800~1100 | 180~460 | 750~1000 | 150~400 | 550~750 | 150~320 | 270~360 | 40~120 |
| D20.0 | 1100~1500 | 300~630 | 700~900 | 180~400 | 700~850 | 150~400 | 500~700 | 150~320 | 240~320 | 40~120 |
| 最大切削量 Max. Cutting |  Ka = ~0.5 D | | | | | |  Ka = ~0.1 D | | | |

### 鎢鋼 4刃口袋型立銑刀

- 超細微粒碳化鎢材質

### TUNGSTEN CARBIDE 4-FLUTE ROUND NOSE END MILL

- Micro-Grain Tungsten carbide

| 被切削材 WORKPIECE | 鐵材、碳素鋼、鑄鐵、合金鋼、工具鋼 SS41 S45C S50C SCM SNCM SK SKS FC250 FCD | | 合金鋼、工具鋼、模具鋼 SCM SKD NAK55 NAK101 | | 熱處理鋼、鈦合金、不鏽鋼 SUS304 SUS316 Ti-6Al-4V | | 熱處理鋼、鈦合金 HEAT RESISTANT ALLOY STEELS TITANIUM ALLOYS | | 熱處理鋼、耐熱合金、鎳基合金 HARDENED STEELS | |
|---|---|---|---|---|---|---|---|---|---|---|
| 硬度 HARDNESS | ~ 300 HB | | 30 ~ 35 HRC | | 35 ~45HRC | | 45 ~ 50 HRC | | 45 ~55 HRC | |
| 立銑刀 R徑 mm END MILL "radius" mm | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) |
| D3.0 | 8500~11000 | 700~1100 | 5500~7200 | 400~670 | 5000~6600 | 350~620 | 4500~6500 | 300~630 | 2200~3300 | 100~220 |
| D4.0 | 6300~8200 | 600~1250 | 4000~5400 | 400~670 | 3800~5000 | 350~680 | 3500~4800 | 250~630 | 1800~2500 | 100~220 |
| D5.0 | 5000~6500 | 600~1250 | 3200~4400 | 400~670 | 3000~4000 | 350~680 | 2700~3800 | 250~630 | 1400~2000 | 100~220 |
| D6.0 | 4000~5500 | 600~1500 | 2700~3600 | 400~800 | 2500~3400 | 350~750 | 2200~3200 | 250~630 | 1200~1650 | 100~220 |
| D8.0 | 3000~4200 | 500~1500 | 1900~2800 | 300~800 | 1800~2500 | 300~750 | 1500~2500 | 200~630 | 900~1250 | 80~200 |
| D10.0 | 2400~3500 | 500~1400 | 1600~2200 | 300~800 | 1500~2000 | 300~680 | 1200~2000 | 200~630 | 700~1000 | 80~200 |
| D12.0 | 2000~2900 | 500~1400 | 1300~1900 | 300~690 | 1200~1700 | 300~630 | 1000~1650 | 150~570 | 600~800 | 80~180 |
| D14.0 | 1700~2400 | 400~1100 | 1100~1700 | 300~690 | 1000~1450 | 250~570 | 800~1400 | 150~570 | 520~700 | 80~180 |
| D16.0 | 1500~2200 | 400~1100 | 1000~1400 | 250~570 | 960~1300 | 200~500 | 700~1250 | 120~450 | 420~600 | 60~180 |
| D18.0 | 1300~1900 | 300~900 | 900~1300 | 200~570 | 850~1100 | 160~450 | 600~1100 | 120~450 | 380~550 | 60~180 |
| D20.0 | 1200~1700 | 300~630 | 800~1100 | 200~500 | 750~1000 | 160~450 | 500~1000 | 100~400 | 320~500 | 60~180 |
| 最大切削量 Max. Cutting |  Ka = ~1.5 D<br>W = ~0.2 D | | | | Ka = ~1.5 D<br>W = ~0.1 D | |  Ka = ~1.0 D<br>W = ~0.05 D | | | |

# 端銑刀切削條件 END MILL CUTTING TEST REPORT

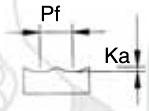
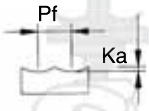
## 2BE

### 鎢鋼 2刃球型立銑刀

### TUNGSTEN CARBIDE 2-FLUTE BALL END MILL

●超細微粒碳化鎢材質(一般M/C使用)

●Micro-Grain Tungsten carbide(For General Machining Center)

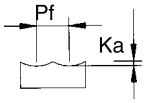
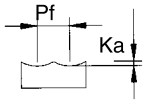
| 被切削材 WORKPIECE | 鐵材、碳素鋼、鑄鐵、合金鋼、工具鋼 SS41 S45C S50C SCM SNCM SK SKS FC250 FCD | | 合金鋼、工具鋼、模具鋼、不鏽鋼 SCM SKD NAK55 NAK101 SUS304 | | 熱處理鋼、鈦合金 HEAT RESISTANT ALLOY STEELS TITANIUM ALLOYS | | 熱處理鋼、耐熱合金、鎳基合金 HARDENED STEELS | |
|---|---|---|---|---|---|---|---|---|
| 硬度 HARDNESS | ~ 300 HB | | 30 ~ 45 HRC | | 45 ~55 HRC | | 55 ~65 HRC | |
| 立銑刀 R徑 mm END MILL "radius" mm | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) |
| R0.5 | 28000~50000 | 600~1100 | 24000~42000 | 350~700 | 10000~20000 | 100~250 | 8000~11000 | 80~220 |
| R1.0 | 14000~25000 | 600~1100 | 12000~21000 | 350~700 | 5000~11000 | 100~250 | 4000~5500 | 80~220 |
| R1.5 | 10000~17000 | 600~1100 | 8000~13500 | 350~700 | 3500~6000 | 100~250 | 3000~4000 | 80~220 |
| R2.0 | 7000~12500 | 600~1100 | 5600~10000 | 350~800 | 2600~5000 | 100~270 | 2500~2800 | 80~250 |
| R2.5 | 6000~10000 | 600~1100 | 4200~8000 | 350~800 | 2200~3500 | 100~270 | 2000~2500 | 80~250 |
| R3.0 | 5000~8500 | 600~1200 | 3800~7000 | 350~900 | 2000~3000 | 100~270 | 1500~2200 | 80~250 |
| R4.0 | 3500~6500 | 600~1200 | 2600~5000 | 450~900 | 1800~2500 | 100~270 | 1200~2000 | 80~250 |
| R5.0 | 2800~5000 | 600~1350 | 2200~4200 | 450~900 | 1500~2000 | 100~270 | 900~1500 | 80~250 |
| R6.0 | 2500~4500 | 600~1350 | 1800~3300 | 400~900 | 1000~1500 | 100~270 | 700~1200 | 80~250 |
| R7.0 | 2200~3600 | 600~1300 | 1800~2800 | 400~900 | 900~1500 | 100~270 | 600~1000 | 80~250 |
| R8.0 | 1800~3200 | 500~1100 | 1300~2600 | 400~900 | 800~1100 | 100~270 | 500~900 | 80~250 |
| R10.0 | 1500~2600 | 500~1000 | 1200~2200 | 400~850 | 600~900 | 80~220 | 400~700 | 60~180 |
| R12.5 | 1300~2200 | 400~900 | 850~1600 | 300~660 | 450~800 | 80~220 | 350~500 | 60~180 |
| 最大切削量 Max. Cutting |  Ka = ~0.06 R Pf = ~0.1 R | | 粗加工時 Coarse Cutting | | Ka = ~0.2 R Pf = ~0.5 R | |  Ka = ~0.03 R Pf = ~0.05 R | |

### 鎢鋼 2刃球型立銑刀

### TUNGSTEN CARBIDE 2-FLUTE BALL END MILL

●超細微粒碳化鎢材質(一般M/C使用)

●Micro-Grain Tungsten carbide(For High Speed Machining Center)

| 被切削材 WORKPIECE | 鐵材、碳素鋼、鑄鐵、合金鋼、工具鋼 SS41 S45C S50C SCM SNCM SK SKS FC250 FCD | | 合金鋼、工具鋼、模具鋼、不鏽鋼 SCM SKD NAK55 NAK101 SUS304 | | 熱處理鋼、鈦合金 HEAT RESISTANT ALLOY STEELS TITANIUM ALLOYS | | 熱處理鋼、耐熱合金、鎳基合金 HARDENED STEELS | |
|---|---|---|---|---|---|---|---|---|
| 硬度 HARDNESS | ~ 300 HB | | 30 ~ 45 HRC | | 45 ~55 HRC | | 55 ~65 HRC | |
| 立銑刀 R徑 mm END MILL "radius" mm | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) |
| R0.5 | 32000~55000 | 1300~2800 | 32000~55000 | 1200~2450 | 20000~35000 | 700~1350 | 10000~20000 | 100~250 |
| R1.0 | 16000~27500 | 1300~2800 | 16000~27000 | 1200~2450 | 10000~19000 | 700~1450 | 5000~10000 | 100~250 |
| R1.5 | 10000~18000 | 1300~2800 | 10000~18000 | 1200~2450 | 7000~13000 | 700~1450 | 3500~6000 | 100~250 |
| R2.0 | 9000~17000 | 1700~3200 | 9000~17000 | 1300~2700 | 7000~12000 | 950~1900 | 2800~5500 | 120~280 |
| R2.5 | 9000~17000 | 2000~3800 | 9000~16000 | 1400~2800 | 6000~11000 | 1000~2000 | 2000~4000 | 120~280 |
| R3.0 | 8500~15000 | 2200~4100 | 7000~13000 | 1300~2700 | 6000~11000 | 1100~2300 | 1500~3000 | 120~280 |
| R4.0 | 6000~11000 | 1800~3100 | 5500~10000 | 1000~2100 | 4500~8000 | 900~1700 | 1200~2500 | 100~250 |
| R5.0 | 5000~9000 | 1200~2700 | 4500~8000 | 900~1700 | 3500~6500 | 700~1350 | 900~2000 | 100~250 |
| R6.0 | 4200~8000 | 1000~2100 | 3500~7000 | 700~1450 | 2800~5500 | 500~1150 | 700~1500 | 100~250 |
| R7.0 | 4000~7000 | 1100~1900 | 3500~6000 | 600~1200 | 2500~4500 | 500~1150 | 600~1100 | 100~250 |
| R8.0 | 3200~6000 | 800~1700 | 2800~5500 | 500~1050 | 2200~4200 | 450~1050 | 500~1100 | 100~250 |
| R10.0 | 2500~5000 | 600~1300 | 2200~4200 | 400~900 | 1700~3500 | 320~750 | 400~900 | 100~250 |
| R12.5 | 2000~4000 | 500~1100 | 1800~3500 | 300~750 | 1200~2500 | 250~500 | 350~700 | 100~250 |
| 最大切削量 Max. Cutting |  Ka = ~0.03 R Pf = ~0.05 R | | | |  Ka = ~0.015 R Pf = ~0.025 R | | | |

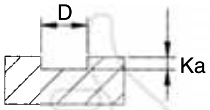
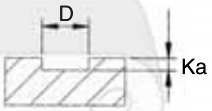
# 4E

## 鎢鋼 4刃立銑刀

## TUNGSTEN CARBIDE 4-FLUTE END MILL

●超細微粒碳化鎢材質

●Micro-Grain Tungsten carbide

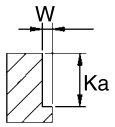
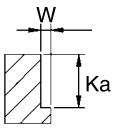
| 被切削材 WORKPIECE | 鐵材、碳素鋼、鑄鐵、合金鋼、工具鋼 SS41 S45C S50C SCM SNCM SK SKS FC250 FCD | | 合金鋼、工具鋼、模具鋼、不鏽鋼 SCM SKD NAK101 SUS304 | | 熱處理鋼、鈦合金 HEAT RESISTANT ALLOY STEELS TITANIUM ALLOYS | | 熱處理鋼、耐熱合金、鎳基合金 HARDENED STEELS | |
|---|---|---|---|---|---|---|---|---|
| 硬度 HARDNESS | ~ 300 HB | | 30 ~ 45 HRC | | 45 ~55 HRC | | 55 ~65 HRC | |
| 立銑刀 R徑 mm END MILL "radius" mm | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) |
| D3.0 | 6000~9000 | 150~360 | 3000~5000 | 80~200 | 2000~1800 | 35~120 | 1300~1800 | 30~100 |
| D4.0 | 5000~7500 | 200~480 | 2700~4500 | 100~280 | 1500~1500 | 40~120 | 1100~1500 | 40~120 |
| D5.0 | 4500~7000 | 250~600 | 2200~4000 | 120~320 | 1200~1300 | 50~120 | 1000~1300 | 50~140 |
| D6.0 | 4000~6500 | 300~840 | 2000~3600 | 150~420 | 1000~1200 | 60~120 | 950~1200 | 60~160 |
| D8.0 | 2800~5000 | 300~840 | 1400~3000 | 150~420 | 800~1000 | 60~120 | 700~900 | 60~160 |
| D10.0 | 2200~4000 | 300~840 | 1000~2200 | 150~420 | 600~900 | 60~120 | 550~800 | 60~160 |
| D12.0 | 2200~3000 | 300~570 | 900~1900 | 150~420 | 500~700 | 60~120 | 450~600 | 60~160 |
| D16.0 | 1800~2500 | 250~520 | 850~1400 | 130~360 | 350~500 | 50~130 | 300~500 | 50~140 |
| D18.0 | 1400~2200 | 220~520 | 700~1200 | 100~360 | 250~450 | 40~130 | 280~400 | 35~120 |
| D20.0 | 1200~2000 | 200~480 | 600~1100 | 100~280 | 200~360 | 40~100 | 250~380 | 30~100 |
| D25.0 | 1000~1800 | 150~380 | 500~800 | 80~240 | 150~300 | 30~100 | 200~300 | 25~100 |
| 最大切削量 Max. Cutting |  | | Ka = ~0.25 D | |  | | Ka = ~0.05 D | |

## 鎢鋼 4刃立銑刀

## TUNGSTEN CARBIDE 4-FLUTE END MILL

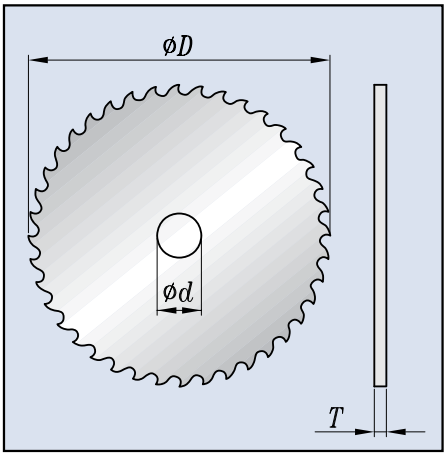
●超細微粒碳化鎢材質

●Micro-Grain Tungsten carbide

| 被切削材 WORKPIECE | 鐵材、碳素鋼、鑄鐵、合金鋼、工具鋼 SS41 S45C S50C SCM SNCM SK SKS FC250 FCD | | 合金鋼、工具鋼、模具鋼、不鏽鋼 SCM SKD NAK101 SUS304 | | 熱處理鋼、鈦合金 HEAT RESISTANT ALLOY STEELS TITANIUM ALLOYS | | 熱處理鋼、耐熱合金、鎳基合金 HARDENED STEELS | |
|---|---|---|---|---|---|---|---|---|
| 硬度 HARDNESS | ~ 300 HB | | 30 ~ 45 HRC | | 45 ~55 HRC | | 55 ~65 HRC | |
| 立銑刀 R徑 mm END MILL "radius" mm | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) | rpm(min-1) | F(mm/min) |
| D3.0 | 6500~9000 | 200~500 | 3000~5000 | 100~280 | 2000~2800 | 40~180 | 1000~1700 | 30~120 |
| D4.0 | 5500~7500 | 300~640 | 2700~4500 | 160~360 | 1500~2200 | 50~180 | 900~1500 | 40~120 |
| D5.0 | 5000~7000 | 300~900 | 2500~4000 | 160~480 | 1200~1900 | 60~240 | 600~1200 | 50~140 |
| D6.0 | 4500~5500 | 400~900 | 2200~3600 | 200~600 | 1000~1600 | 80~240 | 500~1100 | 70~140 |
| D8.0 | 3200~4500 | 400~900 | 1600~3000 | 200~600 | 800~1200 | 80~240 | 350~850 | 70~140 |
| D10.0 | 2800~3600 | 400~840 | 1200~2500 | 200~600 | 600~980 | 80~240 | 300~700 | 70~140 |
| D12.0 | 2200~3000 | 400~640 | 1100~1900 | 200~540 | 500~800 | 80~180 | 280~600 | 70~120 |
| D16.0 | 1800~2500 | 300~600 | 800~1500 | 150~480 | 350~600 | 60~180 | 250~450 | 50~120 |
| D18.0 | 1500~2200 | 280~600 | 700~1300 | 130~430 | 250~550 | 60~180 | 200~400 | 40~120 |
| D20.0 | 1200~1800 | 250~500 | 600~1200 | 120~300 | 200~500 | 50~180 | 180~350 | 40~120 |
| D25.0 | 1000~1430 | 220~440 | 500~900 | 100~260 | 150~400 | 40~180 | 130~280 | 30~120 |
| 最大切削量 Max. Cutting |  | | Ka = ~1.5 D<br>W = ~0.05 D | |  | | Ka = ~1.0 D<br>W = ~0.02 D | |

# 全鎢鋼金屬圓鋸片
# SOLID TUNGSTEN METAL CIRCULAR SAWBLADE








A 型齒
A Tooth Shpae



A+A 型齒
A+A Tooth Shpae



B 型齒
B Tooth Shpae

## 超微粒子超硬材質
## *Extra Fine Grain Extra Hard Material*

## 全鎢鋼金屬圓鋸片(適用溝槽加工)

## SOLID TUNGSTEN METAL CIRCULAR SAWBLADE
(Applicable for slot machining)

| 外徑(D)/Outside Dia (D) | 20 | 25 | 35 | 40 | 45 | 50 | 60 | 75 | 85 | 100 | 125 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 孔徑(d)/Hole Dia (d) | 6 | 6 | 8 | 8 | 12.7 | 12.7 | 12.7 | 25.4 | 25.4 | 25.4 | 25.4 |
| 厚度(T)/Thickness (T) | Z齒數 / Teeth Number (Z) | | | | | | | | | | |
| 0.30 | 30 | 30 | 40 | 40 | 40 | | | | | | |
| 0.40 | 30 | 30 | 40 | 40 | 40 | | | | | | |
| 0.50 | 30 | 30 | 40 | 40 | 40 | 54 | 64 | | | | |
| 0.60 | 30 | 30 | 40 | 40 | 40 | 54 | 64 | 64 | 64 | 72 | 86 |
| 0.70 | 30 | 30 | 40 | 40 | 40 | 54 | 64 | 64 | 64 | 72 | 86 |
| 0.80 | 30 | 30 | 40 | 40 | 40 | 54 | 64 | 64 | 64 | 72 | 86 |
| 0.90 | 30 | 30 | 40 | 40 | 40 | 54 | 64 | 64 | 64 | 72 | 86 |
| 1.00 | 30 | 30 | 40 | 40 | 40 | 54 | 64 | 64 | 64 | 72 | 86 |
| 1.20 | 30 | 30 | 40 | 40 | 40 | 54 | 64 | 64 | 64 | 72 | 86 |
| 1.40 | 30 | 30 | 40 | 40 | 40 | 54 | 64 | 64 | 64 | 72 | 86 |
| 1.60 | 30 | 30 | 40 | 40 | 40 | 54 | 64 | 64 | 64 | 72 | 86 |
| 1.80 | 30 | 30 | 40 | 40 | 40 | 54 | 64 | 64 | 64 | 72 | 86 |
| 2.00 | 30 | 30 | 40 | 40 | 40 | 54 | 64 | 64 | 64 | 72 | 86 |
| 2.50<br>3.00<br>3.50<br>4.00 | 特殊規格外徑、孔徑、齒數、齒型、厚度可接受訂製。<br>Custom outside diameter, hole diameter, teeth number, tooth shape, and blade thickness are available upon request. | | | | | | | | | | |

## 全鎢鋼圓鋸片(適用CNC自動車床)

## SOLID TUNGSTEN CIRCULAR SAWBLADE
(Applicable for CNC automatic lathe)

| 外徑(D)/Outside Dia (D) | 20 | 25 | 35 | 40 | 45 | 50 | 60 | 75 | 85 | 100 | 125 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 孔徑(d)/Hole Dia (d) | 6 | 6 | 8 | 8 | 12.7 | 12.7 | 12.7 | 25.4 | 25.4 | 25.4 | 25.4 |
| 厚度(T)/Thickness (T) | Z齒數 / Teeth Number (Z) | | | | | | | | | | |
| 0.30 | 54 | 54 | 76 | 76 | 80 | | | | | | |
| 0.40 | 54 | 54 | 76 | 76 | 80 | | | | | | |
| 0.50 | 54 | 54 | 76 | 76 | 80 | 100 | 120 | | | | |
| 0.60 | 54 | 54 | 76 | 76 | 80 | 100 | 120 | 120 | 140 | 160 | 180 |
| 0.70 | 54 | 54 | 76 | 76 | 80 | 100 | 120 | 120 | 140 | 160 | 180 |
| 0.80 | 54 | 54 | 76 | 76 | 80 | 100 | 120 | 120 | 140 | 160 | 180 |
| 0.90 | 54 | 54 | 76 | 76 | 80 | 100 | 120 | 120 | 140 | 160 | 180 |
| 1.00 | 54 | 54 | 76 | 76 | 80 | 100 | 120 | 120 | 140 | 160 | 180 |
| 1.20 | 54 | 54 | 76 | 76 | 80 | 100 | 120 | 120 | 140 | 160 | 180 |
| 1.40 | 54 | 54 | 76 | 76 | 80 | 100 | 120 | 120 | 140 | 160 | 180 |
| 1.60 | 54 | 54 | 76 | 76 | 80 | 100 | 120 | 120 | 140 | 160 | 180 |
| 1.80 | 54 | 54 | 76 | 76 | 80 | 100 | 120 | 120 | 140 | 160 | 180 |
| 2.00 | 54 | 54 | 76 | 76 | 80 | 100 | 120 | 120 | 140 | 160 | 180 |
| 2.50<br>3.00<br>3.50<br>4.00 | 特殊規格外徑、孔徑、齒數、齒型、厚度可接受訂製。<br>Custom outside diameter, hole diameter, teeth number, tooth shape, and blade thickness are available upon request. | | | | | | | | | | |

備註：孔徑英制、美制規格可接受訂購。 NOTE: Hole diameter in metric or inch size may be specified.

### 全鎢鋼鋸片溝槽型加工參考指數 / RECOMMENDED SLOT MACHINING DATA FOR SOLID TUNGSTEN SAWBLADE

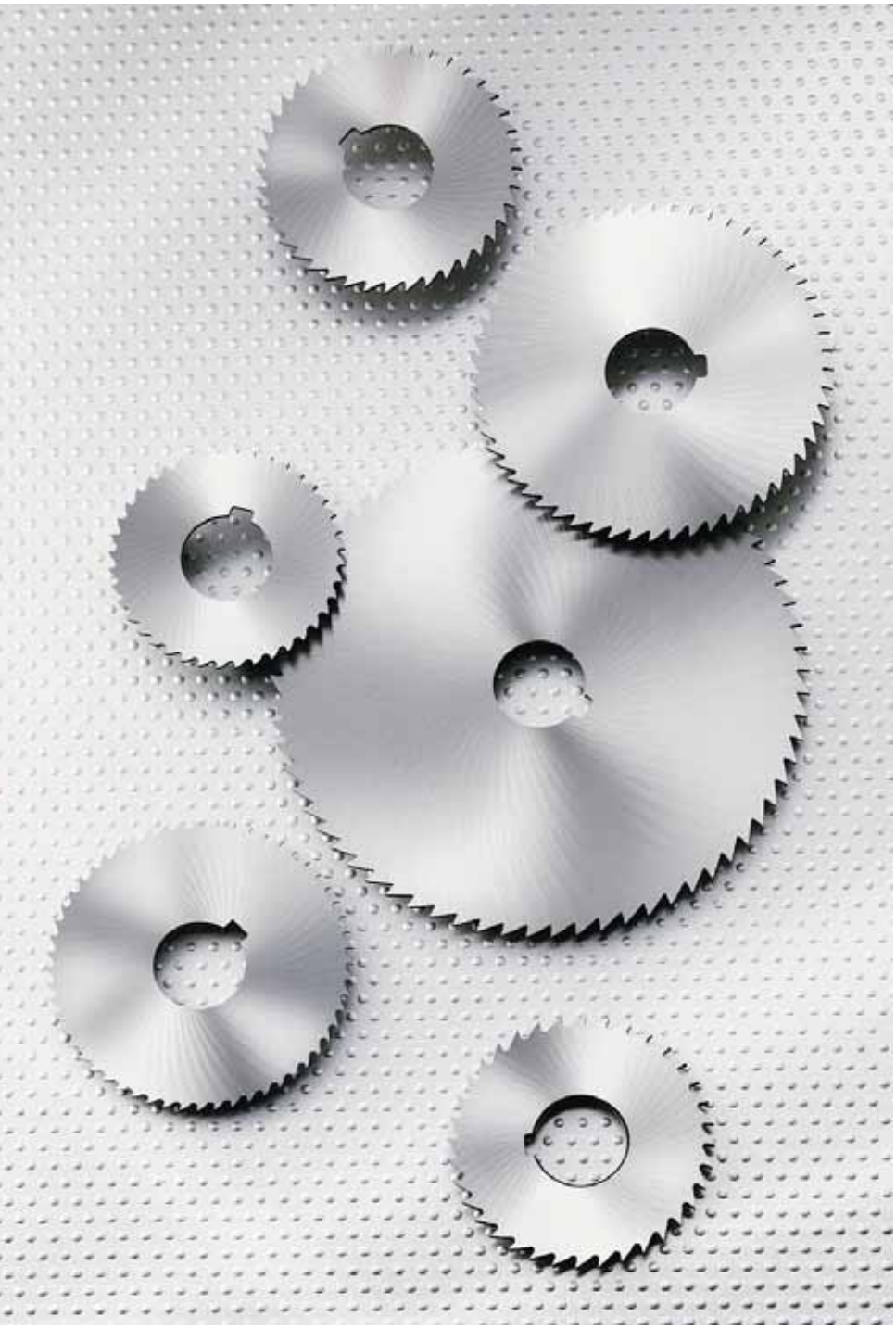
| 工件材質 Workpiece Matl | 碳鋼 / Carbon Steel | | 特殊鋼 / Special Steel | | 鋁合金 / Aluminum Alloy | | 銅合金 / Copper Alloy | | 鑄鐵 / Cast Iron | |
|---|---|---|---|---|---|---|---|---|---|---|
| | HRC30下 / Under HRC30 | | HRC30 ~ 40 | | 2024AC8A | | C2600B.BC | | FC15.25 | |
| 切削速度 / Cutting Rate | 60 m/min | | 45 m/min | | 150 m/min | | 2000 m/min | | 60 m/min | |
| 外徑(D)/Outside Dia (D) | 轉速 / Speed RPM | 進給 / Feed mm/min | 轉速 / Speed RPM | 進給 / Feed mm/min | 轉速 / Speed RPM | 進給 / Feed mm/min | 轉速 / Speed RPM | 進給 / Feed mm/min | 轉速 / Speed RPM | 進給 / Feed mm/min |
| 20 | 900 | 450 | 710 | 350 | 2300 | 1150 | 3100 | 1550 | 900 | 450 |
| 25 | 760 | 380 | 570 | 285 | 1910 | 955 | 2500 | 1250 | 760 | 380 |
| 35 | 540 | 360 | 400 | 266 | 1360 | 906 | 1800 | 1200 | 540 | 360 |
| 40 | 470 | 310 | 350 | 233 | 1190 | 793 | 1590 | 1060 | 470 | 310 |
| 50 | 380 | 340 | 280 | 252 | 950 | 855 | 1250 | 1125 | 380 | 340 |
| 60 | 310 | 330 | 230 | 245 | 795 | 840 | 1060 | 1130 | 310 | 330 |
| 75 | 250 | 260 | 190 | 202 | 630 | 670 | 840 | 890 | 250 | 260 |
| 85 | 220 | 230 | 160 | 170 | 560 | 597 | 740 | 780 | 220 | 230 |
| 100 | 190 | 220 | 140 | 160 | 470 | 540 | 630 | 730 | 190 | 220 |
| 125 | 150 | 210 | 110 | 150 | 380 | 540 | 500 | 710 | 150 | 210 |

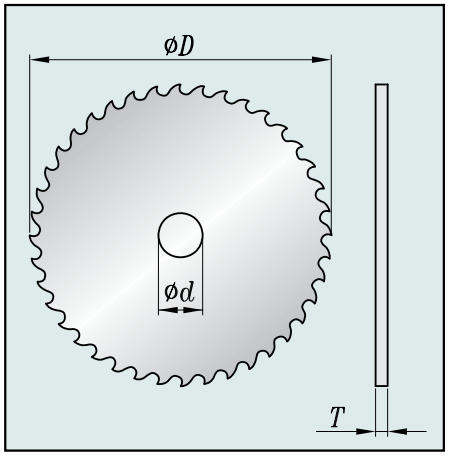
### 全鎢鋼鋸片CNC自動車床型加工參考指數
### RECOMMENDED MACHINING DATA OF CNC AUTOMATIC LATHE FOR SOLID TUNGSTEN SAWBLADE

| 外徑(D)/Outside Dia (D) | 轉速 / Speed RPM | 進給 / Feed mm/min | 轉速 / Speed RPM | 進給 / Feed mm/min | 轉速 / Speed RPM | 進給 / Feed mm/min | 轉速 / Speed RPM | 進給 / Feed mm/min | 轉速 / Speed RPM | 進給 / Feed mm/min |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 | 900 | 810 | 710 | 630 | 2300 | 2050 | 3100 | 2700 | 900 | 810 |
| 25 | 760 | 680 | 570 | 510 | 1910 | 1700 | 2500 | 2250 | 760 | 680 |
| 35 | 540 | 680 | 400 | 500 | 1360 | 1700 | 1800 | 2250 | 540 | 680 |
| 40 | 470 | 620 | 350 | 460 | 1190 | 1580 | 1590 | 2100 | 470 | 620 |
| 50 | 380 | 630 | 280 | 460 | 950 | 1550 | 1250 | 2050 | 380 | 630 |
| 60 | 310 | 620 | 230 | 460 | 795 | 1590 | 1060 | 2100 | 310 | 620 |
| 75 | 250 | 625 | 190 | 475 | 630 | 1575 | 840 | 2100 | 250 | 625 |
| 85 | 220 | 580 | 160 | 420 | 560 | 1490 | 740 | 1950 | 220 | 580 |
| 100 | 190 | 570 | 140 | 420 | 470 | 1410 | 630 | 1850 | 190 | 570 |
| 125 | 150 | 500 | 110 | 360 | 380 | 1260 | 500 | 1660 | 150 | 500 |

• Specifications and design characteristics are subject to change without prior notice.
由於本公司不斷研究改良，上述規格及設計特性若有變更，恕不另行通知。

# HSS 小徑槽鋸片
# HSS SMALL DIAMETER SLOTTING CIRCULAR SAWBLADE








A 型齒
A Tooth Shpae



A+A 型齒
A+A Tooth Shpae



B 型齒
B Tooth Shpae

## HSS 小徑溝槽圓鋸片
## HSS SMALL DIAMETER SLOTTING CIRCULAR SAWBLADE

| 外徑(D)/Outside Dia (D) | 45 | 50 | 75 | 100 | 125 | 150 |
|---|---|---|---|---|---|---|
| 孔徑(d)/Hole Dia (d) | 12.7 | 12.7 | 25.4 | 25.4 | 25.4 | 25.4 |
| 厚度(T)/Thickness (T) | 齒數(Z) / Teeth Number (Z) | | | | | |
| 0.50 | 64 | 64 | 64 | 72 | | |
| 0.70 | 64 | 64 | 64 | 72 | 86 | |
| 0.80 | 64 | 64 | 64 | 72 | 86 | 100 |
| 1.00 | 64 | 64 | 64 | 72 | 86 | 100 |
| 1.50 | | | 54 | 54 | 56 | 86 |
| 2.00 | | | 54 | 54 | 56 | 86 |
| 2.50<br>3.00<br>3.50<br>4.00 | 特殊規格外徑、孔徑、齒數、齒型、厚度可接受訂製。<br>Custom outside diameter, hole diameter, teeth number, tooth shape, and blade thickness are available upon request. | | | | | |

**備註：孔徑英制、美制規格可接受訂購。**
NOTE: Hole diameter in metric or inch size may be specified.

## HSS 金屬圓鋸片
## HSS METAL CIRCULAR SAWBLADE

| 外徑(D) | | 厚度(T) | | 孔徑(d) | 外徑(D) | | 厚度(T) | | 孔徑(d) |
|---|---|---|---|---|---|---|---|---|---|
| Outside Dia (D) | | Thickness (T) | | Hole Dia (d) | Outside Dia (D) | | Thickness (T) | | Hole Dia (d) |
| 250 | x | 1.0 | x | 32 | 325 | x | 12.0 | x | 32 |
| 250 | x | 1.2 | x | 32 | 325 | x | 2.5 | x | 32 |
| 250 | x | 1.5 | x | 32 | 350 | x | 2.0 | x | 32 |
| 250 | x | 2.0 | x | 32 | 350 | x | 2.5 | x | 32 |
| 275 | x | 1.2 | x | 32 | 370 | x | 2.0 | x | 32 |
| 275 | x | 1.6 | x | 32 | 370 | x | 2.5 | x | 32 |
| 275 | x | 2.0 | x | 32 | 400 | x | 2.5 | x | 32 |
| 300 | x | 1.6 | x | 32 | 400 | x | 3.0 | x | 32 |
| 300 | x | 2.0 | x | 32 | 450 | x | 3.0 | x | 32 |
| 300 | x | 2.2 | x | 32 | 500 | x | 3.0 | x | 32 |
| 300 | x | 2.5 | x | 32 | 600 | x | 4.0 | x | 32 |
| 315 | x | 2.0 | x | 32 | 700 | x | 4.0 | x | 32 |

## HSS 小徑槽鋸片加工參考指數 / RECOMMENDED SLOT MACHINING DATA FOR SMALL DIAMETER HSS SAWBLADE

| 工件材質 Workpiece Mat'l | 鑄造 碳鋼 / Casting Carbon Steel | | 特殊鋼 / Special Steel<br>工具鋼 / Tool Steel<br>不鏽鋼 / Stainless Steel | | 可鍛鑄鐵 / Forging Cast Iron<br>可鍛鑄銅 / Forging Cast Copper | | 銅合金 / Copper Alloy | | 鋁合金 / Aluminum Alloy | |
|---|---|---|---|---|---|---|---|---|---|---|
| 切削速度 / Cutting Rate | 27 ~ 35 m/min | | 17 ~ 25 m/min | | 20 ~ 25 m/min | | 50 ~ 115 m/min | | 120 ~ 240 m/min | |
| 外徑(D)/Outside Dia.(D) | 轉速 / Speed RPM | 進給 / Feed mm/min | 轉速 / Speed RPM | 進給 / Feed mm/min | 轉速 / Speed RPM | 進給 / Feed mm/min | 轉速 / Speed RPM | 進給 / Feed mm/min | 轉速 / Speed RPM | 進給 / Feed mm/min |
| 45 | 212 | 270 ~ 400 | 141 | 180 ~ 260 | 141 | 180 ~ 260 | 425 | 540 ~ 720 | 851 | 100 ~ 1300 |
| 50 | 191 | 244 ~ 310 | 127 | 162 ~ 180 | 127 | 162 ~ 180 | 382 | 488 ~ 560 | 764 | 977 ~ 110 |
| 75 | 127 | 162 ~ 185 | 85 | 108 ~ 125 | 85 | 108 ~ 125 | 255 | 326 ~ 460 | 510 | 652 ~ 750 |
| 100 | 95 | 136 ~ 150 | 63 | 90 ~ 110 | 63 | 90 ~ 110 | 191 | 275 ~ 350 | 382 | 550 ~ 670 |
| 125 | 76 | 130 ~ 145 | 51 | 87 ~ 105 | 51 | 87 ~ 105 | 153 | 263 ~ 310 | 306 | 526 ~ 650 |
| 150 | 63 | 126 ~ 135 | 42 | 84 ~ 96 | 42 | 84 ~ 96 | 127 | 254 ~ 290 | 254 | 508 ~ 580 |

• Specifications and design characteristics are subject to change without prior notice.
由於本公司不斷研究改良，上述規格及設計特性若有變更，恕不另行通知。

# ▶ 側銑刀系列 SIDE MILLING CUTTERS

## 千鳥刃側銑刀
STAGGERED SIDE MILLING CUTTER

## 殼型銑刀
SHELL MILLING CUTTER



### 千鳥刃側銑刀
STAGGERED SIDE MILLING CUTTER

| | | | | | | |
|---|---|---|---|---|---|---|
| 外徑 Outside diameter | 75 | 100 | 125 | 150 | 175 | 200 |
| | 3" | 4" | 5" | 6" | 7" | 8" |
| 齒數 Teeth number | 18 | 20 | 22 | 24 | 26 | 28 |
| 孔徑 Hole diameter | | | 25.4 | 1" | | |
| 厚度 Thickness | 4 | 6 | 8 | 10 | 12 | 13 |
| | 14 | 15 | 18 | 20 | | |
| | 1/4" | 5/16" | 3/8" | 7/16" | 1/2" | 9/16" |
| | 5/8" | 3/4" | | | | |

特殊規格可接受訂製
Special specifications are available.

- 殼型銑刀規格特殊，依客戶需求可接受訂製，無現品庫存。
- The shell milling cutters are special specifications. Therefore, it's out of stock and made by order.

# 片角與等角銑刀
## SINGLE AND DOUBLE MILLING CUTTER



## 片角與等角銑刀
### SINGLE AND DOUBLE MILLING CUTTER

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 外徑 Outside diameter | 75 | 100 | 125 | 150 | | | |
| | 3" | 4" | 5" | 6" | | | |
| 齒數 Teeth number | 22 | 26 | 28 | 32 | | | |
| 厚度 Thickness | 8 | 10 | 12 | 14 | 16 | 18 | 20 |

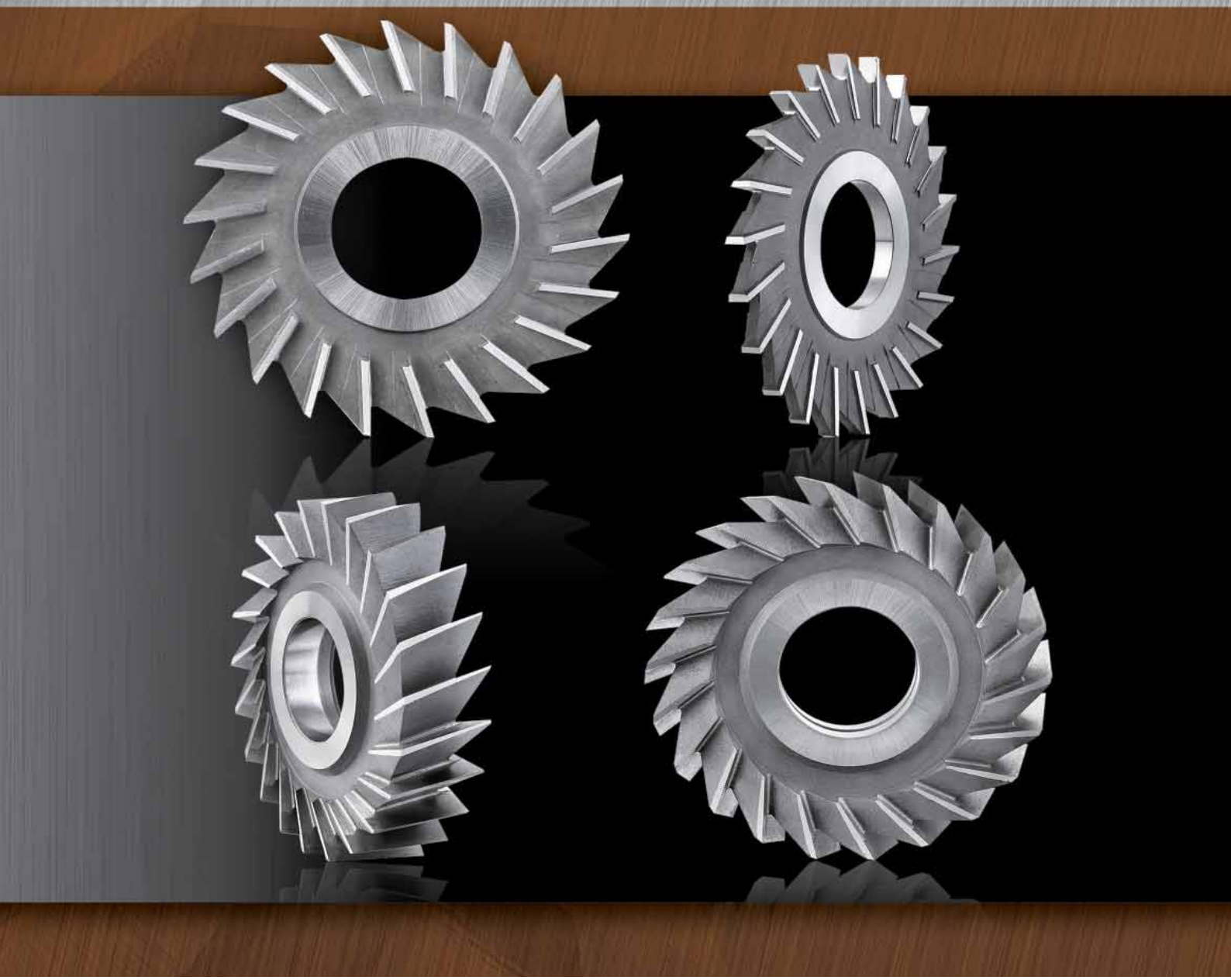
| 角度分列 Angle Types | | | |
|---|---|---|---|
| 厚度 Thickness | 10 | 12 | 18 |
| 角度 Angle | 30°~ 35° | 45°~ 90° | 45°60°90° |

特殊規格角度可接受訂製
Special angle can be specified upon request.

# ▶ 側銑刀系列 SIDE MILLING CUTTERS

## 側銑刀與斜刃側銑刀

SIDE MILLING CUTTER AND BEVEL BLADE SIDE MILLING CUTTER



### 側銑刀與斜刃側銑刀
SIDE MILLING CUTTER AND BEVEL BLADE SIDE MILLING CUTTER

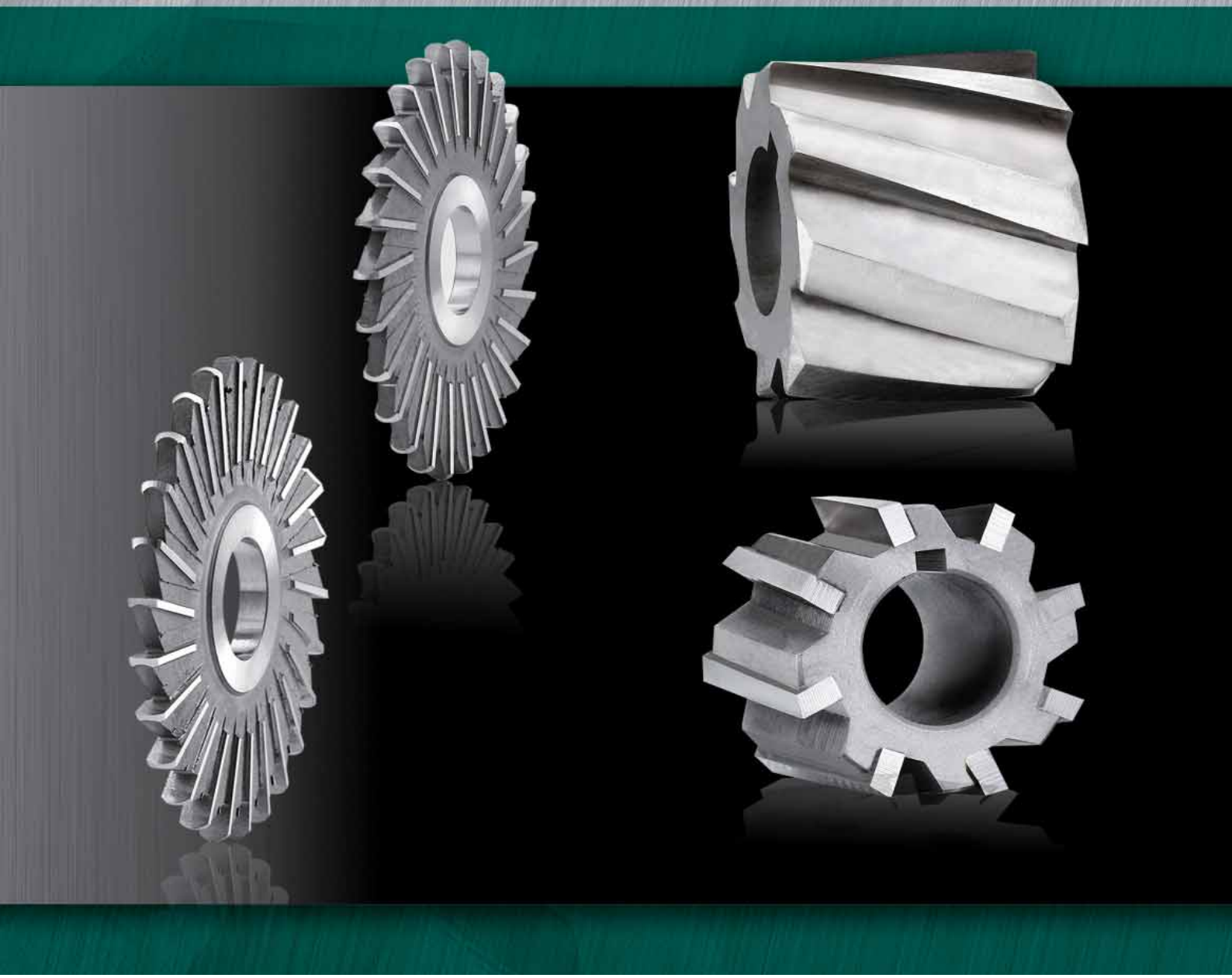
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 外徑 Outside diameter | 50 | 60 | 75 | 100 | 125 | 150 | 175 | 200 |
| | 2" | 2½" | 3" | 4" | 5" | 6" | 7" | 8" |
| 齒數 Teeth number | 18 | 20 | 22 | 26 | 28 | 32 | 34 | 36 |
| 孔徑 Hole diameter | | | | 25.4 | 1" | | | |
| 厚度 Thickness | 3.0 | 4.0 | 5.0 | 6.0 | 7.0 | 8.0 | 9.0 | |
| | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| | 18 | 19 | 20 | 22 | 24 | 25 | | |
| | ⅛" | 3⁄16" | ¼" | 5⁄16" | ⅜" | ½" | ⅝" | ¾" |

特殊規格角度可接受訂製

Special specifications are available upon request.

# 外丸銑刀
CONVE MILLING CUTTER

# 平面銑刀
FACE MILLING CUTTER



## 外丸銑刀
CONVE MILLING CUTTER

| | | | | | |
|---|---|---|---|---|---|
| 外徑 Outside diameter | 75 | | | | |
| 齒數 Teeth number | 12 | | | | |
| 孔徑 Hole diameter | 25.41" | | | | |
| 厚度 Thickness | 3 | 4 | 5 | 6 | 7 |
| R 角 R angle | 1.5R | 2R | 2.5R | 3R | 3.5R |
| 厚度 Thickness | 8 | 9 | 10 | 11 | 12 |
| R 角 R angle | 4R | 4.5R | 5R | 5.5R | 6R |
| 厚度 Thickness | 13 | 14 | 15 | 16 | 17 |
| R 角 R angle | 6.5R | 7R | 7.5R | 8R | 8.5R |
| 厚度 Thickness | 18 | 19 | 20 | 21 | 22 |
| R 角 R angle | 9R | 9.5R | 10R | 10.5R | 11R |

本產品為訂製成型刀具,無現品供應訂製,
本產品需出具圖面作為依據
The series is profiled cutters without stock for immediate delivery.
when ordering, please provide drawing for manufacturing.

## 平面銑刀
FACE MILLING CUTTER

| | | | | |
|---|---|---|---|---|
| 外徑 Outside diameter | 50 | 60 | 75 | 100 |
| 厚度 Thickness | 50 | 40 | 50 | 50 |
| | 60 | 50 | 60 | 75 |
| | | 60 | 75 | 100 |
| | | | | 125 |
| 齒數 Teeth number | 12 | 14 | 14 | 16 |
| 孔徑 Hole diameter | 25.4 | | 1" | |

- 特殊規格可接受訂製
- 有焊接鎢鋼材質
- Special specifications are available upon request.
- Welded tungsten material is available.

## 主軸夾頭、背軸夾頭
Mail & sub spindle collet



## 中心導套
Guide Bush

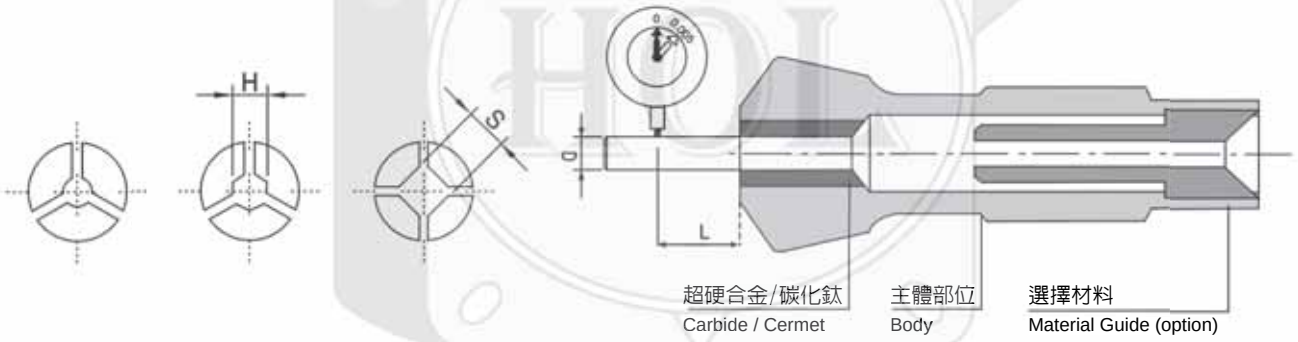


# 產品介紹 PRODUCT TO INTRODUCE

## 鉆嘴夾頭、ER系列動力夾頭、送料機夾頭、專用機夾頭
Drill Collet, ER collet, Special Finger Chuck



# 品質與檢查標準 QUALITY CONTROL INSPECTION




Accuracy Chart (精度表) 單位：mm

| Roundness Tolerance | | |
|---|---|---|
| D | L=D×3 | TIR |
| 0.7-1.2 | 4 | 0.004 |
| 1.2-1.8 | 6 | 0.005 |
| 1.8-4.0 | 10 | |
| 4.0-6.0 | 16 | |
| 6.0-10.0 | 25 | |
| 10.0-18.0 | 40 | 0.008 |
| 18.0-24.0 | 50 | |
| 24.0-30.0 | 60 | 0.010 |
| 30.0-40.0 | 80 | 0.015 |

| Hexagonal & Square Tolerance | | |
|---|---|---|
| D | L=D×3 | TIR |
| 10.0-3.0 | 10 | 0.02 |
| 3.0-6.0 | 16 | |
| 6.0-10.0 | 25 | |
| 10.0-18.0 | 40 | |
| 18.0-24.0 | 50 | 0.02 |
| 24.0-35.0 | 60 | |

# Collets & Bushes Reference Chart

| 型 號 Model | Shank Dia. (中徑) | | | Length (長度) | | | Range max Ø | Remark |
|---|---|---|---|---|---|---|---|---|
| | Collet | Guide Bush | Sub Collet | Collet | Guide Bush | Sub Collet | | |
| **Citizen (西鐵城)** | | | | | | | | |
| R04 | 8.0 | 9.0 | | 36.0 | 38.5 | | 0.5-4.0 | |
| L10 | 15.0 | 16.0 | | 45.5 | 50.0 | | 1.0-10.0 | |
| R07 | 15.0 | 16.0 | | 45.5 | 50.0 | | 1.0-10.0 | |
| A12 | 16.0 | 18.0 | | 62.0 | 60.0 | | 1.0-12.0 | |
| B12 | 16.0 | 18.0 | | 62.0 | 60.0 | | 1.0-12.0 | |
| C12 | 16.0 | 18.0 | | 62.0 | 60.0 | | 1.0-12.0 | |
| K12 | 16.0 | 18.0 | | 62.0 | 60.0 | | 1.0-12.0 | |
| M12 | 16.0 | 18.0 | | 62.0 | 60.0 | | 1.0-12.0 | |
| BL12 | 19.05 | | 16.0 | 77.0 | | 62.0 | 1.0-12.0 | Slot Sealed |
| A16 | 20.0 | 22.0 | 20.0 | 67.0 | 68.0 | 67.0 | 1.0-16.0 | Slot Sealed |
| C16 | 20.0 | 22.0 | 20.0 | 67.0 | 68.0 | 67.0 | 1.0-16.0 | Slot Sealed |
| K16 | 20.0 | 22.0 | 20.0 | 67.0 | 68.0 | 67.0 | 1.0-16.0 | Slot Sealed |
| M16-111 | 20.0 | 22.0 | 20.0 | 67.0 | 68.0 | 67.0 | 1.0-16.0 | Slot Sealed |
| L16/20 | 26.0 | 30.0 | 26.0 | 67.0 | 59.0 | 67.0 | 2.0-20.0 | Slot Sealed |
| B20 | 26.0 | 30.0 | 26.0 | 67.0 | 59.0 | 67.0 | 2.0-20.0 | Slot Sealed |
| M20 | 26.0 | 30.0 | 26.0 | 67.0 | 59.0 | 67.0 | 2.0-20.0 | Slot Sealed |
| E16/20 | 26.0 | 30.0 | 26.0 | 67.0 | 59.0 | 67.0 | 2.0-20.0 | Slot Sealed |
| F16/20 | 26.0 | 30.0 | 26.0 | 67.0 | 59.0 | 67.0 | 2.0-20.0 | Slot Sealed |
| BL20 | 33.0 | | 26.0 | 100.0 | | 67.0 | 2.0-25.0 | Slot Sealed |
| BL25 | 33.0 | | 30.0 | 100.0 | | 78.0 | 2.0-25.0 | Slot Sealed |
| L25 | 30.0 | 34.0 | 30.0 | 78.0 | 87.0 | 78.0 | 2.0-25.0 | Slot Sealed |
| F25 | 30.0 | 34.0 | 30.0 | 78.0 | 87.0 | 78.0 | 2.0-25.0 | Slot Sealed |
| E25 | 30.0 | 34.0 | 30.0 | 78.0 | 87.0 | 78.0 | 2.0-25.0 | Slot Sealed |
| FL25 | 32.0 | | 32.0 | 75.0 | | 75.0 | 1.0-25.0 | Slot Sealed |
| C32 | 37.0 | 42.0 | 37.0 | 97.0 | 82.0 | 97.0 | 4.0-32.0 | Slot Sealed |
| L32 | 37.0 | 42.0 | 37.0 | 97.0 | 82.0 | 97.0 | 4.0-32.0 | Slot Sealed |
| M32 | 37.0 | 42.0 | 37.0 | 97.0 | 82.0 | 97.0 | 4.0-32.0 | Slot Sealed |
| E32 | 37.0 | 42.0 | 37.0 | 97.0 | 82.0 | 97.0 | 4.0-32.0 | Slot Sealed |
| **Star (星牌)** | | | | | | | | |
| SJ-8R | 12.0 | 14.0 | | 51.0 | 34.0 | | 1.0-8.0 | |
| SJ-8R太口 | 15.0 | 16.0 | | 64.0 | 37.0 | | 1.0-10.0 | |
| SW-7 | 15.0 | 16.0 | 15.0 | 64.0 | 59.0 | 64.0 | 1.0-7.0 | Slot Sealed |
| JNC10 | 15.0 | 16.0 | | 64.0 | 59.0 | | 1.0-10.0 | |
| RNC10 | 15.0 | 16.0 | | 64.0 | 59.0 | | 1.0-10.0 | |
| SNC10 | 15.0 | 16.0 | | 64.0 | 59.0 | | 1.0-10.0 | |
| SJ15 | 18.0 | 21.0 | | 67.0 | 58.0 | | 1.0-15.0 | |
| SH12 | 18.0 | 21.0 | | 67.0 | 58.0 | | 1.0-15.0 | |
| VNC12 | 18.0 | 21.0 | | 67.0 | 58.0 | | 1.0-15.0 | |
| S13 | 18.0 | 21.0 | | 67.0 | 58.0 | | 1.0-15.0 | |
| SNC15 | 18.0 | 21.0 | | 67.0 | 58.0 | | 1.0-15.0 | |
| SA16 | 20.0 | 22.0 | 20.0 | 67.0 | 68.0 | 67.0 | 2.0-16.0 | Slot Sealed |
| SH16 | 20.0 | 22.0 | 20.0 | 67.0 | 68.0 | 67.0 | 2.0-16.0 | Slot Sealed |
| SR16 | 20.0 | 22.0 | | 67.0 | 68.0 | | 2.0-16.0 | |
| SR16R | 20.0 | 22.0 | | 67.0 | 68.0 | | 2.0-16.0 | |
| RNC16 | 20.0 | 22.0 | | 67.0 | 68.0 | | 2.0-16.0 | |
| VNC20 | 26.0 | 30.0 | | 67.0 | 59.0 | | 2.0-20.0 | |
| SR20/20R | 26.0 | 30.0 | 26.0 | 67.0 | 59.0 | 67.0 | 2.0-20.0 | Slot Sealed |
| KNC20 | 26.0 | 30.0 | | 67.0 | 59.0 | | 2.0-20.0 | |
| SV20 | 26.0 | 30.0 | 26.0 | 67.0 | 59.0 | 67.0 | 2.0-20.0 | Slot Sealed |
| JNC20 | 26.0 | 30.0 | | 67.0 | 59.0 | | 2.0-20.0 | |
| JNC32 | 37.0 | 42.0 | | 92.0 | 82.0 | | 3.0-30.0 | |
| KNC32 | 37.0 | 42.0 | | 92.0 | 82.0 | | 3.0-30.0 | |
| JNC25 | 37.0 | 42.0 | | 92.0 | 82.0 | | 3.0-30.0 | |
| KNC25 | 37.0 | 42.0 | | 92.0 | 82.0 | | 3.0-30.0 | |
| **Tsugami (津上)** | | | | | | | | |
| T7 | 10.0 | 11.0 | | 47.0 | 52.0 | | 0.5-7.0 | |
| BO007 | 10.0 | 11.0 | 10.0 | 47.0 | 52.0 | 47.0 | 0.5-7.0 | Slot Sealed |
| L10 | 14.0 | 15.0 | | 47.0 | 54.0 | | 1.0-10.0 | |
| NT11 | 14.0 | 15.0 | | 47.0 | 54.0 | | 1.0-10.0 | |
| NP11 | 14.0 | 15.0 | | 47.0 | 54.0 | | 1.0-10.0 | |
| NP16/17 | 23.8 | 23.0 | 23.8 | 62.0 | 72.0 | 62.0 | 1.0-18.0 | Slot Sealed |
| NT17 | 23.8 | 23.0 | | 62.0 | 72.0 | | 1.0-18.0 | |
| BO12 | 23.8 | 23.0 | | 62.0 | 72.0 | | 1.0-18.0 | |
| BS12 | 23.8 | 23.0 | | 62.0 | 72.0 | | 1.0-18.0 | |
| BS18 | 28.0 | 30.0 | 23.8 | 77.0 | 70.0 | 62.0 | 1.0-20.0 | Slot Sealed |

# Collets & Bushes Reference Chart

| 型 號 Model | Shank Dia. (中徑) | | | Length (長度) | | | Range max Ø | Remark |
|---|---|---|---|---|---|---|---|---|
| | Collet | Guide Bush | Sub Collet | Collet | Guide Bush | Sub Collet | | |
| **Tsugami (津上)** | | | | | | | | |
| BS20 | 28.0 | 30.0 | 25.0 | 77.0 | 70.0 | 77.0 | 1.0-20.0 | Slot Sealed |
| BO18 | 28.0 | 30.0 | 23.8 | 77.0 | 70.0 | 62.0 | 1.0-20.0 | Slot Sealed |
| S20 | 28.0 | 30.0 | | 77.0 | 70.0 | | 1.0-20.0 | |
| NP20 | 25.0 | 30.0 | | 77.0 | 70.0 | | 2.0-20.0 | |
| BM16 | 30.0 | | 16.0 (23.8) | 75.0 | | 62.0 (62.0) | 4.0-20.0 | Slot Sealed |
| BA26 | 33.0 | 33.0 | 25.0 | 80.0 | 70.0 | 80.0 | 3.0-28.0 | Slot Sealed |
| BS26 | 33.0 | 34.0 | | 80.0 | 87.5 | | 3.0-28.0 | |
| **Nomura (野村)** | | | | | | | | |
| P10 | 16.0 | 16.0 | | 53.0 | 63.0 | | 1.0-10.0 | |
| NS-P1053 | 16.0 | 16.0 | | 53.0 | 63.0 | | 1.0-10.0 | |
| P16 | 20.0 | 22.0 | | 67.0 | 70.0 | | 1.0-16.0 | |
| NS-P1653 | 20.0 | 22.0 | | 67.0 | 70.0 | | 1.0-16.0 | |
| P20 | 26.0 | 30.0 | | 67.5 | 67.5 | | 2.0-20.0 | |
| **Tornos (瑞士特納斯)** | | | | | | | | |
| Deco | | | | | | | | |
| D7 | 13.0 | 16.0 | | 64.0 | 59.0 | | 1.0-7.0 | |
| D10 | 13.0 | 16.0 | | 64.0 | 59.0 | | 1.0-10.0 | |
| D13 | 20.0 | 24.0 | 20.0 | 54.0 | 61.0 | 54.0 | 1.0-16.0 | Slot Sealed |
| D20 | 25.0 | 28.0 | 25.0 | 77.0 | 81.0 | 77.0 | 2.0-20.0 | Slot Sealed |
| | | | | | | | | |
| MultiDeco20 | 34.0 | | 28.0 | 87.0 | | 73.0 | 3.0-20.0 | Slot Sealed |
| **Riken (理研)** | | | | | | | | |
| SAD25 | 30.0 | | | 66.0 | | | 3.0-25.0 | |
| SAD40 | 48.0 | | | 84.0 | | | 40.0 below | |
| SAD50 | 56.0 | | | 94.0 | | | 50.0 below | |
| **Miyano (宮野)** | | | | | | | | |
| BNC20 | 27.0 | | | 73.0 | | | 1.0-20.0 | |
| BNC34 | 44.4 | | | 108.0 | | | 1.0-34.0 | |
| B6-20 | 41.0 | | | 138.0 | | | | |
| BNF16 | 28.0 | | 22.0 | 70.0 | | 55.0 | 1.0-21.0 | Slot Sealed |
| 171E | 42.0 | | | 94.0 | | | 5.0-32.0 | |
| 173E | 48.0 | | | 94.0 | | | 5.0-38.0 | |
| 176E | 56.0 | | | 94.0 | | | 5.0-48.0 | |
| 177E | 58.0 | | | 94.0 | | | 5.0-48.0 | |
| **Strom** | | | | | | | | |
| M125 | 15.0 | 18.0 | | 64.0 | 60.0 | | 1.0-12.0 | |
| M105 | 15.0 | 18.0 | | 64.0 | 60.0 | | 1.0-12.0 | |
| **Eugro (江黑)** | | | | | | | | |
| D6 | 19.05 | | | 77.0 | | | 1.0-12.0 | |
| D8 | 25.0 | | | 103.0 | | | 2.0-18.0 | |
| **Hydromat** | | | | | | | | |
| W25 | 25.0 | | | 97.5 | | | 2.0-20.0 | |
| **Takahashi** | 26.0 | | | 120.0 | | | 2.0-20.0 | |
| **Kitamura** | | | | | | | | |
| KI20 | 26.0 | | | 105.0 | | | 2.0-20.0 | |
| **ACME** | | | | | | | | |
| ACME5/8 | 31.0 | | | 105.0 | | | 1.0-8.0 | |
| ACME7/16 | 24.0 | | 17.1 | 78.5 | | 65.0 | 2.0-16.0 | Slot Sealed |

# 側銑刀切削條件加工參考指數

## RECOMMENDED SLOT MACHINING DATA FOR SIDE MILLING CUTTER

### 切削條件加工參考指數
### 側銑刀/千鳥刃側銑刀之切削條件
### RECOMMENDED SLOT MACHINING DATA FOR SIDE MILLING CUTTER STAGGERED SIDE MILLING CUTTER ETC.

| 工件材質 Workpiece Mat'l | 鑄鐵 Casting iron | | 碳鋼 Carbon Steel | | 特殊鋼 工具鋼 不鏽鋼 耐熱鋼等 Special Steel Tool Steel Stainless Steel Heat-Resistant Steel etc. | | 可鍛鑄鐵、鑄鋼 Forging Cast Iron Forging Cast Steel | | 銅及銅合金 Copper & Copper Alloy | | 鋁合金 Aluminum Alloy | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 切削速度 Cutting Rate | 25~35 m/min | | 25~35 m/min | | 15~25 m/min | | 25~35 m/min | | 40~80 m/min | | 100~200 m/min | |
| 刃徑 D(mm) Outside Dia. (D) | 迴轉數 rpm Speed RPM | 進給速度 mm/min Feed mm/min | 迴轉數 rpm Speed RPM | 進給速度 mm/min Feed mm/min | 迴轉數 rpm Speed RPM | 進給速度 mm/min Feed mm/min | 迴轉數 rpm Speed RPM | 進給速度 mm/min Feed mm/min | 迴轉數 rpm Speed RPM | 進給速度 mm/min Feed mm/min | 迴轉數 rpm Speed RPM | 進給速度 mm/min Feed mm/min |
| 75 | 120 | 100~200 | 120 | 100~200 | 80 | 70~130 | 120 | 100~200 | 250 | 230~300 | 630 | 500~1000 |
| 100 | 90 | 80~150 | 90 | 80~150 | 60 | 60~110 | 90 | 80~150 | 190 | 210~280 | 470 | 400~800 |
| 125 | 75 | 80~140 | 75 | 80~140 | 50 | 50~100 | 75 | 80~140 | 150 | 200~260 | 380 | 350~700 |
| 150 | 60 | 80~120 | 60 | 80~120 | 40 | 50~90 | 60 | 80~120 | 130 | 190~250 | 310 | 350~700 |
| 175 | 55 | 70~110 | 55 | 70~110 | 35 | 40~80 | 55 | 70~110 | 110 | 180~240 | 270 | 300~600 |
| 200 | 50 | 60~100 | 50 | 60~100 | 30 | 40~80 | 50 | 50~100 | 95 | 180~240 | 230 | 300~600 |

### 切削條件加工參考指數
### 平面銑刀之切削條件
### RECOMMENDED SLOT MACHINING DATA FOR FACE MILLING CUTTER ETC.

| 工件材質 Workpiece Mat'l | 鑄鐵 Casting iron | 碳鋼 Carbon Steel | 特殊鋼 工具鋼 不鏽鋼 耐熱鋼等 Special Steel Tool Steel Stainless Steel Heat-Resistant Steel etc. | 可鍛鑄鐵、鑄鋼 Forging Cast Iron Forging Cast Steel | 銅及銅合金 Copper & Copper Alloy | 鋁合金 Aluminum Alloy |
|---|---|---|---|---|---|---|
| 切削速度 Cutting Rate / 刃徑 D(mm) Outside Dia. (D) | 20~25 m/min | 20~25 m/min | 15~20 m/min | 22~25 m/min | 40~120 m/min | 200~300 m/min |
| 75 | 0.20~0.29 | 0.11~0.17 | 0.09~0.12 | 0.15~0.18 | 0.07~0.18 | 0.06~0.15 |
| 90 | 0.17~0.24 | 0.09~0.13 | 0.08~0.10 | 0.13~0.14 | 0.05~0.15 | 0.05~0.12 |

- 由於本公司不斷研究改良，上述規格及設計特性若有變更，恕不另行通知。
- Specifications and design characteristics are subject to change without prior notice.

# 尺寸公差表

# DIMENSIONAL TOLERANCE

單位 ：μm

| 直徑 Diameter / Tolerance 公差 | H5 | H7 | H8 | H10 | m5 | m7 | h5 | h6 | h7 | h8 | h10 | e8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3以下 | +4 | +10 | +14 | +40 | +06 | +12 | 0 | 0 | 0 | 0 | 0 | -14 |
| | 0 | 0 | 0 | 0 | +2 | +2 | -4 | -6 | -10 | -14 | -40 | -28 |
| 3~6 | +5 | +12 | +18 | +48 | +09 | +16 | 0 | 0 | 0 | 0 | 0 | -20 |
| | 0 | 0 | 0 | 0 | +4 | +4 | -5 | -8 | -12 | -18 | -48 | -38 |
| 6~10 | +6 | +15 | +22 | +58 | +12 | +21 | 0 | 0 | 0 | 0 | 0 | -25 |
| | 0 | 0 | 0 | 0 | +6 | +6 | -6 | -9 | -15 | -22 | -58 | -47 |
| 10~18 | +8 | +18 | +27 | +70 | +15 | +25 | 0 | 0 | 0 | 0 | 0 | -32 |
| | 0 | 0 | 0 | 0 | +7 | +7 | -8 | -11 | -18 | -27 | -70 | -59 |
| 18~30 | +9 | +21 | +33 | +84 | +17 | +29 | 0 | 0 | 0 | 0 | 0 | -40 |
| | 0 | 0 | 0 | 0 | +8 | +8 | -9 | -13 | -21 | -33 | -84 | -73 |
| 30~50 | +11 | +25 | +39 | +100 | +20 | +34 | 0 | 0 | 0 | 0 | 0 | -50 |
| | 0 | 0 | 0 | 0 | +9 | +9 | -11 | -16 | -25 | -39 | -100 | -89 |
| 50~80 | +13 | +30 | +46 | +120 | +24 | +41 | 0 | 0 | 0 | 0 | 0 | -60 |
| | 0 | 0 | 0 | 0 | +11 | +11 | -13 | -19 | -30 | -46 | -120 | -106 |
| 80~100 | +15 | +35 | +54 | +140 | +28 | +48 | 0 | 0 | 0 | 0 | 0 | -72 |
| | 0 | 0 | 0 | 0 | +13 | +13 | -15 | -22 | -35 | -54 | -140 | -126 |

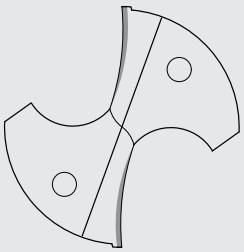
# PVD 各種硬質薄膜特性

# PVD Hard Coating Properties

| 薄膜名稱 / 薄膜性質 | | 薄膜顏色 Symbol color | 薄膜硬度 Nanohard-ness[GPa] | 薄膜厚度 Thickness [μm] | 摩擦係數 Friction coifficient | 最高應用溫度 Max usage Temp[℃] | 製程溫度 Coating Temp[℃] |
|---|---|---|---|---|---|---|---|
| 標準薄膜 Standard coating | 氮化鈦 TiN | 黃金色 Gold | 24 | 1-7 | 0.55 | 500 | 250-400 |
| | 氮碳化鈦 TiCN | 灰　色 Grey | 32 | 1-4 | 0.3 | 400 | 400 |
| | 氮化鉻 CrN | 銀灰色 Metal-silver | 18 | 1-7 | 0.4 | 700 | 200-400 |
| | 類鑽膜 DLC | 黑　色 Black | 20 | 1-3 | 0.15 | 400 | 150-250 |
| | TiAlxN S-Fire | 酒紅色 Burgundy -violet | 30 | 1-4 | 0.4 | 800 | 450↑ |
| | SilCo AlTiN | 黑　色 Black | 38 | 1-4 | 0.6 | 900 | 450↑ |
| 奈米複合薄 Nanocomposite coating | Super TiN | 黃金色 Gold | 28 | 1-3 | 0.4 | 500 | 350↑ |
| | TIX-18TH | 黃金色 Gold | 45 | 1-5 | 0.45 | 800 | 450↑ |
| | Nano Cerkor m | 銀白色 Silver | 22 | 1-3 | 0.3 | 800 | 450↑ |
| | μAlTiN | 黑　色 Black | 38 | 1-4 | 0.3 | 900 | 450↑ |
| | nACo | 紫色–藍色 Violet-Blue | 45 | 1-4 | 0.45 | 1200 | 400↑ |
| | nACRo | 灰　色 Grey | 42 | 1-7 | 0.35 | 1100 | 400↑ |
| | nACV1c (Hard DLC) | 灰色–黑色 Grey-Black | 42 | 1-7 | 0.2 | 1100 | 350↑ |

# 鎢鋼鑽頭之故障排除

# TROUBLE SHOOTING FOR SOLID CARBIDE DRILL



**問　題**

*切刃口快速磨損*

**對策動作**

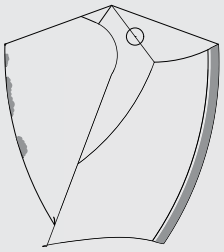
- 檢查機器主軸.挾具及工件挾持穩固度
- 增加冷卻劑的濃度.潤滑度
- 降低切削速度
- 增加進給量

**PROBLEM**

*Fast wear on cutting edge*

**CORRECTION**

- Check machine spindle, chuck and workpiece clamping stability.
- Increase coolant viscosity and lubrication effect.
- Reduce cutting speed.
- Increase feed rate.



**問　題**

*切削刃帶口磨損*

**對策動作**

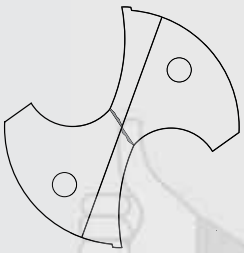
- 檢查以及確定鑽頭偏擺度在0.03mm以下
- 檢查機器主軸、挾具及工件挾持穩固度
- 增加冷卻劑的濃度、潤滑度
- 降低切削速度
- 增加進給量
- 增加冷卻液壓力或調整噴嘴方向，多方向冷卻更佳
- 降低中心鑽孔時之進給速度至0.05/rev

**PROBLEM**

*Abnormal wear on cutting edge*

**CORRECTION**

- Check and make sure that drill run-out accuracy is under 0.03mm.
- Check machine spindle, chuck and workpiece clamping stability.
- Increase coolant viscosity and lubrication effect.
- Reduce cutting speed.
- Increase feed rate.
- Increase coolant pressure. Adjust direction of coolant nozzle. The better is to use multi-direction cooling.
- Reduce feed rate of center drilling to 0.05/rev.



**問　題**

*中心刃崩裂*

**對策動作**

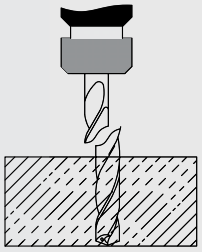
- 檢查以及確定鑽頭偏擺度在0.03mm以下
- 檢查機器主軸、挾具及工件挾持穩固度
- 降低中心鑽孔時之進給速度至0.05/rev
- 增加冷卻液壓力以及調整鑽孔之進給速度

**PROBLEM**

*Center cutting edge break*

**CORRECTION**

- Check and make sure that drill run-out accuracy is under 0.03mm.
- Check machine spindle, chuck and workpiece clamping stability.
- Reduce feed rate of center drilling to 0.05/rev.
- Increase coolant pressure. Adjust drilling feed rate.



**問　題**

*在鑽孔內部斷裂*

**對策動作**

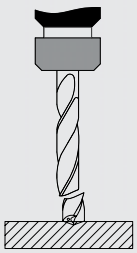
- 檢查以及確定鑽頭偏擺度在0.03mm以下
- 檢查機器主軸、挾具及工件挾持穩固度
- 依據鑽孔深度選擇適當的鑽頭
- 增加冷卻液壓力或調整噴嘴方向，多方向冷卻更佳
- 降低中心鑽孔時之進給速度至0.05mm/rev
- 檢查切削參數，可能需降低進給量
- 增加冷卻劑的濃度.潤滑度

**PROBLEM**

*Drill break in hole*

**CORRECTION**

- Check and make sure that drill run-out accuracy is under 0.03mm.
- Check machine spindle, chuck and workpiece clamping stability.
- Select a proper drill according to drilling depth.
- Increase coolant pressure. Adjust direction of coolant nozzle. The better is to use multi-direction cooling.
- Reduce feed rate of center drilling to 0.05/rev.
- Check cutting parameters. If necessary, reduce feed.
- Increase coolant viscosity and lubrication effect.



**問　題**

*與工件接觸時斷裂*

**對策動作**

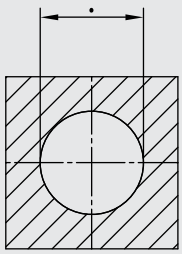
- 檢查以及確定鑽頭偏擺度在0.03mm以下
- 檢查機器主軸、挾具及工件挾持穩固度
- 降低中心鑽孔時之進給速度至0.05/rev
- 依據鑽孔深度選擇適當的鑽頭

**PROBLEM**

*Drill breake when touching workpiece*

**CORRECTION**

- Check and make sure that drill run-out accuracy is under 0.03mm.
- Check machine spindle, chuck and workpiece clamping stability.
- Reduce feed rate of center drilling to 0.05/rev.
- Select a proper drill according to drilling depth.



**問　題**

*鑽孔公差太大*

**對策動作**

- 檢查以及確定鑽頭偏擺度在0.03mm以下
- 檢查機器主軸、挾具及工件挾持穩固度
- 檢查刃口直徑
- 檢查刃口高度差( 0.02mm)
- 降低中心鑽孔時之進給速度至0.05mm/rev
- 增加冷卻液壓力或調整噴嘴方向，多方向冷卻更佳
- 降低切削速度或增加進給量
- 再研磨鑽頭

**PROBLEM**

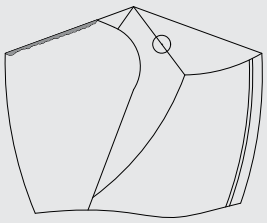
*Too much hole tolerance*

**CORRECTION**

- Check and make sure that drill run-out accuracy is under 0.03mm.
- Check machine spindle, chuck and workpiece clamping stability.
- Check cutting edge diameter.
- Check height difference between cutting edges (0.02mm).
- Reduce feed rate of center drilling to 0.05/rev.
- Increase coolant pressure. Adjust direction of coolant nozzle. The better is to use multi-direction cooling.
- Reduce cutting speed or increase feed amount.
- Resharpen drill.

# 鎢鋼鑽頭之故障排除

# TROUBLE SHOOTING FOR SOLID CARBIDE DRILL



**問　題**

*外切刃口崩裂*

**對策動作**

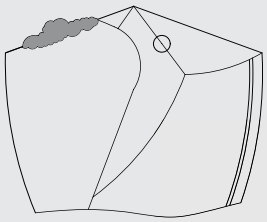
- 檢查機器主軸.挾具及工件挾持穩固度
- 增加冷卻劑的濃度、潤滑度
- 降低中心鑽孔時之進給速度至0.05/rev
- 增加切削速度或進給量

**PROBLEM**

*Outside cutting edge break*

**CORRECTION**

- Check machine spindle, chuck and workpiece clamping stability.
- Increase coolant viscosity and lubrication effect.
- Reduce feed rate of center drilling to 0.05/rev.
- Increase cutting speed or feed rate.



**問　題**

*刃口切屑溶著*

**對策動作**

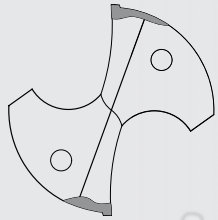
- 增加冷卻劑的濃度、潤滑度
- 提高切削速度
- 再研磨鑽頭

**PROBLEM**

*Chips melt on cutting edge*

**CORRECTION**

- Increase coolant viscosity and lubrication effect.
- Increase cutting speed.
- Resharpen drill.



**問　題**

*外刃口破裂*

**對策動作**

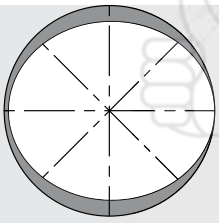
- 檢查機器主軸、挾具及工件挾持穩固度
- 增加冷卻劑的濃度.潤滑度
- 依據鑽孔深度選擇適當的鑽頭
- 增加冷卻液壓力或調整噴嘴方向，多方向冷卻更佳
- 檢查切削參數，可能需降低進給量

**PROBLEM**

*Outside cutting edge break*

**CORRECTION**

- Check machine spindle, chuck and workpiece clamping stability.
- Increase coolant viscosity and lubrication effect.
- Select a proper drill according to drilling depth.
- Increase coolant pressure. Adjust direction of coolant nozzle. The better is to use multi-direction cooling.
- Check cutting parameters. If necesary, reduce feed amount.



**問　題**

*真圓度有問題(同心度不準)*

**對策動作**

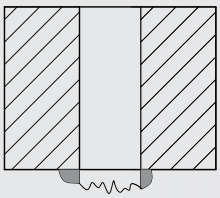
- 檢查機器主軸、挾具及工件挾持穩固度
- 檢查以及確定鑽頭偏擺度在0.03mm以下
- 降低中心鑽孔時之進給速度至0.05mm/rev
- 依據鑽孔深度選擇適當的鑽頭

**PROBLEM**

*Poor circularity (Poor concentricity)*

**CORRECTION**

- Check machine spindle, chuck and workpiece clamping stability.
- Check and make sure that drill run-out accuracy is under 0.03mm.
- Reduce feed rate of center drilling to 0.05/rev.
- Select a proper drill according to drilling depth.



**問　題**

*鑽削出口有大毛邊*

**對策動作**

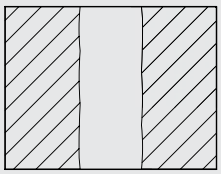
- 縮短刀具更換時機
- 降低進給量
- 減小刃口倒角

**PROBLEM**

*Burrs exist on hole edge*

**CORRECTION**

- Shorten drill change frequency.
- Reduce feed amount.
- Reduce cutting edge chamferring.



**問　題**

*表面粗度不良*

**對策動作**

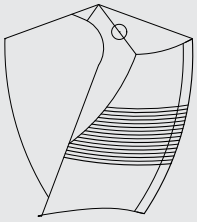
- 檢查以及確定鑽頭偏擺度在0.03mm以下
- 檢查機器主軸、挾具及工件挾持穩固度
- 降低進給量
- 增加冷卻液壓力以及調整鑽孔之進給速度

**PROBLEM**

*Poor surface roughness*

**CORRECTION**

- Check and make sure that drill run-out accuracy is under 0.03mm.
- Check machine spindle, chuck and workpiece clamping stability.
- Reduce feed amount.
- Increase coolant pressure. Adjust drilling feed rate.



**問　題**

*刀具本體磨擦*

**對策動作**

- 檢查以及確定鑽頭偏擺度在0.03mm以下
- 檢查機器主軸、挾具及工件挾持穩固度
- 增加冷卻劑的濃度、潤滑度
- 降低進給量

**PROBLEM**

*Friction of drill body*

**CORRECTION**

- Check and make sure that drill run-out accuracy is under 0.03mm.
- Check machine spindle, chuck and workpiece clamping stability.
- Increase coolant viscosity and lubrication effect.
- Reduce feed amount.

# 計算式 FORMULAS

## ● 床台進給量與每一刃的進給量
## ● FEED RATE PER FLUTE

$$fz = \frac{F}{Z \times N}$$

fz:每一刃的進給量[mm/刃]
F:床台進給量[mm/min]
Z:刀具刃數
N:主軸迴轉數[r.p.m]

fz:Feed rate per flute (mm/flute)
F:Machine feed rate (mm/min)
Z:Cutter flute numbers
N:Spindle speed (r.p.m)

## ● 所需動力
## ● POWER REQUIRED

$$P_{KW} = \frac{Ks \times Q}{6120 \times \eta} = \frac{Ks \times W \times F \times d}{6120000 \times \eta}$$

$$= \frac{Ks \times W \times fz \times Z \times N \times d}{6120000 \times \eta}$$

$$P_{HP} = \frac{6120}{4500} \times P_{KW}$$

PKW:所需動力[KW]
PHP:所需動力(馬力)[HP]
W:切屑寬[mm]
F:床台進給量[mm/min]
fz: 進給量[mm/rev]
Z:主軸迴轉數[枚]
d:切深[mm]
Ks:比切削抵抗值[kgf/mm$^2$]
η:機械效率(0.7~0.8)

PKW:Feed rate per flute
Power required(KW)
PHP:Horsepower require (HP)
F:Machine feed rate (mm/min)
fz:Feed rate (mm/res)
Z:Tool flute numbers
N:Spindle speed (r.p.m)
d:Cutting depth(mm)
Ks:Specific cutting resistant value (kgf/mm$^2$)
η: Machine efficiency (0.7~0.8)

| ks的概略值 APPROX KS VALUE | |
|---|---|
| 軟　　鋼 Soft Steel | 190 |
| 中炭素鋼 Medium Carbon Steel | 210 |
| 高炭素鋼 High Carbon Steel | 240 |
| 低合金鋼 Low Alloy Steel | 190 |
| 高合金鋼 High Alloy Steel | 245 |
| 鑄　　鐵 Cast Iron | 93 |
| 可鍛鑄鐵 Forging Cast Iron | 120 |
| 青銅黃銅 Brass . Copper | 70 |

## ● 切屑排出量
## ● CHIP REMOVAL RATE

$$Q = V \times F \times d = V \times fz \times Z \times d$$

Q:切屑排出量[cm$^3$/min]
V:切屑速度[m/min]
F:床台進給量[mm/min]
fz:每一刃的進給量[mm/刃]
Z:刀具數量
d:切深[mm]

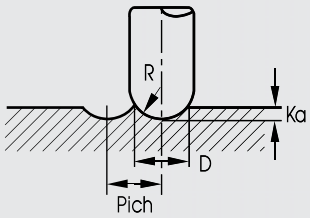
Q:Chip removal rate (cm$^3$/min)
V:Cutting speed (m/min)
F:Machine feed rate (mm/min)
fz:Feed rate per flute (mm/flute)
Z:Tool flute numbers
d:Cutting depth (mm)

# 計算式 FORMULAS

## ● 球型立銑刀的切削速度與迴轉速
## ● BALL END MILL CUTTING SPEED AND RUNNING SPEED

$$N = \frac{500 \times Vc}{\pi \times \sqrt{ka \times (D-ka)}}$$

$$Vc = \frac{\pi \times N \times \sqrt{ka \times (D-ka)}}{500}$$




N:迴轉數[r.p.m]
D:球頭立銑刀的外徑[mm]
π:圓周率≒3.1416
Vc:實際切削速度
Ka:立銑刀的切深

N:Speed (r.p.m)
D:Ball end mill diameter (mm)
π:3.1416
Vc:Actual cutting speed
Ka: Cutting depth

## ● 切削速度
## ● CUTTING SPEED

$$V = \frac{\pi \times D \times N}{1000}$$

銑削加工的場合
MILLING APPLICATION

$$F = fz \times Z \times N$$

V:切削速度[m/min]
Ds:加工徑[mm]
N:主軸迴轉數[r.p.m]

F:床台進給量[mm/min]
fz:每一刃的進給量[mm/刃]
Z: 刃數 (以刃數=1計算之)
N: 主軸迴轉數[r.p.m]

V:Cutting speed(m/min)
Ds:Machining diameter (mm)
N:Spindle speed (r.p.m)

F:Machine feed rate (mm/min)
fz:Feed rate per flute (mm/flute)
Z:Flute numbers (1)
N:Spindle speed (r.p.m)

## ● 切削時間
## ● CUTTING TIME

$$T = \frac{60 \times L}{f \times N} = \frac{60 \times \pi \times D \times L}{1000 \times V \times f}$$

T:切削秒數[秒]
L:加工長度[mm]
f:每一回轉的進給量[mm/rev]
N:主軸迴轉數[r.p.m]
V:切削速度[m/min]
Ds:加工徑[mm]

T:Cutting time (sec.)
L:Cutting length (mm)
f:Feed rate per revolution (mm/rev)
N:Spindle speed (r.p.m)
V:Cutting speed
Ds:Cutting diameter (mm)

# 切削刀具使用上注意事項

## NOTICE FOR USING CUTTING TOOL

| 對象製品 | 危險性 | 對策 |
|---|---|---|
| 全系列切削工具 | ◎ 刀刃銳利，直接用手接觸十分危險 | ※ 特別從箱子取出或裝置機械時，請使用保護手套等護具。 |
| | ◎ 使用方法或使用條件不適當的話，會導致刀具破損或飛散而有受傷的危險。 | ※ 使用安全護蓋與防護眼鏡等護具。<br>※ 請在推薦條件範圍內使用，請參照使用說明書與目錄。 |
| | ◎ 由於衝擊的負荷與過度的磨耗致使切削低抗急速增加， 產生刀具破損飛散的危險而導致受傷。 | ※ 使用安全護蓋與防護眼鏡等護具。<br>※ 及早進行刀具交換。 |
| | ◎ 高溫切屑飛散或試過長的切屑排出，而有受傷與燙傷的危險。 | ※ 使用安全護蓋與防護眼鏡等護具。<br>※ 去除切屑時，停止機械，戴上保護手套並使用鍋子、夾鉗等工具。 |
| | ◎ 切削時，刀具與被削材溫度極高，加工後直接用手接觸的話有受傷燙傷的危險。 | ※ 使用保護手套等護具。 |
| | ◎ 切削中發生火花與破損而引起的高熱，切屑引火、導致火災危險。 | ※ 請勿在有引火、爆發危險的地方使用。<br>※ 使用非水溶性切削油劑的場合，請務必準備好防火對策。 |
| | ◎ 高速回轉使用之際，工作機械若不能保持平衡，由於振動的緣故，將導致刀具破損而有受傷的危險。 | ※ 使用安全護蓋與防護眼鏡等護具。<br>※ 務必實施試運轉，並確認無任何振動等異常聲音。 |
| | ◎ 加工物的毛邊若直接用手接觸會有受傷的危險。 | ※ 請勿用手接觸。 |
| 捨棄式<br>(刀片交換式)<br>所有刀具 | ◎ 刀片與零件若未確定夾緊，在切削中會有脫落、飛散的危險發生。 | ※ 安裝座面與固定用零件上不得有異物附著，須清理乾淨後再安裝刀片。<br>※ 安裝時，使用附屬板手，確實地將刀片與零件夾緊。又，除了規定的刀片與零件以外絕對不可以使用。 |
| | ◎ 使用管材等輔助工具過度栓緊則刀片與刀具會產生破損，脫落飛散的危險。 | ※ 不要使用管材輔助工具，請使用附屬板手。 |
| | ◎ 刀具在高速回轉的使用場合，由於離心力的緣故，刀片的零件會有飛出去的情形發生，十分危險，使用之際，安全方面請補充注意。 | ※ 請在推薦條件範圍內使用請參照使用說明書與目錄。 |
| 各種銑刀與其他<br>回轉使用的刀具 | ◎ 銑刀類有銳利的切刃，直接用手接觸會受傷。<br>◎ 刀具在偏心回轉或平衡不良時會產生振動，發生破損，飛散而導致受傷。 | ※ 請使用保護手套等護具。<br>※ 請使用推薦條件範圍內的回轉速度。<br>※ 由於軸承受等磨耗而產生偏心回轉與振動。請定期調整回轉部的經度與平衡度。 |
| 鑽頭 | ◎ 利用加工物回轉，進行穴貫通加工時，切剩的部份因高速而飛出，該圓盤十分銳利非常危險。<br>◎ 銑刀類有銳利的切刃，直接用手接觸會受傷。<br>◎ 極子徑鑽頭先端尖而銳利，指尖直接接觸摸就會導致刺傷，又折斷而飛散的情形也會發生。 | ※ 請使用安全護罩與防護眼鏡的護具。又夾頭部請安裝護罩。<br>※ 使用時，請充分注意安全面請使用保護手套、防護眼鏡。 |

●最後● 本手冊之內容，乃記載有關安全上之基本項目，其他詳細事項，請參照各種刀具之使用說明書，目錄等資料，或向本公司詢問。

又，本公司不了解之情況下，進行改造等仕樣更而發生事故，本公司不負任何責任。

# 對應鋼的韋氏之近似換算值

| 維氏硬度 | 勃氏硬度 10mm球 荷重3000kgf | | 洛氏硬度 | | | 蕭氏硬度 | 拉抗強度（近似值）Mpa(1) |
|---|---|---|---|---|---|---|---|
| | 標準球 | 碳化球 | A量規 荷重60kgf 鑽石 圓錐壓子 | B量規 荷重100kgf 徑1.6mm (1/16in)球 | C量規 荷重150kgf 鑽石 圓錐壓子 | | |
| 940 | — | — | 85.6 | — | 68.0 | 97 | |
| 920 | — | — | 85.3 | — | 67.5 | 96 | |
| 900 | — | — | 85.0 | — | 67.0 | 95 | |
| 880 | — | (767) | 84.7 | — | 66.4 | 93 | |
| 860 | — | (757) | 84.4 | — | 65.9 | 92 | |
| 840 | — | (745) | 84.1 | — | 65.3 | 91 | |
| 820 | — | (733) | 83.8 | — | 64.7 | 90 | |
| 800 | — | (722) | 83.4 | — | 64.0 | 88 | |
| 780 | — | (710) | 83.0 | — | 63.3 | 87 | |
| 760 | — | (698) | 82.6 | — | 62.5 | 86 | |
| 740 | — | (684) | 82.2 | — | 61.8 | 84 | |
| 720 | — | (670) | 81.8 | — | 61.0 | 83 | |
| 700 | — | (656) | 81.3 | — | 60.1 | 81 | |
| 690 | — | (647) | 81.1 | — | 59.7 | — | |
| 680 | — | (638) | 80.8 | — | 59.2 | 80 | |
| 670 | — | 630 | 80.6 | — | 58.8 | — | |
| 660 | — | 620 | 80.3 | — | 58.3 | 79 | |
| 650 | — | 611 | 80.0 | — | 57.8 | — | |
| 640 | — | 601 | 79.8 | — | 57.3 | 77 | |
| 630 | — | 591 | 79.5 | — | 56.8 | — | |
| 620 | — | 582 | 79.2 | — | 56.3 | 75 | |
| 610 | — | 573 | 78.9 | — | 55.7 | — | |
| 600 | — | 564 | 78.6 | — | 55.2 | 74 | |
| 590 | — | 554 | 78.4 | — | 54.7 | — | 2055 |
| 580 | — | 545 | 78.0 | — | 54.1 | 72 | 2020 |
| 570 | — | 535 | 77.8 | — | 53.6 | — | 1985 |
| 560 | — | 525 | 77.4 | — | 53.0 | 71 | 1950 |
| 550 | 505 | 517 | 77.0 | — | 52.3 | — | 1905 |
| 540 | 496 | 507 | 76.7 | — | 51.7 | 69 | 1860 |
| 530 | 488 | 497 | 76.4 | — | 51.1 | — | 1825 |
| 520 | 480 | 488 | 76.1 | — | 50.5 | 67 | 1795 |
| 510 | 473 | 479 | 75.7 | — | 49.8 | — | 1750 |
| 500 | 465 | 471 | 75.3 | — | 49.1 | 66 | 1705 |
| 490 | 456 | 460 | 74.9 | — | 48.4 | — | 1660 |
| 480 | 448 | 452 | 74.5 | — | 47.7 | 64 | 1620 |
| 470 | 441 | 442 | 74.1 | — | 46.9 | — | 1570 |
| 460 | 433 | 433 | 73.6 | — | 46.1 | 62 | 1530 |
| 450 | 425 | 425 | 73.3 | — | 45.3 | — | 1495 |
| 440 | 415 | 415 | 72.8 | — | 44.5 | 59 | 1460 |
| 430 | 405 | 405 | 72.3 | — | 43.6 | — | 1410 |
| 420 | 397 | 397 | 71.8 | — | 42.7 | 57 | 1370 |
| 410 | 388 | 388 | 71.4 | — | 41.8 | — | 1330 |
| 400 | 379 | 379 | 70.8 | — | 40.8 | 55 | 1290 |
| 390 | 369 | 369 | 70.3 | — | 39.8 | — | 1240 |
| 380 | 360 | 360 | 69.8 | (110.0) | 38.8 | 52 | 1205 |
| 370 | 350 | 350 | 69.2 | — | 37.7 | — | 1170 |
| 360 | 341 | 341 | 68.7 | (109.0) | 36.6 | 50 | 1130 |
| 350 | 331 | 331 | 68.1 | — | 35.5 | — | 1095 |
| 340 | 322 | 322 | 67.6 | (108.0) | 34.4 | 47 | 1070 |
| 330 | 313 | 313 | 67.0 | — | 33.3 | — | 1035 |

| 維氏硬度 | 勃氏硬度 10mm球 荷重3000kgf | | 洛氏硬度 | | | 蕭氏硬度 | 拉抗強度（近似值）Mpa(1) |
|---|---|---|---|---|---|---|---|
| | 標準球 | 碳化球 | A量規 荷重60kgf 鑽石 圓錐壓子 | B量規 荷重100kgf 徑1.6mm (1/16in)球 | C量規 荷重150kgf 鑽石 圓錐壓子 | | |
| 320 | 303 | 303 | 66.4 | (107.0) | 32.2 | 45 | 1005 |
| 310 | 294 | 294 | 65.8 | — | 31.0 | — | 980 |
| 300 | 284 | 284 | 65.2 | (105.5) | 29.8 | 42 | 950 |
| 295 | 280 | 280 | 64.8 | — | 29.2 | — | 935 |
| 290 | 275 | 275 | 64.5 | (104.5) | 28.5 | 41 | 915 |
| 285 | 270 | 270 | 64.2 | — | 27.8 | — | 905 |
| 280 | 265 | 265 | 63.8 | (103.5) | 27.1 | 40 | 890 |
| 275 | 261 | 261 | 63.5 | — | 26.4 | — | 875 |
| 270 | 256 | 256 | 63.1 | (102.0) | 25.6 | 38 | 855 |
| 265 | 252 | 252 | 62.7 | — | 24.8 | — | 840 |
| 260 | 247 | 247 | 62.4 | (101.0) | 24.0 | 37 | 825 |
| 255 | 243 | 243 | 62.0 | — | 23.1 | — | 805 |
| 250 | 238 | 238 | 61.6 | 99.5 | 22.2 | 36 | 795 |
| 245 | 233 | 233 | 61.2 | — | 21.3 | — | 780 |
| 240 | 228 | 228 | 60.7 | 98.1 | 20.3 | 34 | 765 |
| 230 | 219 | 219 | — | 96.7 | (18.0) | 33 | 730 |
| 220 | 209 | 209 | — | 95.0 | (15.7) | 32 | 695 |
| 210 | 200 | 200 | — | 93.4 | (13.4) | 30 | 670 |
| 200 | 190 | 190 | — | 91.5 | (11.0) | 29 | 635 |
| 190 | 181 | 181 | — | 89.5 | (8.5) | 28 | 605 |
| 180 | 171 | 171 | — | 87.1 | (6.0) | 26 | 580 |
| 170 | 162 | 162 | — | 85.0 | (3.0) | 25 | 545 |
| 160 | 152 | 152 | — | 81.7 | (0.0) | 24 | 515 |
| 150 | 143 | 143 | — | 78.7 | — | 22 | 490 |
| 140 | 133 | 133 | — | 75.0 | — | 21 | 455 |
| 130 | 124 | 124 | — | 71.2 | — | 20 | 425 |
| 120 | 114 | 114 | — | 66.7 | — | — | 390 |
| 110 | 105 | 105 | — | 62.3 | — | — | — |
| 100 | 95 | 95 | — | 56.2 | — | — | — |
| 95 | 90 | 90 | — | 52.0 | — | — | — |
| 90 | 86 | 86 | — | 48.0 | — | — | — |
| 85 | 81 | 81 | — | 41.0 | — | — | — |

·本摘錄自JIS鐵鋼手冊(SAEH417)

注 1)1MPa=1N/mm$^2$

注 2)中（ ）內的數值，包括不常用範圍的項目僅供參考。

# 車刀加工示意圖

