DHF

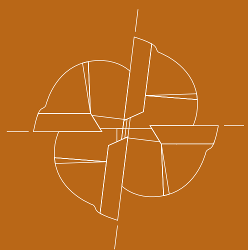
DESIGN . HONESTY . FUTURE

HIGH SPEED &
HIGH HARD CUTTING

MICRO DIAMETER
& LONG NECK SERIES

EXCHANGEABLE HEAD
ENDMILL

HIGH PERFORMANCE
CUTTING



UNEQUAL FLUTE SPACING
&
VARIABLE HELIX SERIES

20th
20 ANNIVERSARY

德信發——台灣專業鎢鋼刀具製造商，創立於1999年，專精於製造高速及高硬度切削用鎢鋼銑刀。公司秉持「道德、誠信、發展」的經營宗旨，在市場上不斷地創新與研發，並堅持嚴格把關每把刀具的品質。

德信發主要採用的原料為德國進口，並使用瑞士Rollomatic及Schneeberger六軸CNC研磨設備。為了掌控生產品質，分別於2009年及2013年成立研發應用技術中心及鍍層中心。公司產品多達16大系列，刀具最小直徑可達0.2mm，廣泛應用於各產業加工領域並滿足不同材質的切削需求。

除了標準規格的產品，**德信發**也可針對客戶的需求製作特殊規格的刀具。而隨著外銷市場的需求激增，**德信發**於2018年添購更多瑞士先進磨刀設備，積極擴廠提升產能、滿足顧客對交期的需求。

至今，**德信發**在全球有70個經銷據點，義大利、波蘭、土耳其、中國廣東及上海皆有分公司。更在邁入20周年之際，將營運總部遷至台中新地標，有帆船般外型的NTC國家商貿中心，期許德信發團隊航向新的里程碑，更上層樓。未來更會致力於研發各系列新產品，服務電子、航太、汽車、醫療、模具等各大工業領域。公司願景是成為亞洲切削領域的標竿企業，並期望在下個20年躍升為全球頂尖的刀具製造商。

DHF - A professional Taiwan carbide cutting tool manufacturer founded in 1999, has been specializing in HSC&HHC Solid Carbide Endmills. Adhering to the management philosophies of “Design” “Honesty” and “Future”, ***DHF*** has not only kept innovating and developing new products for the markets but supplied products to customers under strict quality control.

DHF mainly uses tool materials from Germany and imported six axis CNC precision grinding machines of Rollomatic and Schneeberger from Switzerland. In order to control the production quality, ***DHF*** set up the technical application center and coating center in 2009 and 2013 respectively. The 16 main product series has been widely used in different machining field of various industries. The smallest tool diameter ***DHF*** could reach is 0.2mm.

In addition to standard products, ***DHF*** could provide customized tools in accordance with customer’s need. With an increasing foreign demand, ***DHF*** purchased more advanced grinding equipment from Switzerland in 2018 to improve productivity and satisfy customers’ needs of delivery time.

Today, ***DHF*** has 70 distributors worldwide and 5 branches in Italy, Poland, Turkey, Guangdong and Shanghai of China. On the 20th anniversary, ***DHF*** even relocated headquarter to the sailboat- shaped National Trade Center located in Taichung, symbolizing that the team has headed to a new milestone. In the future, ***DHF*** will keep innovating new products for electronic, aerospace, automotive, medical, mold and other industries. The company vision is to become a remarkable enterprise in the cutting tool field in Asia and the world’s leading cutting tool manufacturer in the next 20 years.

Manufacturing

設備

1.(1) 瑞士“ROLLOMATIC”全自動6軸CNC超精密研磨機

應用: 瑞士ROLLOMATIC系列機型,可生產研磨範圍從最小的Ø0.2mm至最大的Ø32mm。

(2) 瑞士“SCHNEEBERGER” CNC精密研磨機

應用於大尺寸平刀、球刀及圓鼻刀

2.引進德國ZOLLER及奧地利Alicona先進的刀具量測儀

3.2013年引進德國進口的鍍層設備

4.應用中心測試用設備德國進口DMG CNC機台– DMC 635 V

Equipment

1. (*1*) ***Fully Automatic 6 Axis CNC Super Precision Grinding Center of "ROLLOMATIC " from Switzerland.***

Application : The grinding diameter of ROLLOMATIC machine series is from Ø0.2 mm to Ø32 mm.

(*2*) ***CNC Precision Grinding Machine of "SCHNEEBERGER " from Switzerland.***

Application : Specialty is big diameter flat end mills, ball nose end mills and corner radius end mills.

2.We use ***measuring machine of ZOLLER from Germany and Alicona from Austria.***

3.We import ***coating equipment from Germany*** in 2013.

4.We use ***CNC machine- DMC 635 V of DMG from Germany*** as the testing equipment of our application center.

Coating 鍍層

德國鍍層技術為DHF的刀具提供最好的加工方案
Germany coating technology furnishes DHF cutting tools with best solutions during the engineering process!

DHF鍍層名稱 DHF Coating	硬度 Hardness(HV0.05)	厚度 Thickness(um)	加工承受最大溫度 Max machining temperature	切削應用及最佳冷卻方式 Application and Best coolant way
T1	3400	3	900	一般鋼材(油霧、乾式氣冷切削) For general steel. Use MQL, Air-dry cutting.
T2	3500	3	850	一般鋼材、壽命良好(油霧、乾式氣冷切削) Provide great tool life for general steel. Use MQL, Air-dry cutting.
G7	3300	3.5	1100	含碳量高之材料及一般鋼材(濕式、油霧切削) For high carbon material and general steel. Use Wet, MQL cutting.
G10	3200	3	1150	難切削材及一般鋼材(濕式、油霧切削) For difficult-to-cut material and general steel. Use Wet, MQL cutting.
G12	3600	3	1150	高速與高硬度切削(硬度可達HRC60以上)濕式、油霧、乾式氣冷切削 For high speed cutting& high hard cutting(HRc>60). Use Wet, MQL, Air-dry cutting.
G15	3300	3	1150	高速與高硬度切削(硬度可達HRC60以上)油霧、乾式氣冷切削 For high speed cutting& high hard cutting(HRc>60). Use MQL, Air-dry cutting.
G16	4300	3	1200	高速與高硬度切削(G12&G15升級版)濕式、油霧、乾式氣冷切削 Upgrading of G12 & G15. For high speed cutting & high hard cutting. Use Wet, MQL, Air-dry cutting.
Diamond	8500	7	600	石墨、氧化鋯、碳纖維、陶瓷之切削(乾式氣冷切削) For graphite, zirconia, carbon fiber and ceramics. Use Air-dry cutting.

DHF
DESIGN . HONESTY . FUTURE

CONTENTS
總目錄

二代變形鎢鋼立銑刀 EXCHANGEABLE HEAD ENDMILL II

高速&高硬度切削系列 HIGH SPEED CUTTING & HIGH HARD CUTTING

DHF PRECISION TOOL CO., LTD.

CONTENTS
總目錄

DHF
DESIGN . HONESTY . FUTURE
產品總目錄 PRODUCT CONTENTS

DHF PRECISION TOOL CO., LTD.

CONTENTS
總目錄

產品總目錄 PRODUCT CONTENTS

DHF PRECISION TOOL CO., LTD.

CONTENTS
總目錄

DHF PRECISION TOOL CO., LTD.

CONTENTS
總目錄

切削性能 / 冷卻性能 CUTTING PERFORMANCE / COOLANT TYPE

優	Excellent
良	Good
尚可	Acceptable
------ 禁止	No

DHF PRECISION TOOL CO., LTD.

GUIDE LINES TO ICONS
圖示說明

鎢鋼種類 Carbide

- MG / Perfect MG — 超微粒 Micro Grain.
- Super MG — 極超微粒 Super Micro Grain.

顆粒大小 Grain Size

- 0.2 μm — 粉末顆粒0.2μm Grain Size is 0.2μm
- 0.4 μm — 粉末顆粒0.4μm Grain Size is 0.4μm
- 0.6 μm — 粉末顆粒0.6μm Grain Size is 0.6μm

齒形 Roughing

- Roughing — 大粗齒 Big Roughing
- Roughing — 中粗齒 Middle Roughing
- Roughing — 細粗齒 Small Roughing

螺旋角 Helix Angle

30° 45° 43°~47° 36°~38°

縮頸 Shrink Neck

適用於深溝加工
Best for Long Neck Machine.

刀柄 Shank

- FIT — 適用於熱縮刀柄系統 Suitable for the Shrink Fit Holder System.

圓隅角 Corner R

- R — 圓隅角 Corner Radius.
- C — 倒角 Chamfer

被切削材硬度 Work Material Hardness

HRc ▸45 HRc ▸50 HRc ▸52 HRc ▸55 HRc ▸60 HRc ▸62 HRc ▸65

被切削工件硬度可達HRc45、50、52、55、60、62、65
Work material hardness is up to HRc45、50、52、55、60、62、65.

鑽尖 Drill Point

- S type — 適用於3D曲面切削 It is Suitable for Three-Dimentional Curved Surface Cutting.
- XR type — 適用於各式切削，使用壽命長。 It is Suitable for All Types of Cutting. Long Tool Life.

鈍化處理 Passivation Treatment

- P POLISH — 刃口經過鈍化 Passivated Edge.

鑽孔深度 Drilling Depth Of Diameter

- 3D — 可加工3倍鑽頭直徑的鑽孔深度 3 Times of Drilling Depth of Diameter.
- 5D — 可加工5倍鑽頭直徑的鑽孔深度 5 Times of Drilling Depth of Diameter.
- 8D — 可加工8倍鑽頭直徑的鑽孔深度 8 Times of Drilling Depth of Diameter.

鍍層 Coating

- G7 — 含碳量高之材料及一般鋼材（濕式、油霧切削） High Carbon Material and General Steel. (Wet, MQL Cutting)
- G10 — 難切削材及一般鋼材（濕式、油霧切削） Difficult Material and General Steel. (Wet, MQL Cutting)
- G12 — 適用於高速、高硬度加工。乾式、油霧、溼式切削（乾溼兩用） Good at High Speed Cutting & High Hard Cutting. For Dry Cutting, MQL and Wet Cutting.
- G15 — 適用於高速、高硬度切削。乾式、油霧切削 Good at High Speed Cutting & High Hard Cutting. For Dry Cutting and MQL.
- G16 — G12/G15升級版 適用於高速、高硬度切削。乾式、油霧、溼式切削（乾溼兩用） Upgraded Version of G12/G15; Good at High Speed Cutting & High Hard Cutting. For Dry Cutting, MQL and Wet Cutting.
- T1 — 適用於各式切削，使用壽命長 Genetally Used on All Kinds Of Machining with Benefit of Long Tool Life.
- T2 — 適用於高速加工。乾式切削 Good at High Speed Cutting. For Dry Cutting.
- Diamond — 石墨、氧化鋯、碳纖維、陶瓷之加工（乾式氣冷切削） Graphite, Zirconia, Carbon Fiber and Ceramic Cutting. (Air Dry Cutting)

內冷孔 Internal Coolant Hole

中心出水
Coolant Through Center.

刃數 Flute

2 Flutes 2 Flutes 2 Flutes 2 Flutes 2 Flutes 2 Flutes 3 Flutes 3 Flutes
3 Flutes 4 Flutes 4 Flutes 5 Flutes 6 Flutes 6 Flutes

20th BEST CHOICE

二代變形鎢鋼立銑刀

EXCHANGEABLE HEAD ENDMILL II

EX ChANGE

二代變形鎢鋼立銑刀特長

1. 新型設計三線螺紋刀頭與刀桿完美結合，裝配更容易，整體結構與剛性更佳強化，加工效率更佳。
2. 加入新型錐度配合設計，折抗力相對提高，進而使精密度更高，同時將偏擺量縮小到±0.008 mm以內，偏擺量小，刀具壽命則相對提高。
3. 基於「保護地球、愛護資源」的理念，全新三螺紋刀頭設計縮短製刀過程，材料更節省，更可達到降低客戶刀具成本的目的。
4. 可更換式鎢鋼刀頭和硬質合金刀桿的結合，可以做超大懸深的加工。
5. 特殊刀具角度設計及最新塗層，將切削硬度提升至HRc 62。

Features of the Second Generation Exchangeable Endmill Series

1. The combination of the new-designed triple thread head and shank makes it much easier to be assembled and strengthens the entire structure and rigidity. The machining efficiency is better.
2. The new taper design not only improves its anti-bending strength and precision but also control the run out within ±0.008mm. The small run-out stands for the long tool life.
3. For the sake of environmental protection and resource preservation, the triple-thread head endmill saves more design materials and shortens the producing process, which meets the purpose of reducing the cost for our customers.
4. The combination of the replaceable solid carbide head endmill and hard alloy shank could carry out the large depth cutting.
5. The special designed tool angle and the new coating advances the cutting hardness to HRc62.

The new design can save costs and increase the tool life.

The triple-thread head and shank is user-friendly.

The exclusive screwed design can improve the run-out and strengthen the rigidity.

Assembly

變形鎢鋼立銑刀的合體過程

步驟一 / STEP 1

請用空氣噴槍清潔刀頭與鎢鋼刀桿。
（請務必做好此一清潔步驟，其將影響變形鎢鋼立銑刀合體後的精密度。）

Clean the threaded solid carbide head and the solid carbide shank by air spray gum.
Note : Please complete this step otherwise it would affect the precision after assembling.

步驟二 / STEP 2

請戴手套，並把刀頭輕輕鎖在鎢鋼刀桿上。

2.1 Wear the gloves.
2.2 Lightly screw the threaded solid carbide head to the solid carbide shank.

步驟三 / STEP 3

將鎢鋼刀桿鎖在刀把上，然後將刀把置放在工具桌上的鎖刀架，再利用板手輕輕鎖緊。

3.1 Screw the solid carbide shank to the holder.
3.2 Then place the holder on the Tool Holder Locking Device on the working desk. Use the spanner to lightly screw it.

步驟四 / STEP 4

完成合體。

Assembly is completed.

注意事項 / ATTENTION

鎢鋼刀頭非常銳利，在刀頭鎖上鎢鋼刀桿時，請特別小心拿取，以免刮傷手。

The threaded solid carbide head is extremely sharp. Pay attention while screwing the head to the shank for safety reason.

Operation Note
使用注意事項

A 當刀具組合完成，於加工使用前，需注意其偏擺值，因為偏擺值越小，刀具壽命越佳。
Be aware of the run-out before working. The smaller run-out stands for the longer tool life.

B 使用正確之切削數據：
1. 由於工作母機之廠牌不同、機型不同，因此其機器剛性與主軸扭力值亦不同，故切削條件亦有所差別，需視實際加工情況調整之。
2. 主軸轉速與進給速度，應同時、同一比例調整之。
3. 調整項次2之重點為當加工聲音愈小愈安靜，代表已接近理想之切削數值。
4. 同一把刀，因刀具之伸長量不同，其切削數據也不同，須調整之。（如伸長量愈長、其切削條件需調降之）

Using the correct cutting parameter :
1. When the machines differ, the rigidity and the spindle torque differ.The cutting data should always be adjusted according to real working condition.
2. Spindle speed and feed should always be adjusted in the same ratio.
3. The low machining sound stands for the ideal cutting data.
4. Even if use the same tool, the cutting data should always be modified according to different tool extension.
（The cutting data should be lower when the tool extension is longer.）

C 使用高剛性強力型刀把，且刀具夾持部需在以下安全值內：
Using a high rigidity tool holder, the holding length must be controlled within the safety range.

Ø8~Ø12	刀具夾持需在40mm以上 More than 40mm
Ø16~Ø25	刀具夾持需在50mm以上 More than 50mm
Ø32以上	刀具夾持需在60mm以上 More than 60mm

所有鎢鋼銑刀頭與抗震鎢鋼刀桿組合之後，其精密度可達±0.008mm以下。
The precision is under ±0.008mm after the threaded solid carbide head is combined with the solid carbide shank.

D 刀具伸長量之要點：
所有切削刀具皆有其伸長量安全值，若超出規範值外，則會產生剛性不佳、切削震動之問題；造成刀具受損，縮短刀具壽命。
Tool extension :
When exceeding the extension safety range, the poor rigidity and vibration will cause tool breakage and short tool life.

平刀與圓鼻刀伸長量規範安全值
Below is the safety range for square and corner radius endmills :

Ø8	50 mm以內	Below 50mm
Ø10	55 mm以內	Below 55mm
Ø12	70 mm以內	Below 70mm
Ø16	125 mm以內	Below 125mm
Ø20	170 mm以內	Below 170mm
Ø25	210 mm以內	Below 210mm
Ø32	260 mm以內	Below 260mm

球刀伸長量規範安全值
Below is the safety range for ball nose endmills :

Ø8	65 mm以內	Below 65mm
Ø10	70 mm以內	Below 70mm
Ø12	100 mm以內	Below 100mm
Ø16	145 mm以內	Below 145mm
Ø20	190 mm以內	Below 190mm
Ø25	240 mm以內	Below 240mm
Ø32	280 mm以內	Below 280mm

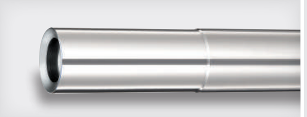
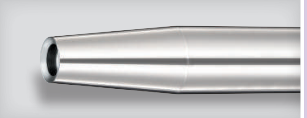
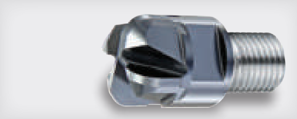
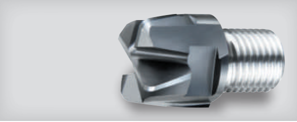
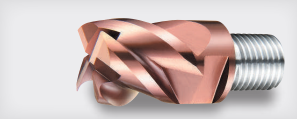
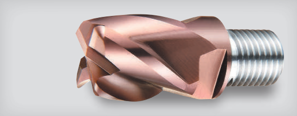
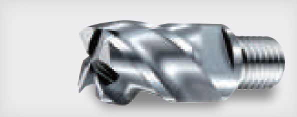
☆ 若因加工需求，需超出以上規範之伸長量，請調整切削數據並小心使用，因為上述之受損情況可能發生！
If the tool extension exceeds the safety range due to special need,please adjust the cutting data and use it carefully to avoid possible breakage.

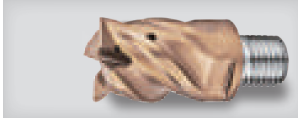
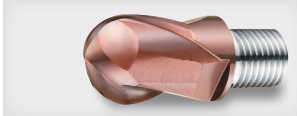
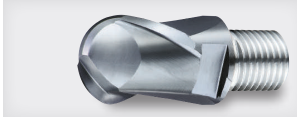
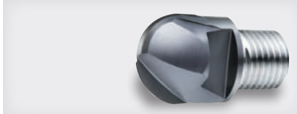
Regrinding
再生研磨

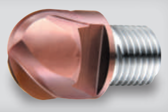
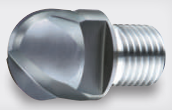
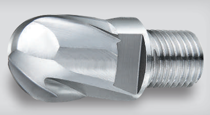
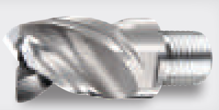
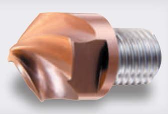
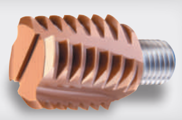
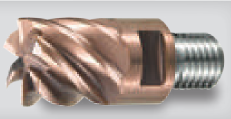
基於保護地球、愛護資源，德信發特別提出「大柄徑銑刀的再生研磨」，目前規劃變形鎢鋼銑刀有X–BTB–2T、X–UB–2T、X–UBT–2T、X–UOB等系列產品，並已開始接受再生研磨需求。

For the sake of environmental protection and resource preservation, DHF presents the regrinding service for big shank endmills. The service is available for **X-BTB-2T, X-UB-2T, X-UBT-2T** and **X-UOB** series currently.

Index
目錄

型號/頁碼 Type No. & Page	產品照片 Product Picture	鑄鐵 Cast Iron	碳鋼 Carbon Steels	合金鋼 工具鋼 Alloy Steels/ Tool Steels	調質鋼 Prehardened Steels	不鏽鋼 Stainless Steels	鈦合金 Titanium Alloy	耐熱合金鋼 高溫合金鋼 Heat Resistant & High Temp Alloy Steels	熱處理鋼 Hardened Steels ～55HRc	熱處理鋼 Hardened Steels 55HRc～
X-WDEX P.9										
X-WHEX P.10										
X-WFEX P.11										
X-UOR P.12		★★	★★★	★★★	★★★	★★	★	★	★★★	★★★
X-UEYR P.13		★	★★★	★★★	★★★	★	★	★	★★★	★★★
X-UET P.14		★★	★★★	★★★	★★★	★★	★★	★	★	-----
X-UXR P.15		★★★	★★★	★★★	★★★	★★	★★	★	★	-----
X-UEX P.16		★	★★	★★★	★★★	★	★	★	★★★	★★★
X-UEXR P.17		★	★★	★★★	★★★	★	★	★	★★★	★★★
X-UPS P.18		★★	★★★	★★★	★★★	★★	★★	★★	★	-----
X-UPR P.19		★	★★	★★★	★★★	★	★	★	★★★	★★★
X-UPZ P.20		★★★	★★★	★★★	★★★	★★	★★	★	★	★

型號/頁碼 Type No. & Page	產品照片 Product Picture	鑄鐵 Cast Iron	碳鋼 Carbon Steels	合金鋼 工具鋼 Alloy Steels/ Tool Steels	調質鋼 Prehardened Steels	不鏽鋼 Stainless Steels	鈦合金 Titanium Alloy	耐熱合金鋼 高溫合金鋼 Heat Resistant & High Temp Alloy Steels	熱處理鋼 Hardened Steels ～55HRc	熱處理鋼 Hardened Steels 55HRc～
X-UPZO P.21		★★	★★★	★★★	★★★	★★★	★★★	★★	★	★
X-UVT P.22		-----	★★	★★★	★★★	★	★	★	★★★	★★★
X-UVTR P.23		-----	★★	★★★	★★★	★	★	★	★★★	★★★
X-BTB^{2T} P.24		★★★	★★★	★★★	★★	★★	★	★	★	-----
X-BTB^{3T} P.25		★★★	★★★	★★★	★★	★★	★	★	★	-----
X-UB^{2T} P.26		★★	★★★	★★★	★★★	★★★	★★★	★	★★	★
X-UB^{4T} P.27		★★	★★★	★★★	★★★	★★★	★★★	★	★★	★
X-UBT^{2T} P.28		★	★★	★★	★★★	★★	★	★	★★★	★★★
X-UBT^{4T} P.29		★	★★	★★	★★★	★★	★	★	★★★	★★★
X-BMW P.30		★★★	★★★	★★★	★★★	★★★	★	★	★★	★
X-UBY P.31		★	★★	★★★	★★★	★★★	★	★	★★★	★★★
Xs-BTB P.32		★★★	★★★	★★★	★★	★★	★	★	★	-----

型號/頁碼 Type No. & Page	產品照片 Product Picture	鑄鐵 Cast Iron	碳鋼 Carbon Steels	合金鋼 工具鋼 Alloy Steels/ Tool Steels	調質鋼 Prehardened Steels	不鏽鋼 Stainless Steels	鈦合金 Titanium Alloy	耐熱合金鋼 高溫合金鋼 Heat Resistant & High Temp Alloy Steels	熱處理鋼 Hardened Steels ~55HRc	熱處理鋼 Hardened Steels 55HRc~
Xs-UB P.33		★★	★★★	★★★	★★★	★★★	★★★	★	★★	★
Xs-UBT P.34		★	★★	★★	★★★	★★	★	★	★★★	★★★
X-BTC P.35		鋁切削用 *FOR ALUMINUM CUTTING*								
X-AEW P.36		鋁切削用 *FOR ALUMINUM CUTTING*								
X-AEWR P.37		鋁切削用 *FOR ALUMINUM CUTTING*								
X-AES P.38		鋁切削用 *FOR ALUMINUM CUTTING*								
X-AESR P.39		鋁切削用 *FOR ALUMINUM CUTTING*								
X-TS P.40		★★★	★★★	★★★	★★★	★★★	★★★	★★	★★	★
X-TD P.41		★★★	★★★	★★★	★★★	★★	★★	★	★★	★
X-TW P.42		★★★	★★★	★★★	★★★	★★★	★★★	★	★★	★★
X-VRI P.43		★★	★★	★★	★★	★★★	★★★	★★	★	-----
K P.44		鎖固刀頭專用板手 *SPANNER*								

X-WDEX

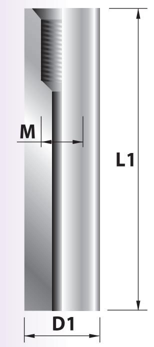
抗震鎢鋼刀桿(內冷孔)
SOLID CARBIDE SHANK (INTERNAL COOLANT HOLE)

FIT SHANK

公差表 TOLERANCE

unit : mm

柄徑 D1(h6)	柄徑公差值 D1 Tolerance
8.0	0 / -0.009
10.0	0 / -0.009
12.0	0 / -0.011
16.0	0 / -0.011
20.0	0 / -0.013
25.0	0 / -0.013
32.0	0 / -0.016



產品規格 SPECIFICATIONS

型號 Type No.	D1 柄徑 Shank Dia.(h6)	L1 全長 O.A.L.	M 螺牙 Thread Size
X-WDEX-080060	8.0	60	M5-3P
X-WDEX-080075	8.0	75	M5-3P
X-WDEX-080100	8.0	100	M5-3P
X-WDEX-100060	10.0	60	M7-3P
X-WDEX-100075	10.0	75	M7-3P
X-WDEX-100100	10.0	100	M7-3P
X-WDEX-100150	10.0	150	M7-3P
X-WDEX-120060	12.0	60	M8-3P
X-WDEX-120080	12.0	80	M8-3P
X-WDEX-120100	12.0	100	M8-3P
X-WDEX-120150	12.0	150	M8-3P
X-WDEX-160060	16.0	60	M10-3P
X-WDEX-160080	16.0	80	M10-3P
X-WDEX-160100	16.0	100	M10-3P
X-WDEX-160150	16.0	150	M10-3P
X-WDEX-160200	16.0	200	M10-3P
X-WDEX-200060	20.0	60	M12-3P

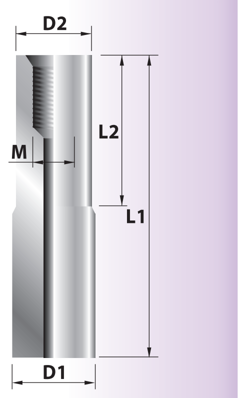
型號 Type No.	D1 柄徑 Shank Dia.(h6)	L1 全長 O.A.L.	M 螺牙 Thread Size
X-WDEX-200080	20.0	80	M12-3P
X-WDEX-200100	20.0	100	M12-3P
X-WDEX-200150	20.0	150	M12-3P
X-WDEX-200200	20.0	200	M12-3P
X-WDEX-200250	20.0	250	M12-3P
X-WDEX-200300	20.0	300	M12-3P
X-WDEX-250100	25.0	100	M16-3P
X-WDEX-250150	25.0	150	M16-3P
X-WDEX-250200	25.0	200	M16-3P
X-WDEX-250250	25.0	250	M16-3P
X-WDEX-250300	25.0	300	M16-3P
X-WDEX-320100	32.0	100	M20-3P
X-WDEX-320150	32.0	150	M20-3P
X-WDEX-320200	32.0	200	M20-3P
X-WDEX-320250	32.0	250	M20-3P
X-WDEX-320300	32.0	300	M20-3P

unit : mm

FIT SHANK

X-WHEX

抗震鎢鋼刀桿(內冷孔)
SOLID CARBIDE SHANK (INTERNAL COOLANT HOLE)



公差表 TOLERANCE unit : mm

柄徑 D1	柄徑公差 D1 Tolerance
8.0	0 / -0.009
10.0	0 / -0.009
12.0	0 / -0.011
16.0	0 / -0.011
20.0	0 / -0.013
25.0	0 / -0.013
32.0	0 / -0.016

產品規格 SPECIFICATIONS

型號 Type No.	D2 頸徑 Neck Dia.	L1 全長 O.A.L.	L2 有效長 Effective Length	D1 柄徑 Shank Dia. (h6)	M 螺牙 Thread Size
X-WHEX-080060	7.8	60	15	8.0	M5-3P
X-WHEX-080075	7.8	75	20	8.0	M5-3P
X-WHEX-080100	7.8	100	20	8.0	M5-3P
X-WHEX-100060	9.8	60	15	10.0	M7-3P
X-WHEX-100075	9.8	75	20	10.0	M7-3P
X-WHEX-100100	9.8	100	20	10.0	M7-3P
X-WHEX-100150	9.8	150	40	10.0	M7-3P
X-WHEX-120060	11.7	60	15	12.0	M8-3P
X-WHEX-120080	11.7	80	20	12.0	M8-3P
X-WHEX-120100	11.7	100	60	12.0	M8-3P
X-WHEX-120150	11.7	150	90	12.0	M8-3P
X-WHEX-160060	15.6	60	15	16.0	M10-3P
X-WHEX-160080	15.6	80	30	16.0	M10-3P
X-WHEX-160100	15.6	100	60	16.0	M10-3P
X-WHEX-160150	15.6	150	90	16.0	M10-3P
X-WHEX-160200	15.6	200	120	16.0	M10-3P
X-WHEX-200060	19.5	60	20	20.0	M12-3P

型號 Type No.	D2 頸徑 Neck Dia.	L1 全長 O.A.L.	L2 有效長 Effective Length	D1 柄徑 Shank Dia. (h6)	M 螺牙 Thread Size
X-WHEX-200080	19.5	80	40	20.0	M12-3P
X-WHEX-200100	19.5	100	60	20.0	M12-3P
X-WHEX-200150	19.5	150	90	20.0	M12-3P
X-WHEX-200200	19.5	200	120	20.0	M12-3P
X-WHEX-200250	19.5	250	150	20.0	M12-3P
X-WHEX-200300	19.5	300	180	20.0	M12-3P
X-WHEX-250100	24.4	100	50	25.0	M16-3P
X-WHEX-250150	24.4	150	90	25.0	M16-3P
X-WHEX-250200	24.4	200	120	25.0	M16-3P
X-WHEX-250250	24.4	250	150	25.0	M16-3P
X-WHEX-250300	24.4	300	180	25.0	M16-3P
X-WHEX-320100	31.2	100	50	32.0	M20-3P
X-WHEX-320150	31.2	150	90	32.0	M20-3P
X-WHEX-320200	31.2	200	120	32.0	M20-3P
X-WHEX-320250	31.2	250	150	32.0	M20-3P
X-WHEX-320300	31.2	300	180	32.0	M20-3P

unit : mm

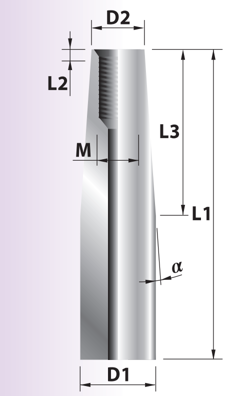
FIT SHANK

X-WFEX

抗震鎢鋼刀桿(內冷孔)
SOLID CARBIDE SHANK (INTERNAL COOLANT HOLE)

公差表 TOLERANCE unit : mm

柄徑 D1	柄徑公差 D1 Tolerance
12.0	0 / -0.011
16.0	0 / -0.011
20.0	0 / -0.013
25.0	0 / -0.013
32.0	0 / -0.016



產品規格 SPECIFICATIONS

型號 Type No.	D2 頸徑 Neck Dia.	L1 全長 O.A.L.	L2 有效長 Effective Length	L3 斜頸長 T.A.L.	D1 柄徑 Shank Dia.(h6)	M 螺牙 Thread Size	α 斜角 Taper Angle
X-WFEX-120100	9.8	100	2	44	12.0	M7-3P	1.5
X-WFEX-120150	9.8	150	2	65	12.0	M7-3P	1.0
X-WFEX-160100	11.7	100	3	50	16.0	M8-3P	2.0
X-WFEX-160150	11.7	150	3	85	16.0	M8-3P	1.5
X-WFEX-160200	11.7	200	3	126	16.0	M8-3P	1.0
X-WFEX-200100	15.6	100	4	50	20.0	M10-3P	2.0
X-WFEX-200150	15.6	150	4	88	20.0	M10-3P	1.5
X-WFEX-200200	15.6	200	4	130	20.0	M10-3P	1.0
X-WFEX-250200	19.5	200	6	111	25.0	M12-3P	1.5
X-WFEX-250300	19.5	300	6	164	25.0	M12-3P	1.0
X-WFEX-320300	24.4	300	8	153	32.0	M16-3P	1.5

unit : mm

X-UOR

直刃圓鼻角立銑刀頭
END MILLS

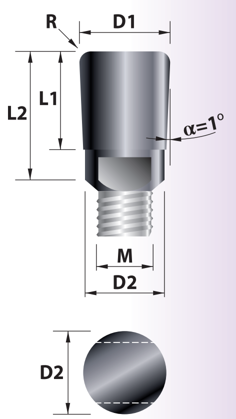
Super MG | 0.2 μm | 0° | HRc ▸65 | G15

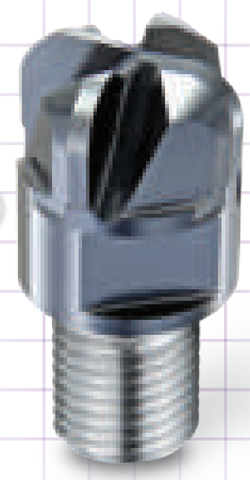
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

柄徑 D1	R徑公差值 R Tolerance
8.0	+0.02 / 0
10.0	+0.02 / 0
12.0	+0.02 / 0
16.0	+0.02 / 0
20.0	+0.02 / 0

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	R 圓鼻角 Corner R	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UOR0810	8.0	3.5	1.0	7.8	10.1	M5-3P	K08
X-UOR0820	8.0	3.5	2.0	7.8	10.1	M5-3P	K08
X-UOR1010	10.0	4.0	1.0	9.8	11.1	M7-3P	K10
X-UOR1020	10.0	4.0	2.0	9.8	11.1	M7-3P	K10
X-UOR1110	11.0	4.0	1.0	10.7	11.1	M7-3P	K10
X-UOR1120	11.0	4.0	2.0	10.7	11.1	M7-3P	K10
X-UOR1220	12.0	5.0	2.0	11.7	13.8	M8-3P	K12
X-UOR1230	12.0	5.0	3.0	11.7	13.8	M8-3P	K12
X-UOR1320	13.0	5.0	2.0	12.7	13.8	M8-3P	K12
X-UOR1330	13.0	5.0	3.0	12.7	13.8	M8-3P	K12
X-UOR1620	16.0	6.5	2.0	15.6	14.7	M10-3P	K16
X-UOR1630	16.0	6.5	3.0	15.6	14.7	M10-3P	K16
X-UOR1640	16.0	6.5	4.0	15.6	14.7	M10-3P	K16
X-UOR1720	17.0	6.5	2.0	16.6	14.7	M10-3P	K16
X-UOR1730	17.0	6.5	3.0	16.6	14.7	M10-3P	K16
X-UOR1740	17.0	6.5	4.0	16.6	14.7	M10-3P	K16
X-UOR2030	20.0	8.0	3.0	19.5	18.1	M12-3P	K20
X-UOR2050	20.0	8.0	5.0	19.5	18.1	M12-3P	K20

unit : mm

X-UEYR

直刃圓鼻角立銑刀頭
END MILLS

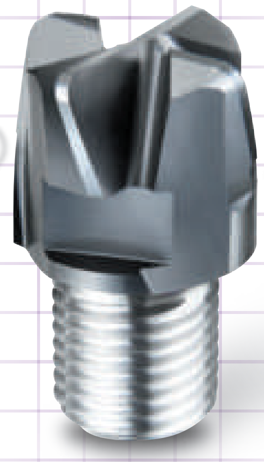
Super MG | 0.2 μm | -20° | 4 Flutes | HRc ▸65 | G15

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

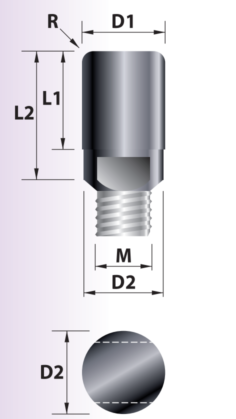
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
8.0	+0.02 / 0	0 / -0.02
10.0	+0.02 / 0	0 / -0.02
12.0	+0.02 / 0	0 / -0.02
16.0	+0.02 / 0	0 / -0.02
20.0	+0.02 / 0	0 / -0.03



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	R 圓鼻角 Corner R	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UEYR0810	8.0	3.5	1.0	7.8	10.1	M5-3P	K08
X-UEYR0820	8.0	3.5	2.0	7.8	10.1	M5-3P	K08
X-UEYR1010	10.0	4.0	1.0	9.8	11.1	M7-3P	K10
X-UEYR1020	10.0	4.0	2.0	9.8	11.1	M7-3P	K10
X-UEYR1220	12.0	5.0	2.0	11.7	13.8	M8-3P	K12
X-UEYR1230	12.0	5.0	3.0	11.7	13.8	M8-3P	K12
X-UEYR1620	16.0	6.5	2.0	15.6	14.7	M10-3P	K16
X-UEYR1630	16.0	6.5	3.0	15.6	14.7	M10-3P	K16
X-UEYR1640	16.0	6.5	4.0	15.6	14.7	M10-3P	K16
X-UEYR2030	20.0	8.0	3.0	19.5	18.1	M12-3P	K20
X-UEYR2050	20.0	8.0	5.0	19.5	18.1	M12-3P	K20

unit : mm

X-UET

極超微粒立銑刀頭
END MILLS

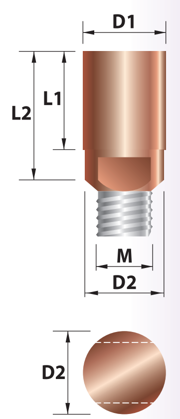
Super MG | 0.4 μm | 45° | 4 Flutes | HRc ▸60 | G12

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
8.0	0 / -0.02
10.0	0 / -0.02
12.0	0 / -0.02
16.0	0 / -0.02
20.0	0 / -0.03
25.0	0 / -0.04
32.0	0 / -0.04

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UET0804	8.0	8.0	7.8	12.1	M5-3P	K08
X-UET1004	10.0	10.0	9.8	16.1	M7-3P	K10
X-UET1204	12.0	12.0	11.7	20.3	M8-3P	K12
X-UET1604	16.0	16.0	15.6	25.7	M10-3P	K16
X-UET2004	20.0	20.0	19.5	31.1	M12-3P	K20
X-UET2504	25.0	25.0	24.4	39.3	M16-3P	K25
X-UET3204	32.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

X-UXR

圓鼻角立銑刀頭
END MILLS

Super MG | 0.4 μm | 35° | R | 4 Flutes | HRc ▸60 | G12

冷卻性能 COOLANT TYPE

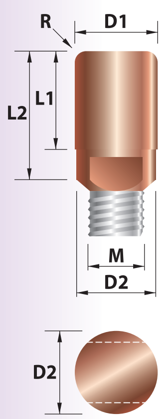
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
8.0	+0.02 / 0	0 / -0.02
10.0	+0.02 / 0	0 / -0.02
12.0	+0.02 / 0	0 / -0.02
16.0	+0.02 / 0	0 / -0.02
20.0	+0.02 / 0	0 / -0.03
25.0	+0.02 / 0	0 / -0.04



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	R 圓鼻角 Corner R	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UXR0803	8.0	8.0	0.3	7.8	12.1	M5-3P	K08
X-UXR0805	8.0	8.0	0.5	7.8	12.1	M5-3P	K08
X-UXR0810	8.0	8.0	1.0	7.8	12.1	M5-3P	K08
X-UXR1005	10.0	10.0	0.5	9.8	16.1	M7-3P	K10
X-UXR1010	10.0	10.0	1.0	9.8	16.1	M7-3P	K10
X-UXR1205	12.0	12.0	0.5	11.7	20.3	M8-3P	K12
X-UXR1210	12.0	12.0	1.0	11.7	20.3	M8-3P	K12
X-UXR1605	16.0	16.0	0.5	15.6	25.7	M10-3P	K16
X-UXR1610	16.0	16.0	1.0	15.6	25.7	M10-3P	K16
X-UXR1620	16.0	16.0	2.0	15.6	25.7	M10-3P	K16
X-UXR2010	20.0	20.0	1.0	19.5	31.1	M12-3P	K20
X-UXR2020	20.0	20.0	2.0	19.5	31.1	M12-3P	K20
X-UXR2030	20.0	20.0	3.0	19.5	31.1	M12-3P	K20
X-UXR2530	25.0	25.0	3.0	24.4	39.3	M16-3P	K25
X-UXR2550	25.0	25.0	5.0	24.4	39.3	M16-3P	K25

unit : mm

X-UEX

無敵高效能立銑刀頭
END MILLS

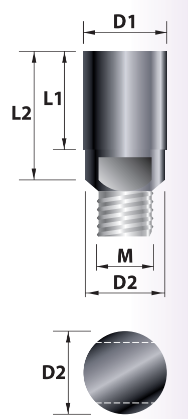
Super MG | 0.2 μm | 45° | 4 Flutes | HRc ▸65 | G15

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
8.0	0 / -0.02
10.0	0 / -0.02
12.0	0 / -0.02
16.0	0 / -0.02
20.0	0 / -0.03
25.0	0 / -0.04
32.0	0 / -0.04

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UEX0804	8.0	8.0	7.8	12.1	M5-3P	K08
X-UEX1004	10.0	10.0	9.8	16.1	M7-3P	K10
X-UEX1204	12.0	12.0	11.7	20.3	M8-3P	K12
X-UEX1604	16.0	16.0	15.6	25.7	M10-3P	K16
X-UEX2004	20.0	20.0	19.5	31.1	M12-3P	K20
X-UEX2504	25.0	25.0	24.4	39.3	M16-3P	K25
X-UEX3204	32.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

X-UEXR

無敵高效能立銑刀頭
END MILLS

Super MG | 0.2 μm | 45° | R | 4 Flutes | HRc ▸65 | G15

冷卻性能 COOLANT TYPE

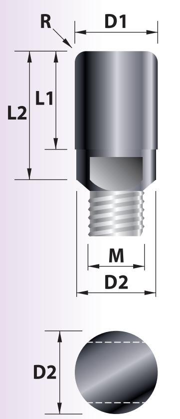
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
8.0	+0.02 / 0	0 / -0.02
10.0	+0.02 / 0	0 / -0.02
12.0	+0.02 / 0	0 / -0.02
16.0	+0.02 / 0	0 / -0.02
20.0	+0.02 / 0	0 / -0.03
25.0	+0.02 / 0	0 / -0.04
32.0	+0.02 / 0	0 / -0.04

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	R 圓鼻角 Corner R	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UEXR0803	8.0	8.0	0.3	7.8	12.1	M5-3P	K08
X-UEXR0805	8.0	8.0	0.5	7.8	12.1	M5-3P	K08
X-UEXR0810	8.0	8.0	1.0	7.8	12.1	M5-3P	K08
X-UEXR1005	10.0	10.0	0.5	9.8	16.1	M7-3P	K10
X-UEXR1010	10.0	10.0	1.0	9.8	16.1	M7-3P	K10
X-UEXR1205	12.0	12.0	0.5	11.7	20.3	M8-3P	K12
X-UEXR1210	12.0	12.0	1.0	11.7	20.3	M8-3P	K12
X-UEXR1220	12.0	12.0	2.0	11.7	20.3	M8-3P	K12
X-UEXR1610	16.0	16.0	1.0	15.6	25.7	M10-3P	K16
X-UEXR1620	16.0	16.0	2.0	15.6	25.7	M10-3P	K16
X-UEXR1630	16.0	16.0	3.0	15.6	25.7	M10-3P	K16
X-UEXR2010	20.0	20.0	1.0	19.5	31.1	M12-3P	K20
X-UEXR2020	20.0	20.0	2.0	19.5	31.1	M12-3P	K20
X-UEXR2030	20.0	20.0	3.0	19.5	31.1	M12-3P	K20
X-UEXR2510	25.0	25.0	1.0	24.4	39.3	M16-3P	K25
X-UEXR2530	25.0	25.0	3.0	24.4	39.3	M16-3P	K25
X-UEXR2550	25.0	25.0	5.0	24.4	39.3	M16-3P	K25
X-UEXR3230	32.0	32.0	3.0	31.2	48.0	M20-3P	K32
X-UEXR3250	32.0	32.0	5.0	31.2	48.0	M20-3P	K32

unit : mm

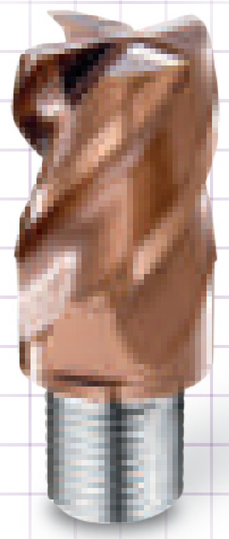
X-UPS

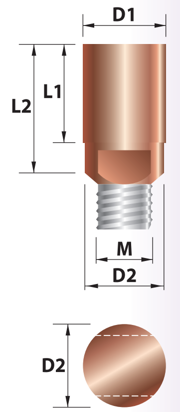
無敵高效能立銑刀頭
END MILLS

Super MG | 0.4 μm | 45° | 4 Flutes | HRc ▸60 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
8.0	0 / -0.02
10.0	0 / -0.02
12.0	0 / -0.02
16.0	0 / -0.02
20.0	0 / -0.03
25.0	0 / -0.04
32.0	0 / -0.04

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UPS0804	8.0	8.0	7.8	12.1	M5-3P	K08
X-UPS1004	10.0	10.0	9.8	16.1	M7-3P	K10
X-UPS1204	12.0	12.0	11.7	20.3	M8-3P	K12
X-UPS1604	16.0	16.0	15.6	25.7	M10-3P	K16
X-UPS2004	20.0	20.0	19.5	31.1	M12-3P	K20
X-UPS2504	25.0	25.0	24.4	39.3	M16-3P	K25
X-UPS3204	32.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

X-UPR

高硬度用圓鼻角立銑刀頭
END MILLS

二代變形鎢鋼立銑刀
EXCHANGEABLE HEAD ENDMILL II
DHF DESIGN . HONESTY . FUTURE

Super MG | 0.2 μm | 25° | R | 4 Flutes | HRc ▸65 | G15

冷卻性能 COOLANT TYPE

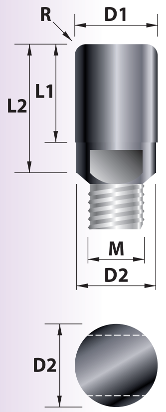
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
8.0	+0.02 / 0	0 / -0.02
10.0	+0.02 / 0	0 / -0.02
12.0	+0.02 / 0	0 / -0.02
16.0	+0.02 / 0	0 / -0.02
20.0	+0.02 / 0	0 / -0.03
25.0	+0.02 / 0	0 / -0.04
32.0	+0.02 / 0	0 / -0.04



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	R 圓鼻角 Corner R	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UPR0805	8.0	8.0	0.5	7.8	12.1	M5-3P	K08
X-UPR0810	8.0	8.0	1.0	7.8	12.1	M5-3P	K08
X-UPR1005	10.0	10.0	0.5	9.8	16.1	M7-3P	K10
X-UPR1010	10.0	10.0	1.0	9.8	16.1	M7-3P	K10
X-UPR1210	12.0	12.0	1.0	11.7	20.3	M8-3P	K12
X-UPR1220	12.0	12.0	2.0	11.7	20.3	M8-3P	K12
X-UPR1610	16.0	16.0	1.0	15.6	25.7	M10-3P	K16
X-UPR1620	16.0	16.0	2.0	15.6	25.7	M10-3P	K16
X-UPR1630	16.0	16.0	3.0	15.6	25.7	M10-3P	K16
X-UPR2010	20.0	20.0	1.0	19.5	31.1	M12-3P	K20
X-UPR2020	20.0	20.0	2.0	19.5	31.1	M12-3P	K20
X-UPR2030	20.0	20.0	3.0	19.5	31.1	M12-3P	K20
X-UPR2050	20.0	20.0	5.0	19.5	31.1	M12-3P	K20
X-UPR2510	25.0	25.0	1.0	24.4	39.3	M16-3P	K25
X-UPR2520	25.0	25.0	2.0	24.4	39.3	M16-3P	K25
X-UPR2530	25.0	25.0	3.0	24.4	39.3	M16-3P	K25
X-UPR2550	25.0	25.0	5.0	24.4	39.3	M16-3P	K25
X-UPR3210	32.0	32.0	1.0	31.2	48.0	M20-3P	K32
X-UPR3230	32.0	32.0	3.0	31.2	48.0	M20-3P	K32
X-UPR3250	32.0	32.0	5.0	31.2	48.0	M20-3P	K32

unit : mm

二代變形鎢鋼立銑刀 EXCHANGEABLE HEAD ENDMILL II

NEW

DHF
Design . Honesty . Future

二代變形鎢鋼立銑刀
EXCHANGEABLE HEAD ENDMILL II

X-UPZ

無敵高效能立銑刀頭
END MILLS

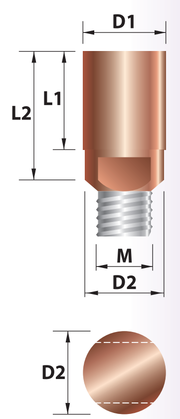
Super MG | 0.4 μm | 45° | 4 Flutes | HRc >60 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
8.0	0 / -0.02
10.0	0 / -0.02
12.0	0 / -0.02
16.0	0 / -0.02
20.0	0 / -0.03

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UPZ0804	8.0	8.0	7.8	12.1	M5-3P	K08
X-UPZ1004	10.0	10.0	9.8	16.1	M7-3P	K10
X-UPZ1204	12.0	12.0	11.7	20.3	M8-3P	K12
X-UPZ1604	16.0	16.0	15.6	25.7	M10-3P	K16
X-UPZ2004	20.0	20.0	19.5	31.1	M12-3P	K20

unit : mm

二代變形鎢鋼立銑刀 EXCHANGEABLE HEAD ENDMILL II

NEW

X-UPZO

無敵高效能立銑刀頭(內冷孔)
END MILLS (INTERNAL COOLANT HOLE)

二代變形鎢鋼立銑刀
EXCHANGEABLE HEAD ENDMILL II

DHF
Design . Honesty . Future

Super MG | 0.4 μm | 45° | 4 Flutes | HRc >60 | G10

冷卻性能 COOLANT TYPE

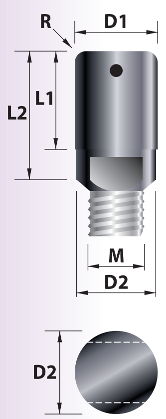
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
8.0	0 / -0.02
10.0	0 / -0.02
12.0	0 / -0.02
16.0	0 / -0.02
20.0	0 / -0.03



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UPZO0804	8.0	8.0	7.8	12.1	M5-3P	K08
X-UPZO1004	10.0	10.0	9.8	16.1	M7-3P	K10
X-UPZO1204	12.0	12.0	11.7	20.3	M8-3P	K12
X-UPZO1604	16.0	16.0	15.6	25.7	M10-3P	K16
X-UPZO2004	20.0	20.0	19.5	31.1	M12-3P	K20

unit : mm

二代變形鎢鋼立銑刀 EXCHANGEABLE HEAD ENDMILL II

X-UVT

高硬度用立銑刀頭
END MILLS

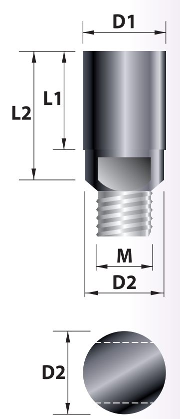
Super MG | 0.2 μm | 45° | 6 Flutes | HRc ▸65 | G15

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
8.0	0/-0.02
10.0	0/-0.02
12.0	0/-0.02
16.0	0/-0.02
20.0	0/-0.03
25.0	0/-0.04
32.0	0/-0.04

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UVT0806	8.0	8.0	7.8	12.1	M5-3P	K08
X-UVT1006	10.0	10.0	9.8	16.1	M7-3P	K10
X-UVT1206	12.0	12.0	11.7	20.3	M8-3P	K12
X-UVT1606	16.0	16.0	15.6	25.7	M10-3P	K16
X-UVT2006	20.0	20.0	19.5	31.1	M12-3P	K20
X-UVT2506	25.0	25.0	24.4	39.3	M16-3P	K25
X-UVT3206	32.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

X-UVTR

高硬度用圓鼻角立銑刀頭
END MILLS

二代變形鎢鋼立銑刀
EXCHANGEABLE HEAD ENDMILL II
DHF Design . Honesty . Future

Super MG | 0.2 μm | 45° | R | 6 Flutes | HRc ▸65 | G15

冷卻性能 COOLANT TYPE

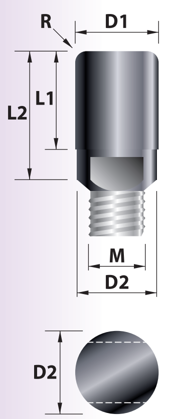
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
8.0	+0.02/0	0/-0.02
10.0	+0.02/0	0/-0.02
12.0	+0.02/0	0/-0.02
16.0	+0.02/0	0/-0.02
20.0	+0.02/0	0/-0.03
25.0	+0.02/0	0/-0.04



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	R 圓鼻角 Corner R	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UVTR0805	8.0	8.0	0.5	7.8	12.1	M5-3P	K08
X-UVTR0810	8.0	8.0	1.0	7.8	12.1	M5-3P	K08
X-UVTR1005	10.0	10.0	0.5	9.8	16.1	M7-3P	K10
X-UVTR1010	10.0	10.0	1.0	9.8	16.1	M7-3P	K10
X-UVTR1205	12.0	12.0	0.5	11.7	20.3	M8-3P	K12
X-UVTR1210	12.0	12.0	1.0	11.7	20.3	M8-3P	K12
X-UVTR1605	16.0	16.0	0.5	15.6	25.7	M10-3P	K16
X-UVTR1610	16.0	16.0	1.0	15.6	25.7	M10-3P	K16
X-UVTR1620	16.0	16.0	2.0	15.6	25.7	M10-3P	K16
X-UVTR2010	20.0	20.0	1.0	19.5	31.1	M12-3P	K20
X-UVTR2020	20.0	20.0	2.0	19.5	31.1	M12-3P	K20
X-UVTR2030	20.0	20.0	3.0	19.5	31.1	M12-3P	K20
X-UVTR2530	25.0	25.0	3.0	24.4	39.3	M16-3P	K25
X-UVTR2550	25.0	25.0	5.0	24.4	39.3	M16-3P	K25

unit : mm

二代變形鎢鋼立銑刀 EXCHANGEABLE HEAD ENDMILL II

DHF Design . Honesty . Future

二代變形鎢鋼立銑刀
EXCHANGEABLE HEAD ENDMILL II

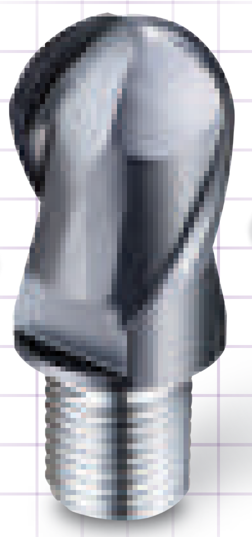
X-BTB 2T

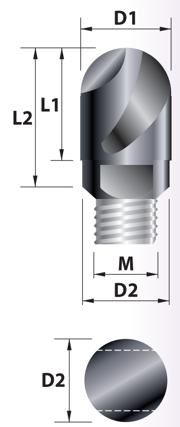
超微粒圓頭立銑刀頭
BALL NOSE END MILLS

MG | 0.6 µm | 30° | 2 Flutes | HRc ▸55 | T2

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02
R10.0	±0.02
R12.5	±0.02
R16.0	±0.02

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-BTB0802	R4.0	8.0	7.8	12.1	M5-3P	K08
X-BTB1002	R5.0	10.0	9.8	16.1	M7-3P	K10
X-BTB1202	R6.0	12.0	11.7	20.3	M8-3P	K12
X-BTB1602	R8.0	16.0	15.6	25.7	M10-3P	K16
X-BTB2002	R10.0	20.0	19.5	31.1	M12-3P	K20
X-BTB2502	R12.5	25.0	24.4	39.3	M16-3P	K25
X-BTB3202	R16.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

X-BTB 3T

超微粒圓頭立銑刀頭
BALL NOSE END MILLS

二代變形鎢鋼立銑刀
EXCHANGEABLE HEAD ENDMILL II

DHF Design . Honesty . Future

MG | 0.6 µm | 30° | 3 Flutes | HRc ▸55 | T2

冷卻性能 COOLANT TYPE

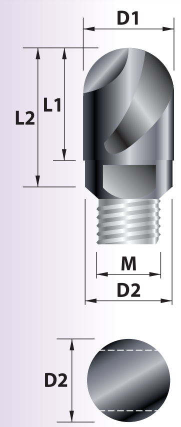
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02
R10.0	±0.02
R12.5	±0.02
R16.0	±0.02



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-BTB0803	R4.0	8.0	7.8	12.1	M5-3P	K08
X-BTB1003	R5.0	10.0	9.8	16.1	M7-3P	K10
X-BTB1203	R6.0	12.0	11.7	20.3	M8-3P	K12
X-BTB1603	R8.0	16.0	15.6	25.7	M10-3P	K16
X-BTB2003	R10.0	20.0	19.5	31.1	M12-3P	K20
X-BTB2503	R12.5	25.0	24.4	39.3	M16-3P	K25
X-BTB3203	R16.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

X-UB2T

極超微粒圓頭立銑刀頭
BALL NOSE END MILLS

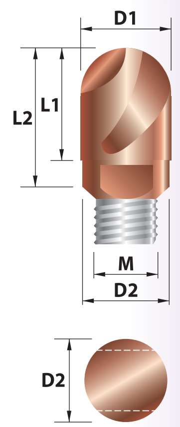
Super MG | 0.4 µm | 30° | 2 Flutes | HRc ▸62 | G12 | S type

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02
R10.0	±0.02
R12.5	±0.02
R16.0	±0.02

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UB0802	R4.0	8.0	7.8	12.1	M5-3P	K08
X-UB1002	R5.0	10.0	9.8	16.1	M7-3P	K10
X-UB1202	R6.0	12.0	11.7	20.3	M8-3P	K12
X-UB1602	R8.0	16.0	15.6	25.7	M10-3P	K16
X-UB2002	R10.0	20.0	19.5	31.1	M12-3P	K20
X-UB2502	R12.5	25.0	24.4	39.3	M16-3P	K25
X-UB3202	R16.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

X-UB4T

極超微粒圓頭立銑刀頭
BALL NOSE END MILLS

Super MG | 0.4 µm | 30° | 4 Flutes | HRc ▸62 | G12 | S type

冷卻性能 COOLANT TYPE

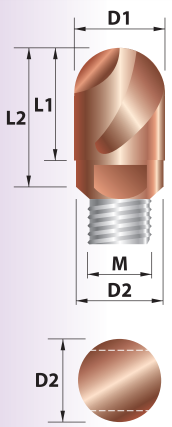
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02
R10.0	±0.02
R12.5	±0.02
R16.0	±0.02



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UB0804	R4.0	8.0	7.8	12.1	M5-3P	K08
X-UB1004	R5.0	10.0	9.8	16.1	M7-3P	K10
X-UB1204	R6.0	12.0	11.7	20.3	M8-3P	K12
X-UB1604	R8.0	16.0	15.6	25.7	M10-3P	K16
X-UB2004	R10.0	20.0	19.5	31.1	M12-3P	K20
X-UB2504	R12.5	25.0	24.4	39.3	M16-3P	K25
X-UB3204	R16.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

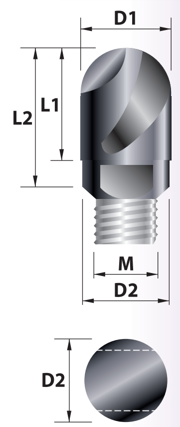
X-UBT 2T

高硬度用圓頭立銑刀頭
BALL NOSE END MILLS

Super MG | 0.2 µm | 30° | 2 Flutes | HRc >65 | G15

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02
R10.0	±0.02
R12.5	±0.02

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UBT0802	R4.0	8.0	7.8	12.1	M5-3P	K08
X-UBT1002	R5.0	10.0	9.8	16.1	M7-3P	K10
X-UBT1202	R6.0	12.0	11.7	20.3	M8-3P	K12
X-UBT1602	R8.0	16.0	15.6	25.7	M10-3P	K16
X-UBT2002	R10.0	20.0	19.5	31.1	M12-3P	K20
X-UBT2502	R12.5	25.0	24.4	39.3	M16-3P	K25

unit : mm

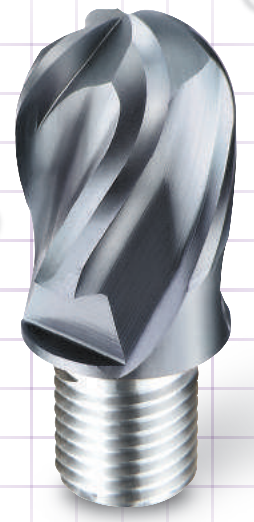
X-UBT 4T

高硬度用圓頭立銑刀頭
BALL NOSE END MILLS

Super MG | 0.2 µm | 30° | 4 Flutes | HRc >65 | G15

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

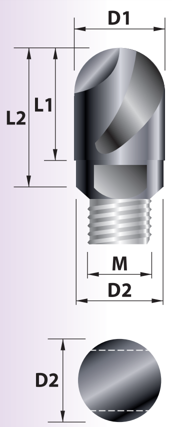


切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02
R10.0	±0.02
R12.5	±0.02



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UBT0804	R4.0	8.0	7.8	12.1	M5-3P	K08
X-UBT1004	R5.0	10.0	9.8	16.1	M7-3P	K10
X-UBT1204	R6.0	12.0	11.7	20.3	M8-3P	K12
X-UBT1604	R8.0	16.0	15.6	25.7	M10-3P	K16
X-UBT2004	R10.0	20.0	19.5	31.1	M12-3P	K20
X-UBT2504	R12.5	25.0	24.4	39.3	M16-3P	K25

unit : mm

DHF
DESIGN . HONESTY . FUTURE

X-BMW

粗齒圓頭立銑刀頭
BALL NOSE END MILLS

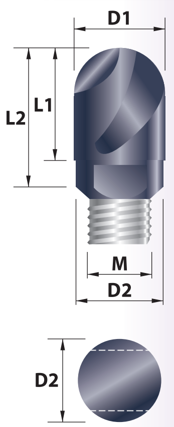
Super MG | 0.4 μm | Roughing | 20° | 4 Flutes | HRc ▸65 | G15

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02
R10.0	±0.02
R12.5	±0.02
R15.0	±0.02
R16.0	±0.02

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-BMW0804	R 4.0	8.0	7.8	12.1	M5-3P	K08
X-BMW1004	R 5.0	10.0	9.8	16.1	M7-3P	K10
X-BMW1204	R 6.0	12.0	11.7	20.3	M8-3P	K12
X-BMW1604	R 8.0	16.0	15.6	25.7	M10-3P	K16
X-BMW2004	R10.0	20.0	19.5	31.1	M12-3P	K20
X-BMW2504	R12.5	25.0	24.4	39.3	M16-3P	K25
X-BMW3004	R15.0	32.0	29.2	48.0	M20-3P	K30
X-BMW3204	R16.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

X-UBY

極超微粒圓頭立銑刀頭
BALL NOSE END MILLS

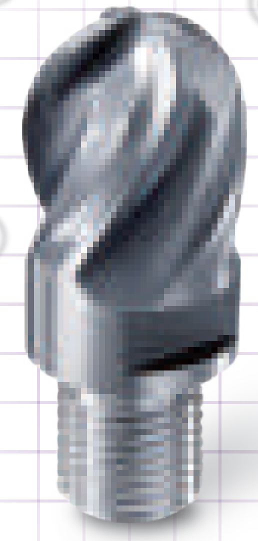
二代變形鎢鋼立銑刀
EXCHANGEABLE HEAD ENDMILL II

DHF
DESIGN . HONESTY . FUTURE

Super MG | 0.2 μm | 30° | 4 Flutes | HRc ▸65 | G15

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

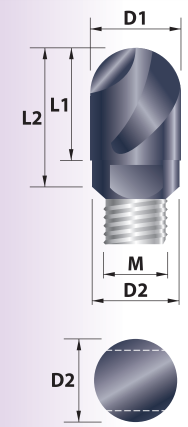


切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02
R10.0	±0.02
R12.5	±0.02
R15.0	±0.02
R16.0	±0.02



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-UBY0804	R 4.0	8.0	7.8	12.1	M5-3P	K08
X-UBY1004	R 5.0	10.0	9.8	16.1	M7-3P	K10
X-UBY1204	R 6.0	12.0	11.7	20.3	M8-3P	K12
X-UBY1604	R 8.0	16.0	15.6	25.7	M10-3P	K16
X-UBY2004	R10.0	20.0	19.5	31.1	M12-3P	K20
X-UBY2504	R12.5	25.0	24.4	39.3	M16-3P	K25
X-UBY3004	R15.0	32.0	29.2	48.0	M20-3P	K30
X-UBY3204	R16.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

Xs-BTB

爆丸球刀頭
BALL NOSE END MILLS

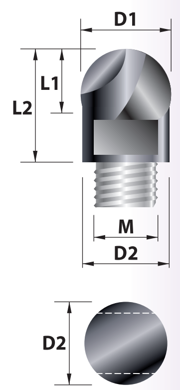
MG | 0.6 μm | 2 Flutes | HRc ▸55 | T2

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02
R10.0	±0.02
R12.5	±0.02

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
Xs-BTB0802	R 4.0	6.0	7.8	10.1	M5-3P	K08
Xs-BTB1002	R 5.0	7.0	9.8	11.1	M7-3P	K10
Xs-BTB1202	R 6.0	9.0	11.7	13.8	M8-3P	K12
Xs-BTB1602	R 8.0	10.0	15.6	14.7	M10-3P	K16
Xs-BTB2002	R10.0	12.0	19.5	18.1	M12-3P	K20
Xs-BTB2502	R12.5	16.0	24.4	22.3	M16-3P	K25

unit : mm

Xs-UB

爆丸球刀頭
BALL NOSE END MILLS

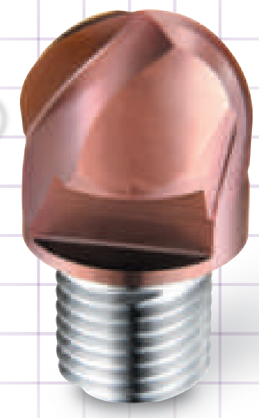
Super MG | 0.4 μm | 2 Flutes | HRc ▸62 | G12 | S type

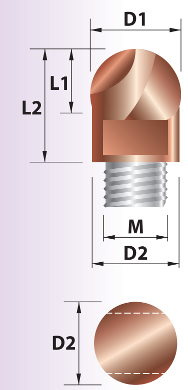
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02
R10.0	±0.02
R12.5	±0.02

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
Xs-UB0802	R 4.0	6.0	7.8	10.1	M5-3P	K08
Xs-UB1002	R 5.0	7.0	9.8	11.1	M7-3P	K10
Xs-UB1202	R 6.0	9.0	11.7	13.8	M8-3P	K12
Xs-UB1602	R 8.0	10.0	15.6	14.7	M10-3P	K16
Xs-UB2002	R10.0	12.0	19.5	18.1	M12-3P	K20
Xs-UB2502	R12.5	16.0	24.4	22.3	M16-3P	K25

unit : mm

Xs-UBT

爆丸球刀頭
BALL NOSE END MILLS

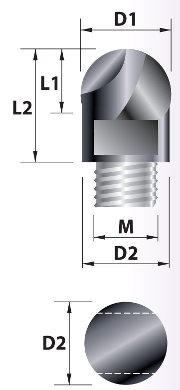
Super MG | 0.2 μm | 2 Flutes | HRc >65 | G15

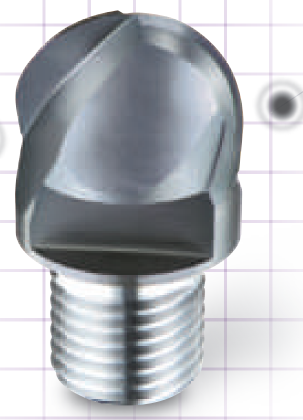
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02
R10.0	±0.02
R12.5	±0.02

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
Xs-UBT0802	R 4.0	6.0	7.8	10.1	M5-3P	K08
Xs-UBT1002	R 5.0	7.0	9.8	11.1	M7-3P	K10
Xs-UBT1202	R 6.0	9.0	11.7	13.8	M8-3P	K12
Xs-UBT1602	R 8.0	10.0	15.6	14.7	M10-3P	K16
Xs-UBT2002	R10.0	12.0	19.5	18.1	M12-3P	K20
Xs-UBT2502	R12.5	16.0	24.4	22.3	M16-3P	K25

unit : mm

X-BTC

銅鋁用圓頭立銑刀頭
BALL NOSE END MILLS

MG | 0.6 μm | 25° | 2 Flutes

冷卻性能 COOLANT TYPE

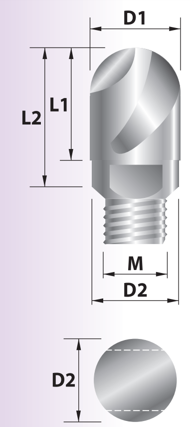
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02
R10.0	±0.02
R12.5	±0.02
R16.0	±0.02



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-BTC0802	R4.0	8.0	7.8	12.1	M5-3P	K08
X-BTC1002	R5.0	10.0	9.8	16.1	M7-3P	K10
X-BTC1202	R6.0	12.0	11.7	20.3	M8-3P	K12
X-BTC1602	R8.0	16.0	15.6	25.7	M10-3P	K16
X-BTC2002	R10.0	20.0	19.5	31.1	M12-3P	K20
X-BTC2502	R12.5	25.0	24.4	39.3	M16-3P	K25
X-BTC3202	R16.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

X-AEW

彩虹立銑刀頭
END MILLS

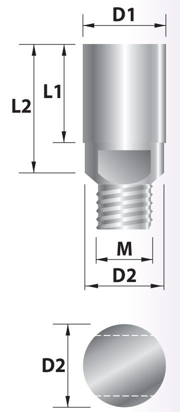
MG | 0.6 µm | Roughing | 45° | 3 Flutes

切削性能 CUTTING PERFORMANCE

精銑 Finishing	中銑 Semi-finishing	粗銑 Roughing
-----	◎	◎

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining	油霧切削 MQL(Mist)	水溶性切削 Emulsion Machining	油性切削 Oil Machining
○	◎	◎	-----



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
8.0	0 / -0.02
10.0	0 / -0.02
12.0	0 / -0.02
16.0	0 / -0.02
20.0	0 / -0.03
25.0	0 / -0.04
32.0	0 / -0.04

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-AEW0803	8.0	8.0	7.8	12.1	M5-3P	K08
X-AEW1003	10.0	10.0	9.8	16.1	M7-3P	K10
X-AEW1203	12.0	12.0	11.7	20.3	M8-3P	K12
X-AEW1603	16.0	16.0	15.6	25.7	M10-3P	K16
X-AEW2003	20.0	20.0	19.5	31.1	M12-3P	K20
X-AEW2503	25.0	25.0	24.4	39.3	M16-3P	K25
X-AEW3203	32.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

X-AEWR

彩虹立銑刀頭
END MILLS

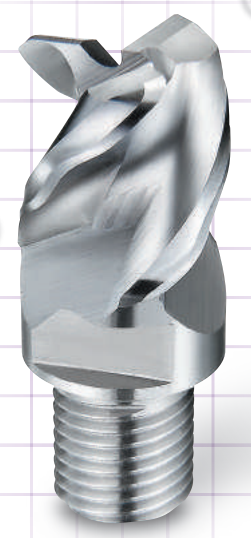
MG | 0.6 µm | Roughing | 45° | R | 3 Flutes

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining	油霧切削 MQL(Mist)	水溶性切削 Emulsion Machining	油性切削 Oil Machining
○	◎	◎	-----

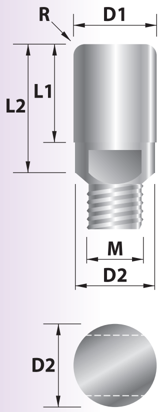
切削性能 CUTTING PERFORMANCE

精銑 Finishing	中銑 Semi-finishing	粗銑 Roughing
-----	◎	◎



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
8.0	+0.02 / 0	0 / -0.02
10.0	+0.02 / 0	0 / -0.02
12.0	+0.02 / 0	0 / -0.02
16.0	+0.02 / 0	0 / -0.02
20.0	+0.02 / 0	0 / -0.03
25.0	+0.02 / 0	0 / -0.04
32.0	+0.02 / 0	0 / -0.04



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	R 圓鼻角 Corner R	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-AEWR0805	8.0	8.0	0.5	7.8	12.1	M5-3P	K08
X-AEWR0810	8.0	8.0	1.0	7.8	12.1	M5-3P	K08
X-AEWR1005	10.0	10.0	0.5	9.8	16.1	M7-3P	K10
X-AEWR1010	10.0	10.0	1.0	9.8	16.1	M7-3P	K10
X-AEWR1205	12.0	12.0	0.5	11.7	20.3	M8-3P	K12
X-AEWR1210	12.0	12.0	1.0	11.7	20.3	M8-3P	K12
X-AEWR1610	16.0	16.0	1.0	15.6	25.7	M10-3P	K16
X-AEWR1620	16.0	16.0	2.0	15.6	25.7	M10-3P	K16
X-AEWR1630	16.0	16.0	3.0	15.6	25.7	M10-3P	K16
X-AEWR2010	20.0	20.0	1.0	19.5	31.1	M12-3P	K20
X-AEWR2020	20.0	20.0	2.0	19.5	31.1	M12-3P	K20
X-AEWR2030	20.0	20.0	3.0	19.5	31.1	M12-3P	K20
X-AEWR2510	25.0	25.0	1.0	24.4	39.3	M16-3P	K25
X-AEWR2530	25.0	25.0	3.0	24.4	39.3	M16-3P	K25
X-AEWR3230	32.0	32.0	3.0	31.2	48.0	M20-3P	K32
X-AEWR3250	32.0	32.0	5.0	31.2	48.0	M20-3P	K32

unit : mm

X-AES

高效能鋁用立銑刀頭
END MILLS

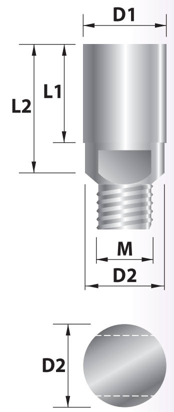
Super MG | 0.4 μm | 40° | 3 Flutes

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
8.0	0 / -0.02
10.0	0 / -0.02
12.0	0 / -0.02
16.0	0 / -0.02
20.0	0 / -0.03
25.0	0 / -0.04
32.0	0 / -0.04

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-AES0803	8.0	8.0	7.8	12.1	M5-3P	K08
X-AES1003	10.0	10.0	9.8	16.1	M7-3P	K10
X-AES1203	12.0	12.0	11.7	20.3	M8-3P	K12
X-AES1603	16.0	16.0	15.6	25.7	M10-3P	K16
X-AES2003	20.0	20.0	19.5	31.1	M12-3P	K20
X-AES2503	25.0	25.0	24.4	39.3	M16-3P	K25
X-AES3203	32.0	32.0	31.2	48.0	M20-3P	K32

unit : mm

X-AESR

高效能鋁用立銑刀頭
END MILLS

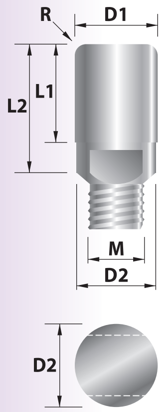
Super MG | 0.4 μm | 40° | R | 3 Flutes

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
8.0	+0.02 / 0	0 / -0.02
10.0	+0.02 / 0	0 / -0.02
12.0	+0.02 / 0	0 / -0.02
16.0	+0.02 / 0	0 / -0.02
20.0	+0.02 / 0	0 / -0.03
25.0	+0.02 / 0	0 / -0.04
32.0	+0.02 / 0	0 / -0.04

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	R 圓鼻角 Corner R	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-AESR0805	8.0	8.0	0.5	7.8	12.1	M5-3P	K08
X-AESR0810	8.0	8.0	1.0	7.8	12.1	M5-3P	K08
X-AESR1005	10.0	10.0	0.5	9.8	16.1	M7-3P	K10
X-AESR1010	10.0	10.0	1.0	9.8	16.1	M7-3P	K10
X-AESR1205	12.0	12.0	0.5	11.7	20.3	M8-3P	K12
X-AESR1210	12.0	12.0	1.0	11.7	20.3	M8-3P	K12
X-AESR1605	16.0	16.0	0.5	15.6	25.7	M10-3P	K16
X-AESR1610	16.0	16.0	1.0	15.6	25.7	M10-3P	K16
X-AESR1630	16.0	16.0	3.0	15.6	25.7	M10-3P	K16
X-AESR2005	20.0	20.0	0.5	19.5	31.1	M12-3P	K20
X-AESR2010	20.0	20.0	1.0	19.5	31.1	M12-3P	K20
X-AESR2030	20.0	20.0	3.0	19.5	31.1	M12-3P	K20
X-AESR2530	25.0	25.0	3.0	24.4	39.3	M16-3P	K25
X-AESR3230	32.0	32.0	3.0	31.2	48.0	M20-3P	K32
X-AESR3250	32.0	32.0	5.0	31.2	48.0	M20-3P	K32

unit : mm

二代變形鎢鋼立銑刀 EXCHANGEABLE HEAD ENDMILL II

X-TS

螺旋刃倒角刀頭
SPIRAL FLUTE CHAMFERING

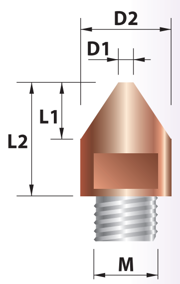
Super MG | 0.4 μm | 3 Flutes | 90° | HRc ▸60 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



產品規格 SPECIFICATIONS

型號 Type No.	D1 前端徑 Front Diameter	D2 柄徑 Diameter	L1 刃長 Flute Length	L2 全長 O.A.L.	配合刀桿 Recommended Carbide Shank	鎖固扳手型號 Spanner Type No.
X-TS0803	1	8	3.5	10.1	X-WDEX080-	K08
X-TS1003	2	10	4.0	11.1	X-WDEX100-	K10
X-TS1203	2	12	5.0	13.8	X-WDEX120-	K12
X-TS1603	3	16	6.5	14.7	X-WDEX160-	K16
X-TS2003	5	20	7.5	18.1	X-WDEX200-	K20

unit : mm

X-TD

直刃倒角刀頭
STRAIGHT FLUTE CHAMFERING

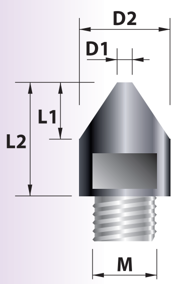
Super MG | 0.4 μm | 3 Flutes | 90° | HRc ▸60 | T1

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



產品規格 SPECIFICATIONS

型號 Type No.	D1 前端徑 Front Diameter	D2 柄徑 Diameter	L1 刃長 Flute Length	L2 全長 O.A.L.	配合刀桿 Recommended Carbide Shank	鎖固扳手型號 Spanner Type No.
X-TD0803	1	8	3.5	10.1	X-WDEX080-	K08
X-TD1003	2	10	4.0	11.1	X-WDEX100-	K10
X-TD1203	2	12	5.0	13.8	X-WDEX120-	K12
X-TD1603	3	16	6.5	14.7	X-WDEX160-	K16
X-TD2003	5	20	7.5	18.1	X-WDEX200-	K20

unit : mm

X-TW

螺紋銑刀
THREAD MILLING

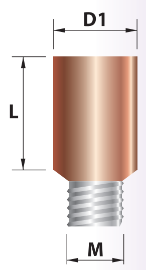
Super MG | 0.4 μm | 15° | 4 Flutes | HRc ▸55 | G12

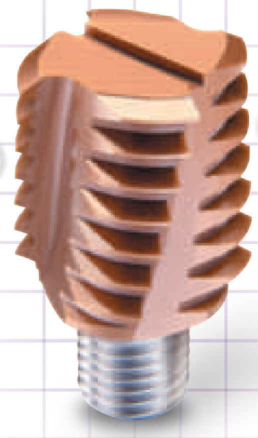
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

切削性能 CUTTING PERFORMANCE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
10.0	0 / -0.04
11.0	0 / -0.04
12.0	0 / -0.04
13.0	0 / -0.04
16.0	0 / -0.04
20.0	0 / -0.04
25.0	0 / -0.04

產品規格 SPECIFICATIONS

型號 Type No.	螺距 Pitch	M 適用規格 Applicable Size 粗牙 Coarse	細牙 Fine	D1 直徑 Diameter	L1 刃長 Flute Length	N 牙數 No. of Thread	配合刀桿 Recommended Carbide Shank	鎖固扳手型號 Spanner Type No.
X-TW101210	1.0		≧M14	10.0	12.0	12	X-WDEX080-	K16
X-TW121510	1.0		≧M15	12.0	15.0	15	X-WDEX100-	K16
X-TW161810	1.0		≧M20	16.0	18.0	18	X-WDEX120-	K16
X-TW202210	1.0		≧M24	20.0	22.0	22	X-WDEX160-	K20
X-TW111215	1.5		≧M15	11.0	12.0	8	X-WDEX080-	K16
X-TW131515	1.5		≧M17	13.0	15.0	10	X-WDEX100-	K16
X-TW161815	1.5		≧M20	16.0	18.0	12	X-WDEX120-	K16
X-TW202115	1.5		≧M24	20.0	21.0	14	X-WDEX160-	K20
X-TW252415	1.5		≧M30	25.0	24.0	16	X-WDEX200-	K20
X-TW111220	2.0	M16	≧M18	11.0	12.0	6	X-WDEX080-	K16
X-TW131420	2.0		≧M18	13.0	14.0	7	X-WDEX100-	K16
X-TW161820	2.0		≧M22	16.0	18.0	9	X-WDEX120-	K16
X-TW202220	2.0		≧M25	20.0	22.0	11	X-WDEX160-	K20
X-TW252420	2.0		≧M30	25.0	24.0	12	X-WDEX200-	K20
X-TW131525	2.5	M18~22		13.0	15.0	6	X-WDEX100- & X-WHEX100-	K16
X-TW161830	3.0	M24~27	≧M30	16.0	18.0	6	X-WDEX120- & X-WHEX120-	K16
X-TW202130	3.0		≧M30	20.0	21.0	7	X-WDEX160-	K20
X-TW252430	3.0		≧M33	25.0	24.0	8	X-WDEX200-	K20
X-TW202135	3.5	M30~33		20.0	21.0	6	X-WDEX160- & X-WHEX160-	K20
X-TW252440	4.0	M36~39	≧M42	25.0	24.0	6	X-WDEX200-	K20

unit : mm

X-VRI

圓鼻角立銑刀
END MILLS

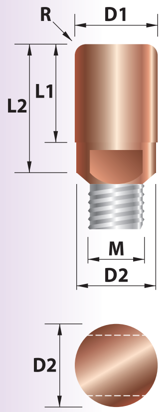
MG | 0.6 μm | 45° | R | 6 Flutes | HRc ▸60 | G10

切削性能 CUTTING PERFORMANCE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
8.0	+0.02 / 0	0 / -0.02
10.0	+0.02 / 0	0 / -0.02
12.0	+0.02 / 0	0 / -0.02
16.0	+0.02 / 0	0 / -0.02
20.0	+0.02 / 0	0 / -0.03

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	R 圓鼻角 Corner R	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-VRI0805	8.0	8.0	0.5	7.8	12.1	M5-3P	K08
X-VRI0810	8.0	8.0	1.0	7.8	12.1	M5-3P	K08
X-VRI1005	10.0	10.0	0.5	9.8	16.1	M7-3P	K10
X-VRI1010	10.0	10.0	1.0	9.8	16.1	M7-3P	K10
X-VRI1205	12.0	12.0	0.5	11.7	20.3	M8-3P	K12
X-VRI1210	12.0	12.0	1.0	11.7	20.3	M8-3P	K12
X-VRI1215	12.0	12.0	1.5	11.7	20.3	M8-3P	K12
X-VRI1605	16.0	16.0	0.5	15.6	25.7	M10-3P	K16
X-VRI1610	16.0	16.0	1.0	15.6	25.7	M10-3P	K16
X-VRI1620	16.0	16.0	2.0	15.6	25.7	M10-3P	K16
X-VRI2010	20.0	20.0	1.0	19.5	31.1	M12-3P	K20
X-VRI2020	20.0	20.0	2.0	19.5	31.1	M12-3P	K20
X-VRI2030	20.0	20.0	3.0	19.5	31.1	M12-3P	K20

unit : mm

二代變形鎢鋼立銑刀 EXCHANGEABLE HEAD ENDMILL II

K
變形刀頭鎖固扳手
SPANNER

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	標準立銑刀頭 (使用端) End Mills (Use End)	爆丸球刀頭 (使用端) Ball Nose End Mills (Use End)	螺紋銑刀頭 Thread Milling	扳手鎖固扭力值 N.m
K08	8	XT-08	XTs-08	--	6
K10	10	XT-10	XTs-10	--	7
K12	12	XT-12	XTs-12	--	9
K16	16	XT-16	XTs-16	X-TW	10
K20	20	XT-20	XTs-20	X-TW	12
K25	25	XT-25	XTs-25	X-TW	15
K32	32	XT-32	XTs-32	X-TW	20

unit : mm

備註：刀桿與刀頭結合時可參考表格之「扭力值」。
Note : When combining shank and head, please refer to the "N.m" value.

HIGH SPEED CUTTING & HIGH HARD CUTTING
高速&高硬度切削系列

HSC
HHC

Index
目錄

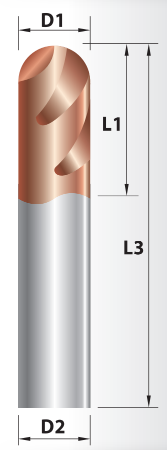
UB

極超微粒圓頭立銑刀
BALL NOSE END MILLS

Super MG | 0.4 µm | 30° | 2 Flutes | HRc >60 | G12 | S type

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UB0102	R0.5	2	50	4
UB0152	R0.75	3	50	4
UB0202	R1	4	50	6
UB0202S	R1	4	50	4
UB0302	R1.5	6	50	6
UB0302S	R1.5	6	50	4
UB0402	R2	8	50	6
UB0402S	R2	8	50	4
UB0502	R2.5	10	50	6
UB0602	R3	12	50	6
UB0802	R4	16	60	8
UB1002	R5	20	75	10
UB1202	R6	24	75	12
UB1602	R8	32	100	16

unit : mm

UHB UIB UJB

極超微粒長柄圓頭立銑刀
BALL NOSE END MILLS

Super MG | 0.4 µm | 30° | 2 Flutes | HRc >60 | G12 | S type

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

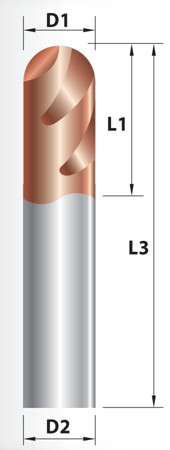
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02
R10	±0.02

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UHB0202	R1	4	75	6
UHB0302	R1.5	6	75	6
UHB0402	R2	8	75	6
UHB0502	R2.5	10	75	6
UHB0602	R3	12	75	6
UHB0802	R4	16	75	8
UIB0402	R2	8	100	6
UIB0602	R3	12	100	6
UIB0802	R4	16	100	8
UIB1002	R5	20	100	10
UIB1202	R6	24	100	12
UJB1002	R5	20	150	10
UJB1202	R6	24	150	12
UJB1602	R8	32	150	16
UJB2002	R10	40	150	20

unit : mm

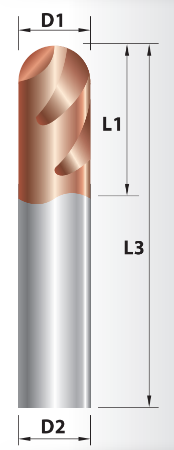
UBX

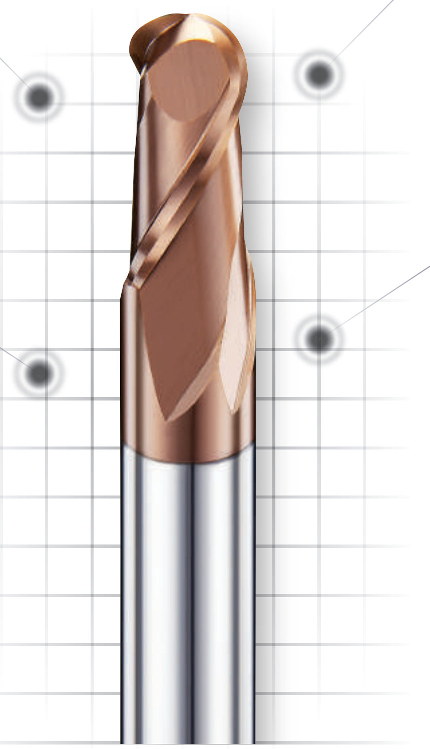
極超微粒圓頭立銑刀
BALL NOSE END MILLS

Super MG | 0.2 µm | 30° | 2 Flutes | HRc ▸65 | G12

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UBX0102	R0.5	2	50	6
UBX0152	R0.75	3	50	6
UBX0202	R1	4	50	6
UBX0302	R1.5	6	50	6
UBX0402	R2	8	50	6
UBX0502	R2.5	10	50	6
UBX0602	R3	12	50	6
UBX0802	R4	16	60	8
UBX1002	R5	20	75	10
UBX1202	R6	24	75	12
UBX1602	R8	32	100	16

unit : mm

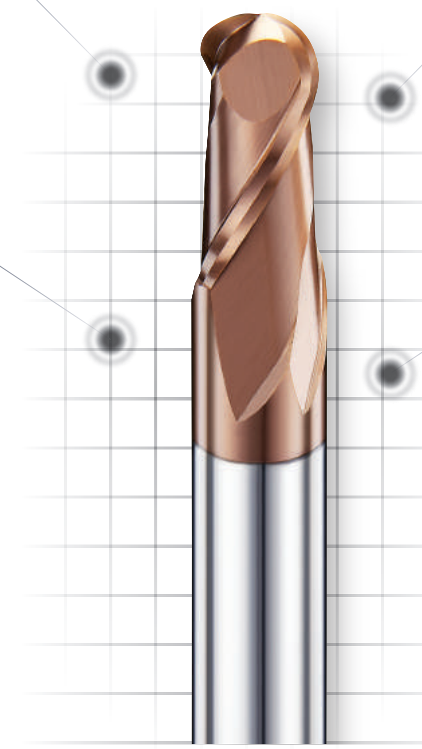
UHBX UIBX

極超微粒長柄圓頭立銑刀
BALL NOSE END MILLS

Super MG | 0.2 µm | 30° | 2 Flutes | HRc ▸65 | G12

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



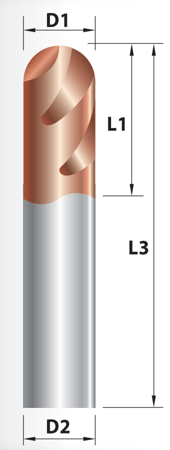
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02
R10	±0.02

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UHBX0302	R1.5	6	75	6
UHBX0402	R2	8	75	6
UHBX0502	R2.5	10	75	6
UHBX0602	R3	12	75	6
UHBX0802	R4	16	75	8
UIBX0602	R3	12	100	6
UIBX0802	R4	16	100	8
UIBX1002	R5	20	100	10
UIBX1202	R6	24	100	12

unit : mm

DHF
DESIGN . HONESTY . FUTURE

高速&高硬度切削系列
HIGH SPEED CUTTING & HIGH HARD CUTTING

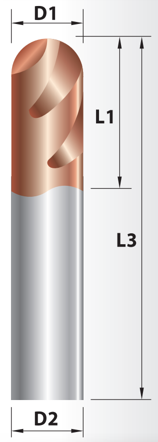
UBG

極超微粒圓頭立銑刀
BALL NOSE END MILLS

Super MG | 0.2 μm | 15° | 2 Flutes | HRc>60 | G12

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UBG0102	R0.5	2	50	4
UBG0152	R0.75	3	50	4
UBG0202	R1	4	50	4
UBG0302	R1.5	6	50	4
UBG0402	R2	8	50	4
UBG0502	R2.5	10	50	6
UBG0602	R3	12	50	6
UBG0802	R4	16	60	8
UBG1002	R5	20	75	10
UBG1202	R6	24	75	12
UBG1602	R8	32	100	16

unit : mm

UHBG UIBG

極超微粒長柄圓頭立銑刀
BALL NOSE END MILLS

高速&高硬度切削系列
HIGH SPEED CUTTING & HIGH HARD CUTTING

DHF
DESIGN . HONESTY . FUTURE

Super MG | 0.2 μm | 15° | 2 Flutes | HRc>60 | G12

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

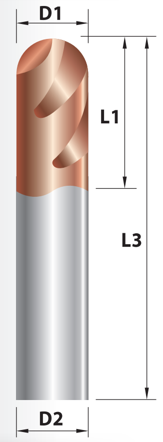
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UHBG0202	R1	4	75	6
UHBG0302	R1.5	6	75	6
UHBG0402	R2	8	75	6
UHBG0502	R2.5	10	75	6
UHBG0602	R3	12	75	6
UHBG0802	R4	16	75	8
UIBG0402	R2	8	100	6
UIBG0602	R3	12	100	6
UIBG0802	R4	16	100	8
UIBG1002	R5	20	100	10
UIBG1202	R6	24	100	12

unit : mm

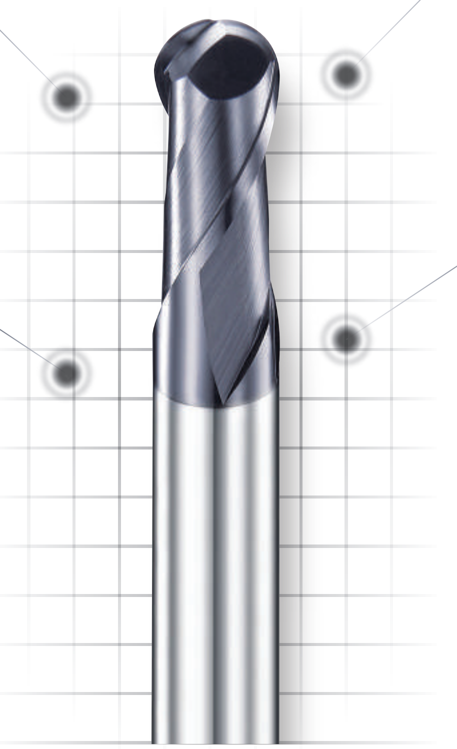
UBT 2T

極超微粒圓頭立銑刀
BALL NOSE END MILLS

Super MG · 0.2 μm · 30° · 2 Flutes · HRc ▸65 · G15

切削性能 CUTTING PERFORMANCE: 精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

冷卻性能 COOLANT TYPE: 乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UBT0102	R0.5	2	50	4
UBT0102B	R0.5	2	50	6
UBT0152	R0.75	3	50	4
UBT0152B	R0.75	3	50	6
UBT0202	R1	4	50	6
UBT0302	R1.5	6	50	6
UBT0402	R2	8	50	6
UBT0502	R2.5	10	50	6
UBT0602	R3	12	50	6
UBT0802	R4	16	60	8
UBT1002	R5	20	75	10
UBT1202	R6	24	75	12
UBT1602	R8	32	100	16

unit : mm

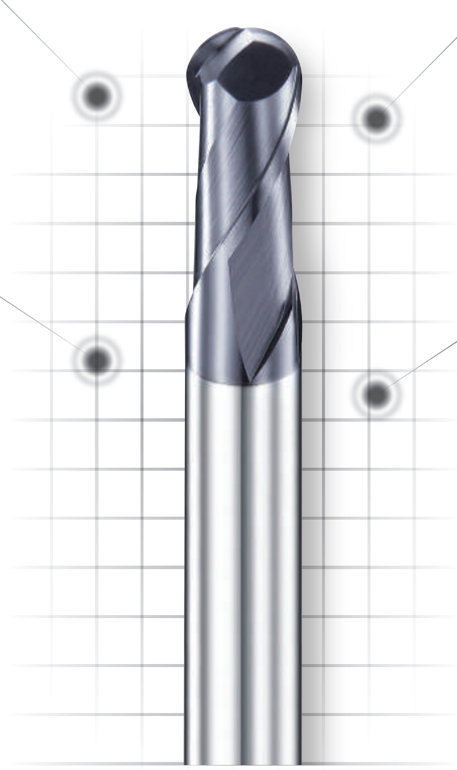
UHBT UIBT

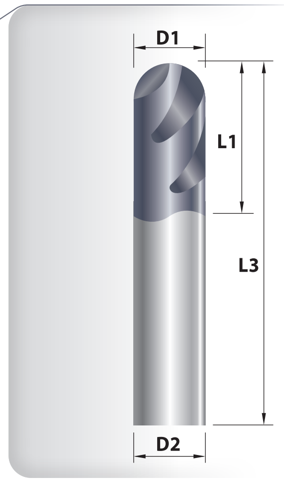
極超微粒長柄圓頭立銑刀
BALL NOSE END MILLS

Super MG · 0.2 μm · 30° · 2 Flutes · HRc ▸65 · G15

冷卻性能 COOLANT TYPE: 乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE: 精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02
R10	±0.02

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UHBT0302	R1.5	6	75	6
UHBT0402	R2	8	75	6
UHBT0502	R2.5	10	75	6
UHBT0602	R3	12	75	6
UHBT0802	R4	16	75	8
UIBT0602	R3	12	100	6
UIBT0802	R4	16	100	8
UIBT1002	R5	20	100	10
UIBT1202	R6	24	100	12

unit : mm

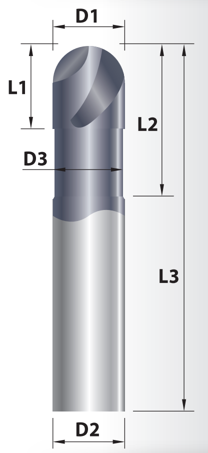
Super MG · 0.2 μm · 5° · 2 Flutes · HRc ▸65 · G15

UOB

極超微粒直刃圓頭立銑刀
BALL NOSE END MILLS

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R3	±0.01
R4	±0.01
R5	±0.015

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UOB0102	R0.5	0.95	1	3	50	4
UOB0152	R0.75	1.44	2	5	50	4
UOB0202	R1	1.92	3	6	50	6
UOB0302S	R1.5	2.90	4	8	50	4
UOB0302	R1.5	2.90	4	8	50	6
UOB0302L	R1.5	2.90	4	8	75	6
UOB0402S	R2	3.90	5	10	50	4
UOB0402	R2	3.90	5	10	50	6
UOB0402L	R2	3.90	5	10	75	6
UOB0602	R3	5.80	6	12	50	6
UOB0602M	R3	5.80	6	12	75	6
UOB0602L	R3	5.80	6	16	100	6
UOB0802	R4	7.70	8	16	60	8
UOB0802L	R4	7.70	8	25	100	8
UOB1002	R5	9.60	10	20	75	10
UOB1002L	R5	9.60	10	30	100	10

unit : mm

高速&高硬度切削系列
HIGH SPEED CUTTING & HIGH HARD CUTTING
DHF DESIGN . HONESTY . FUTURE

Super MG · 0.2 μm · 30° · 4 Flutes · HRc ▸65 · G15

UBT 4T

極超微粒圓頭立銑刀
BALL NOSE END MILLS

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

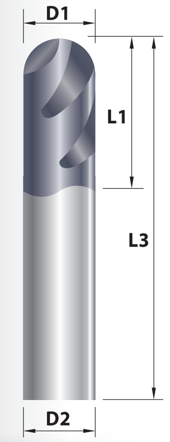
切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UBT0204	R1	4	50	6
UBT0304	R1.5	6	50	6
UBT0404	R2	8	50	6
UBT0504	R2.5	10	50	6
UBT0604	R3	12	50	6
UBT0804	R4	16	60	8
UBT1004	R5	20	75	10
UBT1204	R6	24	75	12

unit : mm

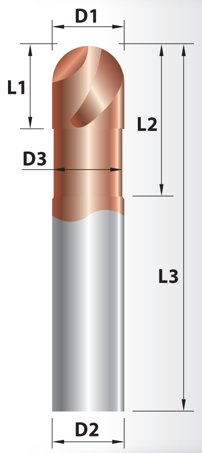
UQB

極超微粒短刃圓頭立銑刀
BALL NOSE END MILLS

Super MG | 0.2 μm | 30° | 2 Flutes | HRc ▶65 | G12

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UQB0102	R0.5	0.95	1	2.5	50	4
UQB0152	R0.75	1.45	1	3	50	4
UQB0202	R1	1.92	1.5	5	50	4
UQB0302S	R1.5	2.90	2	8	50	4
UQB0302	R1.5	2.90	2	8	50	6
UQB0402S	R2	3.90	4	10	50	4
UQB0402	R2	3.90	4	10	50	6
UQB0502	R2.5	4.80	5	13	50	6
UQB0602	R3	5.80	6	15	50	6
UQB0802	R4	7.70	8	20	60	8
UQB1002	R5	9.60	10	25	75	10
UQB1202	R6	11.5	12	30	75	12

unit : mm

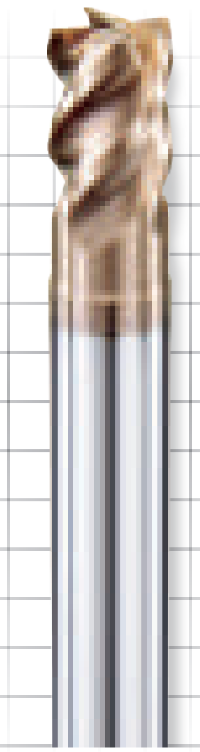
UES

無敵高硬度短刃立銑刀
END MILLS

Super MG | 0.2 μm | 45° | 4 Flutes | HRc ▶65 | G12

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



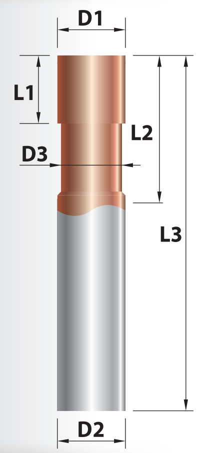
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UES0604	6	5.8	8	13	50	6
UES0804	8	7.7	10	17	60	8
UES1004	10	9.6	12	22	75	10
UES1204	12	11.5	15	25	75	12

unit : mm

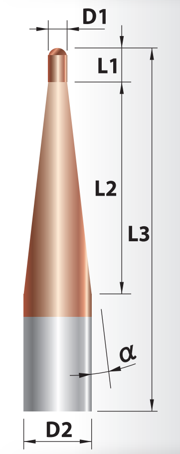
Super MG | 0.4 μm | 30° | 2 Flutes | HRc ▸60 | G12

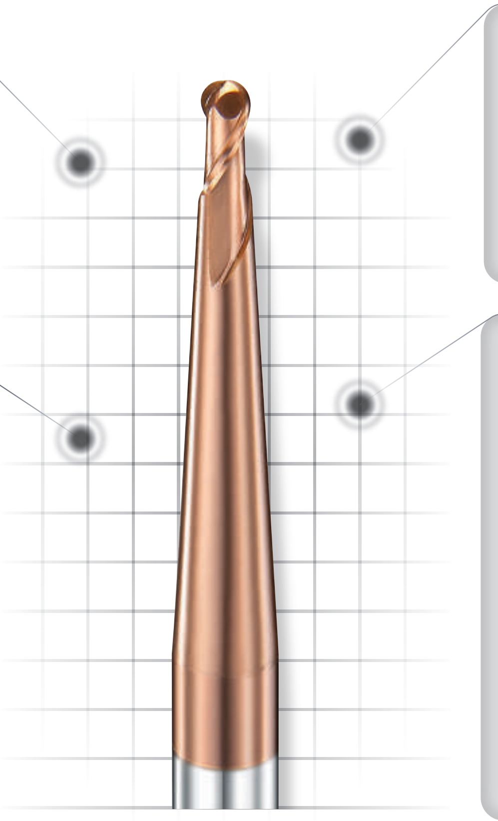
UPB

極超微粒斜頸圓頭立銑刀
BALL NOSE END MILLS

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.5	±0.01
R2	±0.01

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.	α 斜角 Taper Angle
UPB0205	R1	3	60	100	6	0.5°
UPB0210	R1	3	60	100	6	1°
UPB0215	R1	3	60	100	6	1.5°
UPB0220	R1	3	57	100	6	2°
UPB0305	R1.5	4	60	100	6	0.5°
UPB0310	R1.5	4	60	100	6	1°
UPB0315	R1.5	4	57	100	6	1.5°
UPB0320	R1.5	4	43	100	6	2°
UPB0405	R2	5	60	100	6	0.5°
UPB0410	R2	5	57	100	6	1°
UPB0415	R2	5	38	100	6	1.5°
UPB0420	R2	5	29	100	6	2°

unit : mm

Super MG | 0.4 μm | 30° | 2 Flutes | HRc ▸60 | G15

USB

極超微粒斜頸圓頭立銑刀
BALL NOSE END MILLS

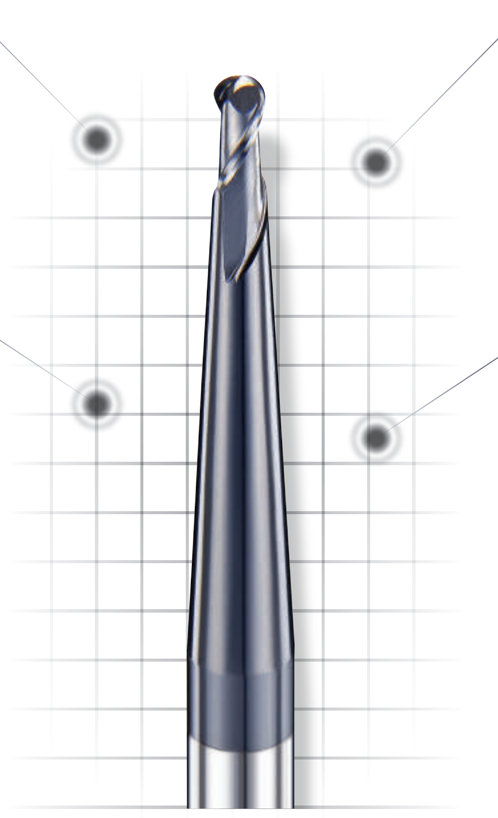
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

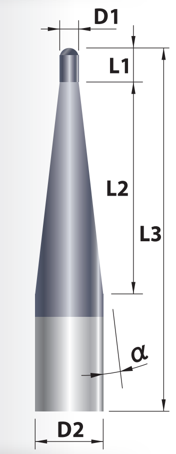
直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.5	±0.01
R2	±0.01
R3	±0.01

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009



切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.	α 斜角 Taper Angle
USB0203	R1	4	75	6	3°
USB0205	R1	4	75	6	5°
USB0315	R1.5	6	100	6	1.5°
USB0303	R1.5	6	75	6	3°
USB0305	R1.5	6	75	6	5°
USB0415	R2	8	100	6	1.5°
USB0405	R2	8	75	6	5°
USB0615	R3	12	100	8	1.5°
USB0603	R3	12	75	8	3°
USB0605	R3	12	100	8	5°
USB0603B	R3	12	100	10	3°
USB0605B	R3	12	100	10	5°

unit : mm

UKR SMALL SIZE
極超微粒圓鼻角立銑刀
END MILLS

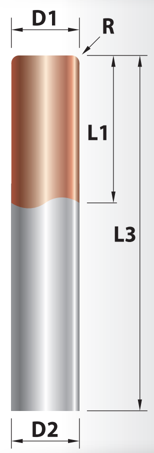
Super MG · 0.2 μm · 35° · R · 2 Flutes · HRc ▸60 · G12

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
1.0	+0.02/0	0/-0.02
1.5	+0.02/0	0/-0.02
2.0	+0.02/0	0/-0.02
2.5	+0.02/0	0/-0.02
3.0	+0.02/0	0/-0.02
4.0	+0.02/0	0/-0.02
5.0	+0.02/0	0/-0.02
6.0	+0.02/0	0/-0.02
8.0	+0.02/0	0/-0.025
10.0	+0.02/0	0/-0.03
12.0	+0.02/0	0/-0.035

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UKR0102	1.0	0.2	3	50	4
UKR0152	1.5	0.2	4	50	4
UKR0202	2.0	0.2	6	50	4
UKR0205	2.0	0.5	6	50	4
UKR0252	2.5	0.2	8	50	4
UKR0255	2.5	0.5	8	50	4
UKR0302	3.0	0.2	8	50	4
UKR0303	3.0	0.3	8	50	4
UKR0305	3.0	0.5	8	50	4
UKR0402	4.0	0.2	11	50	4
UKR0403	4.0	0.3	11	50	4
UKR0405	4.0	0.5	11	50	4
UKR0503	5.0	0.3	13	50	6
UKR0505	5.0	0.5	13	50	6

unit : mm

UKR BIG SIZE
極超微粒圓鼻角立銑刀
END MILLS

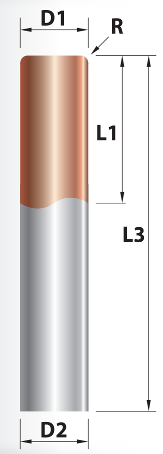
Super MG · 0.2 μm · 35° · R · 2 Flutes · HRc ▸60 · G12

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
1.0	+0.02/0	0/-0.02
1.5	+0.02/0	0/-0.02
2.0	+0.02/0	0/-0.02
2.5	+0.02/0	0/-0.02
3.0	+0.02/0	0/-0.02
4.0	+0.02/0	0/-0.02
5.0	+0.02/0	0/-0.02
6.0	+0.02/0	0/-0.02
8.0	+0.02/0	0/-0.025
10.0	+0.02/0	0/-0.03
12.0	+0.02/0	0/-0.035

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UKR0602	6.0	0.2	16	50	6
UKR0603	6.0	0.3	16	50	6
UKR0605	6.0	0.5	16	50	6
UKR0610	6.0	1.0	16	50	6
UKR0803	8.0	0.3	20	60	8
UKR0805	8.0	0.5	20	60	8
UKR0810	8.0	1.0	20	60	8
UKR1002	10.0	0.2	25	75	10
UKR1003	10.0	0.3	25	75	10
UKR1005	10.0	0.5	25	75	10
UKR1010	10.0	1.0	25	75	10
UKR1203	12.0	0.3	30	75	12
UKR1205	12.0	0.5	30	75	12
UKR1210	12.0	1.0	30	75	12
UKR1215	12.0	1.5	30	75	12
UKR1220	12.0	2.0	30	75	12

unit : mm

UOR

直刃圓鼻角立銑刀
END MILLS

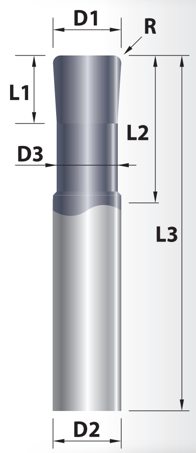
Super MG | 0.2 µm | 0° | R | 4 Flutes | HRc ▸60 | G15

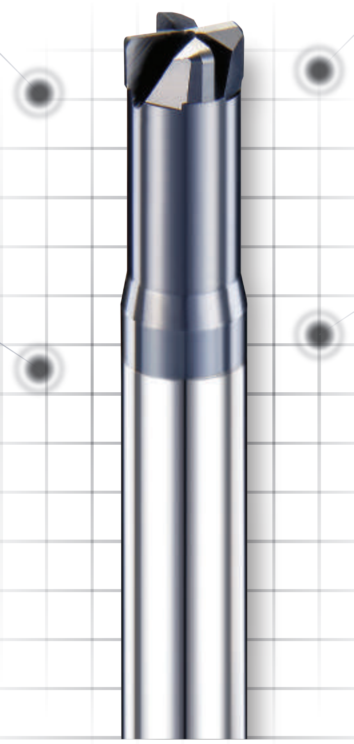
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	$^{+0.02}_{0}$
3.0	$^{+0.02}_{0}$
4.0	$^{+0.02}_{0}$
6.0	$^{+0.02}_{0}$
8.0	$^{+0.02}_{0}$
10.0	$^{+0.02}_{0}$
12.0	$^{+0.02}_{0}$

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UOR0203	2.0	1.8	0.3	0.8	5	50	6
UOR0205	2.0	1.8	0.5	0.8	5	50	6
UOR0308	3.0	2.7	0.8	1.2	8	50	6
UOR0310	3.0	2.7	1.0	1.2	8	50	6
UOR0405	4.0	3.6	0.5	1.6	10	50	6
UOR0405L	4.0	3.6	0.5	1.6	10	75	6
UOR0410	4.0	3.6	1.0	1.6	10	50	6
UOR0410L	4.0	3.6	1.0	1.6	10	75	6
UOR0610	6.0	5.4	1.0	2.5	13	50	6
UOR0610M	6.0	5.4	1.0	2.5	13	75	6
UOR0610L	6.0	5.4	1.0	2.5	13	100	6
UOR0615	6.0	5.4	1.5	2.5	13	50	6
UOR0615M	6.0	5.4	1.5	2.5	13	75	6
UOR0615L	6.0	5.4	1.5	2.5	13	100	6
UOR0810	8.0	7.2	1.0	3.5	16	60	8
UOR0810L	8.0	7.2	1.0	3.5	16	100	8
UOR0820	8.0	7.2	2.0	3.5	16	60	8
UOR0820L	8.0	7.2	2.0	3.5	16	100	8
UOR1010	10.0	9.0	1.0	4.0	20	75	10
UOR1010L	10.0	9.0	1.0	4.0	20	100	10
UOR1020	10.0	9.0	2.0	4.0	20	75	10
UOR1020L	10.0	9.0	2.0	4.0	20	100	10
UOR1220	12.0	11.0	2.0	5.0	25	75	12
UOR1220L	12.0	11.0	2.0	5.0	25	100	12
UOR1230	12.0	11.0	3.0	5.0	25	75	12
UOR1230L	12.0	11.0	3.0	5.0	25	100	12

unit : mm

UEYR

高硬度用圓鼻角立銑刀
END MILLS

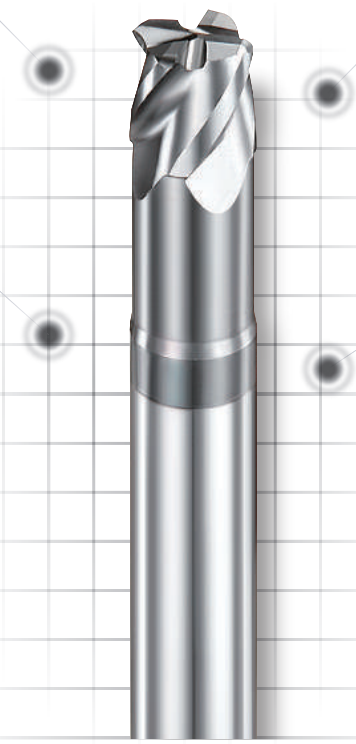
Super MG | 0.2 µm | 35° | R | 4 Flutes | HRc ▸65 | G15

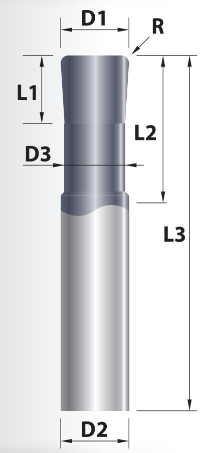
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
2.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
2.5	$^{+0.02}_{0}$	$^{0}_{-0.02}$
3.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
4.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
6.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
8.0	$^{+0.02}_{0}$	$^{0}_{-0.025}$
10.0	$^{+0.02}_{0}$	$^{0}_{-0.03}$

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UEYR0202	2.0	1.92	0.2	2.0	6	50	6
UEYR0205	2.0	1.92	0.5	2.0	6	50	6
UEYR0252	2.5	2.40	0.2	2.5	8	50	6
UEYR0255	2.5	2.40	0.5	2.5	8	50	6
UEYR0302	3.0	2.90	0.2	3.0	8	50	6
UEYR0305	3.0	2.90	0.5	3.0	8	50	6
UEYR0402	4.0	3.90	0.2	4.0	11	50	6
UEYR0403	4.0	3.90	0.3	4.0	11	50	6
UEYR0405	4.0	3.90	0.5	4.0	11	50	6
UEYR0602	6.0	5.80	0.2	6.0	16	50	6
UEYR0603	6.0	5.80	0.3	6.0	16	50	6
UEYR0605	6.0	5.80	0.5	6.0	16	50	6
UEYR0610	6.0	5.80	1.0	6.0	16	50	6
UEYR0615	6.0	5.80	1.5	6.0	16	50	6
UEYR0803	8.0	7.70	0.3	8.0	20	60	8
UEYR0805	8.0	7.70	0.5	8.0	20	60	8
UEYR0810	8.0	7.70	1.0	8.0	20	60	8
UEYR0820	8.0	7.70	2.0	8.0	20	60	8
UEYR1003	10.0	9.60	0.3	10.0	25	75	10
UEYR1005	10.0	9.60	0.5	10.0	25	75	10
UEYR1010	10.0	9.60	1.0	10.0	25	75	10
UEYR1020	10.0	9.60	2.0	10.0	25	75	10

unit : mm

高速&高硬度切削系列 HIGH SPEED CUTTING & HIGH HARD CUTTING

高速&高硬度切削系列
HIGH SPEED CUTTING & HIGH HARD CUTTING

UXR
極超微粒圓鼻角立銑刀
END MILLS

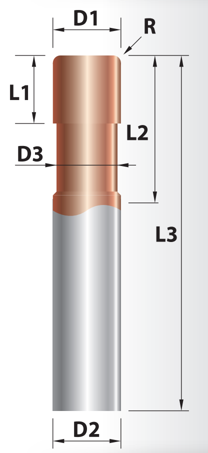
Super MG | 0.4 µm | 35° | R | 4 Flutes | HRc ≻60 | G12

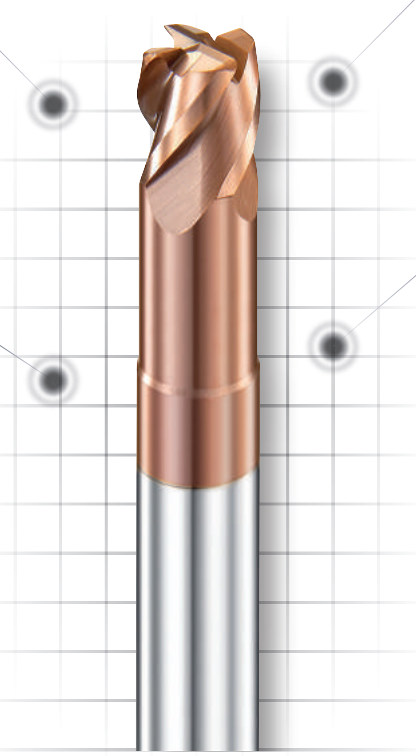
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
4.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035
16.0	+0.02 / 0	0 / -0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UXR0403	4.0	3.90	0.3	6	12	50	6
UXR0405	4.0	3.90	0.5	6	12	50	6
UXR0603	6.0	5.80	0.3	8	18	50	6
UXR0605	6.0	5.80	0.5	8	18	50	6
UXR0610	6.0	5.80	1.0	8	18	50	6
UXR0803	8.0	7.70	0.3	10	24	60	8
UXR0805	8.0	7.70	0.5	10	24	60	8
UXR0810	8.0	7.70	1.0	10	24	60	8
UXR1005	10.0	9.60	0.5	12	30	75	10
UXR1010	10.0	9.60	1.0	12	30	75	10
UXR1020	10.0	9.60	2.0	12	30	75	10
UXR1030	10.0	9.60	3.0	12	30	75	10
UXR1205	12.0	11.5	0.5	15	36	75	12
UXR1210	12.0	11.5	1.0	15	36	75	12
UXR1605	16.0	15.5	0.5	24	40	100	16
UXR1610	16.0	15.5	1.0	24	40	100	16

unit : mm

高速&高硬度切削系列 HIGH SPEED CUTTING & HIGH HARD CUTTING

高速&高硬度切削系列
HIGH SPEED CUTTING & HIGH HARD CUTTING

ULXR
極超微粒圓鼻角立銑刀
END MILLS

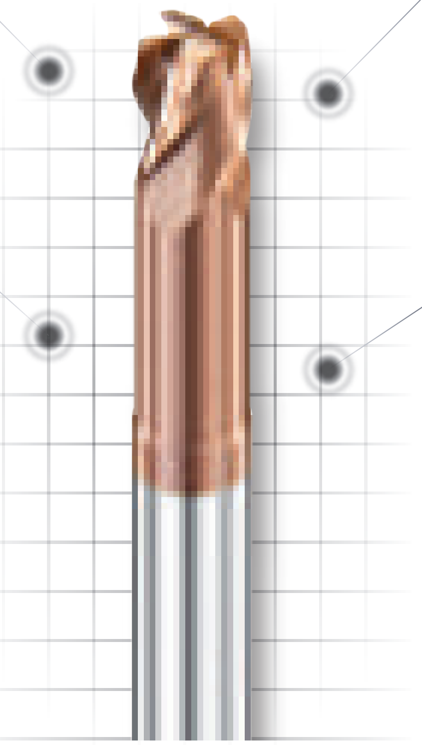
Super MG | 0.4 µm | 35° | R | 4 Flutes | HRc ≻60 | G12

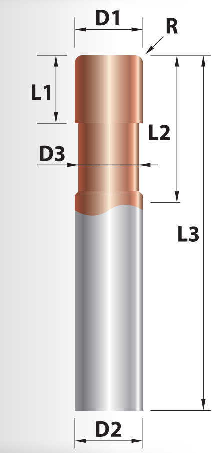
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035
16.0	+0.02 / 0	0 / -0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ULXR0605	6.0	5.80	0.5	6	18	75	6
ULXR0610	6.0	5.80	1.0	6	18	75	6
ULXR0805	8.0	7.80	0.5	8	24	100	8
ULXR0810	8.0	7.80	1.0	8	24	100	8
ULXR1005	10.0	9.60	0.5	10	30	100	10
ULXR1010	10.0	9.60	1.0	10	30	100	10
ULXR1020	10.0	9.60	2.0	10	30	100	10
ULXR1205	12.0	11.5	0.5	12	36	100	12
ULXR1210	12.0	11.5	1.0	12	36	100	12
ULXR1220	12.0	11.5	2.0	12	36	100	12
ULXR1610	16.0	15.5	1.0	16	40	150	16
ULXR1620	16.0	15.5	2.0	16	40	150	16

unit : mm

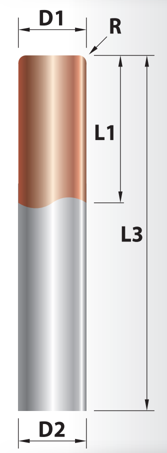
高速&高硬度切削系列 HIGH SPEED CUTTING & HIGH HARD CUTTING

UER
極超微粒圓鼻角立銑刀
END MILLS

Super MG | 0.4 μm | 45° | R | 4 Flutes | HRc ▸60 | G12

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
2.0	+0.02 / 0	0 / -0.02
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035
16.0	+0.02 / 0	0 / -0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UER0202	2.0	0.2	6	50	4
UER0205	2.0	0.5	6	50	4
UER0302S	3.0	0.2	8	50	3
UER0305S	3.0	0.5	8	50	3
UER0402	4.0	0.2	10	50	4
UER0405	4.0	0.5	10	50	4
UER0505	5.0	0.5	13	50	6
UER0510	5.0	1.0	13	50	6
UER0605	6.0	0.5	16	50	6
UER0610	6.0	1.0	16	50	6
UER0805	8.0	0.5	20	60	8
UER0810	8.0	1.0	20	60	8
UER1005	10.0	0.5	30	75	10
UER1010	10.0	1.0	30	75	10
UER1020	10.0	2.0	30	75	10
UER1030	10.0	3.0	30	75	10
UER1210	12.0	1.0	30	75	12
UER1220	12.0	2.0	30	75	12
UER1230	12.0	3.0	30	75	12
UER1610	16.0	1.0	45	100	16
UER1620	16.0	2.0	45	100	16
UER1630	16.0	3.0	45	100	16

unit : mm

ULR
極超微粒圓鼻角立銑刀
END MILLS

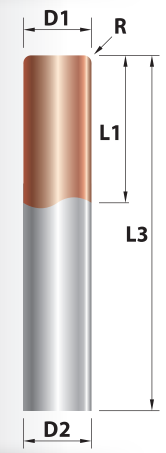
Super MG | 0.4 μm | 45° | R | 4 Flutes | HRc ▸60 | G12

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035
16.0	+0.02 / 0	0 / -0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ULR0605	6.0	0.5	16	75	6
ULR0610	6.0	1.0	16	75	6
ULR0805	8.0	0.5	20	100	8
ULR0810	8.0	1.0	20	100	8
ULR1005	10.0	0.5	25	100	10
ULR1010	10.0	1.0	25	100	10
ULR1020	10.0	2.0	25	100	10
ULR1205	12.0	0.5	30	100	12
ULR1210	12.0	1.0	30	100	12
ULR1220	12.0	2.0	30	100	12
ULR1610	16.0	1.0	45	150	16
ULR1620	16.0	2.0	45	150	16

unit : mm

高速&高硬度切削系列 HIGH SPEED CUTTING & HIGH HARD CUTTING

UPR

極超微粒圓鼻角立銑刀 END MILLS

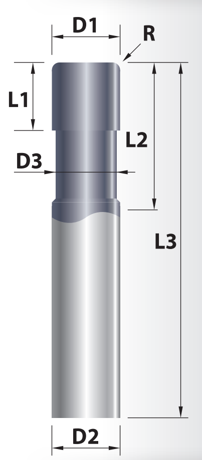
Super MG · 0.2 μm · 25° · R · 4 Flutes · HRc ▸65 · G15

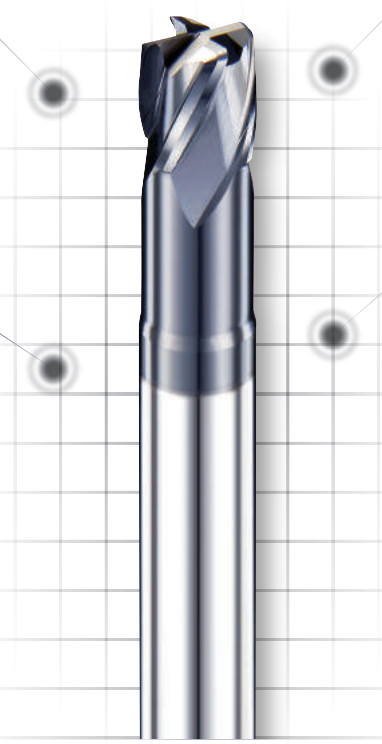
切削性能 CUTTING PERFORMANCE

- 精銑 Finishing
- 中銑 Semi-finishing
- 粗銑 Roughing

冷卻性能 COOLANT TYPE

- 乾式切削 Dry Machining
- 油霧切削 MQL(Mist)
- 水溶性切削 Emulsion Machining
- 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
4.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
6.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
8.0	$^{+0.02}_{0}$	$^{0}_{-0.025}$
10.0	$^{+0.02}_{0}$	$^{0}_{-0.03}$
12.0	$^{+0.02}_{0}$	$^{0}_{-0.035}$

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPR0305	3.0	2.90	0.5	3	12	50	6
UPR0405	4.0	3.90	0.5	4	12	50	6
UPR0605	6.0	5.80	0.5	6	15	50	6
UPR0610	6.0	5.80	1.0	6	15	50	6
UPR0805	8.0	7.70	0.5	8	20	60	8
UPR0810	8.0	7.70	1.0	8	20	60	8
UPR1010	10.0	9.60	1.0	10	25	75	10
UPR1020	10.0	9.60	2.0	10	25	75	10
UPR1030	10.0	9.60	3.0	10	25	75	10
UPR1210	12.0	11.5	1.0	12	30	75	12
UPR1220	12.0	11.5	2.0	12	30	75	12

unit : mm

UGR

極超微粒圓鼻角立銑刀 END MILLS

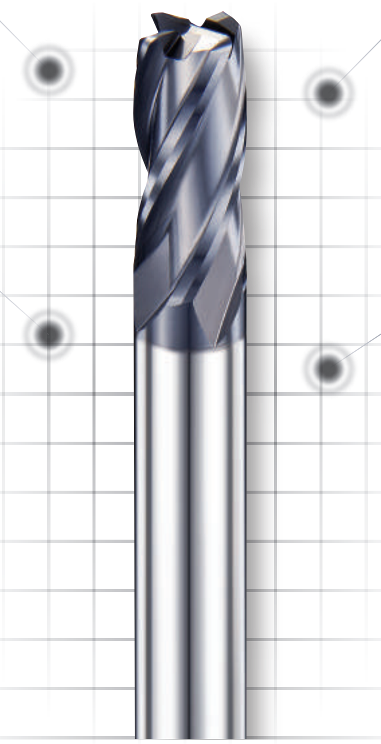
Super MG · 0.2 μm · 25° · R · 4 Flutes · HRc ▸65 · G15

冷卻性能 COOLANT TYPE

- 乾式切削 Dry Machining
- 油霧切削 MQL(Mist)
- 水溶性切削 Emulsion Machining
- 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

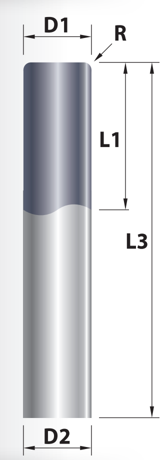
- 精銑 Finishing
- 中銑 Semi-finishing
- 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
2.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
3.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
4.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
5.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
6.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
8.0	$^{+0.02}_{0}$	$^{0}_{-0.025}$
10.0	$^{+0.02}_{0}$	$^{0}_{-0.03}$
12.0	$^{+0.02}_{0}$	$^{0}_{-0.035}$
16.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø3	$^{0}_{-0.006}$
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UGR0202	2.0	0.2	6	50	6
UGR0205	2.0	0.5	6	50	6
UGR0302S	3.0	0.2	8	50	3
UGR0305S	3.0	0.5	8	50	3
UGR0402	4.0	0.2	10	50	6
UGR0405	4.0	0.5	10	50	6
UGR0505	5.0	0.5	13	50	6
UGR0510	5.0	1.0	13	50	6
UGR0605	6.0	0.5	16	50	6
UGR0610	6.0	1.0	16	50	6
UGR0805	8.0	0.5	20	60	8
UGR0810	8.0	1.0	20	60	8
UGR1005	10.0	0.5	25	75	10
UGR1010	10.0	1.0	25	75	10
UGR1020	10.0	2.0	25	75	10
UGR1030	10.0	3.0	25	75	10
UGR1210	12.0	1.0	30	75	12
UGR1220	12.0	2.0	30	75	12
UGR1230	12.0	3.0	30	75	12
UGR1610	16.0	1.0	45	100	16
UGR1620	16.0	2.0	45	100	16
UGR1630	16.0	3.0	45	100	16

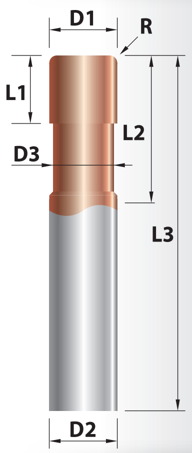
unit : mm

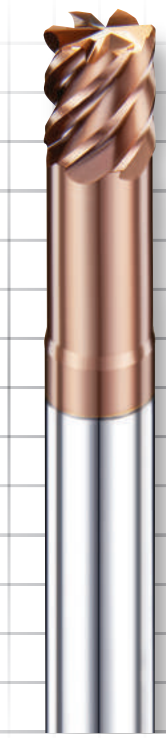
UVR
高硬度圓鼻立銑刀
END MILLS

Super MG | 0.2 μm | 45° | R | 6 Flutes | HRc ▸65 | G12

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
6.0	+0.02 / 0	0 / -0.02	Ø6	0 / -0.008
8.0	+0.02 / 0	0 / -0.025	Ø8	0 / -0.009
10.0	+0.02 / 0	0 / -0.03	Ø10	0 / -0.009
12.0	+0.02 / 0	0 / -0.035	Ø12	0 / -0.011
16.0	+0.02 / 0	0 / -0.04	Ø16	0 / -0.011
20.0	+0.02 / 0	0 / -0.04	Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UVR0606	6.0	5.80	0.3	8	20	50	6
UVR0806	8.0	7.70	0.3	10	25	60	8
UVR1006	10.0	9.60	0.5	12	30	75	10
UVR1206	12.0	11.5	0.5	15	36	75	12
UVR1606	16.0	15.4	1.0	24	40	100	16
UVR2006	20.0	19.4	1.0	30	50	100	20

unit : mm

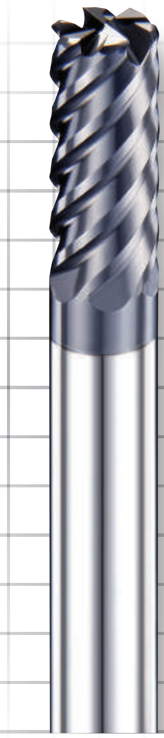
UVTR
高硬度圓鼻立銑刀
END MILLS

高速&高硬度切削系列
HIGH SPEED CUTTING & HIGH HARD CUTTING
DHF Design . Honesty . Future

Super MG | 0.2 μm | 45° | R | 6 Flutes | HRc ▸65 | G15

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

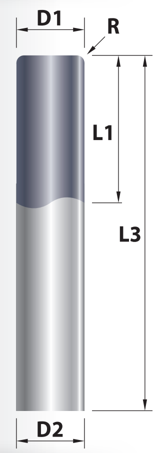


切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
6.0	+0.02 / 0	0 / -0.02	Ø6	0 / -0.008
8.0	+0.02 / 0	0 / -0.025	Ø8	0 / -0.009
10.0	+0.02 / 0	0 / -0.03	Ø10	0 / -0.009
12.0	+0.02 / 0	0 / -0.035	Ø12	0 / -0.011
16.0	+0.02 / 0	0 / -0.04	Ø16	0 / -0.011
20.0	+0.02 / 0	0 / -0.04	Ø20	0 / -0.013



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UVTR0605	6.0	0.5	16	50	6
UVTR0610	6.0	1.0	16	50	6
UVTR0805	8.0	0.5	20	60	8
UVTR0810	8.0	1.0	20	60	8
UVTR1010	10.0	1.0	25	75	10
UVTR1210	12.0	1.0	30	75	12
UVTR1610	16.0	1.0	40	100	16
UVTR1620	16.0	2.0	40	100	16
UVTR2020	20.0	2.0	45	100	20

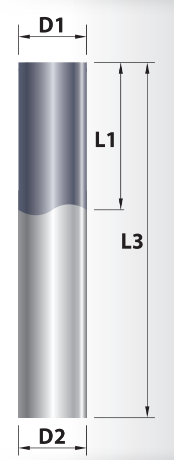
unit : mm

UET 2T
極超微粒立銑刀
END MILLS

Super MG | 0.4 µm | 35° | 2 Flutes | HRc >60 | G15

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0/-0.02
1.5	0/-0.02
2.0	0/-0.02
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø3	0/-0.006
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UET0102S	1.0	3	50	3
UET0102	1.0	3	50	4
UET0152S	1.5	4	50	3
UET0152	1.5	4	50	4
UET0202S	2.0	6	50	3
UET0202	2.0	6	50	4
UET0302S	3.0	8	50	3
UET0302M	3.0	8	50	4
UET0302	3.0	8	50	6
UET0402M	4.0	11	50	4
UET0402	4.0	11	50	6
UET0502	5.0	13	50	6
UET0602	6.0	16	50	6
UET0802	8.0	20	60	8
UET1002	10.0	25	75	10
UET1202	12.0	30	75	12
UET1602	16.0	45	100	16

unit : mm

UET 4T
極超微粒立銑刀
END MILLS

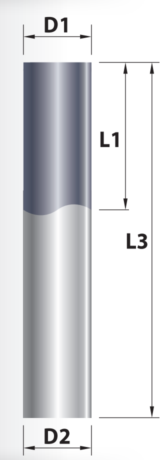
Super MG | 0.4 µm | 45° | 4 Flutes | HRc >60 | G15

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0/-0.02
1.5	0/-0.02
2.0	0/-0.02
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø3	0/-0.006
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UET0104	1.0	3	50	4
UET0154	1.5	4	50	4
UET0204	2.0	6	50	4
UET0304S	3.0	8	50	3
UET0304M	3.0	8	50	4
UET0304	3.0	8	50	6
UET0404S	4.0	11	50	4
UET0404	4.0	11	50	6
UET0504	5.0	13	50	6
UET0604	6.0	16	50	6
UET0804	8.0	20	60	8
UET1004	10.0	25	75	10
UET1204	12.0	30	75	12
UET1604	16.0	45	100	16
UET2004	20.0	45	100	20

unit : mm

UEX
無敵高硬度立銑刀
END MILLS

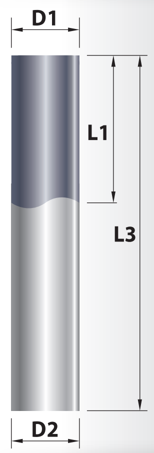
Super MG · 0.2 μm · 45° · 4 Flutes · HRc ▶65 · G15

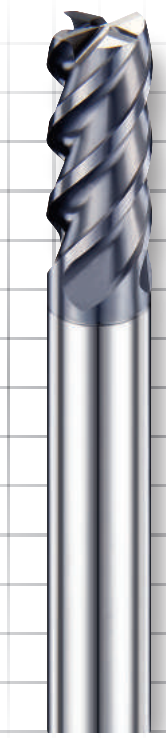
切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0/-0.02
1.5	0/-0.02
2.0	0/-0.02
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UEX0104S	1.0	3	50	4
UEX0104	1.0	3	50	6
UEX0154S	1.5	4	50	4
UEX0154	1.5	4	50	6
UEX0204S	2.0	6	50	4
UEX0204	2.0	6	50	6
UEX0304S	3.0	8	50	4
UEX0304	3.0	8	50	6
UEX0404S	4.0	11	50	4
UEX0404	4.0	11	50	6
UEX0504	5.0	13	50	6
UEX0604	6.0	16	50	6
UEX0804	8.0	20	60	8
UEX1004	10.0	22	75	10
UEX1204	12.0	26	75	12
UEX1604	16.0	36	100	16
UEX2004	20.0	40	100	20

unit : mm

UVT
高硬度立銑刀
END MILLS

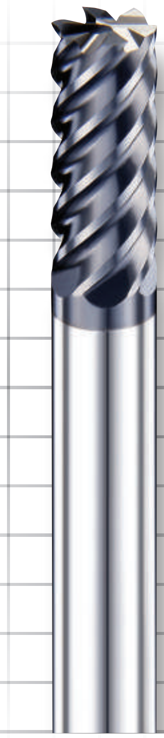
Super MG · 0.2 μm · 45° · 6 Flutes · HRc ▶65 · G15

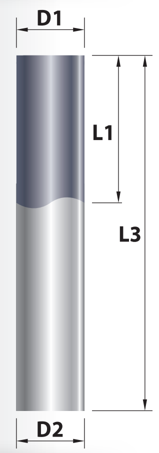
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UVT0606	6.0	16	50	6
UVT0606L	6.0	16	75	6
UVT0806	8.0	20	60	8
UVT0806L	8.0	20	100	8
UVT1006	10.0	25	75	10
UVT1006L	10.0	25	100	10
UVT1206	12.0	30	75	12
UVT1206L	12.0	30	100	12
UVT1606	16.0	40	100	16
UVT2006	20.0	45	100	20

unit : mm

ULE 2T
極超微粒長柄立銑刀
END MILLS

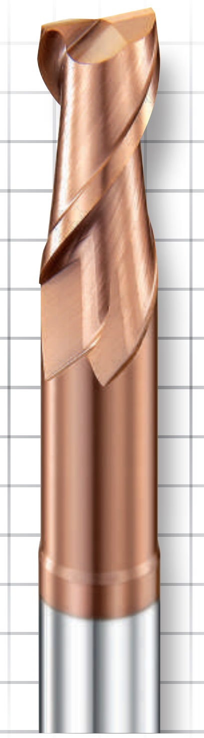
Super MG · 0.4 µm · 35° · 2 Flutes · HRc ▸60 · G12

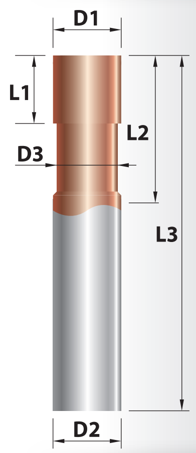
切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
6.0	0/-0.02	Ø6	0/-0.008
8.0	0/-0.025	Ø8	0/-0.009
10.0	0/-0.03	Ø10	0/-0.009
12.0	0/-0.035	Ø12	0/-0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ULE0602	6.0	5.80	16	40	100	6
ULE0602X	6.0	5.80	16	40	150	6
ULE0802	8.0	7.70	20	50	100	8
ULE0802X	8.0	7.70	20	50	150	8
ULE1002	10.0	9.60	25	50	100	10
ULE1002X	10.0	9.60	25	50	150	10
ULE1202	12.0	11.5	30	50	100	12
ULE1202X	12.0	11.5	30	50	150	12

unit : mm

ULE 4T
極超微粒長柄立銑刀
END MILLS

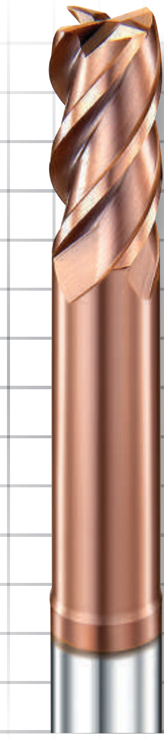
Super MG · 0.4 µm · 35° · 4 Flutes · HRc ▸60 · G12

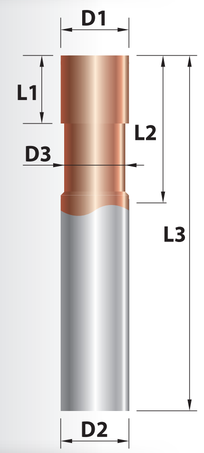
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
6.0	0/-0.02	Ø6	0/-0.008
8.0	0/-0.025	Ø8	0/-0.009
10.0	0/-0.03	Ø10	0/-0.009
12.0	0/-0.035	Ø12	0/-0.011
16.0	0/-0.04	Ø16	0/-0.011
20.0	0/-0.04	Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ULE0604	6.0	5.80	16	40	100	6
ULE0604X	6.0	5.80	16	40	150	6
ULE0804	8.0	7.70	20	50	100	8
ULE0804X	8.0	7.70	20	50	150	8
ULE1004	10.0	9.60	25	50	100	10
ULE1004X	10.0	9.60	25	50	150	10
ULE1204	12.0	11.5	30	50	100	12
ULE1204X	12.0	11.5	30	50	150	12
ULE1604X	16.0	15.5	40	65	150	16
ULE2004X	20.0	19.0	45	70	150	20

unit : mm

UNR
極超微粒圓鼻角立銑刀
END MILLS

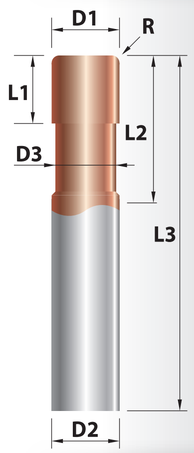
Super MG · 0.4 μm · 35° · R · 2 Flutes · HRc >60 · G12

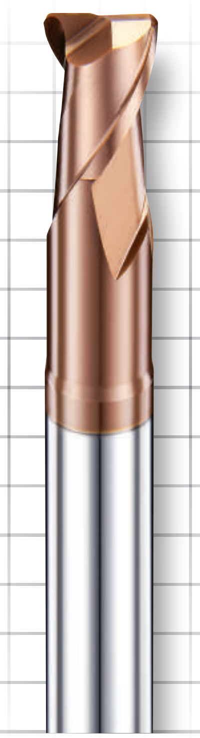
切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
4.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
6.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
8.0	$^{+0.02}_{0}$	$^{0}_{-0.025}$
10.0	$^{+0.02}_{0}$	$^{0}_{-0.03}$
12.0	$^{+0.02}_{0}$	$^{0}_{-0.035}$
16.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UNR0402	4.0	3.90	0.2	6	12	50	6
UNR0405	4.0	3.90	0.5	6	12	50	6
UNR0602	6.0	5.80	0.2	8	18	50	6
UNR0605	6.0	5.80	0.5	8	18	50	6
UNR0610	6.0	5.80	1.0	8	18	50	6
UNR0802	8.0	7.70	0.2	10	24	60	8
UNR0805	8.0	7.70	0.5	10	24	60	8
UNR0810	8.0	7.70	1.0	10	24	60	8
UNR1003	10.0	9.60	0.3	12	30	75	10
UNR1005	10.0	9.60	0.5	12	30	75	10
UNR1010	10.0	9.60	1.0	12	30	75	10
UNR1020	10.0	9.60	2.0	12	30	75	10
UNR1210	12.0	11.5	1.0	15	36	75	12
UNR1220	12.0	11.5	2.0	15	36	75	12
UNR1605	16.0	15.4	0.5	24	40	100	16
UNR1610	16.0	15.4	1.0	24	40	100	16

unit : mm

UHR
極超微粒立銑刀
END MILLS

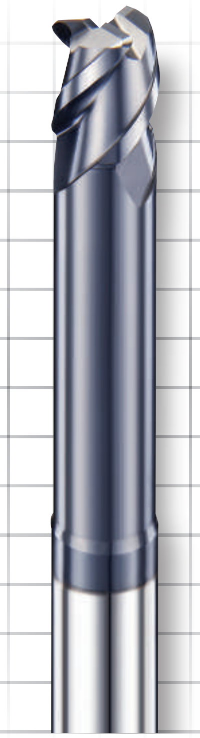
Super MG · 0.4 μm · 45° · R · 3 Flutes · HRc >60 · G15

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

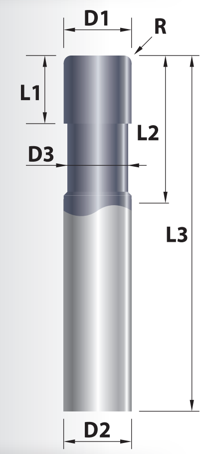
精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
6.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
8.0	$^{+0.02}_{0}$	$^{0}_{-0.025}$
10.0	$^{+0.02}_{0}$	$^{0}_{-0.03}$
12.0	$^{+0.02}_{0}$	$^{0}_{-0.035}$
16.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UHR0605	6.0	5.80	0.5	8	30	75	6
UHR0805	8.0	7.70	0.5	10	40	100	8
UHR1005	10.0	9.60	0.5	12	50	100	10
UHR1010	10.0	9.60	1.0	12	50	100	10
UHR1205	12.0	11.6	0.5	15	50	100	12
UHR1610	16.0	15.4	1.0	24	50	150	16

unit : mm

破壞王－超級龍捲風系列

HIGH PERFORMANCE CUTTING

hpc

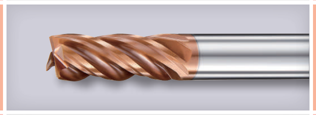
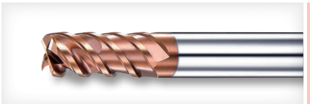
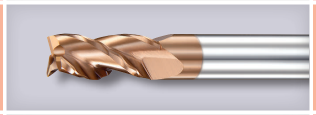
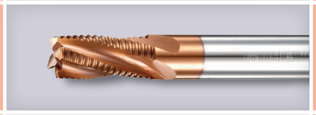
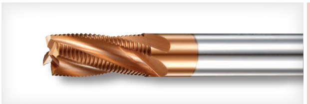
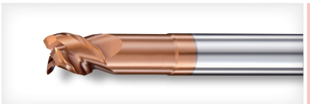
破壞王

HIGH PERFORMANCE CUTTING

超級龍捲風系列

- 抗震性好、穩定性佳。
- 斷屑效果、排屑順暢。
- 高移除率、不易黏屑。
- 高速暴走、削鐵如泥。
- 1D進給、無與倫比。
- 專剋難切削材:
  1.不銹鋼(S136)
  2.鈦合金
  3.鎳基合金
  4.耐熱合金
  5.Inconel 718

- Low vibration and high stability.
- Smooth chip removal.
- High removal rate and low stickness.
- High speed cutting.
- Superb 1D feed.
- Special for Difficult-to-Cut materials:
  1.Stainless steels
  2.Titanium alloy
  3.Nickel alloy
  4.High Temperature alloys
  5.Inconel 718

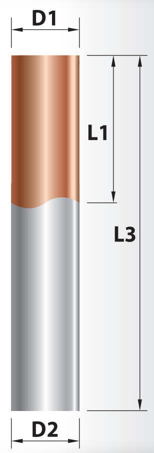
型號/頁碼 Type No. & Page	產品照片 Product Picture	鑄鐵 Cast Iron	碳鋼 Carbon Steels	合金鋼 工具鋼 Alloy Steels, Tool Steels	調質鋼 Prehardened Steels	不鏽鋼 Stainless Steels	鈦合金 Titanium Alloy	耐熱合金鋼 高溫合金鋼 Heat Resistant & High Temp Alloy Steels	熱處理鋼 Hardened Steels ~55HRc	熱處理鋼 Hardened Steels 55HRc~
UPS P.86		★★★	★★★	★★★	★★★	★★	★★	★	★★	★
UPZ P.87		★★★	★★★	★★★	★★★	★★★	★★★	★★	★★	★
UPG P.88		★★★	★★★	★★★	★★★	★★★	★★	★★	★	-----
UPW P.89		★★★	★★★	★★★	★★★	★★★	★★	★★	★	-----
UPE P.90		★★★	★★★	★★★	★★★	★★★	★★	★★	★	-----
UPER P.91		★★★	★★★	★★★	★★★	★★★	★★	★★	★	-----
UPA P.92		-----	★★★	★★★	★★★	★★	★	★	-----	-----
UPJ P.93		-----	★★★	★★★	★★★	★★★	★	★	★★	★
UEW3T P.94		★★★	★★★	★★★	★★★	★★★	★★★	★★	-----	-----
UEW4T P.95		★★★	★★★	★★★	★★★	★★★	★★★	★★	-----	-----
WUB P.96		★★★	★★★	★★★	★★★	★★	★	★	★	-----
WWB P.97		★★★	★★★	★★★	★★★	★★★	★★★	★★	★	-----
UHW P.98		-----	★★★	★★★	★★★	★★★	★★★	★★	-----	-----
UHWR P.99		-----	★★★	★★★	★★★	★★★	★★★	★★	-----	-----

UPS
無敵高效能立銑刀
END MILLS

Super MG | 0.4 μm | 45° | FIT | 4 Flutes | HRc ▸60 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
18.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø18	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPS0304	3.0	8	50	6
UPS0304L	3.0	12	60	6
UPS0404	4.0	11	50	6
UPS0404L	4.0	16	60	6
UPS0504	5.0	13	50	6
UPS0604	6.0	16	50	6
UPS0604L	6.0	20	60	6
UPS0804	8.0	20	60	8
UPS0804L	8.0	25	75	8
UPS1004	10.0	22	75	10
UPS1004L	10.0	30	80	10
UPS1204	12.0	26	75	12
UPS1204L	12.0	35	100	12
UPS1604	16.0	36	100	16
UPS1604L	16.0	50	110	16
UPS1804	18.0	40	100	18
UPS2004	20.0	40	100	20
UPS2004L	20.0	50	120	20

unit : mm

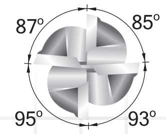
UPZ
抗震高效能立銑刀
END MILLS

破壞王－超級龍捲風系列
HIGH PERFORMANCE CUTTING
DHF Design . Honesty . Future

Super MG | 0.4 μm | 45° | FIT | 4 Flutes | HRc ▸60 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



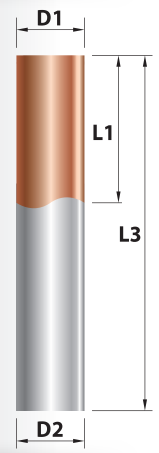
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPZ0304	3.0	8	50	6
UPZ0404	4.0	11	50	6
UPZ0504	5.0	13	50	6
UPZ0604	6.0	16	50	6
UPZ0804	8.0	20	60	8
UPZ1004	10.0	22	75	10
UPZ1204	12.0	26	75	12
UPZ1604	16.0	36	100	16
UPZ2004	20.0	40	100	20

unit : mm

破壞王－超級龍捲風系列 HIGH PERFORMANCE CUTTING

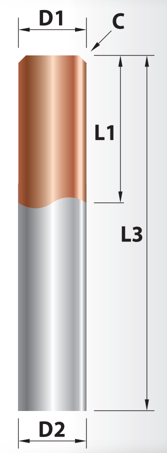
UPG

抗震高效能立銑刀
END MILLS

Super MG | 0.4 μm | 35°~38° | FIT | 4 Flutes | HRc ▸60 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
18.0	0/-0.04
20.0	0/-0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø18	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	C 倒角 Chamfer	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPG0304	3.0	0.15	8	50	6
UPG0404	4.0	0.15	11	50	6
UPG0504	5.0	0.2	13	50	6
UPG0604	6.0	0.2	16	50	6
UPG0604L	6.0	0.2	20	60	6
UPG0804	8.0	0.25	20	60	8
UPG0804L	8.0	0.25	25	75	8
UPG1004	10.0	0.3	22	75	10
UPG1004L	10.0	0.3	30	80	10
UPG1204	12.0	0.3	26	75	12
UPG1204L	12.0	0.3	35	100	12
UPG1604	16.0	0.4	40	100	16
UPG1604L	16.0	0.4	50	120	16
UPG1804	18.0	0.5	40	100	18
UPG2004	20.0	0.5	40	100	20
UPG2004L	20.0	0.5	50	120	20

unit : mm

破壞王－超級龍捲風系列
HIGH PERFORMANCE CUTTING
DHF
Design . Honesty . Future

UPW

無敵高效能立銑刀
END MILLS

Super MG | 0.4 μm | 37° | FIT | 5 Flutes | HRc ▸60 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

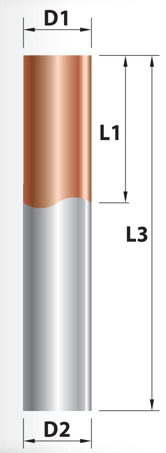
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
14.0	0/-0.04
16.0	0/-0.04
18.0	0/-0.04
20.0	0/-0.04
25.0	0/-0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø14	0/-0.011
Ø16	0/-0.011
Ø18	0/-0.011
Ø20	0/-0.013
Ø25	0/-0.013



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPW0305	3.0	8	50	6
UPW0405	4.0	11	50	6
UPW0505	5.0	13	50	6
UPW0605	6.0	16	50	6
UPW0805	8.0	20	60	8
UPW1005	10.0	22	75	10
UPW1205	12.0	26	75	12
UPW1405	14.0	30	80	14
UPW1605	16.0	36	100	16
UPW1805	18.0	40	100	18
UPW2005	20.0	40	100	20
UPW2505	25.0	45	100	25

unit : mm

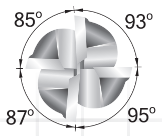
破壞王－超級龍捲風系列
HIGH PERFORMANCE CUTTING

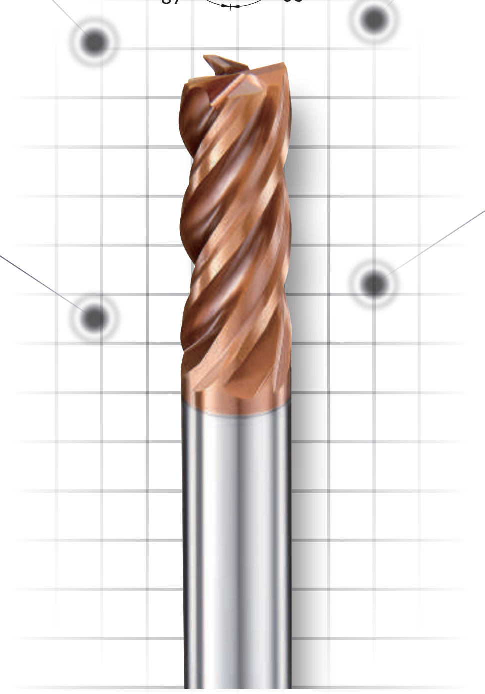
UPE
高效能立銑刀
END MILLS

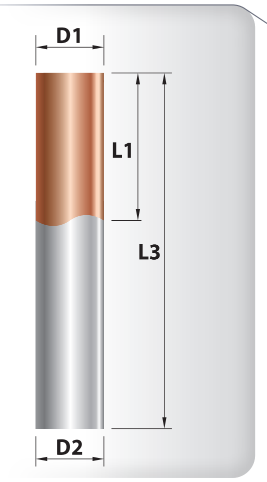
Super MG | 0.4 μm | 35° | FIT | 4 Flutes | HRc ▸60 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing







冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
14.0	0 / -0.04
16.0	0 / -0.04
18.0	0 / -0.04
20.0	0 / -0.04
25.0	0 / -0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø14	0 / -0.011
Ø16	0 / -0.011
Ø18	0 / -0.011
Ø20	0 / -0.013
Ø25	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPE0304	3.0	8	50	6
UPE0404	4.0	11	50	6
UPE0504	5.0	13	50	6
UPE0604	6.0	16	50	6
UPE0804	8.0	20	60	8
UPE1004	10.0	22	75	10
UPE1204	12.0	26	75	12
UPE1404	14.0	30	80	14
UPE1604	16.0	36	100	16
UPE1804	18.0	40	100	18
UPE2004	20.0	40	100	20
UPE2504	25.0	45	100	25

unit : mm

破壞王－超級龍捲風系列 HIGH PERFORMANCE CUTTING

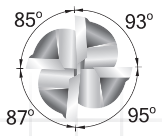
UPER
高效能圓鼻角立銑刀
END MILLS

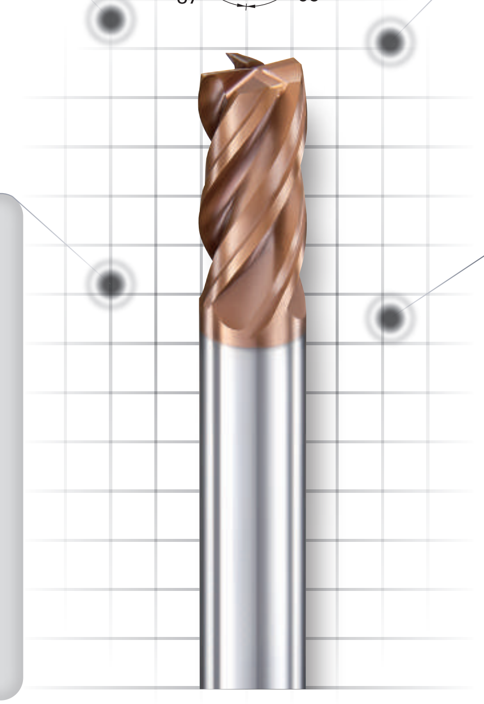
破壞王－超級龍捲風系列
HIGH PERFORMANCE CUTTING
DHF DESIGN . HONESTY . FUTURE

Super MG | 0.4 μm | 35° | FIT | R | 4 Flutes | HRc ▸60 | G10

冷卻性能 COOLANT TYPE

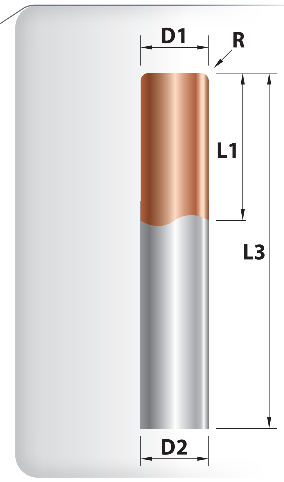
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R程公差值 R Tolerance	直徑公差值 D1 Tolerance
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035
16.0	+0.02 / 0	0 / -0.04
20.0	+0.02 / 0	0 / -0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPER0405	4.0	0.5	11	50	6
UPER0502	5.0	0.2	13	50	6
UPER0505	5.0	0.5	13	50	6
UPER0605	6.0	0.5	16	50	6
UPER0610	6.0	1.0	16	50	6
UPER0805	8.0	0.5	20	60	8
UPER0810	8.0	1.0	20	60	8
UPER1005	10.0	0.5	22	75	10
UPER1010	10.0	1.0	22	75	10
UPER1020	10.0	2.0	22	75	10
UPER1210	12.0	1.0	26	75	12
UPER1220	12.0	2.0	26	75	12
UPER1610	16.0	1.0	36	100	16
UPER1620	16.0	2.0	36	100	16
UPER2010	20.0	1.0	40	100	20
UPER2020	20.0	2.0	40	100	20

unit : mm

破壞王－超級龍捲風系列 HIGH PERFORMANCE CUTTING

UPA

無敵高效能立銑刀
END MILLS

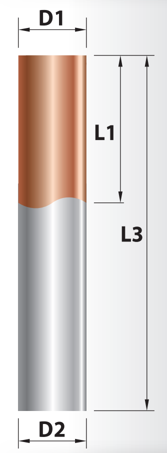
Super MG | 0.4 µm | 40° | FIT | 3 Flutes | HRc ▸55 | G10

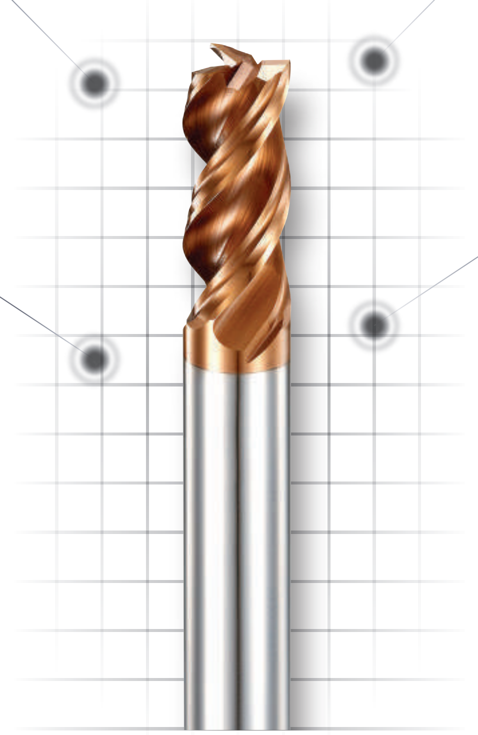
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	0 / -0.02
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPA0203	2.0	6	50	6
UPA0303	3.0	8	50	6
UPA0403	4.0	11	50	6
UPA0503	5.0	13	50	6
UPA0603	6.0	16	50	6
UPA0803	8.0	20	60	8
UPA1003	10.0	25	75	10
UPA1203	12.0	30	75	12
UPA1603	16.0	50	120	16
UPA2003	20.0	60	120	20

unit : mm

UPJ

無敵高剛性立銑刀
END MILLS

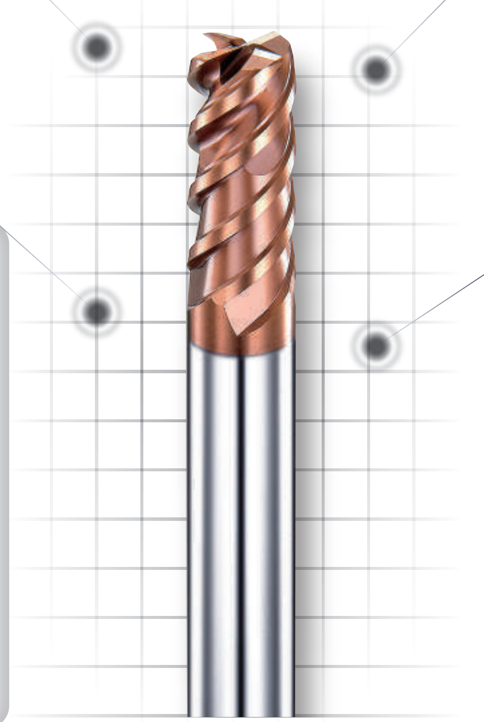
Super MG | 0.4 µm | 50° | FIT | R | 4 Flutes | HRc ▸60 | G10

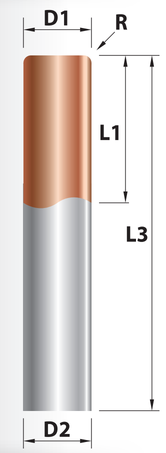
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035
16.0	+0.02 / 0	0 / -0.04
20.0	+0.02 / 0	0 / -0.04

柄徑 D2(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPJ0304	3.0	0.2	8	50	6
UPJ0404	4.0	0.3	11	50	6
UPJ0504	5.0	0.3	13	50	6
UPJ0604	6.0	0.4	16	50	6
UPJ0804	8.0	0.5	20	60	8
UPJ1004	10.0	0.6	25	75	10
UPJ1204	12.0	0.6	30	75	12
UPJ1604	16.0	0.8	45	110	16
UPJ2004	20.0	1.0	50	110	20

unit : mm

UEW3T
龍捲風立銑刀
END MILLS

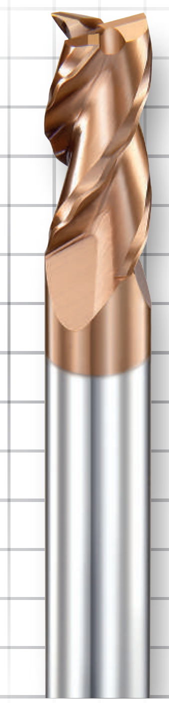
Super MG | 0.4 μm | 35° | FIT | 3 Flutes | HRc ▸55 | G10

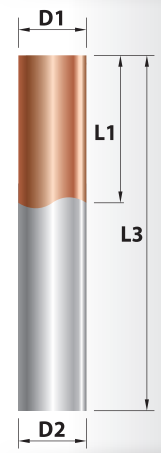
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
6.0	0 / -0.02	Ø6	0 / -0.008
8.0	0 / -0.02	Ø8	0 / -0.009
10.0	0 / -0.02	Ø10	0 / -0.009
12.0	0 / -0.02	Ø12	0 / -0.011
16.0	0 / -0.03	Ø16	0 / -0.011
20.0	0 / -0.03	Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UEW0603	6.0	16	50	6
UEW0803	8.0	20	60	8
UEW1003	10.0	22	75	10
UEW1203	12.0	26	75	12
UEW1603	16.0	45	100	16
UEW2003	20.0	55	120	20

unit : mm

UEW4T
龍捲風立銑刀
END MILLS

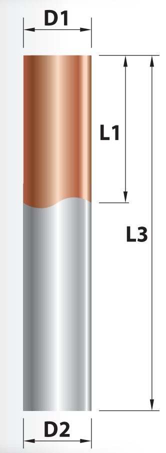
Super MG | 0.4 μm | 35° | FIT | 4 Flutes | HRc ▸55 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
6.0	0 / -0.02	Ø6	0 / -0.008
8.0	0 / -0.02	Ø8	0 / -0.009
10.0	0 / -0.02	Ø10	0 / -0.009
12.0	0 / -0.02	Ø12	0 / -0.011
16.0	0 / -0.03	Ø16	0 / -0.011
20.0	0 / -0.03	Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UEW0604	6.0	16	50	6
UEW0804	8.0	20	60	8
UEW1004	10.0	22	75	10
UEW1204	12.0	26	75	12
UEW1604	16.0	45	100	16
UEW2004	20.0	55	120	20

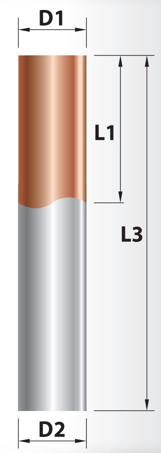
unit : mm

WUB
抗震粗齒中目銑刀
END MILLS

MG | 0.4 μm | Roughing | 20° | FIT | 4 Flutes | HRc ▸55 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
6.0	$^{\ 0}_{-0.04}$	Ø6	$^{\ 0}_{-0.008}$
8.0	$^{\ 0}_{-0.04}$	Ø8	$^{\ 0}_{-0.009}$
10.0	$^{\ 0}_{-0.045}$	Ø10	$^{\ 0}_{-0.009}$
12.0	$^{\ 0}_{-0.045}$	Ø12	$^{\ 0}_{-0.011}$
14.0	$^{\ 0}_{-0.045}$	Ø14	$^{\ 0}_{-0.011}$
16.0	$^{\ 0}_{-0.05}$	Ø16	$^{\ 0}_{-0.011}$
18.0	$^{\ 0}_{-0.05}$	Ø18	$^{\ 0}_{-0.011}$
20.0	$^{\ 0}_{-0.05}$	Ø20	$^{\ 0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WUB0604	6.0	16	50	6
WUB0804	8.0	20	60	8
WUB1004	10.0	25	75	10
WUB1204	12.0	30	75	12
WUB1404	14.0	35	100	16
WUB1604	16.0	40	100	16
WUB1804	18.0	40	100	20
WUB2004	20.0	45	100	20

unit : mm

WWB
抗震粗齒細目銑刀
END MILLS

MG | 0.4 μm | Roughing | 20° | FIT | 4 Flutes | HRc ▸55 | G10

冷卻性能 COOLANT TYPE

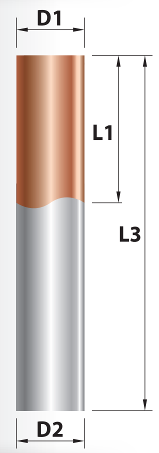
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
6.0	$^{\ 0}_{-0.04}$	Ø6	$^{\ 0}_{-0.008}$
8.0	$^{\ 0}_{-0.04}$	Ø8	$^{\ 0}_{-0.009}$
10.0	$^{\ 0}_{-0.045}$	Ø10	$^{\ 0}_{-0.009}$
12.0	$^{\ 0}_{-0.045}$	Ø12	$^{\ 0}_{-0.011}$
14.0	$^{\ 0}_{-0.045}$	Ø14	$^{\ 0}_{-0.011}$
16.0	$^{\ 0}_{-0.05}$	Ø16	$^{\ 0}_{-0.011}$
18.0	$^{\ 0}_{-0.05}$	Ø18	$^{\ 0}_{-0.011}$
20.0	$^{\ 0}_{-0.05}$	Ø20	$^{\ 0}_{-0.013}$



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WWB0604	6.0	16	50	6
WWB0804	8.0	20	60	8
WWB1004	10.0	25	75	10
WWB1204	12.0	30	75	12
WWB1404	14.0	35	100	16
WWB1604	16.0	40	100	16
WWB1804	18.0	40	100	20
WWB2004	20.0	45	100	20

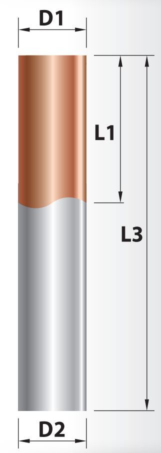
unit : mm

UHW
龍捲風彩虹刀
END MILLS

Super MG · 0.4 μm · 45° · FIT · 3 Flutes · HRc ▸55 · G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
6.0	$^{\ 0}_{-0.02}$	Ø6	$^{\ 0}_{-0.008}$
8.0	$^{\ 0}_{-0.025}$	Ø8	$^{\ 0}_{-0.009}$
10.0	$^{\ 0}_{-0.03}$	Ø10	$^{\ 0}_{-0.009}$
12.0	$^{\ 0}_{-0.035}$	Ø12	$^{\ 0}_{-0.011}$
16.0	$^{\ 0}_{-0.04}$	Ø16	$^{\ 0}_{-0.011}$
20.0	$^{\ 0}_{-0.04}$	Ø20	$^{\ 0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UHW0603	6.0	16	50	6
UHW0803	8.0	20	60	8
UHW0803L	8.0	25	80	8
UHW1003	10.0	22	75	10
UHW1003L	10.0	30	80	10
UHW1203	12.0	26	75	12
UHW1203L	12.0	35	100	12
UHW1603	16.0	50	120	16
UHW2003	20.0	55	120	20

unit : mm

UHWR
龍捲風圓鼻彩虹刀
END MILLS

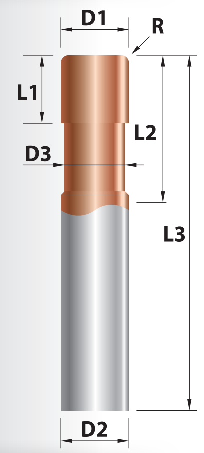
Super MG · 0.4 μm · 45° · FIT · R · 3 Flutes · HRc ▸55 · G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
6.0	$^{+0.02}_{\ 0}$	$^{\ 0}_{-0.02}$	Ø6	$^{\ 0}_{-0.008}$
8.0	$^{+0.02}_{\ 0}$	$^{\ 0}_{-0.025}$	Ø8	$^{\ 0}_{-0.009}$
10.0	$^{+0.02}_{\ 0}$	$^{\ 0}_{-0.03}$	Ø10	$^{\ 0}_{-0.009}$
12.0	$^{+0.02}_{\ 0}$	$^{\ 0}_{-0.035}$	Ø12	$^{\ 0}_{-0.011}$
16.0	$^{+0.02}_{\ 0}$	$^{\ 0}_{-0.04}$	Ø16	$^{\ 0}_{-0.011}$
20.0	$^{+0.02}_{\ 0}$	$^{\ 0}_{-0.04}$	Ø20	$^{\ 0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia.	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UHWR0605	6.0	5.8	0.5	8	18	50	6
UHWR0805	8.0	7.7	0.5	10	24	60	8
UHWR1005	10.0	9.6	0.5	12	30	75	10
UHWR1205	12.0	11.5	0.5	15	36	75	12
UHWR1610	16.0	15.5	1.0	24	40	120	16
UHWR2010	20.0	19.0	1.0	30	50	120	20

unit : mm

20th
BEST CHOICE

UNEQUAL FLUTE SPACING AND VARIABLE HELIX SERIES

不等分割可變螺旋系列

VARIABLE HELIX

UNEQUAL FLUTE SPACING AND VARIABLE HELIX SERIES
不等分割可變螺旋系列

- 特殊的銑刀端面不等分割+螺旋角變化設計，於加工中抗震性更加良好、壽命佳。
- 應用於高速擺線側銑加工，效率佳。
- 應用於1D的高效率溝側銑加工，抗震性好、穩定性更佳。
- XEV產品特殊斷屑幾何圖形設計，應用於插銑，排屑性良好、效率佳。
- 系列產品之加工應用Vc值可達200(m/min)以上。

- Unequal spacing of end teeth and variable helix design improve vibration resistance and provides longer tool life.
- Ideal for high speed trochoidal side milling. Great efficiency.
- 1D high efficiency slot and side milling, Perfect anti-vibration ability.
- The unique cutting geometry of XEV item is good for plunge operation. Smooth chip evacuation and high efficacy.
- Vc can reach 200(m/min) and above.

Index
目錄

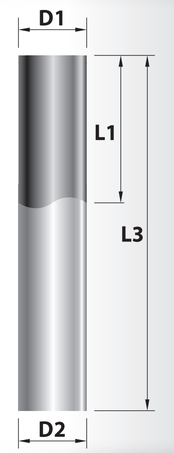
XEA

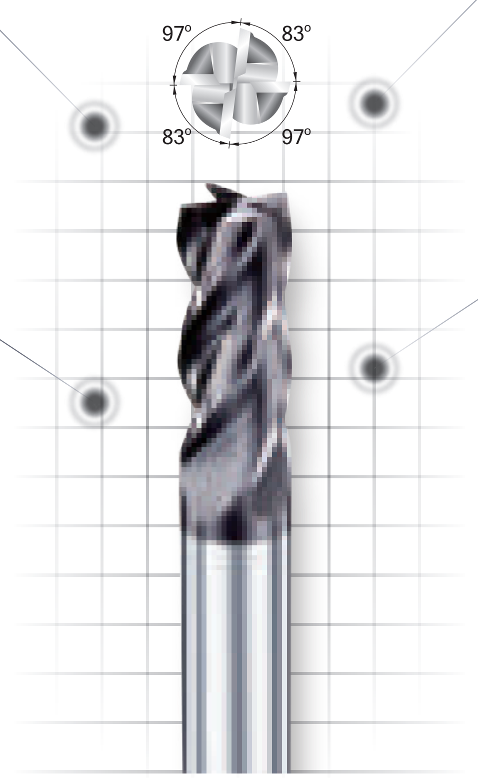
抗震高效能立銑刀
END MILLS

MG | 0.6 μm | 33°~37° | 4 Flutes | HRc ▸55 | T2

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差 D1 Tolerance
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.025}$
10.0	$^{0}_{-0.03}$
12.0	$^{0}_{-0.035}$
16.0	$^{0}_{-0.04}$
20.0	$^{0}_{-0.04}$

柄徑 D2(h6)	柄徑公差 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$
Ø20	$^{0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
XEA0304	3.0	6	50	6
XEA0404	4.0	9	50	6
XEA0504	5.0	11	50	6
XEA0604	6.0	13	50	6
XEA0804	8.0	16	60	8
XEA1004	10.0	22	75	10
XEA1204	12.0	26	75	12
XEA1604	16.0	36	100	16
XEA2004	20.0	40	100	20

unit : mm

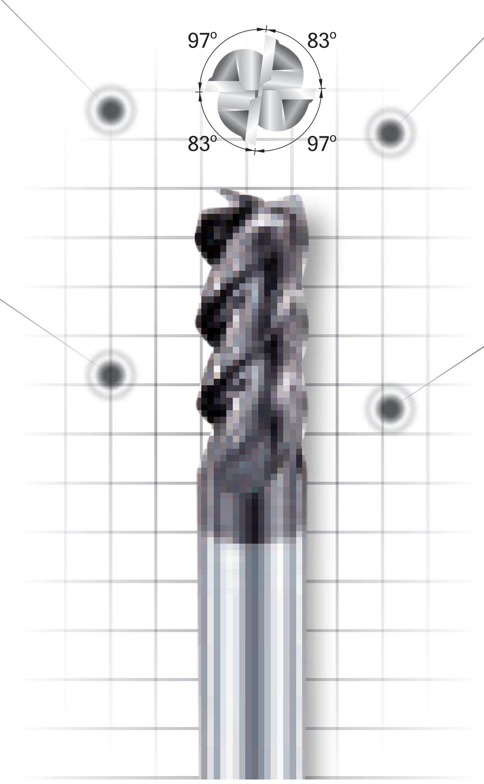
XEB

抗震高效能立銑刀
END MILLS

Super MG | 0.4 μm | 43°~47° | 4 Flutes | HRc ▸60 | T2

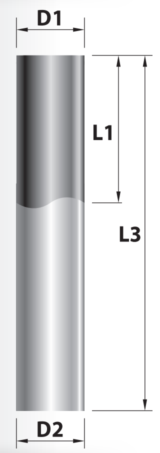
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差 D1 Tolerance
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.025}$
10.0	$^{0}_{-0.03}$
12.0	$^{0}_{-0.035}$
16.0	$^{0}_{-0.04}$
20.0	$^{0}_{-0.04}$

柄徑 D2(h6)	柄徑公差 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$
Ø20	$^{0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
XEB0304	3.0	6	50	6
XEB0404	4.0	9	50	6
XEB0504	5.0	11	50	6
XEB0604	6.0	13	50	6
XEB0804	8.0	16	60	8
XEB1004	10.0	22	75	10
XEB1204	12.0	26	75	12
XEB1604	16.0	36	100	16
XEB2004	20.0	40	100	20

unit : mm

DHF
DESIGN . HONESTY . FUTURE

不等分割可變螺旋系列
UNEQUAL FLUTE SPACING AND VARIABLE HELIX SERIES

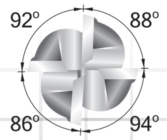
Super MG | 0.4 μm | 36°~38° | 4 Flutes | HRc ▸60 | G10

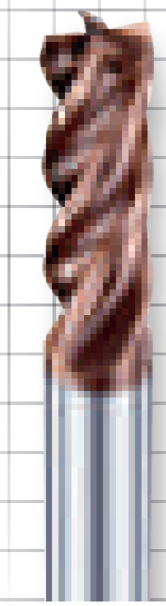
XEV

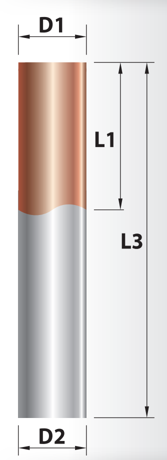
抗震高效能立銑刀
END MILLS

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing







冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0/-0.035
4.0	0/-0.035
5.0	0/-0.035
6.0	0/-0.035
8.0	0/-0.035
10.0	0/-0.04
12.0	0/-0.04
16.0	0/-0.045
20.0	0/-0.045

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
XEV0304	3.0	8	50	6
XEV0404	4.0	11	50	6
XEV0504	5.0	13	50	6
XEV0604	6.0	15	50	6
XEV0804	8.0	20	60	8
XEV1004	10.0	22	75	10
XEV1204	12.0	26	75	12
XEV1604	16.0	36	100	16
XEV2004	20.0	40	100	20

unit : mm

⚠ 警語 XEV不適用於不銹鋼材料插銑加工
XEV is not Suitable for Stainless Steel Plunge Milling.

不等分割可變螺旋系列 UNEQUAL FLUTE SPACING AND VARIABLE HELIX SERIES

NEW

XVO

抗震高效能立銑刀(內冷孔)
END MILLS (INTERNAL COOLANT HOLE)

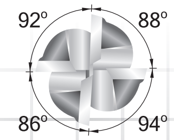
DHF
DESIGN . HONESTY . FUTURE

不等分割可變螺旋系列
UNEQUAL FLUTE SPACING AND VARIABLE HELIX SERIES

Super MG | 0.4 μm | 36°~38° | 4 Flutes | HRc ▸60 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



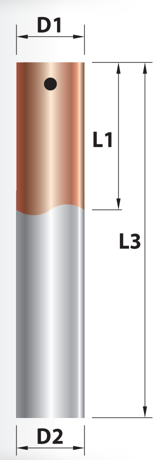
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
6.0	0/-0.035
8.0	0/-0.035
10.0	0/-0.04
12.0	0/-0.04

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
XVO0604	6.0	15	50	6
XVO0804	8.0	20	60	8
XVO1004	10.0	22	75	10
XVO1204	12.0	26	75	12

unit : mm

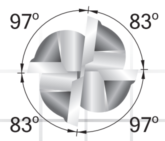
不等分割可變螺旋系列 UNEQUAL FLUTE SPACING AND VARIABLE HELIX SERIES

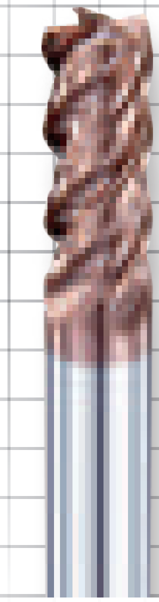
XPZ
抗震高效能立銑刀
END MILLS

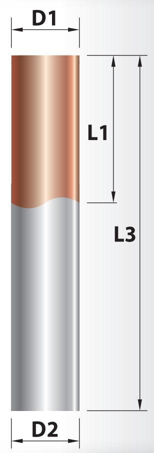
Super MG | 0.4 μm | 43°~47° | 4 Flutes | HRc ▸60 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing







冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差 D1 Tolerance
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2(h6)	柄徑公差 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
XPZ0304	3.0	8	50	6
XPZ0404	4.0	11	50	6
XPZ0504	5.0	13	50	6
XPZ0604	6.0	16	50	6
XPZ0804	8.0	20	60	8
XPZ1004	10.0	22	75	10
XPZ1204	12.0	26	75	12
XPZ1604	16.0	36	100	16
XPZ2004	20.0	40	100	20

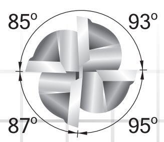
unit : mm

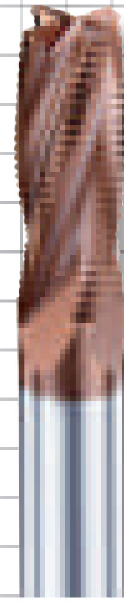
XWB
抗震粗齒細目銑刀
END MILLS

Super MG | 0.4 μm | Roughing | 18°~22° | 4 Flutes | HRc ▸55 | G10

冷卻性能 COOLANT TYPE

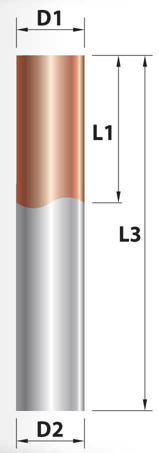
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差 D1 Tolerance
6.0	0/-0.04
8.0	0/-0.04
10.0	0/-0.045
12.0	0/-0.045

柄徑 D2(h6)	柄徑公差 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
XWB0604	6.0	13	50	6
XWB0804	8.0	16	60	8
XWB1004	10.0	22	75	10
XWB1204	12.0	26	75	12

unit : mm

不等分割可變螺旋系列 UNEQUAL FLUTE SPACING AND VARIABLE HELIX SERIES

20th
BEST CHOICE

微小徑&深溝系列

MICRO DIAMETER & LONG NECK SERIES

MICRO

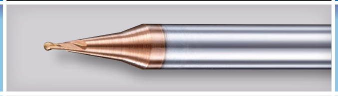
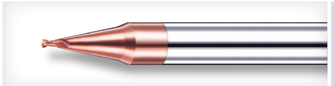
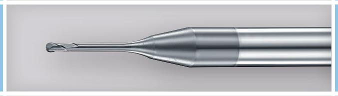
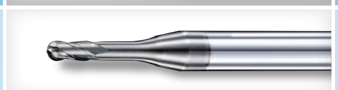
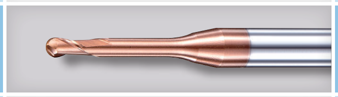
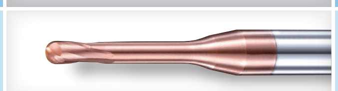
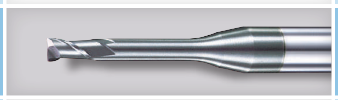
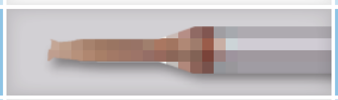
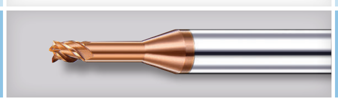
MICRO DIAMETER & LONG NECK SERIES

微小徑&深溝系列

適用於精密加工

Good at precise machining

Index
目錄

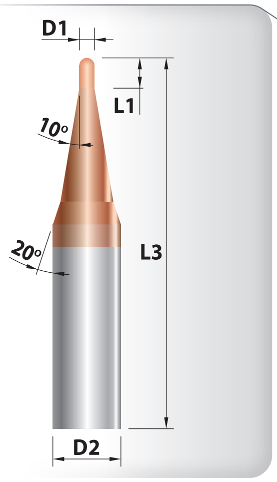
型號/頁碼 Type No. & Page	產品照片 Product Picture	銅 Copper	合金鋼，調質鋼 Alloy Steels, Prehardened Steels	不鏽鋼 Stainless Steels	熱處理鋼 Hardened Steels ～55HRc	熱處理鋼 Hardened Steels 55HRc～
MSB P.114		★★★	★★★	★★★	★★	★
MET P.115		★★★	★★★	★★★	★★	★
UMB P.116		★★★	★★★	★★★	★★★	★★★
MBTA P.117		★★★	★★★	★★★	★★	★
UME P.118		★★★	★★★	★★★	★★★	★★★
META P.119		★★★	★★★	★★★	★★	★
UNBX^{2T} P.120		★★★	★★★	★★★	★★★	★★★
UNBX^{4T} P.122		★★★	★★★	★★★	★★★	★★★
LNB P.123		★★★	★★★	★★★	★★	★
UNB P.124		★★★	★★★	★★★	★★★	★★
UNER P.126		★★★	★★★	★★★	★★	★
UNE P.127		★★★	★★★	★★★	★★★	★★★
UDE P.128		★★★	★★★	★★★	★★★	★★★
UXE P.130		★★★	★★★	★★★	★★★	★★★
LNE P.132		★★★	★★★	★★★	★★	★
LNH P.133		★★★	★★★	★★★	★★	★
LNX P.134		★★★	★★★	★★★	★★	★

MSB
微小徑圓頭立銑刀
BALL NOSE END MILLS

Super MG | 0.4 μm | 30° | 2 Flutes | HRc ▸60 | G12

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.15	±0.01
R0.2	±0.01
R0.25	±0.01
R0.3	±0.01
R0.35	±0.01
R0.4	±0.01
R0.5	±0.01
R0.6	±0.01
R0.7	±0.01
R0.75	±0.01
R0.8	±0.01
R0.9	±0.01
R1.0	±0.01
R1.5	±0.01

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø3	0/-0.006

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
MSB0032	R 0.15	0.6	50	3
MSB0042	R 0.2	0.8	50	3
MSB0052	R 0.25	1.0	50	3
MSB0062	R 0.3	1.2	50	3
MSB0072	R 0.35	1.4	50	3
MSB0082	R 0.4	1.6	50	3
MSB0102	R 0.5	2.0	50	3
MSB0122	R 0.6	2.4	50	3
MSB0142	R 0.7	2.8	50	3
MSB0152	R 0.75	3.0	50	3
MSB0162	R 0.8	3.2	50	3
MSB0182	R 0.9	3.6	50	3
MSB0202	R 1.0	4.0	50	3
MSB0302	R 1.5	6.0	50	3

unit : mm

MET
微小徑立銑刀
END MILLS

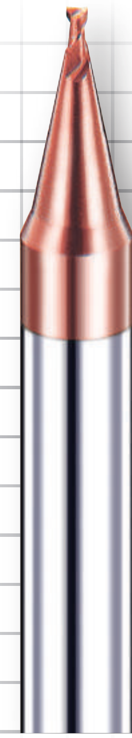
Super MG | 0.4 μm | 35° | 2 Flutes | HRc ▸60 | G12

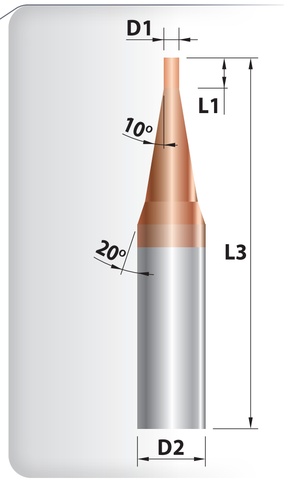
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
0.2	0/-0.015
0.3	0/-0.015
0.4	0/-0.015
0.5	0/-0.015
0.6	0/-0.015
0.8	0/-0.015
1.0	0/-0.02
1.2	0/-0.02
1.4	0/-0.02
1.5	0/-0.02

直徑 D1	直徑公差值 D1 Tolerance
1.6	0/-0.02
1.8	0/-0.02
2.0	0/-0.02
2.5	0/-0.02
3.0	0/-0.02

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø3	0/-0.006

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
MET0022	0.2	0.4	50	3
MET0032	0.3	0.6	50	3
MET0042	0.4	0.8	50	3
MET0052	0.5	1.0	50	3
MET0062	0.6	1.2	50	3
MET0082	0.8	1.6	50	3
MET0102	1.0	2.5	50	3
MET0122	1.2	3.0	50	3
MET0142	1.4	3.0	50	3
MET0152	1.5	4.0	50	3
MET0162	1.6	4.0	50	3
MET0182	1.8	5.0	50	3
MET0202	2.0	6.0	50	3
MET0252	2.5	8.0	50	3
MET0302	3.0	8.0	50	3

unit : mm

UMB

微小徑圓頭立銑刀
BALL NOSE END MILLS

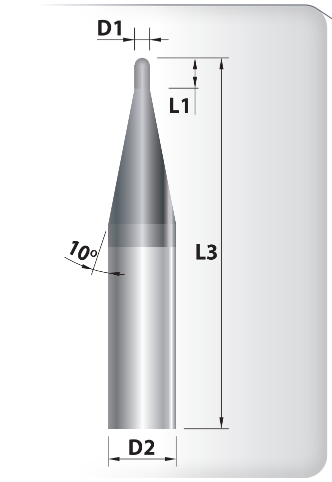
Super MG · 0.2 μm · 30° · 2 Flutes · HRc ▸65 · G15

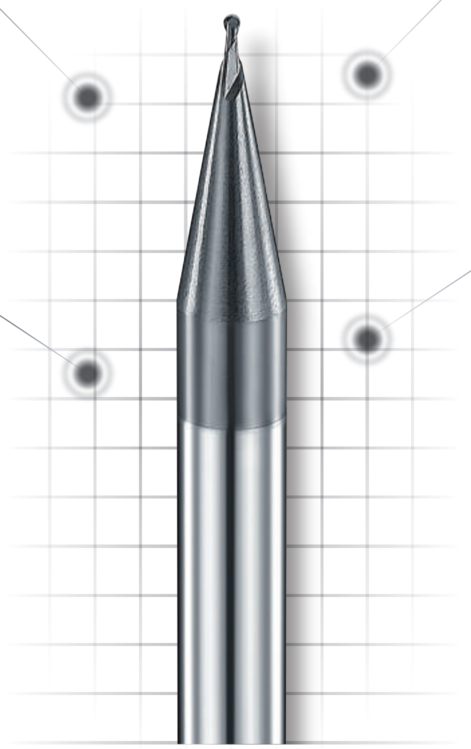
切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.1	±0.01
R0.15	±0.01
R0.2	±0.01
R0.25	±0.01
R0.3	±0.01
R0.35	±0.01
R0.4	±0.01
R0.5	±0.01
R0.75	±0.01
R1.0	±0.01
R1.5	±0.01
R2.0	±0.01

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø3	$^{0}_{-0.006}$
Ø4	$^{0}_{-0.008}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UMB0022	R 0.1	0.4	50	4
UMB0032	R 0.15	0.6	50	4
UMB0042	R 0.2	0.8	50	4
UMB0052	R 0.25	1.0	50	4
UMB0062	R 0.3	1.2	50	4
UMB0072	R 0.35	1.4	50	4
UMB0082	R 0.4	1.6	50	4
UMB0102S	R 0.5	2.0	50	3
UMB0102	R 0.5	2.0	50	4
UMB0152S	R 0.75	3.0	50	3
UMB0152	R 0.75	3.0	50	4
UMB0202S	R 1.0	4.0	50	3
UMB0202	R 1.0	4.0	50	4
UMB0302S	R 1.5	6.0	50	3
UMB0302	R 1.5	6.0	50	4
UMB0402	R 2.0	8.0	50	4

unit : mm

MBTA

微小徑圓頭立銑刀
BALL NOSE END MILLS

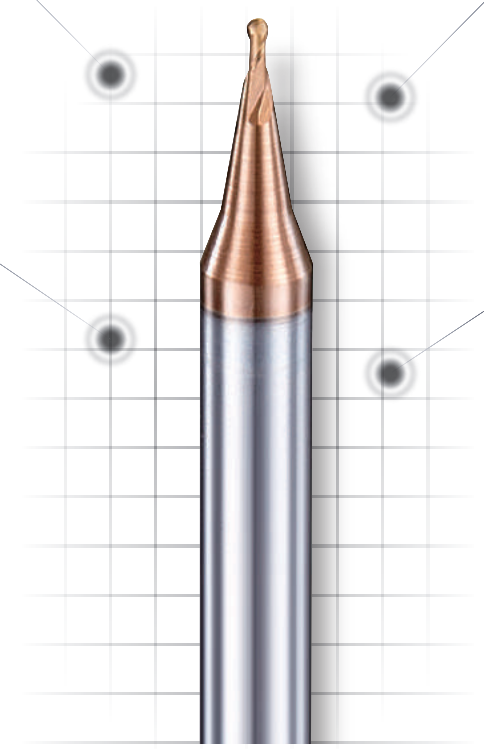
Super MG · 0.4 μm · 30° · 2 Flutes · HRc ▸60 · G12

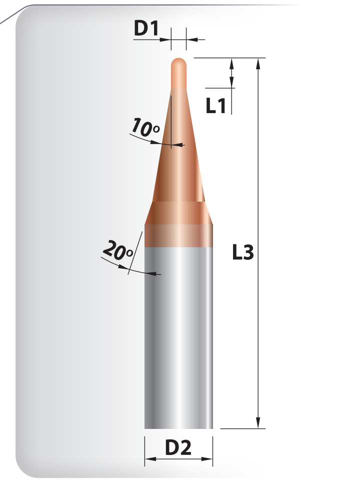
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
R0.15	$^{0}_{-0.02}$
R0.2	$^{0}_{-0.02}$
R0.25	$^{0}_{-0.02}$
R0.3	$^{0}_{-0.02}$
R0.35	$^{0}_{-0.02}$
R0.4	$^{0}_{-0.02}$
R0.5	$^{0}_{-0.02}$
R0.6	$^{0}_{-0.02}$
R0.7	$^{0}_{-0.02}$
R0.75	$^{0}_{-0.02}$
R0.8	$^{0}_{-0.02}$

直徑 D1	直徑公差值 D1 Tolerance
R0.9	$^{0}_{-0.02}$
R1.0	$^{0}_{-0.02}$
R1.5	$^{0}_{-0.02}$
R2.0	$^{0}_{-0.02}$

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø4	$^{0}_{-0.008}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
MBTA0032	R 0.15	0.6	50	4
MBTA0042	R 0.2	0.8	50	4
MBTA0052	R 0.25	1.0	50	4
MBTA0062	R 0.3	1.2	50	4
MBTA0072	R 0.35	1.4	50	4
MBTA0082	R 0.4	1.6	50	4
MBTA0102	R 0.5	2.0	50	4
MBTA0122	R 0.6	2.4	50	4
MBTA0142	R 0.7	2.8	50	4
MBTA0152	R 0.75	3.0	50	4
MBTA0162	R 0.8	3.2	50	4
MBTA0182	R 0.9	3.6	50	4
MBTA0202	R 1.0	4.0	50	4
MBTA0302	R 1.5	6.0	50	4
MBTA0402	R 2.0	8.0	50	4

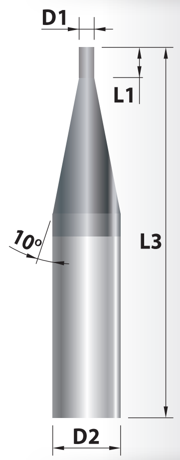
unit : mm

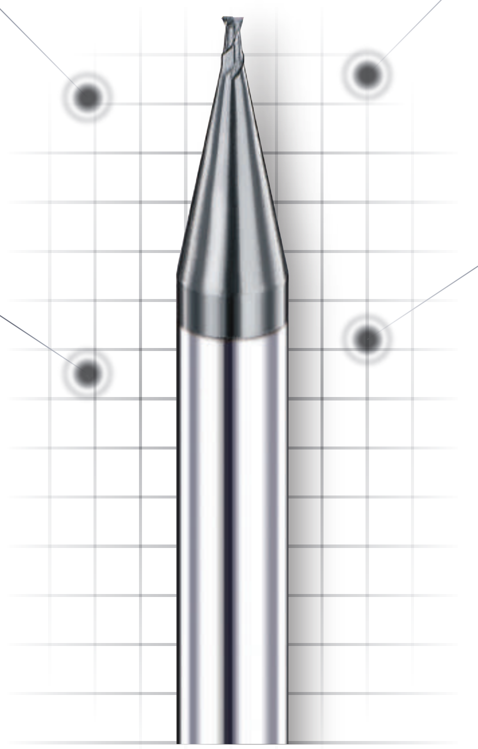
UME
微小徑立銑刀
END MILLS

Super MG | 0.2 μm | 35° | 2 Flutes | HRc ▸65 | G15

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	直徑 D1	直徑公差值 D1 Tolerance
0.2	0 / -0.015	1.8	0 / -0.02
0.3	0 / -0.015	2.0	0 / -0.02
0.4	0 / -0.015	2.5	0 / -0.02
0.5	0 / -0.015	3.0	0 / -0.02
0.6	0 / -0.015	4.0	0 / -0.02
0.7	0 / -0.015		
0.8	0 / -0.015		
1.0	0 / -0.02		
1.2	0 / -0.02		
1.5	0 / -0.02		
1.6	0 / -0.02		

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UME0022	0.2	0.4	50	4
UME0032	0.3	0.6	50	4
UME0042	0.4	0.8	50	4
UME0052	0.5	1.0	50	4
UME0062	0.6	1.2	50	4
UME0072	0.7	1.4	50	4
UME0082	0.8	1.6	50	4
UME0102	1.0	2.5	50	4
UME0122	1.2	3.0	50	4
UME0152	1.5	4.0	50	4
UME0162	1.6	4.0	50	4
UME0182	1.8	5.0	50	4
UME0202	2.0	6.0	50	4
UME0252	2.5	8.0	50	4
UME0302	3.0	8.0	50	4
UME0402	4.0	11.0	50	4

unit : mm

微小徑&深溝系列 MICRO DIAMETER & LONG NECK SERIES

META
微小徑立銑刀
END MILLS

Super MG | 0.4 μm | 35° | 2 Flutes | HRc ▸60 | G12

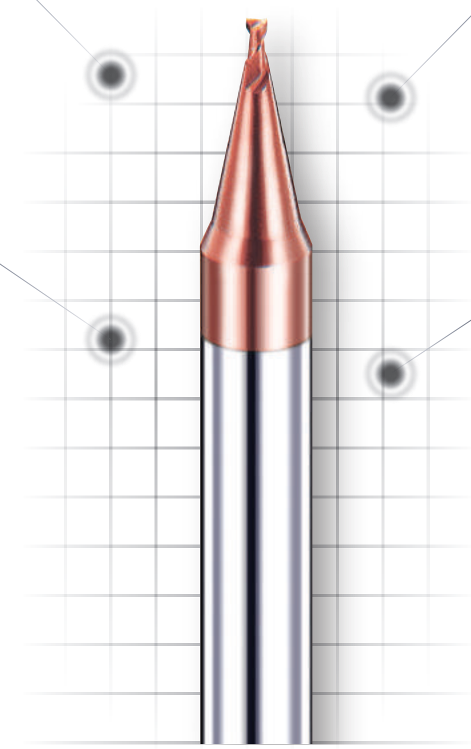
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

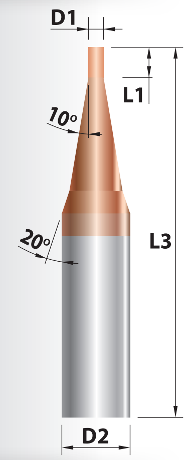
直徑 D1	直徑公差值 D1 Tolerance	直徑 D1	直徑公差值 D1 Tolerance
0.2	0 / -0.015	1.5	0 / -0.02
0.3	0 / -0.015	1.6	0 / -0.02
0.4	0 / -0.015	1.8	0 / -0.02
0.5	0 / -0.015	2.0	0 / -0.02
0.6	0 / -0.015	3.0	0 / -0.02
0.7	0 / -0.015		
0.8	0 / -0.015		
0.9	0 / -0.015		
1.0	0 / -0.02		
1.2	0 / -0.02		
1.4	0 / -0.02		

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008



切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
META0022	0.2	0.4	50	4
META0032	0.3	0.6	50	4
META0042	0.4	0.8	50	4
META0052	0.5	1.0	50	4
META0062	0.6	1.2	50	4
META0072	0.7	1.4	50	4
META0082	0.8	1.6	50	4
META0092	0.9	1.8	50	4
META0102	1.0	2.5	50	4
META0122	1.2	3.0	50	4
META0142	1.4	3.0	50	4
META0152	1.5	4.0	50	4
META0162	1.6	4.0	50	4
META0182	1.8	5.0	50	4
META0202	2.0	6.0	50	4
META0252	2.5	8.0	50	4
META0302	3.0	8.0	50	4

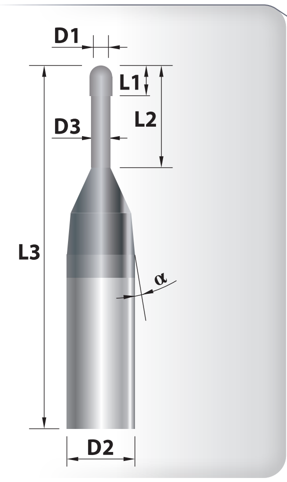
unit : mm

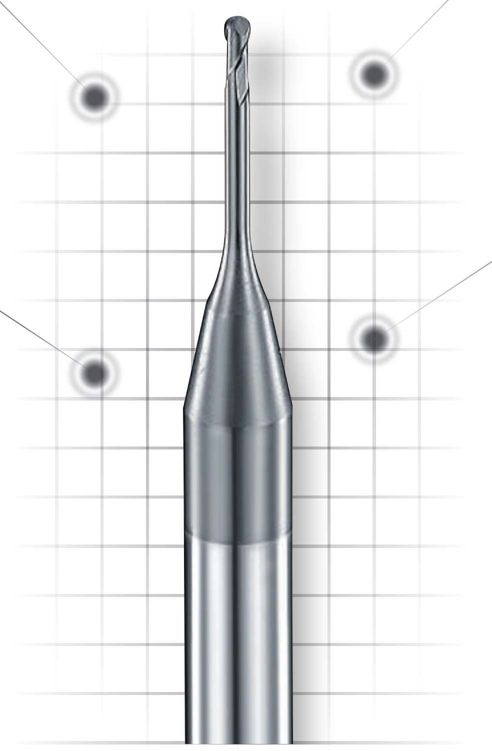
UNBX 2T

深溝用圓頭立銑刀
BALL NOSE END MILLS (LONG NECK)

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.1	±0.01
R0.15	±0.01
R0.2	±0.01
R0.25	±0.01
R0.3	±0.01
R0.4	±0.01
R0.5	±0.01
R0.6	±0.01
R0.75	±0.01
R0.8	±0.01

直徑 D1	球頭公差值 R Tolerance
R1.0	±0.01
R1.5	±0.01
R2.0	±0.01

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UNBX0201	R 0.1	0.18	0.3	1	50	4
UNBX0202	R 0.1	0.18	0.3	2	50	4
UNBX0301	R 0.15	0.26	0.4	1	50	4
UNBX0302	R 0.15	0.26	0.4	2	50	4
UNBX0303	R 0.15	0.26	0.4	3	50	4
UNBX0402	R 0.2	0.36	0.6	2	50	4
UNBX0403	R 0.2	0.36	0.6	3	50	4
UNBX0404	R 0.2	0.36	0.6	4	50	4
UNBX0502	R 0.25	0.46	0.8	2	50	4
UNBX0504	R 0.25	0.46	0.8	4	50	4
UNBX0506	R 0.25	0.46	0.8	6	50	4
UNBX0602	R 0.3	0.56	0.9	2	50	4
UNBX0604	R 0.3	0.56	0.9	4	50	4
UNBX0606	R 0.3	0.56	0.9	6	50	4
UNBX0804	R 0.4	0.76	1.2	4	50	4
UNBX0806	R 0.4	0.76	1.2	6	50	4
UNBX0808	R 0.4	0.76	1.2	8	50	4
UNBX1004	R 0.5	0.95	1.5	4	50	4

unit : mm

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UNBX1006	R 0.5	0.95	1.5	6	50	4
UNBX1008	R 0.5	0.95	1.5	8	50	4
UNBX1010	R 0.5	0.95	1.5	10	50	4
UNBX1012	R 0.5	0.95	1.5	12	50	4
UNBX1208	R 0.6	1.15	2	8	50	4
UNBX1212	R 0.6	1.15	2	12	50	4
UNBX1506	R 0.75	1.45	2	6	50	4
UNBX1508	R 0.75	1.45	2	8	50	4
UNBX1510	R 0.75	1.45	2	10	50	4
UNBX1512	R 0.75	1.45	2	12	50	4
UNBX1516	R 0.75	1.45	2	16	50	4
UNBX1520	R 0.75	1.45	2	20	50	4
UNBX1608	R 0.8	1.54	2.5	8	50	4
UNBX1612	R 0.8	1.54	2.5	12	50	4
UNBX1616	R 0.8	1.54	2.5	16	50	4
UNBX2008	R 1.0	1.92	3	8	50	4
UNBX2010	R 1.0	1.92	3	10	50	4
UNBX2012	R 1.0	1.92	3	12	50	4
UNBX2016	R 1.0	1.92	3	16	50	4
UNBX2020	R 1.0	1.92	3	20	50	4
UNBX3008	R 1.5	2.90	4	8	50	6
UNBX3010	R 1.5	2.90	4	10	50	6
UNBX3012	R 1.5	2.90	4	12	50	6
UNBX3016	R 1.5	2.90	4	16	50	6
UNBX3020	R 1.5	2.90	4	20	60	6
UNBX3025	R 1.5	2.90	4	25	60	6
UNBX4010	R 2.0	3.88	5	10	75	6
UNBX4015	R 2.0	3.88	5	15	75	6
UNBX4020	R 2.0	3.88	5	20	75	6
UNBX4025	R 2.0	3.88	5	25	75	6
UNBX4030	R 2.0	3.88	5	30	75	6

unit : mm

UNBX 4T

深溝用圓頭立銑刀
BALL NOSE END MILLS (LONG NECK)

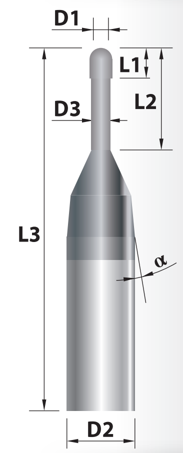
Super MG | 0.2 μm | 30° | 4 Flutes | HRc ▸65 | G15

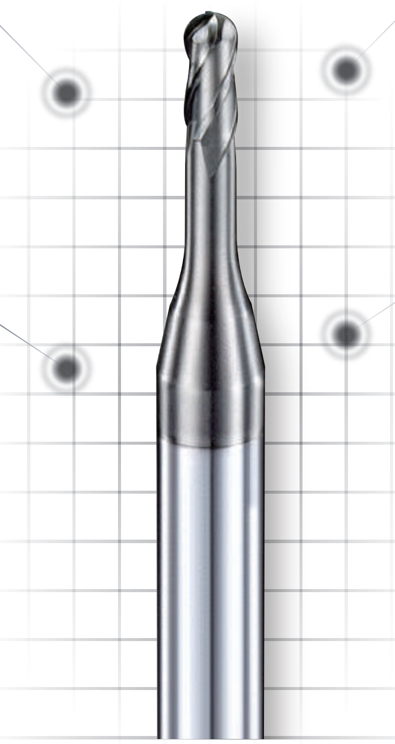
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1.0	±0.01
R1.5	±0.01
R2.0	±0.01

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UNBX100404	R 0.5	0.95	1.5	4	50	4
UNBX100604	R 0.5	0.95	1.5	6	50	4
UNBX100804	R 0.5	0.95	1.5	8	50	4
UNBX101004	R 0.5	0.95	1.5	10	50	4
UNBX101204	R 0.5	0.95	1.5	12	50	4
UNBX150604	R 0.75	1.45	2	6	50	4
UNBX150804	R 0.75	1.45	2	8	50	4
UNBX151004	R 0.75	1.45	2	10	50	4
UNBX151204	R 0.75	1.45	2	12	50	4
UNBX151604	R 0.75	1.45	2	16	50	4
UNBX200804	R 1.0	1.92	3	8	50	4
UNBX201004	R 1.0	1.92	3	10	50	4
UNBX201204	R 1.0	1.92	3	12	50	4
UNBX201604	R 1.0	1.92	3	16	50	4
UNBX202004	R 1.0	1.92	3	20	50	4
UNBX300804	R 1.5	2.90	4	8	60	6
UNBX301004	R 1.5	2.90	4	10	60	6
UNBX301204	R 1.5	2.90	4	12	60	6
UNBX301604	R 1.5	2.90	4	16	60	6
UNBX302004	R 1.5	2.90	4	20	60	6
UNBX302504	R 1.5	2.90	4	25	60	6
UNBX401004	R 2.0	3.88	5	10	75	6
UNBX401204	R 2.0	3.88	5	12	75	6
UNBX401604	R 2.0	3.88	5	16	75	6
UNBX402004	R 2.0	3.88	5	20	75	6
UNBX402504	R 2.0	3.88	5	25	75	6

unit : mm

LNB

深溝用圓頭立銑刀
BALL NOSE END MILLS (LONG NECK)

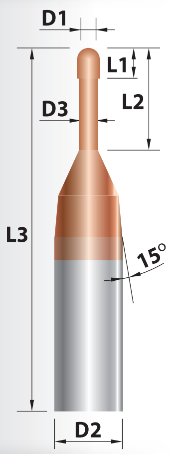
MG | 0.4 μm | 30° | 2 Flutes | HRc ▸60 | G12

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1.0	±0.01
R1.5	±0.01
R2.0	±0.01

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LNB1006	R 0.5	0.95	1.5	6	50	4
LNB1008	R 0.5	0.95	1.5	8	50	4
LNB1010	R 0.5	0.95	1.5	10	50	4
LNB1012	R 0.5	0.95	1.5	12	50	4
LNB1508	R 0.75	1.45	2	8	50	4
LNB1510	R 0.75	1.45	2	10	50	4
LNB1512	R 0.75	1.45	2	12	50	4
LNB1516	R 0.75	1.45	2	16	50	4
LNB1520	R 0.75	1.45	2	20	50	4
LNB2008	R 1.0	1.92	3	8	50	4
LNB2010	R 1.0	1.92	3	10	50	4
LNB2012	R 1.0	1.92	3	12	50	4
LNB2016	R 1.0	1.92	3	16	50	4
LNB2020	R 1.0	1.92	3	20	50	4
LNB3008	R 1.5	2.90	4	8	50	6
LNB3010	R 1.5	2.90	4	10	50	6
LNB3012	R 1.5	2.90	4	12	50	6
LNB3016	R 1.5	2.90	4	16	50	6
LNB3020	R 1.5	2.90	4	20	60	6
LNB3025	R 1.5	2.90	4	25	60	6
LNB4012	R 2.0	3.88	5	12	60	6
LNB4016	R 2.0	3.88	5	16	60	6
LNB4020	R 2.0	3.88	5	20	60	6
LNB4025	R 2.0	3.88	5	25	75	6
LNB4030	R 2.0	3.88	5	30	75	6

unit : mm

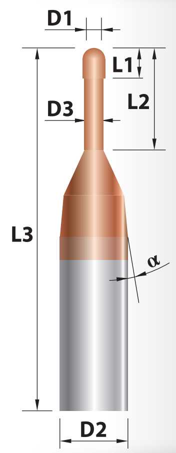
UNB

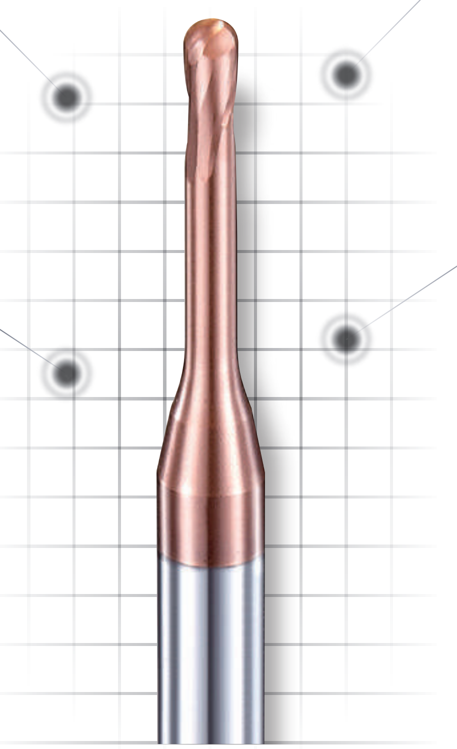
深溝用圓頭立銑刀
BALL NOSE END MILLS (LONG NECK)

Super MG | 0.2 μm | 15° | 2 Flutes | HRc ▸65 | G12

切削性能 CUTTING PERFORMANCE

- 精銑 Finishing
- 中銑 Semi-finishing
- 粗銑 Roughing





冷卻性能 COOLANT TYPE

- 乾式切削 Dry Machining
- 油霧切削 MQL(Mist)
- 水溶性切削 Emulsion Machining
- 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.25	±0.01
R0.3	±0.01
R0.4	±0.01
R0.5	±0.01
R0.6	±0.01
R0.75	±0.01
R0.8	±0.01
R1.0	±0.01
R1.5	±0.01
R2.0	±0.01

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UNB0502	R 0.25	0.46	0.8	2	50	4
UNB0504	R 0.25	0.46	0.8	4	50	4
UNB0506	R 0.25	0.46	0.8	6	50	4
UNB0604	R 0.3	0.56	0.9	4	50	4
UNB0606	R 0.3	0.56	0.9	6	50	4
UNB0806	R 0.4	0.76	1.2	6	50	4
UNB0808	R 0.4	0.76	1.2	8	50	4
UNB1006	R 0.5	0.95	1.5	6	50	4
UNB1008	R 0.5	0.95	1.5	8	50	4
UNB1010	R 0.5	0.95	1.5	10	50	4
UNB1012	R 0.5	0.95	1.5	12	50	4
UNB1208	R 0.6	1.15	2	8	50	4
UNB1212	R 0.6	1.15	2	12	50	4
UNB1508	R 0.75	1.45	2	8	50	4
UNB1510	R 0.75	1.45	2	10	50	4
UNB1512	R 0.75	1.45	2	12	50	4

unit : mm

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UNB1516	R 0.75	1.45	2	16	50	4
UNB1520	R 0.75	1.45	2	20	50	4
UNB1608	R 0.8	1.54	2.5	8	50	4
UNB1612	R 0.8	1.54	2.5	12	50	4
UNB1616	R 0.8	1.54	2.5	16	50	4
UNB2008	R 1.0	1.92	3	8	50	4
UNB2010	R 1.0	1.92	3	10	50	4
UNB2012	R 1.0	1.92	3	12	50	4
UNB2016	R 1.0	1.92	3	16	50	4
UNB2020	R 1.0	1.92	3	20	50	4
UNB3008	R 1.5	2.90	4	8	50	6
UNB3010	R 1.5	2.90	4	10	50	6
UNB3016	R 1.5	2.90	4	16	50	6
UNB3020	R 1.5	2.90	4	20	60	6
UNB3025	R 1.5	2.90	4	25	60	6
UNB4010	R 2.0	3.88	5	10	75	6
UNB4015	R 2.0	3.88	5	15	75	6
UNB4020	R 2.0	3.88	5	20	75	6
UNB4025	R 2.0	3.88	5	25	75	6
UNB4030	R 2.0	3.88	5	30	75	6

unit : mm

DHF
DESIGN . HONESTY . FUTURE

UNER

深溝用圓鼻立銑刀
END MILLS (LONG NECK,CORNER RADIUS)

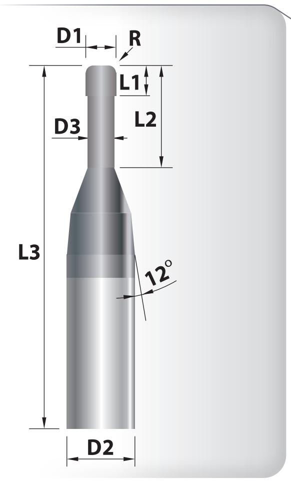
Super MG | 0.2 μm | 35° | R | 2 Flutes | HRc ▶60 | G15

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
1.0	+0.02 / 0	0 / -0.02
1.5	+0.02 / 0	0 / -0.02
2.0	+0.02 / 0	0 / -0.02
2.5	+0.02 / 0	0 / -0.02
3.0	+0.02 / 0	0 / -0.02

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UNER1006	1.0	0.95	0.2	1.5	6	50	4
UNER1008	1.0	0.95	0.2	1.5	8	50	4
UNER1010	1.0	0.95	0.2	1.5	10	50	4
UNER1012	1.0	0.95	0.2	1.5	12	50	4
UNER1508	1.5	1.44	0.2	2	8	50	4
UNER1510	1.5	1.44	0.2	2	10	50	4
UNER1512	1.5	1.44	0.2	2	12	50	4
UNER1516	1.5	1.44	0.2	2	16	50	4
UNER2008	2.0	1.92	0.2	3	8	50	4
UNER2010	2.0	1.92	0.2	3	10	50	4
UNER2012	2.0	1.92	0.2	3	12	50	4
UNER2016	2.0	1.92	0.2	3	16	50	4
UNER2020	2.0	1.92	0.2	3	20	50	4
UNER2510	2.5	2.40	0.2	3	10	50	4
UNER2512	2.5	2.40	0.2	3	12	50	4
UNER2516	2.5	2.40	0.2	3	16	50	4
UNER2520	2.5	2.40	0.2	3	20	50	4
UNER3010	3.0	2.90	0.2	4	10	50	6
UNER3012	3.0	2.90	0.2	4	12	50	6
UNER3016	3.0	2.90	0.2	4	16	50	6
UNER3020	3.0	2.90	0.2	4	20	60	6
UNER3025	3.0	2.90	0.2	4	25	60	6

unit : mm

UNE

深溝用圓鼻立銑刀
END MILLS (LONG NECK,CORNER RADIUS)

微小徑&深溝系列
MICRO DIAMETER & LONG NECK SERIES

DHF
DESIGN . HONESTY . FUTURE

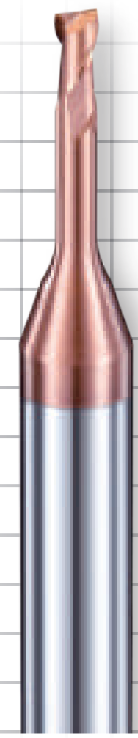
Super MG | 0.2 μm | 35° | R | 2 Flutes | HRc ▶65 | G12

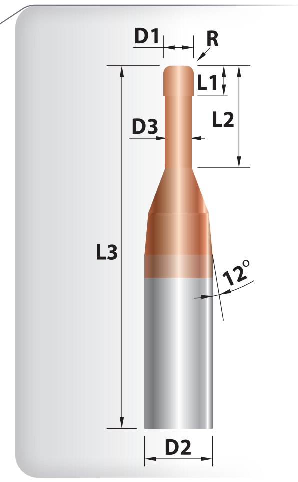
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
1.0	+0.02 / 0	0 / -0.02
1.5	+0.02 / 0	0 / -0.02
2.0	+0.02 / 0	0 / -0.02
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UNE1004	1.0	0.95	0.1	1.5	4	50	6
UNE1006	1.0	0.95	0.1	1.5	6	50	6
UNE1008	1.0	0.95	0.1	1.5	8	50	6
UNE1010	1.0	0.95	0.1	1.5	10	50	6
UNE1012	1.0	0.95	0.1	1.5	12	50	6
UNE1504	1.5	1.44	0.1	1.5	4	50	6
UNE1508	1.5	1.44	0.1	1.5	8	50	6
UNE1510	1.5	1.44	0.1	1.5	10	50	6
UNE1512	1.5	1.44	0.1	1.5	12	50	6
UNE2008	2.0	1.92	0.2	2	8	50	6
UNE2010	2.0	1.92	0.2	2	10	50	6
UNE2012	2.0	1.92	0.2	2	12	50	6
UNE2016	2.0	1.92	0.2	2	16	50	6
UNE3008	3.0	2.90	0.2	3	8	50	6
UNE3012	3.0	2.90	0.2	3	12	50	6
UNE3016	3.0	2.90	0.2	3	16	50	6
UNE3020	3.0	2.90	0.2	3	20	50	6
UNE4010	4.0	3.88	0.2	4	10	50	6
UNE4016	4.0	3.88	0.2	4	16	50	6
UNE4020	4.0	3.88	0.2	4	20	60	6

unit : mm

微小徑&深溝系列 MICRO DIAMETER & LONG NECK SERIES

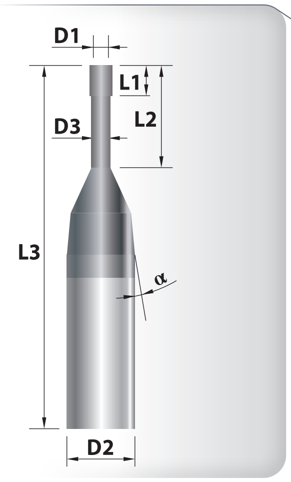
UDE

深溝用立銑刀
END MILLS (LONG NECK)

Super MG | 0.2 μm | 35° | 2 Flutes | HRc ▸65 | G15

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
0.2	0/-0.015
0.3	0/-0.015
0.4	0/-0.015
0.5	0/-0.015
1.0	0/-0.02
1.2	0/-0.02
1.5	0/-0.02
2.0	0/-0.02
2.5	0/-0.02
3.0	0/-0.02

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø4	0/-0.008
Ø6	0/-0.008

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UDE0201	0.2	0.18	0.3	1	50	4
UDE0202	0.2	0.18	0.3	2	50	4
UDE0301	0.3	0.26	0.4	1	50	4
UDE0302	0.3	0.26	0.4	2	50	4
UDE0303	0.3	0.26	0.4	3	50	4
UDE0402	0.4	0.36	0.6	2	50	4
UDE0403	0.4	0.36	0.6	3	50	4
UDE0404	0.4	0.36	0.6	4	50	4
UDE0502	0.5	0.46	0.8	2	50	4
UDE0504	0.5	0.46	0.8	4	50	4
UDE0506	0.5	0.46	0.8	6	50	4
UDE0602	0.6	0.55	0.9	2	50	4
UDE0604	0.6	0.55	0.9	4	50	4
UDE0606	0.6	0.55	0.9	6	50	4
UDE0702	0.7	0.65	1	2	50	4
UDE0704	0.7	0.65	1	4	50	4
UDE0706	0.7	0.65	1	6	50	4
UDE0802	0.8	0.75	1.2	2	50	4

unit : mm

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UDE0804	0.8	0.75	1.2	4	50	4
UDE0806	0.8	0.75	1.2	6	50	4
UDE0808	0.8	0.75	1.2	8	50	4
UDE1006	1.0	0.95	1.5	6	50	4
UDE1008	1.0	0.95	1.5	8	50	4
UDE1010	1.0	0.95	1.5	10	50	4
UDE1012	1.0	0.95	1.5	12	50	4
UDE1206	1.2	1.15	1.8	6	50	4
UDE1208	1.2	1.15	1.8	8	50	4
UDE1210	1.2	1.15	1.8	10	50	4
UDE1508	1.5	1.44	2	8	50	4
UDE1510	1.5	1.44	2	10	50	4
UDE1512	1.5	1.44	2	12	50	4
UDE1516	1.5	1.44	2	16	50	4
UDE2008	2.0	1.92	3	8	50	4
UDE2010	2.0	1.92	3	10	50	4
UDE2012	2.0	1.92	3	12	50	4
UDE2016	2.0	1.92	3	16	50	4
UDE2020	2.0	1.92	3	20	50	4
UDE2510	2.5	2.40	3	10	50	4
UDE2512	2.5	2.40	3	12	50	4
UDE2516	2.5	2.40	3	16	50	4
UDE2520	2.5	2.40	3	20	50	4
UDE3010	3.0	2.90	4	10	50	6
UDE3012	3.0	2.90	4	12	50	6
UDE3016	3.0	2.90	4	16	50	6
UDE3020	3.0	2.90	4	20	60	6
UDE3025	3.0	2.90	4	25	60	6

unit : mm

UXE

深溝用圓鼻立銑刀
END MILLS (LONG NECK,CORNER RADIUS)

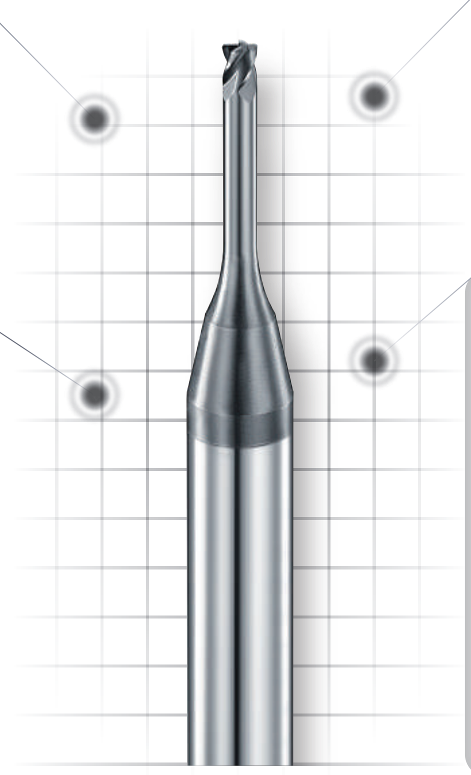
Super MG | 0.2 μm | 35° | R | 4 Flutes | HRc ▸65 | G15

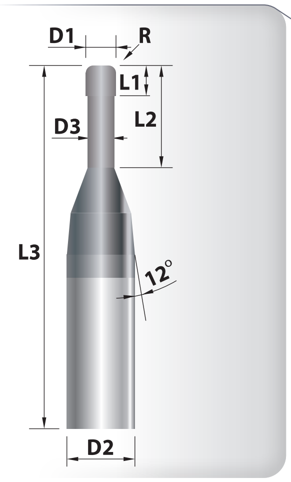
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
1.0	+0.02 / 0	0 / -0.02
1.5	+0.02 / 0	0 / -0.02
2.0	+0.02 / 0	0 / -0.02
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UXE100401	1.0	0.95	0.1	1.5	4	50	6
UXE100601	1.0	0.95	0.1	1.5	6	50	6
UXE100801	1.0	0.95	0.1	1.5	8	50	6
UXE101001	1.0	0.95	0.1	1.5	10	50	6
UXE101201	1.0	0.95	0.1	1.5	12	50	6
UXE100402	1.0	0.95	0.2	1.5	4	50	6
UXE100602	1.0	0.95	0.2	1.5	6	50	6
UXE100802	1.0	0.95	0.2	1.5	8	50	6
UXE101002	1.0	0.95	0.2	1.5	10	50	6
UXE101202	1.0	0.95	0.2	1.5	12	50	6
UXE150401	1.5	1.44	0.1	1.5	4	50	6
UXE150601	1.5	1.44	0.1	1.5	6	50	6
UXE150801	1.5	1.44	0.1	1.5	8	50	6
UXE151001	1.5	1.44	0.1	1.5	10	50	6
UXE151201	1.5	1.44	0.1	1.5	12	50	6
UXE150402	1.5	1.44	0.2	1.5	4	50	6
UXE150602	1.5	1.44	0.2	1.5	6	50	6
UXE150802	1.5	1.44	0.2	1.5	8	50	6

unit : mm

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UXE151002	1.5	1.44	0.2	1.5	10	50	6
UXE151202	1.5	1.44	0.2	1.5	12	50	6
UXE200801	2.0	1.92	0.1	2	8	50	6
UXE201001	2.0	1.92	0.1	2	10	50	6
UXE201201	2.0	1.92	0.1	2	12	50	6
UXE201601	2.0	1.92	0.1	2	16	50	6
UXE202001	2.0	1.92	0.1	2	20	50	6
UXE200802	2.0	1.92	0.2	2	8	50	6
UXE201002	2.0	1.92	0.2	2	10	50	6
UXE201202	2.0	1.92	0.2	2	12	50	6
UXE201602	2.0	1.92	0.2	2	16	50	6
UXE202002	2.0	1.92	0.2	2	20	50	6
UXE300802	3.0	2.90	0.2	3	8	50	6
UXE301002	3.0	2.90	0.2	3	10	50	6
UXE301202	3.0	2.90	0.2	3	12	50	6
UXE301602	3.0	2.90	0.2	3	16	50	6
UXE302002	3.0	2.90	0.2	3	20	50	6
UXE300803	3.0	2.90	0.3	3	8	50	6
UXE301003	3.0	2.90	0.3	3	10	50	6
UXE301203	3.0	2.90	0.3	3	12	50	6
UXE301603	3.0	2.90	0.3	3	16	50	6
UXE302003	3.0	2.90	0.3	3	20	50	6
UXE401002	4.0	3.88	0.2	4	10	50	6
UXE401202	4.0	3.88	0.2	4	12	50	6
UXE401602	4.0	3.88	0.2	4	16	50	6
UXE402002	4.0	3.88	0.2	4	20	60	6
UXE401003	4.0	3.88	0.3	4	10	50	6
UXE401203	4.0	3.88	0.3	4	12	50	6
UXE401603	4.0	3.88	0.3	4	16	50	6
UXE402003	4.0	3.88	0.3	4	20	60	6

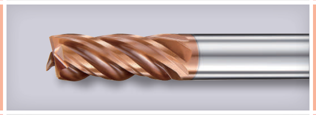
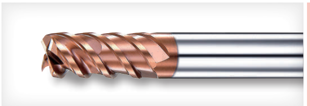
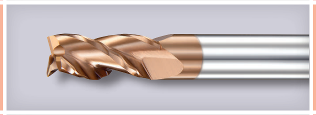
unit : mm

破壞王
HIGH PERFORMANCE CUTTING
超級龍捲風系列

- 抗震性好、穩定性佳。
- 斷屑效果、排屑順暢。
- 高移除率、不易黏屑。
- 高速暴走、削鐵如泥。
- 1D進給、無與倫比。
- 專剋難切削材:
  1.不銹鋼(S136)
  2.鈦合金
  3.鎳基合金
  4.耐熱合金
  5.Inconel 718

- Low vibration and high stability.
- Smooth chip removal.
- High removal rate and low stickness.
- High speed cutting.
- Superb 1D feed.
- Special for Difficult-to-Cut materials:
  1.Stainless steels
  2.Titanium alloy
  3.Nickel alloy
  4.High Temperature alloys
  5.Inconel 718

Index
目錄

型號/頁碼 Type No. & Page	產品照片 Product Picture	鑄鐵 Cast Iron	碳鋼 Carbon Steels	合金鋼 工具鋼 Alloy Steels, Tool Steels	調質鋼 Prehardened Steels	不鏽鋼 Stainless Steels	鈦合金 Titanium Alloy	耐熱合金鋼 高溫合金鋼 Heat Resistant & High Temp Alloy Steels	熱處理鋼 Hardened Steels ～55HRc	熱處理鋼 Hardened Steels 55HRc～
UPS P.86		★★★	★★★	★★★	★★★	★★	★★	★	★★	★
UPZ P.87		★★★	★★★	★★★	★★★	★★★	★★★	★★	★★	★
UPG P.88		★★★	★★★	★★★	★★★	★★★	★★	★★	★	-----
UPW P.89		★★★	★★★	★★★	★★★	★★★	★★	★★	★	-----
UPE P.90		★★★	★★★	★★★	★★★	★★★	★★	★★	★	-----
UPER P.91		★★★	★★★	★★★	★★★	★★★	★★	★★	★	-----
UPA P.92		-----	★★★	★★★	★★★	★★	★	★	-----	-----
UPJ P.93		-----	★★★	★★★	★★★	★★★	★	★	★★	★
UEW3T P.94		★★★	★★★	★★★	★★★	★★★	★★★	★★	-----	-----
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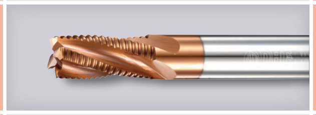
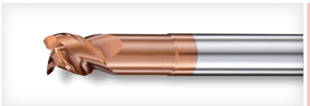
WUB P.96		★★★	★★★	★★★	★★★	★★	★	★	★	-----
WWB P.97		★★★	★★★	★★★	★★★	★★★	★★★	★★	★	-----
UHW P.98		-----	★★★	★★★	★★★	★★★	★★★	★★	-----	-----
UHWR P.99		-----	★★★	★★★	★★★	★★★	★★★	★★	-----	-----

LNX
深溝用立銑刀
END MILLS (LONG NECK)

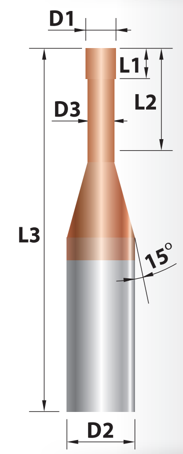
MG | 0.6 μm | 35° | 4 Flutes | HRc ▸60 | G12

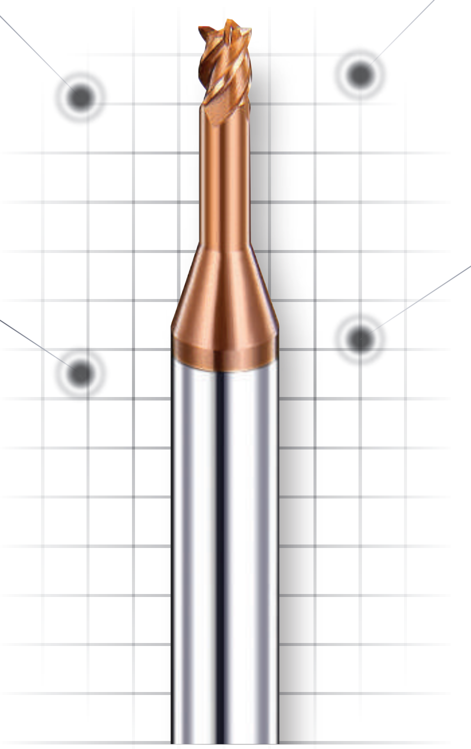
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0 / -0.02
1.5	0 / -0.02
2.0	0 / -0.02
2.5	0 / -0.02
3.0	0 / -0.02

柄徑 D2 Shank(h6)	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LNX1006	1.0	0.95	1.5	6	50	4
LNX1008	1.0	0.95	1.5	8	50	4
LNX1010	1.0	0.95	1.5	10	50	4
LNX1012	1.0	0.95	1.5	12	50	4
LNX1508	1.5	1.45	2	8	50	4
LNX1510	1.5	1.45	2	10	50	4
LNX1512	1.5	1.45	2	12	50	4
LNX1516	1.5	1.45	2	16	50	4
LNX2008	2.0	1.92	3	8	50	4
LNX2010	2.0	1.92	3	10	50	4
LNX2012	2.0	1.92	3	12	50	4
LNX2016	2.0	1.92	3	16	50	4
LNX2020	2.0	1.92	3	20	50	4
LNX2510	2.5	2.42	3	10	50	4
LNX2512	2.5	2.42	3	12	50	4
LNX2516	2.5	2.42	3	16	50	4
LNX2520	2.5	2.42	3	20	50	4
LNX3010	3.0	2.90	4	10	50	6
LNX3012	3.0	2.90	4	12	50	6
LNX3016	3.0	2.90	4	16	50	6
LNX3020	3.0	2.90	4	20	60	6
LNX3025	3.0	2.90	4	25	60	6

unit : mm

鋁用加工系列

SOFT MATERIALS CUTTING SERIES

ALUMINUM

AEW

彩虹立銑刀 END MILLS

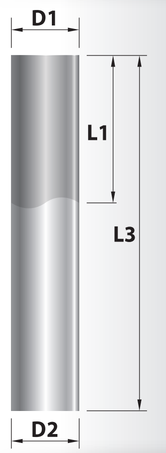
MG 0.6 μm Roughing 45° 3 Flutes

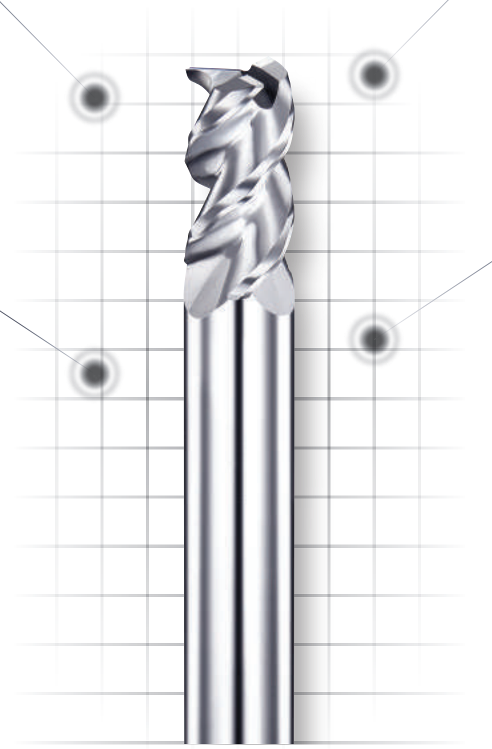
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2	柄徑公差值 D2 Tolerance
6.0	0/-0.02	Ø6	0/-0.008
8.0	0/-0.02	Ø8	0/-0.009
10.0	0/-0.02	Ø10	0/-0.009
12.0	0/-0.02	Ø12	0/-0.011
16.0	0/-0.03	Ø16	0/-0.011
20.0	0/-0.03	Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
AEW0603	6.0	16	50	6
AEW0803	8.0	20	60	8
AEW0803L	8.0	25	80	8
AEW1003	10.0	22	75	10
AEW1003L	10.0	30	80	10
AEW1203	12.0	26	75	12
AEW1203L	12.0	35	100	12
AEW1603	16.0	40	100	16
AEW1603L	16.0	50	120	16
AEW2003	20.0	45	100	20
AEW2003L	20.0	55	120	20

unit : mm

AEWR

彩虹圓鼻角立銑刀 END MILLS (CORNER RADIUS)

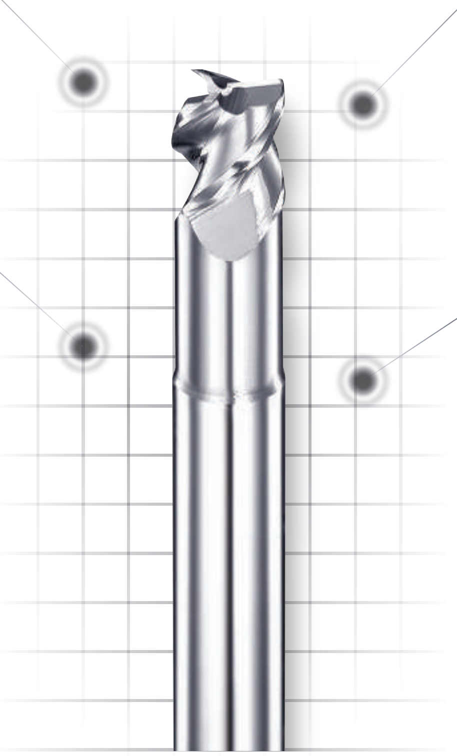
MG 0.6 μm Roughing 45° R 3 Flutes

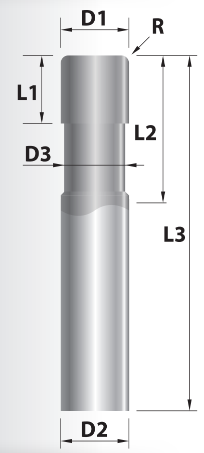
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	R公差值 R Tolerance	直徑公差值 D1 Tolerance	柄徑 D2	柄徑公差值 D2 Tolerance
6.0	+0.02/0	0/-0.02	Ø6	0/-0.008
8.0	+0.02/0	0/-0.02	Ø8	0/-0.009
10.0	+0.02/0	0/-0.02	Ø10	0/-0.009
12.0	+0.02/0	0/-0.02	Ø12	0/-0.011
16.0	+0.02/0	0/-0.03	Ø16	0/-0.011
20.0	+0.02/0	0/-0.03	Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
AEWR0605	6.0	5.8	0.5	8	18	50	6
AEWR0805	8.0	7.7	0.5	10	24	60	8
AEWR1005	10.0	9.6	0.5	12	30	75	10
AEWR1205	12.0	11.5	0.5	15	36	75	12
AEWR1610	16.0	15.5	1.0	24	40	120	16
AEWR2010	20.0	19.0	1.0	30	50	120	20

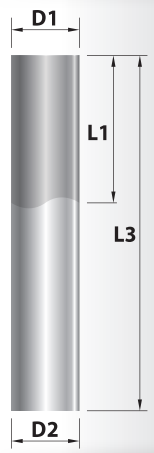
unit : mm

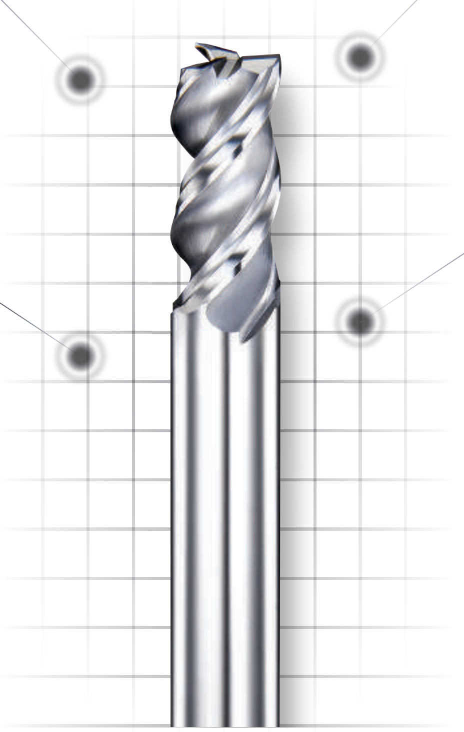
AES
高效能鋁用立銑刀 END MILLS

Super MG | 0.4 μm | 40° | 3 Flutes

切削性能 CUTTING PERFORMANCE
精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	$^{0}_{-0.02}$
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.02}$
10.0	$^{0}_{-0.02}$
12.0	$^{0}_{-0.02}$
16.0	$^{0}_{-0.03}$
20.0	$^{0}_{-0.03}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$
Ø20	$^{0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
AES0203S	2.0	6	50	4
AES0203	2.0	6	50	6
AES0303S	3.0	8	50	4
AES0303	3.0	8	50	6
AES0403S	4.0	11	50	4
AES0403	4.0	11	50	6
AES0503	5.0	13	50	6
AES0603	6.0	16	50	6
AES0603L	6.0	32	75	6
AES0803	8.0	20	60	8
AES0803L	8.0	45	100	8
AES1003	10.0	25	75	10
AES1003L	10.0	50	100	10
AES1203	12.0	30	75	12
AES1203L	12.0	55	100	12
AES1603	16.0	40	100	16
AES1603L	16.0	50	120	16
AES2003	20.0	45	100	20
AES2003L	20.0	60	120	20

unit : mm

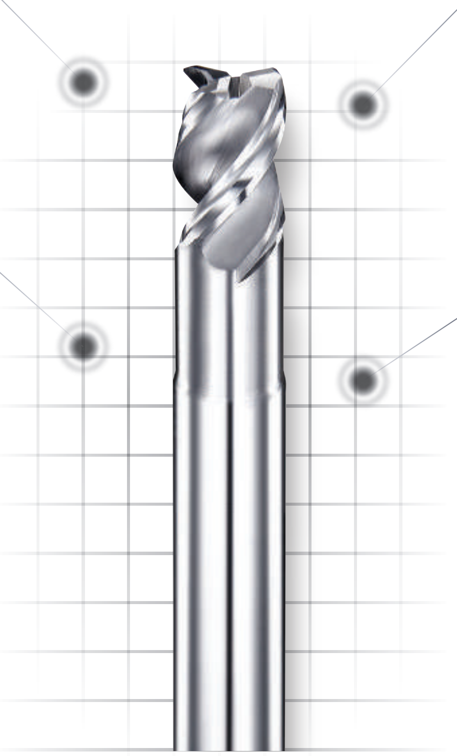
鋁用加工系列 SOFT MATERIALS CUTTING SERIES

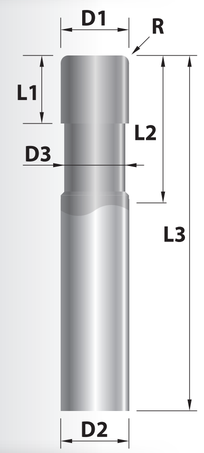
AESR
高效能鋁用圓鼻角立銑刀 END MILLS (CORNER RADIUS)

Super MG | 0.4 μm | 40° | R | 3 Flutes

冷卻性能 COOLANT TYPE
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE
精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
4.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
6.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
8.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
10.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
12.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
16.0	$^{+0.02}_{0}$	$^{0}_{-0.03}$
20.0	$^{+0.02}_{0}$	$^{0}_{-0.03}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$
Ø20	$^{0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
AESR0305	3.0	2.9	0.5	4.5	9	50	6
AESR0405	4.0	3.9	0.5	6.0	12	50	6
AESR0605	6.0	5.8	0.5	9.0	18	60	6
AESR0610	6.0	5.8	1.0	9.0	18	60	6
AESR0805	8.0	7.7	0.5	12.0	24	60	8
AESR0810	8.0	7.7	1.0	12.0	24	60	8
AESR1005	10.0	9.6	0.5	15.0	30	75	10
AESR1010	10.0	9.6	1.0	15.0	30	75	10
AESR1205	12.0	11.5	0.5	18.0	36	75	12
AESR1210	12.0	11.5	1.0	18.0	36	75	12
AESR1605	16.0	15.5	0.5	24.0	40	120	16
AESR1610	16.0	15.5	1.0	24.0	40	120	16
AESR1630	16.0	15.5	3.0	24.0	40	120	16
AESR2005	20.0	19.0	0.5	30.0	50	120	20
AESR2010	20.0	19.0	1.0	30.0	50	120	20
AESR2030	20.0	19.0	3.0	30.0	50	120	20

unit : mm

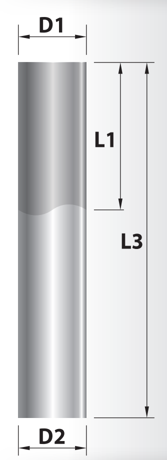
AEA 2T

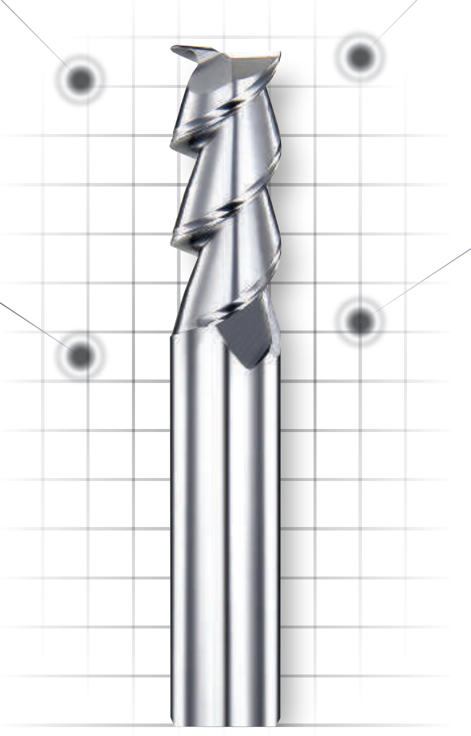
鋁用立銑刀
END MILLS

MG | 0.6 µm | 55° | 2 Flutes

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
0.5	$^{0}_{-0.02}$
1.0	$^{0}_{-0.02}$
1.5	$^{0}_{-0.02}$
2.0	$^{0}_{-0.02}$
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.02}$
10.0	$^{0}_{-0.02}$
12.0	$^{0}_{-0.02}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$^{0}_{-0.008}$
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
AEA0052	0.5	1.5	50	4
AEA0102	1.0	3	50	4
AEA0152	1.5	4	50	4
AEA0202	2.0	6	50	4
AEA0302	3.0	8	50	4
AEA0402	4.0	12	50	4
AEA0502	5.0	16	50	6
AEA0602	6.0	18	50	6
AEA0802	8.0	22	60	8
AEA1002	10.0	28	75	10
AEA1202	12.0	30	75	12

unit : mm

AEA 3T

鋁用立銑刀
END MILLS

MG | 0.6 µm | 45° | 3 Flutes

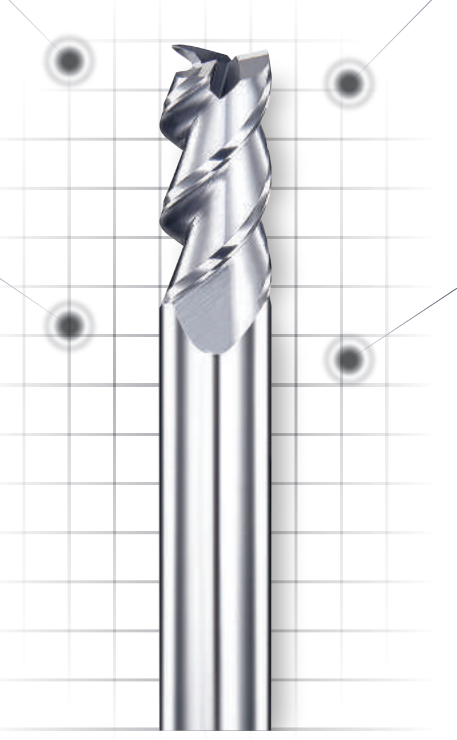
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

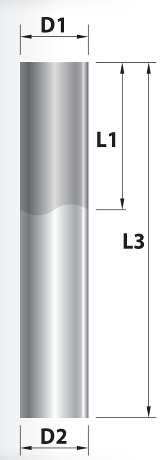
直徑 D1	直徑公差值 D1 Tolerance
2.0	$^{0}_{-0.02}$
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.02}$
10.0	$^{0}_{-0.02}$
12.0	$^{0}_{-0.02}$
16.0	$^{0}_{-0.03}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$



切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
AEA0203	2.0	6	50	6
AEA0303	3.0	10	50	6
AEA0403	4.0	12	50	6
AEA0503	5.0	16	50	6
AEA0603	6.0	18	50	6
AEA0803	8.0	20	60	8
AEA1003	10.0	25	75	10
AEA1203	12.0	30	75	12
AEA1603	16.0	40	100	16

unit : mm

DHF
Design . Honesty . Future

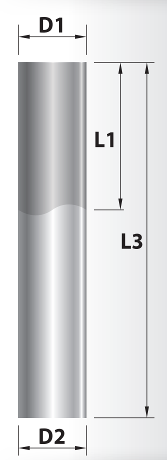
鋁用加工系列
SOFT MATERIALS CUTTING SERIES

AET 2T
鏡面鋁用立銑刀
END MILLS

MG | 0.6 μm | 45° | 2 Flutes

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
0.5	$^{0}_{-0.02}$
1.0	$^{0}_{-0.02}$
1.5	$^{0}_{-0.02}$
2.0	$^{0}_{-0.02}$
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.02}$
10.0	$^{0}_{-0.02}$
12.0	$^{0}_{-0.02}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$^{0}_{-0.008}$
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
AET0052	0.5	1.5	50	4
AET0102	1.0	3	50	6
AET0152	1.5	4	50	6
AET0202	2.0	6	50	6
AET0302	3.0	8	50	6
AET0402	4.0	11	50	6
AET0502	5.0	13	50	6
AET0602	6.0	16	50	6
AET0802	8.0	19	60	8
AET1002	10.0	25	75	10
AET1202	12.0	26	75	12

unit : mm

鋁用加工系列 SOFT MATERIALS CUTTING SERIES

AET 3T
鏡面鋁用立銑刀
END MILLS

鋁用加工系列
SOFT MATERIALS CUTTING SERIES

DHF
Design . Honesty . Future

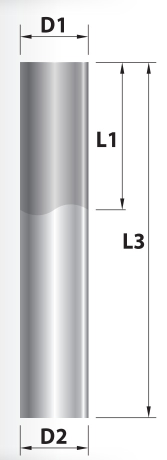
MG | 0.6 μm | 45° | 3 Flutes

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	$^{0}_{-0.02}$
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.02}$
10.0	$^{0}_{-0.02}$
12.0	$^{0}_{-0.02}$
16.0	$^{0}_{-0.03}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
AET0203	2.0	6	50	6
AET0303	3.0	10	50	6
AET0403	4.0	12	50	6
AET0503	5.0	16	60	6
AET0603	6.0	18	60	6
AET0803	8.0	20	60	8
AET1003	10.0	25	75	10
AET1203	12.0	30	75	12
AET1603	16.0	40	100	16

unit : mm

鋁用加工系列 SOFT MATERIALS CUTTING SERIES

BTC

鋁用圓頭立銑刀
BALL NOSE END MILLS

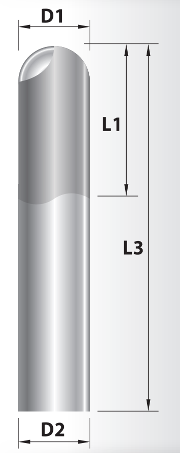
MG 0.6μm 25° 2 Flutes

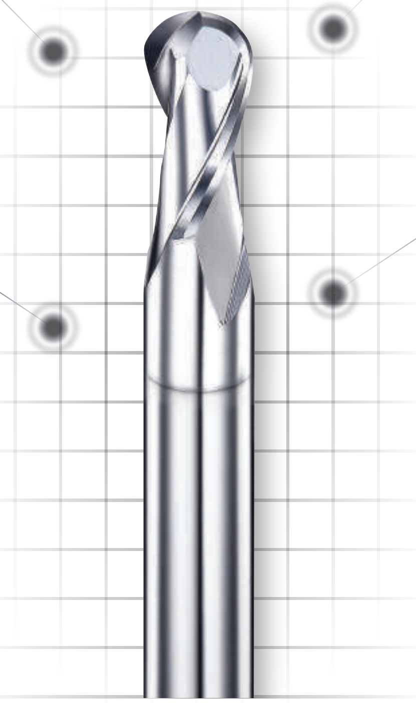
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTC0102	R0.5	2	50	4
BTC0152	R0.75	3	50	4
BTC0202	R1	4	50	4
BTC0302	R1.5	6	50	3
BTC0402	R2	8	50	4
BTC0602	R3	12	50	6
BTC0802	R4	16	60	8
BTC1002	R5	20	75	10
BTC1202	R6	24	75	12

unit : mm

鋁用加工系列
SOFT MATERIALS CUTTING SERIES
DHF DESIGN . HONESTY . FUTURE

HBC IBC JBC

鋁用圓頭立銑刀
BALL NOSE END MILLS

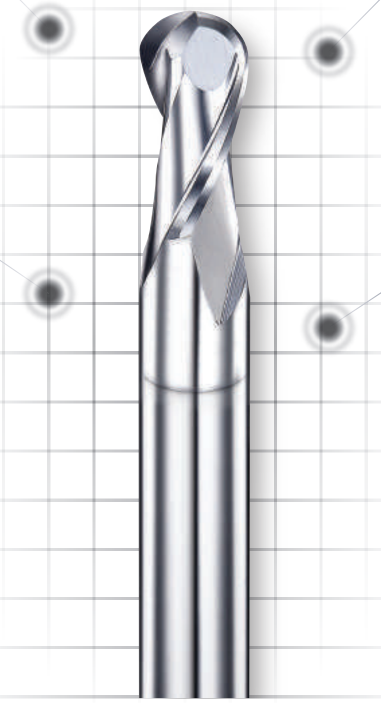
MG 0.6μm 25° 2 Flutes

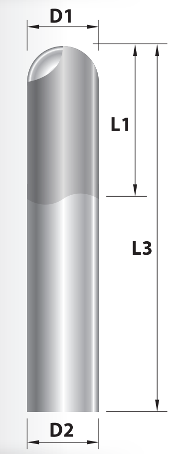
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HBC0402	R2	8	75	6
HBC0502	R2.5	10	75	6
HBC0602	R3	12	75	6
IBC0402	R2	8	100	6
IBC0602	R3	12	100	6
IBC0802	R4	16	100	8
IBC1002	R5	20	100	10
IBC1202	R6	24	100	12
JBC0602	R3	12	150	6
JBC0802	R4	16	150	8
JBC1002	R5	20	150	10
JBC1202	R6	24	150	12

unit : mm

鋁用加工系列 SOFT MATERIALS CUTTING SERIES

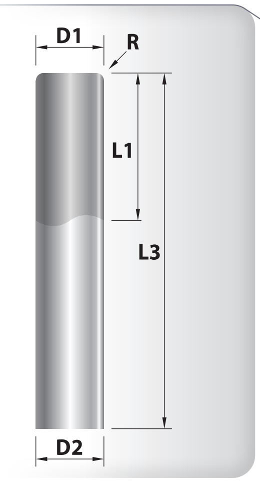
AER

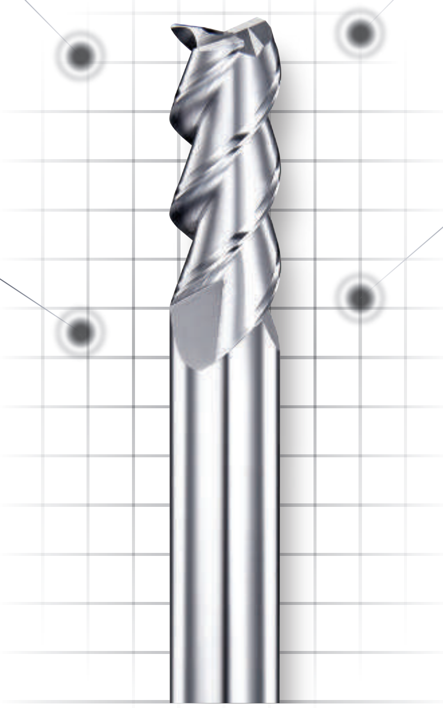
鋁用圓鼻角立銑刀
END MILLS (CORNER RADIUS)

MG 0.6 μm 45° R 3 Flutes

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
2.0	+0.02 / 0	0 / -0.02
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.02
10.0	+0.02 / 0	0 / -0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
AER0202	2.0	0.2	6	50	6
AER0302	3.0	0.2	10	50	6
AER0402	4.0	0.2	12	50	6
AER0603	6.0	0.3	18	50	6
AER0805	8.0	0.5	20	60	8
AER1005	10.0	0.5	30	75	10

unit : mm

標準系列 STANDARD SERIES

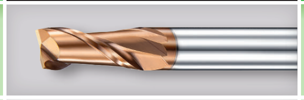
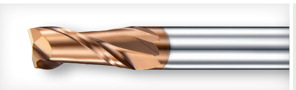
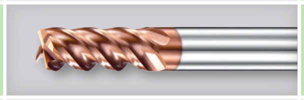
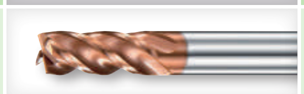
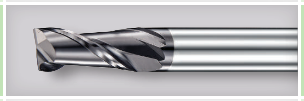
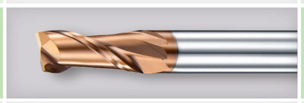
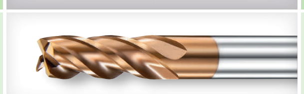
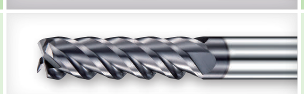
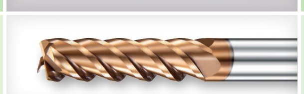
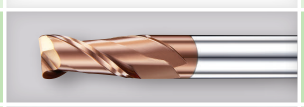
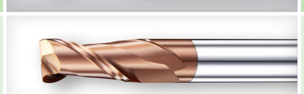
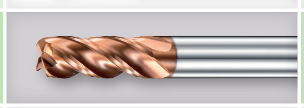
STANDARD SERIES

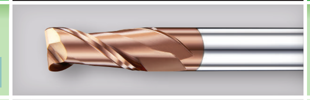
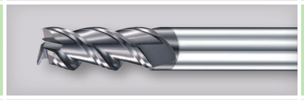
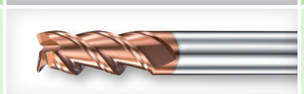
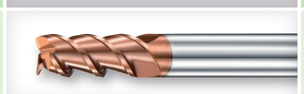
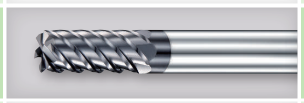
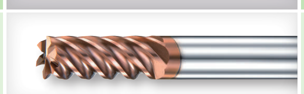
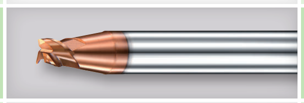
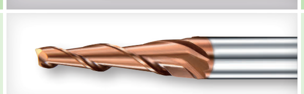
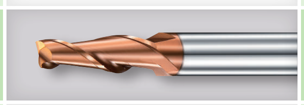
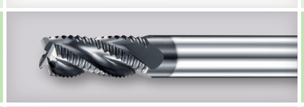
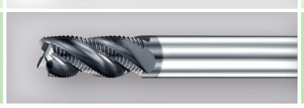
標準系列

主要應用於55HRc以下之鋼材，滿足廣泛的切削需求。
Good with the work material below 55HRc. Fulfill every basic demand of milling.

Index
目錄

Index
目錄

型號/頁碼 Type No. & Page	產品照片 Product Picture	鑄鐵 Cast Iron	碳鋼 Carbon Steels	合金鋼 工具鋼 Alloy Steels, Tool Steels	調質鋼 Prehardened Steels	不鏽鋼 Stainless Steels	鋼 Steels 30~45HRc	鋼 Steels 45~52HRc	熱處理鋼 Hardened Steels 52~55HRc
ETH^{2T} P.168		★★★	★★★	★★★	★★★	★★	★★★	★	-----
HEH IEH JEH^{2T} P.169		★★★	★★★	★★★	★★★	★★	★★★	★	-----
ETH^{4T} P.170		-----	★★★	★★★	★★★	★★	★★★	★★	★
HEH IEH JEH^{4T} P.171		★★★	★★★	★★★	★★★	★★	★★★	★	★
ETB^{2T} P.172		★★★	★★★	★★★	★★★	★★	★★★	★	-----
ETB^{4T} P.173		-----	★★★	★★★	★★★	★★	★★★	★★	★
ETD^{2T} P.174		★★★	★★★	★★★	★★★	★★	★★★	★	-----
ETD^{4T} P.175		★★★	★★★	★★★	★★★	★★	★★★	★	★
LFTA^{2T} P.176		★★★	★★★	★★★	★★★	★	★★★	-----	-----
LFTA^{4T} P.177		-----	★★★	★★★	★★★	★★	★★★	★★	★
LFTH^{2T} P.178		★★★	★★★	★★★	★★★	★★	★★	★	-----
LFTH^{4T} P.179		-----	★★★	★★★	★★★	★★★	★★	★	-----
RTA P.180		★★★	★★★	★★★	★★★	★★	★★	★	-----
LRTA P.181		★★★	★★★	★★★	★★★	★★	★★	★	-----
RTD P.182		★★★	★★★	★★★	★★★	★★	★★	★	-----
LRTD P.183		★★★	★★★	★★★	★★★	★★	★★	★	-----

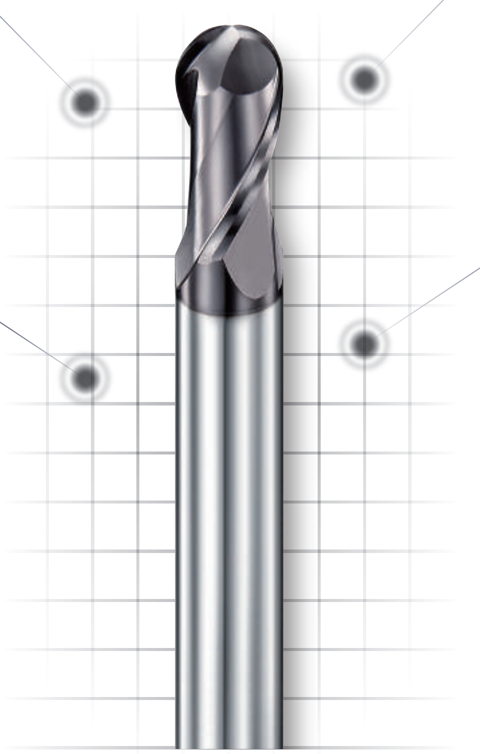
型號/頁碼 Type No. & Page	產品照片 Product Picture	鑄鐵 Cast Iron	碳鋼 Carbon Steels	合金鋼 工具鋼 Alloy Steels, Tool Steels	調質鋼 Prehardened Steels	不鏽鋼 Stainless Steels	鋼 Steels 30~45HRc	鋼 Steels 45~52HRc	熱處理鋼 Hardened Steels 52~55HRc
RTG P.184		★★★	★★★	★★★	★★★	★★	★★	★	-----
RTB P.185		-----	★★★	★★★	★★★	★★★	★★	★	-----
HTA P.186		-----	★★★	★★★	★★★	★★	★★	★	-----
HTD P.187		-----	★★★	★★★	★★★	★★	★★	★	-----
ITA P.188		-----	★★★	★★★	★★★	★★	★★	★	-----
ITH P.189		-----	★★★	★★★	★★★	★★	★★	★	-----
VTA P.190		-----	★★★	★★★	★★★	★★	★★	★★	★
VTB P.191		-----	★★★	★★★	★★★	★★★	★★★	★★	★
PET P.192		-----	★★★	★★★	★★★	★★	★★★	★	-----
TTA P.193		★★★	★★★	★★★	★★★	★★	★★	★	-----
TA P.194-195		★★★	★★★	★★★	★★★	★★	★★	★	★
WUA^{3T} P.196		★★★	★★★	★★★	★★★	★★	★★	-----	-----
WUA^{4T} P.197		★★★	★★★	★★★	★★★	★★	★★	-----	-----
WWA^{3T} P.198		★★	★★★	★★★	★★★	★★★	★★★	★	-----
WWA^{4T} P.199		★★	★★★	★★★	★★★	★★★	★★★	★	-----

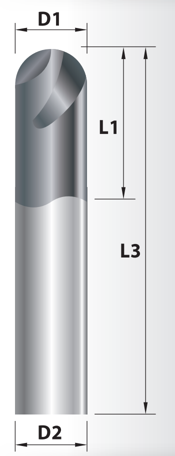
BTA 2T
超微粒圓頭立銑刀
BALL NOSE END MILLS

MG 0.6 µm 30° 2 Flutes HRc ▸55 T1

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.25	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02
R10	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTA0102	R0.5	2	50	4
BTA0152	R0.75	3	50	4
BTA0202	R1	4	50	4
BTA0252	R1.25	5	50	4
BTA0302	R1.5	6	50	4
BTA0402	R2	8	50	4
BTA0502	R2.5	10	50	6
BTA0602	R3	12	50	6
BTA0802	R4	16	60	8
BTA1002	R5	20	75	10
BTA1202	R6	24	75	12
BTA1602	R8	32	100	16
BTA2002	R10	40	100	20

unit : mm

HBA IBA JBA
超微粒長柄圓頭立銑刀
BALL NOSE END MILLS (LONG SHANK)

標準系列
STANDARD SERIES
DHF Design . Honesty . Future

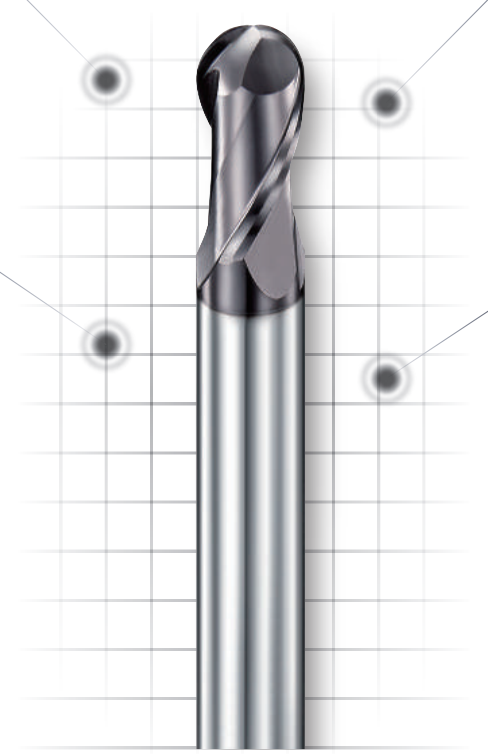
MG 0.6 µm 30° 2 Flutes HRc ▸55 T1

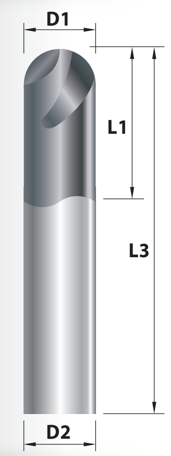
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.25	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HBA0202	R1	4	75	6
HBA0252	R1.25	5	75	6
HBA0302	R1.5	6	75	6
HBA0402	R2	8	75	6
HBA0502	R2.5	10	75	6
HBA0602	R3	12	75	6
HBA0802	R4	16	75	8
IBA0202	R1	4	100	6
IBA0302	R1.5	6	100	6
IBA0402	R2	8	100	6
IBA0602	R3	12	100	6
IBA0802	R4	16	100	8
IBA1002	R5	20	100	10
IBA1202	R6	24	100	12
JBA0602	R3	12	150	6
JBA0802	R4	16	150	8
JBA1002	R5	20	150	10
JBA1202	R6	24	150	12
JBA1602	R8	32	150	16

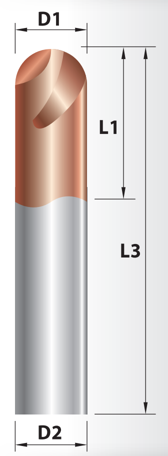
unit : mm

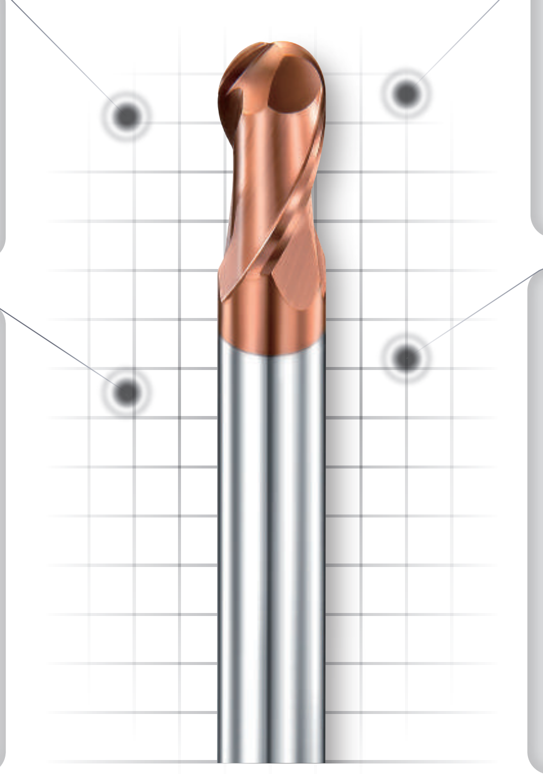
BTH 2T
超微粒圓頭立銑刀
BALL NOSE END MILLS

MG | 0.6 μm | 30° | 2 Flutes | HRc ▸55 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.25	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02
R10	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTH0102	R0.5	2	50	6
BTH0152	R0.75	3	50	6
BTH0202	R1	4	50	6
BTH0252	R1.25	5	50	6
BTH0302	R1.5	6	50	6
BTH0402	R2	8	50	6
BTH0502	R2.5	10	50	6
BTH0602	R3	12	50	6
BTH0802	R4	16	60	8
BTH1002	R5	20	75	10
BTH1202	R6	24	75	12
BTH1602	R8	32	100	16
BTH2002	R10	40	100	20

unit : mm

HBH IBH JBH
超微粒長柄圓頭立銑刀
BALL NOSE END MILLS (LONG SHANK)

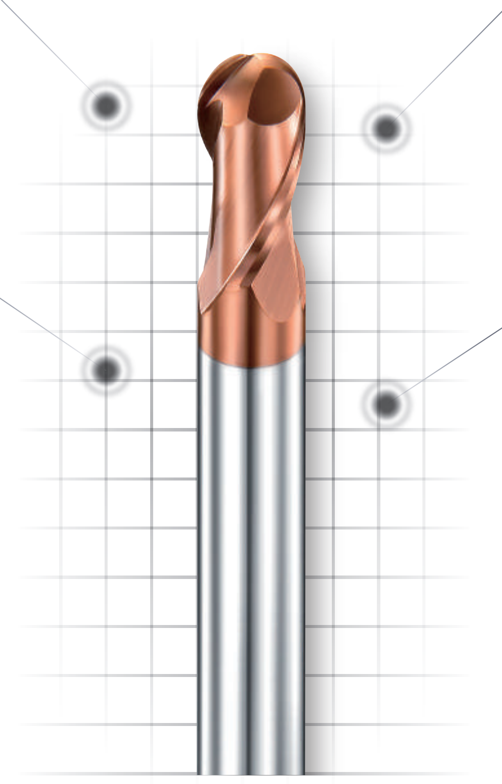
MG | 0.6 μm | 30° | 2 Flutes | HRc ▸55 | G10

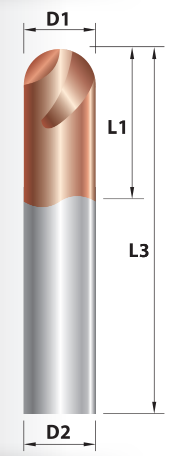
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.25	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HBH0202	R1	4	75	6
HBH0252	R1.25	5	75	6
HBH0302	R1.5	6	75	6
HBH0402	R2	8	75	6
HBH0502	R2.5	10	75	6
HBH0602	R3	12	75	6
HBH0802	R4	16	75	8
IBH0202	R1	4	100	6
IBH0302	R1.5	6	100	6
IBH0402	R2	8	100	6
IBH0602	R3	12	100	6
IBH0802	R4	16	100	8
IBH1002	R5	20	100	10
IBH1202	R6	24	100	12
JBH0602	R3	12	150	6
JBH0802	R4	16	150	8
JBH1002	R5	20	150	10
JBH1202	R6	24	150	12
JBH1602	R8	32	150	16

unit : mm

BTB 2T

超微粒圓頭立銑刀 BALL NOSE END MILLS

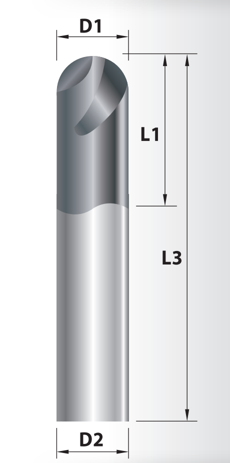
MG | 0.6 μm | 30° | 2 Flutes | HRc ▸55 | T2

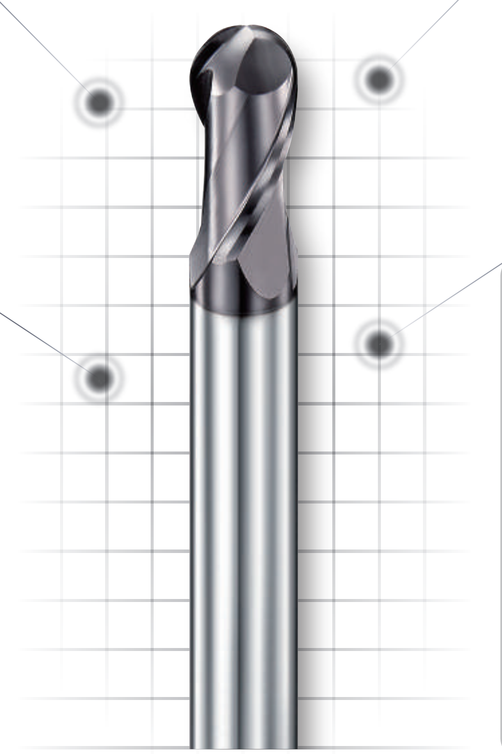
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.25	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02
R10	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTB0102	R0.5	2	50	6
BTB0152	R0.75	3	50	6
BTB0202	R1	4	50	6
BTB0252	R1.25	5	50	6
BTB0302	R1.5	6	50	6
BTB0402	R2	8	50	6
BTB0502	R2.5	10	50	6
BTB0602	R3	12	50	6
BTB0802	R4	16	60	8
BTB1002	R5	20	75	10
BTB1202	R6	24	75	12
BTB1602	R8	32	100	16
BTB2002	R10	40	100	20

unit : mm

BTB 4T

超微粒圓頭立銑刀 BALL NOSE END MILLS

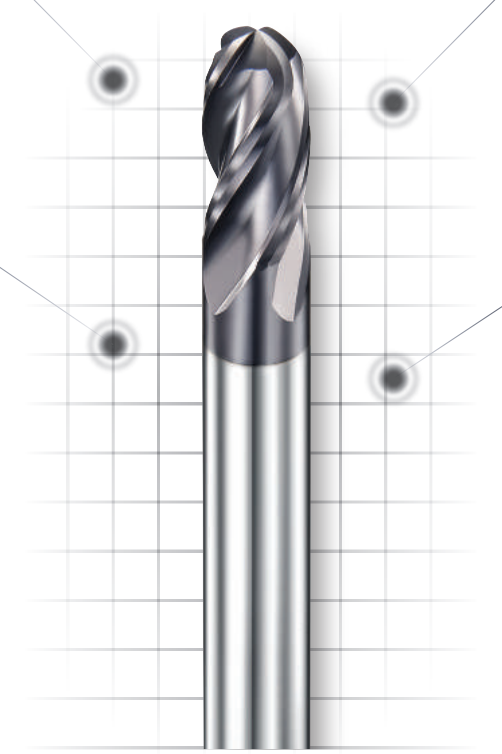
MG | 0.6 μm | 30° | 4 Flutes | HRc ▸60 | T2

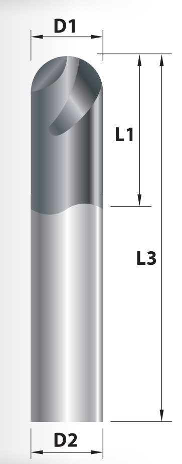
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

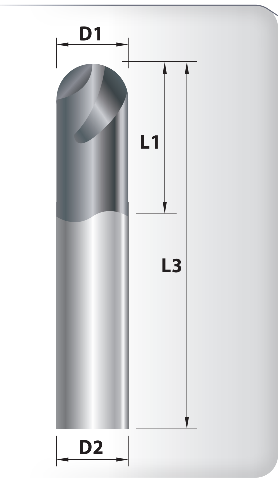
型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTB0204	R1	4	50	6
BTB0304	R1.5	6	50	6
BTB0404	R2	8	50	6
BTB0504	R2.5	10	50	6
BTB0604	R3	12	50	6
BTB0804	R4	16	60	8
BTB1004	R5	20	75	10
BTB1204	R6	24	75	12
BTB1604	R8	32	100	16

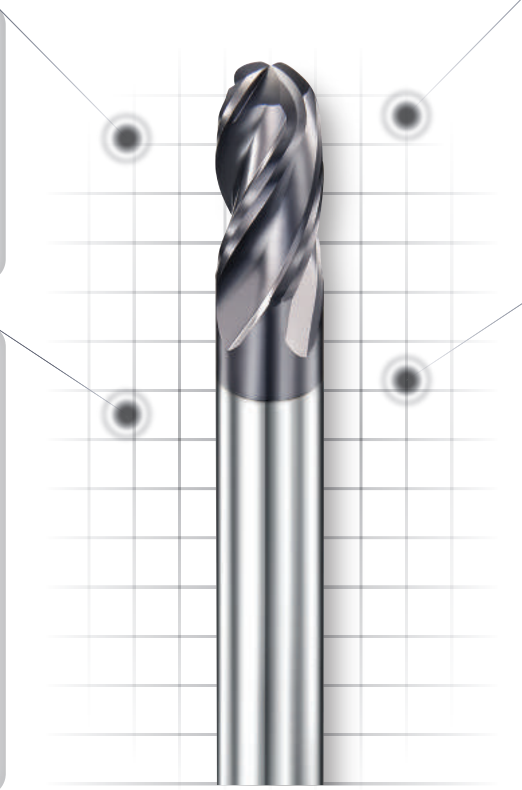
unit : mm

BTA4T
超微粒圓頭立銑刀
BALL NOSE END MILLS

MG | 0.6 μm | 30° | 4 Flutes | HRc ▸55 | T1

切削性能 CUTTING PERFORMANCE
- 精銑 Finishing
- 中銑 Semi-finishing
- 粗銑 Roughing





冷卻性能 COOLANT TYPE
- 乾式切削 Dry Machining
- 油霧切削 MQL(Mist)
- 水溶性切削 Emulsion Machining
- 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTA0104	R0.5	2	50	4
BTA0154	R0.75	3	50	4
BTA0204	R1	4	50	4
BTA0304	R1.5	6	50	4
BTA0404	R2	8	50	4
BTA0504	R2.5	10	50	6
BTA0604	R3	12	50	6
BTA0804	R4	16	60	8
BTA1004	R5	20	75	10
BTA1204	R6	24	75	12
BTA1604	R8	32	100	16

unit : mm

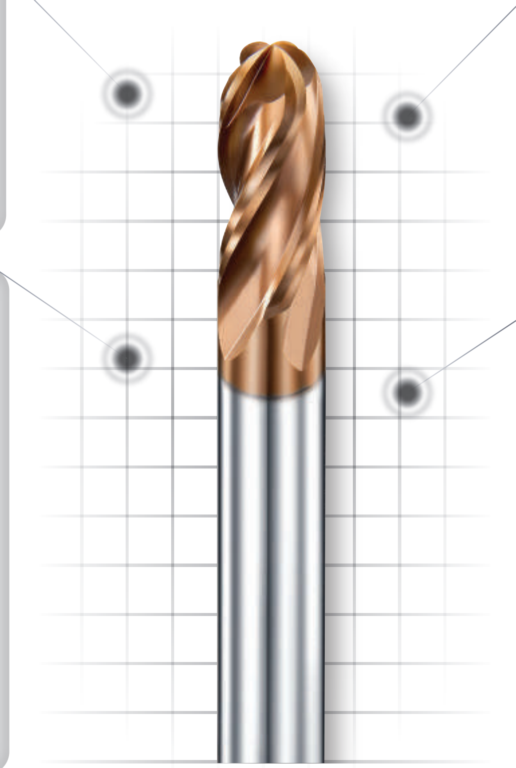
BTH4T
超微粒圓頭立銑刀
BALL NOSE END MILLS

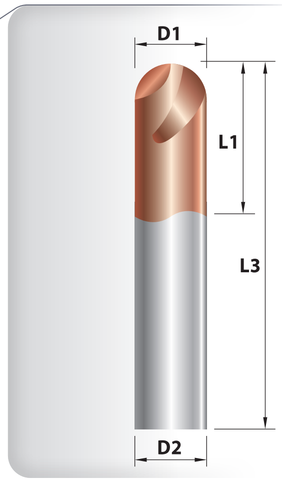
標準系列
STANDARD SERIES
DHF DESIGN . HONESTY . FUTURE

MG | 0.6 μm | 30° | 4 Flutes | HRc ▸60 | G10

冷卻性能 COOLANT TYPE
- 乾式切削 Dry Machining
- 油霧切削 MQL(Mist)
- 水溶性切削 Emulsion Machining
- 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE
- 精銑 Finishing
- 中銑 Semi-finishing
- 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTH0204	R1	4	50	6
BTH0304	R1.5	6	50	6
BTH0404	R2	8	50	6
BTH0504	R2.5	10	50	6
BTH0604	R3	12	50	6
BTH0804	R4	16	60	8
BTH1004	R5	20	75	10
BTH1204	R6	24	75	12
BTH1604	R8	32	100	16

unit : mm

標準系列 STANDARD SERIES

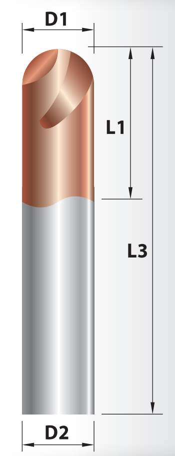
BTD 2T

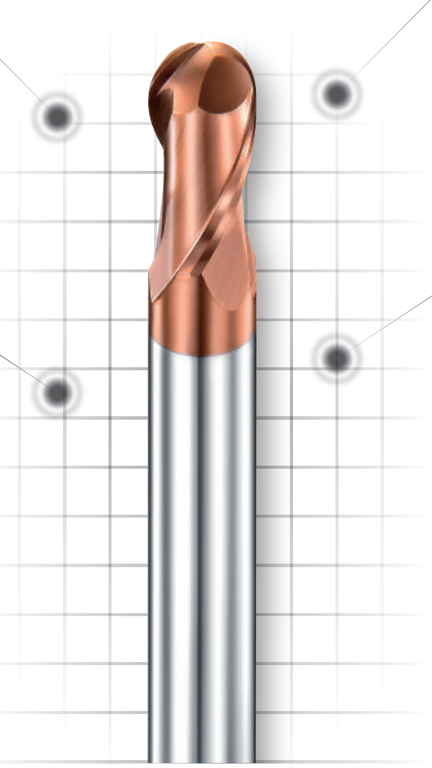
超微粒圓頭立銑刀
BALL NOSE END MILLS

MG | 0.6 µm | 30° | 2 Flutes | HRc ▸55 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.25	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02
R10	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTD0102	R0.5	2	50	4
BTD0152	R0.75	3	50	4
BTD0202	R1	4	50	4
BTD0252	R1.25	5	50	4
BTD0302	R1.5	6	50	4
BTD0402	R2	8	50	4
BTD0502	R2.5	10	57	6
BTD0602	R3	12	57	6
BTD0802	R4	16	63	8
BTD1002	R5	20	72	10
BTD1202	R6	24	83	12
BTD1602	R8	32	100	16
BTD2002	R10	40	100	20

unit : mm

ETG 2T

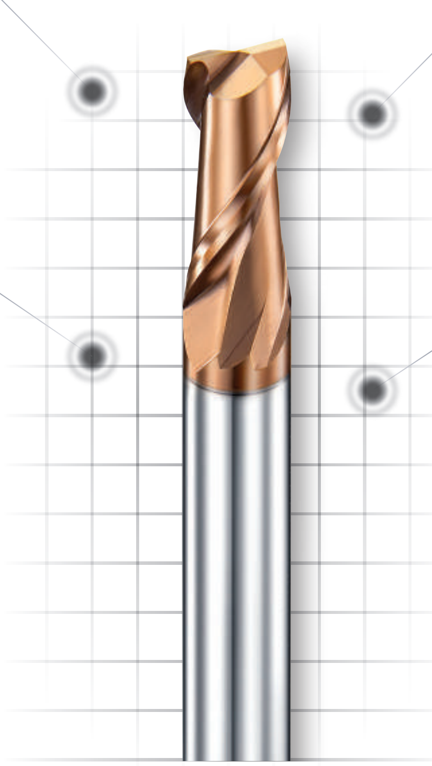
超微粒立銑刀
END MILLS

標準系列
STANDARD SERIES
DHF Design . Honesty . Future

MG | 0.6 µm | 35° | 2 Flutes | HRc ▸55 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



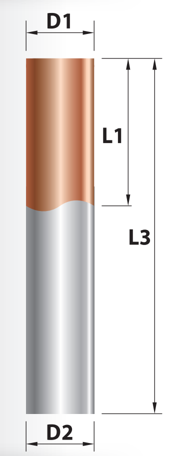
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0 / -0.02
1.5	0 / -0.02
2.0	0 / -0.02
2.5	0 / -0.02
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETG0102	1.0	3	50	4
ETG0152	1.5	4	50	4
ETG0202	2.0	6	50	4
ETG0252	2.5	8	50	4
ETG0302	3.0	8	50	4
ETG0402	4.0	11	50	4
ETG0502	5.0	13	50	6
ETG0602	6.0	16	50	6
ETG0802	8.0	20	60	8
ETG1002	10.0	25	75	10
ETG1202	12.0	30	75	12

unit : mm

DHF
Design . Honesty . Future

標準系列
STANDARD SERIES

MG | 0.6 μm | 30° | 4 Flutes | HRc ▸55 | G10

BTD 4T

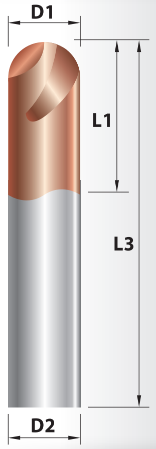
超微粒圓頭立銑刀
BALL NOSE END MILLS

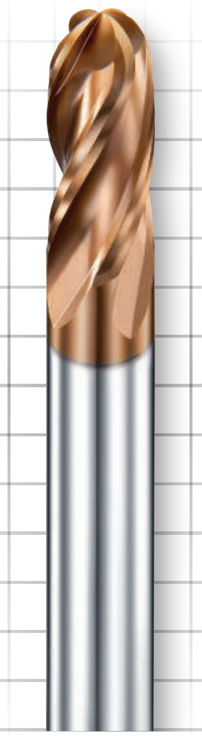
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$^{0}_{-0.008}$
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTD0104	R0.5	2	50	4
BTD0154	R0.75	3	50	4
BTD0204	R1	4	50	4
BTD0304	R1.5	6	50	4
BTD0404	R2	8	50	4
BTD0504	R2.5	10	57	6
BTD0604	R3	12	57	6
BTD0804	R4	16	63	8
BTD1004	R5	20	72	10
BTD1204	R6	24	83	12
BTD1604	R8	32	100	16

unit : mm

標準系列 STANDARD SERIES

ETG 4T

超微粒立銑刀
END MILLS

標準系列
STANDARD SERIES

DHF
Design . Honesty . Future

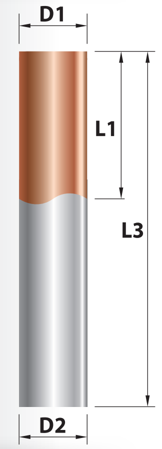
MG | 0.6 μm | 35° | 4 Flutes | HRc ▸55 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	$^{0}_{-0.02}$
1.5	$^{0}_{-0.02}$
2.0	$^{0}_{-0.02}$
2.5	$^{0}_{-0.02}$
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.025}$
10.0	$^{0}_{-0.03}$
12.0	$^{0}_{-0.035}$
16.0	$^{0}_{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$^{0}_{-0.008}$
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETG0104	1.0	3	50	4
ETG0154	1.5	4	50	4
ETG0204	2.0	6	50	4
ETG0254	2.5	8	50	4
ETG0304	3.0	8	50	4
ETG0404	4.0	11	50	4
ETG0504	5.0	13	50	6
ETG0604	6.0	16	50	6
ETG0804	8.0	20	60	8
ETG1004	10.0	25	75	10
ETG1204	12.0	30	75	12
ETG1604	16.0	40	100	16

unit : mm

標準系列 STANDARD SERIES

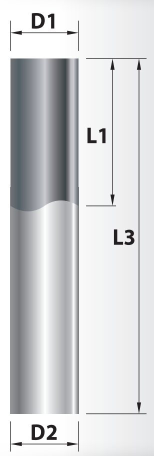
ETA 2T

超微粒立銑刀
END MILLS

MG | 0.6 µm | 35° | 2 Flutes | HRc ▸55 | T1

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0 / -0.02
1.5	0 / -0.02
2.0	0 / -0.02
2.5	0 / -0.02
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETA0102	1.0	3	50	4
ETA0152	1.5	4	50	4
ETA0202	2.0	6	50	4
ETA0252	2.5	8	50	4
ETA0302S	3.0	8	50	3
ETA0302	3.0	8	50	4
ETA0402	4.0	11	50	4
ETA0502S	5.0	13	50	5
ETA0502	5.0	13	50	6
ETA0602	6.0	16	50	6
ETA0802	8.0	20	60	8
ETA1002	10.0	25	75	10
ETA1202	12.0	30	75	12
ETA1602	16.0	40	100	16
ETA2002	20.0	45	100	20

unit : mm

HEA IEA JEA 2T

超微粒長柄立銑刀
END MILLS (LONG SHANK)

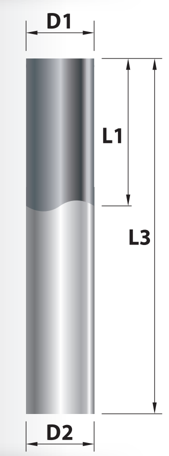
MG | 0.6 µm | 35° | 2 Flutes | HRc ▸55 | T1

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HEA0302	3.0	8	75	3
HEA0402	4.0	11	75	4
HEA0502	5.0	13	75	6
HEA0602	6.0	16	75	6
HEA0802	8.0	20	75	8
IEA0302	3.0	8	100	3
IEA0402	4.0	11	100	4
IEA0502	5.0	13	100	6
IEA0602	6.0	16	100	6
IEA0802	8.0	20	100	8
IEA1002	10.0	25	100	10
IEA1202	12.0	30	100	12
JEA0602	6.0	16	150	6
JEA0802	8.0	20	150	8
JEA1002	10.0	25	150	10
JEA1202	12.0	30	150	12

unit : mm

ETA 4T
超微粒立銑刀
END MILLS

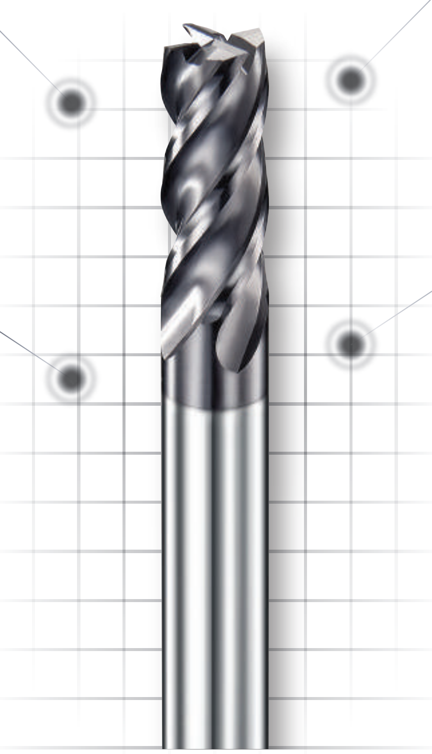
MG | 0.6 µm | 35° | 4 Flutes | HRc ▸55 | T1

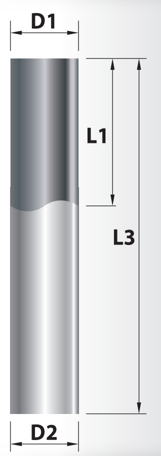
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0/-0.02
1.5	0/-0.02
2.0	0/-0.02
2.5	0/-0.02
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0/-0.006
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETA0104	1.0	3	50	4
ETA0154	1.5	4	50	4
ETA0204	2.0	6	50	4
ETA0254	2.5	8	50	4
ETA0304S	3.0	8	50	3
ETA0304	3.0	8	50	4
ETA0404	4.0	11	50	4
ETA0504S	5.0	13	50	5
ETA0504	5.0	13	50	6
ETA0604	6.0	16	50	6
ETA0804	8.0	20	60	8
ETA1004	10.0	25	75	10
ETA1204	12.0	30	75	12
ETA1604	16.0	40	100	16
ETA2004	20.0	45	100	20

unit : mm

HEA IEA JEA 4T
超微粒長柄立銑刀
END MILLS (LONG SHANK)

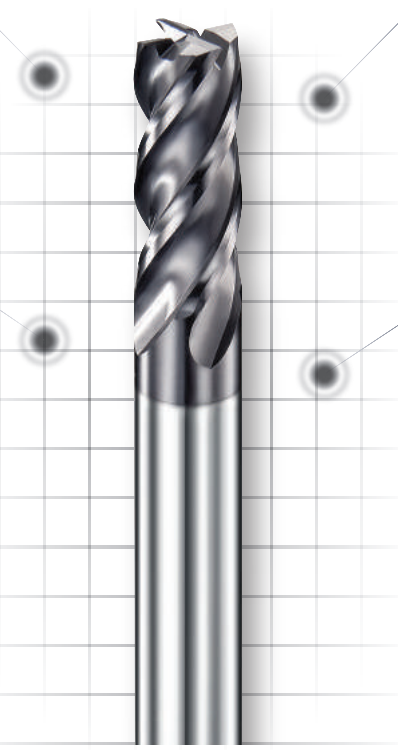
MG | 0.6 µm | 35° | 4 Flutes | HRc ▸55 | T1

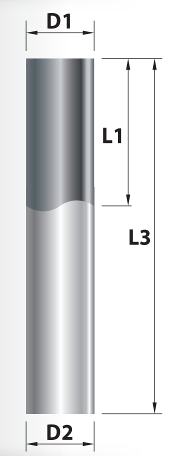
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0/-0.006
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HEA0304	3.0	8	75	3
HEA0404	4.0	11	75	4
HEA0504	5.0	13	75	6
HEA0604	6.0	16	75	6
HEA0804	8.0	20	75	8
IEA0404	4.0	11	100	4
IEA0604	6.0	16	100	6
IEA0804	8.0	20	100	8
IEA1004	10.0	25	100	10
IEA1204	12.0	30	100	12
JEA0604	6.0	16	150	6
JEA0804	8.0	20	150	8
JEA1004	10.0	25	150	10
JEA1204	12.0	30	150	12
JEA1604	16.0	45	150	16
JEA2004	20.0	50	150	20

unit : mm

ETH 2T

極超微粒立銑刀
END MILLS

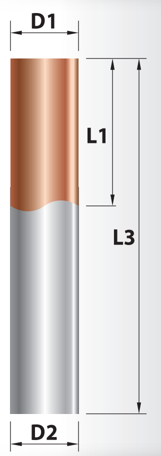
Super MG | 0.4 μm | 35° | 2 Flutes | HRc >60 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2	柄徑公差值 D2 Tolerance
1.0~6.0	0 / -0.02	Ø6	0 / -0.008
6.5~8.0	0 / -0.025	Ø8	0 / -0.009
8.5~10.0	0 / -0.03	Ø10	0 / -0.009
10.5~12.0	0 / -0.035	Ø12	0 / -0.011
12.5~20.0	0 / -0.04	Ø16	0 / -0.011
		Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETH0102	1.0	3	50	6
ETH0152	1.5	4	50	6
ETH0202	2.0	6	50	6
ETH0252	2.5	8	50	6
ETH0302	3.0	8	50	6
ETH0352	3.5	10	50	6
ETH0402	4.0	11	50	6
ETH0452	4.5	13	50	6
ETH0502	5.0	13	50	6
ETH0552	5.5	13	50	6
ETH0602	6.0	16	50	6
ETH0652	6.5	16	60	8
ETH0702	7.0	16	60	8
ETH0752	7.5	19	60	8
ETH0802	8.0	20	60	8
ETH0852	8.5	20	75	10
ETH0902	9.0	22	75	10
ETH0952	9.5	25	75	10
ETH1002	10.0	30	75	10
ETH1052	10.5	25	75	12

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETH1102	11.0	28	75	12
ETH1152	11.5	30	75	12
ETH1202	12.0	30	75	12
ETH1252	12.5	30	80	14
ETH1302	13.0	35	80	14
ETH1352	13.5	35	80	14
ETH1402	14.0	40	80	14
ETH1502	15.0	40	100	16
ETH1602	16.0	40	100	16
ETH1702	17.0	45	100	18
ETH1802	18.0	45	100	18
ETH2002	20.0	45	100	20

unit : mm

HEH IEH JEH 2T

超微粒長柄立銑刀
END MILLS (LONG SHANK)

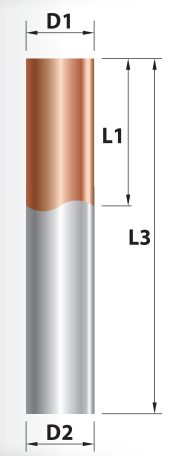
MG | 0.6 μm | 35° | 2 Flutes | HRc >55 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2	柄徑公差值 D2 Tolerance
3.0	0 / -0.02	Ø3	0 / -0.006
4.0	0 / -0.02	Ø4	0 / -0.008
5.0	0 / -0.02	Ø6	0 / -0.008
6.0	0 / -0.02	Ø8	0 / -0.009
8.0	0 / -0.025	Ø10	0 / -0.009
10.0	0 / -0.03	Ø12	0 / -0.011
12.0	0 / -0.035		

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HEH0302	3.0	8	75	3
HEH0402	4.0	11	75	4
HEH0502	5.0	13	75	6
HEH0602	6.0	16	75	6
HEH0802	8.0	20	75	8
IEH0302	3.0	8	100	3
IEH0402	4.0	11	100	4
IEH0502	5.0	13	100	6
IEH0602	6.0	16	100	6
IEH0802	8.0	20	100	8
IEH1002	10.0	25	100	10
IEH1202	12.0	30	100	12
JEH0602	6.0	16	150	6
JEH0802	8.0	20	150	8
JEH1002	10.0	25	150	10
JEH1202	12.0	30	150	12

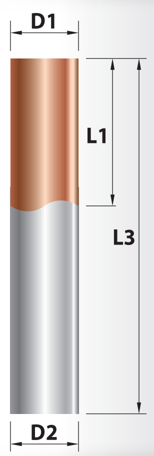
unit : mm

ETH 4T
極超微粒立銑刀
END MILLS

Super MG | 0.4 μm | 45° | 4 Flutes | HRc ▸60 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0~6.0	0 / -0.02
6.5~8.0	0 / -0.025
8.5~10.0	0 / -0.03
10.5~12.0	0 / -0.035
12.5~20.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETH0104	1.0	3	50	4
ETH0154	1.5	4	50	4
ETH0204	2.0	6	50	4
ETH0254	2.5	8	50	4
ETH0304S	3.0	8	50	3
ETH0304	3.0	8	50	4
ETH0354	3.5	10	50	4
ETH0404	4.0	11	50	4
ETH0454	4.5	13	50	6
ETH0504S	5.0	13	50	5
ETH0504	5.0	13	50	6
ETH0554	5.5	13	50	6
ETH0604	6.0	16	50	6
ETH0654	6.5	16	60	8
ETH0704	7.0	16	60	8
ETH0754	7.5	19	60	8
ETH0804	8.0	20	60	8
ETH0854	8.5	20	75	10
ETH0904	9.0	22	75	10
ETH0954	9.5	25	75	10
ETH1004	10.0	30	75	10
ETH1054	10.5	25	75	12
ETH1104	11.0	28	75	12
ETH1154	11.5	30	75	12
ETH1204	12.0	30	75	12
ETH1254	12.5	30	80	14
ETH1304	13.0	35	80	14
ETH1354	13.5	35	80	14
ETH1404	14.0	40	80	14
ETH1504	15.0	40	100	16
ETH1604	16.0	40	100	16
ETH1704	17.0	45	100	18
ETH1804	18.0	45	100	18
ETH2004	20.0	45	100	20

unit : mm

HEH IEH JEH 4T
超微粒長柄立銑刀
END MILLS (LONG SHANK)

MG | 0.6 μm | 35° | 4 Flutes | HRc ▸55 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

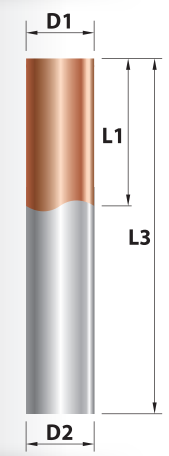
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HEH0304	3.0	8	75	3
HEH0404	4.0	11	75	4
HEH0504	5.0	13	75	6
HEH0604	6.0	16	75	6
HEH0804	8.0	20	75	8
IEH0404	4.0	11	100	4
IEH0604	6.0	16	100	6
IEH0804	8.0	20	100	8
IEH1004	10.0	25	100	10
IEH1204	12.0	30	100	12
JEH0604	6.0	16	150	6
JEH0804	8.0	20	150	8
JEH1004	10.0	25	150	10
JEH1204	12.0	30	150	12
JEH1604	16.0	45	150	16
JEH2004	20.0	50	150	20

unit : mm

標準系列 STANDARD SERIES

DHF
DESIGN . HONESTY . FUTURE

標準系列
STANDARD SERIES

ETB 2T

極超微粒立銑刀
END MILLS

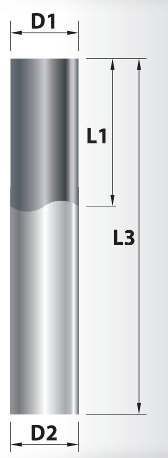
Super MG | 0.4 μm | 35° | 2 Flutes | HRc ▸60 | T2

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0/-0.02
1.5	0/-0.02
2.0	0/-0.02
2.5	0/-0.02
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETB0102	1.0	3	50	6
ETB0152	1.5	4	50	6
ETB0202	2.0	6	50	6
ETB0252	2.5	8	50	6
ETB0302	3.0	8	50	6
ETB0402	4.0	11	50	6
ETB0502	5.0	13	50	6
ETB0602	6.0	16	50	6
ETB0802	8.0	20	60	8
ETB1002	10.0	30	75	10
ETB1202	12.0	30	75	12
ETB1602	16.0	40	100	16
ETB2002	20.0	45	100	20

unit : mm

標準系列 STANDARD SERIES

ETB 4T

極超微粒立銑刀
END MILLS

標準系列
STANDARD SERIES

DHF
DESIGN . HONESTY . FUTURE

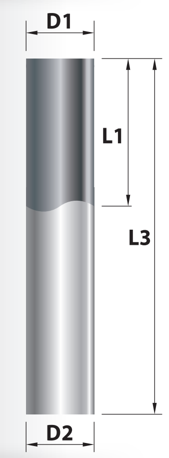
Super MG | 0.4 μm | 45° | 4 Flutes | HRc ▸60 | T2

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0/-0.02
1.5	0/-0.02
2.0	0/-0.02
2.5	0/-0.02
3.0	0/-0.02
3.5	0/-0.02
4.0	0/-0.02
4.5	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETB0104	1.0	3	50	4
ETB0154	1.5	4	50	4
ETB0204S	2.0	6	50	4
ETB0204	2.0	6	50	6
ETB0254S	2.5	8	50	4
ETB0254	2.5	8	50	6
ETB0304S	3.0	8	50	4
ETB0304	3.0	8	50	6
ETB0354	3.5	10	50	6
ETB0404S	4.0	11	50	4
ETB0404	4.0	11	50	6
ETB0454	4.5	11	50	6
ETB0504	5.0	13	50	6
ETB0604	6.0	16	50	6
ETB0804	8.0	20	60	8
ETB1004Z	10.0	25	75	10
ETB1004	10.0	30	75	10
ETB1204	12.0	30	75	12
ETB1604	16.0	40	100	16
ETB2004	20.0	45	100	20

unit : mm

標準系列 STANDARD SERIES

DHF
DESIGN . HONESTY . FUTURE

標準系列
STANDARD SERIES

ETD 2T

超微粒立銑刀
END MILLS

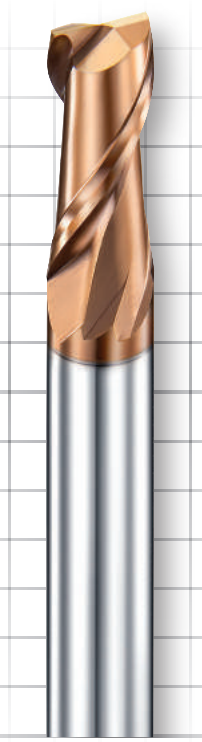
MG | 0.6 µm | 35° | 2 Flutes | HRc ▸55 | G10

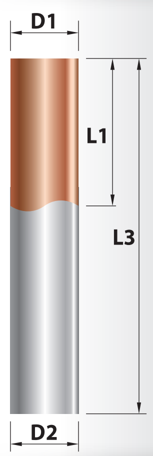
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0 / -0.02
1.5	0 / -0.02
2.0	0 / -0.02
2.5	0 / -0.02
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø5	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETD0102	1.0	3	50	4
ETD0152	1.5	4	50	4
ETD0202	2.0	6	50	4
ETD0252	2.5	8	50	4
ETD0302S	3.0	8	50	3
ETD0302	3.0	8	50	4
ETD0402	4.0	11	50	4
ETD0502S	5.0	13	50	5
ETD0502	5.0	13	57	6
ETD0602	6.0	16	57	6
ETD0802	8.0	20	63	8
ETD1002	10.0	25	72	10
ETD1202	12.0	30	83	12
ETD1602	16.0	40	100	16
ETD2002	20.0	45	100	20

unit : mm

ETD 4T

超微粒立銑刀
END MILLS

標準系列
STANDARD SERIES

DHF
DESIGN . HONESTY . FUTURE

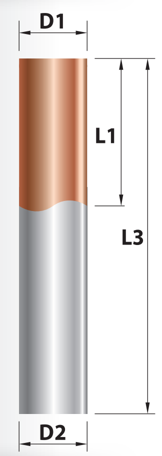
MG | 0.6 µm | 35° | 4 Flutes | HRc ▸55 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0 / -0.02
1.5	0 / -0.02
2.0	0 / -0.02
2.5	0 / -0.02
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø5	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETD0104	1.0	3	50	4
ETD0154	1.5	4	50	4
ETD0204	2.0	6	50	4
ETD0254	2.5	8	50	4
ETD0304S	3.0	8	50	3
ETD0304	3.0	8	50	4
ETD0404	4.0	11	50	4
ETD0504S	5.0	13	50	5
ETD0504	5.0	13	57	6
ETD0604	6.0	16	57	6
ETD0804	8.0	20	63	8
ETD1004	10.0	25	72	10
ETD1204	12.0	30	83	12
ETD1604	16.0	40	100	16
ETD2004	20.0	45	100	20

unit : mm

LFTA 2T

超微粒長刃立銑刀
END MILLS (LONG FLUTE)

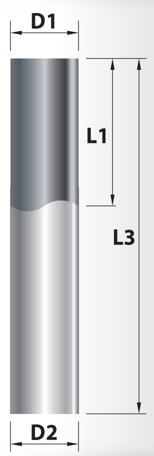
MG | 0.6 µm | 35° | 2 Flutes | HRc ▸55 | T2

切削性能 CUTTING PERFORMANCE

- 精銑 Finishing
- 中銑 Semi-finishing
- 粗銑 Roughing

冷卻性能 COOLANT TYPE

- 乾式切削 Dry Machining
- 油霧切削 MQL(Mist)
- 水溶性切削 Emulsion Machining
- 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	0/-0.02
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LFTA0202	2.0	12	50	4
LFTA0302	3.0	20	50	4
LFTA0302B	3.0	15	50	6
LFTA0402	4.0	25	75	4
LFTA0402B	4.0	20	75	6
LFTA0502	5.0	30	75	6
LFTA0602	6.0	30	75	6
LFTA0802	8.0	40	100	8
LFTA1002	10.0	40	100	10
LFTA1202	12.0	45	100	12

unit : mm

LFTA 4T

超微粒長柄立銑刀
END MILLS (LONG FLUTE)

MG | 0.6 µm | 45° | 4 Flutes | HRc ▸55 | T2

冷卻性能 COOLANT TYPE

- 乾式切削 Dry Machining
- 油霧切削 MQL(Mist)
- 水溶性切削 Emulsion Machining
- 油性切削 Oil Machining

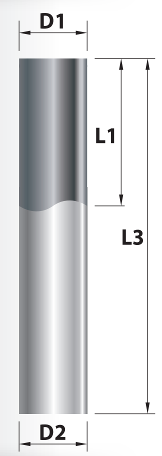
切削性能 CUTTING PERFORMANCE

- 精銑 Finishing
- 中銑 Semi-finishing
- 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	0/-0.02
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LFTA0204	2.0	15	50	4
LFTA0304	3.0	20	50	4
LFTA0304B	3.0	15	50	6
LFTA0404	4.0	25	75	4
LFTA0404B	4.0	20	75	6
LFTA0504	5.0	30	75	6
LFTA0604	6.0	30	75	6
LFTA0804	8.0	40	100	8
LFTA1004	10.0	40	100	10
LFTA1004L	10.0	50	100	10
LFTA1204	12.0	45	100	12
LFTA1204L	12.0	50	100	12
LFTA1604	16.0	60	150	16
LFTA1604L	16.0	70	150	16
LFTA2004	20.0	60	150	20
LFTA2004L	20.0	75	150	20

unit : mm

LFTH 2T
超微粒長刃立銑刀
END MILLS (LONG FLUTE)

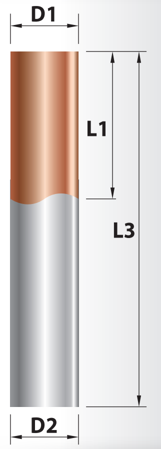
MG | 0.6 μm | 35° | 2 Flutes | HRc ▸55 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	$^{0}_{-0.02}$
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.025}$
10.0	$^{0}_{-0.03}$
12.0	$^{0}_{-0.035}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$^{0}_{-0.008}$
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LFTH0202	2.0	12	50	4
LFTH0302	3.0	20	50	4
LFTH0402	4.0	25	75	4
LFTH0502	5.0	30	75	6
LFTH0602	6.0	30	75	6
LFTH0802	8.0	40	100	8
LFTH1002	10.0	40	100	10
LFTH1202	12.0	45	100	12

unit : mm

LFTH 4T
超微粒長刃立銑刀
END MILLS (LONG FLUTE)

MG | 0.6 μm | 45° | 4 Flutes | HRc ▸55 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

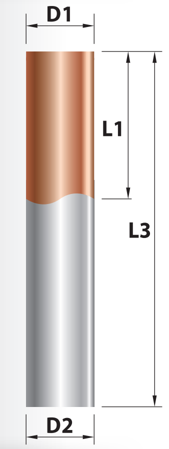
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	$^{0}_{-0.02}$
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.025}$
10.0	$^{0}_{-0.03}$
12.0	$^{0}_{-0.035}$
16.0	$^{0}_{-0.04}$
20.0	$^{0}_{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$^{0}_{-0.008}$
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$
Ø20	$^{0}_{-0.013}$



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LFTH0204	2.0	15	50	4
LFTH0304	3.0	20	50	4
LFTH0404	4.0	25	75	4
LFTH0504	5.0	30	75	6
LFTH0604	6.0	30	75	6
LFTH0804	8.0	40	100	8
LFTH1004	10.0	40	100	10
LFTH1204	12.0	45	100	12
LFTH1604	16.0	60	150	16
LFTH2004	20.0	60	150	20

unit : mm

DHF
Design · Honesty · Future

標準系列
STANDARD SERIES

RTA

超微粒圓鼻角立銑刀
END MILLS (CORNER RADIUS)

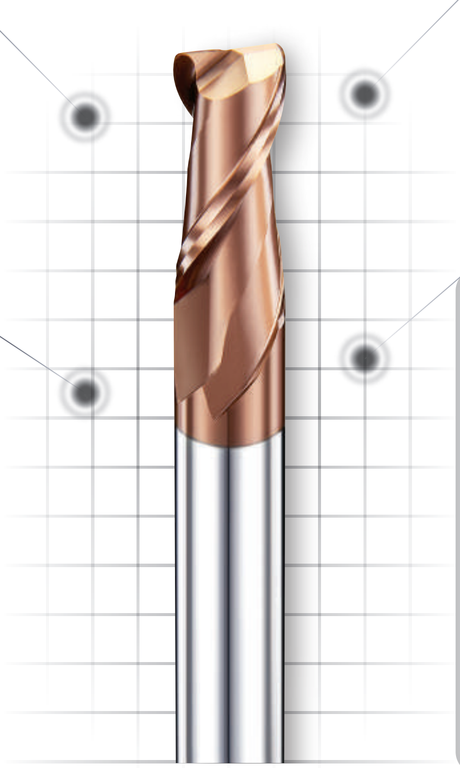
MG | 0.6 µm | 35° | R | 2 Flutes | HRc ▸55 | G10

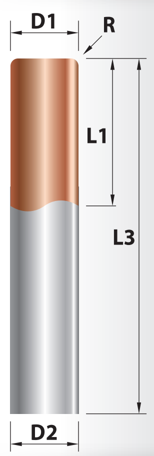
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
2.0	+0.02 / 0	0 / -0.02
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.008
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
RTA0205	2.0	0.5	6	50	4
RTA0305	3.0	0.5	8	50	3
RTA0405	4.0	0.5	10	50	4
RTA0410	4.0	1.0	10	50	4
RTA0505	5.0	0.5	13	50	6
RTA0510	5.0	1.0	13	50	6
RTA0605	6.0	0.5	16	50	6
RTA0610	6.0	1.0	16	50	6
RTA0805	8.0	0.5	19	60	8
RTA0810	8.0	1.0	19	60	8
RTA1005	10.0	0.5	25	75	10
RTA1010	10.0	1.0	25	75	10
RTA1015	10.0	1.5	25	75	10
RTA1020	10.0	2.0	25	75	10
RTA1210	12.0	1.0	30	75	12
RTA1220	12.0	2.0	30	75	12

unit : mm

標準系列 STANDARD SERIES

LRTA

超微粒長柄圓鼻角立銑刀
END MILLS (LONG SHANK & CORNER RADIUS)

標準系列
STANDARD SERIES

DHF
Design · Honesty · Future

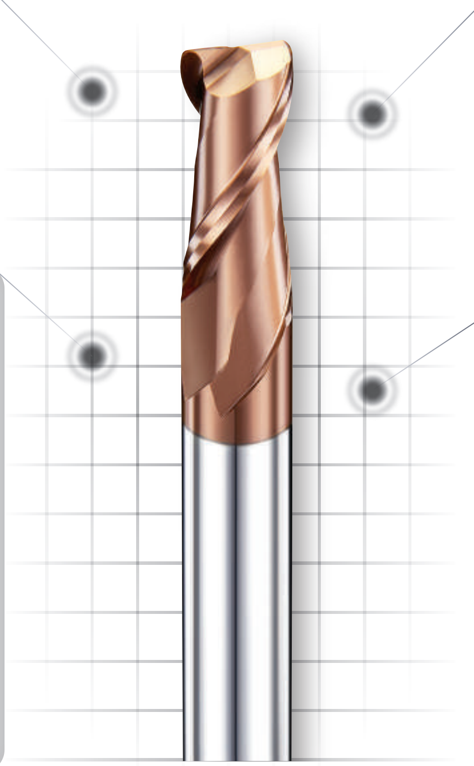
MG | 0.6 µm | 35° | R | 2 Flutes | HRc ▸55 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

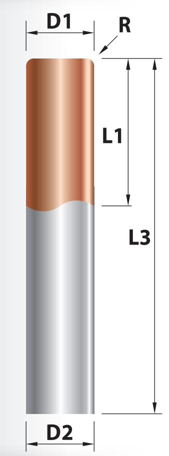
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance	柄徑 D2	柄徑公差值 D2 Tolerance
4.0	+0.02 / 0	0 / -0.02	Ø4	0 / -0.008
6.0	+0.02 / 0	0 / -0.02	Ø6	0 / -0.008
8.0	+0.02 / 0	0 / -0.025	Ø8	0 / -0.009
10.0	+0.02 / 0	0 / -0.03	Ø10	0 / -0.009
12.0	+0.02 / 0	0 / -0.035	Ø12	0 / -0.011



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LRTA0405	4.0	0.5	11	75	4
LRTA0410	4.0	1.0	11	75	4
LRTA0602	6.0	0.2	16	75	6
LRTA0603	6.0	0.3	16	75	6
LRTA0605	6.0	0.5	16	75	6
LRTA0610	6.0	1.0	16	75	6
LRTA0803	8.0	0.3	19	100	8
LRTA0805	8.0	0.5	19	100	8
LRTA0810	8.0	1.0	19	100	8
LRTA1002	10.0	0.2	25	100	10
LRTA1003	10.0	0.3	25	100	10
LRTA1005	10.0	0.5	25	100	10
LRTA1010	10.0	1.0	25	100	10
LRTA1020	10.0	2.0	25	100	10
LRTA1205	12.0	0.5	30	100	12
LRTA1210	12.0	1.0	30	100	12
LRTA1220	12.0	2.0	30	100	12

unit : mm

標準系列 STANDARD SERIES

RTD
超微粒圓鼻角立銑刀
END MILLS (CORNER RADIUS)

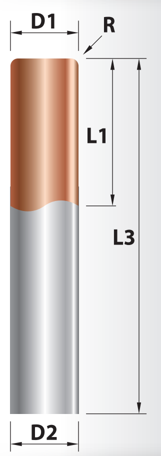
MG 0.6 μm 35° R 4 Flutes HRc ▸55 G10

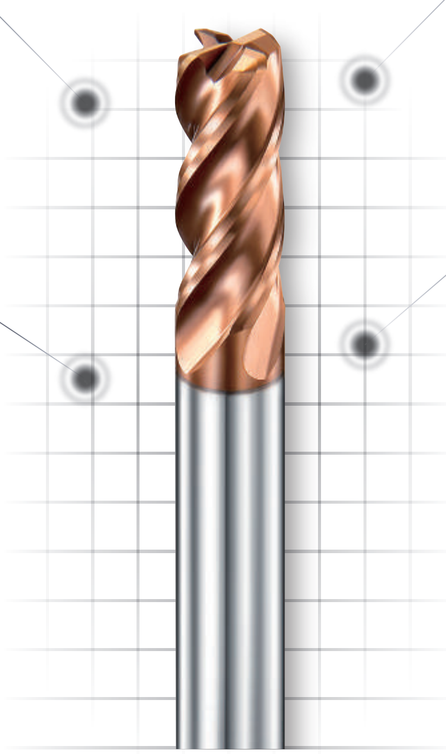
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
2.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
3.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
4.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
5.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
6.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
8.0	$^{+0.02}_{0}$	$^{0}_{-0.025}$
10.0	$^{+0.02}_{0}$	$^{0}_{-0.03}$
12.0	$^{+0.02}_{0}$	$^{0}_{-0.035}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	$^{0}_{-0.006}$
Ø4	$^{0}_{-0.008}$
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
RTD0202	2.0	0.2	6	50	4
RTD0205	2.0	0.5	6	50	4
RTD0305	3.0	0.5	8	50	3
RTD0405	4.0	0.5	10	50	4
RTD0505	5.0	0.5	13	50	6
RTD0510	5.0	1.0	13	50	6
RTD0605	6.0	0.5	16	50	6
RTD0610	6.0	1.0	16	50	6
RTD0805	8.0	0.5	20	60	8
RTD0810	8.0	1.0	20	60	8
RTD1005Z	10.0	0.5	25	75	10
RTD1005	10.0	0.5	30	75	10
RTD1010Z	10.0	1.0	25	75	10
RTD1010	10.0	1.0	30	75	10
RTD1020Z	10.0	2.0	25	75	10
RTD1020	10.0	2.0	30	75	10
RTD1030Z	10.0	3.0	25	75	10
RTD1030	10.0	3.0	30	75	10
RTD1210	12.0	1.0	30	75	12
RTD1220	12.0	2.0	30	75	12
RTD1230	12.0	3.0	30	75	12

unit : mm

標準系列 STANDARD SERIES

LRTD
超微粒長柄圓鼻角立銑刀
END MILLS (LONG SHANK & CORNER RADIUS)

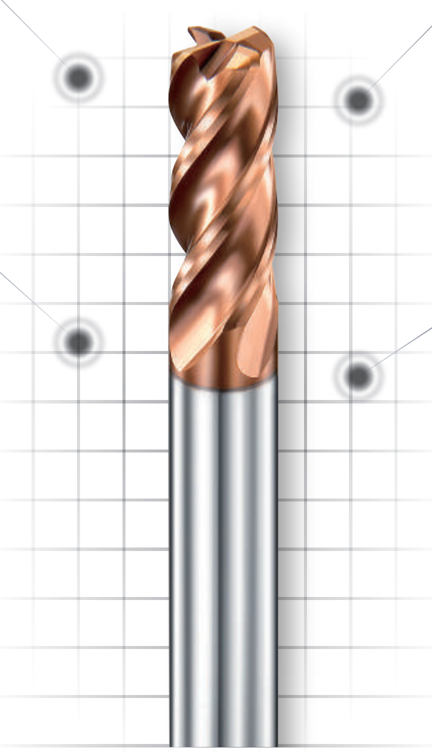
MG 0.6 μm 35° R 4 Flutes HRc ▸55 G10

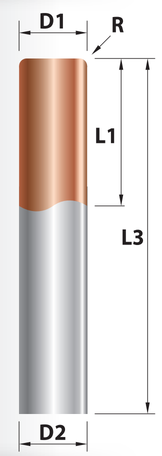
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
4.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
6.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
8.0	$^{+0.02}_{0}$	$^{0}_{-0.025}$
10.0	$^{+0.02}_{0}$	$^{0}_{-0.03}$
12.0	$^{+0.02}_{0}$	$^{0}_{-0.035}$
16.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$^{0}_{-0.008}$
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LRTD0405	4.0	0.5	11	75	4
LRTD0410	4.0	1.0	11	75	4
LRTD0602	6.0	0.2	16	75	6
LRTD0603	6.0	0.3	16	75	6
LRTD0605	6.0	0.5	16	75	6
LRTD0610	6.0	1.0	16	75	6
LRTD0803	8.0	0.3	19	100	8
LRTD0805	8.0	0.5	19	100	8
LRTD0810	8.0	1.0	19	100	8
LRTD1002	10.0	0.2	25	100	10
LRTD1003	10.0	0.3	25	100	10
LRTD1005	10.0	0.5	25	100	10
LRTD1010	10.0	1.0	25	100	10
LRTD1020	10.0	2.0	25	100	10
LRTD1205	12.0	0.5	30	100	12
LRTD1210	12.0	1.0	30	100	12
LRTD1220	12.0	2.0	30	100	12
LRTD1610	16.0	1.0	45	150	16
LRTD1620	16.0	2.0	45	150	16

unit : mm

標準系列 STANDARD SERIES

RTG

極超微粒圓鼻角立銑刀
END MILLS (CORNER RADIUS)

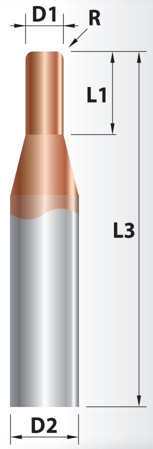
Super MG · 0.4 μm · 35° · R · 2 Flutes · HRc ▸55 · G10

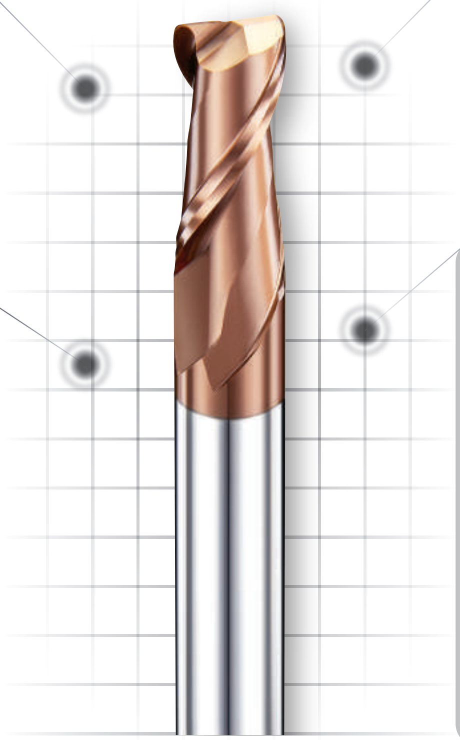
切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
1.0	+0.02 / 0	0 / -0.02
1.5	+0.02 / 0	0 / -0.02
2.0	+0.02 / 0	0 / -0.02
2.5	+0.02 / 0	0 / -0.02
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
RTG0102	1.0	0.2	3	50	4
RTG0152	1.5	0.2	4	50	4
RTG0202	2.0	0.2	6	50	4
RTG0205	2.0	0.5	6	50	4
RTG0252	2.5	0.2	8	50	4
RTG0255	2.5	0.5	8	50	4
RTG0302	3.0	0.2	8	50	4
RTG0303	3.0	0.3	8	50	4
RTG0305	3.0	0.5	8	50	4
RTG0402	4.0	0.2	11	50	4
RTG0403	4.0	0.3	11	50	4
RTG0405	4.0	0.5	11	50	4
RTG0503	5.0	0.3	13	50	6
RTG0505	5.0	0.5	13	50	6
RTG0602	6.0	0.2	16	50	6
RTG0603	6.0	0.3	16	50	6
RTG0605	6.0	0.5	16	50	6
RTG0610	6.0	1.0	16	50	6
RTG0803	8.0	0.3	20	60	8
RTG0805	8.0	0.5	20	60	8
RTG1002	10.0	0.2	25	75	10
RTG1003	10.0	0.3	25	75	10
RTG1005	10.0	0.5	25	75	10
RTG1010	10.0	1.0	25	75	10
RTG1203	12.0	0.3	30	75	12
RTG1205	12.0	0.5	30	75	12
RTG1210	12.0	1.0	30	75	12
RTG1215	12.0	1.5	30	75	12
RTG1220	12.0	2.0	30	75	12

unit : mm

標準系列
STANDARD SERIES
DHF Design . Honesty . Future

RTB

極超微粒圓鼻角立銑刀
END MILLS (CORNER RADIUS)

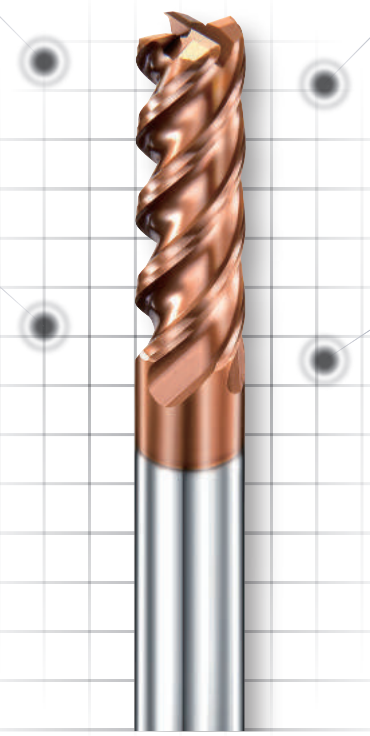
Super MG · 0.4 μm · 45° · R · 4 Flutes · HRc ▸60 · G10

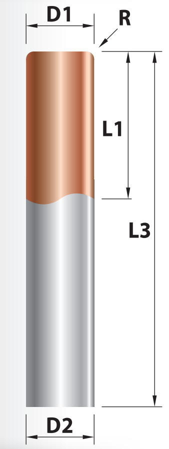
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

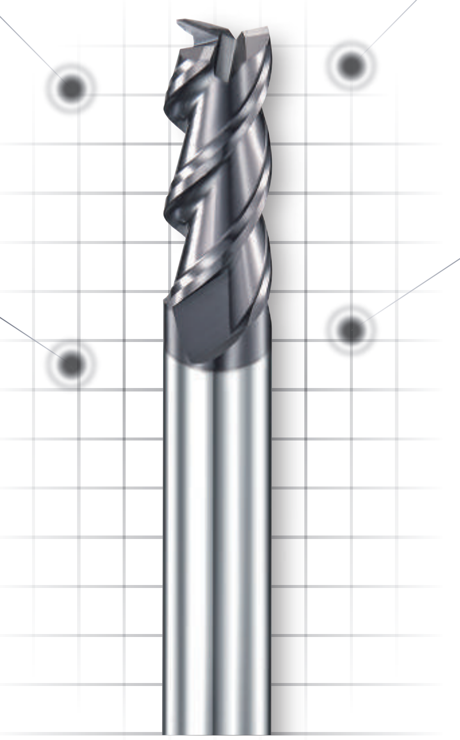
型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
RTB0305	3.0	0.5	8	50	3
RTB0405	4.0	0.5	10	50	4
RTB0505	5.0	0.5	13	50	6
RTB0510	5.0	1.0	13	50	6
RTB0605	6.0	0.5	16	50	6
RTB0610	6.0	1.0	16	50	6
RTB0805	8.0	0.5	20	60	8
RTB0810	8.0	1.0	20	60	8
RTB1005Z	10.0	0.5	25	75	10
RTB1005	10.0	0.5	30	75	10
RTB1010Z	10.0	1.0	25	75	10
RTB1010	10.0	1.0	30	75	10
RTB1020Z	10.0	2.0	25	75	10
RTB1020	10.0	2.0	30	75	10
RTB1030Z	10.0	3.0	25	75	10
RTB1030	10.0	3.0	30	75	10
RTB1210	12.0	1.0	30	75	12
RTB1220	12.0	2.0	30	75	12
RTB1230	12.0	3.0	30	75	12

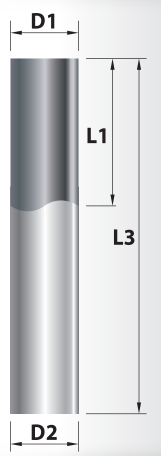
unit : mm

HTA
超微粒高螺旋立銑刀 END MILLS (HIGH HELIX)

MG | 0.6 μm | 45° | 3 Flutes | HRc ▸60 | T2

切削性能 CUTTING PERFORMANCE
精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	0/-0.02
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

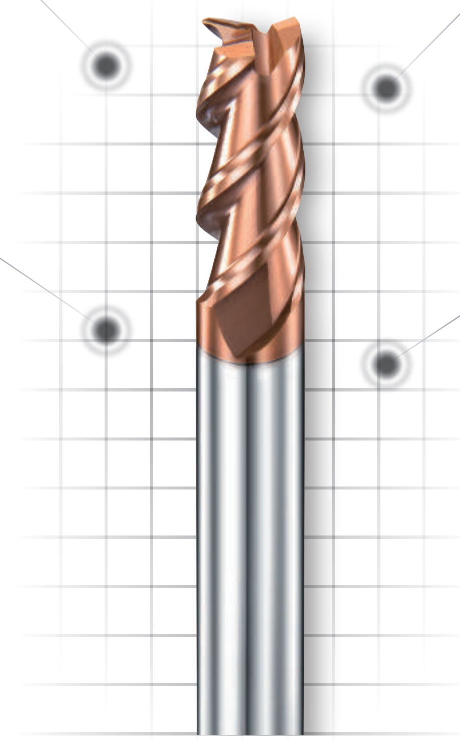
型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HTA0203	2.0	6	50	4
HTA0303	3.0	8	50	4
HTA0403	4.0	11	50	4
HTA0503	5.0	13	50	6
HTA0603	6.0	16	50	6
HTA0803	8.0	20	60	8
HTA1003	10.0	25	75	10
HTA1203	12.0	30	75	12
HTA1603	16.0	40	100	16
HTA2003	20.0	45	100	20

unit : mm

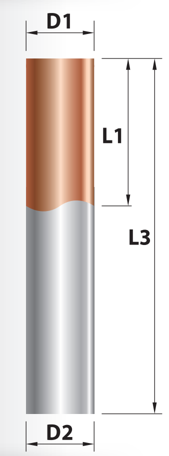
HTD
超微粒高螺旋立銑刀 END MILLS (HIGH HELIX)

MG | 0.6 μm | 45° | 3 Flutes | HRc ▸60 | G10

冷卻性能 COOLANT TYPE
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



切削性能 CUTTING PERFORMANCE
精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	0/-0.02
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HTD0203	2.0	6	50	4
HTD0303	3.0	8	50	4
HTD0403	4.0	11	50	4
HTD0503	5.0	13	50	6
HTD0603	6.0	16	50	6
HTD0803	8.0	20	60	8
HTD1003	10.0	25	75	10
HTD1203	12.0	30	75	12
HTD1603	16.0	40	100	16
HTD2003	20.0	45	100	20

unit : mm

DHF
DESIGN . HONESTY . FUTURE

標準系列
STANDARD SERIES

ITA

極超微粒高螺旋立銑刀
END MILLS (HIGH HELIX)

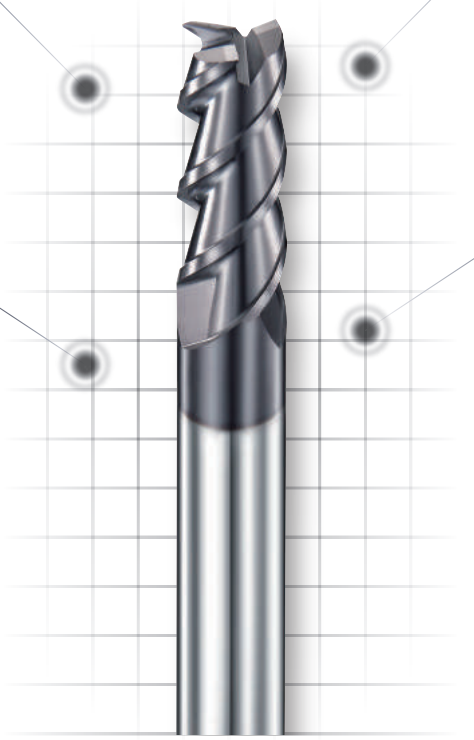
Super MG | 0.4 μm | 50° | 3 Flutes | HRc ▸60 | T2

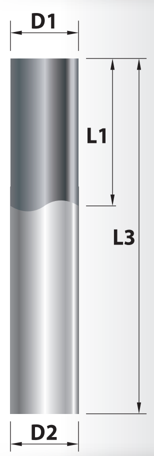
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0/-0.02
4.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ITA0303	3.0	8	50	6
ITA0403	4.0	12	50	6
ITA0603	6.0	16	50	6
ITA0803	8.0	20	60	8
ITA1003	10.0	25	75	10
ITA1203	12.0	30	75	12
ITA1603	16.0	45	100	16
ITA2003	20.0	45	100	20

unit : mm

ITH

超微粒高螺旋立銑刀
END MILLS (HIGH HELIX)

標準系列
STANDARD SERIES

DHF
DESIGN . HONESTY . FUTURE

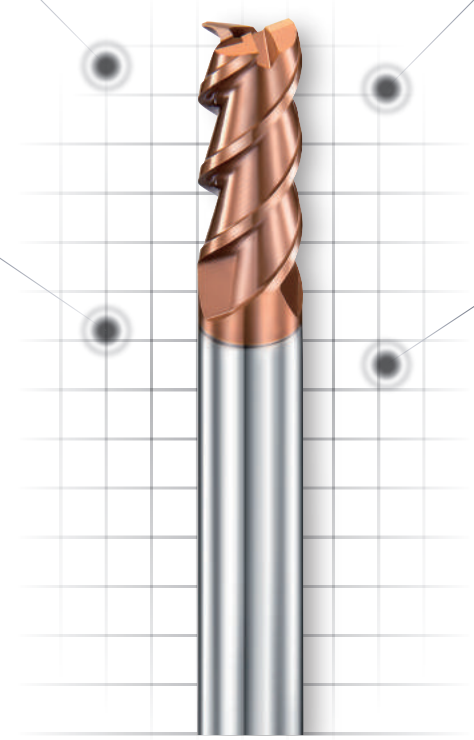
Super MG | 0.4 μm | 50° | 3 Flutes | HRc ▸60 | G10

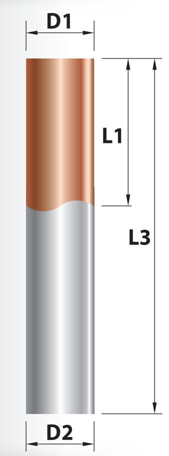
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0/-0.02
4.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ITH0303	3.0	8	50	6
ITH0403	4.0	12	50	6
ITH0603	6.0	16	50	6
ITH0803	8.0	20	60	8
ITH1003	10.0	25	75	10
ITH1203	12.0	30	75	12
ITH1603	16.0	45	100	16
ITH2003	20.0	45	100	20

unit : mm

VTA

高硬度用立銑刀
END MILLS (HIGH HARDNESS)

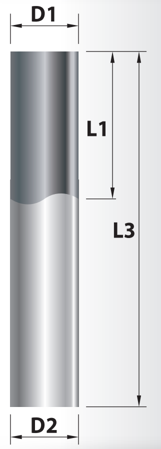
Super MG | 0.4 μm | 45° | 6 Flutes | HRc ▸65 | T2

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2	柄徑公差值 D2 Tolerance
6.0	0 / -0.02	Ø6	0 / -0.008
8.0	0 / -0.025	Ø8	0 / -0.009
10.0	0 / -0.03	Ø10	0 / -0.009
12.0	0 / -0.035	Ø12	0 / -0.011
16.0	0 / -0.04	Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
VTA0606	6.0	16	50	6
VTA0806	8.0	20	60	8
VTA1006	10.0	25	75	10
VTA1206	12.0	30	75	12
VTA1606	16.0	40	100	16

unit : mm

VTB

難切削材用立銑刀
END MILLS (DIFFICULT-TO-CUT)

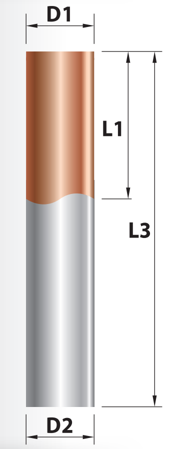
Super MG | 0.4 μm | 45° | 6 Flutes | HRc ▸60 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2	柄徑公差值 D2 Tolerance
6.0	0 / -0.02	Ø6	0 / -0.008
8.0	0 / -0.025	Ø8	0 / -0.009
10.0	0 / -0.03	Ø10	0 / -0.009
12.0	0 / -0.035	Ø12	0 / -0.011
16.0	0 / -0.04	Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
VTB0606	6.0	16	50	6
VTB0806	8.0	20	60	8
VTB1006	10.0	25	75	10
VTB1206	12.0	30	75	12
VTB1606	16.0	40	100	16

unit : mm

PET

超微粒強力型立銑刀
END MILLS (SHORT FLUTE)

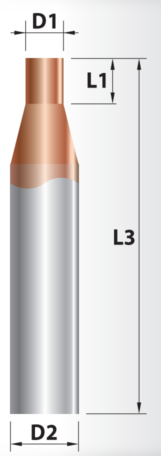
MG · 0.6 µm · 45° · 3 Flutes · HRc ▸60 · G10

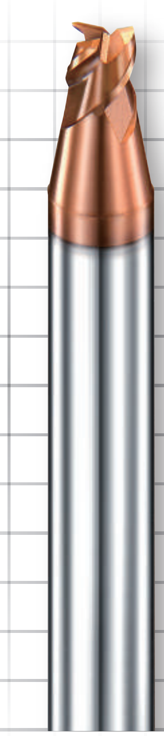
切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
PET0303	3.0	3	50	6
PET0403	4.0	4	50	6
PET0503	5.0	5	50	6
PET0603	6.0	6	50	8
PET0803	8.0	8	60	10
PET1003	10.0	10	60	12

unit : mm

TTA

極超微粒長刃斜度立銑刀
END MILLS (LONG FLUTE TAPER)

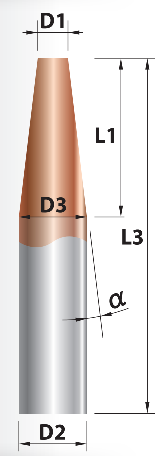
Super MG · 0.4 µm · 35° · 2 Flutes · HRc ▸60 · G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing



公差表 TOLERANCE unit : mm

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009

斜角公差值 α Tolerance	直徑公差值 D1 Tolerance
±6′	1.0≦D1 0~-0.03

產品規格 SPECIFICATIONS

型號 Type No.	D1 先端徑 Small Mill Dia.	L1 刃長 Flute Length	α 斜角 Taper Angle	D3 粗端徑 Large Mill Dia.	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
TTA01005	1.0	10	30'	1.17	50	4
TTA01010	1.0	10	1°	1.35	50	4
TTA01015	1.0	10	1°30'	1.52	50	4
TTA01020	1.0	10	2°	1.70	50	4
TTA01025	1.0	10	2°30'	1.87	50	4
TTA01030	1.0	10	3°	2.05	50	4
TTA01050	1.0	10	5°	2.75	50	4
TTA01070	1.0	10	7°	3.46	50	4
TTA01505	1.5	10	30'	1.67	50	4
TTA01510	1.5	10	1°	1.85	50	4
TTA01515	1.5	10	1°30'	2.02	50	4
TTA01520	1.5	10	2°	2.20	50	4
TTA01525	1.5	10	2°30'	2.37	50	4
TTA01530	1.5	10	3°	2.55	50	4
TTA02005	2.0	13	30'	2.23	50	4
TTA02010	2.0	13	1°	2.45	50	4
TTA02015	2.0	13	1°30'	2.68	50	4
TTA02020	2.0	13	2°	2.91	50	4
TTA02025	2.0	13	2°30'	3.14	50	4
TTA02030	2.0	13	3°	3.36	50	4
TTA02050	2.0	10	5°	3.75	50	4

型號 Type No.	D1 先端徑 Small Mill Dia.	L1 刃長 Flute Length	α 斜角 Taper Angle	D3 粗端徑 Large Mill Dia.	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
TTA02505	2.5	15	30'	2.76	50	4
TTA02510	2.5	15	1°	3.02	50	4
TTA02515	2.5	15	1°30'	3.29	50	4
TTA02520	2.5	15	2°	3.55	50	4
TTA02525	2.5	15	2°30'	3.81	50	4
TTA02530	2.5	13	3°	3.86	50	4
TTA02550	2.5	15	5°	5.12	50	6
TTA03005	3.0	20	30'	3.35	60	6
TTA03010	3.0	20	1°	3.70	60	6
TTA03015	3.0	20	1°30'	4.05	60	6
TTA03020	3.0	20	2°	4.40	60	6
TTA03025	3.0	20	2°30'	4.75	60	6
TTA03030	3.0	20	3°	5.10	60	6
TTA03050	3.0	16	5°	5.80	60	6
TTA04005	4.0	25	30'	4.44	60	6
TTA04010	4.0	25	1°	4.87	60	6
TTA04015	4.0	25	1°30'	5.31	60	6
TTA04020	4.0	25	2°	5.75	60	6
TTA04025	4.0	25	2°30'	6.18	60	8
TTA04030	4.0	25	3°	6.62	60	8
TTA04050	4.0	22	5°	7.85	60	8

unit : mm

Super MG | 0.4 µm | 35° | 2 Flutes | HRc ▸60 | G10

TA

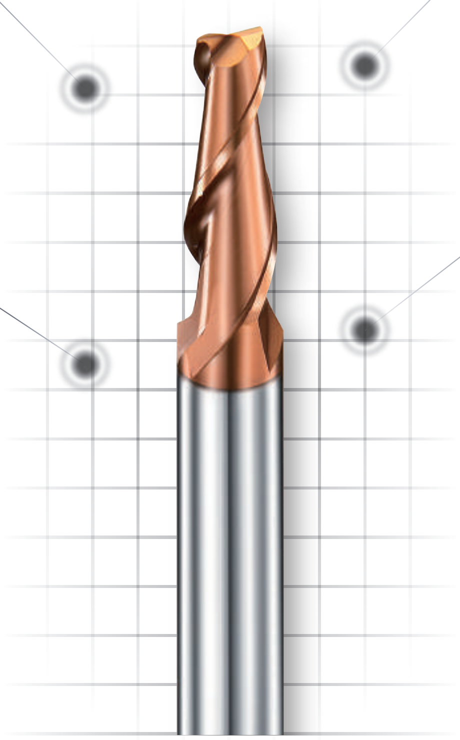
極超微粒斜度立銑刀
END MILLS (TAPER)

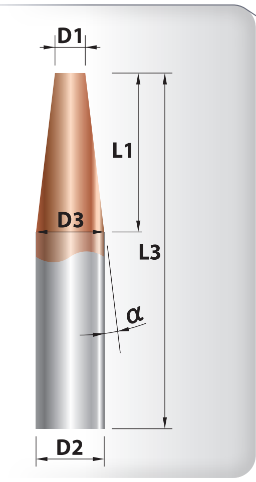
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

斜角公差值 α Tolerance	直徑公差值 D1 Tolerance
±6′	D1<1.0 0～−0.02
	1.0≦D1 0～−0.03

產品規格 SPECIFICATIONS

型號 Type No.	D1 先端徑 Small Mill Dia.	L1 刃長 Flute Length	α 斜角 Taper Angle	D3 粗端徑 Large Mill Dia.	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
TA005005	0.5	2	30′	0.53	50	4
TA005010	0.5	2	1°	0.57	50	4
TA005015	0.5	2	1°30′	0.60	50	4
TA005020	0.5	2	2°	0.64	50	4
TA005025	0.5	2	2°30′	0.67	50	4
TA005030	0.5	2	3°	0.71	50	4
TA005050	0.5	2	5°	0.85	50	4
TA005070	0.5	2	7°	0.99	50	4
TA005100	0.5	2	10°	1.21	50	4
TA010005	1.0	4	30′	1.07	50	4
TA010010	1.0	4	1°	1.14	50	4
TA010015	1.0	4	1°30′	1.21	50	4
TA010020	1.0	4	2°	1.28	50	4
TA010025	1.0	4	2°30′	1.35	50	4
TA010030	1.0	4	3°	1.42	50	4
TA010050	1.0	4	5°	1.70	50	4
TA010070	1.0	4	7°	1.98	50	4
TA010100	1.0	4	10°	2.41	50	4
TA015005	1.5	5	30′	1.59	50	4
TA015010	1.5	5	1°	1.67	50	4
TA015015	1.5	5	1°30′	1.76	50	4
TA015020	1.5	5	2°	1.85	50	4
TA015025	1.5	5	2°30′	1.94	50	4
TA015030	1.5	5	3°	2.02	50	4
TA015050	1.5	5	5°	2.37	50	4
TA015070	1.5	5	7°	2.73	50	4
TA015100	1.5	5	10°	3.26	50	4

型號 Type No.	D1 先端徑 Small Mill Dia.	L1 刃長 Flute Length	α 斜角 Taper Angle	D3 粗端徑 Large Mill Dia.	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
TA020005	2.0	6	30′	2.10	50	4
TA020010	2.0	6	1°	2.21	50	4
TA020015	2.0	6	1°30′	2.31	50	4
TA020020	2.0	6	2°	2.42	50	4
TA020025	2.0	6	2°30′	2.52	50	4
TA020030	2.0	6	3°	2.63	50	4
TA020050	2.0	6	5°	3.05	50	4
TA020070	2.0	6	7°	3.47	50	4
TA020100	2.0	5	10°	3.76	50	4
TA025005	2.5	8	30′	2.64	50	4
TA025010	2.5	8	1°	2.78	50	4
TA025015	2.5	8	1°30′	2.92	50	4
TA025020	2.5	8	2°	3.06	50	4
TA025025	2.5	8	2°30′	3.20	50	4
TA025030	2.5	8	3°	3.34	50	4
TA025050	2.5	8	5°	3.90	50	4
TA025070	2.5	8	7°	4.46	50	6
TA025100	2.5	8	10°	5.32	50	6
TA030005	3.0	10	30′	3.17	50	6
TA030010	3.0	10	1°	3.35	50	6
TA030015	3.0	10	1°30′	3.52	50	6
TA030020	3.0	10	2°	3.70	50	6
TA030025	3.0	10	2°30′	3.87	50	6
TA030030	3.0	10	3°	4.05	50	6
TA030050	3.0	10	5°	4.75	50	6
TA030070	3.0	10	7°	5.46	50	6
TA030100	3.0	8	10°	5.82	50	6
TA040005	4.0	15	30′	4.26	50	6
TA040010	4.0	15	1°	4.52	50	6
TA040015	4.0	15	1°30′	4.79	50	6
TA040020	4.0	15	2°	5.05	50	6
TA040025	4.0	15	2°30′	5.31	50	6
TA040030	4.0	15	3°	5.57	50	6
TA040050	4.0	15	5°	6.62	60	8
TA040070	4.0	15	7°	7.68	60	8
TA050005	5.0	20	30′	5.35	60	6
TA050010	5.0	20	1°	5.70	60	6
TA050015	5.0	18	1°30′	5.94	60	6
TA050020	5.0	20	2°	6.40	60	8
TA050025	5.0	20	2°30′	6.75	60	8
TA050030	5.0	20	3°	7.10	60	8
TA050050	5.0	20	5°	8.50	75	10
TA050070	5.0	20	7°	9.91	75	10
TA060005	6.0	20	30′	6.35	60	8
TA060010	6.0	20	1°	6.70	60	8
TA060015	6.0	20	1°30′	7.05	60	8
TA060020	6.0	20	2°	7.40	60	8
TA060025	6.0	20	2°30′	7.75	60	8
TA060030	6.0	18	3°	7.89	60	8
TA060050	6.0	20	5°	9.50	75	10
TA080005	8.0	25	30′	8.44	75	10
TA080010	8.0	25	1°	8.87	75	10
TA080015	8.0	25	1°30′	9.31	75	10
TA080020	8.0	25	2°	9.75	75	10
TA080025	8.0	22	2°30′	9.92	75	10
TA080030	8.0	25	3°	10.62	75	12
TA080050	8.0	22	5°	11.85	75	12
TA100005	10.0	35	30′	10.61	100	12
TA100010	10.0	35	1°	11.22	100	12
TA100015	10.0	35	1°30′	11.83	100	12
TA100020	10.0	28	2°	11.96	100	12
TA100025	10.0	35	2°30′	13.06	100	16
TA100030	10.0	35	3°	13.67	100	16
TA100050	10.0	33	5°	15.77	100	16

unit : mm

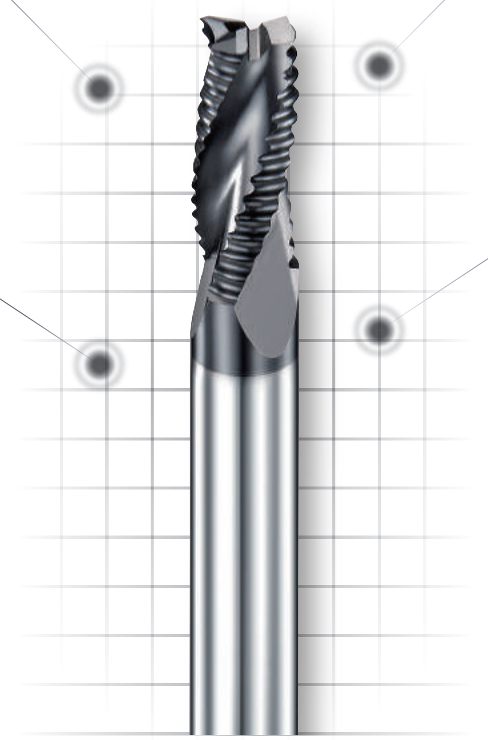
WUA 3T

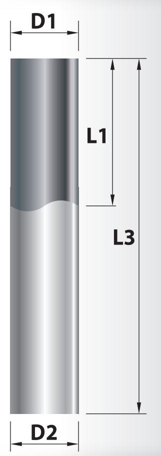
超微粒粗齒中目立銑刀
END MILLS (ROUGHING)

MG | 0.6 μm | Roughing | 25° | 3 Flutes | HRc ▸55 | T2

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
6.0	$^{0}_{-0.04}$
8.0	$^{0}_{-0.04}$
10.0	$^{0}_{-0.045}$
12.0	$^{0}_{-0.045}$
14.0	$^{0}_{-0.05}$
16.0	$^{0}_{-0.05}$
18.0	$^{0}_{-0.05}$
20.0	$^{0}_{-0.05}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$
Ø20	$^{0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WUA0603	6.0	16	50	6
WUA0803	8.0	20	60	8
WUA1003	10.0	25	75	10
WUA1203	12.0	30	75	12
WUA1403	14.0	35	100	16
WUA1603	16.0	40	100	16
WUA1803	18.0	40	100	20
WUA2003	20.0	45	100	20

unit : mm

WUA 4T

超微粒粗齒中目立銑刀
END MILLS (ROUGHING)

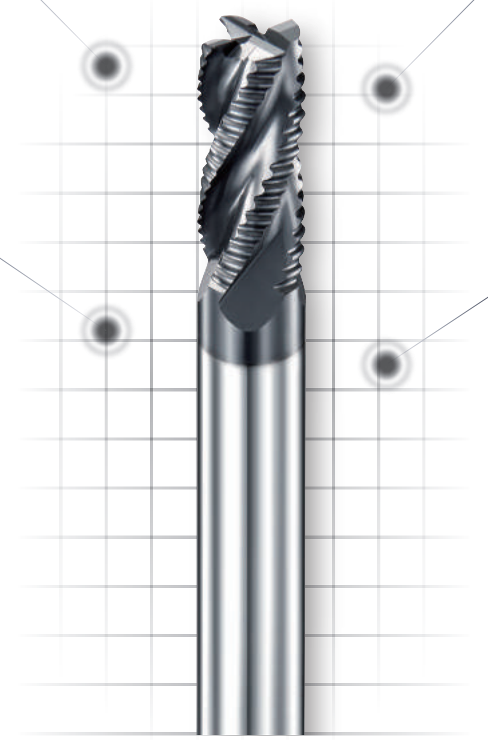
MG | 0.6 μm | Roughing | 30° | 4 Flutes | HRc ▸55 | T2

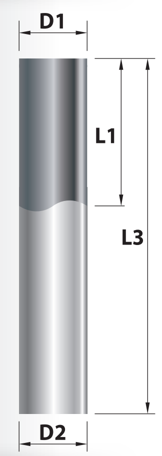
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
6.0	$^{0}_{-0.04}$
8.0	$^{0}_{-0.04}$
10.0	$^{0}_{-0.045}$
12.0	$^{0}_{-0.045}$
14.0	$^{0}_{-0.05}$
16.0	$^{0}_{-0.05}$
18.0	$^{0}_{-0.05}$
20.0	$^{0}_{-0.05}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$
Ø20	$^{0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WUA0604	6.0	16	50	6
WUA0804	8.0	20	60	8
WUA1004	10.0	25	75	10
WUA1204	12.0	30	75	12
WUA1404	14.0	35	100	16
WUA1604	16.0	40	100	16
WUA1804	18.0	40	100	20
WUA2004	20.0	45	100	20

unit : mm

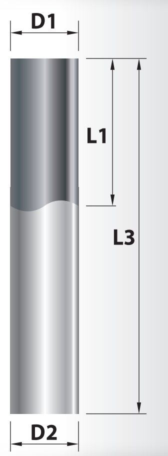
WWA 3T

超微粒粗齒細目立銑刀
END MILLS (ROUGHING)

MG　0.6 μm　Roughing　25°　3 Flutes　HRc ▸55　T2

切削性能 CUTTING PERFORMANCE

精銑 Finishing　中銑 Semi-finishing　粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining　油霧切削 MQL(Mist)　水溶性切削 Emulsion Machining　油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
6.0	0/-0.04
8.0	0/-0.04
10.0	0/-0.045
12.0	0/-0.045
14.0	0/-0.05
16.0	0/-0.05
18.0	0/-0.05
20.0	0/-0.05

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WWA0603	6.0	16	50	6
WWA0803	8.0	20	60	8
WWA1003	10.0	25	75	10
WWA1203	12.0	30	75	12
WWA1403	14.0	35	100	16
WWA1603	16.0	40	100	16
WWA1803	18.0	40	100	20
WWA2003	20.0	45	100	20

unit : mm

WWA 4T

超微粒粗齒細目立銑刀
END MILLS (ROUGHING)

MG　0.6 μm　Roughing　30°　4 Flutes　HRc ▸55　T2

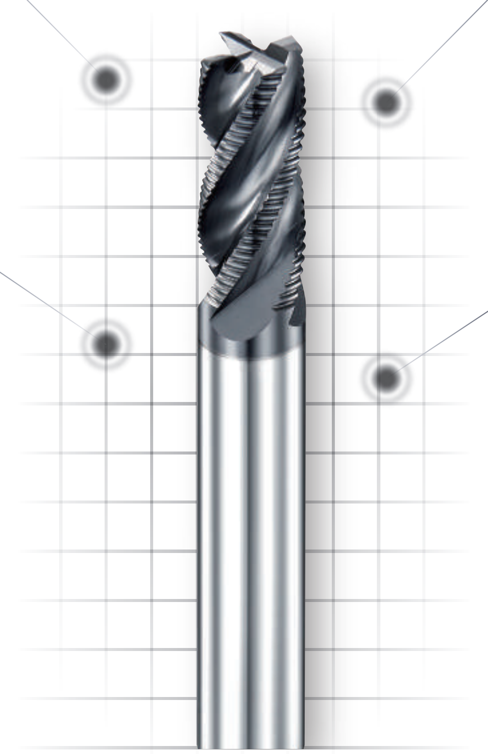
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining　油霧切削 MQL(Mist)　水溶性切削 Emulsion Machining　油性切削 Oil Machining

公差表 TOLERANCE unit : mm

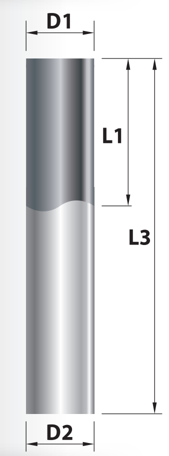
直徑 D1	直徑公差值 D1 Tolerance
6.0	0/-0.04
8.0	0/-0.04
10.0	0/-0.045
12.0	0/-0.045
14.0	0/-0.05
16.0	0/-0.05
18.0	0/-0.05
20.0	0/-0.05

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013



切削性能 CUTTING PERFORMANCE

精銑 Finishing　中銑 Semi-finishing　粗銑 Roughing



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WWA0604	6.0	16	50	6
WWA0804	8.0	20	60	8
WWA1004	10.0	25	75	10
WWA1204	12.0	30	75	12
WWA1404	14.0	35	100	16
WWA1604	16.0	40	100	16
WWA1804	18.0	40	100	20
WWA2004	20.0	45	100	20

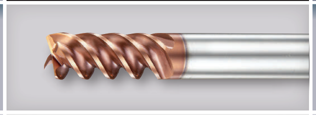
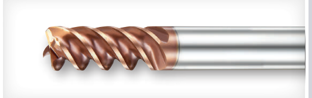
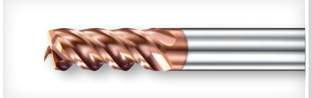
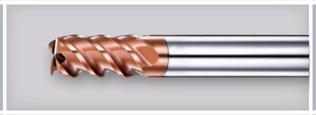
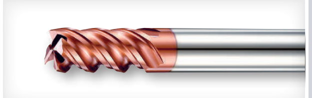
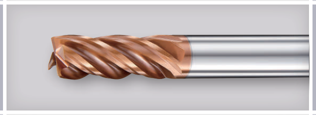
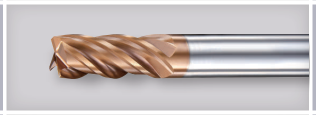
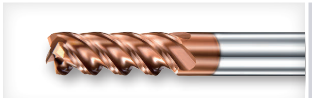
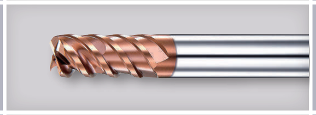
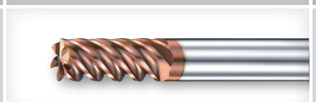
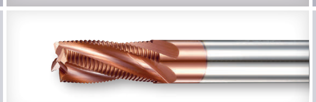
unit : mm

不銹鋼切削專用

STAINLESS STEEL CUTTING

STAIN
LESS

Index
目錄

型號/頁碼 Type No. & Page	產品照片 Product Picture	鑄鐵 Cast Iron	碳鋼 Carbon Steels	合金鋼 工具鋼 Alloy Steels, Tool Steels	調質鋼 Prehardened Steels	不鏽鋼 Stainless Steels	鈦合金 Titanium Alloy	耐熱合金鋼 高溫合金鋼 Heat Resistant & High Temp Alloy Steels	熱處理鋼 Hardened Steels ～55HRc	熱處理鋼 Hardened Steels 55HRc～
UTH P.204		★	★	★★	★★	★★★	★★★	★	★	-----
UTHR P.205		★	★	★★	★★	★★★	★★★	★	★	-----
ETB P.206		★★	★★★	★★★	★★★	★★★	★★★	★	★	-----
ETH P.207		★★	★★★	★★★	★★★	★★★	★★★	★	★	-----
UPS P.208		★★	★★★	★★★	★★★	★★★	★★	★	★	-----
UPZ P.209		★★	★★★	★★★	★★★	★★★	★★	★	★	-----
UPE P.210		★★	★★★	★★★	★★★	★★★	★★	★	★	-----
UPER P.211		★★	★★★	★★★	★★★	★★★	★★	★	★	-----
UPG P.212		★★	★★★	★★★	★★★	★★★	★★	★	★	-----
RTB P.213		★★	★★★	★★★	★★★	★★★	★★	★	★	-----
UPJ P.214		★★	★★★	★★★	★★★	★★★	★★	★	★	-----
VTB P.215		★★	★★★	★★★	★★★	★★★	★★	★	★	-----
WWA P.216		★★★	★★★	★★★	★★★	★★★	★	★	-----	-----
WWB P.217		★★	★★★	★★★	★★★	★★★	★★★	★	-----	-----

不銹鋼切削專用 STAINLESS STEEL CUTTING

DHF
DESIGN . HONESTY . FUTURE

不銹鋼切削專用
STAINLESS STEEL CUTTING

UTH
鈦滿意立銑刀
END MILLS

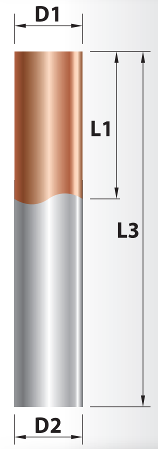
Super MG | 0.4 μm | 52° | 4 Flutes | HRc ▸55 | G10

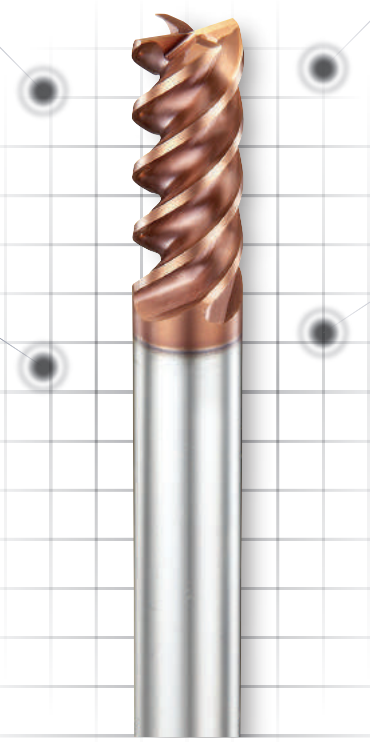
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UTH0304	3.0	8	50	6
UTH0404	4.0	11	50	6
UTH0504	5.0	13	50	6
UTH0604	6.0	16	50	6
UTH0804	8.0	20	60	8
UTH1004	10.0	25	75	10
UTH1204	12.0	30	75	12
UTH1604	16.0	40	100	16
UTH2004	20.0	45	100	20

unit : mm

不銹鋼切削專用 STAINLESS STEEL CUTTING

UTHR
鈦滿意圓鼻角立銑刀
END MILLS

不銹鋼切削專用
STAINLESS STEEL CUTTING

DHF
DESIGN . HONESTY . FUTURE

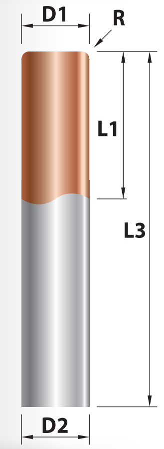
Super MG | 0.4 μm | 52° | R | 4 Flutes | HRc ▸55 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035
16.0	+0.02 / 0	0 / -0.04
20.0	+0.02 / 0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UTHR0305	3.0	0.5	8	50	6
UTHR0405	4.0	0.5	10	50	6
UTHR0405S	4.0	0.5	10	50	4
UTHR0505	5.0	0.5	13	50	6
UTHR0605	6.0	0.5	16	50	6
UTHR0610	6.0	1.0	16	50	6
UTHR0805	8.0	0.5	20	60	8
UTHR0810	8.0	1.0	20	60	8
UTHR1005	10.0	0.5	25	75	10
UTHR1010	10.0	1.0	25	75	10
UTHR1020	10.0	2.0	25	75	10
UTHR1030	10.0	3.0	25	75	10
UTHR1210	12.0	1.0	30	75	12
UTHR1220	12.0	2.0	30	75	12
UTHR1230	12.0	3.0	30	75	12
UTHR1610	16.0	1.0	40	100	16
UTHR1620	16.0	2.0	40	100	16
UTHR1630	16.0	3.0	40	100	16
UTHR2010	20.0	1.0	45	100	20
UTHR2020	20.0	2.0	45	100	20
UTHR2030	20.0	3.0	45	100	20

unit : mm

不銹鋼切削專用 STAINLESS STEEL CUTTING

DHF
Design . Honesty . Future

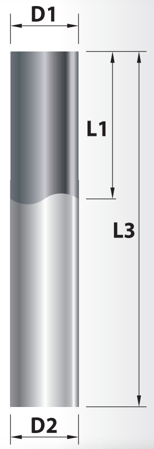
不銹鋼切削專用
STAINLESS STEEL CUTTING

ETB
極超微粒立銑刀
END MILLS

Super MG | 0.4 μm | 45° | 4 Flutes | HRc ▸60 | T2

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0 / -0.02
1.5	0 / -0.02
2.0	0 / -0.02
2.5	0 / -0.02
3.0	0 / -0.02
3.5	0 / -0.02
4.0	0 / -0.02
4.5	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETB0104	1.0	3	50	4
ETB0154	1.5	4	50	4
ETB0204S	2.0	6	50	4
ETB0204	2.0	6	50	6
ETB0254S	2.5	8	50	4
ETB0254	2.5	8	50	6
ETB0304S	3.0	8	50	4
ETB0304	3.0	8	50	6
ETB0354	3.5	10	50	6
ETB0404S	4.0	11	50	4
ETB0404	4.0	11	50	6
ETB0454	4.5	11	50	6
ETB0504	5.0	13	50	6
ETB0604	6.0	16	50	6
ETB0804	8.0	20	60	8
ETB1004Z	10.0	25	75	10
ETB1004	10.0	30	75	10
ETB1204	12.0	30	75	12
ETB1604	16.0	40	100	16
ETB2004	20.0	45	100	20

unit : mm

ETH
極超微粒立銑刀
END MILLS

不銹鋼切削專用
STAINLESS STEEL CUTTING

DHF
Design . Honesty . Future

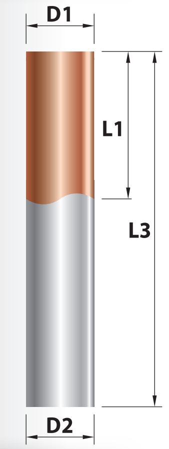
Super MG | 0.4 μm | 45° | 4 Flutes | HRc ▸60 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0 / -0.02
1.5	0 / -0.02
2.0	0 / -0.02
2.5	0 / -0.02
3.0	0 / -0.02
3.5	0 / -0.02
4.0	0 / -0.02
4.5	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETH0104	1.0	3	50	4
ETH0154	1.5	4	50	4
ETH0204	2.0	6	50	4
ETH0254	2.5	8	50	4
ETH0304	3.0	8	50	4
ETH0354	3.5	10	50	4
ETH0404	4.0	11	50	4
ETH0454	4.5	11	50	6
ETH0504	5.0	13	50	6
ETH0604	6.0	16	50	6
ETH0804	8.0	20	60	8
ETH1004Z	10.0	25	75	10
ETH1004	10.0	30	75	10
ETH1204	12.0	30	75	12
ETH1604	16.0	40	100	16
ETH2004	20.0	45	100	20

unit : mm

UPS

無敵高效能立銑刀
END MILLS

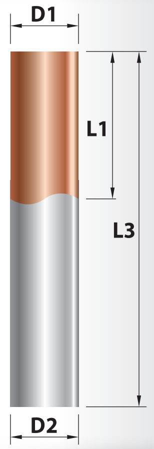
Super MG | 0.4 µm | 45° | 4 Flutes | HRc ▸60 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.025}$
10.0	$^{0}_{-0.03}$
12.0	$^{0}_{-0.035}$
16.0	$^{0}_{-0.04}$
18.0	$^{0}_{-0.04}$
20.0	$^{0}_{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$
Ø18	$^{0}_{-0.011}$
Ø20	$^{0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPS0304	3.0	8	50	6
UPS0304L	3.0	12	60	6
UPS0404	4.0	11	50	6
UPS0404L	4.0	16	60	6
UPS0504	5.0	13	50	6
UPS0604	6.0	16	50	6
UPS0604L	6.0	20	60	6
UPS0804	8.0	20	60	8
UPS0804L	8.0	25	75	8
UPS1004	10.0	22	75	10
UPS1004L	10.0	30	80	10
UPS1204	12.0	26	75	12
UPS1204L	12.0	35	100	12
UPS1604	16.0	36	100	16
UPS1604L	16.0	50	110	16
UPS1804	18.0	40	100	18
UPS2004	20.0	40	100	20
UPS2004L	20.0	50	120	20

unit : mm

UPZ

抗震高效能立銑刀
END MILLS

Super MG | 0.4 µm | 45° | 4 Flutes | HRc ▸60 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

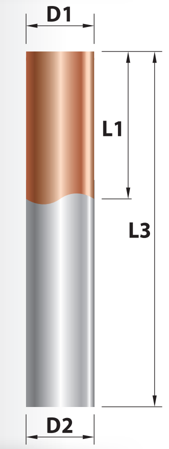
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.025}$
10.0	$^{0}_{-0.03}$
12.0	$^{0}_{-0.035}$
16.0	$^{0}_{-0.04}$
20.0	$^{0}_{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$
Ø20	$^{0}_{-0.013}$



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPZ0304	3.0	8	50	6
UPZ0404	4.0	11	50	6
UPZ0504	5.0	13	50	6
UPZ0604	6.0	16	50	6
UPZ0804	8.0	20	60	8
UPZ1004	10.0	22	75	10
UPZ1204	12.0	26	75	12
UPZ1604	16.0	36	100	16
UPZ2004	20.0	40	100	20

unit : mm

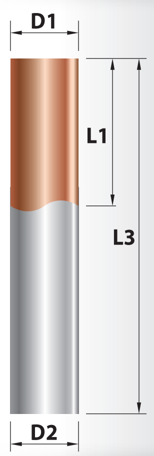
UPE

高效能立銑刀
END MILLS

Super MG · 0.4 μm · 35° · 4 Flutes · HRc ▸60 · G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
14.0	0 / -0.04
16.0	0 / -0.04
18.0	0 / -0.04
20.0	0 / -0.04
25.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø14	0 / -0.011
Ø16	0 / -0.011
Ø18	0 / -0.011
Ø20	0 / -0.013
Ø25	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPE0304	3.0	8	50	6
UPE0404	4.0	11	50	6
UPE0504	5.0	13	50	6
UPE0604	6.0	16	50	6
UPE0804	8.0	20	60	8
UPE1004	10.0	22	75	10
UPE1204	12.0	26	75	12
UPE1404	14.0	30	80	14
UPE1604	16.0	36	100	16
UPE1804	18.0	40	100	18
UPE2004	20.0	40	100	20
UPE2504	25.0	45	100	25

unit : mm

UPER

高效能圓鼻角立銑刀
END MILLS

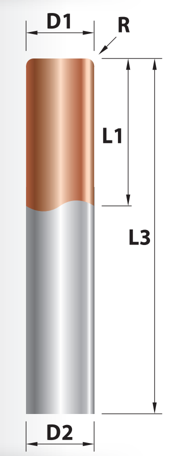
Super MG · 0.4 μm · 35° · R · 4 Flutes · HRc ▸60 · G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R公差值 R Tolerance	直徑公差值 D1 Tolerance
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035
16.0	+0.02 / 0	0 / -0.04
20.0	+0.02 / 0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPER0405	4.0	0.5	11	50	6
UPER0502	5.0	0.2	13	50	6
UPER0505	5.0	0.5	13	50	6
UPER0605	6.0	0.5	16	50	6
UPER0610	6.0	1.0	16	50	6
UPER0805	8.0	0.5	20	60	8
UPER0810	8.0	1.0	20	60	8
UPER1005	10.0	0.5	22	75	10
UPER1010	10.0	1.0	22	75	10
UPER1020	10.0	2.0	22	75	10
UPER1210	12.0	1.0	26	75	12
UPER1220	12.0	2.0	26	75	12
UPER1610	16.0	1.0	36	100	16
UPER1620	16.0	2.0	36	100	16
UPER2010	20.0	1.0	40	100	20
UPER2020	20.0	2.0	40	100	20

unit : mm

UPG

抗震高效能立銑刀
END MILLS

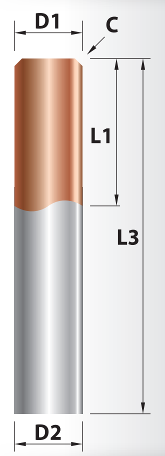
Super MG · 0.4 μm · 35°~38° · 4 Flutes · HRc ›60 · G10

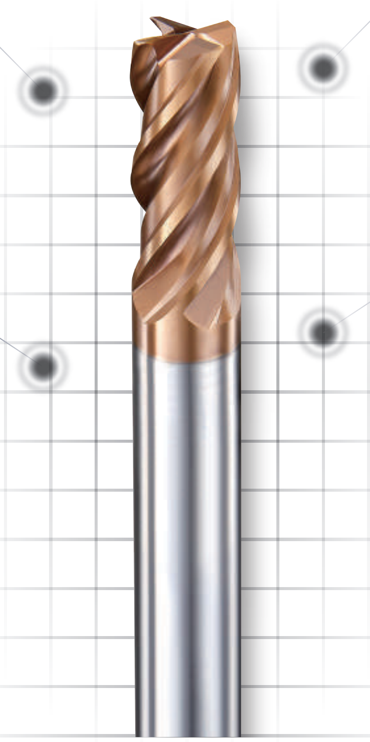
切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
18.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø14	0 / -0.011
Ø16	0 / -0.011
Ø18	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	C 倒角 Chamfer	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPG0304	3.0	0.15	8	50	6
UPG0404	4.0	0.15	11	50	6
UPG0504	5.0	0.2	13	50	6
UPG0604	6.0	0.2	16	50	6
UPG0604L	6.0	0.2	20	60	6
UPG0804	8.0	0.25	20	60	8
UPG0804L	8.0	0.25	25	75	8
UPG1004	10.0	0.3	22	75	10
UPG1004L	10.0	0.3	30	80	10
UPG1204	12.0	0.3	26	75	12
UPG1204L	12.0	0.3	35	100	12
UPG1604	16.0	0.4	40	100	16
UPG1604L	16.0	0.4	50	120	16
UPG1804	18.0	0.5	40	100	18
UPG2004	20.0	0.5	40	100	20
UPG2004L	20.0	0.5	50	120	20

unit : mm

RTB

超微粒圓鼻角立銑刀
END MILLS

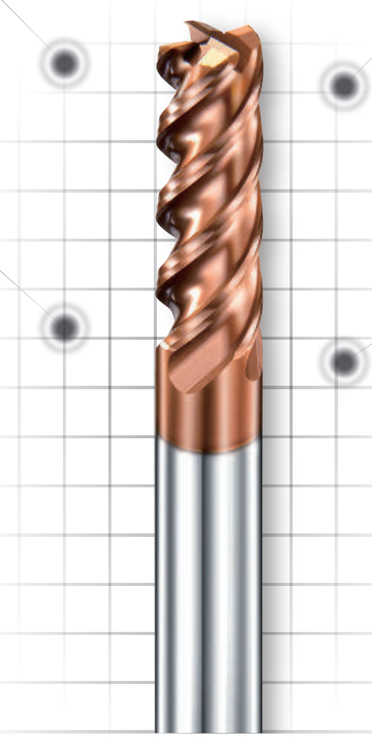
Super MG · 0.4 μm · 45° · R · 4 Flutes · HRc ›60 · G10

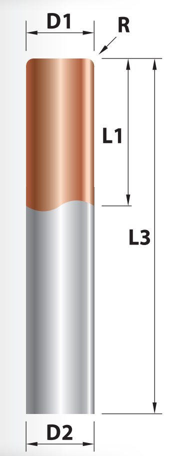
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
RTB0305	3.0	0.5	8	50	3
RTB0405	4.0	0.5	10	50	4
RTB0505	5.0	0.5	13	50	6
RTB0510	5.0	1.0	13	50	6
RTB0605	6.0	0.5	16	50	6
RTB0610	6.0	1.0	16	50	6
RTB0805	8.0	0.5	20	60	8
RTB0810	8.0	1.0	20	60	8
RTB1005Z	10.0	0.5	25	75	10
RTB1005	10.0	0.5	30	75	10
RTB1010Z	10.0	1.0	25	75	10
RTB1010	10.0	1.0	30	75	10
RTB1020Z	10.0	2.0	25	75	10
RTB1020	10.0	2.0	30	75	10
RTB1030Z	10.0	3.0	25	75	10
RTB1030	10.0	3.0	30	75	10
RTB1210	12.0	1.0	30	75	12
RTB1220	12.0	2.0	30	75	12
RTB1230	12.0	3.0	30	75	12

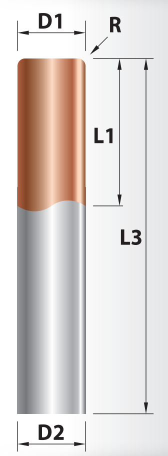
unit : mm

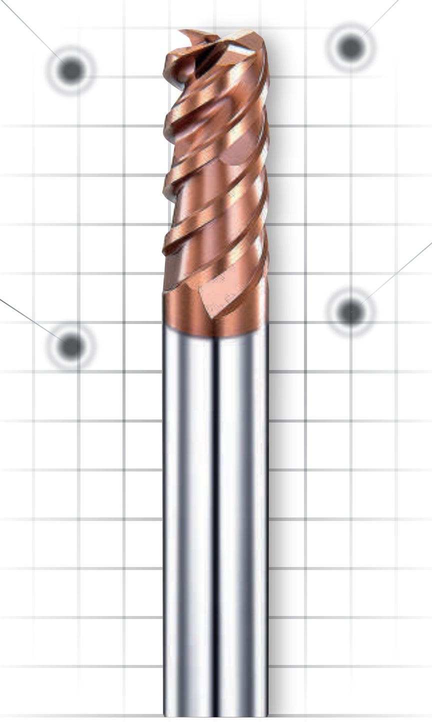
UPJ
無敵高剛性立銑刀
END MILLS

Super MG · 0.4 μm · 50° · R · 4 Flutes · HRc ▸60 · G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	+0.02/0	0/-0.02
4.0	+0.02/0	0/-0.02
5.0	+0.02/0	0/-0.02
6.0	+0.02/0	0/-0.02
8.0	+0.02/0	0/-0.025
10.0	+0.02/0	0/-0.03
12.0	+0.02/0	0/-0.035
16.0	+0.02/0	0/-0.04
20.0	+0.02/0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPJ0304	3.0	0.2	8	50	6
UPJ0404	4.0	0.3	11	50	6
UPJ0504	5.0	0.3	13	50	6
UPJ0604	6.0	0.4	16	50	6
UPJ0804	8.0	0.5	20	60	8
UPJ1004	10.0	0.6	25	75	10
UPJ1204	12.0	0.6	30	75	12
UPJ1604	16.0	0.8	45	110	16
UPJ2004	20.0	1.0	50	110	20

unit : mm

VTB
難切削材用立銑刀
END MILLS

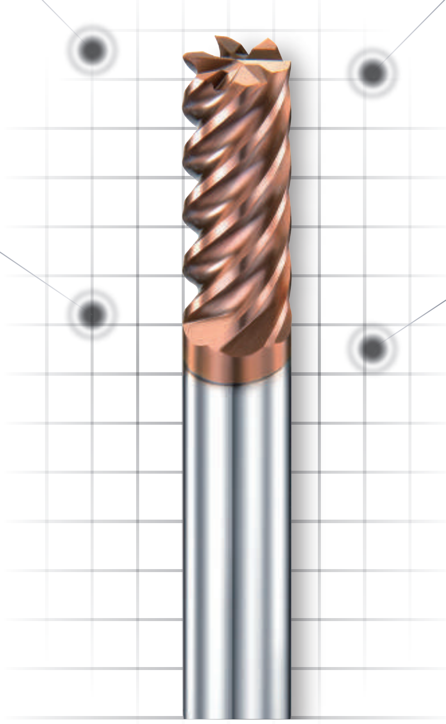
Super MG · 0.4 μm · 45° · 6 Flutes · HRc ▸60 · G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

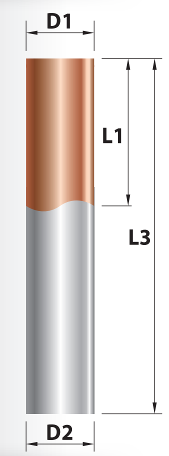
精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
VTB0606	6.0	16	50	6
VTB0806	8.0	20	60	8
VTB1006	10.0	25	75	10
VTB1206	12.0	30	75	12
VTB1606	16.0	40	100	16

unit : mm

DHF
Design . Honesty . Future

不銹鋼切削專用
STAINLESS STEEL CUTTING

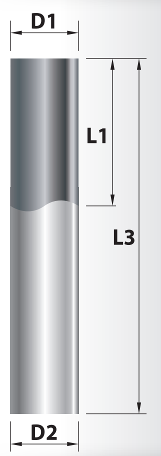
MG | 0.6 μm | Roughing | 30° | 4 Flutes | HRc ▸55 | T2

WWA

超微粒粗齒細目立銑刀
END MILLS

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
6.0	0 / -0.04
8.0	0 / -0.04
10.0	0 / -0.045
12.0	0 / -0.045
14.0	0 / -0.045
16.0	0 / -0.05
18.0	0 / -0.05
20.0	0 / -0.05

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WWA0604	6.0	16	50	6
WWA0804	8.0	20	60	8
WWA1004	10.0	25	75	10
WWA1204	12.0	30	75	12
WWA1404	14.0	35	100	16
WWA1604	16.0	40	100	16
WWA1804	18.0	40	100	20
WWA2004	20.0	45	100	20

unit : mm

WWB

抗震粗齒細目銑刀
END MILLS

不銹鋼切削專用
STAINLESS STEEL CUTTING

DHF
Design . Honesty . Future

MG | 0.6 μm | Roughing | 20° | 4 Flutes | HRc ▸55 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

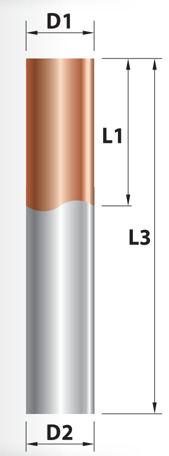
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
6.0	0 / -0.04
8.0	0 / -0.04
10.0	0 / -0.045
12.0	0 / -0.045
14.0	0 / -0.045
16.0	0 / -0.05
18.0	0 / -0.05
20.0	0 / -0.05

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WWB0604	6.0	16	50	6
WWB0804	8.0	20	60	8
WWB1004	10.0	25	75	10
WWB1204	12.0	30	75	12
WWB1404	14.0	35	100	16
WWB1604	16.0	40	100	16
WWB1804	18.0	40	100	20
WWB2004	20.0	45	100	20

unit : mm

精準一冲系列

ECONOMY SERIES

精準 ECONOMY SERIES
冲系列

- 精準切削。
- 物超所值。
- 降低成本。
- 用於切削50HRc以下的鋼材。

- Greatly accurate.
- A bargain at any price.
- Cost down.
- Good with the work material below 50HRC.

DB 2T

超微粒圓頭立銑刀
BALL NOSE END MILLS

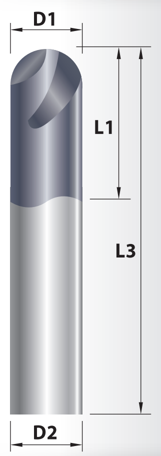
Perfect MG · 0.6 μm · 30° · 2 Flutes · HRc ▸50 · T1

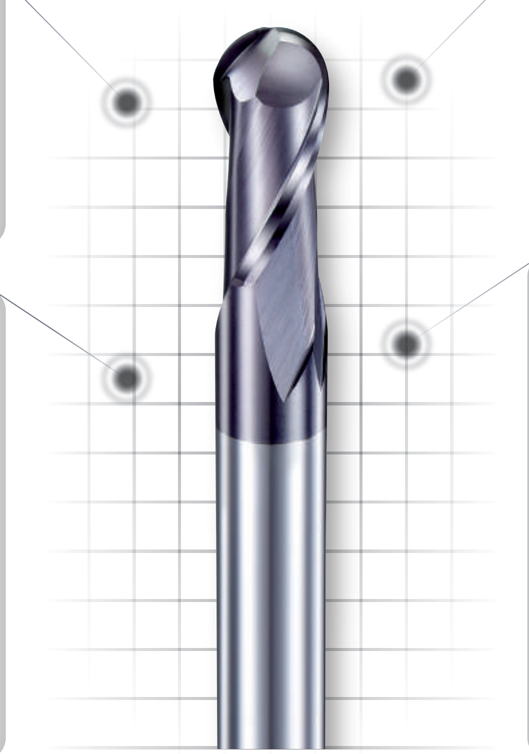
切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DB0102	R0.5	2	50	4
DB0152	R0.75	3	50	4
DB0202	R1	4	50	4
DB0252	R1.25	5	50	4
DB0302	R1.5	6	50	4
DB0402	R2	8	50	4
DB0502	R2.5	10	50	6
DB0602	R3	12	50	6
DB0802	R4	16	60	8
DB1002	R5	20	75	10
DB1202	R6	24	75	12
DB1602	R8	32	100	16

unit : mm

DHB DIB 2T

超微粒長柄圓頭立銑刀
BALL NOSE END MILLS (LONG SHANK)

精準一冲系列
ECONOMY SERIES
DHF Design . Honesty . Future

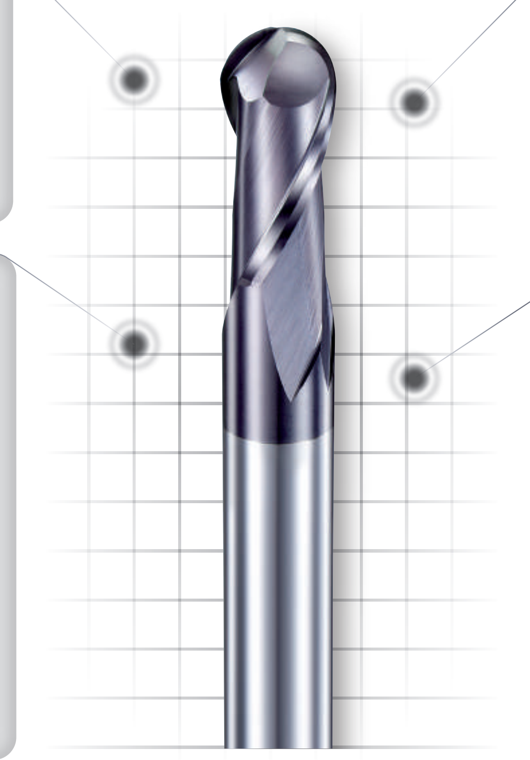
Perfect MG · 0.6 μm · 30° · 2 Flutes · HRc ▸50 · T1

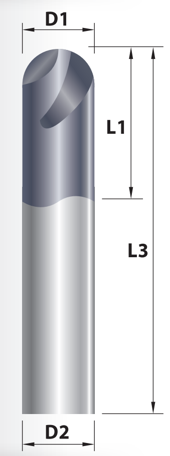
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DHB0202	R1	4	75	6
DHB0252	R1.25	5	75	6
DHB0302	R1.5	6	75	6
DHB0402	R2	8	75	6
DHB0502	R2.5	10	75	6
DHB0602	R3	12	75	6
DHB0802	R4	16	75	8
DIB0202	R1	4	100	6
DIB0302	R1.5	6	100	6
DIB0402	R2	8	100	6
DIB0602	R3	12	100	6
DIB0802	R4	16	100	8
DIB1002	R5	20	100	10
DIB1202	R6	24	100	12

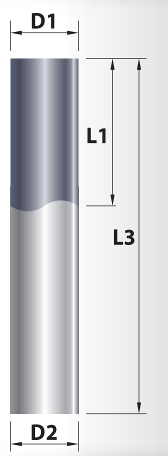
unit : mm

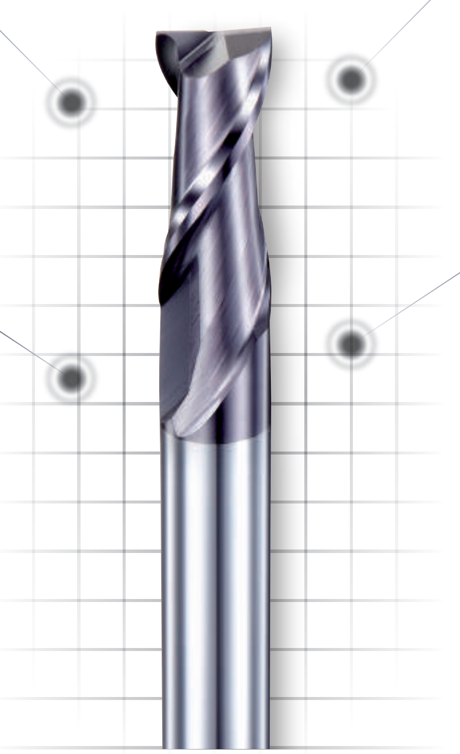
DE 2T
超微粒立銑刀
END MILLS

Perfect MG · 0.6 μm · 35° · 2 Flutes · HRc ▸50 · T1

切削性能 CUTTING PERFORMANCE
精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

冷卻性能 COOLANT TYPE
乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0 / -0.02
1.5	0 / -0.02
2.0	0 / -0.02
2.5	0 / -0.02
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DE0102	1.0	3	50	4
DE0152	1.5	4	50	4
DE0202	2.0	6	50	4
DE0252	2.5	8	50	4
DE0302	3.0	8	50	4
DE0402	4.0	11	50	4
DE0502	5.0	13	50	6
DE0602	6.0	16	50	6
DE0802	8.0	20	60	8
DE1002	10.0	25	75	10
DE1202	12.0	30	75	12
DE1602	16.0	40	100	16

unit : mm

DHE DIE DJE 2T
超微粒長柄立銑刀
END MILLS (LONG SHANK)

Perfect MG · 0.6 μm · 35° · 2 Flutes · HRc ▸50 · T1

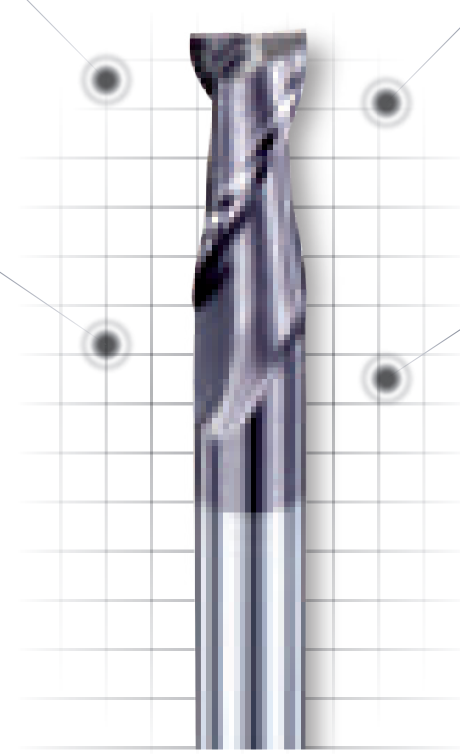
冷卻性能 COOLANT TYPE
乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

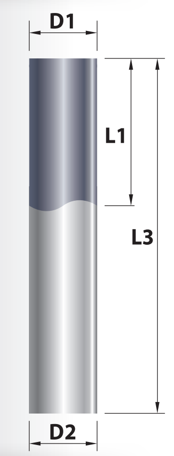
切削性能 CUTTING PERFORMANCE
精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011





產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DHE0302	3.0	8	75	3
DHE0402	4.0	11	75	4
DHE0502	5.0	13	75	6
DHE0602	6.0	16	75	6
DHE0802	8.0	20	75	8
DIE0302	3.0	8	100	3
DIE0402	4.0	11	100	4
DIE0502	5.0	13	100	6
DIE0602	6.0	16	100	6
DIE0802	8.0	20	100	8
DIE1002	10.0	25	100	10
DIE1202	12.0	30	100	12
DJE0602	6.0	16	150	6
DJE0802	8.0	20	150	8
DJE1002	10.0	25	150	10
DJE1202	12.0	30	150	12

unit : mm

DE 4T

超微粒立銑刀
END MILLS

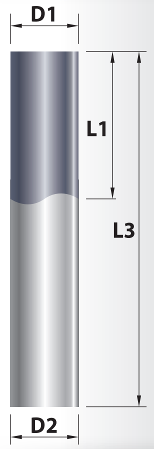
Perfect MG | 0.6 μm | 35° | 4 Flutes | HRc ▸50 | T1

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
1.0	0/-0.02
1.5	0/-0.02
2.0	0/-0.02
2.5	0/-0.02
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DE0104	1.0	3	50	4
DE0154	1.5	4	50	4
DE0204	2.0	6	50	4
DE0254	2.5	8	50	4
DE0304	3.0	8	50	4
DE0404	4.0	11	50	4
DE0504	5.0	13	50	6
DE0604	6.0	16	50	6
DE0804	8.0	20	60	8
DE1004	10.0	25	75	10
DE1204	12.0	30	75	12
DE1604	16.0	40	100	16
DE2004	20.0	45	100	20

unit : mm

DHE DIE DJE 4T

超微粒長柄立銑刀
END MILLS (LONG SHANK)

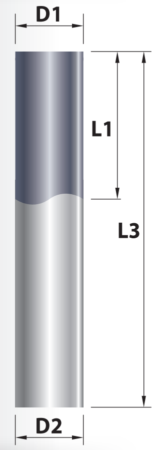
Perfect MG | 0.6 μm | 35° | 4 Flutes | HRc ▸50 | T1

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.025
10.0	0/-0.03
12.0	0/-0.035
16.0	0/-0.04
20.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0/-0.006
Ø4	0/-0.008
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DHE0304	3.0	8	75	3
DHE0404	4.0	11	75	4
DHE0504	5.0	13	75	6
DHE0604	6.0	16	75	6
DHE0804	8.0	20	75	8
DIE0404	4.0	11	100	4
DIE0604	6.0	16	100	6
DIE0804	8.0	20	100	8
DIE1004	10.0	25	100	10
DIE1204	12.0	30	100	12
DJE0604	6.0	16	150	6
DJE0804	8.0	20	150	8
DJE1004	10.0	25	150	10
DJE1204	12.0	30	150	12
DJE1604	16.0	45	150	16
DJE2004	20.0	50	150	20

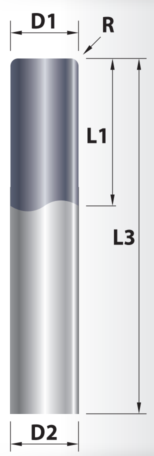
unit : mm

DRA

超微粒圓鼻角立銑刀
END MILLS (CORNER RADIUS)

切削性能 CUTTING PERFORMANCE

- 精銑 Finishing
- 中銑 Semi-finishing
- 粗銑 Roughing



冷卻性能 COOLANT TYPE

- 乾式切削 Dry Machining
- 油霧切削 MQL(Mist)
- 水溶性切削 Emulsion Machining
- 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
2.0	${}^{+0.02}_{0}$	${}^{0}_{-0.02}$
3.0	${}^{+0.02}_{0}$	${}^{0}_{-0.02}$
4.0	${}^{+0.02}_{0}$	${}^{0}_{-0.02}$
5.0	${}^{+0.02}_{0}$	${}^{0}_{-0.02}$
6.0	${}^{+0.02}_{0}$	${}^{0}_{-0.02}$
8.0	${}^{+0.02}_{0}$	${}^{0}_{-0.025}$
10.0	${}^{+0.02}_{0}$	${}^{0}_{-0.03}$
12.0	${}^{+0.02}_{0}$	${}^{0}_{-0.035}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	${}^{0}_{-0.006}$
Ø4	${}^{0}_{-0.008}$
Ø6	${}^{0}_{-0.008}$
Ø8	${}^{0}_{-0.009}$
Ø10	${}^{0}_{-0.009}$
Ø12	${}^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DRA0205	2.0	0.5	6	50	4
DRA0305	3.0	0.5	8	50	3
DRA0405	4.0	0.5	10	50	4
DRA0410	4.0	1.0	10	50	4
DRA0505	5.0	0.5	13	50	6
DRA0510	5.0	1.0	13	50	6
DRA0605	6.0	0.5	16	50	6
DRA0610	6.0	1.0	16	50	6
DRA0805	8.0	0.5	19	60	8
DRA0810	8.0	1.0	19	60	8
DRA1005	10.0	0.5	25	75	10
DRA1010	10.0	1.0	25	75	10
DRA1015	10.0	1.5	25	75	10
DRA1020	10.0	2.0	25	75	10
DRA1210	12.0	1.0	30	75	12
DRA1220	12.0	2.0	30	75	12

unit : mm

精準一冲系列
ECONOMY SERIES
DHF
DESIGN . HONESTY . FUTURE

DLRA

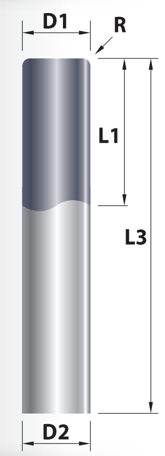
超微粒長柄圓鼻角立銑刀
END MILLS (CORNER RADIUS)

冷卻性能 COOLANT TYPE

- 乾式切削 Dry Machining
- 油霧切削 MQL(Mist)
- 水溶性切削 Emulsion Machining
- 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

- 精銑 Finishing
- 中銑 Semi-finishing
- 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
4.0	${}^{+0.02}_{0}$	${}^{0}_{-0.02}$
6.0	${}^{+0.02}_{0}$	${}^{0}_{-0.02}$
8.0	${}^{+0.02}_{0}$	${}^{0}_{-0.025}$
10.0	${}^{+0.02}_{0}$	${}^{0}_{-0.03}$
12.0	${}^{+0.02}_{0}$	${}^{0}_{-0.035}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	${}^{0}_{-0.008}$
Ø6	${}^{0}_{-0.008}$
Ø8	${}^{0}_{-0.009}$
Ø10	${}^{0}_{-0.009}$
Ø12	${}^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DLRA0405	4.0	0.5	11	75	4
DLRA0605	6.0	0.5	16	75	6
DLRA0610	6.0	1.0	16	75	6
DLRA0805	8.0	0.5	19	100	8
DLRA0810	8.0	1.0	19	100	8
DLRA1005	10.0	0.5	25	100	10
DLRA1010	10.0	1.0	25	100	10
DLRA1020	10.0	2.0	25	100	10
DLRA1210	12.0	1.0	30	100	12
DLRA1220	12.0	2.0	30	100	12

unit : mm

精準一冲系列 ECONOMY SERIES

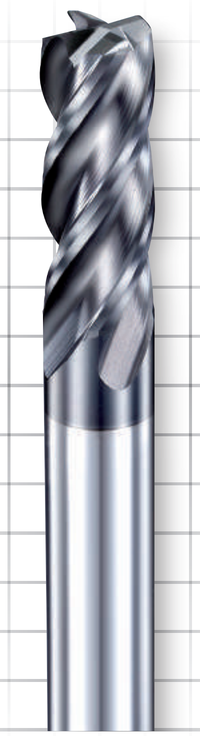
DRD
超微粒圓鼻角立銑刀
END MILLS (CORNER RADIUS)

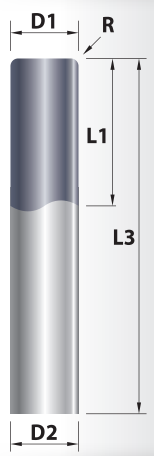
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DRD0305	3.0	0.5	8	50	3
DRD0405	4.0	0.5	10	50	4
DRD0505	5.0	0.5	13	50	6
DRD0510	5.0	1.0	13	50	6
DRD0605	6.0	0.5	16	50	6
DRD0610	6.0	1.0	16	50	6
DRD0805	8.0	0.5	20	60	8
DRD0810	8.0	1.0	20	60	8
DRD1010	10.0	1.0	25	75	10
DRD1020	10.0	2.0	25	75	10
DRD1030	10.0	3.0	25	75	10
DRD1210	12.0	1.0	30	75	12
DRD1220	12.0	2.0	30	75	12
DRD1230	12.0	3.0	30	75	12

unit : mm

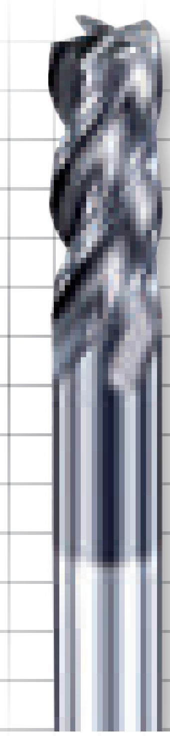
DLRD
超微粒長柄圓鼻角立銑刀
END MILLS (CORNER RADIUS)

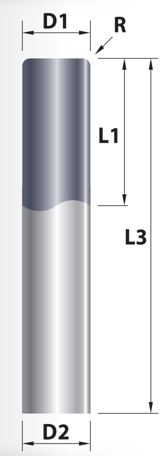
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035
16.0	+0.02 / 0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DLRD0605	6.0	0.5	16	75	6
DLRD0610	6.0	1.0	16	75	6
DLRD0805	8.0	0.5	19	100	8
DLRD0810	8.0	1.0	19	100	8
DLRD1005	10.0	0.5	25	100	10
DLRD1010	10.0	1.0	25	100	10
DLRD1020	10.0	2.0	25	100	10
DLRD1210	12.0	1.0	30	100	12
DLRD1220	12.0	2.0	30	100	12
DLRD1610	16.0	1.0	45	150	16
DLRD1620	16.0	2.0	45	150	16

unit : mm

DC 2T
鋁用立銑刀
END MILLS

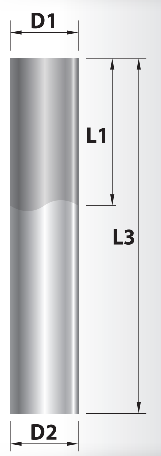
Perfect MG | 0.6 μm | W | 45° | 2 Flutes

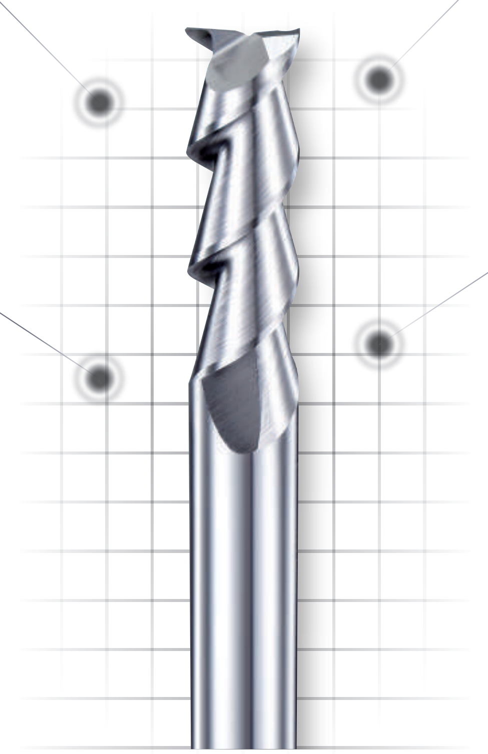
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	0/-0.02
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.02
10.0	0/-0.02
12.0	0/-0.02
16.0	0/-0.03
20.0	0/-0.03

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011
Ø20	0/-0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DC0202	2.0	7	50	6
DC0302	3.0	9	50	6
DC0402	4.0	12	50	6
DC0502	5.0	16	60	6
DC0602	6.0	18	60	6
DC0802	8.0	20	60	8
DC1002	10.0	30	75	10
DC1202	12.0	32	75	12
DC1602	16.0	45	100	16
DC2002	20.0	45	100	20

unit : mm

DC 3T
鋁用立銑刀
END MILLS

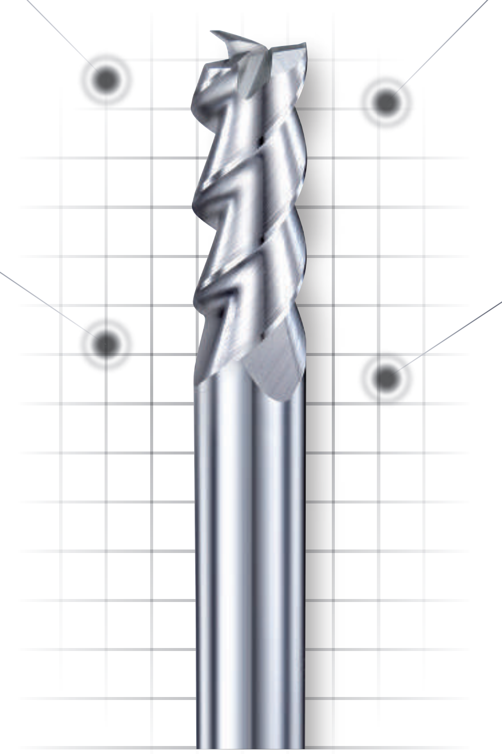
Perfect MG | 0.6 μm | W | 50° | 3 Flutes

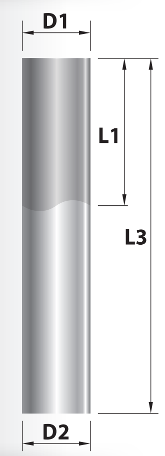
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	0/-0.02
3.0	0/-0.02
4.0	0/-0.02
5.0	0/-0.02
6.0	0/-0.02
8.0	0/-0.02
10.0	0/-0.02
12.0	0/-0.02
16.0	0/-0.03

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø16	0/-0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DC0203	2.0	6	50	6
DC0303	3.0	10	50	6
DC0403	4.0	12	50	6
DC0503	5.0	16	60	6
DC0603	6.0	18	60	6
DC0803	8.0	20	60	8
DC1003	10.0	25	75	10
DC1203	12.0	30	75	12
DC1603	16.0	40	100	16

unit : mm

精準一冲系列 ECONOMY SERIES

DBC

銅鋁用圓頭立銑刀
BALL NOSE END MILLS

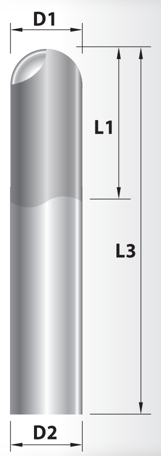
Perfect MG | 0.6 µm | 25° | 2 Flutes

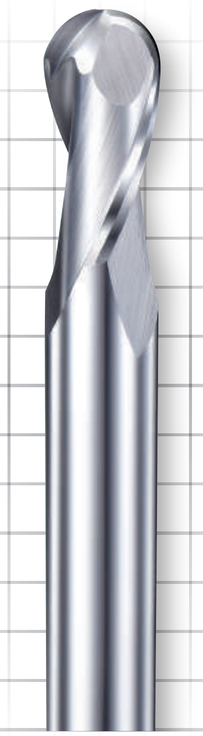
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DBC0102	R0.5	2	50	4
DBC0152	R0.75	3	50	4
DBC0202	R1.0	4	50	4
DBC0302	R1.5	6	50	3
DBC0402	R2.0	8	50	4
DBC0602	R3.0	12	50	6
DBC0802	R4.0	16	60	8
DBC1002	R5.0	20	75	10
DBC1202	R6.0	24	75	12

unit : mm

DB4T

超微粒圓頭立銑刀
BALL NOSE END MILLS

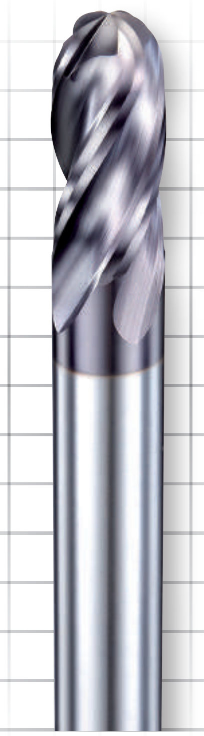
Perfect MG | 0.6 µm | 30° | 4 Flutes | HRc ▸50 | T1

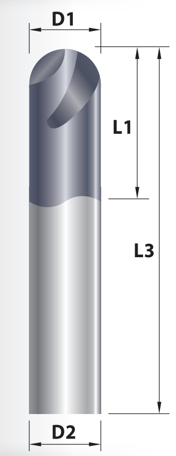
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DB0104	R0.5	2	50	4
DB0154	R0.75	3	50	4
DB0204	R1.0	4	50	4
DB0304	R1.5	6	50	4
DB0404	R2.0	8	50	4
DB0504	R2.5	10	50	6
DB0604	R3.0	12	50	6
DB0804	R4.0	16	60	8
DB1004	R5.0	20	75	10
DB1204	R6.0	24	75	12
DB1604	R8.0	32	100	16

unit : mm

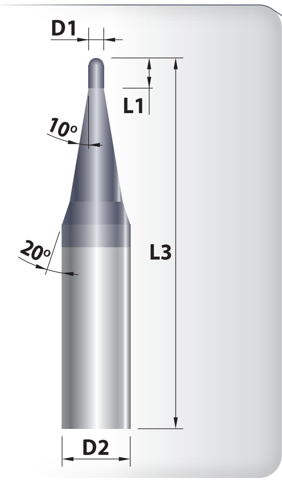
DMB

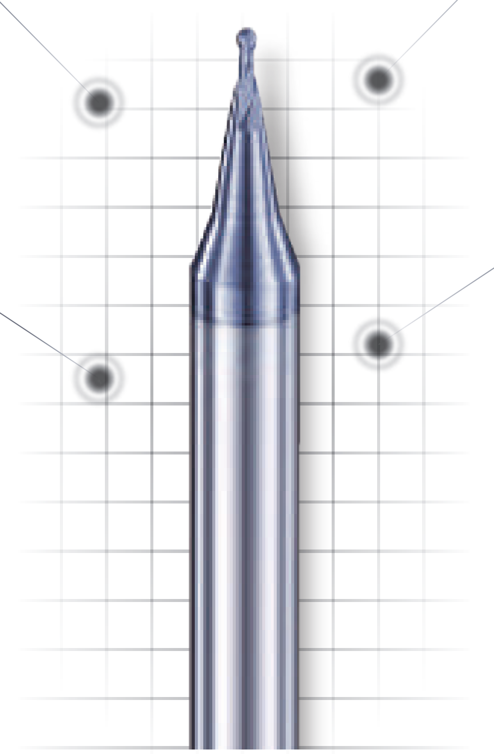
微小徑圓頭立銑刀
BALL NOSE END MILLS (MICRO DIAMETER)

MG 0.6 μm 30° 2 Flutes HRc ▸60 T2

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.15	±0.01
R0.2	±0.01
R0.25	±0.01
R0.3	±0.01
R0.35	±0.01
R0.4	±0.01
R0.5	±0.01
R0.6	±0.01
R0.7	±0.01
R0.75	±0.01
R0.8	±0.01
R0.9	±0.01
R1.0	±0.01
R1.5	±0.01
R2.0	±0.01

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0/-0.008

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DMB0032	R0.15	0.6	40	4
DMB0042	R0.2	0.8	40	4
DMB0052	R0.25	1.0	40	4
DMB0062	R0.3	1.2	40	4
DMB0072	R0.35	1.4	40	4
DMB0082	R0.4	1.6	40	4
DMB0102	R0.5	2.0	40	4
DMB0122	R0.6	2.4	40	4
DMB0142	R0.7	2.8	40	4
DMB0152	R0.75	3.0	40	4
DMB0162	R0.8	3.2	40	4
DMB0182	R0.9	3.6	40	4
DMB0202	R1.0	4.0	40	4
DMB0302	R1.5	6.0	40	4
DMB0402	R2.0	8.0	40	4

unit : mm

DME

微小徑立銑刀
END MILLS (MICRO DIAMETER)

MG 0.6 μm 35° 2 Flutes HRc ▸60 T2

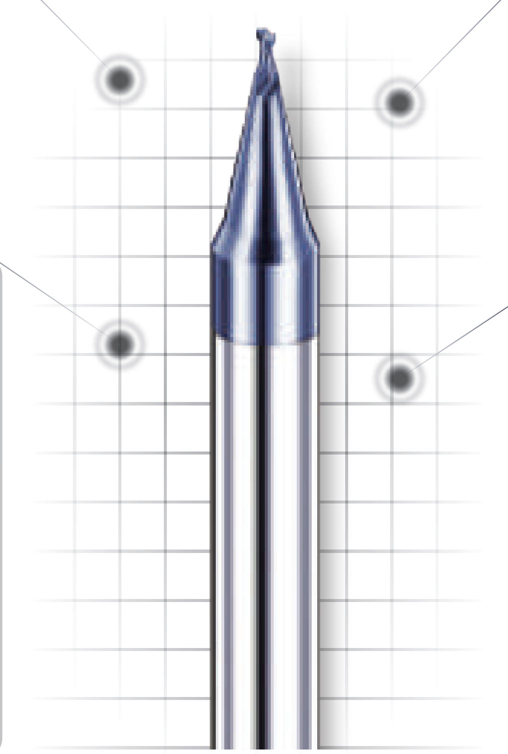
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

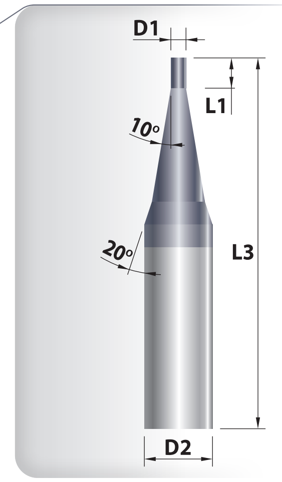
直徑 D1	直徑公差值 D1 Tolerance
0.2	0/-0.015
0.3	0/-0.015
0.4	0/-0.015
0.5	0/-0.015
0.6	0/-0.015
0.7	0/-0.015
0.8	0/-0.015
0.9	0/-0.015
1.0	0/-0.02
1.2	0/-0.02
1.4	0/-0.02
1.5	0/-0.02
1.6	0/-0.02
1.8	0/-0.02
2.0	0/-0.02
3.0	0/-0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0/-0.008



切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DME0022	0.2	0.4	40	4
DME0032	0.3	0.6	40	4
DME0042	0.4	0.8	40	4
DME0052	0.5	1.0	40	4
DME0062	0.6	1.2	40	4
DME0072	0.7	1.4	40	4
DME0082	0.8	1.6	40	4
DME0092	0.9	1.8	40	4
DME0102	1.0	2.5	40	4
DME0122	1.2	3.0	40	4
DME0142	1.4	3.0	40	4
DME0152	1.5	4.0	40	4
DME0162	1.6	4.0	40	4
DME0182	1.8	5.0	40	4
DME0202	2.0	6.0	40	4
DME0252	2.5	8.0	40	4
DME0302	3.0	8.0	40	4

unit : mm

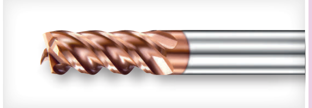
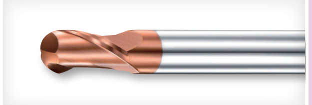
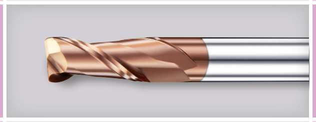
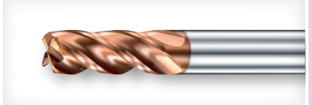
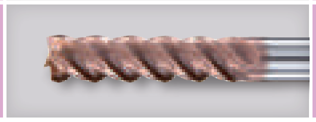
20th
BEST CHOICE

CARBON STEEL CUTTING SERIES

碳鋼切削系列

CARbON

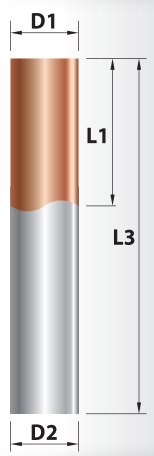
Index
目錄

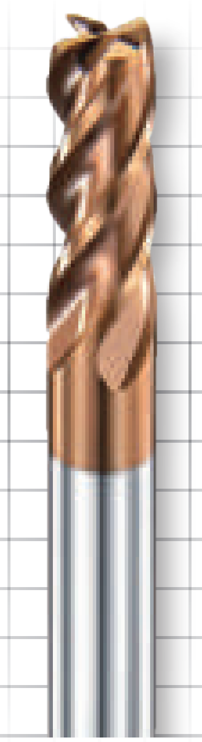
型號/頁碼 Type No. & Page	產品照片 Product Picture	鑄鐵 Cast Iron	碳鋼 Carbon Steels	合金鋼 工具鋼 Alloy Steels, Tool Steels	調質鋼 Prehardened Steels	不鏽鋼 Stainless Steels	鈦合金 Titanium Alloy	耐熱合金鋼 高溫合金鋼 Heat Resistant & High Temp Alloy Steels	熱處理鋼 Hardened Steels ～55HRc	熱處理鋼 Hardened Steels 55HRc～
CDE P.242		★★	★★★	★★	★★	★★	★	★	★	-----
CEB P.243		★	★★★	★★	★★	★★	★★	★	★	-----
EPZ P.244		★	★★★	★★★	★★★	★★★	★★	★	★	-----
CBA P.245		★★	★★★	★★	★★	★★	★★	★	★	-----
CRA P.246		★★	★★★	★★	★★	★★	★★	★	★	-----
CRD P.247		★★	★★★	★★	★★	★★	★★	★	★	-----
LFTC P.248		★★	★★★	★★	★★	★★	★★	★	★	-----

CDE
超微粒立銑刀
END MILLS

MG 0.6µm 35° 4 Flutes HRc ▸50 G7

切削性能 CUTTING PERFORMANCE
精銑 Finishing
中銑 Semi-finishing
粗銑 Roughing





冷卻性能 COOLANT TYPE
乾式切削 Dry Machining
油霧切削 MQL(Mist)
水溶性切削 Emulsion Machining
油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	0 / -0.02
2.5	0 / -0.02
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
CDE0204	2.0	6	50	4
CDE0254	2.5	8	50	4
CDE0304	3.0	8	50	4
CDE0404	4.0	11	50	4
CDE0504	5.0	13	50	6
CDE0604	6.0	16	50	6
CDE0804	8.0	20	60	8
CDE1004	10.0	25	75	10
CDE1204	12.0	30	75	12
CDE1604	16.0	40	100	16

unit : mm

CEB
極超微粒立銑刀
END MILLS

MG 0.6µm 45° 4 Flutes HRc ▸60 G7

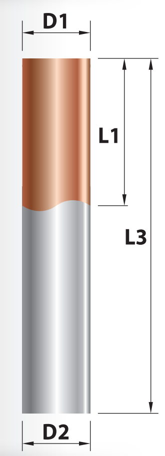
冷卻性能 COOLANT TYPE
乾式切削 Dry Machining
油霧切削 MQL(Mist)
水溶性切削 Emulsion Machining
油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	0 / -0.02
2.5	0 / -0.02
3.0	0 / -0.02
3.5	0 / -0.02
4.0	0 / -0.02
4.5	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011

切削性能 CUTTING PERFORMANCE
精銑 Finishing
中銑 Semi-finishing
粗銑 Roughing



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
CEB0204S	2.0	6	50	4
CEB0204	2.0	6	50	6
CEB0254S	2.5	8	50	4
CEB0254	2.5	8	50	6
CEB0304S	3.0	8	50	4
CEB0304	3.0	8	50	6
CEB0354	3.5	10	50	6
CEB0404S	4.0	11	50	4
CEB0404	4.0	11	50	6
CEB0454	4.5	11	50	6
CEB0504	5.0	13	50	6
CEB0604	6.0	16	50	6
CEB0804	8.0	20	60	8
CEB1004Z	10.0	25	75	10
CEB1004	10.0	30	75	10
CEB1204	12.0	30	75	12
CEB1604	16.0	40	100	16

unit : mm

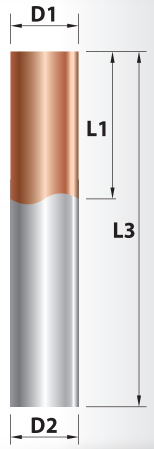
EPZ

抗震高效能立銑刀
END MILLS

MG 0.6 µm 45° 4 Flutes HRc ▸55 G7

切削性能 CUTTING PERFORMANCE

精銑 Finishing / 中銑 Semi-finishing / 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining / 油霧切削 MQL(Mist) / 水溶性切削 Emulsion Machining / 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.025}$
10.0	$^{0}_{-0.03}$
12.0	$^{0}_{-0.035}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
EPZ0304	3.0	6	50	6
EPZ0404	4.0	9	50	6
EPZ0504	5.0	11	50	6
EPZ0604	6.0	13	50	6
EPZ0804	8.0	16	60	8
EPZ1004	10.0	22	75	10
EPZ1204	12.0	26	75	12

unit : mm

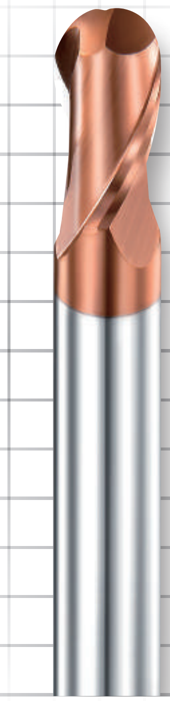
CBA

超微粒圓頭立銑刀
BALL NOSE END MILLS

MG 0.6 µm 30° 2 Flutes HRc ▸55 G7

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining / 油霧切削 MQL(Mist) / 水溶性切削 Emulsion Machining / 油性切削 Oil Machining



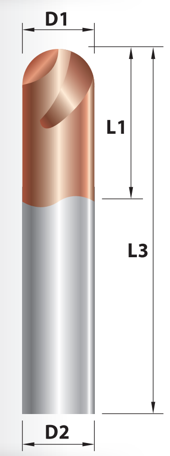
切削性能 CUTTING PERFORMANCE

精銑 Finishing / 中銑 Semi-finishing / 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
R1	±0.01
R1.25	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$^{0}_{-0.008}$
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
CBA0202	R1.0	4	50	4
CBA0202B	R1.0	4	50	6
CBA0252	R1.25	5	50	4
CBA0252B	R1.25	5	50	6
CBA0302	R1.5	6	50	4
CBA0302B	R1.5	6	50	6
CBA0402	R2.0	8	50	4
CBA0402B	R2.0	8	50	6
CBA0502	R2.5	10	50	6
CBA0602	R3.0	12	50	6
CBA0802	R4.0	16	60	8
CBA1002	R5.0	20	75	10
CBA1202	R6.0	24	75	12
CBA1602	R8.0	32	100	16

unit : mm

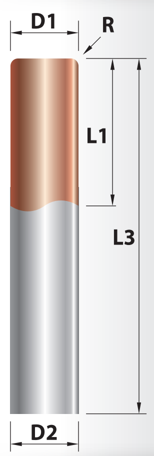
CRA

超微粒圓鼻角立銑刀
END MILLS

MG | 0.6 µm | 35° | R | 2 Flutes | HRc ▸50 | G7

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
2.0	+0.02 / 0	0 / -0.02
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
CRA0205	2.0	0.5	6	50	4
CRA0305	3.0	0.5	8	50	3
CRA0405	4.0	0.5	10	50	4
CRA0410	4.0	1.0	10	50	4
CRA0505	5.0	0.5	13	50	6
CRA0510	5.0	1.0	13	50	6
CRA0605	6.0	0.5	16	50	6
CRA0610	6.0	1.0	16	50	6
CRA0805	8.0	0.5	19	60	8
CRA0810	8.0	1.0	19	60	8
CRA1005	10.0	0.5	25	75	10
CRA1010	10.0	1.0	25	75	10
CRA1015	10.0	1.5	25	75	10
CRA1020	10.0	2.0	25	75	10
CRA1210	12.0	1.0	30	75	12
CRA1220	12.0	2.0	30	75	12

unit : mm

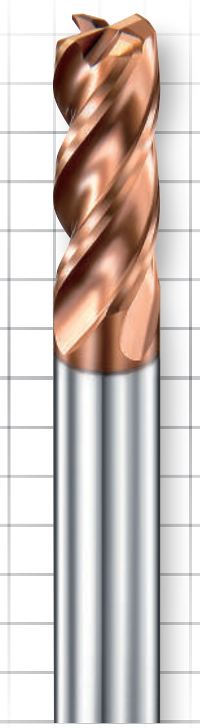
CRD

超微粒圓鼻角立銑刀
END MILLS

MG | 0.6 µm | 35° | R | 4 Flutes | HRc ▸50 | G7

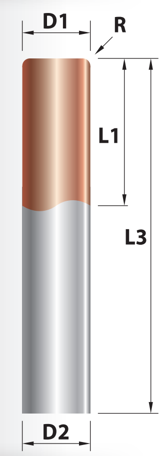
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
CRD0305	3.0	0.5	8	50	3
CRD0405	4.0	0.5	10	50	4
CRD0505	5.0	0.5	13	50	6
CRD0510	5.0	1.0	13	50	6
CRD0605	6.0	0.5	16	50	6
CRD0610	6.0	1.0	16	50	6
CRD0805	8.0	0.5	20	60	8
CRD0810	8.0	1.0	20	60	8
CRD1010	10.0	1.0	25	75	10
CRD1020	10.0	2.0	25	75	10
CRD1030	10.0	3.0	25	75	10
CRD1210	12.0	1.0	30	75	12
CRD1220	12.0	2.0	30	75	12
CRD1230	12.0	3.0	30	75	12

unit : mm

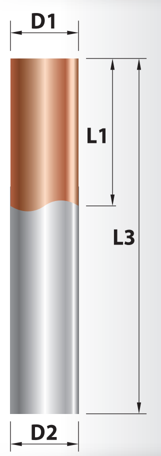
LFTC

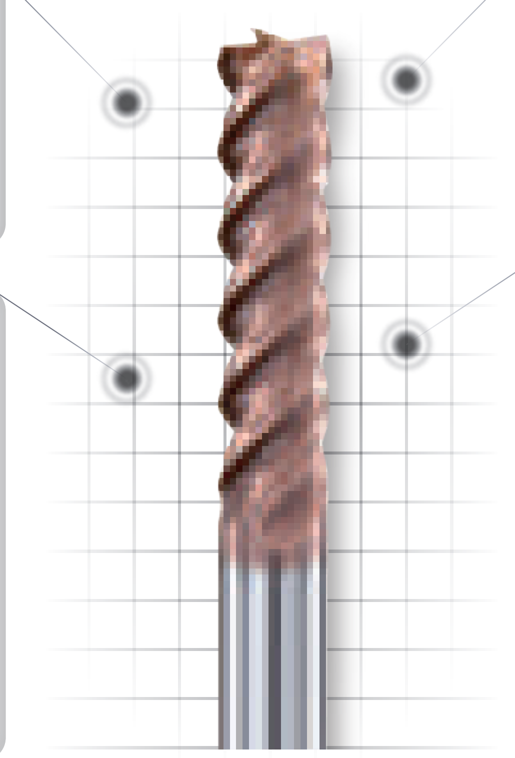
超微粒長刃立銑刀
END MILLS

MG | 0.6 µm | 45° | 4 Flutes | HRc ▸55 | G7

切削性能 CUTTING PERFORMANCE

- 精銑 Finishing
- 中銑 Semi-finishing
- 粗銑 Roughing





冷卻性能 COOLANT TYPE

- 乾式切削 Dry Machining
- 油霧切削 MQL(Mist)
- 水溶性切削 Emulsion Machining
- 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2	柄徑公差值 D2 Tolerance
6.0	0 / -0.02	Ø6	0 / -0.008
8.0	0 / -0.025	Ø8	0 / -0.009
10.0	0 / -0.03	Ø10	0 / -0.009
12.0	0 / -0.035	Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LFTC0604	6.0	30	75	6
LFTC0804	8.0	40	100	8
LFTC1004L	10.0	50	100	10
LFTC1204L	12.0	50	100	12

unit : mm

CARBIDE DRILL SERIES

鎢鋼鑽頭系列

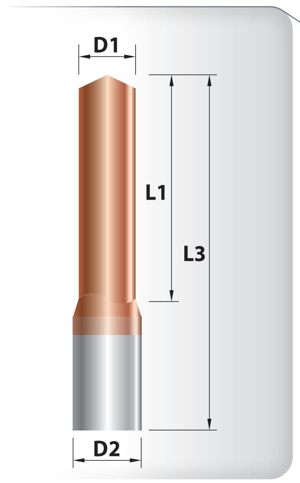
DRILL

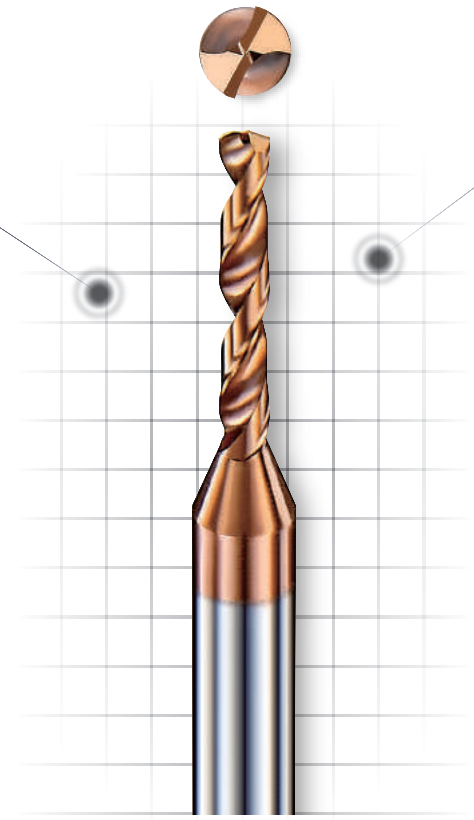
Index
目錄

DAM

小徑鎢鋼鑽頭
CARBIDE MICRO DRILLS

MG | 0.6 µm | 3D | 28° | 2 Flutes | 140° | HRc >52 | G10 | S type





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2	柄徑公差值 D2 Tolerance
0.5~3.0	0 / -0.010	Ø3.0	0 / -0.006

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAM005	0.5	4.6	38	3
DAM006	0.6	4.8	38	3
DAM007	0.7	5	38	3
DAM008	0.8	5.2	38	3
DAM009	0.9	5.4	38	3
DAM010	1.0	6	38	3
DAM011	1.1	12	50	3
DAM012	1.2	12	50	3
DAM013	1.3	12	50	3
DAM014	1.4	12	50	3
DAM015	1.5	12	50	3
DAM016	1.6	12	50	3
DAM017	1.7	12	50	3
DAM018	1.8	12	50	3
DAM019	1.9	12	50	3
DAM020	2.0	12	50	3
DAM021	2.1	18	60	3
DAM022	2.2	18	60	3
DAM023	2.3	18	60	3
DAM024	2.4	18	60	3

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAM025	2.5	18	60	3
DAM026	2.6	18	60	3
DAM027	2.7	18	60	3
DAM028	2.8	18	60	3
DAM029	2.9	18	60	3
DAM030	3.0	18	60	3

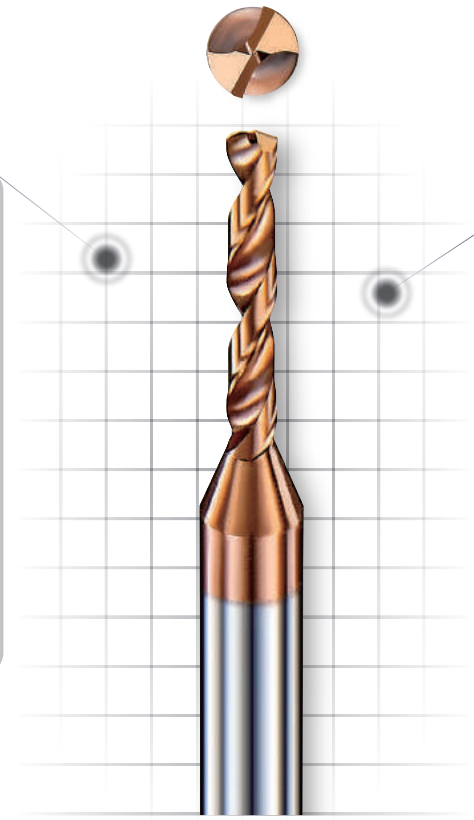
unit : mm

DBM

小徑鎢鋼鑽頭
CARBIDE MICRO DRILLS

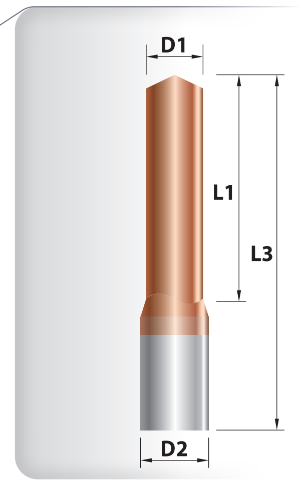
鎢鋼鑽頭系列
CARBIDE DRILL SERIES
DHF DESIGN . HONESTY . FUTURE

MG | 0.6 µm | 5D | 28° | 2 Flutes | 140° | HRc >52 | G10 | S type



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2	柄徑公差值 D2 Tolerance
0.5~3.0	0 / -0.010	Ø3.0	0 / -0.006



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DBM005	0.5	10	50	3
DBM006	0.6	10	50	3
DBM007	0.7	10	50	3
DBM008	0.8	10	50	3
DBM009	0.9	10	50	3
DBM010	1.0	10	50	3
DBM011	1.1	20	50	3
DBM012	1.2	20	60	3
DBM013	1.3	20	60	3
DBM014	1.4	20	60	3
DBM015	1.5	20	60	3
DBM016	1.6	20	60	3
DBM017	1.7	20	60	3
DBM018	1.8	20	60	3
DBM019	1.9	20	60	3
DBM020	2.0	20	60	3
DBM021	2.1	28	66	3
DBM022	2.2	28	66	3
DBM023	2.3	28	66	3
DBM024	2.4	28	66	3

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DBM025	2.5	28	66	3
DBM026	2.6	28	66	3
DBM027	2.7	28	66	3
DBM028	2.8	28	66	3
DBM029	2.9	28	66	3
DBM030	3.0	28	66	3

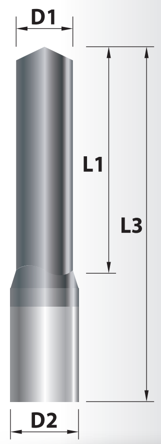
unit : mm

鎢鋼鑽頭系列 CARBIDE DRILL SERIES

DAQ

鎢鋼鑽頭
CARBIDE DRILLS

MG 0.6 μm 3D 30° 2 Flutes 140° HRc ▸52 T1 P POLISH XR XR type



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0~5.9	0 / -0.012
6.0~11.9	0 / -0.015
12.0	0 / -0.018

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAQ030	3.0	20	62	4
DAQ031	3.1	20	62	4
DAQ032	3.2	20	62	4
DAQ033	3.3	20	62	4
DAQ034	3.4	20	62	4
DAQ035	3.5	20	62	4
DAQ036	3.6	20	62	4
DAQ037	3.7	20	62	4
DAQ038	3.8	24	66	4
DAQ039	3.9	24	66	4
DAQ040	4.0	24	66	4
DAQ041	4.1	24	66	6
DAQ042	4.2	24	66	6
DAQ043	4.3	24	66	6
DAQ044	4.4	24	66	6
DAQ045	4.5	24	66	6
DAQ046	4.6	24	66	6
DAQ047	4.7	24	66	6
DAQ048	4.8	28	66	6
DAQ049	4.9	28	66	6
DAQ050	5.0	28	66	6

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAQ051	5.1	28	66	6
DAQ052	5.2	28	66	6
DAQ053	5.3	28	66	6
DAQ054	5.4	28	66	6
DAQ055	5.5	28	66	6
DAQ056	5.6	28	66	6
DAQ057	5.7	28	66	6
DAQ058	5.8	28	66	6
DAQ059	5.9	28	66	6
DAQ060	6.0	28	66	6
DAQ061	6.1	34	79	8
DAQ062	6.2	34	79	8
DAQ063	6.3	34	79	8
DAQ064	6.4	34	79	8
DAQ065	6.5	34	79	8
DAQ066	6.6	34	79	8
DAQ067	6.7	34	79	8
DAQ068	6.8	34	79	8
DAQ069	6.9	34	79	8
DAQ070	7.0	34	79	8
DAQ071	7.1	41	79	8

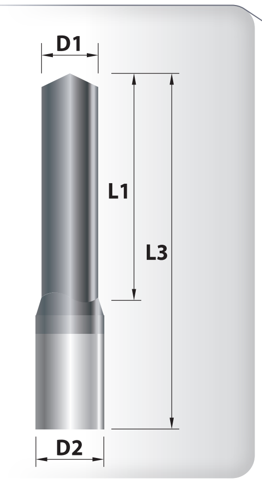
型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAQ072	7.2	41	79	8
DAQ073	7.3	41	79	8
DAQ074	7.4	41	79	8
DAQ075	7.5	41	79	8
DAQ076	7.6	41	79	8
DAQ077	7.7	41	79	8
DAQ078	7.8	41	79	8
DAQ079	7.9	41	79	8
DAQ080	8.0	41	79	8
DAQ081	8.1	47	89	10
DAQ082	8.2	47	89	10
DAQ083	8.3	47	89	10
DAQ084	8.4	47	89	10
DAQ085	8.5	47	89	10
DAQ086	8.6	47	89	10
DAQ087	8.7	47	89	10
DAQ088	8.8	47	89	10
DAQ089	8.9	47	89	10
DAQ090	9.0	47	89	10
DAQ091	9.1	47	89	10
DAQ092	9.2	47	89	10
DAQ093	9.3	47	89	10
DAQ094	9.4	47	89	10
DAQ095	9.5	47	89	10
DAQ096	9.6	47	89	10
DAQ097	9.7	47	89	10
DAQ098	9.8	47	89	10
DAQ099	9.9	47	89	10
DAQ100	10.0	47	89	10
DAQ101	10.1	55	102	12
DAQ102	10.2	55	102	12
DAQ103	10.3	55	102	12
DAQ104	10.4	55	102	12
DAQ105	10.5	55	102	12
DAQ106	10.6	55	102	12
DAQ107	10.7	55	102	12
DAQ108	10.8	55	102	12
DAQ109	10.9	55	102	12
DAQ110	11.0	55	102	12
DAQ111	11.1	55	102	12
DAQ112	11.2	55	102	12
DAQ113	11.3	55	102	12
DAQ114	11.4	55	102	12
DAQ115	11.5	55	102	12
DAQ116	11.6	55	102	12
DAQ117	11.7	55	102	12
DAQ118	11.8	55	102	12
DAQ119	11.9	55	102	12
DAQ120	12.0	55	102	12

unit : mm

MG | 0.6 µm | 5D | 30° | 2 Flutes | 140° | HRc ▸52 | T1 | P POLISH | XR XR type

DBQ

鎢鋼鑽頭
CARBIDE DRILLS



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0~5.9	0 / -0.012
6.0~11.9	0 / -0.015
12.0	0 / -0.018

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

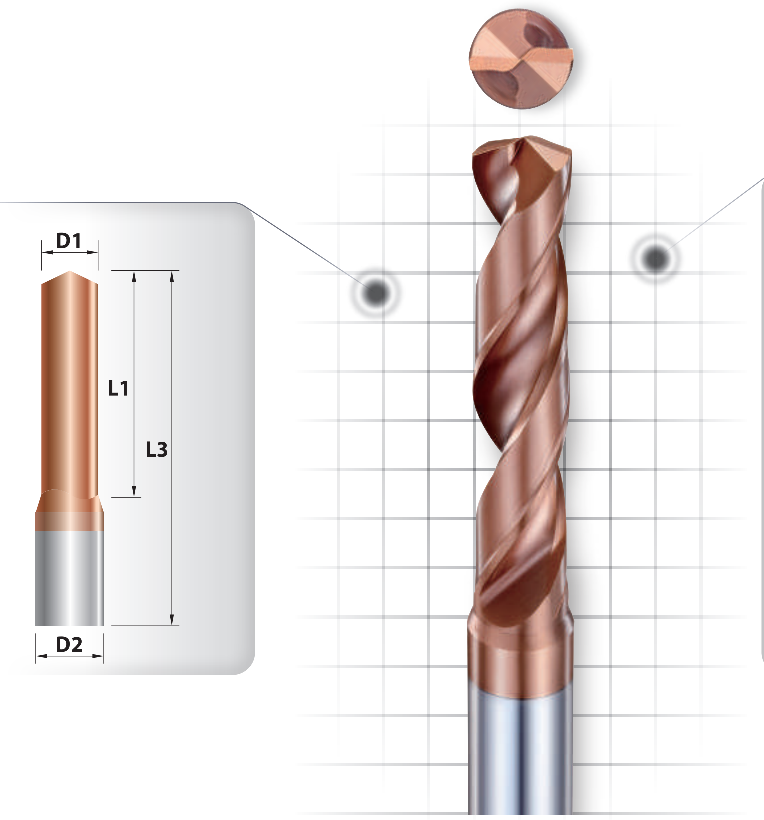
型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DBQ030	3.0	28	66	6
DBQ031	3.1	28	66	6
DBQ032	3.2	28	66	6
DBQ033	3.3	28	66	6
DBQ034	3.4	28	66	6
DBQ035	3.5	28	66	6
DBQ036	3.6	28	66	6
DBQ037	3.7	28	66	6
DBQ038	3.8	36	74	6
DBQ039	3.9	36	74	6
DBQ040	4.0	36	74	6
DBQ041	4.1	36	74	6
DBQ042	4.2	36	74	6
DBQ043	4.3	36	74	6
DBQ044	4.4	36	74	6
DBQ045	4.5	36	74	6
DBQ046	4.6	36	74	6
DBQ047	4.7	36	74	6
DBQ048	4.8	44	82	6
DBQ049	4.9	44	82	6
DBQ050	5.0	44	82	6

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DBQ051	5.1	44	82	6
DBQ052	5.2	44	82	6
DBQ053	5.3	44	82	6
DBQ054	5.4	44	82	6
DBQ055	5.5	44	82	6
DBQ056	5.6	44	82	6
DBQ057	5.7	44	82	6
DBQ058	5.8	44	82	6
DBQ059	5.9	44	82	6
DBQ060	6.0	44	82	6
DBQ061	6.1	53	91	8
DBQ062	6.2	53	91	8
DBQ063	6.3	53	91	8
DBQ064	6.4	53	91	8
DBQ065	6.5	53	91	8
DBQ066	6.6	53	91	8
DBQ067	6.7	53	91	8
DBQ068	6.8	53	91	8
DBQ069	6.9	53	91	8
DBQ070	7.0	53	91	8
DBQ071	7.1	53	91	8

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DBQ072	7.2	53	91	8
DBQ073	7.3	53	91	8
DBQ074	7.4	53	91	8
DBQ075	7.5	53	91	8
DBQ076	7.6	53	91	8
DBQ077	7.7	53	91	8
DBQ078	7.8	53	91	8
DBQ079	7.9	53	91	8
DBQ080	8.0	53	91	8
DBQ081	8.1	61	103	10
DBQ082	8.2	61	103	10
DBQ083	8.3	61	103	10
DBQ084	8.4	61	103	10
DBQ085	8.5	61	103	10
DBQ086	8.6	61	103	10
DBQ087	8.7	61	103	10
DBQ088	8.8	61	103	10
DBQ089	8.9	61	103	10
DBQ090	9.0	61	103	10
DBQ091	9.1	61	103	10
DBQ092	9.2	61	103	10
DBQ093	9.3	61	103	10
DBQ094	9.4	61	103	10
DBQ095	9.5	61	103	10
DBQ096	9.6	61	103	10
DBQ097	9.7	61	103	10
DBQ098	9.8	61	103	10
DBQ099	9.9	61	103	10
DBQ100	10.0	61	103	10
DBQ101	10.1	71	118	12
DBQ102	10.2	71	118	12
DBQ103	10.3	71	118	12
DBQ104	10.4	71	118	12
DBQ105	10.5	71	118	12
DBQ106	10.6	71	118	12
DBQ107	10.7	71	118	12
DBQ108	10.8	71	118	12
DBQ109	10.9	71	118	12
DBQ110	11.0	71	118	12
DBQ111	11.1	71	118	12
DBQ112	11.2	71	118	12
DBQ113	11.3	71	118	12
DBQ114	11.4	71	118	12
DBQ115	11.5	71	118	12
DBQ116	11.6	71	118	12
DBQ117	11.7	71	118	12
DBQ118	11.8	71	118	12
DBQ119	11.9	71	118	12
DBQ120	12.0	71	118	12

DAK

鎢鋼鑽頭
CARBIDE DRILLS



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0~5.9	0 / -0.012
6.0~11.9	0 / -0.015
12.0~15.8	0 / -0.018
16.0~20.0	0 / -0.021

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø14	0 / -0.011
Ø16	0 / -0.011
Ø18	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAK030	3.0	20	62	6
DAK031	3.1	20	62	6
DAK032	3.2	20	62	6
DAK033	3.3	20	62	6
DAK034	3.4	20	62	6
DAK035	3.5	20	62	6
DAK036	3.6	20	62	6
DAK037	3.7	20	62	6
DAK038	3.8	24	66	6
DAK039	3.9	24	66	6
DAK040	4.0	24	66	6
DAK041	4.1	24	66	6
DAK042	4.2	24	66	6
DAK043	4.3	24	66	6
DAK044	4.4	24	66	6
DAK045	4.5	24	66	6
DAK046	4.6	24	66	6
DAK047	4.7	24	66	6
DAK048	4.8	28	66	6
DAK049	4.9	28	66	6
DAK050	5.0	28	66	6

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAK051	5.1	28	66	6
DAK052	5.2	28	66	6
DAK053	5.3	28	66	6
DAK054	5.4	28	66	6
DAK055	5.5	28	66	6
DAK056	5.6	28	66	6
DAK057	5.7	28	66	6
DAK058	5.8	28	66	6
DAK059	5.9	28	66	6
DAK060	6.0	28	66	6
DAK061	6.1	34	79	8
DAK062	6.2	34	79	8
DAK063	6.3	34	79	8
DAK064	6.4	34	79	8
DAK065	6.5	34	79	8
DAK066	6.6	34	79	8
DAK067	6.7	34	79	8
DAK068	6.8	34	79	8
DAK069	6.9	34	79	8
DAK070	7.0	34	79	8
DAK071	7.1	41	79	8

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAK072	7.2	41	79	8
DAK073	7.3	41	79	8
DAK074	7.4	41	79	8
DAK075	7.5	41	79	8
DAK076	7.6	41	79	8
DAK077	7.7	41	79	8
DAK078	7.8	41	79	8
DAK079	7.9	41	79	8
DAK080	8.0	41	79	8
DAK081	8.1	47	89	10
DAK082	8.2	47	89	10
DAK083	8.3	47	89	10
DAK084	8.4	47	89	10
DAK085	8.5	47	89	10
DAK086	8.6	47	89	10
DAK087	8.7	47	89	10
DAK088	8.8	47	89	10
DAK089	8.9	47	89	10
DAK090	9.0	47	89	10
DAK091	9.1	47	89	10
DAK092	9.2	47	89	10
DAK093	9.3	47	89	10
DAK094	9.4	47	89	10
DAK095	9.5	47	89	10
DAK096	9.6	47	89	10
DAK097	9.7	47	89	10
DAK098	9.8	47	89	10
DAK099	9.9	47	89	10
DAK100	10.0	47	89	10
DAK101	10.1	55	102	12
DAK102	10.2	55	102	12
DAK103	10.3	55	102	12
DAK104	10.4	55	102	12
DAK105	10.5	55	102	12
DAK106	10.6	55	102	12
DAK107	10.7	55	102	12
DAK108	10.8	55	102	12
DAK109	10.9	55	102	12
DAK110	11.0	55	102	12
DAK111	11.1	55	102	12
DAK112	11.2	55	102	12
DAK113	11.3	55	102	12
DAK114	11.4	55	102	12
DAK115	11.5	55	102	12
DAK116	11.6	55	102	12
DAK117	11.7	55	102	12
DAK118	11.8	55	102	12
DAK119	11.9	55	102	12
DAK120	12.0	55	102	12
DAK123	12.3	60	107	14
DAK125	12.5	60	107	14

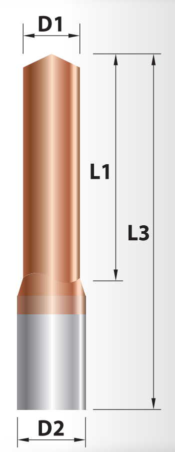
型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAK128	12.8	60	107	14
DAK130	13.0	60	107	14
DAK135	13.5	60	107	14
DAK138	13.8	60	107	14
DAK140	14.0	60	107	14
DAK145	14.5	65	115	16
DAK148	14.8	65	115	16
DAK150	15.0	65	115	16
DAK155	15.5	65	115	16
DAK158	15.8	65	115	16
DAK160	16.0	65	115	16
DAK165	16.5	73	123	18
DAK168	16.8	73	123	18
DAK170	17.0	73	123	18
DAK175	17.5	73	123	18
DAK178	17.8	73	123	18
DAK180	18.0	73	123	18
DAK185	18.5	79	131	20
DAK190	19.0	79	131	20
DAK195	19.5	79	131	20
DAK198	19.8	79	131	20
DAK200	20.0	79	131	20

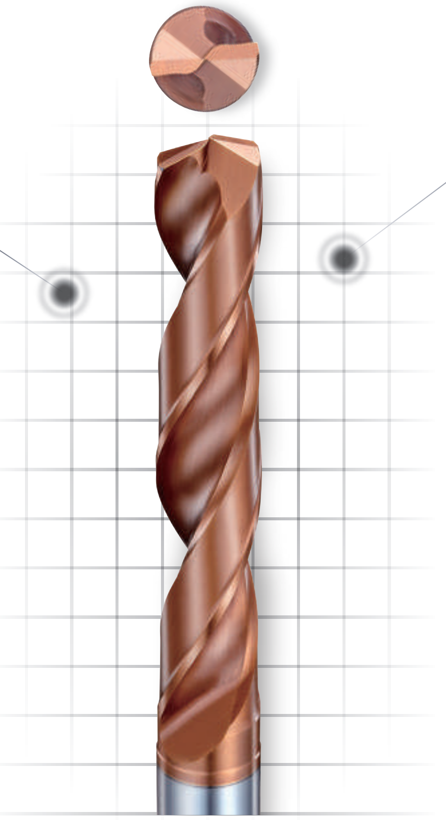
unit : mm

DBK

鎢鋼鑽頭
CARBIDE DRILLS

MG 0.6 μm 5D 30° 2 Flutes 140° HRc ▸52 G10 P POLISH XR XR type





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0~5.9	0 / -0.012
6.0~11.9	0 / -0.015
12.0~15.8	0 / -0.018
16.0~20.0	0 / -0.021

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø14	0 / -0.011
Ø16	0 / -0.011
Ø18	0 / -0.011
Ø20	0 / -0.013

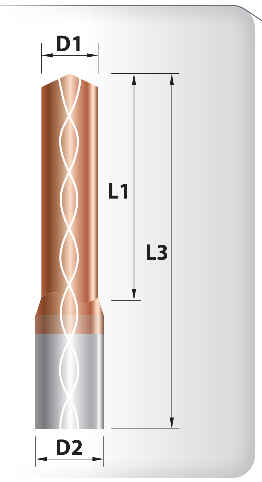
產品規格 SPECIFICATIONS

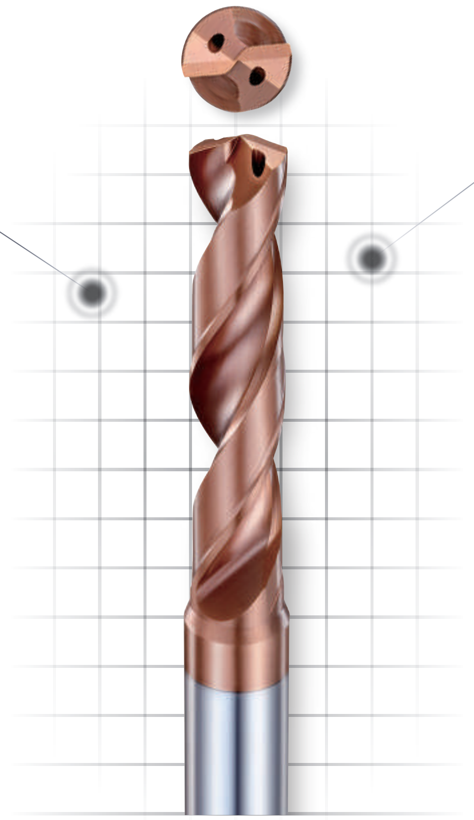
型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DBK030	3.0	28	66	6
DBK031	3.1	28	66	6
DBK032	3.2	28	66	6
DBK033	3.3	28	66	6
DBK034	3.4	28	66	6
DBK035	3.5	28	66	6
DBK036	3.6	28	66	6
DBK037	3.7	28	66	6
DBK038	3.8	36	74	6
DBK039	3.9	36	74	6
DBK040	4.0	36	74	6
DBK041	4.1	36	74	6
DBK042	4.2	36	74	6
DBK043	4.3	36	74	6
DBK044	4.4	36	74	6
DBK045	4.5	36	74	6
DBK046	4.6	36	74	6
DBK047	4.7	36	74	6
DBK048	4.8	44	82	6
DBK049	4.9	44	82	6
DBK050	5.0	44	82	6
DBK051	5.1	44	82	6
DBK052	5.2	44	82	6
DBK053	5.3	44	82	6
DBK054	5.4	44	82	6
DBK055	5.5	44	82	6
DBK056	5.6	44	82	6
DBK057	5.7	44	82	6
DBK058	5.8	44	82	6
DBK059	5.9	44	82	6
DBK060	6.0	44	82	6
DBK061	6.1	53	91	8
DBK062	6.2	53	91	8
DBK063	6.3	53	91	8
DBK064	6.4	53	91	8
DBK065	6.5	53	91	8
DBK066	6.6	53	91	8
DBK067	6.7	53	91	8
DBK068	6.8	53	91	8
DBK069	6.9	53	91	8
DBK070	7.0	53	91	8
DBK071	7.1	53	91	8
DBK072	7.2	53	91	8
DBK073	7.3	53	91	8
DBK074	7.4	53	91	8
DBK075	7.5	53	91	8
DBK076	7.6	53	91	8
DBK077	7.7	53	91	8
DBK078	7.8	53	91	8
DBK079	7.9	53	91	8
DBK080	8.0	53	91	8
DBK081	8.1	61	103	10
DBK082	8.2	61	103	10
DBK083	8.3	61	103	10
DBK084	8.4	61	103	10
DBK085	8.5	61	103	10
DBK086	8.6	61	103	10
DBK087	8.7	61	103	10
DBK088	8.8	61	103	10
DBK089	8.9	61	103	10
DBK090	9.0	61	103	10
DBK091	9.1	61	103	10
DBK092	9.2	61	103	10
DBK093	9.3	61	103	10
DBK094	9.4	61	103	10
DBK095	9.5	61	103	10
DBK096	9.6	61	103	10
DBK097	9.7	61	103	10
DBK098	9.8	61	103	10
DBK099	9.9	61	103	10
DBK100	10.0	61	103	10
DBK101	10.1	71	118	12
DBK102	10.2	71	118	12
DBK103	10.3	71	118	12
DBK104	10.4	71	118	12
DBK105	10.5	71	118	12
DBK106	10.6	71	118	12
DBK107	10.7	71	118	12
DBK108	10.8	71	118	12
DBK109	10.9	71	118	12
DBK110	11.0	71	118	12
DBK111	11.1	71	118	12
DBK112	11.2	71	118	12
DBK113	11.3	71	118	12
DBK114	11.4	71	118	12
DBK115	11.5	71	118	12
DBK116	11.6	71	118	12
DBK117	11.7	71	118	12
DBK118	11.8	71	118	12
DBK119	11.9	71	118	12
DBK120	12.0	71	118	12
DBK123	12.3	77	124	14
DBK125	12.5	77	124	14
DBK128	12.8	77	124	14
DBK130	13.0	77	124	14
DBK135	13.5	77	124	14
DBK138	13.8	77	124	14
DBK140	14.0	77	124	14
DBK145	14.5	83	133	16
DBK148	14.8	83	133	16
DBK150	15.0	83	133	16
DBK155	15.5	83	133	16
DBK158	15.8	83	133	16
DBK160	16.0	83	133	16
DBK165	16.5	93	143	18
DBK168	16.8	93	143	18
DBK170	17.0	93	143	18
DBK175	17.5	93	143	18
DBK178	17.8	93	143	18
DBK180	18.0	93	143	18
DBK185	18.5	101	153	20
DBK190	19.0	101	153	20
DBK195	19.5	101	153	20
DBK198	19.8	101	153	20
DBK200	20.0	101	153	20

unit : mm

DAO

鎢鋼鑽頭(內冷孔)
CARBIDE DRILLS W/ INTERNAL COOLANT HOLE





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0~5.9	0 / -0.012
6.0~11.9	0 / -0.015
12.0~15.8	0 / -0.018
16.0~20.0	0 / -0.021

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø14	0 / -0.011
Ø16	0 / -0.011
Ø18	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAO030	3.0	20	62	6
DAO031	3.1	20	62	6
DAO032	3.2	20	62	6
DAO033	3.3	20	62	6
DAO034	3.4	20	62	6
DAO035	3.5	20	62	6
DAO036	3.6	20	62	6
DAO037	3.7	20	62	6
DAO038	3.8	24	66	6
DAO039	3.9	24	66	6
DAO040	4.0	24	66	6
DAO041	4.1	24	66	6
DAO042	4.2	24	66	6
DAO043	4.3	24	66	6
DAO044	4.4	24	66	6
DAO045	4.5	24	66	6
DAO046	4.6	24	66	6
DAO047	4.7	24	66	6
DAO048	4.8	28	66	6
DAO049	4.9	28	66	6
DAO050	5.0	28	66	6

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAO051	5.1	28	66	6
DAO052	5.2	28	66	6
DAO053	5.3	28	66	6
DAO054	5.4	28	66	6
DAO055	5.5	28	66	6
DAO056	5.6	28	66	6
DAO057	5.7	28	66	6
DAO058	5.8	28	66	6
DAO059	5.9	28	66	6
DAO060	6.0	28	66	6
DAO061	6.1	34	79	8
DAO062	6.2	34	79	8
DAO063	6.3	34	79	8
DAO064	6.4	34	79	8
DAO065	6.5	34	79	8
DAO066	6.6	34	79	8
DAO067	6.7	34	79	8
DAO068	6.8	34	79	8
DAO069	6.9	34	79	8
DAO070	7.0	34	79	8
DAO071	7.1	41	79	8

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAO072	7.2	41	79	8
DAO073	7.3	41	79	8
DAO074	7.4	41	79	8
DAO075	7.5	41	79	8
DAO076	7.6	41	79	8
DAO077	7.7	41	79	8
DAO078	7.8	41	79	8
DAO079	7.9	41	79	8
DAO080	8.0	41	79	8
DAO081	8.1	47	89	10
DAO082	8.2	47	89	10
DAO083	8.3	47	89	10
DAO084	8.4	47	89	10
DAO085	8.5	47	89	10
DAO086	8.6	47	89	10
DAO087	8.7	47	89	10
DAO088	8.8	47	89	10
DAO089	8.9	47	89	10
DAO090	9.0	47	89	10
DAO091	9.1	47	89	10
DAO092	9.2	47	89	10
DAO093	9.3	47	89	10
DAO094	9.4	47	89	10
DAO095	9.5	47	89	10
DAO096	9.6	47	89	10
DAO097	9.7	47	89	10
DAO098	9.8	47	89	10
DAO099	9.9	47	89	10
DAO100	10.0	47	89	10
DAO101	10.1	55	102	12
DAO102	10.2	55	102	12
DAO103	10.3	55	102	12
DAO104	10.4	55	102	12
DAO105	10.5	55	102	12
DAO106	10.6	55	102	12
DAO107	10.7	55	102	12
DAO108	10.8	55	102	12
DAO109	10.9	55	102	12
DAO110	11.0	55	102	12
DAO111	11.1	55	102	12
DAO112	11.2	55	102	12
DAO113	11.3	55	102	12
DAO114	11.4	55	102	12
DAO115	11.5	55	102	12
DAO116	11.6	55	102	12
DAO117	11.7	55	102	12
DAO118	11.8	55	102	12
DAO119	11.9	55	102	12
DAO120	12.0	55	102	12
DAO125	12.5	60	107	14
DAO130	13.0	60	107	14

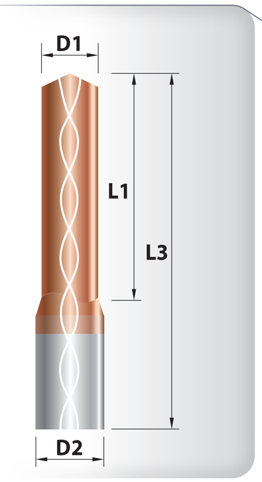
型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DAO135	13.5	60	107	14
DAO140	14.0	60	107	14
DAO145	14.5	65	115	16
DAO150	15.0	65	115	16
DAO155	15.5	65	115	16
DAO160	16.0	65	115	16
DAO165	16.5	73	123	18
DAO170	17.0	73	123	18
DAO175	17.5	73	123	18
DAO180	18.0	73	123	18
DAO185	18.5	79	131	20
DAO190	19.0	79	131	20
DAO195	19.5	79	131	20
DAO200	20.0	79	131	20

unit : mm

MG | 0.6 µm | 5D | 30° | 2 Flutes | 140° | HRc ▸52 | G10 | P POLISH | XR XR type

DBO

鎢鋼鑽頭(內冷孔)
CARBIDE DRILLS W/ INTERNAL COOLANT HOLE



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0~5.9	$^{0}_{-0.012}$
6.0~11.9	$^{0}_{-0.015}$
12.0~15.8	$^{0}_{-0.018}$
16.0~20.0	$^{0}_{-0.021}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø14	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$
Ø18	$^{0}_{-0.011}$
Ø20	$^{0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DBO030	3.0	28	66	6
DBO031	3.1	28	66	6
DBO032	3.2	28	66	6
DBO033	3.3	28	66	6
DBO034	3.4	28	66	6
DBO035	3.5	28	66	6
DBO036	3.6	28	66	6
DBO037	3.7	28	66	6
DBO038	3.8	36	74	6
DBO039	3.9	36	74	6
DBO040	4.0	36	74	6
DBO041	4.1	36	74	6
DBO042	4.2	36	74	6
DBO043	4.3	36	74	6
DBO044	4.4	36	74	6
DBO045	4.5	36	74	6
DBO046	4.6	36	74	6
DBO047	4.7	36	74	6
DBO048	4.8	44	82	6
DBO049	4.9	44	82	6
DBO050	5.0	44	82	6

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DBO051	5.1	44	82	6
DBO052	5.2	44	82	6
DBO053	5.3	44	82	6
DBO054	5.4	44	82	6
DBO055	5.5	44	82	6
DBO056	5.6	44	82	6
DBO057	5.7	44	82	6
DBO058	5.8	44	82	6
DBO059	5.9	44	82	6
DBO060	6.0	44	82	6
DBO061	6.1	53	91	8
DBO062	6.2	53	91	8
DBO063	6.3	53	91	8
DBO064	6.4	53	91	8
DBO065	6.5	53	91	8
DBO066	6.6	53	91	8
DBO067	6.7	53	91	8
DBO068	6.8	53	91	8
DBO069	6.9	53	91	8
DBO070	7.0	53	91	8
DBO071	7.1	53	91	8

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DBO072	7.2	53	91	8
DBO073	7.3	53	91	8
DBO074	7.4	53	91	8
DBO075	7.5	53	91	8
DBO076	7.6	53	91	8
DBO077	7.7	53	91	8
DBO078	7.8	53	91	8
DBO079	7.9	53	91	8
DBO080	8.0	53	91	8
DBO081	8.1	61	103	10
DBO082	8.2	61	103	10
DBO083	8.3	61	103	10
DBO084	8.4	61	103	10
DBO085	8.5	61	103	10
DBO086	8.6	61	103	10
DBO087	8.7	61	103	10
DBO088	8.8	61	103	10
DBO089	8.9	61	103	10
DBO090	9.0	61	103	10
DBO091	9.1	61	103	10
DBO092	9.2	61	103	10
DBO093	9.3	61	103	10
DBO094	9.4	61	103	10
DBO095	9.5	61	103	10
DBO096	9.6	61	103	10
DBO097	9.7	61	103	10
DBO098	9.8	61	103	10
DBO099	9.9	61	103	10
DBO100	10.0	61	103	10
DBO101	10.1	71	118	12
DBO102	10.2	71	118	12
DBO103	10.3	71	118	12
DBO104	10.4	71	118	12
DBO105	10.5	71	118	12
DBO106	10.6	71	118	12
DBO107	10.7	71	118	12
DBO108	10.8	71	118	12
DBO109	10.9	71	118	12
DBO110	11.0	71	118	12
DBO111	11.1	71	118	12
DBO112	11.2	71	118	12
DBO113	11.3	71	118	12
DBO114	11.4	71	118	12
DBO115	11.5	71	118	12
DBO116	11.6	71	118	12
DBO117	11.7	71	118	12
DBO118	11.8	71	118	12
DBO119	11.9	71	118	12
DBO120	12.0	71	118	12
DBO125	12.5	77	124	14
DBO130	13.0	77	124	14

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DBO135	13.5	77	124	14
DBO140	14.0	77	124	14
DBO145	14.5	83	133	16
DBO150	15.0	83	133	16
DBO155	15.5	83	133	16
DBO160	16.0	83	133	16
DBO165	16.5	93	143	18
DBO170	17.0	93	143	18
DBO175	17.5	93	143	18
DBO180	18.0	93	143	18
DBO185	18.5	101	153	20
DBO190	19.0	101	153	20
DBO195	19.5	101	153	20
DBO200	20.0	101	153	20

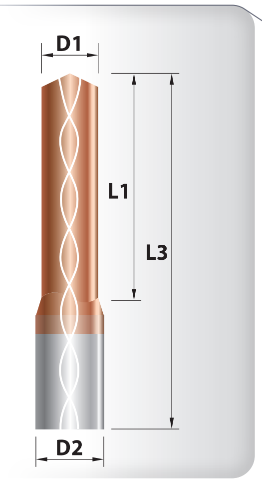
unit : mm

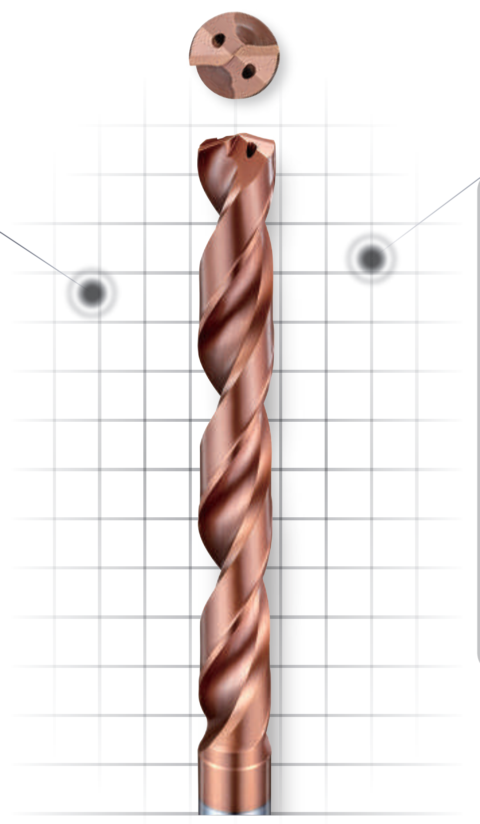
鎢鋼鑽頭系列 CARBIDE DRILL SERIES

DCO

鎢鋼鑽頭(內冷孔)
CARBIDE DRILLS W/ INTERNAL COOLANT HOLE

MG | 0.6 µm | 8D | 30° | 2 Flutes | 140° | HRc ▸52 | G10 | P POLISH | XR XR type





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0~5.9	0 / -0.012
6.0~11.9	0 / -0.015
12.0	0 / -0.018

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DCO040	4.0	43	81	6
DCO041	4.1	43	81	6
DCO042	4.2	43	81	6
DCO043	4.3	43	81	6
DCO044	4.4	43	81	6
DCO045	4.5	43	81	6
DCO046	4.6	43	81	6
DCO047	4.7	43	81	6
DCO048	4.8	57	95	6
DCO049	4.9	57	95	6
DCO050	5.0	57	95	6
DCO051	5.1	57	95	6
DCO052	5.2	57	95	6
DCO053	5.3	57	95	6
DCO054	5.4	57	95	6
DCO055	5.5	57	95	6
DCO056	5.6	57	95	6
DCO057	5.7	57	95	6
DCO058	5.8	57	95	6
DCO059	5.9	57	95	6
DCO060	6.0	57	95	6

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DCO061	6.1	76	114	8
DCO062	6.2	76	114	8
DCO063	6.3	76	114	8
DCO064	6.4	76	114	8
DCO065	6.5	76	114	8
DCO066	6.6	76	114	8
DCO067	6.7	76	114	8
DCO068	6.8	76	114	8
DCO069	6.9	76	114	8
DCO070	7.0	76	114	8
DCO071	7.1	76	114	8
DCO072	7.2	76	114	8
DCO073	7.3	76	114	8
DCO074	7.4	76	114	8
DCO075	7.5	76	114	8
DCO076	7.6	76	114	8
DCO077	7.7	76	114	8
DCO078	7.8	76	114	8
DCO079	7.9	76	114	8
DCO080	8.0	76	114	8
DCO081	8.1	95	142	10

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
DCO082	8.2	95	142	10
DCO083	8.3	95	142	10
DCO084	8.4	95	142	10
DCO085	8.5	95	142	10
DCO086	8.6	95	142	10
DCO087	8.7	95	142	10
DCO088	8.8	95	142	10
DCO089	8.9	95	142	10
DCO090	9.0	95	142	10
DCO091	9.1	95	142	10
DCO092	9.2	95	142	10
DCO093	9.3	95	142	10
DCO094	9.4	95	142	10
DCO095	9.5	95	142	10
DCO096	9.6	95	142	10
DCO097	9.7	95	142	10
DCO098	9.8	95	142	10
DCO099	9.9	95	142	10
DCO100	10.0	95	142	10
DCO101	10.1	114	162	12
DCO102	10.2	114	162	12
DCO103	10.3	114	162	12
DCO104	10.4	114	162	12
DCO105	10.5	114	162	12
DCO106	10.6	114	162	12
DCO107	10.7	114	162	12
DCO108	10.8	114	162	12
DCO109	10.9	114	162	12
DCO110	11.0	114	162	12
DCO111	11.1	114	162	12
DCO112	11.2	114	162	12
DCO113	11.3	114	162	12
DCO114	11.4	114	162	12
DCO115	11.5	114	162	12
DCO116	11.6	114	162	12
DCO117	11.7	114	162	12
DCO118	11.8	114	162	12
DCO119	11.9	114	162	12
DCO120	12.0	114	162	12

unit : mm

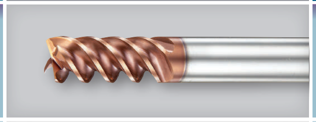
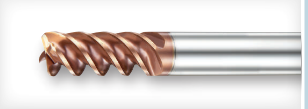
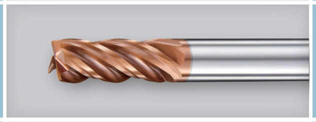
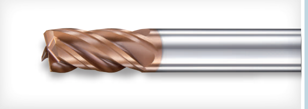
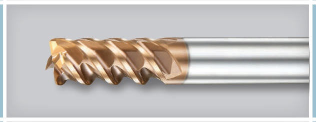
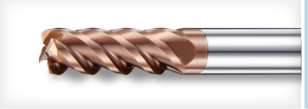
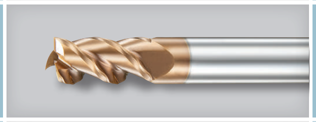
20th
BEST CHOICE

鈦好切系列

TITANIUM EASY CUTTING SERIES

TITANIUM

Index
目錄

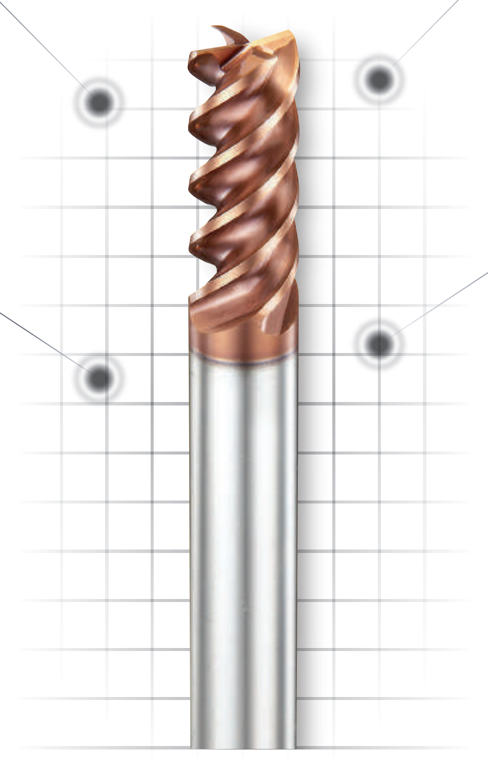
型號/頁碼 Type No. & Page	產品照片 Product Picture	鑄鐵 Cast Iron	碳鋼 Carbon Steels	合金鋼 工具鋼 Alloy Steels, Tool Steels	調質鋼 Prehardened Steels	不鏽鋼 Stainless Steels	鈦合金 Titanium Alloy	耐熱合金鋼 高溫合金鋼 Heat Resistant & High Temp Alloy Steels	熱處理鋼 Hardened Steels ～55HRc	熱處理鋼 Hardened Steels 55HRc～
UTH P.272		------	★★	★★	★★	★★★	★★★	★	★	------
UTHR P.273		------	★★	★★	★★	★★★	★★★	★	★	------
UPE P.274		★★	★★★	★★★	★★★	★★	★★★	★	★	------
UPER P.275		★★	★★★	★★★	★★★	★★	★★★	★	★	------
UPW P.276		★★	★★★	★★★	★★★	★★	★★★	★	★	------
UPA P.277		★★	★★★	★★★	★★★	★★	★★★	★	★	------
UTJ P.278		★★	★★★	★★★	★★★	★★	★★★	★	★	------
UTER P.279		★★	★★★	★★★	★★★	★★	★★★	★	★	------
UTW P.280		★★	★★★	★★★	★★★	★★	★★★	★	★	------
WWB P.281		★★	★★★	★★★	★★★	★★★	★★★	------	★	------

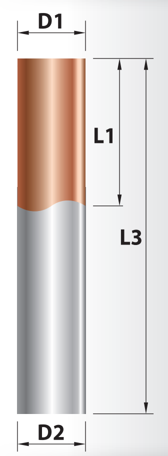
UTH
鈦滿意立銑刀
END MILLS

Super MG · 0.4 μm · 52° · 4 Flutes · HRc ▸55 · G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UTH0304	3.0	8	50	6
UTH0404	4.0	11	50	6
UTH0504	5.0	13	50	6
UTH0604	6.0	16	50	6
UTH0804	8.0	20	60	8
UTH1004	10.0	25	75	10
UTH1204	12.0	30	75	12
UTH1604	16.0	40	100	16
UTH2004	20.0	45	100	20

unit : mm

UTHR
鈦滿意圓鼻角立銑刀
END MILLS (CORNER RADIUS)

Super MG · 0.4 μm · 52° · R · 4 Flutes · HRc ▸55 · G10

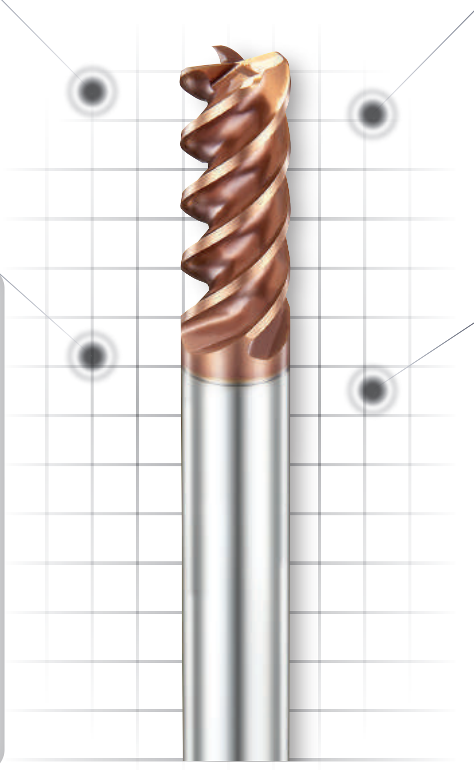
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining · 油霧切削 MQL(Mist) · 水溶性切削 Emulsion Machining · 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

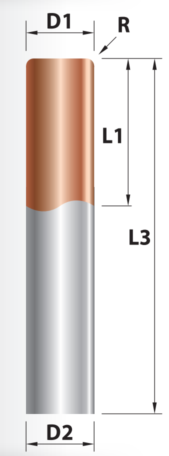
直徑 D1	R角公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035
16.0	+0.02 / 0	0 / -0.04
20.0	+0.02 / 0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013



切削性能 CUTTING PERFORMANCE

精銑 Finishing · 中銑 Semi-finishing · 粗銑 Roughing



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UTHR0305	3.0	0.5	8	50	6
UTHR0405	4.0	0.5	10	50	6
UTHR0505	5.0	0.5	13	50	6
UTHR0605	6.0	0.5	16	50	6
UTHR0610	6.0	1.0	16	50	6
UTHR0805	8.0	0.5	20	60	8
UTHR0810	8.0	1.0	20	60	8
UTHR1005	10.0	0.5	25	75	10
UTHR1010	10.0	1.0	25	75	10
UTHR1020	10.0	2.0	25	75	10
UTHR1030	10.0	3.0	25	75	10
UTHR1210	12.0	1.0	30	75	12
UTHR1220	12.0	2.0	30	75	12
UTHR1230	12.0	3.0	30	75	12
UTHR1610	16.0	1.0	40	100	16
UTHR1620	16.0	2.0	40	100	16
UTHR1630	16.0	3.0	40	100	16
UTHR2010	20.0	1.0	45	100	20
UTHR2020	20.0	2.0	45	100	20
UTHR2030	20.0	3.0	45	100	20

unit : mm

UPE
高效能立銑刀
END MILLS (HEAVY DUTY)

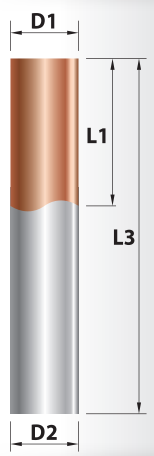
Super MG | 0.4 µm | 35° | 4 Flutes | HRc ▸60 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	$^{0}_{-0.02}$
4.0	$^{0}_{-0.02}$
5.0	$^{0}_{-0.02}$
6.0	$^{0}_{-0.02}$
8.0	$^{0}_{-0.025}$
10.0	$^{0}_{-0.03}$
12.0	$^{0}_{-0.035}$
14.0	$^{0}_{-0.04}$
16.0	$^{0}_{-0.04}$
18.0	$^{0}_{-0.04}$
20.0	$^{0}_{-0.04}$
25.0	$^{0}_{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø14	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$
Ø18	$^{0}_{-0.011}$
Ø20	$^{0}_{-0.013}$
Ø25	$^{0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPE0304	3.0	8	50	6
UPE0404	4.0	11	50	6
UPE0504	5.0	13	50	6
UPE0604	6.0	16	50	6
UPE0804	8.0	20	60	8
UPE1004	10.0	22	75	10
UPE1204	12.0	26	75	12
UPE1404	14.0	30	80	14
UPE1604	16.0	36	100	16
UPE1804	18.0	40	100	18
UPE2004	20.0	40	100	20
UPE2504	25.0	45	100	25

unit : mm

UPER
高效能圓鼻角立銑刀
END MILLS (HEAVY DUTY)

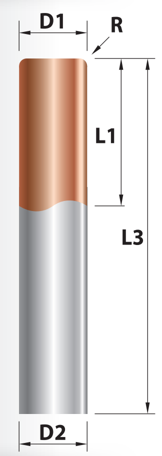
Super MG | 0.4 µm | 35° | R | 4 Flutes | HRc ▸60 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R角公差值 R Tolerance	直徑公差值 D1 Tolerance
4.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
5.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
6.0	$^{+0.02}_{0}$	$^{0}_{-0.02}$
8.0	$^{+0.02}_{0}$	$^{0}_{-0.025}$
10.0	$^{+0.02}_{0}$	$^{0}_{-0.03}$
12.0	$^{+0.02}_{0}$	$^{0}_{-0.035}$
16.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$
20.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$
Ø16	$^{0}_{-0.011}$
Ø20	$^{0}_{-0.013}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPER0405	4.0	0.5	11	50	6
UPER0502	5.0	0.2	13	50	6
UPER0505	5.0	0.5	13	50	6
UPER0605	6.0	0.5	16	50	6
UPER0610	6.0	1.0	16	50	6
UPER0805	8.0	0.5	20	60	8
UPER0810	8.0	1.0	20	60	8
UPER1005	10.0	0.5	22	75	10
UPER1010	10.0	1.0	22	75	10
UPER1020	10.0	2.0	22	75	10
UPER1210	12.0	1.0	26	75	12
UPER1220	12.0	2.0	26	75	12
UPER1610	16.0	1.0	36	100	16
UPER1620	16.0	2.0	36	100	16
UPER2010	20.0	1.0	40	100	20
UPER2020	20.0	2.0	40	100	20

unit : mm

UPW

無敵高效能立銑刀
END MILLS (HEAVY DUTY)

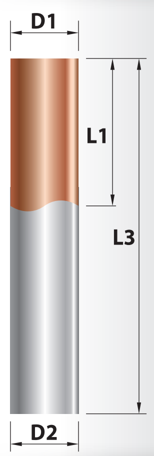
Super MG | 0.4 µm | 37° | 5 Flutes | HRc ▸60 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
14.0	0 / -0.04
16.0	0 / -0.04
18.0	0 / -0.04
20.0	0 / -0.04
25.0	0 / -0.05

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø14	0 / -0.011
Ø16	0 / -0.011
Ø18	0 / -0.011
Ø20	0 / -0.013
Ø25	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPW0305	3.0	8	50	6
UPW0405	4.0	11	50	6
UPW0505	5.0	13	50	6
UPW0605	6.0	16	50	6
UPW0805	8.0	20	60	8
UPW1005	10.0	22	75	10
UPW1205	12.0	26	75	12
UPW1405	14.0	30	80	14
UPW1605	16.0	36	100	16
UPW1805	18.0	40	100	18
UPW2005	20.0	40	100	20
UPW2505	25.0	45	100	25

unit : mm

鈦好切系列 TITANIUM EASY CUTTING SERIES

UPA

無敵高效能立銑刀
END MILLS (HEAVY DUTY)

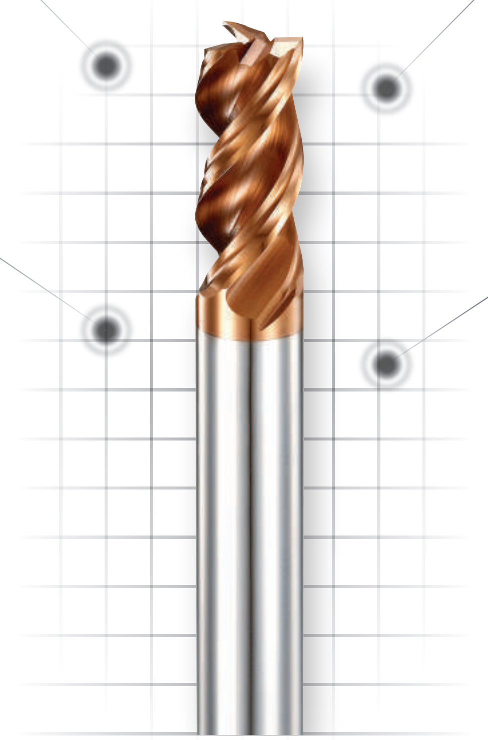
Super MG | 0.4 µm | 40° | 3 Flutes | HRc ▸55 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

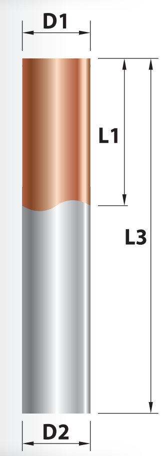
精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.0	0 / -0.02
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UPA0203	2.0	6	50	6
UPA0303	3.0	8	50	6
UPA0403	4.0	11	50	6
UPA0503	5.0	13	50	6
UPA0603	6.0	16	50	6
UPA0803	8.0	20	60	8
UPA1003	10.0	25	75	10
UPA1203	12.0	30	75	12
UPA1603	16.0	50	120	16
UPA2003	20.0	60	120	20

unit : mm

鈦好切系列 TITANIUM EASY CUTTING SERIES

UTJ
鈦厲害立銑刀
END MILLS

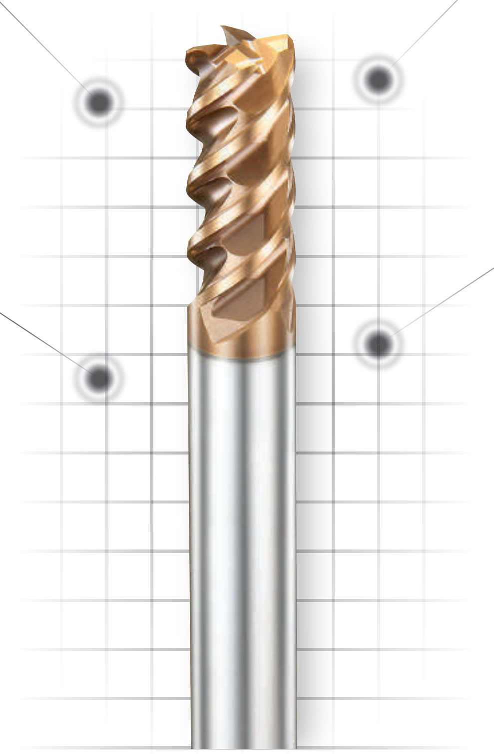
Super MG | 0.4 μm | 50° | 4 Flutes | HRc ▸55 | G10

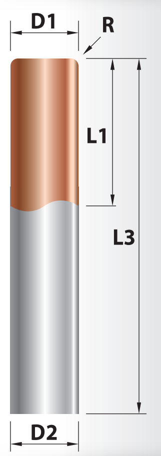
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.02
4.0	0 / -0.02
5.0	0 / -0.02
6.0	0 / -0.02
8.0	0 / -0.025
10.0	0 / -0.03
12.0	0 / -0.035
16.0	0 / -0.04
20.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UTJ0304	3.0	0.2	8	50	6
UTJ0404	4.0	0.3	11	50	6
UTJ0504	5.0	0.3	13	50	6
UTJ0604	6.0	0.4	16	50	6
UTJ0804	8.0	0.5	20	60	8
UTJ1004	10.0	0.6	25	75	10
UTJ1204	12.0	0.6	30	75	12
UTJ1604	16.0	0.8	45	110	16
UTJ2004	20.0	1.0	50	110	20

unit : mm

UTER
鈦好用圓鼻角立銑刀
END MILLS (CORNER RADIUS)

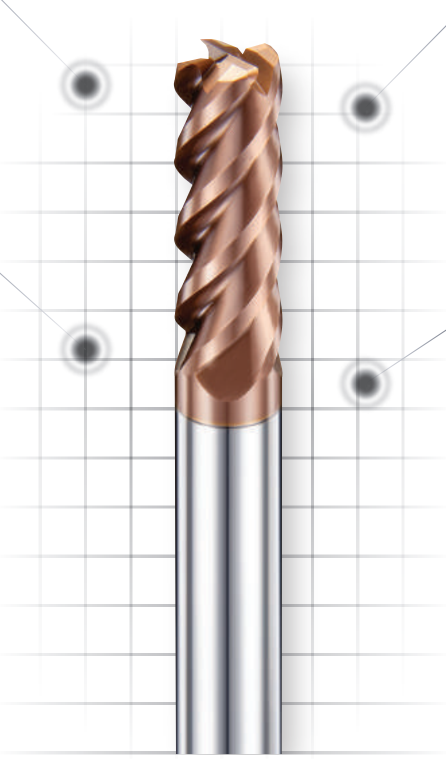
Super MG | 0.4 μm | 45° | R | 4 Flutes | HRc ▸50 | G10

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

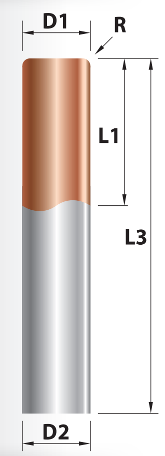
精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R角公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	+0.02 / 0	0 / -0.02
4.0	+0.02 / 0	0 / -0.02
5.0	+0.02 / 0	0 / -0.02
6.0	+0.02 / 0	0 / -0.02
8.0	+0.02 / 0	0 / -0.025
10.0	+0.02 / 0	0 / -0.03
12.0	+0.02 / 0	0 / -0.035
16.0	+0.02 / 0	0 / -0.04
20.0	+0.02 / 0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UTER0305	3.0	0.5	8	50	3
UTER0405	4.0	0.5	10	50	4
UTER0505	5.0	0.5	13	50	6
UTER0510	5.0	1.0	13	50	6
UTER0605	6.0	0.5	16	50	6
UTER0610	6.0	1.0	16	50	6
UTER0805	8.0	0.5	20	60	8
UTER0810	8.0	1.0	20	60	8
UTER1005	10.0	0.5	25	75	10
UTER1010	10.0	1.0	25	75	10
UTER1020	10.0	2.0	25	75	10
UTER1030	10.0	3.0	25	75	10
UTER1210	12.0	1.0	30	75	12
UTER1220	12.0	2.0	30	75	12
UTER1230	12.0	3.0	30	75	12
UTER1610	16.0	1.0	40	100	16
UTER1620	16.0	2.0	40	100	16
UTER1630	16.0	3.0	40	100	16
UTER2010	20.0	1.0	45	100	20
UTER2020	20.0	2.0	45	100	20
UTER2030	20.0	3.0	45	100	20

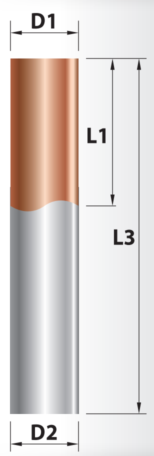
unit : mm

UTW
鈦神奇立銑刀
END MILLS (HEAVY DUTY)

Super MG | 0.4 µm | 45° | 3 Flutes | HRc ▸50 | G10

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2	柄徑公差值 D2 Tolerance
6.0	0 / -0.02	Ø6	0 / -0.008
8.0	0 / -0.02	Ø8	0 / -0.009
10.0	0 / -0.02	Ø10	0 / -0.009
12.0	0 / -0.02	Ø12	0 / -0.011
16.0	0 / -0.03	Ø16	0 / -0.011
20.0	0 / -0.03	Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UTW0603	6.0	16	50	6
UTW0803	8.0	19	60	8
UTW0803L	8.0	25	80	8
UTW1003	10.0	22	75	10
UTW1003L	10.0	30	80	10
UTW1203	12.0	26	75	12
UTW1203L	12.0	35	100	12
UTW1603	16.0	40	100	16
UTW1603L	16.0	50	120	16
UTW2003	20.0	45	100	20
UTW2003L	20.0	55	120	20

unit : mm

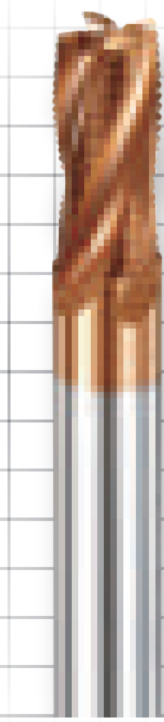
鈦好切系列
TITANIUM EASY CUTTING SERIES
DHF DESIGN . HONESTY . FUTURE

WWB
抗震粗齒細目銑刀
END MILLS (HEAVY DUTY)

MG | 0.4 µm | Roughing | 20° | 4 Flutes | HRc ▸55 | G10

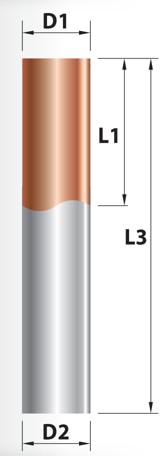
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
6.0	0 / -0.04
8.0	0 / -0.04
10.0	0 / -0.045
12.0	0 / -0.045
14.0	0 / -0.045
16.0	0 / -0.05
18.0	0 / -0.05
20.0	0 / -0.05

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009
Ø12	0 / -0.011
Ø16	0 / -0.011
Ø20	0 / -0.013

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WWB0604	6.0	16	50	6
WWB0804	8.0	20	60	8
WWB1004	10.0	25	75	10
WWB1204	12.0	30	75	12
WWB1404	14.0	35	100	16
WWB1604	16.0	40	100	16
WWB1804	18.0	40	100	20
WWB2004	20.0	45	100	20

unit : mm

鈦好切系列 TITANIUM EASY CUTTING SERIES

20th
BEST CHOICE

石墨加工系列

GRAPHITE CUTTING SERIES

GRAPHITE

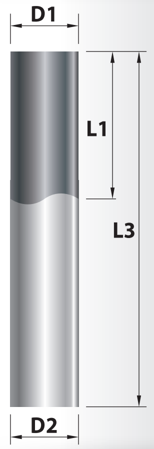
Index
目錄

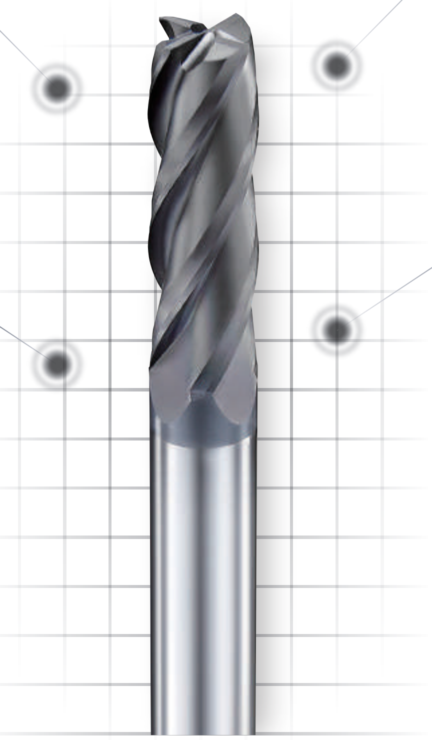
GE
石墨用立銑刀
END MILLS

MG | 0.6 μm | 30° | 4 Flutes | Diamond

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
3.0	0 / -0.04
4.0	0 / -0.04
6.0	0 / -0.04
8.0	0 / -0.04
10.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
GE0304	3.0	12	50	3
GE0404	4.0	15	50	4
GE0604	6.0	20	60	6
GE0804	8.0	22	60	8
GE1004	10.0	25	75	10
GE0304M	3.0	12	75	3
GE0404M	4.0	15	75	4
GE0604M	6.0	30	80	6
GE0804M	8.0	32	100	8
GE1004M	10.0	40	100	10

unit : mm

GNE
石墨用深溝立銑刀
END MILLS

石墨加工系列
GRAPHITE CUTTING SERIES
DHF DESIGN . HONESTY . FUTURE

MG | 0.6 μm | 30° | 2 Flutes | Diamond

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

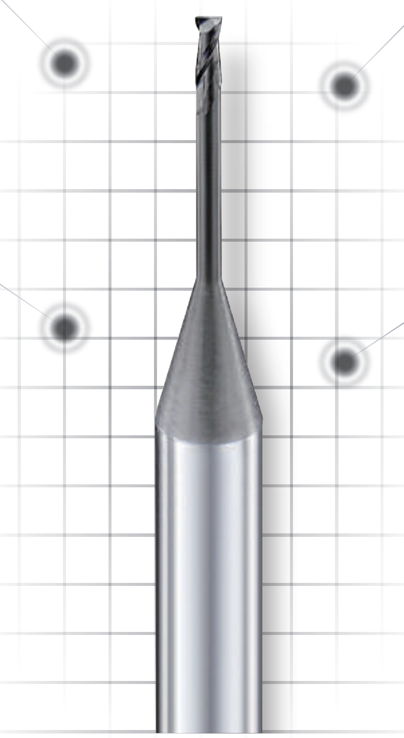
切削性能 CUTTING PERFORMANCE

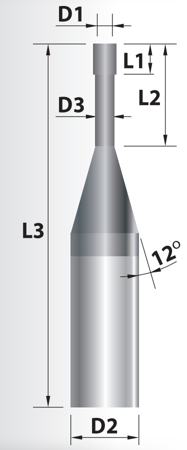
精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
0.5	0 / -0.04
0.6	0 / -0.04
0.8	0 / -0.04
1.0	0 / -0.04
1.5	0 / -0.04
2.0	0 / -0.04
3.0	0 / -0.04
4.0	0 / -0.04
6.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008





產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
GNE0504	0.5	0.46	1.5	4	50	4
GNE0506	0.5	0.46	1.5	6	50	4
GNE0604	0.6	0.55	2	4	50	4
GNE0606	0.6	0.55	2	6	50	4
GNE0806	0.8	0.75	2	6	50	4
GNE0808	0.8	0.75	2	8	50	4
GNE1006	1.0	0.95	2.5	6	50	4
GNE1010	1.0	0.95	2.5	10	50	4
GNE1016	1.0	0.95	2.5	16	50	4
GNE1508	1.5	1.44	3	8	50	4
GNE1512	1.5	1.44	3	12	50	4
GNE1516	1.5	1.44	3	16	50	4
GNE2010	2.0	1.92	3	10	50	4
GNE2016	2.0	1.92	3	16	50	4
GNE3015	3.0	2.90	4.5	15	50	6
GNE3030	3.0	2.90	4.5	30	75	6
GNE4035	4.0	3.90	6	35	75	6
GNE6050	6.0	5.80	9	50	100	6

unit : mm

GB
石墨用圓頭立銑刀
BALL NOSE END MILLS

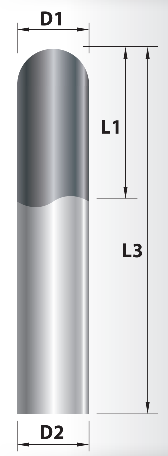
MG 0.6 μm 30° 4 Flutes Diamond

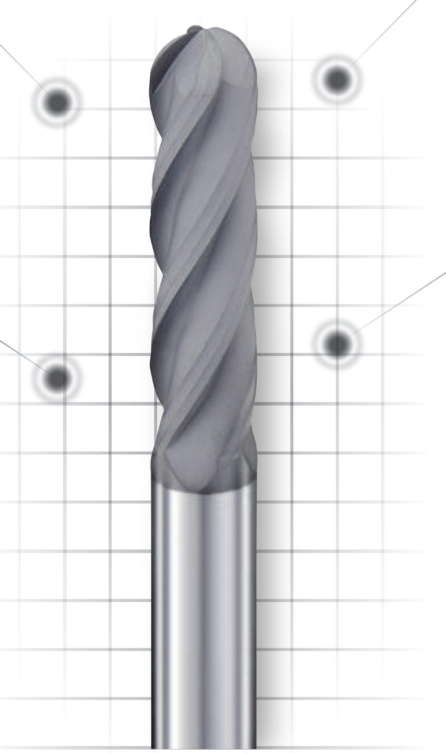
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R1.5	±0.01
R2	±0.01
R3	±0.01
R4	±0.01
R5	±0.015

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 / -0.006
Ø4	0 / -0.008
Ø6	0 / -0.008
Ø8	0 / -0.009
Ø10	0 / -0.009

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
GB0304	R1.5	12	50	3
GB0404	R2.0	15	50	4
GB0604	R3.0	20	60	6
GB0804	R4.0	22	60	8
GB1004	R5.0	25	75	10
GB0304M	R1.5	12	75	3
GB0404M	R2.0	15	75	4
GB0604M	R3.0	30	80	6
GB0604L	R3.0	30	100	6
GB0804M	R4.0	32	100	8
GB1004M	R5.0	40	100	10

unit : mm

GNB
石墨用深溝圓頭立銑刀
BALL NOSE END MILLS

MG 0.6 μm 30° 2 Flutes Diamond

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

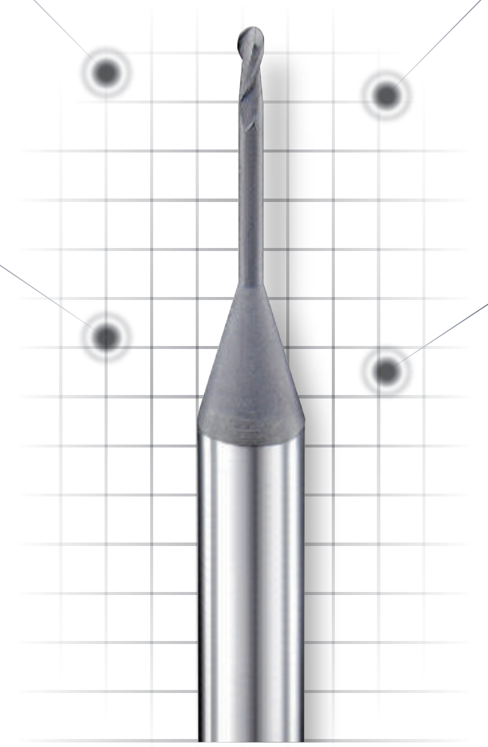
切削性能 CUTTING PERFORMANCE

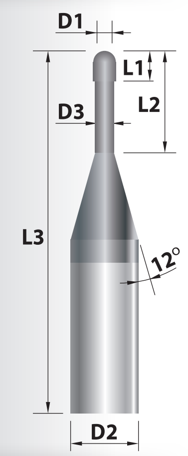
精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R0.25	±0.01
R0.3	±0.01
R0.4	±0.01
R0.5	±0.01
R0.75	±0.01
R1.0	±0.01
R1.5	±0.01
R2.0	±0.01
R3.0	±0.01

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 / -0.008
Ø6	0 / -0.008





產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
GNB0504	R0.25	0.46	1.5	4	50	4
GNB0506	R0.25	0.46	1.5	6	50	4
GNB0604	R0.30	0.55	2	4	50	4
GNB0606	R0.30	0.55	2	6	50	4
GNB0806	R0.40	0.75	2	6	50	4
GNB0808	R0.40	0.75	2	8	50	4
GNB1006	R0.50	0.95	2.5	6	50	4
GNB1010	R0.50	0.95	2.5	10	50	4
GNB1016	R0.50	0.95	2.5	16	50	4
GNB1508	R0.75	1.44	3	8	50	4
GNB1512	R0.75	1.44	3	12	50	4
GNB1516	R0.75	1.44	3	16	50	4
GNB1520	R0.75	1.44	3	20	50	4
GNB2010	R1.0	1.92	3	10	50	4
GNB2016	R1.0	1.92	3	16	50	4
GNB2020	R1.0	1.92	3	20	50	4
GNB3015	R1.50	2.90	4.5	15	60	4
GNB3030	R1.50	2.90	4.5	30	75	4
GNB4025	R2.0	3.90	6	25	60	6
GNB4035	R2.0	3.90	6	35	75	6
GNB6050	R3.0	5.80	9	50	100	6

unit : mm

DHF
DESIGN . HONESTY . FUTURE

石墨加工系列
GRAPHITE CUTTING SERIES

GPR

石墨用圓鼻角立銑刀
END MILLS

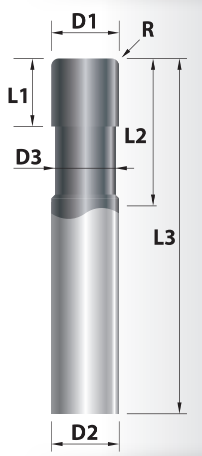
MG 0.6 μm 30° R 4 Flutes Diamond

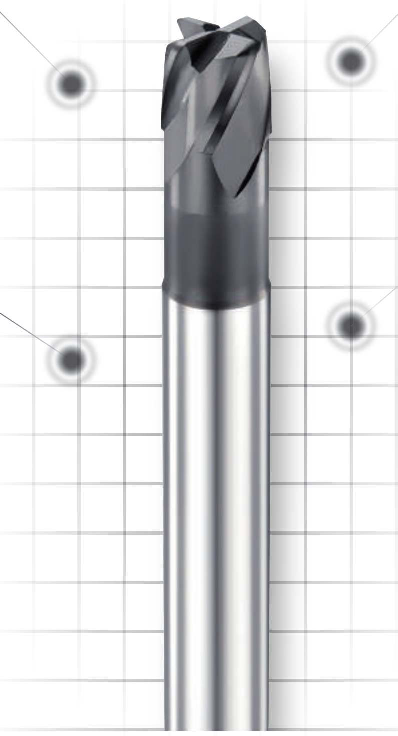
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$
4.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$
6.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$
8.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$
10.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$
12.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$^{0}_{-0.008}$
Ø6	$^{0}_{-0.008}$
Ø8	$^{0}_{-0.009}$
Ø10	$^{0}_{-0.009}$
Ø12	$^{0}_{-0.011}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
GPR0305	3.0	2.90	0.5	3	12	50	4
GPR0405	4.0	3.90	0.5	4	12	50	4
GPR0605	6.0	5.80	0.5	6	15	50	6
GPR0605ML	6.0	5.80	0.5	6	15	100	6
GPR0610	6.0	5.80	1.0	6	15	50	6
GPR0610ML	6.0	5.80	1.0	6	15	100	6
GPR0805	8.0	7.70	0.5	8	20	60	8
GPR0805ML	8.0	7.70	0.5	8	20	100	8
GPR0810	8.0	7.70	1.0	8	20	60	8
GPR0810ML	8.0	7.70	1.0	8	20	100	8
GPR1010	10.0	9.60	1.0	10	25	75	10
GPR1010ML	10.0	9.60	1.0	10	25	100	10
GPR1020	10.0	9.60	2.0	10	25	75	10
GPR1020ML	10.0	9.60	2.0	10	25	100	10
GPR1210	12.0	11.50	1.0	12	30	75	12
GPR1220	12.0	11.50	2.0	12	30	75	12

unit : mm

GNER

石墨用深溝圓鼻立銑刀
END MILLS (LONG NECK)

石墨加工系列
GRAPHITE CUTTING SERIES

DHF
DESIGN . HONESTY . FUTURE

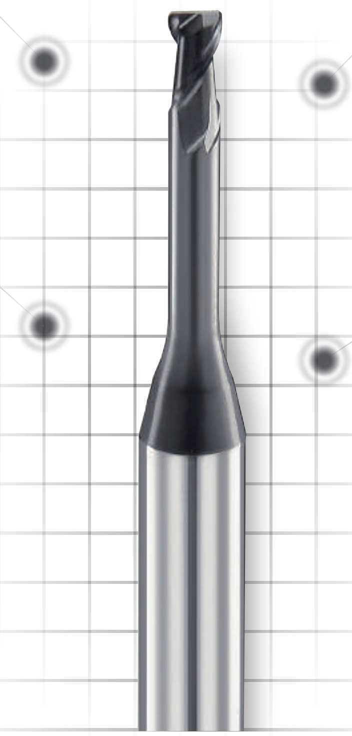
MG 0.6 μm 30° R 2 Flutes Diamond

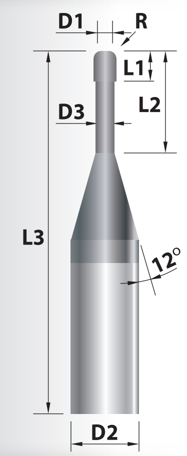
冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
1.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$
1.5	$^{+0.02}_{0}$	$^{0}_{-0.04}$
2.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$
2.5	$^{+0.02}_{0}$	$^{0}_{-0.04}$
3.0	$^{+0.02}_{0}$	$^{0}_{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$^{0}_{-0.008}$
Ø6	$^{0}_{-0.008}$

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	D3 頸徑 Neck Dia	R R角 Corner R	L1 刃長 Flute Length	L2 有效長 Effective Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
GNER100602	1.0	0.95	0.2	1.5	6	50	4
GNER100802	1.0	0.95	0.2	1.5	8	50	4
GNER101002	1.0	0.95	0.2	1.5	10	50	4
GNER101202	1.0	0.95	0.2	1.5	12	50	4
GNER150802	1.5	1.44	0.2	2	8	50	4
GNER151002	1.5	1.44	0.2	2	10	50	4
GNER151202	1.5	1.44	0.2	2	12	50	4
GNER151602	1.5	1.44	0.2	2	16	50	4
GNER200802	2.0	1.92	0.2	3	8	50	4
GNER201002	2.0	1.92	0.2	3	10	50	4
GNER201202	2.0	1.92	0.2	3	12	50	4
GNER201602	2.0	1.92	0.2	3	16	50	4
GNER202002	2.0	1.92	0.2	3	20	50	4
GNER251002	2.5	2.40	0.2	3	10	50	4
GNER251202	2.5	2.40	0.2	3	12	50	4
GNER251602	2.5	2.40	0.2	3	16	50	4
GNER252002	2.5	2.40	0.2	3	20	50	4
GNER301002	3.0	2.90	0.2	4	10	50	6
GNER301202	3.0	2.90	0.2	4	12	50	6
GNER301602	3.0	2.90	0.2	4	16	50	6
GNER302002	3.0	2.90	0.2	4	20	60	6
GNER302502	3.0	2.90	0.2	4	25	60	6
GNER303002	3.0	2.90	0.2	4	30	75	6

unit : mm

X-GB2T

石墨用超微粒圓頭立銑刀頭
BALL NOSE END MILLS

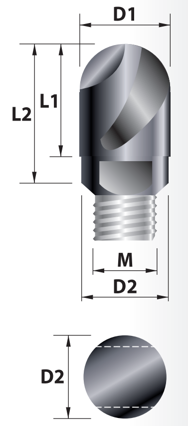
MG | 0.6 µm | 30° | 2 Flutes | Diamond

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-GB0802	R4.0	8	7.8	12.1	M5-3P	K08
X-GB1002	R5.0	10	9.8	16.1	M7-3P	K10
X-GB1202	R6.0	12	11.7	20.3	M8-3P	K12
X-GB1602	R8.0	16	15.6	25.7	M10-3P	K16

unit : mm

X-GB4T

石墨用超微粒圓頭立銑刀頭
BALL NOSE END MILLS

石墨加工系列
GRAPHITE CUTTING SERIES
DHF DESIGN . HONESTY . FUTURE

MG | 0.6 µm | 30° | 4 Flutes | Diamond

冷卻性能 COOLANT TYPE

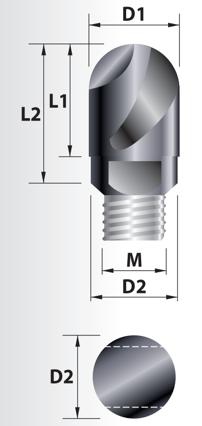
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	球頭公差值 R Tolerance
R4.0	±0.02
R5.0	±0.02
R6.0	±0.02
R8.0	±0.02



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-GB0804	R4.0	8	7.8	12.1	M5-3P	K08
X-GB1004	R5.0	10	9.8	16.1	M7-3P	K10
X-GB1204	R6.0	12	11.7	20.3	M8-3P	K12
X-GB1604	R8.0	16	15.6	25.7	M10-3P	K16

unit : mm

X-GE

石墨用超微粒立銑刀頭
END MILLS

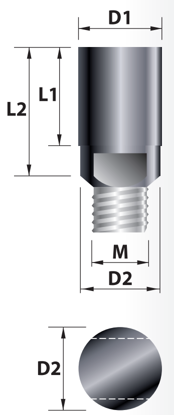
MG | 0.6 µm | 30° | 4 Flutes | Diamond

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
8.0	0 / -0.05
10.0	0 / -0.05
12.0	0 / -0.05
16.0	0 / -0.05

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-GE0804	8.0	8	7.8	12.1	M5-3P	K08
X-GE1004	10.0	10	9.8	16.1	M7-3P	K10
X-GE1204	12.0	12	11.7	20.3	M8-3P	K12
X-GE1604	16.0	16	15.6	25.7	M10-3P	K16

unit : mm

X-GPR

石墨用圓鼻角立銑刀頭
END MILLS

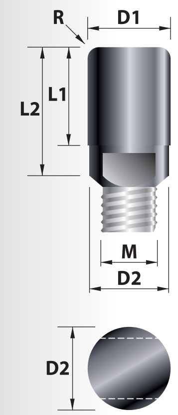
MG | 0.6 µm | 30° | R | 4 Flutes | Diamond

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



公差表 TOLERANCE unit : mm

直徑 D1	R徑公差值 R Tolerance	直徑公差值 D1 Tolerance
8.0	+0.02 / 0	0 / -0.05
10.0	+0.02 / 0	0 / -0.05
12.0	+0.02 / 0	0 / -0.05
16.0	+0.02 / 0	0 / -0.05

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	D2 頸徑 Neck Dia.	R R角 Corner R	L2 全長 O.A.L.	M 螺牙 Thread Size	鎖固扳手型號 Spanner Type No.
X-GPR0805	8.0	8	7.8	0.5	12.1	M5-3P	K08
X-GPR0810	8.0	8	7.8	1.0	12.1	M5-3P	K08
X-GPR1005	10.0	10	9.8	0.5	16.1	M7-3P	K10
X-GPR1010	10.0	10	9.8	1.0	16.1	M7-3P	K10
X-GPR1210	12.0	12	11.7	1.0	20.3	M8-3P	K12
X-GPR1220	12.0	12	11.7	2.0	20.3	M8-3P	K12
X-GPR1610	16.0	16	15.6	1.0	25.7	M10-3P	K16
X-GPR1620	16.0	16	15.6	2.0	25.7	M10-3P	K16
X-GPR1630	16.0	16	15.6	3.0	25.7	M10-3P	K16

unit : mm

COMPOSITE MATERIALS
CUTTING SERIES

複合材料加工系列

COMPOSITE

1.全系列產品設計用於加工CFRP(碳纖維)、GFRP(玻璃纖維)等。
2.針對複合材料加工特性、完美的幾何圖形設計、避免加工時纖維斷裂及脫層、並能展現極佳的表面粗糙度。
3.Diamond是一種CVD金剛石鍍層、摩擦系數低及具有優越的耐磨性、刀具壽命佳。

1. Applied for machining CFRP (Carbon Fiber Reinforced Plastic) and GFRP (Glass Fiber Reinforced Plastic) composite materials.
2. Optimized milling geometry minimizes fiber breakout and delamination and provides great surface finish.
3. Diamond is a type of CVD coating. Low friction and superior wear resistant features secure a long tool life.

COMPOSITE MATERIALS CUTTING SERIES
複合材料加工系列

Index
目錄

FPA
鎢鋼複合材料專用銑刀
END MILLS

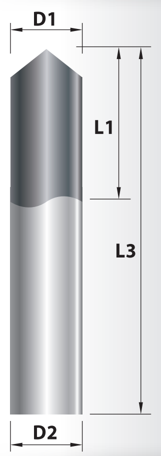
MG | 0.6 µm | 25° | 27° | End | 118° | Diamond

切削性能 CUTTING PERFORMANCE

精銑 Finishing	中銑 Semi-finishing	粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining	油霧切削 MQL(Mist)	水溶性切削 Emulsion Machining	油性切削 Oil Machining



公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
4.0	-0.02 / -0.08	Ø4	0 / -0.008
6.0	-0.02 / -0.08	Ø6	0 / -0.008
8.0	-0.02 / -0.08	Ø8	0 / -0.009
10.0	-0.02 / -0.08	Ø10	0 / -0.009
12.0	-0.02 / -0.08	Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
FPA0410	4.0	12	50	4
FPA0610	6.0	18	65	6
FPA0810	8.0	24	75	8
FPA1010	10.0	30	85	10
FPA1210	12.0	36	100	12

unit : mm

FPB
鎢鋼複合材料專用銑刀
END MILLS

MG | 0.6 µm | 25° | 27° | End | Diamond

冷卻性能 COOLANT TYPE

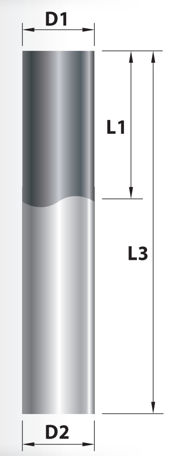
乾式切削 Dry Machining	油霧切削 MQL(Mist)	水溶性切削 Emulsion Machining	油性切削 Oil Machining

切削性能 CUTTING PERFORMANCE

精銑 Finishing	中銑 Semi-finishing	粗銑 Roughing

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
4.0	-0.02 / -0.08	Ø4	0 / -0.008
6.0	-0.02 / -0.08	Ø6	0 / -0.008
8.0	-0.02 / -0.08	Ø8	0 / -0.009
10.0	-0.02 / -0.08	Ø10	0 / -0.009
12.0	-0.02 / -0.08	Ø12	0 / -0.011



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
FPB0411	4.0	12	50	4
FPB0611	6.0	18	65	6
FPB0811	8.0	24	75	8
FPB1011	10.0	30	85	10
FPB1211	12.0	36	100	12

unit : mm

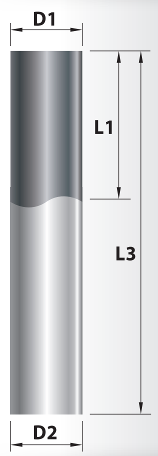
FPC

鎢鋼複合材料專用銑刀
END MILLS

MG 0.6 μm 25° 27° End Diamond

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
4.0	-0.02 / -0.08	Ø4	0 / -0.008
6.0	-0.02 / -0.08	Ø6	0 / -0.008
8.0	-0.02 / -0.08	Ø8	0 / -0.009
10.0	-0.02 / -0.08	Ø10	0 / -0.009
12.0	-0.02 / -0.08	Ø12	0 / -0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
FPC0410	4.0	12	50	4
FPC0610	6.0	18	65	6
FPC0810	8.0	24	75	8
FPC1010	10.0	30	85	10
FPC1210	12.0	36	100	12

unit : mm

FPD

鎢鋼複合材料專用銑刀
END MILLS

MG 0.6 μm 20° 20° Zn Diamond

冷卻性能 COOLANT TYPE

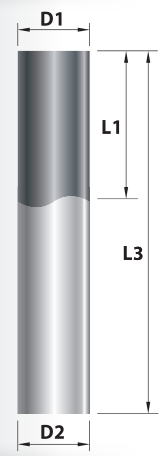
乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
6.0	-0.02 / -0.04	Ø6	0 / -0.008
8.0	-0.02 / -0.04	Ø8	0 / -0.009
10.0	-0.02 / -0.04	Ø10	0 / -0.009
12.0	-0.02 / -0.04	Ø12	0 / -0.011

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing



產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L2 刃長 OF CUT Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.	ZN 刃數 Number of Flutes
FPD0604	6.0	3.2	12	65	6	4
FPD0806	8.0	4.2	16	70	8	6
FPD1008	10.0	5.2	20	80	10	8
FPD1208	12.0	6.2	24	90	12	8

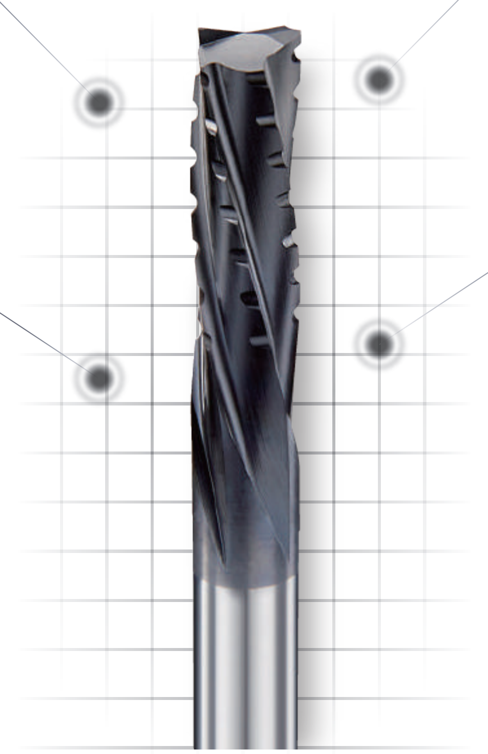
unit : mm

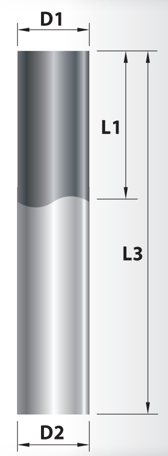
FPE
鎢鋼複合材料專用銑刀
END MILLS

MG 0.6µm 15° Zn Diamond

切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing





冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining

公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance	柄徑 D2(h6)	柄徑公差值 D2 Tolerance
6.0	-0.02 / -0.04	Ø6	0 / -0.008
8.0	-0.02 / -0.04	Ø8	0 / -0.009
10.0	-0.02 / -0.04	Ø10	0 / -0.009
12.0	-0.02 / -0.04	Ø12	0 / -0.011
16.0	-0.02 / -0.04	Ø16	0 / -0.011

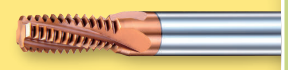
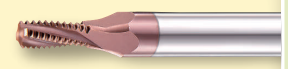
產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.	ZN 刃數 Number of Flutes
FPE0605	6.0	18	70	6	5
FPE0805	8.0	24	80	8	6
FPE1008	10.0	30	90	10	8
FPE1209	12.0	36	110	12	9
FPE1611	16.0	48	125	16	11

unit : mm

螺紋銑刀系列
THREAD MILLING TOOL SERIES

Index
目錄

型號/頁碼 Type No. & Page	產品照片 Product Picture	鑄鐵 Cast Iron	碳鋼 Carbon Steels	合金鋼 工具鋼 Alloy Steels, Tool Steels	調質鋼 Prehardened Steels	不鏽鋼 Stainless Steels	鈦合金 Titanium Alloy	耐熱合金鋼 高溫合金鋼 Heat Resistant & High Temp Alloy Steels	熱處理鋼 Hardened Steels ～55HRc	熱處理鋼 Hardened Steels 55HRc～
TW P.308		★★★	★★★	★★★	★★★	★★★	★★★	★	★	-----
HW P.310		★	★★	★★	★★★	★★	★★	★	★★★	★★★

TW
螺紋銑刀
THREAD MILLING

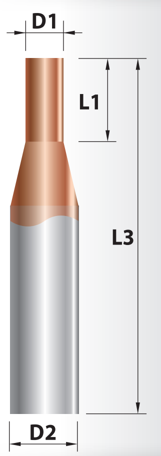
MG | 0.6 μm | 15° | 3 Flutes | 4 Flutes | 5 Flutes | HRc ≥52 | G10

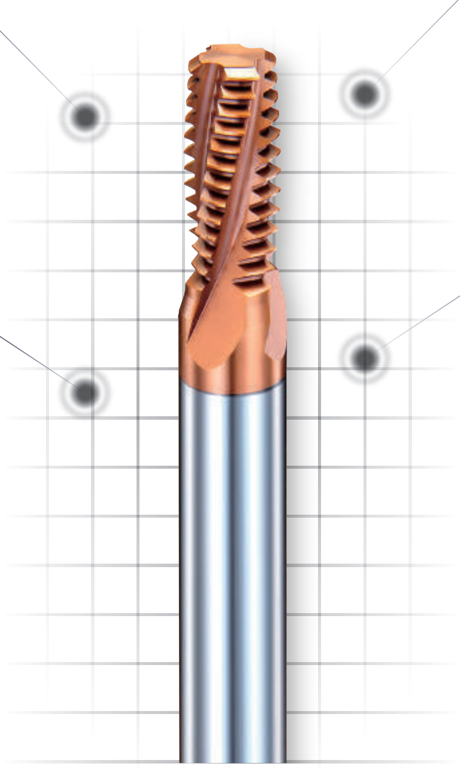
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.3	0/-0.04
3.0	0/-0.04
3.8	0/-0.04
4.5	0/-0.04
6.0	0/-0.04
7.5	0/-0.04
8.0	0/-0.04
9.0	0/-0.04
10.0	0/-0.04
12.0	0/-0.04
14.0	0/-0.04
16.0	0/-0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0/-0.008
Ø8	0/-0.009
Ø10	0/-0.009
Ø12	0/-0.011
Ø14	0/-0.011
Ø16	0/-0.011

產品規格 SPECIFICATIONS

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.	刃數 Flute	螺距 Pitch	M 螺牙 Thread Size
TW02305M3050	2.3	5.2	40	6	3	0.5	M 3
TW02307M3050	2.3	7.2	40	6	3	0.5	M 3
TW03007M4070	3.0	7.28	40	6	3	0.7	M 4
TW03010M4070	3.0	10.08	40	6	3	0.7	M 4
TW03809M5080	3.8	9.12	50	6	3	0.8	M 5
TW03812M5080	3.8	12.32	50	6	3	0.8	M 5
TW04511M6100	4.5	10.4	60	6	3	1.0	M 6
TW04515M6100	4.5	14.4	60	6	3	1.0	M 6
TW06014M8125	6.0	14.25	60	8	3	1.25	M 8
TW06019M8125	6.0	19.25	60	8	3	1.25	M 8
TW07517M10150	7.5	17.1	60	8	3	1.5	M10
TW07525M10150	7.5	24.6	75	8	3	1.5	M10
TW08020M12175	8.0	19.95	60	8	3	1.75	M12
TW08029M12175	8.0	28.7	75	8	3	1.75	M12
TW09020M12175	9.0	19.95	75	10	4	1.75	M12
TW09029M12175	9.0	28.7	75	10	4	1.75	M12
TW10027M14200	10.0	26.8	75	10	4	2.0	M14
TW10039M14200	10.0	38.8	100	10	4	2.0	M14

型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.	刃數 Flute	螺距 Pitch	M 螺牙 Thread Size
TW12027M16200	12.0	26.8	80	12	4	2.0	M16
TW12039M16200	12.0	38.8	100	12	4	2.0	M16
TW12031M18250	12.0	31	100	12	4	2.5	M18
TW12045M18250	12.0	43.5	100	12	4	2.5	M18
TW14034M20250	14.0	33.5	100	14	4	2.5	M20
TW14049M20250	14.0	48.5	100	14	4	2.5	M20
TW16041M24300	16.0	40.2	100	16	5	3.0	M24
TW16059M24300	16.0	58.2	120	16	5	3.0	M24

unit : mm

HW

高硬度用螺紋銑刀
THREAD MILLING

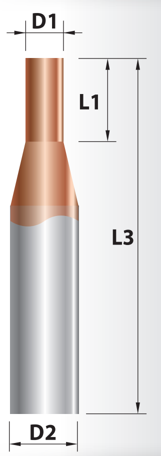
Super MG | 0.2 μm | 15° | 4 Flutes | HRc ▸62 | G12

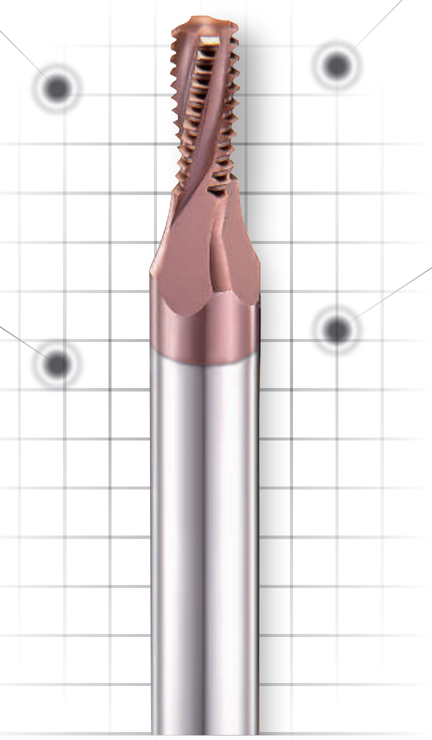
切削性能 CUTTING PERFORMANCE

精銑 Finishing | 中銑 Semi-finishing | 粗銑 Roughing

冷卻性能 COOLANT TYPE

乾式切削 Dry Machining | 油霧切削 MQL(Mist) | 水溶性切削 Emulsion Machining | 油性切削 Oil Machining





公差表 TOLERANCE unit : mm

直徑 D1	直徑公差值 D1 Tolerance
2.3	0 / -0.04
3.0	0 / -0.04
3.8	0 / -0.04
4.5	0 / -0.04
6.0	0 / -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 / -0.008

產品規格 SPECIFICATIONS

型號 Type No.	螺距 Pitch	M 適用規格 Applicable Size 粗牙 Coarse	M 適用規格 Applicable Size 細牙 Fine	D1 直徑 Diameter	D2 柄徑 Shank Dia.	N 刃數 Flute	L1 刃長 Flute Length	L3 全長 O.A.L.
HW0230505	0.5	M 3	≧M 4	2.3	6	4	5.2	40
HW0230705	0.5	M 3	≧M 4	2.3	6	4	7.2	40
HW0300707	0.7	M 4		3.0	6	4	7.28	40
HW0301007	0.7	M 4		3.0	6	4	10.08	40
HW0380908	0.8	M 5		3.8	6	4	9.12	50
HW0381208	0.8	M 5		3.8	6	4	12.32	50
HW0451110	1.0	M 6	≧M 8	4.5	6	4	10.4	60
HW0451510	1.0	M 6	≧M 8	4.5	6	4	14.4	60
HW06014125	1.25	M 8	≧M10	6.0	6	4	14.25	60
HW06019125	1.25	M 8	≧M10	6.0	6	4	19.25	60

unit : mm

REPLY 產品回函卡

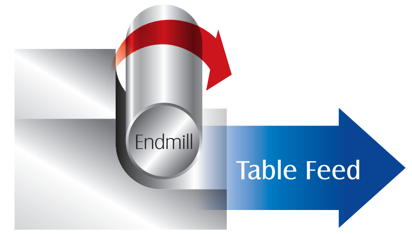
DHF

客戶名稱/

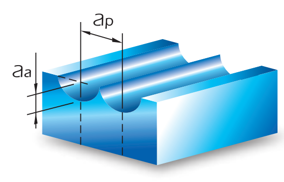
產品型號	被加工材質	硬度(HRc)
	Heat Treatment ☐ Yes ☐ No	

使用機台型式	使用軟體版本		
型號	☐ UG	☐ CIMATRON	☐ Power-Mill
	☐ Pro-E	☐ Work NC	☐ Master CAM

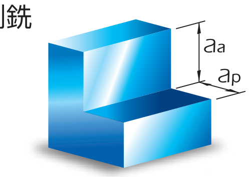
挾持方式	☐ER夾頭	☐後拉式夾頭	☐油壓夾頭	☐燒結式夾頭
所使用夾頭的品牌				
冷卻方式	☐乾式切削	☐油霧方式	☐油性切削(大量)	☐水溶性切削
加工方式	☐順銑		☐逆銑	



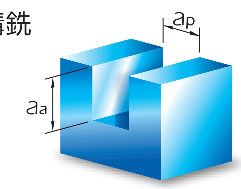
1.球刀		2.平刀	
轉速 min^{-1}	進給 m/min	轉速 min^{-1}	進給 m/min



側銑



溝銑



aa= mm	ap= mm	aa= mm	ap= mm	aa= mm	ap= mm

結果		結果	

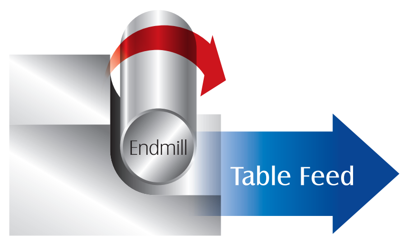
REPLY 產品回函卡

Messrs. /

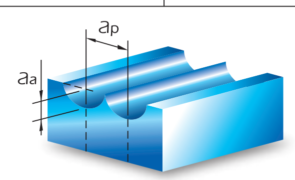
Type No. (Size Description)	Work Material	Hardness(HRC)
	Heat Treatment ☐ Yes ☐ No	

Machine Type	Programming Method		
	☐ UG	☐ CIMATRON	☐ Power-Mill
Model	☐ Pro-E	☐ Work NC	☐ Master CAM

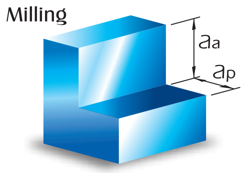
Tool Holding System	☐ ER Collect Chuck	☐ Draw Back Chuck	☐ Hydraulic Chuck	☐ Shrink Fit Chuck
Brand				
Cooling Type	☐ Dry Machining	☐ MQL (Mist)	☐ Oil Machining	☐ Emulsion(Coolant) Machining
Processing Method	☐ Down Milling		☐ Up Milling	



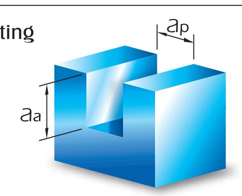
1. Ball Nose End Mill		2. Flat End Mill					
Speed min^{-1}	Feed m/min	Speed min^{-1}		Feed m/min			



Side Milling



Slotting



aa= mm	ap= mm	aa= mm	ap= mm	aa= mm	ap= mm

Result		Result	

德信發企業有限公司

DHF Precision Tool Co., Ltd.

營運總部 HEAD OFFICE

台灣台中市西屯區市政北二路282號28F-5
28F-5., No.282, Shizheng N. 2nd Rd., Xitun District, Taichung City 40756, Taiwan
TEL : 886-4-22587585 **FAX :** 886-4-22585985
http://www.endmill.com.tw
E-mail : dhf@endmill.com.tw

分公司 BRANCH

Italy / Pordenone
DHF Italia Srl http://www.dhfitalia.it

Turkey / Istanbul
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China / GuangDong
東莞市虎門鎮索菲特東方時代廣場
TEL / 0769-85115970 FAX / 0769-85240930

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