

DOHRE



DOHRE CNC TOOL CO.,LTD



[Http://www.dohrecnc.com](http://www.dohrecnc.com) [Http://www.dohretool.cn](http://www.dohretool.cn)

2014-2015

DOHRE

PREMIUM
Cutting Tools

2014~2015
Milling Version



DOHRE CUTTING TOOLS

www.dohrecnc.com

哆乐数控工具有限公司
DOHRE CNC TOOL CATALOG

Introduction

DOHRE Tool Co.,Ltd is professional manufacturer and services provider of CNC cutting tools, mainly service for the users of cnc machines from different cities in the world, provide high quality, favourable price, short deliver cutting tools and full technology supports.

DOHRE Tool Co.,Ltd always advocates "integrity, pragmatism, innovation, efficiency" operation principle, introduced the latest German cnc 5 axis grinding machines, cnc 5 axis automatic detection equipments and advanced grinding technology. Till now, we have 20 imported grinding machines, adopted the top quality carbide rods from home and abroad, thus developed high-class, high efficiency, advanced manufacturing system, the good quality products we produced--cnc tungsten carbide end mills, forming cutting tools, cnc high accuracy tool holder, high precision collets, and full range cutting tools design program has been well received in lots of users. DOHRE will be confident to meet your needs with good quality products, competitive prices and fast services.

簡介

哆樂數控工具有限公司是CNC切削刀具專業制造銷售商和技術服務商，主要面向全世界各工業城市的數控機床使用企業，提供高品質，高性價比，短交貨期的切削工具和全方位的技术支持。

哆樂數控工具有限公司一直倡導誠信、務實、創新、高效率的經營理念，引進德國最先進的CNC五軸磨床設備和CNC五軸全自動測量設，領先磨刀技術，公司現有進口磨床20台，采用國內外最優質的棒材，從而形成了優質、高效、先進的生產制造系統，所生產的高品質CNC鎢鋼銑刀、成型刀具，CNC高精度刀柄，高精度筒夾，和全方位切削刀具設計方案。在國內外受到眾多使用者的好評。帶着最優質的產品，最有競爭力的價格和最快捷的服務，哆樂將以完全的自信來滿足您的需求。

2014/02/2

HIGH PRECISION
LONGER LIFE

Production & Measuring 生产/检测

Equipped with Walter&ANCA

采用进口Walter&ANCA 5轴加工中心生产

More Stable, More Reliable

品质稳定，坚实可靠

High Precision, High Efficiency

高精度，高效率

Flexible To Produce Non-Standard Cutters

非标制作，功能可變性强



Measuring Technology From Germany

We inspect our product by the measuring machine from Germany. With high definition(HD) CCD camera and unique image processing software, the instrument can examine various types of tools (especially is good at Ball nosed and Corner Radius Cutters) The accuracy can reach 0.001mm.

來自德國測量技術的魅力

采用德國制 μm 級（精密刀具設定與測量設備）
快速測量刀具，是測量球刀，圓鼻刀的一大利器



DOHRE



CEX 系列

高速
高硬 切削

高硬度材料切削最佳选择
是您工作新利器！新选择！

- 大幅度降低刀具震动（抗震性好）
- 具有断屑效果展现惊人的排屑性
- 可达成切深1D之高进给加工

Brand new CEX Series End mills 全新CEX系列铣刀

独特刀具几何设计让您的

High Efficiency
高效率

High Precision
高精度

及

High Speed
高进给

Long Life
长寿命

可行！

专克难削材

1. 不锈钢
2. 钛合金钢
3. 镍基合金
4. 高温合金
5. Inconel 718

For hard-to-cut materials

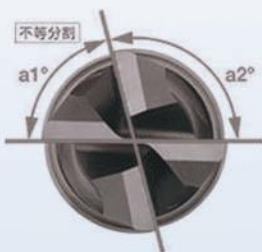
1. Stainless steels
2. Titanium alloy steel
3. Nickel alloys
4. High Temperature alloy
5. Inconel 718

Variable-Pitch & Lead End Mills

不等分+变导程铣刀

有效防止共振；高效率加工展现！

Effective to avoid chattering
allowing for outstanding milling performance



$$a1 \neq a2$$

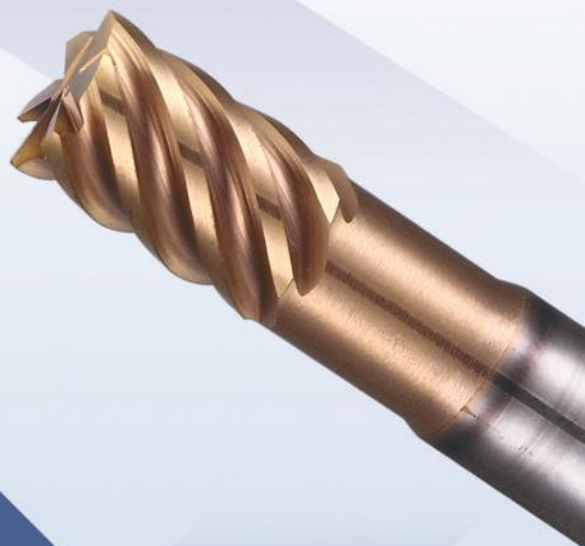
Chattering is decreased
with "Variable Pitch"

刀底不等分设计
可降低切削时震动

$$b1 \neq b2$$

"Variable-lead" shape stabilizes
cutting resistance to isolate
vibration

侧刀变导程设计亦
可降低切削时震动



■ Coating characteristics:

涂层特点:

1. AITIN-L

Aluminum Titanium Nitride Coating

Advantages: strong universal property, good wear-resisting property, excellent flexibility.

Coating colour (gray black), coating thickness (2um), microhardness HV 3000, coefficient of friction 0.35, maximum working temperature 800° .

Application: the most suitable for process iron, common mould steel, modulated steel, stainless steel, alloy copper, cast iron.

Cutting speed: wet processing at medium & low speed.

高铝钛复合涂层

特點: 通用性强, 耐磨性好, 柔韌性好。

塗層顏色 (灰黑色), 塗層厚度 (2um), 顯微維氏硬度3000, 摩擦係數0.35, 最高加工溫度800度。

適用範圍: 最適合加工易切鐵, 普通模具鋼, 調質鋼, 不銹鋼, 合金鋼, 鑄鐵。

加工速度: 中速和低速的濕式加工。

2. AITiN-S

High Silicon Mixed Nano Coating

Advantages: strong adhesiveness, high working temperature, good wear-resistance. Coating colour (bronze), microhardness HV 3600, coefficient of friction 0.3, maximum working temperature 1100° .

Application: modulated steel, hardened stainless steel, high temperature alloy steel, hardened nodular cast iron.

Cutting speed: the most suitable for middle high speed processing, wet and dry machining are available.

高硅复合纳米涂层

特點: 涂层附着力强, 加工温度高, 耐磨性能强。

塗層顏色 (古銅色), 塗層厚度 (2.5um) 顯微維氏硬度3600, 摩擦係數0.3, 最高加工溫度1100度。

適用範圍: 調質模具鋼, 加硬不銹鋼, 高溫合金鋼, 加硬球磨鑄鐵。

加工速度: 最適合中高速加工, 干式和濕式都可以。

3. DLC

Diamond-like-carbon coating

Advantages: ultra-thin, good surface smoothness. Coating colour (black and multicolour), coating thickness (1um), microhardness HV 2000, coefficient of friction 0.1, maximum working temperature 300° .

Application: the most suitable for highlights and finish processing of aluminum alloy & aluminum & acrylic & non-ferrous metal.

Cutting speed: high speed wet and dry machining.

类金刚石涂层

特點: 塗層超薄, 表面光潔度超好。塗層顏色 (黑色和彩色), 塗層厚度 (1um), 顯微維氏硬度2000, 摩擦係數0.1, 最高加工溫度300度。

適用範圍: 最適合鋁合金高光加工, 鋁, 亞克力, 有色金屬的高光, 高精加工。

加工速度: 高速濕式加工幹式加工。

■ End tooth type milling cutter

材質說明

MG Micro Grain Coated 錫鋼









UMG Ultra Micro Grain Carbide 極細錫鋼

NMG Nano Micro Grain Carbide 納米錫鋼

DOHRE

Products Series

系列說明

	AL General Type Coated End Mill (Black) HRC45 通用型塗層銑刀 (黑色塗層) HRC45度
	AS General Type Coated End Mill (Bronze) HRC48 通用型塗層銑刀 (古銅色塗層) HRC48度
	AL High Performance General Type Coated End Mill (Black) HRC55 高性能通用塗層銑刀 (黑色) HRC55度
	AS High Performance General Type Coated End Mill (Bronze) HRC58 高性能通用塗層銑刀 (古銅色塗層) HRC58度
	AL General Type Hardened Coated End Mill (Black) HRC60 通用加硬塗層銑刀 (黑色) HRC60度
	AS General Type Hardened Coated End Mill (Bronze) HRC60 通用加硬塗層銑刀 (古銅色塗層) HRC60度
	AS High Speed Hardened Coated End Mill (Bronze) HRC65 高速加硬塗層銑刀 (古銅色) HRC65度
	AS Super High Speed High Polished Hardened End Mill (Bronze) HRC70 超高速高光加硬銑刀 (古銅色) HRC70度
	NO High Polished Aluminum End Mill (Uncoated) HRC50 高光鋁用銑刀 (本色-未塗層) HRC50度
	DLC High Polished Aluminum End Mill (Uncoated) HRC55 高光鋁用塗層銑刀 (藍色或黑色) HRC55度
	NO High Polished Hardened Aluminum End Mill (Uncoated) HRC58 高光加硬鋁用銑刀 (本色-未塗層) HRC58度
	DLC High Polished Coated Aluminum Coated End Mill (Blue or Black) HRC60 高光加硬塗層鋁用銑刀 (藍色或黑色) HRC60度
	DIA DIA For Graphite Hardened Coated End Mill (Gray) HRC50 DIA 石墨專用加硬塗層銑刀 (灰色) HRC50度

Cutter coating

銑刀塗層



Flute type

銑刀端齒類型



Processing forms

加工形態



Helix angle















螺旋角



DOHRE

PICTURE INDEX

GEX

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<p>2 flutes corner radius end mills 圓鼻 2刃立銼刀</p>		<p>B03</p>
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GEX

4 flutes roughing end mills

4刃粗銑立銑刀



B15

4 flutes half roughing end mills

4刃半粗銑立銑刀



B16

2 flutes standard inch size square end mills

2刃標準英制立銑刀



B17

4 flutes standard inch size square end mills

4刃標準英制立銑刀



B18

2 flutes standard inch size ball nose end mills

2刃標準英制球型立銑刀



B19

4 flutes high strength flat end mills

四刃強力平底銑刀



B20

2 flutes high strength ball nose end mills

二刃強力球頭銑刀



B21

4 flutes high strength corner radius end mills

四刃強力圓鼻銑刀



B22

PEX

2 flutes square end mills

2刃立銑刀



B24

Long shank 2 flutes square end mills

長柄標準刃 2刃立銑刀



B25

2 flutes corner radius end mills

圓鼻 2刃立銑刀



B26

Long shank 2 flutes corner radius end mills

長柄圓鼻 2刃立銑刀



B27

3 flutes square end mills















3刃立銑刀



B28

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PEX

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<p>2 flutes long neck short flute square end mills 二刃平底深溝銑刀</p>		<p>B40</p>
<p>2 flutes long neck short flute ball nose end mills 二刃深溝球頭銑刀</p>		<p>B43</p>
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PEX













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SEX

<p>6 flutes square end mills 6刃立銑刀</p>		<p>B60</p>
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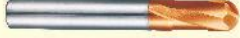

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SEX

<p>Long shank 2 flutes square end mills 長柄標準刃 2刃立銼刀</p>		<p>B63</p>
<p>2 flutes corner radius end mills 圓鼻 2刃立銼刀</p>		<p>B64</p>
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HEX

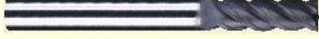


6 flutes square end mills 6刃立銼刀		B76
Long flute 6 flutes square end mills 長刃型 6刃立銼刀		B77
2 flutes square end mills 2刃立銼刀		B78
Long shank 2 flutes square end mills 長柄標準刃 2刃立銼刀		B79
2 flutes corner radius end mills 圓鼻 2刃立銼刀		B80
Long shank 2 flutes corner radius end mills 長柄圓鼻 2刃立銼刀		B81
4 flutes square end mills 4刃立銼刀		B82
Long shank 4 flutes square end mills 長柄標準刃 4刃立銼刀		B83
4 flutes corner radius end mills 圓鼻 4刃立銼刀		B84
Long shank 4 flutes corner radius end mills 長柄圓鼻 4刃立銼刀		B85
2 flutes ball nose end mills 2刃球型立銼刀		B86
Long shank 2 flutes ball nose end mills 長柄 2刃球型立銼刀		B87
2 flutes long neck short flute square end mills 二刃平底深溝銼刀		B88
2 flutes long neck short flute ball nose end mills 二刃深溝球頭銼刀		B91
2 flutes long neck short flute corner radius end mills 二刃深溝圓鼻銼刀		B93
4 flutes high strength flat end mills 四刃強力平底銼刀		B96
2 flutes high strength ball nose end mills 二刃強力球頭銼刀		B97
4 flutes high strength corner radius end mills 四刃強力圓鼻銼刀		B98

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CEX









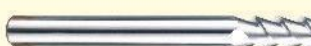




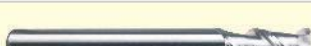

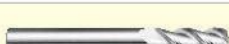
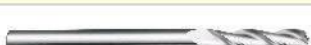



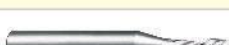
6 flutes square end mills 6刃立銼刀		B100
Long flute 6 flutes square end mills 長刃型 6刃立銼刀		B101
2 flutes square end mills 2刃立銼刀		B102
Long shank 2 flutes square end mills 長柄標準刃 2刃立銼刀		B103
2 flutes corner radius end mills 圓鼻 2刃立銼刀		B104
Long shank 2 flutes corner radius end mills 長柄圓鼻 2刃立銼刀		B105
4 flutes square end mills 4刃立銼刀		B106
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MEX

4 flutes graphite square end mills 4刃石墨銼刀		B117
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Aluminum 鋁用刀

AEX	2 Flutes Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle) 鋁合金專用 2 刃立銑刀(45° 螺旋角、雙後角)		B125
	2 Flutes long Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle) 鋁合金專用 2 刃長刃立銑刀(45° 螺旋角、雙後角)		B126
	2 Flutes Aluminum Square End Mill (55 Degree Helix Angle, Single Axis Relief Angle) 鋁合金專用 2 刃立銑刀(55° 螺旋角、單後角)		B127
	2 Flutes long Aluminum Square End Mill (55 Degree Helix Angle, Single Axis Relief Angle) 鋁合金專用 2 刃長刃立銑刀(55° 螺旋角、單後角)		B128
	2 Flutes Aluminum Ball Nose End Mill (45 Degree Helix Angle, Double Axis Relief Angle) 鋁合金專用 2 刃球型立銑刀(45° 螺旋角、雙後角)		B129
	3 Flutes Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle) 鋁合金專用 3 刃立銑刀(45° 螺旋角、雙後角)		B130
	3 Flutes long Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle) 鋁合金專用 3 刃長刃立銑刀(45° 螺旋角、雙後角)		B131
	3 Flutes Aluminum Square End Mill (55 Degree Helix Angle, Single Axis Relief Angle) 鋁合金專用 3 刃立銑刀(55° 螺旋角、單後角)		B132
	3 Flutes long Aluminum Square End Mill (55 Degree Helix Angle, Single Axis Relief Angle) 鋁合金專用 3 刃長刃立銑刀(55° 螺旋角、單後角)		B133
	3 Flutes Aluminum Ball Nose End Mill (45 Degree Helix Angle, Double Axis Relief Angle) 鋁合金專用 3 刃球型立銑刀(45° 螺旋角、雙後角)		B134
	3 Flutes Aluminum Roughing End Mill 鋁合金專用 三刃粗皮銑刀		B135
	Single Flute End Mill (A.For Aluminum) 單刃鏡面立銑刀(A鋁專用)		B136
	Single Flute End Mill (B.For Acrylic) 單刃鏡面立銑刀(B亞克力專用)		B137
	SEX	2 Flutes Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle) 鋁合金專用 2 刃立銑刀(45° 螺旋角、雙後角)	
2 Flutes long Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle) 鋁合金專用 2 刃長刃立銑刀(45° 螺旋角、雙後角)			B139
2 Flutes Aluminum Ball Nose End Mill (45 Degree Helix Angle, Double Axis Relief Angle) 鋁合金專用 2 刃球型立銑刀(45° 螺旋角、雙後角)			B140
3 Flutes Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle) 鋁合金專用 3 刃立銑刀(45° 螺旋角、雙後角)			B141
3 Flutes long Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle) 鋁合金專用 3 刃長刃立銑刀(45° 螺旋角、雙後角)			B142
3 Flutes Aluminum Square End Mill (55 Degree Helix Angle, Single Axis Relief Angle) 鋁合金專用 3 刃立銑刀(55° 螺旋角、單後角)			B143
3 Flutes long Aluminum Square End Mill (55 Degree Helix Angle, Single Axis Relief Angle) 鋁合金專用 3 刃長刃立銑刀(55° 螺旋角、單後角)			B144
Single Flute End Mill (A.For Aluminum) 單刃鏡面立銑刀(A鋁專用)			B145
Single Flute End Mill (A.For Aluminum) 單刃鏡面立銑刀(B亞克力專用)			B146

GEX

ECONOMICAL
SOLUTIONS

AL- General Type Coated
End Mill (Black) HRC45

AL-通用型塗層銑刀（黑色塗層）HRC45度

AS- General Type Coated
End Mill (Bronze) HRC48

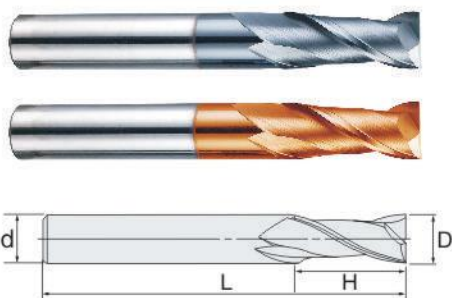
AS-通用型塗層銑刀（古銅色塗層）HRC48度

TUNGSTEN ENDMILL

www.dohrecnc.com

GEX 2 flutes square end mills

2刃立铣刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEX2F01003005004	1.0	3	50	4	○	○
GEX2F01504005004	1.5	4	50	4	○	○
GEX2F02006005004	2.0	6	50	4	○	○
GEX2F02507005004	2.5	7	50	4	○	○
GEX2F03008005004	3.0	8	50	4	○	○
GEX2F03510005004	3.5	10	50	4	○	○
GEX2F04011005004	4.0	11	50	4	○	○
GEX2F01003005006	1.0	3	50	6	○	○
GEX2F01504005006	1.5	4	50	6	○	○
GEX2F02006005006	2.0	6	50	6	○	○
GEX2F02507005006	2.5	7	50	6	○	○
GEX2F03008005006	3.0	8	50	6	○	○
GEX2F03510005006	3.5	10	50	6	○	○
GEX2F04011005006	4.0	11	50	6	○	○
GEX2F04513005006	4.5	13	50	6	○	○
GEX2F05013005006	5.0	13	50	6	○	○
GEX2F05513005006	5.5	13	50	6	○	○
GEX2F06015005006	6.0	15	50	6	○	○
GEX2F06517006008	6.5	17	60	8	○	○
GEX2F07017006008	7.0	17	60	8	○	○
GEX2F07517006008	7.5	17	60	8	○	○
GEX2F08020006008	8.0	20	60	8	○	○
GEX2F08523007510	8.5	23	75	10	○	○
GEX2F09023007510	9.0	23	75	10	○	○
GEX2F09525007510	9.5	25	75	10	○	○
GEX2F10025007510	10.0	25	75	10	○	○
GEX2F10525007512	10.5	25	75	12	○	○
GEX2F11028007512	11.0	28	75	12	○	○
GEX2F11528007512	11.5	28	75	12	○	○
GEX2F12030007512	12.0	30	75	12	○	○
GEX2F13040010014	13.0	40	100	14	○	○
GEX2F14040010014	14.0	40	100	14	○	○
GEX2F15040010016	15.0	40	100	16	○	○
GEX2F16040010016	16.0	40	100	16	○	○
GEX2F17040010018	17.0	40	100	18	○	○
GEX2F18040010018	18.0	40	100	18	○	○
GEX2F19040010020	19.0	40	100	20	○	○
GEX2F20040010020	20.0	40	100	20	○	○
GEX2F22040010025	22.0	40	100	25	○	○
GEX2F25040010025	25.0	40	100	25	○	○

★ WORK MATERIAL 被削材質

GEX

P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●

Order code: GEX 2F 010 030 050 04 AS
 訂貨編號: D H L d HRC48
 GEX 2F 010 030 050 04 AL
 D H L d HRC45

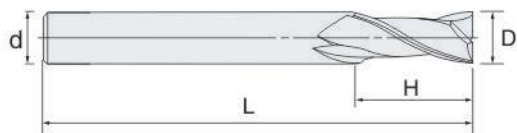
★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	



GEX Long shank 2 flutes square end mills

長柄標準刃 2刃立銑刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEX2F01003007504	1.0	3	75	4	○	○
GEX2F01504507504	1.5	4.5	75	4	○	○
GEX2F02006007504	2.0	6	75	4	○	○
GEX2F02507007504	2.5	7	75	4	○	○
GEX2F03008007504	3.0	8	75	4	○	○
GEX2F03510007504	3.5	10	75	4	○	○
GEX2F04011007504	4.0	11	75	4	○	○
GEX2F04513007506	4.5	13	75	6	○	○
GEX2F05013007506	5.0	13	75	6	○	○
GEX2F05513007506	5.5	13	75	6	○	○
GEX2F06015007506	6.0	15	75	6	○	○
GEX2F06517007508	6.5	17	75	8	○	○
GEX2F07017007508	7.0	17	75	8	○	○
GEX2F07517007508	7.5	17	75	8	○	○
GEX2F08020007508	8.0	20	75	8	○	○
GEX2F03008010006	3.0	8	100	6	○	○
GEX2F04011010006	4.0	11	100	6	○	○
GEX2F05013010006	5.0	13	100	6	○	○
GEX2F06015010006	6.0	15	100	6	○	○
GEX2F07017010008	7.0	17	100	8	○	○
GEX2F08020010008	8.0	20	100	8	○	○
GEX2F09023010010	9.0	23	100	10	○	○
GEX2F10025010010	10.0	25	100	10	○	○
GEX2F11028010012	11.0	28	100	12	○	○
GEX2F12030010012	12.0	30	100	12	○	○
GEX2F08020015008	8.0	20	150	8	○	○
GEX2F10025015010	10.0	25	150	10	○	○
GEX2F12030015012	12.0	30	150	12	○	○
GEX2F16040015016	16.0	40	150	16	○	○
GEX2F18040015018	18.0	40	150	18	○	○
GEX2F20040015020	20.0	40	150	20	○	○
GEX2F16040020016	16.0	40	200	16	○	○
GEX2F20040020020	20.0	40	200	20	○	○

★ WORK MATERAIL 被削材質

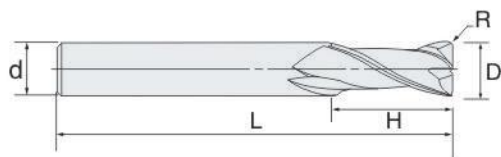
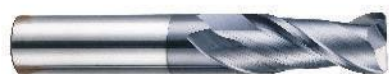
GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

GEX 2 flutes corner radius end mills

圓鼻 2刃立銼刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
GEX2F010R0203005004	1.0	0.2	3	50	4	○	○
GEX2F015R0204005004	1.5	0.2	4	50	4	○	○
GEX2F015R0504005004	1.5	0.5	4	50	4	○	○
GEX2F020R0206005004	2.0	0.2	6	50	4	○	○
GEX2F020R0506005004	2.0	0.5	6	50	4	○	○
GEX2F025R0208005004	2.5	0.2	8	50	4	○	○
GEX2F025R0508005004	2.5	0.5	8	50	4	○	○
GEX2F030R0208005004	3.0	0.2	8	50	4	○	○
GEX2F030R0508005004	3.0	0.5	8	50	4	○	○
GEX2F030R1000805004	3.0	1.0	8	50	4	○	○
GEX2F040R0211005004	4.0	0.2	11	50	4	○	○
GEX2F040R0511005004	4.0	0.5	11	50	4	○	○
GEX2F040R1011005004	4.0	1.0	11	50	4	○	○
GEX2F050R0513005006	5.0	0.5	13	50	6	○	○
GEX2F050R1013005006	5.0	1.0	13	50	6	○	○
GEX2F060R0215005006	6.0	0.2	15	50	6	○	○
GEX2F060R0515005006	6.0	0.5	15	50	6	○	○
GEX2F060R1015005006	6.0	1.0	15	50	6	○	○
GEX2F060R1515005006	6.0	1.5	15	50	6	○	○
GEX2F060R2015005006	6.0	2.0	15	50	6	○	○
GEX2F080R0520006008	8.0	0.5	20	60	8	○	○
GEX2F080R1020006008	8.0	1.0	20	60	8	○	○
GEX2F080R1520006008	8.0	1.5	20	60	8	○	○
GEX2F080R2020006008	8.0	2.0	20	60	8	○	○
GEX2F100R0525007510	10.0	0.5	25	75	10	○	○
GEX2F100R1025007510	10.0	1.0	25	75	10	○	○
GEX2F100R1525007510	10.0	1.5	25	75	10	○	○
GEX2F100R2025007510	10.0	2.0	25	75	10	○	○
GEX2F100R2525007510	10.0	2.5	25	75	10	○	○
GEX2F100R3025007510	10.0	3.0	25	75	10	○	○
GEX2F120R0530007512	12.0	0.5	30	75	12	○	○
GEX2F120R1030007512	12.0	1.0	30	75	12	○	○
GEX2F120R1530007512	12.0	1.5	30	75	12	○	○
GEX2F120R2030007512	12.0	2.0	30	75	12	○	○
GEX2F120R2530007512	12.0	2.5	30	75	12	○	○
GEX2F120R3030007512	12.0	3.0	30	75	12	○	○

★ WORK MATERIAL 被削材質

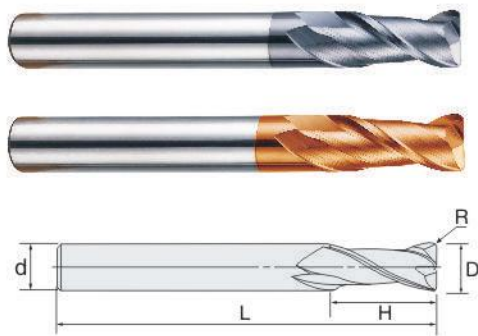
GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ12.0	-0.01~-0.04	

GEX Long shank 2 flutes corner radius end mills

長柄圓鼻2刃立銼刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS



Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
GEX2F010R0203007504	1.0	0.2	3	75	4	○	○
GEX2F015R0204007504	1.5	0.2	4	75	4	○	○
GEX2F015R0504007504	1.5	0.5	4	75	4	○	○
GEX2F020R0206007504	2.0	0.2	6	75	4	○	○
GEX2F020R0506007504	2.0	0.5	6	75	4	○	○
GEX2F025R0208007504	2.5	0.2	8	75	4	○	○
GEX2F025R0508007504	2.5	0.5	8	75	4	○	○
GEX2F030R0208007504	3.0	0.2	8	75	4	○	○
GEX2F030R0508007504	3.0	0.5	8	75	4	○	○
GEX2F030R1008007504	3.0	1.0	8	75	4	○	○
GEX2F040R0201107504	4.0	0.2	11	75	4	○	○
GEX2F040R0501107504	4.0	0.5	11	75	4	○	○
GEX2F040R1001107504	4.0	1.0	11	75	4	○	○
GEX2F050R0513007506	5.0	0.5	11	75	6	○	○
GEX2F050R1015007506	5.0	1.0	13	75	6	○	○
GEX2F060R0215007506	6.0	0.2	15	75	6	○	○
GEX2F060R0515007506	6.0	0.5	15	75	6	○	○
GEX2F060R1015007506	6.0	1.0	15	75	6	○	○
GEX2F060R1515007506	6.0	1.5	15	75	6	○	○
GEX2F060R2015007506	6.0	2.0	15	75	6	○	○
GEX2F080R0520007508	8.0	0.5	20	75	8	○	○
GEX2F080R1020007508	8.0	1.0	20	75	8	○	○
GEX2F080R1520007508	8.0	1.5	20	75	8	○	○
GEX2F080R2020007508	8.0	2.0	20	75	8	○	○
GEX2F040R0211010006	4.0	0.2	11	100	6	○	○
GEX2F040R0511010006	4.0	0.5	11	100	6	○	○
GEX2F040R1011010006	4.0	1.0	11	100	6	○	○
GEX2F050R0513010006	5.0	0.5	13	100	6	○	○
GEX2F050R1013010006	5.0	1.0	13	100	6	○	○
GEX2F060R0215010006	6.0	0.2	15	100	6	○	○
GEX2F060R0515010006	6.0	0.5	15	100	6	○	○
GEX2F060R1015010006	6.0	1.0	15	100	6	○	○
GEX2F060R1515010006	6.0	1.5	15	100	6	○	○
GEX2F060R2015010006	6.0	2.0	15	100	6	○	○
GEX2F080R0520010008	8.0	0.5	20	100	8	○	○
GEX2F080R1020010008	8.0	1.0	20	100	8	○	○
GEX2F080R1520010008	8.0	1.5	20	100	8	○	○
GEX2F080R2020010008	8.0	2.0	20	100	8	○	○
GEX2F100R0525010010	10.0	0.5	25	100	10	○	○
GEX2F100R1025010010	10.0	1.0	25	100	10	○	○
GEX2F100R1525010010	10.0	1.5	25	100	10	○	○
GEX2F100R2025010010	10.0	2.0	25	100	10	○	○
GEX2F100R2525010010	10.0	2.5	25	100	10	○	○
GEX2F100R3025010010	10.0	3.0	25	100	10	○	○
GEX2F120R0530010012	12.0	0.5	30	100	12	○	○
GEX2F120R1030010012	12.0	1.0	30	100	12	○	○
GEX2F120R1530010012	12.0	1.5	30	100	12	○	○
GEX2F120R2030010012	12.0	2.0	30	100	12	○	○
GEX2F120R2530010012	12.0	2.5	30	100	12	○	○
GEX2F120R3030010012	12.0	3.0	30	100	12	○	○

Special specifications can be customized. 特殊規格可訂制。



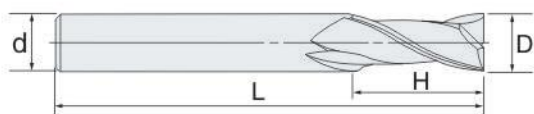
P.B147-B150

www.dohrecnc.com

B04

GEX 3 flutes square end mills

3刃立铣刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEX3F01003005004	1.0	3	50	4	○	○
GEX3F01504505004	1.5	4.5	50	4	○	○
GEX3F02006005004	2.0	6	50	4	○	○
GEX3F02507005004	2.5	7	50	4	○	○
GEX3F03008005004	3.0	8	50	4	○	○
GEX3F03510005004	3.5	10	50	4	○	○
GEX3F04011005004	4.0	11	50	4	○	○
GEX3F04511005006	4.5	11	50	6	○	○
GEX3F05013005006	5.0	13	50	6	○	○
GEX3F05513005006	5.5	13	50	6	○	○
GEX3F06015005006	6.0	15	50	6	○	○
GEX3F06515006008	6.5	15	60	8	○	○
GEX3F07017006008	7.0	17	60	8	○	○
GEX3F07517006008	7.5	17	60	8	○	○
GEX3F08020006008	8.0	20	60	8	○	○
GEX3F08520007510	8.5	20	75	10	○	○
GEX3F09023007510	9.0	23	75	10	○	○
GEX3F09523007510	9.5	23	75	10	○	○
GEX3F10025007510	10.0	25	75	10	○	○
GEX3F10525007512	10.5	25	75	12	○	○
GEX3F11028007512	11.0	28	75	12	○	○
GEX3F11528007512	11.5	28	75	12	○	○
GEX3F12030007512	12.0	30	75	12	○	○
GEX3F13033010014	13.0	33	100	14	○	○
GEX3F14035010014	14.0	35	100	14	○	○
GEX3F15038010016	15.0	38	100	16	○	○
GEX3F16040010016	16.0	40	100	16	○	○
GEX3F17040010018	17.0	40	100	18	○	○
GEX3F18040010018	18.0	40	100	18	○	○
GEX3F19040010020	19.0	40	100	20	○	○
GEX3F20040010020	20.0	40	100	20	○	○
GEX3F22040010025	22.0	40	100	25	○	○
GEX3F25040010025	25.0	40	100	25	○	○

★ WORK MATERIAL 被削材質

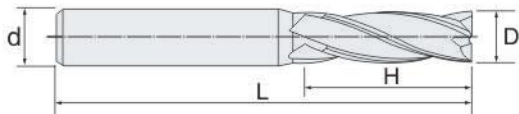
GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

GEX 4 flutes square end mills

4刃立铣刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEX4F01003005004	1.0	3	50	4	○	○
GEX4F01504505004	1.5	4.5	50	4	○	○
GEX4F02006005004	2.0	6	50	4	○	○
GEX4F02507005004	2.5	7	50	4	○	○
GEX4F03008005004	3.0	8	50	4	○	○
GEX4F03510005004	3.5	10	50	4	○	○
GEX4F04011005004	4.0	11	50	4	○	○
GEX4F04513005006	4.5	13	50	6	○	○
GEX4F05013005006	5.0	13	50	6	○	○
GEX4F05513005006	5.5	13	50	6	○	○
GEX4F06015005006	6.0	15	50	6	○	○
GEX4F06517006008	6.5	17	60	8	○	○
GEX4F07017006008	7.0	17	60	8	○	○
GEX4F07517006008	7.5	17	60	8	○	○
GEX4F08020006008	8.0	20	60	8	○	○
GEX4F08523007510	8.5	23	75	10	○	○
GEX4F09023007510	9.0	23	75	10	○	○
GEX4F09525007510	9.5	25	75	10	○	○
GEX4F10025007510	10.0	25	75	10	○	○
GEX4F10525007512	10.5	25	75	12	○	○
GEX4F11028007512	11.0	28	75	12	○	○
GEX4F11528007512	11.5	28	75	13	○	○
GEX4F12030007512	12.0	30	75	13	○	○
GEX4F13033010014	13.0	33	100	14	○	○
GEX4F14035010014	14.0	35	100	14	○	○
GEX4F15038010016	15.0	38	100	16	○	○
GEX4F16040010016	16.0	40	100	16	○	○
GEX4F17040010018	17.0	40	100	18	○	○
GEX4F18040010018	18.0	40	100	18	○	○
GEX4F19040010020	19.0	40	100	20	○	○
GEX4F20040010020	20.0	40	100	20	○	○
GEX4F22040010025	22.0	40	100	25	○	○
GEX4F25040010025	25.0	40	100	25	○	○

★ WORK MATERIAL 被削材質

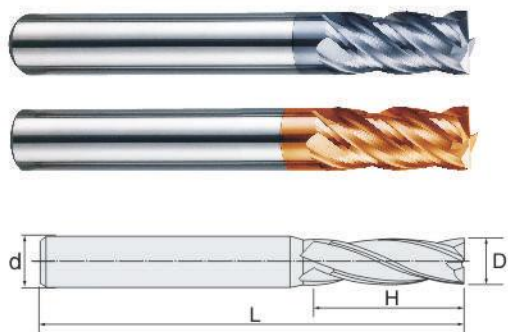
GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

GEX Long shank 4 flutes square end mills

長柄標準刃 4刃立銑刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEX4F01003007504	1.0	3	75	4	○	○
GEX4F01504507504	1.5	4.5	75	4	○	○
GEX4F02006007504	2.0	6	75	4	○	○
GEX4F02507007504	2.5	7	75	4	○	○
GEX4F03008007504	3.0	8	75	4	○	○
GEX4F03510007504	3.5	10	75	4	○	○
GEX4F04011007504	4.0	11	75	4	○	○
GEX4F04513007506	4.5	13	75	6	○	○
GEX4F05013007506	5.0	13	75	6	○	○
GEX4F05513007506	5.5	13	75	6	○	○
GEX4F06015007506	6.0	15	75	6	○	○
GEX4F06517007508	6.5	17	75	8	○	○
GEX4F07017007508	7.0	17	75	8	○	○
GEX4F07517007508	7.5	17	75	8	○	○
GEX4F08020007508	8.0	20	75	8	○	○
GEX4F03008010006	3.0	8	100	6	○	○
GEX4F04011010006	4.0	11	100	6	○	○
GEX4F05013010006	5.0	13	100	6	○	○
GEX4F06015010006	6.0	15	100	6	○	○
GEX4F07017010008	7.0	17	100	8	○	○
GEX4F08020010008	8.0	20	100	8	○	○
GEX4F09023010010	9.0	23	100	10	○	○
GEX4F10025010010	10.0	25	100	10	○	○
GEX4F11028010012	11.0	28	100	12	○	○
GEX4F12030010012	12.0	30	100	12	○	○
GEX4F08020015008	8.0	20	150	8	○	○
GEX4F10025015010	10.0	25	150	10	○	○
GEX4F12030015012	12.0	30	150	12	○	○
GEX4F16040015016	16.0	40	150	16	○	○
GEX4F18040015018	18.0	40	150	18	○	○
GEX4F20040015020	20.0	40	150	20	○	○
GEX4F16040020016	16.0	40	200	16	○	○
GEX4F20040020020	20.0	40	200	20	○	○

★ WORK MATERIAL 被削材質

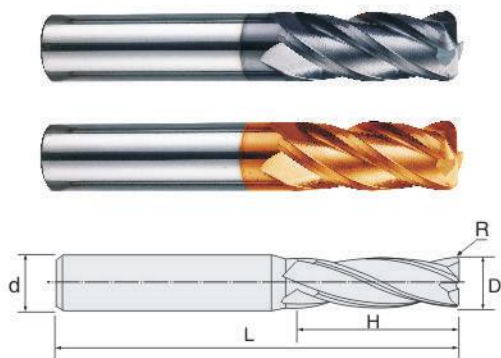
GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

GEX 4 flutes corner radius end mills

圓鼻 4刃立銑刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
GEX4F010R0203005004	1.0	0.2	3	50	4	○	○
GEX4F015R0204005004	1.5	0.2	4	50	4	○	○
GEX4F015R0504005004	1.5	0.5	4	50	4	○	○
GEX4F020R0206005004	2.0	0.2	6	50	4	○	○
GEX4F020R0506005004	2.0	0.5	6	50	4	○	○
GEX4F025R0208005004	2.5	0.2	8	50	4	○	○
GEX4F025R0508005004	2.5	0.5	8	50	4	○	○
GEX4F030R0208005004	3.0	0.2	8	50	4	○	○
GEX4F030R0508005004	3.0	0.5	8	50	4	○	○
GEX4F030R1008005004	3.0	1.0	8	50	4	○	○
GEX4F040R0201105004	4.0	0.2	11	50	4	○	○
GEX4F040R0501105004	4.0	0.5	11	50	4	○	○
GEX4F040R1001105004	4.0	1.0	11	50	4	○	○
GEX4F050R0513005006	5.0	0.5	13	50	6	○	○
GEX4F050R1013005006	5.0	1.0	13	50	6	○	○
GEX4F060R0215005006	6.0	0.2	15	50	6	○	○
GEX4F060R0515005006	6.0	0.5	15	50	6	○	○
GEX4F060R1015005006	6.0	1.0	15	50	6	○	○
GEX4F060R1515005006	6.0	1.5	15	50	6	○	○
GEX4F060R2015005006	6.0	2.0	15	50	6	○	○
GEX4F080R0520006008	8.0	0.5	20	60	8	○	○
GEX4F080R1020006008	8.0	1.0	20	60	8	○	○
GEX4F080R1520006008	8.0	1.5	20	60	8	○	○
GEX4F080R2020006008	8.0	2.0	20	60	8	○	○
GEX4F100R0525007510	10.0	0.5	25	75	10	○	○
GEX4F100R1025007510	10.0	1.0	25	75	10	○	○
GEX4F100R1525007510	10.0	1.5	25	75	10	○	○
GEX4F100R2025007510	10.0	2.0	25	75	10	○	○
GEX4F100R2525007510	10.0	2.5	25	75	10	○	○
GEX4F100R3025007510	10.0	3.0	25	75	10	○	○
GEX4F120R0530007512	12.0	0.5	30	75	12	○	○
GEX4F120R1030007512	12.0	1.0	30	75	12	○	○
GEX4F120R1530007512	12.0	1.5	30	75	12	○	○
GEX4F120R2030007512	12.0	2.0	30	75	12	○	○
GEX4F120R2530007512	12.0	2.5	30	75	12	○	○
GEX4F120R3030007512	12.0	3.0	30	75	12	○	○

★ WORK MATERIAL 被削材質

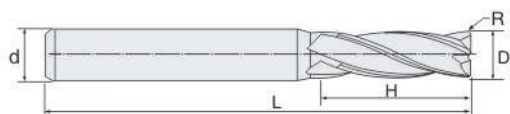
GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ12.0	-0.01~-0.04	

GEX Long shank 4 flutes corner radius end mills

長柄圓鼻 4刃立銼刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

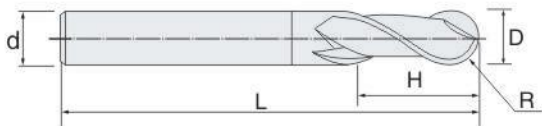
Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
GEX4F010R0203007504	1.0	0.2	3	75	4	○	○
GEX4F015R0203007504	1.5	0.2	4	75	4	○	○
GEX4F015R0503007504	1.5	0.5	4	75	4	○	○
GEX4F020R0206007504	2.0	0.2	6	75	4	○	○
GEX4F020R0506007504	2.0	0.5	6	75	4	○	○
GEX4F025R0208007504	2.5	0.2	8	75	4	○	○
GEX4F025R0508007504	2.5	0.5	8	75	4	○	○
GEX4F030R0208007504	3.0	0.2	8	75	4	○	○
GEX4F030R0508007504	3.0	0.5	8	75	4	○	○
GEX4F030R1008007504	3.0	1.0	8	75	4	○	○
GEX4F040R0201107504	4.0	0.2	11	75	4	○	○
GEX4F040R0501107504	4.0	0.5	11	75	4	○	○
GEX4F040R1001107504	4.0	1.0	11	75	4	○	○
GEX4F050R0511007506	5.0	0.5	11	75	6	○	○
GEX4F050R1013007506	5.0	1.0	13	75	6	○	○
GEX4F060R0215007506	6.0	0.2	15	75	6	○	○
GEX4F060R0515007506	6.0	0.5	15	75	6	○	○
GEX4F060R1015007506	6.0	1.0	15	75	6	○	○
GEX4F060R1515007506	6.0	1.5	15	75	6	○	○
GEX4F060R2015007506	6.0	2.0	15	75	6	○	○
GEX4F080R0520007508	8.0	0.5	20	75	8	○	○
GEX4F080R1020007508	8.0	1.0	20	75	8	○	○
GEX4F080R1520007508	8.0	1.5	20	75	8	○	○
GEX4F080R2020007508	8.0	2.0	20	75	8	○	○
GEX4F040R0211010006	4.0	0.2	11	100	6	○	○
GEX4F040R0511010006	4.0	0.5	11	100	6	○	○
GEX4F040R1011010006	4.0	1.0	11	100	6	○	○
GEX4F050R0513010006	5.0	0.5	13	100	6	○	○
GEX4F050R1013010006	5.0	1.0	13	100	6	○	○
GEX4F060R0215010006	6.0	0.2	15	100	6	○	○
GEX4F060R0515010006	6.0	0.5	15	100	6	○	○
GEX4F060R1015010006	6.0	1.0	15	100	6	○	○
GEX4F060R1515010006	6.0	1.5	15	100	6	○	○
GEX4F060R2015010006	6.0	2.0	15	100	6	○	○
GEX4F080R0520010008	8.0	0.5	20	100	8	○	○
GEX4F080R1020010008	8.0	1.0	20	100	8	○	○
GEX4F080R1520010008	8.0	1.5	20	100	8	○	○
GEX4F080R2020010008	8.0	2.0	20	100	8	○	○
GEX4F100R0525010010	10.0	0.5	25	100	10	○	○
GEX4F100R1025010010	10.0	1.0	25	100	10	○	○
GEX4F100R1525010010	10.0	1.5	25	100	10	○	○
GEX4F100R2025010010	10.0	2.0	25	100	10	○	○
GEX4F100R2525010010	10.0	2.5	25	100	10	○	○
GEX4F100R3025010010	10.0	3.0	25	100	10	○	○
GEX4F120R0530010012	12.0	0.5	30	100	12	○	○
GEX4F120R1030010012	12.0	1.0	30	100	12	○	○
GEX4F120R1530010012	12.0	1.5	30	100	12	○	○
GEX4F120R2030010012	12.0	2.0	30	100	12	○	○
GEX4F120R2530010012	12.0	2.5	30	100	12	○	○
GEX4F120R3030010012	12.0	3.0	30	100	12	○	○

Special specifications can be customized. 特殊規格可訂制。



GEX 2 flutes ball nose end mills

2刃球型立銑刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEX2FR005002005004	R0.50	2.0	50	4	○	○
GEX2FR007503005004	R0.75	3.0	50	4	○	○
GEX2FR010004005004	R1.00	4.0	50	4	○	○
GEX2FR012505005004	R1.25	5.0	50	4	○	○
GEX2FR015006005004	R1.50	6.0	50	4	○	○
GEX2FR017507005004	R1.75	7.0	50	4	○	○
GEX2FR020008005004	R2.00	8.0	50	4	○	○
GEX2FR005002006006	R0.50	2.0	60	6	○	○
GEX2FR007503006006	R0.75	3.0	60	6	○	○
GEX2FR010004006006	R1.00	4.0	60	6	○	○
GEX2FR012505006006	R1.25	5.0	60	6	○	○
GEX2FR015006006006	R1.50	6.0	60	6	○	○
GEX2FR017507006006	R1.75	7.0	60	6	○	○
GEX2FR020008006006	R2.00	8.0	60	6	○	○
GEX2FR022509006006	R2.25	9.0	60	6	○	○
GEX2FR027510006006	R2.50	10.0	60	6	○	○
GEX2FR025111006006	R2.75	11.0	60	6	○	○
GEX2FR030012006006	R3.00	12.0	60	6	○	○
GEX2FR032513006008	R3.25	13.0	60	8	○	○
GEX2FR035014006008	R3.50	14.0	60	8	○	○
GEX2FR037515006008	R3.75	15.0	60	8	○	○
GEX2FR040016006008	R4.00	16.0	60	8	○	○
GEX2FR045018007510	R4.50	18.0	75	10	○	○
GEX2FR050020007510	R5.00	20.0	75	10	○	○
GEX2FR060024007512	R6.00	24.0	75	12	○	○
GEX2FR070030010014	R7.00	30.0	100	14	○	○
GEX2FR080030010016	R8.00	30.0	100	16	○	○
GEX2FR090030010018	R9.00	30.0	100	18	○	○
GEX2FR100030010020	R10.0	30.0	100	20	○	○
GEX2FR125030010025	R12.5	30.0	100	25	○	○

★ WORK MATERIAL 被削材質

GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●

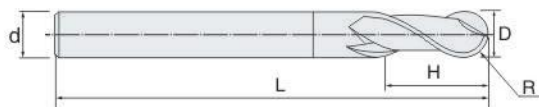
R	R diameter tolerance
R	R ± 0.015

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

GEX Long shank 2 flutes ball nose end mills

長柄 2刃球型立銼刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEX2FR005002007504	R0.50	2	75	4	○	○
GEX2FR007503007504	R0.75	3	75	4	○	○
GEX2FR010004007504	R1.00	4	75	4	○	○
GEX2FR012505007504	R1.25	5	75	4	○	○
GEX2FR015006007504	R1.50	6	75	4	○	○
GEX2FR017507007504	R1.75	7	75	4	○	○
GEX2FR020008007504	R2.00	8	75	4	○	○
GEX2FR022509007506	R2.25	9	75	6	○	○
GEX2FR025010007506	R2.50	10	75	6	○	○
GEX2FR027511007506	R2.75	11	75	6	○	○
GEX2FR030012007506	R3.00	12	75	6	○	○
GEX2FR040016007508	R4.00	16	75	8	○	○
GEX2FR005002010006	R0.50	2	100	6	○	○
GEX2FR007503010006	R0.75	3	100	6	○	○
GEX2FR010004010006	R1.00	4	100	6	○	○
GEX2FR012505010006	R1.25	5	100	6	○	○
GEX2FR015006010006	R1.50	6	100	6	○	○
GEX2FR017507010006	R1.75	7	100	6	○	○
GEX2FR020008010006	R2.00	8	100	6	○	○
GEX2FR022509010006	R2.25	9	100	6	○	○
GEX2FR025010010006	R2.50	10	100	6	○	○
GEX2FR027511010006	R2.75	11	100	6	○	○
GEX2FR030012010006	R3.00	12	100	6	○	○
GEX2FR040016010008	R4.00	16	100	8	○	○
GEX2FR050020010010	R5.00	20	100	10	○	○
GEX2FR060024010012	R6.00	24	100	12	○	○
GEX2FR030012015006	R3.00	12	150	6	○	○
GEX2FR040016015008	R4.00	16	150	8	○	○
GEX2FR050020015010	R5.00	20	150	10	○	○
GEX2FR060024015012	R6.00	24	150	12	○	○
GEX2FR070030015014	R7.00	30	150	14	○	○
GEX2FR080030015016	R8.00	30	150	16	○	○
GEX2FR100030015020	R10.00	30	150	20	○	○
GEX2FR040016020008	R4.00	16	200	8	○	○
GEX2FR050020020010	R5.00	20	200	10	○	○
GEX2FR060024020012	R6.00	24	200	12	○	○
GEX2FR070030020014	R7.00	30	200	14	○	○
GEX2FR080030020016	R8.00	30	200	16	○	○
GEX2FR100030020020	R10.00	30	200	20	○	○

★ WORK MATERAIL 被削材質

GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●
R	R diameter tolerance		
R	R ± 0.015		

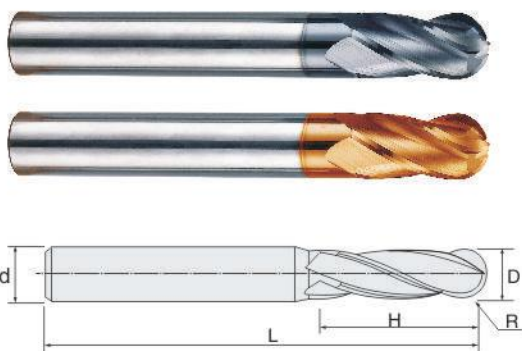
★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

DOHRE

GEX 4 flutes ball nose end mills

4刃球型立銼刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS



Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEX4FR005002006004	R0.50	2.0	50	4	○	○
GEX4FR007503006004	R0.75	3.0	50	4	○	○
GEX4FR010004006004	R1.00	4.0	50	4	○	○
GEX4FR012505006004	R1.25	5.0	50	4	○	○
GEX4FR015006006004	R1.50	6.0	50	4	○	○
GEX4FR017507006004	R1.75	7.0	50	4	○	○
GEX4FR020008006004	R2.00	8.0	50	4	○	○
GEX4FR022509006006	R2.25	9.0	50	6	○	○
GEX4FR025010006006	R2.50	10.0	50	6	○	○
GEX4FR027511006006	R2.75	11.0	50	6	○	○
GEX4FR030012006006	R3.00	12.0	60	8	○	○
GEX4FR032513006008	R3.25	13.0	60	8	○	○
GEX4FR035014006008	R3.50	14.0	60	8	○	○
GEX4FR037515006008	R3.75	15.0	60	8	○	○
GEX4FR040016006008	R4.00	16.0	60	8	○	○
GEX4FR045018007510	R4.50	18.0	75	10	○	○
GEX4FR050020007510	R5.00	20.0	75	10	○	○
GEX4FR060024007512	R6.00	24.0	75	12	○	○
GEX4FR070030010014	R7.00	30.0	100	14	○	○
GEX4FR080030010016	R8.00	30.0	100	16	○	○
GEX4FR090030010018	R9.00	30.0	100	18	○	○
GEX4FR100030010020	R10.0	30.0	100	20	○	○
GEX4FR125030010025	R12.5	30.0	100	25	○	○

★ WORK MATERIAL 被削材質

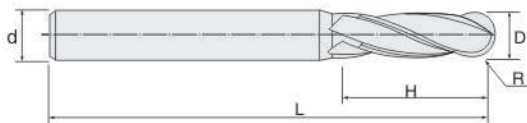
GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●
R	R diameter tolerance		
R	R ± 0.015		

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

GEX Long shank 4 flutes ball nose end mills

長柄 4刃球型立銼刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEX2FR005002007504	R0.50	2	75	4	○	○
GEX2FR007503007504	R0.75	3	75	4	○	○
GEX2FR010004007504	R1.00	4	75	4	○	○
GEX2FR012505007504	R1.25	5	75	4	○	○
GEX2FR015006007504	R1.50	6	75	4	○	○
GEX2FR017507007504	R1.75	7	75	4	○	○
GEX2FR020008007504	R2.00	8	75	4	○	○
GEX2FR022509007506	R2.25	9	75	6	○	○
GEX2FR025010007506	R2.50	10	75	6	○	○
GEX2FR027511007506	R2.75	11	75	6	○	○
GEX2FR030012007506	R3.00	12	75	6	○	○
GEX2FR040016007508	R4.00	16	75	8	○	○
GEX2FR005002010006	R0.50	2	100	6	○	○
GEX2FR007503010006	R0.75	3	100	6	○	○
GEX2FR010004010006	R1.00	4	100	6	○	○
GEX2FR012505010006	R1.25	5	100	6	○	○
GEX2FR015006010006	R1.50	6	100	6	○	○
GEX2FR017507010006	R1.75	7	100	6	○	○
GEX2FR020008010006	R2.00	8	100	6	○	○
GEX2FR022509010006	R2.25	9	100	6	○	○
GEX2FR025010010006	R2.50	10	100	6	○	○
GEX2FR027511010006	R2.75	11	100	6	○	○
GEX2FR030012010006	R3.00	12	100	6	○	○
GEX2FR040016010008	R4.00	16	100	8	○	○
GEX2FR050020010010	R5.00	20	100	10	○	○
GEX2FR060024010012	R6.00	24	100	12	○	○
GEX2FR030012015006	R3.00	12	150	6	○	○
GEX2FR040016015008	R4.00	16	150	8	○	○
GEX2FR050020015010	R5.00	20	150	10	○	○
GEX2FR060024015012	R6.00	24	150	12	○	○
GEX2FR070030015014	R7.00	30	150	14	○	○
GEX2FR080030015016	R8.00	30	150	16	○	○
GEX2FR100030015020	R10.00	30	150	20	○	○
GEX2FR040016020008	R4.00	16	200	8	○	○
GEX2FR050020020010	R5.00	20	200	10	○	○
GEX2FR060024020012	R6.00	24	200	12	○	○
GEX2FR070030020014	R7.00	30	200	14	○	○
GEX2FR080030020016	R8.00	30	200	16	○	○
GEX2FR100030020020	R10.00	30	200	20	○	○

★ WORK MATERIAL 被削材質

GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●
R	R diameter tolerance		
R	R ± 0.015		

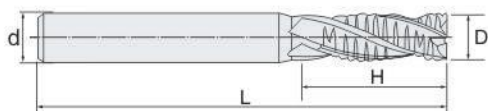
★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	



GEX 3 flutes roughing end mills

3刃粗銑立銑刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEXCP3F061505006	6.0	15	50	6	○	○
GEXCP3F082006008	8.0	20	60	8	○	○
GEXCP3F102507510	10.0	25	75	10	○	○
GEXCP3F123007512	12.0	30	75	12	○	○
GEXCP3F164010016	16.0	40	100	16	○	○
GEXCP3F204010020	20.0	40	100	20	○	○
GEXCP3F061510006	6.0	15	100	6	○	○
GEXCP3F082010008	8.0	20	100	8	○	○
GEXCP3F102510010	10.0	25	100	10	○	○
GEXCP3F123010012	12.0	30	100	12	○	○

★ WORK MATERIAL 被削材質

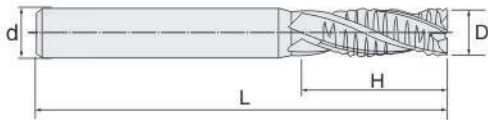
P20 S45C	SCM SK	FC FCD	SKD
碳素鋼	合金鋼	鑄鐵	淬火鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ6.0	-0.01~-0.03	H6
Φ7.0~Φ10.0	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ21.0~Φ25.0	-0.015~-0.05	
Φ30.0	-0.015~-0.055	

GEX 4 flutes roughing end mills

4刃粗銑立銑刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEXCP4F061505006	6.0	15	50	6	○	○
GEXCP4F082006008	8.0	20	60	8	○	○
GEXCP4F102507510	10.0	25	75	10	○	○
GEXCP4F123007512	12.0	30	75	12	○	○
GEXCP4F164010016	16.0	40	100	16	○	○
GEXCP4F204010020	20.0	40	100	20	○	○
GEXCP4F061510006	6.0	15	100	6	○	○
GEXCP4F082010008	8.0	20	100	8	○	○
GEXCP4F102510010	10.0	25	100	10	○	○
GEXCP4F123010012	12.0	30	100	12	○	○

★ WORK MATERIAL 被削材質

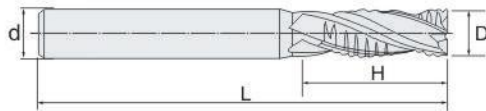
P20 S45C	SCM SK	FC FCD	SKD
碳素鋼	合金鋼	鑄鐵	淬火鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ6.0	-0.01~-0.03	H6
Φ7.0~Φ10.0	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ21.0~Φ25.0	-0.015~-0.05	
Φ30.0	-0.015~-0.055	

GEX 4 flutes half roughing end mills

4刃半粗銑立銑刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEXBCP4F061505006	6.0	15	50	6	○	○
GEXBCP4F082006008	8.0	20	60	8	○	○
GEXBCP4F102507510	10.0	25	75	10	○	○
GEXBCP4F123007512	12.0	30	75	12	○	○
GEXBCP4F164010016	16.0	40	100	16	○	○
GEXBCP4F204010020	20.0	40	100	20	○	○
GEXBCP4F061510006	6.0	15	100	6	○	○
GEXBCP4F082010008	8.0	20	100	8	○	○
GEXBCP4F102510010	10.0	25	100	10	○	○
GEXBCP4F123010012	12.0	30	100	12	○	○

★ WORK MATERIAL 被削材質

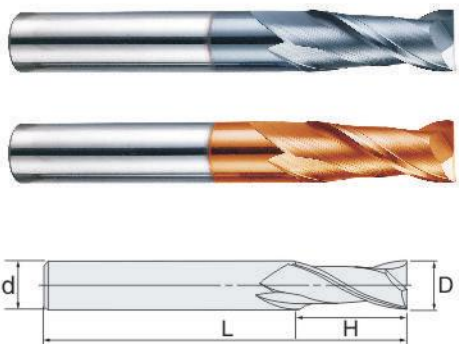
P20 S45C	SCM SK	FC FCD	SKD
碳素鋼	合金鋼	鑄鐵	淬火鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ6.0	-0.01~-0.03	H6
Φ7.0~Φ10.0	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ21.0~Φ25.0	-0.015~-0.05	
Φ30.0	-0.015~-0.055	

GEX 2 flutes standard inch size square end mills

2刃標準英制立銼刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEX2F1/8*3050	1/8(3.175)	9.525	50	1/8(3.175)	○	○
GEX2F3/16*3050	3/16(4.76)	14.28	50	3/16(4.76)	○	○
GEX2F1/4*3060	1/4(6.35)	19.05	60	1/4(6.35)	○	○
GEX2F5/16*3060	5/16(7.938)	23.814	60	5/16(7.938)	○	○
GEX2F3/8*3075	3/8(9.525)	28.575	75	3/8(9.525)	○	○
GEX2F1/2*3075	1/2(12.7)	38.1	75	1/2(12.7)	○	○
GEX2F5/8*3100	5/8(15.875)	47.625	100	5/8(15.875)	○	○
GEX2F3/4*3110	3/4(19.05)	57.15	110	3/4(19.05)	○	○
GEX2F1*3130	1*(25.4)	76.2	130	1*(25.4)	○	○

★ WORK MATERAIL 被削材質

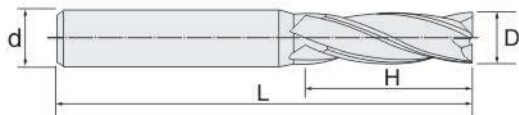
GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0-Φ2.9	0~-0.02	H6
Φ3.0-Φ6.0	-0.01~-0.03	
Φ6.5-Φ10.5	-0.01~-0.035	
Φ11.0-Φ16.0	-0.01~-0.04	
Φ17.0-Φ20.0	-0.015~-0.045	

GEX 4 flutes standard inch size square end mills

4刃標準英制立銼刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEX4F1/8*3050	1/8(3.175)	9.525	50	1/8(3.175)	○	○
GEX4F3/16*3050	3/16(4.76)	14.28	50	3/16(4.76)	○	○
GEX4F1/4*3060	1/4(6.35)	19.05	60	1/4(6.35)	○	○
GEX4F5/16*3060	5/16(7.938)	23.814	60	5/16(7.938)	○	○
GEX4F3/8*3075	3/8(9.525)	28.575	75	3/8(9.525)	○	○
GEX4F1/2*3075	1/2(12.7)	38.1	75	1/2(12.7)	○	○
GEX4F5/8*3100	5/8(15.875)	47.625	100	5/8(15.875)	○	○
GEX4F3/4*3110	3/4(19.05)	57.15	110	3/4(19.05)	○	○
GEX4F1*3130	1*(25.4)	76.2	130	1*(25.4)	○	○

★ WORK MATERIAL 被削材質

GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●

★ TOLERANCES 公差

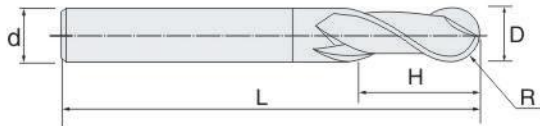
Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0-Φ2.9	0~-0.02	H6
Φ3.0-Φ6.0	-0.01~-0.03	
Φ6.5-Φ10.5	-0.01~-0.035	
Φ11.0-Φ16.0	-0.01~-0.04	
Φ17.0-Φ20.0	-0.015~-0.045	

GEX 2 flutes standard inch size ball nose end mills

2刃標準英制球型立銑刀



MG 0.7 μm CO10% HRC-45 AITINL HRC-48 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
GEX2FR1/8*3050	1/8(3.175)	9.525	50	1/8(3.175)	○	○
GEX2FR3/16*3050	3/16(4.76)	14.28	50	3/16(4.76)	○	○
GEX2FR1/4*3060	1/4(6.35)	19.05	60	1/4(6.35)	○	○
GEX2FR5/16*3060	5/16(7.938)	23.814	60	5/16(7.938)	○	○
GEX2FR3/8*3075	3/8(9.525)	28.575	75	3/8(9.525)	○	○
GEX2FR1/2*3075	1/2(12.7)	38.1	75	1/2(12.7)	○	○
GEX2FR5/8*3100	5/8(15.875)	47.625	100	5/8(15.875)	○	○
GEX2FR3/4*3110	3/4(19.05)	57.15	110	3/4(19.05)	○	○
GEX2FR1*3130	1"(25.4)	76.2	130	1"(25.4)	○	○

★ WORK MATERAIL 被削材質

GEX			
P20 S45C	SCM SK	FC FCD	CU
碳素鋼	合金鋼	鑄鐵	銅合金
●	●	●	●

★ TOLERANCES 公差

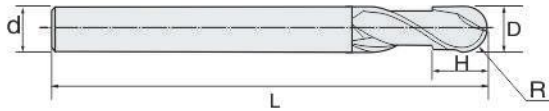
Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0-Φ2.9	0~-0.02	H6
Φ3.0-Φ6.0	-0.01~-0.03	
Φ6.5-Φ10.5	-0.01~-0.035	
Φ11.0-Φ16.0	-0.01~-0.04	
Φ17.0-Φ20.0	-0.015~-0.045	

GEX 2 flutes high strength ball nose end mills

二刃強力球頭銑刀



MG 0.7µm CO10% HRC45 AITINL HRC48 AITINS



Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
GEX2FR0050100100205004	0.50R	1.0	1.0	2	50	4	○	○
GEX2FR0075150150305004	0.75R	1.5	1.5	3	50	4	○	○
GEX2FR0100200200405006	1.00R	2.0	2.0	4	50	6	○	○
GEX2FR0150300300605006	1.50R	3.0	3.0	6	50	6	○	○
GEX2FR0200400400805006	2.00R	4.0	4.0	8	50	6	○	○
GEX2FR0250500501005006	2.50R	5.0	5.0	10	50	6	○	○
GEX2FR0300600601205006	3.00R	6.0	6.0	12	50	6	○	○
GEX2FR0400800801606008	4.00R	8.0	8.0	16	60	8	○	○
GEX2FR0501001002007510	5.00R	10.0	10.0	20	75	10	○	○
GEX2FR0601201202407512	6.00R	12.0	12.0	24	75	12	○	○
GEX2FR0801601603210016	8.00R	16.0	16.0	32	100	16	○	○

★ WORK MATERIAL 被削材質

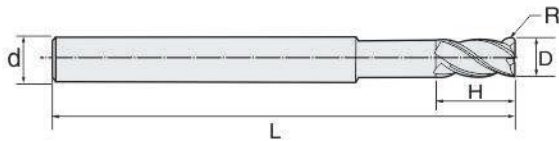
GEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	FC FCD 鑄鐵	CU 銅合金
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
$\Phi \leq 12.0$	$R \pm 0.01$
$\Phi > 12.0$	$R \pm 0.015$

GEX 4 flutes high strength corner radius end mills

四刃強力圓鼻銼刀



MG 0.7μm CO10% HRC-45 AITINL HRC-48 AITINS



Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
GEX4F030R01003005006	0.1R	3	3	7.5	50	6	○	○
GEX4F030R05003005006	0.5R	3	3	7.5	50	6	○	○
GEX4F040R02004005006	0.2R	4	4	10.0	50	6	○	○
GEX4F040R05004005006	0.5R	4	4	10.0	50	6	○	○
GEX4F050R02005005006	0.2R	5	5	12.5	50	6	○	○
GEX4F050R05005005006	0.5R	5	5	12.5	50	6	○	○
GEX4F060R02006005006	0.2R	6	6	15.0	50	6	○	○
GEX4F060R05006005006	0.5R	6	6	15.0	50	6	○	○
GEX4F060R10006005006	1.0R	6	6	15.0	50	6	○	○
GEX4F080R03008006008	0.3R	8	8	20.0	60	8	○	○
GEX4F080R05008006008	0.5R	8	8	20.0	60	8	○	○
GEX4F080R10008006008	1.0R	8	8	20.0	60	8	○	○
GEX4F080R15008006008	1.5R	8	8	20.0	60	8	○	○
GEX4F100R03010007510	0.3R	10	10	25.0	75	10	○	○
GEX4F100R05010007510	0.5R	10	10	25.0	75	10	○	○
GEX4F100R10010007510	1.0R	10	10	25.0	75	10	○	○
GEX4F100R15010007510	1.5R	10	10	25.0	75	10	○	○
GEX4F100R20010007510	2.0R	10	10	25.0	75	10	○	○
GEX4F120R03012007512	0.3R	12	12	30.0	75	12	○	○
GEX4F120R05012007512	0.5R	12	12	30.0	75	12	○	○
GEX4F120R10012007512	1.0R	12	12	30.0	75	12	○	○
GEX4F120R15012007512	1.5R	12	12	30.0	75	12	○	○
GEX4F120R20012007512	2.0R	12	12	30.0	75	12	○	○

★ WORK MATERIAL 被削材質

GEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	FC FCD 鑄鐵	CU 銅合金
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
$\Phi \leq 12.0$	0~-0.02
$\Phi > 12.0$	0~-0.03

R	R diameter tolerance
R	$R \pm 0.015$

PEX

AL- High Performance General Type Coated
End Mill (Black) HRC55

AL-高性能通用塗層銑刀（黑色）HRC55度

AS- High Performance General Type Coated
End Mill (Bronze) HRC58

AS-高性能通用塗層銑刀（古銅色）HRC58度

Micro Diameter End Mill (Minimum Diameter:0.09mm)

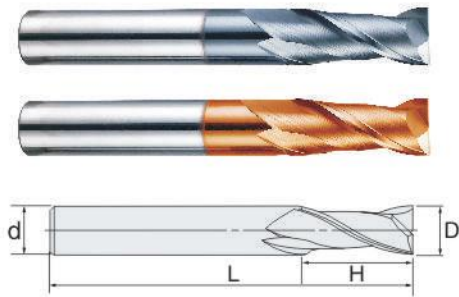


TOOLING SYSTEM

www.dohrecnc.com

PEX 2 flutes square end mills

2刃立铣刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX2F01003005004	1.0	3	50	4	○	○
PEX2F01504005004	1.5	4	50	4	○	○
PEX2F02006005004	2.0	6	50	4	○	○
PEX2F02507005004	2.5	7	50	4	○	○
PEX2F03008005004	3.0	8	50	4	○	○
PEX2F03510005004	3.5	10	50	4	○	○
PEX2F04011005004	4.0	11	50	4	○	○
PEX2F01003005006	1.0	3	50	6	○	○
PEX2F01504005006	1.5	4	50	6	○	○
PEX2F02006005006	2.0	6	50	6	○	○
PEX2F02507005006	2.5	7	50	6	○	○
PEX2F03008005006	3.0	8	50	6	○	○
PEX2F03510005006	3.5	10	50	6	○	○
PEX2F04011005006	4.0	11	50	6	○	○
PEX2F04513005006	4.5	13	50	6	○	○
PEX2F05013005006	5.0	13	50	6	○	○
PEX2F05513005006	5.5	13	50	6	○	○
PEX2F06015005006	6.0	15	50	6	○	○
PEX2F06517006008	6.5	17	60	8	○	○
PEX2F07017006008	7.0	17	60	8	○	○
PEX2F07517006008	7.5	17	60	8	○	○
PEX2F08020006008	8.0	20	60	8	○	○
PEX2F08523007510	8.5	23	75	10	○	○
PEX2F09023007510	9.0	23	75	10	○	○
PEX2F09525007510	9.5	25	75	10	○	○
PEX2F10025007510	10.0	25	75	10	○	○
PEX2F10525007512	10.5	25	75	12	○	○
PEX2F11028007512	11.0	28	75	12	○	○
PEX2F11528007512	11.5	28	75	12	○	○
PEX2F12030007512	12.0	30	75	12	○	○
PEX2F13040010014	13.0	40	100	14	○	○
PEX2F14040010014	14.0	40	100	14	○	○
PEX2F15040010016	15.0	40	100	16	○	○
PEX2F16040010016	16.0	40	100	16	○	○
PEX2F17040010018	17.0	40	100	18	○	○
PEX2F18040010018	18.0	40	100	18	○	○
PEX2F19040010020	19.0	40	100	20	○	○
PEX2F20040010020	20.0	40	100	20	○	○
PEX2F22040010025	22.0	40	100	25	○	○
PEX2F25040010025	25.0	40	100	25	○	○

★ WORK MATERIAL 被削材質

PEX

P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

Order code: PEX 2F 010 030 050 04 AS
 訂貨編號: D H L d HRC58

PEX 2F 010 030 050 04 AL
 D H L d HRC55

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

DOHRE

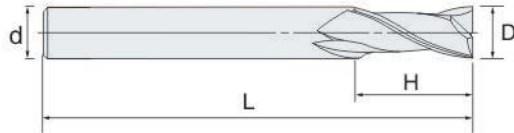
P.B151-B156

www.dohrecnc.com

B24

PEX Long shank 2 flutes square end mills

長柄標準刃 2刃立銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX2F01003007504	1.0	3	75	4	○	○
PEX2F01504507504	1.5	4.5	75	4	○	○
PEX2F02006007504	2.0	6	75	4	○	○
PEX2F02507007504	2.5	7	75	4	○	○
PEX2F03008007504	3.0	8	75	4	○	○
PEX2F03510007504	3.5	10	75	4	○	○
PEX2F04011007504	4.0	11	75	4	○	○
PEX2F04513007506	4.5	13	75	6	○	○
PEX2F05013007506	5.0	13	75	6	○	○
PEX2F05513007506	5.5	13	75	6	○	○
PEX2F06015007506	6.0	15	75	6	○	○
PEX2F06517007508	6.5	17	75	8	○	○
PEX2F07017007508	7.0	17	75	8	○	○
PEX2F07517007508	7.5	17	75	8	○	○
PEX2F08020007508	8.0	20	75	8	○	○
PEX2F03008010006	3.0	8	100	6	○	○
PEX2F04011010006	4.0	11	100	6	○	○
PEX2F05013010006	5.0	13	100	6	○	○
PEX2F06015010006	6.0	15	100	6	○	○
PEX2F07017010008	7.0	17	100	8	○	○
PEX2F08020010008	8.0	20	100	8	○	○
PEX2F09023010010	9.0	23	100	10	○	○
PEX2F10025010010	10.0	25	100	10	○	○
PEX2F11028010012	11.0	28	100	12	○	○
PEX2F12030010012	12.0	30	100	12	○	○
PEX2F08020015008	8.0	20	150	8	○	○
PEX2F10025015010	10.0	25	150	10	○	○
PEX2F12030015012	12.0	30	150	12	○	○
PEX2F16030015016	16.0	30	150	16	○	○
PEX2F18040015018	18.0	40	150	18	○	○
PEX2F20040015020	20.0	40	150	20	○	○
PEX2F16040020016	16.0	40	200	16	○	○
PEX2F20040020020	20.0	40	200	20	○	○

★ WORK MATERAIL 被削材質

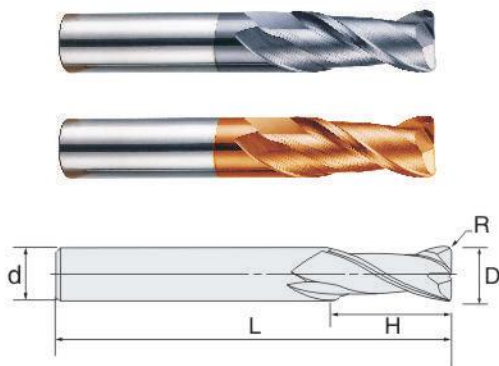
PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

PEX 2 flutes corner radius end mills

圓鼻 2刃立銼刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
PEX2F010R0203005004	1.0	0.2	3	50	4	○	○
PEX2F015R0204005004	1.5	0.2	4	50	4	○	○
PEX2F015R0504005004	1.5	0.5	4	50	4	○	○
PEX2F020R0206005004	2.0	0.2	6	50	4	○	○
PEX2F020R0506005004	2.0	0.5	6	50	4	○	○
PEX2F025R0208005004	2.5	0.2	8	50	4	○	○
PEX2F025R0508005004	2.5	0.5	8	50	4	○	○
PEX2F030R0208005004	3.0	0.2	8	50	4	○	○
PEX2F030R0508005004	3.0	0.5	8	50	4	○	○
PEX2F030R1008005004	3.0	1.0	8	50	4	○	○
PEX2F040R0211005004	4.0	0.2	11	50	4	○	○
PEX2F040R0511005004	4.0	0.5	11	50	4	○	○
PEX2F040R1011005004	4.0	1.0	11	50	4	○	○
PEX2F050R0513005006	5.0	0.5	13	50	6	○	○
PEX2F050R1013005006	5.0	1.0	13	50	6	○	○
PEX2F060R0215005006	6.0	0.2	15	50	6	○	○
PEX2F060R0515005006	6.0	0.5	15	50	6	○	○
PEX2F060R1015005006	6.0	1.0	15	50	6	○	○
PEX2F060R1515005006	6.0	1.5	15	50	6	○	○
PEX2F060R2015005006	6.0	2.0	15	50	6	○	○
PEX2F080R0520006008	8.0	0.5	20	60	8	○	○
PEX2F080R1020006008	8.0	1.0	20	60	8	○	○
PEX2F080R1520006008	8.0	1.5	20	60	8	○	○
PEX2F080R2020006008	8.0	2.0	20	60	8	○	○
PEX2F100R0525007510	10.0	0.5	25	75	10	○	○
PEX2F100R1025007510	10.0	1.0	25	75	10	○	○
PEX2F100R1525007510	10.0	1.5	25	75	10	○	○
PEX2F100R2025007510	10.0	2.0	25	75	10	○	○
PEX2F100R2525007510	10.0	2.5	25	75	10	○	○
PEX2F100R3025007510	10.0	3.0	25	75	10	○	○
PEX2F120R0530007512	12.0	0.5	30	75	12	○	○
PEX2F120R1030007512	12.0	1.0	30	75	12	○	○
PEX2F120R1530007512	12.0	1.5	30	75	12	○	○
PEX2F120R2030007512	12.0	2.0	30	75	12	○	○
PEX2F120R2530007512	12.0	2.5	30	75	12	○	○
PEX2F120R3030007512	12.0	3.0	30	75	12	○	○

★ WORK MATERIAL 被削材質

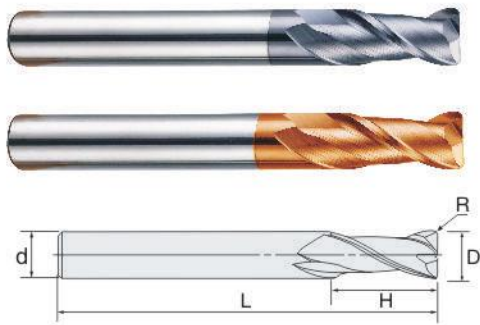
PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ12.0	-0.01~-0.04	

PEX Long shank 2 flutes corner radius end mills

長柄圓鼻2刃立銼刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

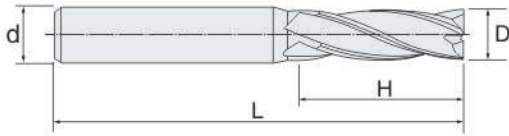
Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
PEX2F010R0203007504	1.0	0.2	3	75	4	○	○
PEX2F015R0204007504	1.5	0.2	4	75	4	○	○
PEX2F015R0504007504	1.5	0.5	4	75	4	○	○
PEX2F020R0206007504	2.0	0.2	6	75	4	○	○
PEX2F020R0506007504	2.0	0.5	6	75	4	○	○
PEX2F025R0208007504	2.5	0.2	8	75	4	○	○
PEX2F025R0508007504	2.5	0.5	8	75	4	○	○
PEX2F030R0208007504	3.0	0.2	8	75	4	○	○
PEX2F030R0508007504	3.0	0.5	8	75	4	○	○
PEX2F030R1008007504	3.0	1.0	8	75	4	○	○
PEX2F040R0211007504	4.0	0.2	11	75	4	○	○
PEX2F040R0511007504	4.0	0.5	11	75	4	○	○
PEX2F040R1011007504	4.0	1.0	11	75	4	○	○
PEX2F050R0513007506	5.0	0.5	13	75	6	○	○
PEX2F050R1013007506	5.0	1.0	13	75	6	○	○
PEX2F060R0215007506	6.0	0.2	15	75	6	○	○
PEX2F060R0515007506	6.0	0.5	15	75	6	○	○
PEX2F060R1015007506	6.0	1.0	15	75	6	○	○
PEX2F060R1515007506	6.0	1.5	15	75	6	○	○
PEX2F060R2015007506	6.0	2.0	15	75	6	○	○
PEX2F080R0520007508	8.0	0.5	20	75	8	○	○
PEX2F080R1020007508	8.0	1.0	20	75	8	○	○
PEX2F080R1520007508	8.0	1.5	20	75	8	○	○
PEX2F080R2020007508	8.0	2.0	20	75	8	○	○
PEX2F040R0211010006	4.0	0.2	11	100	6	○	○
PEX2F040R0511010006	4.0	0.5	11	100	6	○	○
PEX2F040R1011010006	4.0	1.0	11	100	6	○	○
PEX2F050R0513010006	5.0	0.5	13	100	6	○	○
PEX2F050R1013010006	5.0	1.0	13	100	6	○	○
PEX2F060R0215010006	6.0	0.2	15	100	6	○	○
PEX2F060R0515010006	6.0	0.5	15	100	6	○	○
PEX2F060R1015010006	6.0	1.0	15	100	6	○	○
PEX2F060R1515010006	6.0	1.5	15	100	6	○	○
PEX2F060R2015010006	6.0	2.0	15	100	6	○	○
PEX2F080R0520010008	8.0	0.5	20	100	8	○	○
PEX2F080R1020010008	8.0	1.0	20	100	8	○	○
PEX2F080R1520010008	8.0	1.5	20	100	8	○	○
PEX2F080R2020010008	8.0	2.0	20	100	8	○	○
PEX2F100R0525010010	10.0	0.5	25	100	10	○	○
PEX2F100R1025010010	10.0	1.0	25	100	10	○	○
PEX2F100R1525010010	10.0	1.5	25	100	10	○	○
PEX2F100R2025010010	10.0	2.0	25	100	10	○	○
PEX2F100R2525010010	10.0	2.5	25	100	10	○	○
PEX2F100R3025010010	10.0	3.0	25	100	10	○	○
PEX2F120R0530010012	12.0	0.5	30	100	12	○	○
PEX2F120R1030010012	12.0	1.0	30	100	12	○	○
PEX2F120R1530010012	12.0	1.5	30	100	12	○	○
PEX2F120R2030010012	12.0	2.0	30	100	12	○	○
PEX2F120R2530010012	12.0	2.5	30	100	12	○	○
PEX2F120R3030010012	12.0	3.0	30	100	12	○	○

Special specifications can be customized. 特殊規格可訂制。



PEX 3 flutes square end mills

3刃立铣刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX3F01003005004	1.0	3	50	4	○	○
PEX3F01504505004	1.5	4.5	50	4	○	○
PEX3F02006005004	2.0	6	50	4	○	○
PEX3F02507005004	2.5	7	50	4	○	○
PEX3F03008005004	3.0	8	50	4	○	○
PEX3F03510005004	3.5	10	50	4	○	○
PEX3F04011005004	4.0	11	50	4	○	○
PEX3F04511005006	4.5	11	50	6	○	○
PEX3F05013005006	5.0	13	50	6	○	○
PEX3F05513005006	5.5	13	50	6	○	○
PEX3F06015005006	6.0	15	50	6	○	○
PEX3F06515006008	6.5	15	60	8	○	○
PEX3F07017006008	7.0	17	60	8	○	○
PEX3F07517006008	7.5	17	60	8	○	○
PEX3F08020006008	8.0	20	60	8	○	○
PEX3F08520007510	8.5	20	75	10	○	○
PEX3F09023007510	9.0	23	75	10	○	○
PEX3F09523007510	9.5	23	75	10	○	○
PEX3F10025007510	10.0	25	75	10	○	○
PEX3F10525007512	10.5	25	75	12	○	○
PEX3F11028007512	11.0	28	75	12	○	○
PEX3F11528007512	11.5	28	75	12	○	○
PEX3F12030007512	12.0	30	75	12	○	○
PEX3F13033010014	13.0	33	100	14	○	○
PEX3F14035010014	14.0	35	100	14	○	○
PEX3F15038010016	15.0	38	100	16	○	○
PEX3F16040010016	16.0	40	100	16	○	○
PEX3F17040010018	17.0	40	100	18	○	○
PEX3F18040010018	18.0	40	100	18	○	○
PEX3F19040010020	19.0	40	100	20	○	○
PEX3F20040010020	20.0	40	100	20	○	○
PEX3F22040010025	22.0	40	100	25	○	○
PEX3F25040010025	25.0	40	100	25	○	○

★ WORK MATERAIL 被削材質

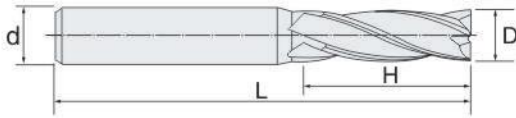
PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

PEX 4 flutes square end mills

4刃立铣刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX4F01003005004	1.0	3	50	4	○	○
PEX4F01504505004	1.5	4.5	50	4	○	○
PEX4F02006005004	2.0	6	50	4	○	○
PEX4F02507005004	2.5	7	50	4	○	○
PEX4F03008005004	3.0	8	50	4	○	○
PEX4F03510005004	3.5	10	50	4	○	○
PEX4F04011005004	4.0	11	50	4	○	○
PEX4F04513005006	4.5	13	50	6	○	○
PEX4F05013005006	5.0	13	50	6	○	○
PEX4F05513005006	5.5	13	50	6	○	○
PEX4F06015005006	6.0	15	50	6	○	○
PEX4F06517006008	6.5	17	60	8	○	○
PEX4F07017006008	7.0	17	60	8	○	○
PEX4F07517006008	7.5	17	60	8	○	○
PEX4F08020006008	8.0	20	60	8	○	○
PEX4F08523007510	8.5	23	75	10	○	○
PEX4F09023007510	9.0	23	75	10	○	○
PEX4F09525007510	9.5	25	75	10	○	○
PEX4F10025007510	10.0	25	75	10	○	○
PEX4F10525007512	10.5	25	75	12	○	○
PEX4F11028007512	11.0	28	75	12	○	○
PEX4F11528007512	11.5	28	75	12	○	○
PEX4F12030007512	12.0	30	75	12	○	○
PEX4F13033010014	13.0	33	100	14	○	○
PEX4F14035010014	14.0	35	100	14	○	○
PEX4F15038010016	15.0	38	100	16	○	○
PEX4F16040010016	16.0	40	100	16	○	○
PEX4F17040010018	17.0	40	100	18	○	○
PEX4F18040010018	18.0	40	100	18	○	○
PEX4F19040010020	19.0	40	100	20	○	○
PEX4F20040010020	20.0	40	100	20	○	○
PEX4F22040010025	22.0	40	100	25	○	○
PEX4F25040010025	25.0	40	100	25	○	○

★ WORK MATERAIL 被削材質

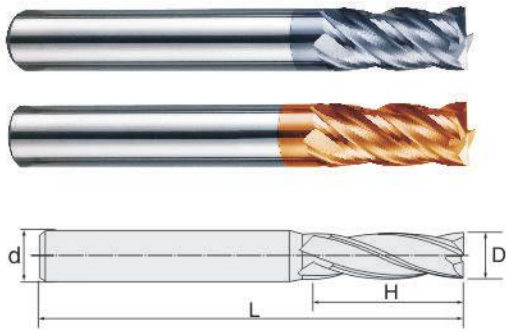
PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

PEX Long shank 4 flutes square end mills

長柄標準刃 4刃立銼刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX4F01003007504	1.0	3	75	4	○	○
PEX4F01504507504	1.5	4.5	75	4	○	○
PEX4F02006007504	2.0	6	75	4	○	○
PEX4F02507007504	2.5	7	75	4	○	○
PEX4F03008007504	3.0	8	75	4	○	○
PEX4F03510007504	3.5	10	75	4	○	○
PEX4F04011007504	4.0	11	75	4	○	○
PEX4F04513007506	4.5	13	75	6	○	○
PEX4F05013007506	5.0	13	75	6	○	○
PEX4F05513007506	5.5	13	75	6	○	○
PEX4F06015007506	6.0	15	75	6	○	○
PEX4F06517007508	6.5	17	75	8	○	○
PEX4F07017007508	7.0	17	75	8	○	○
PEX4F07517007508	7.5	17	75	8	○	○
PEX4F08020007508	8.0	20	75	8	○	○
PEX4F03008010006	3.0	8	100	6	○	○
PEX4F04011010006	4.0	11	100	6	○	○
PEX4F05013010006	5.0	13	100	6	○	○
PEX4F06015010006	6.0	15	100	6	○	○
PEX4F07017010008	7.0	17	100	8	○	○
PEX4F08020010008	8.0	20	100	8	○	○
PEX4F09023010010	9.0	23	100	10	○	○
PEX4F10025010010	10.0	25	100	10	○	○
PEX4F11028010012	11.0	28	100	12	○	○
PEX4F12030010012	12.0	30	100	12	○	○
PEX4F08020015008	8.0	20	150	8	○	○
PEX4F10025015010	10.0	25	150	10	○	○
PEX4F12030015012	12.0	30	150	12	○	○
PEX4F16040015016	16.0	40	150	16	○	○
PEX4F18040015018	18.0	40	150	18	○	○
PEX4F20040015020	20.0	40	150	20	○	○
PEX4F16040020016	16.0	40	200	16	○	○
PEX4F20040020020	20.0	40	200	20	○	○

★ WORK MATERAIL 被削材質

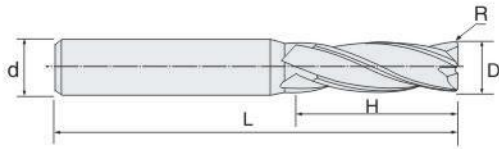
PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

PEX 4 flutes corner radius end mills

圓鼻 4刃立銼刀



Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
PEX4F010R0203005004	1.0	0.2	3	50	4	○	○
PEX4F015R0204005004	1.5	0.2	4	50	4	○	○
PEX4F015R0504005004	1.5	0.5	4	50	4	○	○
PEX4F020R0206005004	2.0	0.2	6	50	4	○	○
PEX4F020R0506005004	2.0	0.5	6	50	4	○	○
PEX4F025R0208005004	2.5	0.2	8	50	4	○	○
PEX4F025R0508005004	2.5	0.5	8	50	4	○	○
PEX4F030R0208005004	3.0	0.2	8	50	4	○	○
PEX4F030R0508005004	3.0	0.5	8	50	4	○	○
PEX4F030R1008005004	3.0	1.0	8	50	4	○	○
PEX4F040R0211005004	4.0	0.2	11	50	4	○	○
PEX4F040R0511005004	4.0	0.5	11	50	4	○	○
PEX4F040R1011005004	4.0	1.0	11	50	4	○	○
PEX4F050R0513005006	5.0	0.5	13	50	6	○	○
PEX4F050R1013005006	5.0	1.0	13	50	6	○	○
PEX4F060R0215005006	6.0	0.2	15	50	6	○	○
PEX4F060R0515005006	6.0	0.5	15	50	6	○	○
PEX4F060R1015005006	6.0	1.0	15	50	6	○	○
PEX4F060R1515005006	6.0	1.5	15	50	6	○	○
PEX4F060R2015005006	6.0	2.0	15	50	6	○	○
PEX4F080R0520006008	8.0	0.5	20	60	8	○	○
PEX4F080R1020006008	8.0	1.0	20	60	8	○	○
PEX4F080R1520006008	8.0	1.5	20	60	8	○	○
PEX4F080R2020006008	8.0	2.0	20	60	8	○	○
PEX4F100R0525007510	10.0	0.5	25	75	10	○	○
PEX4F100R1025007510	10.0	1.0	25	75	10	○	○
PEX4F100R1525007510	10.0	1.5	25	75	10	○	○
PEX4F100R2025007510	10.0	2.0	25	75	10	○	○
PEX4F100R2525007510	10.0	2.5	25	75	10	○	○
PEX4F100R3025007510	10.0	3.0	25	75	10	○	○
PEX4F120R0530007512	12.0	0.5	30	75	12	○	○
PEX4F120R1030007512	12.0	1.0	30	75	12	○	○
PEX4F120R1530007512	12.0	1.5	30	75	12	○	○
PEX4F120R2030007512	12.0	2.0	30	75	12	○	○
PEX4F120R2530007512	12.0	2.5	30	75	12	○	○
PEX4F120R3030007512	12.0	3.0	30	75	12	○	○

★ WORK MATERIAL 被削材質

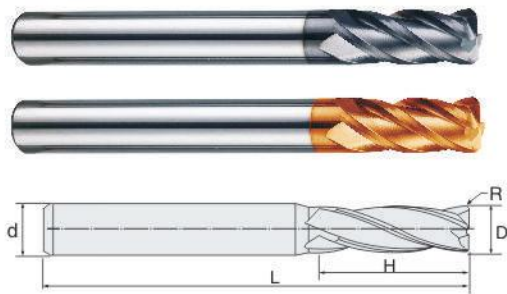
PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ12.0	-0.01~-0.04	

PEX Long shank 4 flutes corner radius end mills

長柄圓鼻 4刃立銼刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

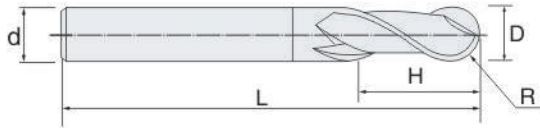


Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
PEX4F010R0203007504	1.0	0.2	3	75	4	○	○
PEX4F015R0204007504	1.5	0.2	4	75	4	○	○
PEX4F015R0504007504	1.5	0.5	4	75	4	○	○
PEX4F020R0206007504	2.0	0.2	6	75	4	○	○
PEX4F020R0506007504	2.0	0.5	6	75	4	○	○
PEX4F025R0208007504	2.5	0.2	8	75	4	○	○
PEX4F025R0508007504	2.5	0.5	8	75	4	○	○
PEX4F030R0208007504	3.0	0.2	8	75	4	○	○
PEX4F030R0508007504	3.0	0.5	8	75	4	○	○
PEX4F030R1008007504	3.0	1.0	8	75	4	○	○
PEX4F040R0211007504	4.0	0.2	11	75	4	○	○
PEX4F040R0511007504	4.0	0.5	11	75	4	○	○
PEX4F040R1011007504	4.0	1.0	11	75	4	○	○
PEX4F050R0513007506	5.0	0.5	13	75	6	○	○
PEX4F050R1013007506	5.0	1.0	13	75	6	○	○
PEX4F060R0215007506	6.0	0.2	15	75	6	○	○
PEX4F060R0515007506	6.0	0.5	15	75	6	○	○
PEX4F060R1015007506	6.0	1.0	15	75	6	○	○
PEX4F060R1515007506	6.0	1.5	15	75	6	○	○
PEX4F060R2015007506	6.0	2.0	15	75	6	○	○
PEX4F080R0520007508	8.0	0.5	20	75	8	○	○
PEX4F080R1020007508	8.0	1.0	20	75	8	○	○
PEX4F080R1520007508	8.0	1.5	20	75	8	○	○
PEX4F080R2020007508	8.0	2.0	20	75	8	○	○
PEX4F040R0211010006	4.0	0.2	11	100	6	○	○
PEX4F040R0511010006	4.0	0.5	11	100	6	○	○
PEX4F040R1011010006	4.0	1.0	11	100	6	○	○
PEX4F050R0513010006	5.0	0.5	13	100	6	○	○
PEX4F050R1013010006	5.0	1.0	13	100	6	○	○
PEX4F060R0215010006	6.0	0.2	15	100	6	○	○
PEX4F060R0515010006	6.0	0.5	15	100	6	○	○
PEX4F060R1015010006	6.0	1.0	15	100	6	○	○
PEX4F060R1515010006	6.0	1.5	15	100	6	○	○
PEX4F060R2015010006	6.0	2.0	15	100	6	○	○
PEX4F080R0520010008	8.0	0.5	20	100	8	○	○
PEX4F080R1020010008	8.0	1.0	20	100	8	○	○
PEX4F080R1520010008	8.0	1.5	20	100	8	○	○
PEX4F080R2020010008	8.0	2.0	20	100	8	○	○
PEX4F100R0525010010	10.0	0.5	25	100	10	○	○
PEX4F100R1025010010	10.0	1.0	25	100	10	○	○
PEX4F100R1525010010	10.0	1.5	25	100	10	○	○
PEX4F100R2025010010	10.0	2.0	25	100	10	○	○
PEX4F100R2525010010	10.0	2.5	25	100	10	○	○
PEX4F100R3025010010	10.0	3.0	25	100	10	○	○
PEX4F120R0530010012	12.0	0.5	30	100	12	○	○
PEX4F120R1030010012	12.0	1.0	30	100	12	○	○
PEX4F120R1530010012	12.0	1.5	30	100	12	○	○
PEX4F120R2030010012	12.0	2.0	30	100	12	○	○
PEX4F120R2530010012	12.0	2.5	30	100	12	○	○
PEX4F120R3030010012	12.0	3.0	30	100	12	○	○

■ Special specifications can be customized. ■ 特殊規格可訂制。

PEX 2 flutes ball nose end mills

2刃球型立銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX2FR005002005004	R0.50	2.0	50	4	○	○
PEX2FR007503005004	R0.75	3.0	50	4	○	○
PEX2FR010004005004	R1.00	4.0	50	4	○	○
PEX2FR012505005004	R1.25	5.0	50	4	○	○
PEX2FR015006005004	R1.50	6.0	50	4	○	○
PEX2FR017507005004	R1.75	7.0	50	4	○	○
PEX2FR020008005004	R2.00	8.0	50	4	○	○
PEX2FR005002006006	R0.50	2.0	60	6	○	○
PEX2FR007503006006	R0.75	3.0	60	6	○	○
PEX2FR010004006006	R1.00	4.0	60	6	○	○
PEX2FR012505006006	R1.25	5.0	60	6	○	○
PEX2FR015006006006	R1.50	6.0	60	6	○	○
PEX2FR017507006006	R1.75	7.0	60	6	○	○
PEX2FR020008006006	R2.00	8.0	60	6	○	○
PEX2FR022509006006	R2.25	9.0	60	6	○	○
PEX2FR025010006006	R2.50	10.0	60	6	○	○
PEX2FR027511006006	R2.75	11.0	60	6	○	○
PEX2FR030012006006	R3.00	12.0	60	6	○	○
PEX2FR032513006008	R3.25	13.0	60	8	○	○
PEX2FR035014006008	R3.50	14.0	60	8	○	○
PEX2FR037515006008	R3.75	15.0	60	8	○	○
PEX2FR040016006008	R4.00	16.0	60	8	○	○
PEX2FR045018007510	R4.50	18.0	75	10	○	○
PEX2FR050020007510	R5.00	20.0	75	10	○	○
PEX2FR060024007512	R6.00	24.0	75	12	○	○
PEX2FR070030010014	R7.00	30.0	100	14	○	○
PEX2FR080030010016	R8.00	30.0	100	16	○	○
PEX2FR090030010018	R9.00	30.0	100	18	○	○
PEX2FR100030010020	R10.0	30.0	100	20	○	○
PEX2FR125030010025	R12.5	30.0	100	25	○	○

★ WORK MATERAIL 被削材質

PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

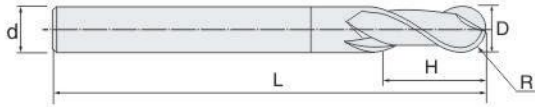
R	R diameter tolerance
R	R ± 0.015

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

PEX Long shank 2 flutes ball nose end mills

長柄 2刃球型立銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX2FR005002007504	R0.50	2	75	4	○	○
PEX2FR007503007504	R0.75	3	75	4	○	○
PEX2FR010004007504	R1.00	4	75	4	○	○
PEX2FR012505007504	R1.25	5	75	4	○	○
PEX2FR015006007504	R1.50	6	75	4	○	○
PEX2FR017507007504	R1.75	7	75	4	○	○
PEX2FR020008007504	R2.00	8	75	4	○	○
PEX2FR022509007506	R2.25	9	75	6	○	○
PEX2FR025010007506	R2.50	10	75	6	○	○
PEX2FR027511007506	R2.75	11	75	6	○	○
PEX2FR030012007506	R3.00	12	75	6	○	○
PEX2FR040016007508	R4.00	16	75	8	○	○
PEX2FR005002010006	R0.50	2	100	6	○	○
PEX2FR007503010006	R0.75	3	100	6	○	○
PEX2FR010004010006	R1.00	4	100	6	○	○
PEX2FR012505010006	R1.25	5	100	6	○	○
PEX2FR015006010006	R1.50	6	100	6	○	○
PEX2FR017507010006	R1.75	7	100	6	○	○
PEX2FR020008010006	R2.00	8	100	6	○	○
PEX2FR022509010006	R2.25	9	100	6	○	○
PEX2FR025010010006	R2.50	10	100	6	○	○
PEX2FR027511010006	R2.75	11	100	6	○	○
PEX2FR030012010006	R3.00	12	100	6	○	○
PEX2FR040016010008	R4.00	16	100	8	○	○
PEX2FR050020010010	R5.00	20	100	10	○	○
PEX2FR060024010012	R6.00	24	100	12	○	○
PEX2FR030012015006	R3.00	12	150	6	○	○
PEX2FR040016015008	R4.00	16	150	8	○	○
PEX2FR050020015010	R5.00	20	150	10	○	○
PEX2FR060024015012	R6.00	24	150	12	○	○
PEX2FR070030015014	R7.00	30	150	14	○	○
PEX2FR080030015016	R8.00	30	150	16	○	○
PEX2FR100030015020	R10.00	30	150	20	○	○
PEX2FR040016020008	R4.00	16	200	8	○	○
PEX2FR050020020010	R5.00	20	200	10	○	○
PEX2FR060024020012	R6.00	24	200	12	○	○
PEX2FR070030020014	R7.00	30	200	14	○	○
PEX2FR080030020016	R8.00	30	200	16	○	○
PEX2FR100030020020	R10.00	30	200	20	○	○

★ WORK MATERIAL 被削材質

PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

R	R diameter tolerance
R	R ± 0.015

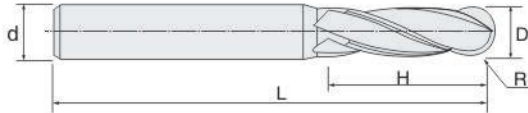
★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	



PEX 4 flutes ball nose end mills

4刃球型立銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX4FR005002006004	R0.50	2.0	50	4	○	○
PEX4FR007503006004	R0.75	3.0	50	4	○	○
PEX4FR010004006004	R1.00	4.0	50	4	○	○
PEX4FR012505006004	R1.25	5.0	50	4	○	○
PEX4FR015006006004	R1.50	6.0	50	4	○	○
PEX4FR017507006004	R1.75	7.0	50	4	○	○
PEX4FR020008006004	R2.00	8.0	50	4	○	○
PEX4FR022509006006	R2.25	9.0	50	6	○	○
PEX4FR025010006006	R2.50	10.0	50	6	○	○
PEX4FR027511006006	R2.75	11.0	50	6	○	○
PEX4FR030012006006	R3.00	12.0	60	8	○	○
PEX4FR032513006008	R3.25	13.0	60	8	○	○
PEX4FR035014006008	R3.50	14.0	60	8	○	○
PEX4FR037515006008	R3.75	15.0	60	8	○	○
PEX4FR040016006008	R4.00	16.0	60	8	○	○
PEX4FR045018007510	R4.50	18.0	75	10	○	○
PEX4FR050020007510	R5.00	20.0	75	10	○	○
PEX4FR060024007512	R6.00	24.0	75	12	○	○
PEX4FR070030010014	R7.00	30.0	100	14	○	○
PEX4FR080030010016	R8.00	30.0	100	16	○	○
PEX4FR090030010018	R9.00	30.0	100	18	○	○
PEX4FR100030010020	R10.0	30.0	100	20	○	○
PEX4FR125030010025	R12.5	30.0	100	25	○	○

★ WORK MATERIAL 被削材質

PEX

P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

R	R diameter tolerance
R	R ± 0.015

★ TOLERANCES 公差

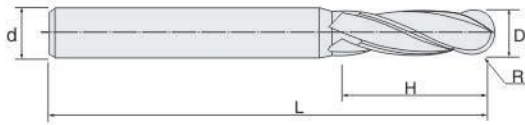
Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ0.4~Φ4.0	0~-0.02	H6

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

PEX Long shank 4 flutes ball nose end mills

長柄 4刃球型立銼刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX2FR005002007504	R0.50	2	75	4	○	○
PEX2FR007503007504	R0.75	3	75	4	○	○
PEX2FR010004007504	R1.00	4	75	4	○	○
PEX2FR012505007504	R1.25	5	75	4	○	○
PEX2FR015006007504	R1.50	6	75	4	○	○
PEX2FR017507007504	R1.75	7	75	4	○	○
PEX2FR020008007504	R2.00	8	75	4	○	○
PEX2FR022509007506	R2.25	9	75	6	○	○
PEX2FR025010007506	R2.50	10	75	6	○	○
PEX2FR027511007506	R2.75	11	75	6	○	○
PEX2FR030012007506	R3.00	12	75	6	○	○
PEX2FR040016007508	R4.00	16	75	8	○	○
PEX2FR005002010006	R0.50	2	100	6	○	○
PEX2FR007503010006	R0.75	3	100	6	○	○
PEX2FR010004010006	R1.00	4	100	6	○	○
PEX2FR012505010006	R1.25	5	100	6	○	○
PEX2FR015006010006	R1.50	6	100	6	○	○
PEX2FR017507010006	R1.75	7	100	6	○	○
PEX2FR020008010006	R2.00	8	100	6	○	○
PEX2FR022509010006	R2.25	9	100	6	○	○
PEX2FR025010010006	R2.50	10	100	6	○	○
PEX2FR027511010006	R2.75	11	100	6	○	○
PEX2FR030012010006	R3.00	12	100	6	○	○
PEX2FR040016010008	R4.00	16	100	8	○	○
PEX2FR050020010010	R5.00	20	100	10	○	○
PEX2FR060024010012	R6.00	24	100	12	○	○
PEX2FR030012015006	R3.00	12	150	6	○	○
PEX2FR040016015008	R4.00	16	150	8	○	○
PEX2FR050020015010	R5.00	20	150	10	○	○
PEX2FR060024015012	R6.00	24	150	12	○	○
PEX2FR070030015014	R7.00	30	150	14	○	○
PEX2FR080030015016	R8.00	30	150	16	○	○
PEX2FR100030015020	R10.00	30	150	20	○	○
PEX2FR040016020008	R4.00	16	200	8	○	○
PEX2FR050020020010	R5.00	20	200	10	○	○
PEX2FR060024020012	R6.00	24	200	12	○	○
PEX2FR070030020014	R7.00	30	200	14	○	○
PEX2FR080030020016	R8.00	30	200	16	○	○
PEX2FR100030020020	R10.00	30	200	20	○	○

★ WORK MATERAIL 被削材質

PEX

P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

R R diameter tolerance

R R ± 0.015

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ 1.0~Φ 2.9	0~-0.02	H6
Φ 3.0~Φ 6.4	-0.01~-0.03	
Φ 6.5~Φ 10.9	-0.01~-0.035	
Φ 11.0~Φ 16.5	-0.01~-0.04	
Φ 17.0~Φ 20.0	-0.015~-0.045	
Φ 20.5~Φ 25.0	-0.015~-0.05	



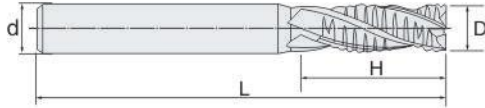
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B36

PEX 3 flutes roughing end mills

3刃粗銑立銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEXCP3F061505006	6.0	15	50	6	○	○
PEXCP3F082006008	8.0	20	60	8	○	○
PEXCP3F102507510	10.0	25	75	10	○	○
PEXCP3F123007512	12.0	30	75	12	○	○
PEXCP3F164010016	16.0	40	100	16	○	○
PEXCP3F204010020	20.0	40	100	20	○	○
PEXCP3F061510006	6.0	15	100	6	○	○
PEXCP3F082010008	8.0	20	100	8	○	○
PEXCP3F102510010	10.0	25	100	10	○	○
PEXCP3F123010012	12.0	30	100	12	○	○

★ WORK MATERIAL 被削材質

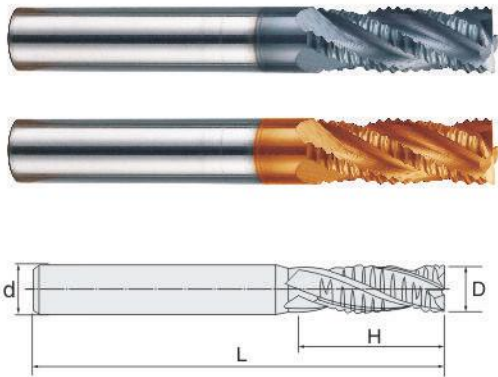
PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ6.0	-0.01~-0.03	H6
Φ7.0~Φ10.0	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ21.0~Φ25.0	-0.015~-0.05	
Φ30.0	-0.015~-0.055	

PEX 4 flutes roughing end mills

4刃粗銑立銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEXCP4F061505006	6.0	15	50	6	○	○
PEXCP4F082006008	8.0	20	60	8	○	○
PEXCP4F102507510	10.0	25	75	10	○	○
PEXCP4F123007512	12.0	30	75	12	○	○
PEXCP4F164010016	16.0	40	100	16	○	○
PEXCP4F204010020	20.0	40	100	20	○	○
PEXCP4F061510006	6.0	15	100	6	○	○
PEXCP4F082010008	8.0	20	100	8	○	○
PEXCP4F102510010	10.0	25	100	10	○	○
PEXCP4F123010012	12.0	30	100	12	○	○

★ WORK MATERIAL 被削材質

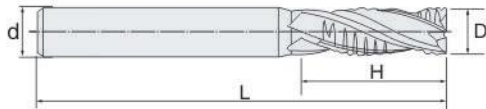
PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ6.0	-0.01~-0.03	H6
Φ7.0~Φ10.0	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ21.0~Φ25.0	-0.015~-0.05	
Φ30.0	-0.015~-0.055	

PEX 4 flutes half roughing end mills

4刃半粗銑立銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEXBCP4F061505006	6.0	15	50	6	○	○
PEXBCP4F082006008	8.0	20	60	8	○	○
PEXBCP4F102507510	10.0	25	75	10	○	○
PEXBCP4F123007512	12.0	30	75	12	○	○
PEXBCP4F164010016	16.0	40	100	16	○	○
PEXBCP4F204010020	20.0	40	100	20	○	○
PEXBCP4F061510006	6.0	15	100	6	○	○
PEXBCP4F082010008	8.0	20	100	8	○	○
PEXBCP4F102510010	10.0	25	100	10	○	○
PEXBCP4F123010012	12.0	30	100	12	○	○

★ WORK MATERIAL 被削材質

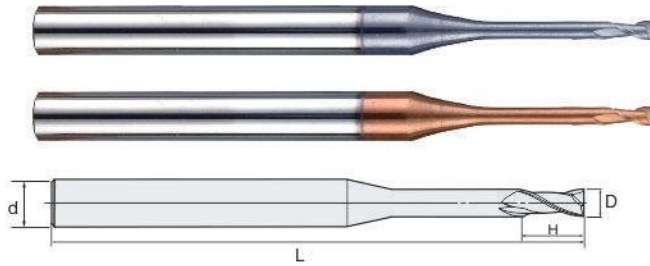
PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ6.0	-0.01~-0.03	H6
Φ7.0~Φ10.0	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ21.0~Φ25.0	-0.015~-0.05	
Φ30.0	-0.015~-0.055	

PEX 2 flutes long neck short flute square end mills

二刃平底深溝銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

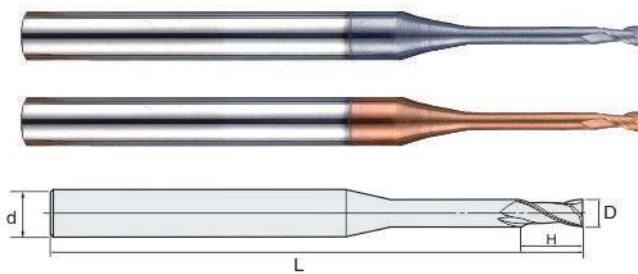


Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
PEX2F00200301005004	0.2	0.3	1	50	4	○	○
PEX2F00200302005004	0.2	0.3	2	50	4	○	○
PEX2F00300401005004	0.3	0.4	1	50	4	○	○
PEX2F00300402005004	0.3	0.4	2	50	4	○	○
PEX2F00300403005004	0.3	0.4	3	50	4	○	○
PEX2F00300404005004	0.3	0.4	4	50	4	○	○
PEX2F00300405005004	0.3	0.4	5	50	4	○	○
PEX2F00400501005004	0.4	0.5	1	50	4	○	○
PEX2F00400502005004	0.4	0.5	2	50	4	○	○
PEX2F00400503005004	0.4	0.5	3	50	4	○	○
PEX2F00400504005004	0.4	0.5	4	50	4	○	○
PEX2F00400505005004	0.4	0.5	5	50	4	○	○
PEX2F00400506005004	0.4	0.5	6	50	4	○	○
PEX2F00400508005004	0.4	0.5	8	50	4	○	○
PEX2F00400510005004	0.4	0.5	10	50	4	○	○
PEX2F00500602005004	0.5	0.6	2	50	4	○	○
PEX2F00500603005004	0.5	0.6	3	50	4	○	○
PEX2F00500604005004	0.5	0.6	4	50	4	○	○
PEX2F00500605005004	0.5	0.6	5	50	4	○	○
PEX2F00500606005004	0.5	0.6	6	50	4	○	○
PEX2F00500608005004	0.5	0.6	8	50	4	○	○
PEX2F00500610005004	0.5	0.6	10	50	4	○	○
PEX2F00500612005004	0.5	0.6	12	50	4	○	○
PEX2F00500614005004	0.5	0.6	14	50	4	○	○
PEX2F00600702005004	0.6	0.7	2	50	4	○	○
PEX2F00600703005004	0.6	0.7	3	50	4	○	○
PEX2F00600704005004	0.6	0.7	4	50	4	○	○
PEX2F00600705005004	0.6	0.7	5	50	4	○	○
PEX2F00600706005004	0.6	0.7	6	50	4	○	○
PEX2F00600708005004	0.6	0.7	8	50	4	○	○
PEX2F00600710005004	0.6	0.7	10	50	4	○	○
PEX2F00600712005004	0.6	0.7	12	50	4	○	○
PEX2F00600714005004	0.6	0.7	14	50	4	○	○
PEX2F00600716005004	0.6	0.7	16	50	4	○	○
PEX2F00700802005004	0.7	0.8	2	50	4	○	○
PEX2F00700804005004	0.7	0.8	4	50	4	○	○
PEX2F00700806005004	0.7	0.8	6	50	4	○	○
PEX2F00700808005004	0.7	0.8	8	50	4	○	○
PEX2F00700810005004	0.7	0.8	10	50	4	○	○
PEX2F00700812005004	0.7	0.8	12	50	4	○	○
PEX2F00801002005004	0.8	1.0	2	50	4	○	○
PEX2F00801004005004	0.8	1.0	4	50	4	○	○
PEX2F00801006005004	0.8	1.0	6	50	4	○	○
PEX2F00801008005004	0.8	1.0	8	50	4	○	○
PEX2F00801010005004	0.8	1.0	10	50	4	○	○
PEX2F00801012005004	0.8	1.0	12	50	4	○	○
PEX2F00801014005004	0.8	1.0	14	50	4	○	○
PEX2F00901106005004	0.9	1.1	6	50	4	○	○
PEX2F00901108005004	0.9	1.1	8	50	4	○	○
PEX2F00901110005004	0.9	1.1	10	50	4	○	○
PEX2F01001202005004	1.0	1.2	2	50	4	○	○
PEX2F01001203005004	1.0	1.2	3	50	4	○	○
PEX2F01001204005004	1.0	1.2	4	50	4	○	○
PEX2F01001205005004	1.0	1.2	5	50	4	○	○
PEX2F01001206005004	1.0	1.2	6	50	4	○	○
PEX2F01001208005004	1.0	1.2	8	50	4	○	○
PEX2F01001210005004	1.0	1.2	10	50	4	○	○



PEX 2 flutes long neck short flute square end mills

二刃平底深溝銑刀

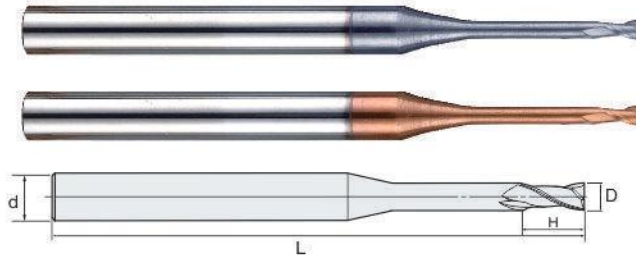


MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
PEX2F01001212005004	1.0	1.2	12	50	4	○	○
PEX2F01001214005004	1.0	1.2	14	50	4	○	○
PEX2F01001216005004	1.0	1.2	16	50	4	○	○
PEX2F01001218005004	1.0	1.2	18	50	4	○	○
PEX2F01001220005004	1.0	1.2	20	50	4	○	○
PEX2F01201504005004	1.2	1.5	4	50	4	○	○
PEX2F01201506005004	1.2	1.5	6	50	4	○	○
PEX2F01201508005004	1.2	1.5	8	50	4	○	○
PEX2F01201510005004	1.2	1.5	10	50	4	○	○
PEX2F01201512005004	1.2	1.5	12	50	4	○	○
PEX2F01201516005004	1.2	1.5	16	50	4	○	○
PEX2F01201520005004	1.2	1.5	20	50	4	○	○
PEX2F01401806005004	1.4	1.8	6	50	4	○	○
PEX2F01401808005004	1.4	1.8	8	50	4	○	○
PEX2F01401810005004	1.4	1.8	10	50	4	○	○
PEX2F01401814005004	1.4	1.8	14	50	4	○	○
PEX2F01401816005004	1.4	1.8	16	50	4	○	○
PEX2F01401820005004	1.4	1.8	20	50	4	○	○
PEX2F01501804005004	1.5	1.8	4	50	4	○	○
PEX2F01501806005004	1.5	1.8	6	50	4	○	○
PEX2F01501808005004	1.5	1.8	8	50	4	○	○
PEX2F01501810005004	1.5	1.8	10	50	4	○	○
PEX2F01501812005004	1.5	1.8	12	50	4	○	○
PEX2F01501814005004	1.5	1.8	14	50	4	○	○
PEX2F01501816005004	1.5	1.8	16	50	4	○	○
PEX2F01501818005004	1.5	1.8	18	50	4	○	○
PEX2F01501820005004	1.5	1.8	20	50	4	○	○
PEX2F01601910005004	1.6	1.9	10	50	4	○	○
PEX2F01601914005004	1.6	1.9	14	50	4	○	○
PEX2F01601918005004	1.6	1.9	18	50	4	○	○
PEX2F01802010005004	1.8	2.0	10	50	4	○	○
PEX2F01802014005004	1.8	2.0	14	50	4	○	○
PEX2F01802018005004	1.8	2.0	18	50	4	○	○
PEX2F02002504005004	2.0	2.5	4	50	4	○	○
PEX2F02002506005004	2.0	2.5	6	50	4	○	○
PEX2F02002508005004	2.0	2.5	8	50	4	○	○
PEX2F02002510005004	2.0	2.5	10	50	4	○	○
PEX2F02002512005004	2.0	2.5	12	50	4	○	○
PEX2F02002514005004	2.0	2.5	14	50	4	○	○
PEX2F02002516005004	2.0	2.5	16	50	4	○	○
PEX2F02002518005004	2.0	2.5	18	50	4	○	○
PEX2F02002520005004	2.0	2.5	20	50	4	○	○
PEX2F02002522005004	2.0	2.5	22	50	4	○	○
PEX2F02002525005004	2.0	2.5	25	50	4	○	○
PEX2F02002530005004	2.0	2.5	30	50	4	○	○
PEX2F02002535005004	2.0	2.5	35	50	4	○	○
PEX2F02503008005004	2.5	3.0	8	50	4	○	○
PEX2F02503010005004	2.5	3.0	10	50	4	○	○
PEX2F02503012005004	2.5	3.0	12	50	4	○	○
PEX2F02503016005004	2.5	3.0	16	50	4	○	○
PEX2F02503020005004	2.5	3.0	20	50	4	○	○
PEX2F02503025005004	2.5	3.0	25	50	4	○	○
PEX2F02503030005004	2.5	3.0	30	50	4	○	○
PEX2F02503035005004	2.5	3.0	35	50	4	○	○

PEX 2 flutes long neck short flute square end mills

二刃平底深溝銑刀



MG 0.6 μm CO10% HRC-55 AITiN HRC-58 AITiNS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
PEX2F03003506005006	3.0	3.5	6	50	6	◎	◎
PEX2F03003510005006	3.0	3.5	10	50	6	◎	◎
PEX2F03003512005006	3.0	3.5	12	50	6	◎	◎
PEX2F03003516005006	3.0	3.5	16	50	6	◎	◎
PEX2F03003520006006	3.0	3.5	20	60	6	◎	◎
PEX2F03003525006006	3.0	3.5	25	60	6	◎	◎
PEX2F03003530006006	3.0	3.5	30	60	6	◎	◎
PEX2F03003535007506	3.0	3.5	35	75	6	◎	◎
PEX2F04004508005006	4.0	4.5	8	50	6	◎	◎
PEX2F04004510005006	4.0	4.5	10	50	6	◎	◎
PEX2F04004512005006	4.0	4.5	12	50	6	◎	◎
PEX2F04004516005006	4.0	4.5	16	50	6	◎	◎
PEX2F04004520006006	4.0	4.5	20	60	6	◎	◎
PEX2F04004525006006	4.0	4.5	25	60	6	◎	◎
PEX2F04004530006006	4.0	4.5	30	60	6	◎	◎
PEX2F04004535007506	4.0	4.5	35	75	6	◎	◎
PEX2F05007016005006	5.0	7.0	16	50	6	◎	◎
PEX2F05007020006006	5.0	7.0	20	60	6	◎	◎
PEX2F05007025006006	5.0	7.0	25	60	6	◎	◎
PEX2F05007030006006	5.0	7.0	30	60	6	◎	◎
PEX2F05007035075006	5.0	7.0	35	75	6	◎	◎
PEX2F06010020006006	6.0	10.0	20	60	6	◎	◎
PEX2F06010030075006	6.0	10.0	30	75	6	◎	◎
PEX2F08015020006008	8.0	15.0	20	60	8	◎	◎
PEX2F08015030075008	8.0	15.0	30	75	8	◎	◎
PEX2F08015040010008	8.0	15.0	40	100	8	◎	◎
PEX2F10020025075010	10.0	20.0	25	75	10	◎	◎
PEX2F10020035075010	10.0	20.0	35	75	10	◎	◎
PEX2F10020045010010	10.0	20.0	45	100	10	◎	◎
PEX2F12025030075012	12.0	25.0	30	75	12	◎	◎
PEX2F12025040010012	12.0	25.0	40	100	12	◎	◎
PEX2F12025050010012	12.0	25.0	50	100	12	◎	◎

★ WORK MATERAIL 被削材質

PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
Φ	0~-0.02

Working material 被切材質	Alloy steel/Tool steel 合金鋼/工具鋼	Alloy steel/Tool steel 合金鋼/工具鋼	Alloy steel/Tool steel 合金鋼/工具鋼	Alloy steel/Tool steel 合金鋼/工具鋼
Material code 材質編碼	45C,S50C,SCM	SCM,SKT,SKD	SCM,SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC < 20	HRC 20-30	HRC 30-40	HRC 40-50

Diameter 直徑	R.P.M		Feed (mm/mm)		R.P.M		Feed (mm/mm)	
	R.P.M	Feed	R.P.M	Feed	R.P.M	Feed	R.P.M	Feed
0.2MM	52,000	310	52,000	290	52,000	250	52,000	250
0.3MM	56,000	520	56,000	460	56,000	410	56,000	410
0.4MM	52,000	610	52,000	580	44,600	420	44,600	420
0.5MM	52,800	840	50,000	720	37,600	470	37,600	470
0.8MM	34,100	830	28,100	650	21,100	450	21,100	450
1.0MM	30,100	1,070	24,400	770	19,500	480	19,500	480
1.5MM	20,000	980	17,500	740	12,400	450	12,400	450
2.0MM	18,500	1,250	16,400	930	11,500	550	11,500	550
2.5MM	14,000	1,240	11,800	950	8,800	650	8,800	650
3.0MM	10,600	1,150	8,700	850	6,200	560	6,200	560
4.0MM	8,500	1,280	7,100	950	5,100	600	5,100	600
5.0MM	5,800	1,040	4,800	760	3,300	460	3,300	460
6.0MM	3,900	890	3,600	680	2,400	440	2,400	440
8.0MM	3,200	910	2,800	710	2,300	450	2,300	450
10.0MM	2,900	890	2,700	680	2,100	430	2,100	430
12.0MM	2,500	710	2,300	580	2,000	400	2,000	400

Milling amount (mm)



Please refer to 3xD table, reduce R.P.M. & Feed while efficient length is increasing.

DOHRE

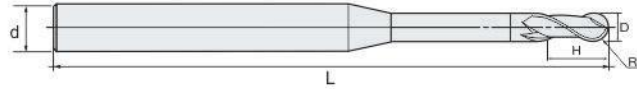
P.B151-B156

www.dohrecnc.com

B42

PEX 2 flutes long neck short flute ball nose end mills

二刃深溝球頭銼刀

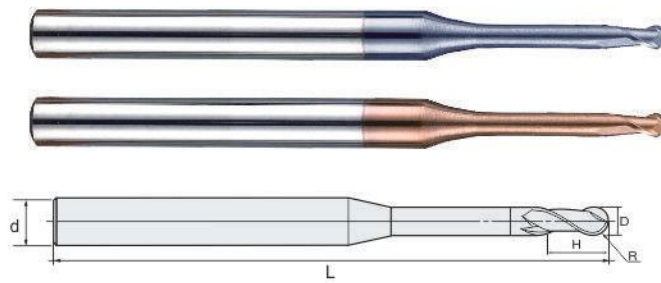


MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
PEX2FR01500301005004	0.15R	0.3	0.3	1	50	4	⊙	⊙
PEX2FR01500302005004	0.15R	0.3	0.3	2	50	4	⊙	⊙
PEX2FR01500303005004	0.15R	0.3	0.3	3	50	4	⊙	⊙
PEX2FR02000401005004	0.20R	0.4	0.4	1	50	4	⊙	⊙
PEX2FR02000402005004	0.20R	0.4	0.4	2	50	4	⊙	⊙
PEX2FR02000403005004	0.20R	0.4	0.4	3	50	4	⊙	⊙
PEX2FR02000404005004	0.20R	0.4	0.4	4	50	4	⊙	⊙
PEX2FR02000405005004	0.20R	0.4	0.4	5	50	4	⊙	⊙
PEX2FR02000406005004	0.20R	0.4	0.4	6	50	4	⊙	⊙
PEX2FR02500408005004	0.20R	0.4	0.4	8	50	4	⊙	⊙
PEX2FR02500501005004	0.25R	0.5	0.5	1	50	4	⊙	⊙
PEX2FR02500502005004	0.25R	0.5	0.5	2	50	4	⊙	⊙
PEX2FR02500503005004	0.25R	0.5	0.5	3	50	4	⊙	⊙
PEX2FR02500504005004	0.25R	0.5	0.5	4	50	4	⊙	⊙
PEX2FR02500505005004	0.25R	0.5	0.5	5	50	4	⊙	⊙
PEX2FR02500506005004	0.25R	0.5	0.5	6	50	4	⊙	⊙
PEX2FR02500508005004	0.25R	0.5	0.5	8	50	4	⊙	⊙
PEX2FR03000510005004	0.25R	0.5	0.5	10	50	4	⊙	⊙
PEX2FR03000601005004	0.30R	0.6	0.6	1	50	4	⊙	⊙
PEX2FR03000602005004	0.30R	0.6	0.6	2	50	4	⊙	⊙
PEX2FR03000603005004	0.30R	0.6	0.6	3	50	4	⊙	⊙
PEX2FR03000604005004	0.30R	0.6	0.6	4	50	4	⊙	⊙
PEX2FR03000605005004	0.30R	0.6	0.6	5	50	4	⊙	⊙
PEX2FR03000606005004	0.30R	0.6	0.6	6	50	4	⊙	⊙
PEX2FR03000608005004	0.30R	0.6	0.6	8	50	4	⊙	⊙
PEX2FR03000610005004	0.30R	0.6	0.6	10	50	4	⊙	⊙
PEX2FR03500612005004	0.30R	0.6	0.6	12	50	4	⊙	⊙
PEX2FR03500702005004	0.35R	0.7	0.7	2	50	4	⊙	⊙
PEX2FR03500704005004	0.35R	0.7	0.7	4	50	4	⊙	⊙
PEX2FR03500708005004	0.35R	0.7	0.7	8	50	4	⊙	⊙
PEX2FR03500710005004	0.35R	0.7	0.7	10	50	4	⊙	⊙
PEX2FR04000712005004	0.35R	0.7	0.7	12	50	4	⊙	⊙
PEX2FR04000802005004	0.40R	0.8	0.8	2	50	4	⊙	⊙
PEX2FR04000804005004	0.40R	0.8	0.8	4	50	4	⊙	⊙
PEX2FR04000806005004	0.40R	0.8	0.8	6	50	4	⊙	⊙
PEX2FR04000808005004	0.40R	0.8	0.8	8	50	4	⊙	⊙
PEX2FR04000810005004	0.40R	0.8	0.8	10	50	4	⊙	⊙
PEX2FR04500812005004	0.40R	0.8	0.8	12	50	4	⊙	⊙
PEX2FR05000904005004	0.45R	0.9	0.9	4	50	4	⊙	⊙
PEX2FR05001002005004	0.50R	1.0	1.0	2	50	4	⊙	⊙
PEX2FR05001003005004	0.50R	1.0	1.0	3	50	4	⊙	⊙
PEX2FR05001004005004	0.50R	1.0	1.0	4	50	4	⊙	⊙
PEX2FR05001005005004	0.50R	1.0	1.0	5	50	4	⊙	⊙
PEX2FR05001006005004	0.50R	1.0	1.0	6	50	4	⊙	⊙
PEX2FR05001008005004	0.50R	1.0	1.0	8	50	4	⊙	⊙
PEX2FR05001010005004	0.50R	1.0	1.0	10	50	4	⊙	⊙
PEX2FR05001012005004	0.50R	1.0	1.0	12	50	4	⊙	⊙
PEX2FR05001014005004	0.50R	1.0	1.0	14	50	4	⊙	⊙
PEX2FR05001016005004	0.50R	1.0	1.0	16	50	4	⊙	⊙
PEX2FR05001018005004	0.50R	1.0	1.0	18	50	4	⊙	⊙
PEX2FR05001020005004	0.50R	1.0	1.0	20	50	4	⊙	⊙
PEX2FR05001022005004	0.50R	1.0	1.0	22	60	4	⊙	⊙

PEX 2 flutes long neck short flute ball nose end mills

二刃深溝球頭銑刀



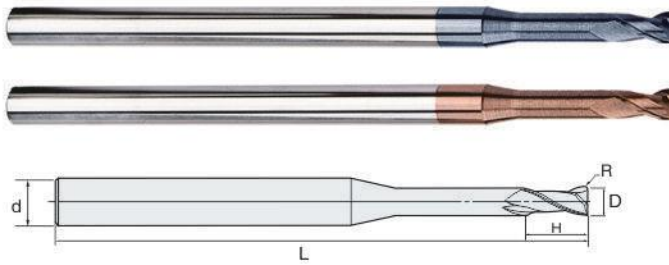
MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
PEX2FR06012045004	0.60R	1.2	1.2	4	50	4	○	○
PEX2FR06012065004	0.60R	1.2	1.2	6	50	4	○	○
PEX2FR06012085004	0.60R	1.2	1.2	8	50	4	○	○
PEX2FR06012105004	0.60R	1.2	1.2	10	50	4	○	○
PEX2FR06012125004	0.60R	1.2	1.2	12	50	4	○	○
PEX2FR06012165004	0.60R	1.2	1.2	16	50	4	○	○
PEX2FR06012205004	0.60R	1.2	1.2	20	50	4	○	○
PEX2FR06012245004	0.60R	1.2	1.2	24	50	4	○	○
PEX2FR07014065004	0.70R	1.4	1.4	6	50	4	○	○
PEX2FR07014085004	0.70R	1.4	1.4	8	50	4	○	○
PEX2FR07014125004	0.70R	1.4	1.4	12	50	4	○	○
PEX2FR07014165004	0.70R	1.4	1.4	16	50	4	○	○
PEX2FR07515035004	0.75R	1.5	1.5	3	50	4	○	○
PEX2FR07515045004	0.75R	1.5	1.5	4	50	4	○	○
PEX2FR07515065004	0.75R	1.5	1.5	6	50	4	○	○
PEX2FR07515085004	0.75R	1.5	1.5	8	50	4	○	○
PEX2FR07515105004	0.75R	1.5	1.5	10	50	4	○	○
PEX2FR07515125004	0.75R	1.5	1.5	12	50	4	○	○
PEX2FR07515145004	0.75R	1.5	1.5	14	50	4	○	○
PEX2FR07515165004	0.75R	1.5	1.5	16	50	4	○	○
PEX2FR07515185004	0.75R	1.5	1.5	18	50	4	○	○
PEX2FR07515205004	0.75R	1.5	1.5	20	50	4	○	○
PEX2FR07515225004	0.75R	1.5	1.5	22	50	4	○	○
PEX2FR07515255004	0.75R	1.5	1.5	25	50	4	○	○
PEX2FR07515305004	0.75R	1.5	1.5	30	50	4	○	○
PEX2FR08016065004	0.80R	1.6	1.6	6	50	4	○	○
PEX2FR08016085004	0.80R	1.6	1.6	8	50	4	○	○
PEX2FR08016125004	0.80R	1.6	1.6	12	50	4	○	○
PEX2FR08016165004	0.80R	1.6	1.6	16	50	4	○	○
PEX2FR08016205004	0.80R	1.6	1.6	20	50	4	○	○
PEX2FR09018065004	0.90R	1.8	1.8	6	50	4	○	○
PEX2FR09018085004	0.90R	1.8	1.8	8	50	4	○	○
PEX2FR09018125004	0.90R	1.8	1.8	12	50	4	○	○
PEX2FR09018165004	0.90R	1.8	1.8	16	50	4	○	○
PEX2FR09018205004	0.90R	1.8	1.8	20	50	4	○	○
PEX2FR10020045004	1.00R	2.0	2.0	4	50	4	○	○
PEX2FR10020065004	1.00R	2.0	2.0	6	50	4	○	○
PEX2FR10020085004	1.00R	2.0	2.0	8	50	4	○	○
PEX2FR10020105004	1.00R	2.0	2.0	10	50	4	○	○
PEX2FR10020125004	1.00R	2.0	2.0	12	50	4	○	○
PEX2FR10020145004	1.00R	2.0	2.0	14	50	4	○	○
PEX2FR10020165004	1.00R	2.0	2.0	16	50	4	○	○
PEX2FR10020185004	1.00R	2.0	2.0	18	50	4	○	○
PEX2FR10020205004	1.00R	2.0	2.0	20	50	4	○	○
PEX2FR10020225004	1.00R	2.0	2.0	22	50	4	○	○
PEX2FR10020255004	1.00R	2.0	2.0	25	50	4	○	○
PEX2FR12525085004	1.25R	2.5	2.5	8	50	4	○	○
PEX2FR12525105004	1.25R	2.5	2.5	10	50	4	○	○
PEX2FR12525165004	1.25R	2.5	2.5	16	50	4	○	○
PEX2FR12525205004	1.25R	2.5	2.5	20	50	4	○	○
PEX2FR12525255004	1.25R	2.5	2.5	25	50	4	○	○
PEX2FR12525305004	1.25R	2.5	2.5	30	60	4	○	○

PEX 2 flutes long neck short flute corner radius end mills

二刃深溝圓鼻銑刀



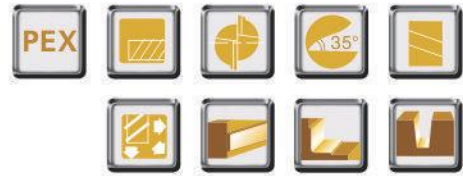
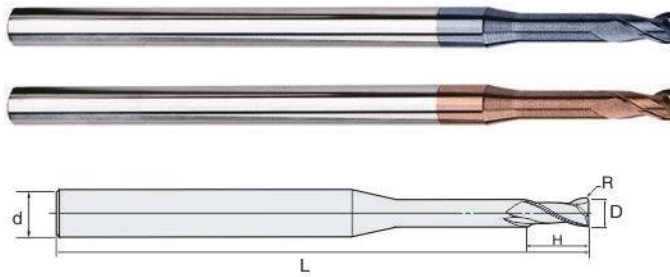
MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

Product Code 產品編號	Blade diameter 刃徑	Corner radius R角	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
PEX010R0010100405004	1.0	0.1R	1.0	4	50	4	⊙	⊙
PEX010R0010100605004	1.0	0.1R	1.0	6	50	4	⊙	⊙
PEX010R0010100805004	1.0	0.1R	1.0	8	50	4	⊙	⊙
PEX010R0010101005004	1.0	0.1R	1.0	10	50	4	⊙	⊙
PEX010R0010101205004	1.0	0.1R	1.0	12	50	4	⊙	⊙
PEX010R0020100405004	1.0	0.2R	1.0	4	50	4	⊙	⊙
PEX010R0020100605004	1.0	0.2R	1.0	6	50	4	⊙	⊙
PEX010R0020100805004	1.0	0.2R	1.0	8	50	4	⊙	⊙
PEX010R0020101005004	1.0	0.2R	1.0	10	50	4	⊙	⊙
PEX010R0020101205004	1.0	0.2R	1.0	12	50	4	⊙	⊙
PEX010R0030100405004	1.0	0.3R	1.0	4	50	4	⊙	⊙
PEX010R0030100605004	1.0	0.3R	1.0	6	50	4	⊙	⊙
PEX010R0030100805004	1.0	0.3R	1.0	8	50	4	⊙	⊙
PEX010R0030101005004	1.0	0.3R	1.0	10	50	4	⊙	⊙
PEX010R0030101205004	1.0	0.3R	1.0	12	50	4	⊙	⊙
PEX012R0010120405004	1.2	0.1R	1.2	4	50	4	⊙	⊙
PEX012R0010120605004	1.2	0.1R	1.2	6	50	4	⊙	⊙
PEX012R0010120805004	1.2	0.1R	1.2	8	50	4	⊙	⊙
PEX012R0010121005004	1.2	0.1R	1.2	10	50	4	⊙	⊙
PEX012R0010121205004	1.2	0.1R	1.2	12	50	4	⊙	⊙
PEX012R0020120405004	1.2	0.2R	1.2	4	50	4	⊙	⊙
PEX012R0020120605004	1.2	0.2R	1.2	6	50	4	⊙	⊙
PEX012R0020120805004	1.2	0.2R	1.2	8	50	4	⊙	⊙
PEX012R0020121005004	1.2	0.2R	1.2	10	50	4	⊙	⊙
PEX012R0020121205004	1.2	0.2R	1.2	12	50	4	⊙	⊙
PEX012R0030120405004	1.2	0.3R	1.2	4	50	4	⊙	⊙
PEX012R0030120605004	1.2	0.3R	1.2	6	50	4	⊙	⊙
PEX012R0030120805004	1.2	0.3R	1.2	8	50	4	⊙	⊙
PEX012R0030121005004	1.2	0.3R	1.2	10	50	4	⊙	⊙
PEX012R0030121205004	1.2	0.3R	1.2	12	50	4	⊙	⊙
PEX015R0010150605004	1.5	0.1R	1.5	6	50	4	⊙	⊙
PEX015R0010150805004	1.5	0.1R	1.5	8	50	4	⊙	⊙
PEX015R0010151005004	1.5	0.1R	1.5	10	50	4	⊙	⊙
PEX015R0010151205004	1.5	0.1R	1.5	12	50	4	⊙	⊙
PEX015R0010151605004	1.5	0.1R	1.5	16	50	4	⊙	⊙
PEX015R0020150605004	1.5	0.2R	1.5	6	50	4	⊙	⊙
PEX015R0020150805004	1.5	0.2R	1.5	8	50	4	⊙	⊙
PEX015R0020151005004	1.5	0.2R	1.5	10	50	4	⊙	⊙
PEX015R0020151205004	1.5	0.2R	1.5	12	50	4	⊙	⊙
PEX015R0020151605004	1.5	0.2R	1.5	16	50	4	⊙	⊙
PEX015R0030150605004	1.5	0.3R	1.5	6	50	4	⊙	⊙
PEX015R0030150805004	1.5	0.3R	1.5	8	50	4	⊙	⊙
PEX015R0030151005004	1.5	0.3R	1.5	10	50	4	⊙	⊙
PEX015R0030151205004	1.5	0.3R	1.5	12	50	4	⊙	⊙
PEX015R0030151605004	1.5	0.3R	1.5	16	50	4	⊙	⊙
PEX015R0050150605004	1.5	0.5R	1.5	6	50	4	⊙	⊙
PEX015R0050150805004	1.5	0.5R	1.5	8	50	4	⊙	⊙
PEX015R0050151005004	1.5	0.5R	1.5	10	50	4	⊙	⊙
PEX015R0050151205004	1.5	0.5R	1.5	12	50	4	⊙	⊙
PEX015R0050151605004	1.5	0.5R	1.5	16	50	4	⊙	⊙
PEX020R0010200605004	2.0	0.1R	2.0	6	50	4	⊙	⊙
PEX020R0010200805004	2.0	0.1R	2.0	8	50	4	⊙	⊙
PEX020R0010201005004	2.0	0.1R	2.0	10	50	4	⊙	⊙
PEX020R0010201205004	2.0	0.1R	2.0	12	50	4	⊙	⊙
PEX020R0010201605004	2.0	0.1R	2.0	16	50	4	⊙	⊙
PEX020R0010202005004	2.0	0.1R	2.0	20	50	4	⊙	⊙
PEX020R0010202505004	2.0	0.1R	2.0	25	60	4	⊙	⊙



PEX 2 flutes long neck short flute corner radius end mills

二刃深溝圓鼻銑刀



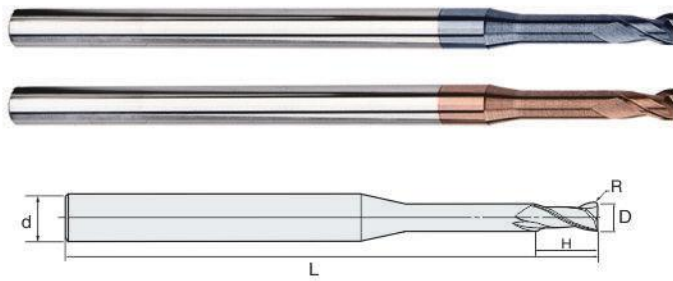
MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Blade diameter 刃徑	Corner radius R角	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
PEX20R02065004	2.0	0.2R	2.0	6	50	4	⊙	⊙
PEX20R02085004	2.0	0.2R	2.0	8	50	4	⊙	⊙
PEX20R02105004	2.0	0.2R	2.0	10	50	4	⊙	⊙
PEX20R02125004	2.0	0.2R	2.0	12	50	4	⊙	⊙
PEX20R02165004	2.0	0.2R	2.0	16	50	4	⊙	⊙
PEX20R02205004	2.0	0.2R	2.0	20	50	4	⊙	⊙
PEX20R02256004	2.0	0.2R	2.0	25	60	4	⊙	⊙
PEX20R03065004	2.0	0.3R	2.0	6	50	4	⊙	⊙
PEX20R03085004	2.0	0.3R	2.0	8	50	4	⊙	⊙
PEX20R03105004	2.0	0.3R	2.0	10	50	4	⊙	⊙
PEX20R03125004	2.0	0.3R	2.0	12	50	4	⊙	⊙
PEX20R03165004	2.0	0.3R	2.0	16	50	4	⊙	⊙
PEX20R03205004	2.0	0.3R	2.0	20	50	4	⊙	⊙
PEX20R03256004	2.0	0.3R	2.0	25	60	4	⊙	⊙
PEX20R05065004	2.0	0.5R	2.0	6	50	4	⊙	⊙
PEX20R05085004	2.0	0.5R	2.0	8	50	4	⊙	⊙
PEX20R05105004	2.0	0.5R	2.0	10	50	4	⊙	⊙
PEX20R05125004	2.0	0.5R	2.0	12	50	4	⊙	⊙
PEX20R05165004	2.0	0.5R	2.0	16	50	4	⊙	⊙
PEX20R05205004	2.0	0.5R	2.0	20	50	4	⊙	⊙
PEX20R05256004	2.0	0.5R	2.0	25	60	4	⊙	⊙
PEX25R01105004	2.5	0.1R	2.5	10	50	4	⊙	⊙
PEX25R01165004	2.5	0.1R	2.5	16	50	4	⊙	⊙
PEX25R01205004	2.5	0.1R	2.5	20	50	4	⊙	⊙
PEX25R01256004	2.5	0.1R	2.5	25	60	4	⊙	⊙
PEX25R02105004	2.5	0.2R	2.5	10	50	4	⊙	⊙
PEX25R02165004	2.5	0.2R	2.5	16	50	4	⊙	⊙
PEX25R02205004	2.5	0.2R	2.5	20	50	4	⊙	⊙
PEX25R02256004	2.5	0.2R	2.5	25	60	4	⊙	⊙
PEX25R03105004	2.5	0.3R	2.5	10	50	4	⊙	⊙
PEX25R03165004	2.5	0.3R	2.5	16	50	4	⊙	⊙
PEX25R03205004	2.5	0.3R	2.5	20	50	4	⊙	⊙
PEX25R03256004	2.5	0.3R	2.5	25	60	4	⊙	⊙
PEX25R05105004	2.5	0.5R	2.5	10	50	4	⊙	⊙
PEX25R05165004	2.5	0.5R	2.5	16	50	4	⊙	⊙
PEX25R05205004	2.5	0.5R	2.5	20	50	4	⊙	⊙
PEX25R05255004	2.5	0.5R	2.5	25	60	4	⊙	⊙
PEX30R01105006	3.0	0.1R	3.0	10	50	6	⊙	⊙
PEX30R01166006	3.0	0.1R	3.0	16	60	6	⊙	⊙
PEX30R01206006	3.0	0.1R	3.0	20	60	6	⊙	⊙
PEX30R01256006	3.0	0.1R	3.0	25	60	6	⊙	⊙
PEX30R01307506	3.0	0.1R	3.0	30	75	6	⊙	⊙
PEX30R01357506	3.0	0.1R	3.0	35	75	6	⊙	⊙
PEX30R02105006	3.0	0.2R	3.0	10	50	6	⊙	⊙
PEX30R02166006	3.0	0.2R	3.0	16	60	6	⊙	⊙
PEX30R02206006	3.0	0.2R	3.0	20	60	6	⊙	⊙
PEX30R02256006	3.0	0.2R	3.0	25	60	6	⊙	⊙
PEX30R02307506	3.0	0.2R	3.0	30	75	6	⊙	⊙
PEX30R02357506	3.0	0.2R	3.0	35	75	6	⊙	⊙
PEX30R03105006	3.0	0.3R	3.0	10	50	6	⊙	⊙
PEX30R03166006	3.0	0.3R	3.0	16	60	6	⊙	⊙
PEX30R03206006	3.0	0.3R	3.0	20	60	6	⊙	⊙
PEX30R03256006	3.0	0.3R	3.0	25	60	6	⊙	⊙
PEX30R03307506	3.0	0.3R	3.0	30	75	6	⊙	⊙
PEX30R03357506	3.0	0.3R	3.0	35	75	6	⊙	⊙

PEX 2 flutes long neck short flute corner radius end mills

二刃深溝圓鼻銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

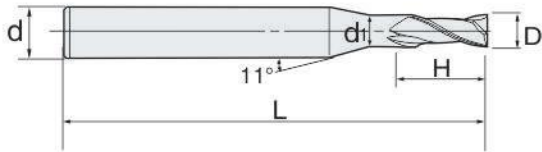
Product Code 產品編號	Blade diameter 刃徑	Corner radius R角	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
PEX30R05105006	3.0	0.5R	3.0	10	50	6	○	○
PEX30R05166006	3.0	0.5R	3.0	16	60	6	○	○
PEX30R05206006	3.0	0.5R	3.0	20	60	6	○	○
PEX30R05256006	3.0	0.5R	3.0	25	60	6	○	○
PEX30R05307506	3.0	0.5R	3.0	30	75	6	○	○
PEX30R05357506	3.0	0.5R	3.0	35	75	6	○	○
PEX30R10105006	3.0	1.0R	3.0	10	50	6	○	○
PEX30R10166006	3.0	1.0R	3.0	16	60	6	○	○
PEX30R10206006	3.0	1.0R	3.0	20	60	6	○	○
PEX30R10256006	3.0	1.0R	3.0	25	60	6	○	○
PEX30R10307506	3.0	1.0R	3.0	30	75	6	○	○
PEX30R10357506	3.0	1.0R	3.0	35	75	6	○	○
PEX40R01135006	4.0	0.1R	4.0	13	50	6	○	○
PEX40R01166006	4.0	0.1R	4.0	16	60	6	○	○
PEX40R01206006	4.0	0.1R	4.0	20	60	6	○	○
PEX40R01256006	4.0	0.1R	4.0	25	60	6	○	○
PEX40R01307506	4.0	0.1R	4.0	30	75	6	○	○
PEX40R01357506	4.0	0.1R	4.0	35	75	6	○	○
PEX40R02135006	4.0	0.2R	4.0	13	50	6	○	○
PEX40R02166006	4.0	0.2R	4.0	16	60	6	○	○
PEX40R02206006	4.0	0.2R	4.0	20	60	6	○	○
PEX40R02256006	4.0	0.2R	4.0	25	60	6	○	○
PEX40R02307506	4.0	0.2R	4.0	30	75	6	○	○
PEX40R02357506	4.0	0.2R	4.0	35	75	6	○	○
PEX40R03135006	4.0	0.3R	4.0	13	50	6	○	○
PEX40R03166006	4.0	0.3R	4.0	16	60	6	○	○
PEX40R03206006	4.0	0.3R	4.0	20	60	6	○	○
PEX40R03256006	4.0	0.3R	4.0	25	60	6	○	○
PEX40R03307506	4.0	0.3R	4.0	30	75	6	○	○
PEX40R03357506	4.0	0.3R	4.0	35	75	6	○	○
PEX40R05135006	4.0	0.5R	4.0	13	50	6	○	○
PEX40R05166006	4.0	0.5R	4.0	16	60	6	○	○
PEX40R05206006	4.0	0.5R	4.0	20	60	6	○	○
PEX40R05256006	4.0	0.5R	4.0	25	60	6	○	○
PEX40R05307506	4.0	0.5R	4.0	30	75	6	○	○
PEX40R05357506	4.0	0.5R	4.0	35	75	6	○	○
PEX40R10135006	4.0	1.0R	4.0	13	50	6	○	○
PEX40R10166006	4.0	1.0R	4.0	16	60	6	○	○
PEX40R10206006	4.0	1.0R	4.0	20	60	6	○	○
PEX40R10256006	4.0	1.0R	4.0	25	60	6	○	○
PEX40R10307506	4.0	1.0R	4.0	30	75	6	○	○
PEX40R10357506	4.0	1.0R	4.0	35	75	6	○	○
PEX50R01166006	5.0	0.1R	5.0	16	60	6	○	○
PEX50R01306006	5.0	0.1R	5.0	30	60	6	○	○
PEX50R02166006	5.0	0.2R	5.0	16	60	6	○	○
PEX50R02306006	5.0	0.2R	5.0	30	60	6	○	○
PEX50R03166006	5.0	0.3R	5.0	16	60	6	○	○
PEX50R03306006	5.0	0.3R	5.0	30	60	6	○	○
PEX50R05166006	5.0	0.5R	5.0	16	60	6	○	○
PEX50R05306006	5.0	0.5R	5.0	30	60	6	○	○
PEX50R10166006	5.0	1.0R	5.0	16	60	6	○	○
PEX50R10306006	5.0	1.0R	5.0	30	60	6	○	○

PEX Micro diameter 2 flutes square end mills

微小徑 2刃立銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX2F02000405003	0.2	0.4	50	3	○	○
PEX2F03000605003	0.3	0.6	50	3	○	○
PEX2F04000805003	0.4	0.8	50	3	○	○
PEX2F05001005003	0.5	1.0	50	3	○	○
PEX2F06001205003	0.6	1.2	50	3	○	○
PEX2F07001405003	0.7	1.4	50	3	○	○
PEX2F08001605003	0.8	1.6	50	3	○	○
PEX2F09001805003	0.9	1.8	50	3	○	○
PEX2F02000405004	0.2	0.4	50	4	○	○
PEX2F03000605004	0.3	0.6	50	4	○	○
PEX2F04000805004	0.4	0.8	50	4	○	○
PEX2F05001005004	0.5	1.0	50	4	○	○
PEX2F06001205004	0.6	1.2	50	4	○	○
PEX2F07001405004	0.7	1.4	50	4	○	○
PEX2F08001605004	0.8	1.6	50	4	○	○
PEX2F09001805004	0.9	1.8	50	4	○	○

■Special specifications can be customized. ■特殊規格可訂制。

★ WORK MATERIAL 被削材質

PEX

P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

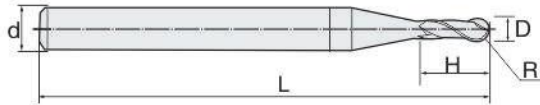
Blade diameter 小端直徑	Blade diameter tolerance 小端直徑公差	Shank diameter tolerance 柄部直徑公差
Φ0.2~Φ0.95	0~-0.02	-0.002~-0.008

PEX Micro diameter 2 flutes ball nose end mills

微小徑 2刃球型立銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX2FR01500605003	R0.15	0.6	50	3	○	○
PEX2FR02000805003	R0.20	0.8	50	3	○	○
PEX2FR02501005003	R0.25	1.0	50	3	○	○
PEX2FR03001205003	R0.30	1.2	50	3	○	○
PEX2FR03501405003	R0.35	1.4	50	3	○	○
PEX2FR04001605003	R0.40	1.6	50	3	○	○
PEX2FR04501805004	R0.45	1.8	50	4	○	○
PEX2FR01500605004	R0.15	0.6	50	4	○	○
PEX2FR02000805004	R0.20	0.8	50	4	○	○
PEX2FR02501005004	R0.25	1.0	50	4	○	○
PEX2FR03001205004	R0.30	1.2	50	4	○	○
PEX2FR03501405004	R0.35	1.4	50	4	○	○
PEX2FR04001605004	R0.40	1.6	50	4	○	○
PEX2FR04501805004	R0.45	1.8	50	4	○	○

★ WORK MATERIAL 被削材質

PEX

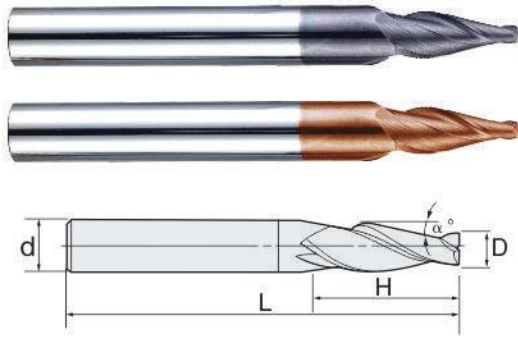
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 小端直徑	Blade diameter tolerance 小端直徑公差	Shank diameter tolerance 柄部直徑公差
Φ0.3~Φ0.9	0~-0.02	-0.002~-0.008

PEX Taper 2 flutes square end mills

斜度刀 2刃立銼刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Tip diameter 先端徑	Blade length 刃長	Gradient 斜度	Rough side track 粗端徑	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
PEX2F01004000510705004	1.0	4	0.5	1.07	50	4	○	○
PEX2F01004001011405004	1.0	4	1.0	1.14	50	4	○	○
PEX2F01004001512105004	1.0	4	1.5	1.21	50	4	○	○
PEX2F01004002012805004	1.0	4	2.0	1.28	50	4	○	○
PEX2F01004002513505004	1.0	4	2.5	1.35	50	4	○	○
PEX2F01004003014205004	1.0	4	3.0	1.42	50	4	○	○
PEX2F01004005017005004	1.0	4	5.0	1.70	50	4	○	○
PEX2F01004007019805004	1.0	4	7.0	1.98	50	4	○	○
PEX2F01004010024105004	1.0	4	10.0	2.41	50	4	○	○
PEX2F01505000515905004	1.5	5	0.5	1.59	50	4	○	○
PEX2F01505001016705004	1.5	5	1.0	1.67	50	4	○	○
PEX2F01505001517605004	1.5	5	1.5	1.76	50	4	○	○
PEX2F01505002018505004	1.5	5	2.0	1.85	50	4	○	○
PEX2F01505002519305004	1.5	5	2.5	1.93	50	4	○	○
PEX2F01505003020205004	1.5	5	3.0	2.02	50	4	○	○
PEX2F01505005023705004	1.5	5	5.0	2.37	50	4	○	○
PEX2F01505007027305004	1.5	5	7.0	2.73	50	4	○	○
PEX2F01505010032605004	1.5	5	10.0	3.26	50	4	○	○
PEX2F02006000521005004	2.0	6	0.5	2.10	50	4	○	○
PEX2F02006001022105004	2.0	6	1.0	2.21	50	4	○	○
PEX2F02006001523105004	2.0	6	1.5	2.31	50	4	○	○
PEX2F02006002024105004	2.0	6	2.0	2.41	50	4	○	○
PEX2F02006002525205004	2.0	6	2.5	2.52	50	4	○	○
PEX2F02006003026205004	2.0	6	3.0	2.62	50	4	○	○
PEX2F02006005030505004	2.0	6	5.0	3.05	50	4	○	○
PEX2F02006007034705004	2.0	6	7.0	3.47	50	4	○	○
PEX2F02006010041205004	2.0	6	10.0	4.12	50	4	○	○
PEX2F02508000526405004	2.5	8	0.5	2.64	50	4	○	○
PEX2F02508001027805004	2.5	8	1.0	2.78	50	4	○	○
PEX2F02508001529105004	2.5	8	1.5	2.91	50	4	○	○
PEX2F02508002030505004	2.5	8	2.0	3.05	50	4	○	○
PEX2F02508002532005004	2.5	8	2.5	3.20	50	4	○	○
PEX2F02508003033305004	2.5	8	3.0	3.33	50	4	○	○
PEX2F02508005039005004	2.5	8	5.0	3.90	50	4	○	○
PEX2F02508007044605004	2.5	8	7.0	4.46	50	6	○	○
PEX2F02508010053205004	2.5	8	10.0	5.32	50	6	○	○
PEX2F03010000531705004	3.0	10	0.5	3.17	50	4	○	○
PEX2F03010001033505004	3.0	10	1.0	3.35	50	4	○	○
PEX2F03010001535205004	3.0	10	1.5	3.52	50	4	○	○
PEX2F03010002036905004	3.0	10	2.0	3.69	50	4	○	○
PEX2F03010002538705004	3.0	10	2.5	3.87	50	4	○	○
PEX2F03010003040505004	3.0	10	3.0	4.05	50	6	○	○
PEX2F03010005047505004	3.0	10	5.0	4.75	50	6	○	○
PEX2F03010007055405004	3.0	10	7.0	5.54	50	6	○	○
PEX2F03010010065306004	3.0	10	10.0	6.53	60	8	○	○

★ WORK MATERIAL 被削材質

PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 小端直徑	Blade diameter tolerance 小端直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ3.0	0~-0.05	H6

DOHRE

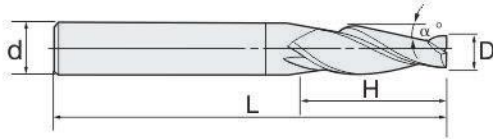
P. B151-B156

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B50

PEX Taper 2 flutes square end mills

斜度刀 2刃立銼刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

Product Code 產品編號	Tip diameter 先端徑	Blade length 刃長	Gradient 斜度	Rough side track 粗端徑	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
PEX2F04001500542605006	4.0	15	0.5	4.26	50	6	○	○
PEX2F04001501045205006	4.0	15	1.0	4.52	50	6	○	○
PEX2F04001501547905006	4.0	15	1.5	4.79	50	6	○	○
PEX2F04001502050405006	4.0	15	2.0	5.04	50	6	○	○
PEX2F04001502553105006	4.0	15	2.5	5.31	50	6	○	○
PEX2F04001503055705006	4.0	15	3.0	5.57	50	6	○	○
PEX2F04001505066206008	4.0	15	5.0	6.62	60	8	○	○
PEX2F04001507076806008	4.0	15	7.0	7.68	60	8	○	○
PEX2F04001510093007510	4.0	15	10.0	9.30	75	10	○	○
PEX2F05002000553405006	5.0	20	0.5	5.34	50	6	○	○
PEX2F05002001057005006	5.0	20	1.0	5.70	50	6	○	○
PEX2F05002001560406006	5.0	20	1.5	6.04	60	6	○	○
PEX2F05002002063906008	5.0	20	2.0	6.39	60	8	○	○
PEX2F05002002567406008	5.0	20	2.5	6.74	60	8	○	○
PEX2F05002003071006008	5.0	20	3.0	7.10	60	8	○	○
PEX2F05002005085007510	5.0	20	5.0	8.50	75	10	○	○
PEX2F05002007099107510	5.0	20	7.0	9.91	75	10	○	○
PEX2F050020100120507512	5.0	20	10.0	12.05	75	12	○	○
PEX2F06002000563506008	6.0	20	0.5	6.35	60	8	○	○
PEX2F06002001067006008	6.0	20	1.0	6.70	60	8	○	○
PEX2F06002001570506008	6.0	20	1.5	7.05	60	8	○	○
PEX2F06002002074006008	6.0	20	2.0	7.40	60	8	○	○
PEX2F06002002577506008	6.0	20	2.5	7.75	60	8	○	○
PEX2F06002003081007508	6.0	20	3.0	8.10	75	8	○	○
PEX2F06002005095007510	6.0	20	5.0	9.50	75	10	○	○
PEX2F060020070109107510	6.0	20	7.0	10.91	75	10	○	○
PEX2F060020100130507512	6.0	20	10.0	13.05	75	12	○	○
PEX2F08002500584407510	8.0	25	0.5	8.44	75	10	○	○
PEX2F08002501088707510	8.0	25	1.0	8.87	75	10	○	○
PEX2F08002501593107510	8.0	25	1.5	9.31	75	10	○	○
PEX2F08002502097407510	8.0	25	2.0	9.74	75	10	○	○
PEX2F080025025101807510	8.0	25	2.5	10.18	75	10	○	○
PEX2F080025030106207510	8.0	25	3.0	10.62	75	10	○	○
PEX2F080025050123707512	8.0	25	5.0	12.37	75	12	○	○
PEX2F080025070141407512	8.0	25	7.0	14.14	75	12	○	○
PEX2F080025100168210016	8.0	25	10.0	16.82	100	16	○	○
PEX2F100035005106110012	10.0	35	0.5	10.61	100	12	○	○
PEX2F100035010112210012	10.0	35	1.0	11.22	100	12	○	○
PEX2F100035015118310012	10.0	35	1.5	11.83	100	12	○	○
PEX2F100035020124410012	10.0	35	2.0	12.44	100	12	○	○
PEX2F100035025130610012	10.0	35	2.5	13.06	100	12	○	○
PEX2F100035030136710012	10.0	35	3.0	13.67	100	12	○	○
PEX2F100035050161210016	10.0	35	5.0	16.12	100	16	○	○
PEX2F100035070186010016	10.0	35	7.0	18.60	100	16	○	○
PEX2F100035100223410020	10.0	35	10.0	22.34	100	20	○	○

★ WORK MATERAIL 被削材質

PEX

P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 小端直徑	Blade diameter tolerance 小端直徑公差	Shank diameter tolerance 柄部直徑公差
Φ0.4~Φ10.0	0~-0.05	H6

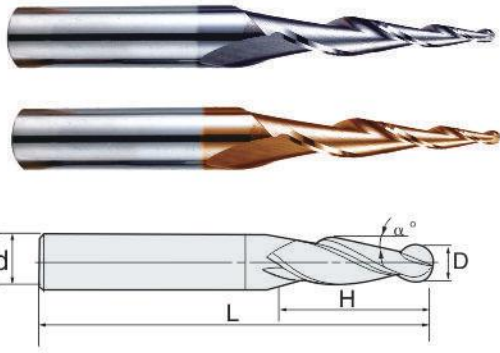
DOHRE

● P.B151-B156

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PEX Taper 2 flutes ball nose end mills

2刃斜度球型立銼刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Tip diameter 先端徑	Blade length 刃長	Gradient 斜度	Rough side track 粗端徑	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
PEX2F05001000511705004	0.5	10	0.5	1.17	50	4	○	○
PEX2F05001001013305004	0.5	10	1.0	1.33	50	4	○	○
PEX2F05001001515005004	0.5	10	1.5	1.50	50	4	○	○
PEX2F05001002016605004	0.5	10	2.0	1.66	50	4	○	○
PEX2F05001003020005004	0.5	10	3.0	2.00	50	4	○	○
PEX2F05001004023305004	0.5	10	4.0	2.33	50	4	○	○
PEX2F05001005026705004	0.5	10	5.0	2.67	50	4	○	○
PEX2F05001007033405004	0.5	10	7.0	3.34	50	4	○	○
PEX2F05001010043705006	0.5	10	10.0	4.37	50	6	○	○
PEX2F07501000516605004	0.75	10	0.5	1.66	50	4	○	○
PEX2F07501001018205004	0.75	10	1.0	1.82	50	4	○	○
PEX2F07501001519905004	0.75	10	1.5	1.99	50	4	○	○
PEX2F07501002021505004	0.75	10	2.0	2.15	50	4	○	○
PEX2F07501003024705004	0.75	10	3.0	2.47	50	4	○	○
PEX2F07501004028005004	0.75	10	4.0	2.80	50	4	○	○
PEX2F07501005031205004	0.75	10	5.0	3.12	50	4	○	○
PEX2F07501007037805004	0.75	10	7.0	3.78	50	4	○	○
PEX2F07501010047905006	0.75	10	10.0	4.79	50	6	○	○
PEX2F10001300522105004	1.0	13	0.5	2.21	50	4	○	○
PEX2F10001301024205004	1.0	13	1.0	2.42	50	4	○	○
PEX2F10001301526305004	1.0	13	1.5	2.63	50	4	○	○
PEX2F10001302028405004	1.0	13	2.0	2.84	50	4	○	○
PEX2F10001303032605004	1.0	13	3.0	3.26	50	4	○	○
PEX2F10001304036805004	1.0	13	4.0	3.68	50	4	○	○
PEX2F10001305041105006	1.0	13	5.0	4.11	50	6	○	○
PEX2F10001307049605006	1.0	13	7.0	4.96	50	6	○	○
PEX2F10001310062605008	1.0	13	10.0	6.26	50	8	○	○
PEX2F12501500527405004	1.25	15	0.5	2.74	50	4	○	○
PEX2F12501501029805004	1.25	15	1.0	2.98	50	4	○	○
PEX2F12501501532205004	1.25	15	1.5	3.22	50	4	○	○
PEX2F12501502034605004	1.25	15	2.0	3.46	50	4	○	○
PEX2F12501503039405004	1.25	15	3.0	3.94	50	4	○	○
PEX2F12501504044305006	1.25	15	4.0	4.43	50	6	○	○
PEX2F12501505049205006	1.25	15	5.0	4.92	50	6	○	○
PEX2F12501507059005006	1.25	15	7.0	5.90	50	6	○	○
PEX2F12501510073906008	1.25	15	10.0	7.39	60	8	○	○
PEX2F15002000533205004	1.5	20	0.5	3.32	50	4	○	○
PEX2F15002001036505004	1.5	20	1.0	3.65	50	4	○	○
PEX2F15002001539705004	1.5	20	1.5	3.97	50	4	○	○
PEX2F15002002042905006	1.5	20	2.0	4.29	50	6	○	○
PEX2F15002003049405006	1.5	20	3.0	4.94	50	6	○	○
PEX2F15002004056005006	1.5	20	4.0	5.60	50	6	○	○
PEX2F15002005062506008	1.5	20	5.0	6.25	60	8	○	○
PEX2F15002007075706008	1.5	20	7.0	7.57	60	8	○	○
PEX2F15002010095707510	1.5	20	10.0	9.57	75	10	○	○

★ WORK MATERAIL 被削材質

PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 小端直徑	Blade diameter tolerance 小端直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ10.0	0~-0.05	H6



P.B151-B156

www.dohrecnc.com

PEX 2 flutes standard inch size square end mills

2刃標準英制立銼刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX2F1/8*3050	1/8(3.175)	9.525	50	1/8(3.175)	☉	☉
PEX2F3/16*3050	3/16(4.76)	14.28	50	3/16(4.76)	☉	☉
PEX2F1/4*3060	1/4(6.35)	19.05	60	1/4(6.35)	☉	☉
PEX2F5/16*3060	5/16(7.938)	23.814	60	5/16(7.938)	☉	☉
PEX2F3/8*3075	3/8(9.525)	28.575	75	3/8(9.525)	☉	☉
PEX2F1/2*3075	1/2(12.7)	38.1	75	1/2(12.7)	☉	☉
PEX2F5/8*3100	5/8(15.875)	47.625	100	5/8(15.875)	☉	☉
PEX2F3/4*3110	3/4(19.05)	57.15	110	3/4(19.05)	☉	☉
PEX2F1*3130	1"(25.4)	76.2	130	1"(25.4)	☉	☉

★ WORK MATERAIL 被削材質

PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

PEX 4 flutes standard inch size square end mills

4刃標準英制立銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX4F1/8*3050	1/8(3.175)	9.525	50	1/8(3.175)	○	○
PEX4F3/16*3050	3/16(4.76)	14.28	50	3/16(4.76)	○	○
PEX4F1/4*3060	1/4(6.35)	19.05	60	1/4(6.35)	○	○
PEX4F5/16*3060	5/16(7.938)	23.814	60	5/16(7.938)	○	○
PEX4F3/8*3075	3/8(9.525)	28.575	75	3/8(9.525)	○	○
PEX4F1/2*3075	1/2(12.7)	38.1	75	1/2(12.7)	○	○
PEX4F5/8*3100	5/8(15.875)	47.625	100	5/8(15.875)	○	○
PEX4F3/4*3110	3/4(19.05)	57.15	110	3/4(19.05)	○	○
PEX4F1*3130	1"(25.4)	76.2	130	1"(25.4)	○	○

★ WORK MATERAIL 被削材質

PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

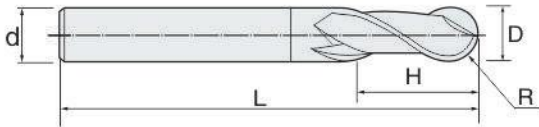
Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

PEX 2 flutes standard inch size ball nose end mills

2刃標準英制球型立銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
PEX2FR1/8*3050	1/8(3.175)	9.525	50	1/8(3.175)	○	○
PEX2FR3/16*3050	3/16(4.76)	14.28	50	3/16(4.76)	○	○
PEX2FR1/4*3060	1/4(6.35)	19.05	60	1/4(6.35)	○	○
PEX2FR5/16*3060	5/16(7.938)	23.814	60	5/16(7.938)	○	○
PEX2FR3/8*3075	3/8(9.525)	28.575	75	3/8(9.525)	○	○
PEX2FR1/2*3075	1/2(12.7)	38.1	75	1/2(12.7)	○	○
PEX2FR5/8*3100	5/8(15.875)	47.625	100	5/8(15.875)	○	○
PEX2FR3/4*3110	3/4(19.05)	57.15	110	3/4(19.05)	○	○
PEX2FR1*3130	1"(25.4)	76.2	130	1"(25.4)	○	○

★ WORK MATERAIL 被削材質

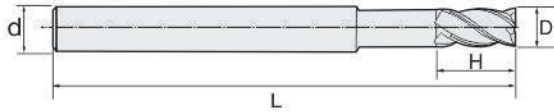
PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

PEX 4 flutes high strength flat end mills

四刃強力平底銼刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
PEX4F01001502505004	1.0	1.5	2.5	50	4	○	○
PEX4F02003005005004	2.0	3.0	5.0	50	4	○	○
PEX4F03004507505006	3.0	4.5	7.5	50	6	○	○
PEX4F04006010005006	4.0	6.0	10.0	50	6	○	○
PEX4F05007512505006	5.0	7.5	12.5	50	6	○	○
PEX4F06009015005006	6.0	9.0	15.0	50	6	○	○
PEX4F08012020006008	8.0	12.0	20.0	60	8	○	○
PEX4F10015025075010	10.0	15.0	25.0	75	10	○	○
PEX4F12018030075012	12.0	18.0	30.0	75	12	○	○
PEX4F16024040100016	16.0	24.0	40.0	100	16	○	○
PEX4F20030050100020	20.0	30.0	50.0	100	20	○	○

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
PEX4F1/8-B	1/8	5/32	1/2	2-1/2	1/4	○	○
PEX4F3/16-B	3/16	7/32	3/4	2-1/2	1/4	○	○
PEX4F1/4-B	1/4	9/32	3/4	2-1/2	1/4	○	○
PEX4F5/16-B	5/16	13/32	1	2-1/2	5/16	○	○
PEX4F3/8-B	3/8	15/32	1	2-1/2	3/8	○	○
PEX4F1/2-B	1/2	5/8	1-1/4	3	1/2	○	○
PEX4F5/8-B	5/8	3/4	1-1/2	3-1/2	5/8	○	○
PEX4F3/4-B	3/4	15/16	1-3/4	4	3/4	○	○

★ WORK MATERIAL 被削材質

PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

Working material 被削材質	Hardened steel 淬火鋼	Hardened steel 淬火鋼	Hardened steel 淬火鋼
Material code 材質編碼	SKT,SKD	SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC 40	HRC 45	HRC 50
Vc	160M/min	150M/min	99M/min

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
Φ ≤ 12.0	0~-0.02
Φ > 12.0	0~-0.03

Diameter 直徑	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)
6MM	8,500	2,450	7,950	2,000	5,300	1,210
8MM	6,350	2,440	5,950	1,995	4,000	1,215
10MM	5,100	2,450	4,700	1,970	3,200	1,215
12MM	4,250	2,450	3,950	1,985	2,650	1,210
14MM	3,600	2,420	3,400	1,995	2,250	1,200
16MM	3,150	2,420	3,000	2,000	1,950	1,285
18MM	2,800	2,420	2,650	2,000	1,750	1,200
20MM	2,500	2,400	2,350	1,970	1,550	1,180
25MM	2,000	2,400	1,900	1,990	1,250	1,190



Milling amount
(mm)

ap	ae
1.0D	0.02D
aeMax=0.2mm以下	

ap	ae
1.0D	0.01D
aeMax=0.2mm以下	

ap	ae
1.0D	0.01D
aeMax=0.2mm以下	

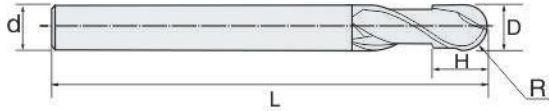
The feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.

PEX 2 flutes high strength ball nose end mills

二刃強力球頭銑刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
PEX2FR0050100100205004	0.50R	1.0	1.0	2	50	4	○	○
PEX2FR0075150150305004	0.75R	1.5	1.5	3	50	4	○	○
PEX2FR0100200200405006	1.00R	2.0	2.0	4	50	6	○	○
PEX2FR0150300300605006	1.50R	3.0	3.0	6	50	6	○	○
PEX2FR0200400400805006	2.00R	4.0	4.0	8	50	6	○	○
PEX2FR0250500501005006	2.50R	5.0	5.0	10	50	6	○	○
PEX2FR0300600601205006	3.00R	6.0	6.0	12	50	6	○	○
PEX2FR0400800801606008	4.00R	8.0	8.0	16	60	8	○	○
PEX2FR0501001002007510	5.00R	10.0	10.0	20	75	10	○	○
PEX2FR0601201202407512	6.00R	12.0	12.0	24	75	12	○	○
PEX2FR0801601603210016	8.00R	16.0	16.0	32	100	16	○	○

★ WORK MATERIAL 被削材質

PEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

Working material 被切材質	Hardened steel 淬火鋼	Hardened steel 淬火鋼	Hardened steel 淬火鋼
Material code 材質編碼	SKT,SKD	SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC 40	HRC 45	HRC 50
Vc	190M/min	175M/min	95M/min

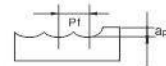
★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
$\Phi \leq 12.0$	$R \pm 0.01$
$\Phi > 12.0$	$R \pm 0.015$

Diameter 直徑	R.P.M		Feed (mm/mm)		R.P.M		Feed (mm/mm)	
	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)
0.5R	32,000	960	30,000	850	25,500	500		
1.0R	31,500	1,900	28,500	1,880	15,500	600		
1.5R	21,000	2,080	19,000	1,880	10,500	625		
2.0R	15,500	2,050	14,000	1,850	7,950	630		
2.5R	12,500	2,060	11,000	1,815	6,350	630		
3.0R	10,500	2,080	9,500	1,880	5,300	630		
4.0R	7,950	1,550	7,150	1,400	3,950	470		
5.0R	6,350	1,250	5,700	1,100	3,150	375		
6.0R	5,300	1,050	4,750	950	2,650	315		
8.0R	3,950	790	3,550	710	1,950	230		

Milling amount
(mm)

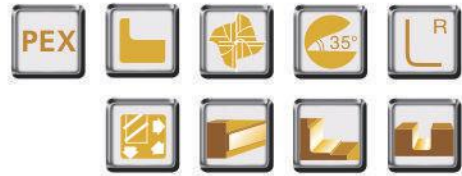
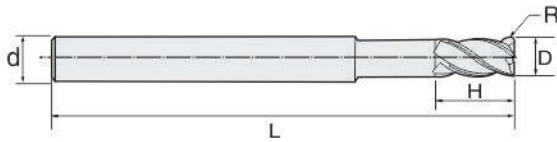
	a_p	P_t
$R \leq 8$	$0.02D$	$0.1D$
$R > 8$	$0.32mm$	$0.1D$



The feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.

PEX 4 flutes high strength corner radius end mills

四刃強力圓鼻銼刀



MG 0.6 μm CO10% HRC-55 AITINL HRC-58 AITINS



Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
PEX4F030R01003005006	0.1R	3	3	7.5	50	6	○	○
PEX4F030R05003005006	0.5R	3	3	7.5	50	6	○	○
PEX4F040R02004005006	0.2R	4	4	10.0	50	6	○	○
PEX4F040R05004005006	0.5R	4	4	10.0	50	6	○	○
PEX4F050R02005005006	0.2R	5	5	12.5	50	6	○	○
PEX4F050R05005005006	0.5R	5	5	12.5	50	6	○	○
PEX4F060R02006005006	0.2R	6	6	15.0	50	6	○	○
PEX4F060R05006005006	0.5R	6	6	15.0	50	6	○	○
PEX4F060R10006005006	1.0R	6	6	15.0	50	6	○	○
PEX4F080R03008006008	0.3R	8	8	20.0	60	8	○	○
PEX4F080R05008006008	0.5R	8	8	20.0	60	8	○	○
PEX4F080R10008006008	1.0R	8	8	20.0	60	8	○	○
PEX4F080R15008006008	1.5R	8	8	20.0	60	8	○	○
PEX4F100R03010007510	0.3R	10	10	25.0	75	10	○	○
PEX4F100R05010007510	0.5R	10	10	25.0	75	10	○	○
PEX4F100R10010007510	1.0R	10	10	25.0	75	10	○	○
PEX4F100R15010007510	1.5R	10	10	25.0	75	10	○	○
PEX4F100R20010007510	2.0R	10	10	25.0	75	10	○	○
PEX4F120R03012007512	0.3R	12	12	30.0	75	12	○	○
PEX4F120R05012007512	0.5R	12	12	30.0	75	12	○	○
PEX4F120R10012007512	1.0R	12	12	30.0	75	12	○	○
PEX4F120R15012007512	1.5R	12	12	30.0	75	12	○	○
PEX4F120R20012007512	2.0R	12	12	30.0	75	12	○	○

★ WORK MATERIAL 被削材質

PEX

P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

Working material 被削材質	Hardened steel 淬火鋼	Hardened steel 淬火鋼	Hardened steel 淬火鋼
Material code 材質編碼	SKT,SKD	SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC 35~45	HRC 45~55	HRC 55~60
Vc	110M/min	95M/min	79M/min

Diameter 直徑	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)
3MM	1,1800	1,150	10,000	830	8,400	500
4MM	8,800	1,070	7,600	780	6,300	460
5MM	7,000	990	6,000	730	5,000	420
6MM	5,900	910	5,000	660	4,200	400
8MM	4,400	830	3,800	610	3,200	400
10MM	3,500	830	3,000	610	2,550	400
12MM	2,900	830	2,500	610	2,100	400

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
Φ ≤ 12.0	0~-0.02
Φ > 12.0	0~-0.03

R	R diameter tolerance
R	R ± 0.015

Milling amount
(mm)

	aa	ar
D < Φ 6	0.9D	0.01D
Φ 6 = D	0.9D	0.02D



The feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.

SEX

ECONOMICAL
SOLUTIONS

AL- General Type Hardened Coated
End Mill (Black) HRC60

AL-通用加硬塗層銑刀（黑色）HRC60度

AS- General Type Hardened Coated
End Mill (Bronze) HRC60

AS-通用型塗層銑刀（古銅色塗層）HRC60度

Micro Diameter End Mill (Minimum Diameter:0.09mm)

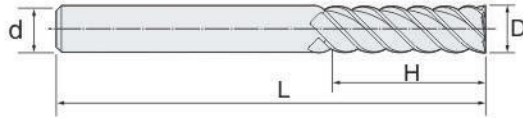


TUNGSTEN CARBIDE

www.dohrecnc.com

SEX 6 flutes square end mills

6刃立铣刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
SEX6F04001105006	4.0	11	50	6	○	○
SEX6F05001305006	5.0	13	50	6	○	○
SEX6F06001505006	6.0	15	50	6	○	○
SEX6F08002006008	8.0	20	60	8	○	○
SEX6F10002507510	10.0	25	75	10	○	○
SEX6F12003007512	12.0	30	75	12	○	○
SEX6F16004010016	16.0	40	100	16	○	○
SEX6F20004010020	20.0	40	100	20	○	○
SEX6F25004510025	25.0	45	100	25	○	○

★ WORK MATERIAL 被削材質

SEX

P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ4.0~Φ6.4	-0.01~-0.03	H6
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

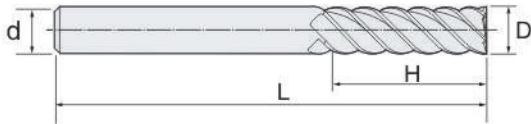
Order code: SEX 6F 040 011 050 06 AS
 訂貨編號: D H L d HRC60
 SEX 6F 040 011 050 06 AL
 D H L d HRC60

SEX Long flute 6 flutes square end mills

長刃型 6刃立銼刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
SEX6F04001607506	4.0	16	75	6	○	○
SEX6F05002007506	5.0	20	75	6	○	○
SEX6F06002507506	6.0	25	75	6	○	○
SEX6F08003007508	8.0	30	75	8	○	○
SEX6F04002010006	4.0	20	100	6	○	○
SEX6F05002510006	5.0	25	100	6	○	○
SEX6F06003010006	6.0	30	100	6	○	○
SEX6F08003510008	8.0	35	100	8	○	○
SEX6F10004010010	10.0	40	100	10	○	○
SEX6F12004510012	12.0	45	100	12	○	○
SEX6F08005015008	8.0	50	150	8	○	○
SEX6F10005015010	10.0	50	150	10	○	○
SEX6F12005015012	12.0	50	150	12	○	○
SEX6F16007015016	16.0	70	150	16	○	○
SEX6F20007015020	20.0	70	150	20	○	○
SEX6F25008015025	25.0	80	150	25	○	○

★ WORK MATERIAL 被削材質

SEX

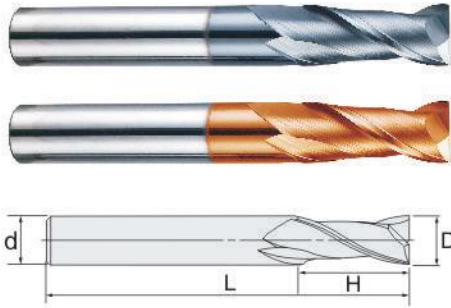
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ4.0~Φ6.4	-0.01~-0.03	H6
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

SEX 2 flutes square end mills

2刃立铣刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
SEX2F01003005004	1.0	3	50	4	○	○
SEX2F01504005004	1.5	4	50	4	○	○
SEX2F02006005004	2.0	6	50	4	○	○
SEX2F02507005004	2.5	7	50	4	○	○
SEX2F03008005004	3.0	8	50	4	○	○
SEX2F03510005004	3.5	10	50	4	○	○
SEX2F04011005004	4.0	11	50	4	○	○
SEX2F01003005006	1.0	3	50	6	○	○
SEX2F01504005006	1.5	4	50	6	○	○
SEX2F02006005006	2.0	6	50	6	○	○
SEX2F02507005006	2.5	7	50	6	○	○
SEX2F03008005006	3.0	8	50	6	○	○
SEX2F03510005006	3.5	10	50	6	○	○
SEX2F04011005006	4.0	11	50	6	○	○
SEX2F04513005006	4.5	13	50	6	○	○
SEX2F05013005006	5.0	13	50	6	○	○
SEX2F05513005006	5.5	13	50	6	○	○
SEX2F06015005006	6.0	15	50	6	○	○
SEX2F06517006008	6.5	17	60	8	○	○
SEX2F07017006008	7.0	17	60	8	○	○
SEX2F07517006008	7.5	17	60	8	○	○
SEX2F08020006008	8.0	20	60	8	○	○
SEX2F08523007510	8.5	23	75	10	○	○
SEX2F09023007510	9.0	23	75	10	○	○
SEX2F09525007510	9.5	25	75	10	○	○
SEX2F10025007510	10.0	25	75	10	○	○
SEX2F10525007512	10.5	25	75	12	○	○
SEX2F11028007512	11.0	28	75	12	○	○
SEX2F11528007512	11.5	28	75	12	○	○
SEX2F12030007512	12.0	30	75	12	○	○
SEX2F13040010014	13.0	40	100	14	○	○
SEX2F14040010014	14.0	40	100	14	○	○
SEX2F15040010016	15.0	40	100	16	○	○
SEX2F16040010016	16.0	40	100	16	○	○
SEX2F17040010018	17.0	40	100	18	○	○
SEX2F18040010018	18.0	40	100	18	○	○
SEX2F19040010020	19.0	40	100	20	○	○
SEX2F20040010020	20.0	40	100	20	○	○
SEX2F22040010025	22.0	40	100	25	○	○
SEX2F25040010025	25.0	40	100	25	○	○

★ WORK MATERIAL 被削材質

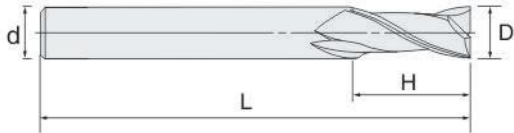
SEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

SEX Long shank 2 flutes square end mills

長柄標準刃 2刃立銑刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
SEX2F01003007504	1.0	3	75	4	○	○
SEX2F01504507504	1.5	4.5	75	4	○	○
SEX2F02006007504	2.0	6	75	4	○	○
SEX2F02507007504	2.5	7	75	4	○	○
SEX2F03008007504	3.0	8	75	4	○	○
SEX2F03510007504	3.5	10	75	4	○	○
SEX2F04011007504	4.0	11	75	4	○	○
SEX2F04513007506	4.5	13	75	6	○	○
SEX2F05013007506	5.0	13	75	6	○	○
SEX2F05513007506	5.5	13	75	6	○	○
SEX2F06015007506	6.0	15	75	6	○	○
SEX2F06517007508	6.5	17	75	8	○	○
SEX2F07017007508	7.0	17	75	8	○	○
SEX2F07517007508	7.5	17	75	8	○	○
SEX2F08020007508	8.0	20	75	8	○	○
SEX2F03008010006	3.0	8	100	6	○	○
SEX2F04011010006	4.0	11	100	6	○	○
SEX2F05013010006	5.0	13	100	6	○	○
SEX2F06015010006	6.0	15	100	6	○	○
SEX2F07017010008	7.0	17	100	8	○	○
SEX2F08020010008	8.0	20	100	8	○	○
SEX2F09023010010	9.0	23	100	10	○	○
SEX2F10025010010	10.0	25	100	10	○	○
SEX2F11028010012	11.0	28	100	12	○	○
SEX2F12030010012	12.0	30	100	12	○	○
SEX2F08020015008	8.0	20	150	8	○	○
SEX2F10025015010	10.0	25	150	10	○	○
SEX2F12030015012	12.0	30	150	12	○	○
SEX2F16040015016	16.0	30	150	16	○	○
SEX2F18040015018	18.0	40	150	18	○	○
SEX2F20040015020	20.0	40	150	20	○	○
SEX2F16040020016	16.0	40	200	16	○	○
SEX2F20040020020	20.0	40	200	20	○	○

★ WORK MATERIAL 被削材質

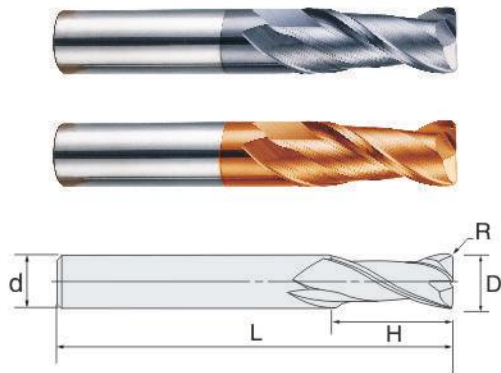
SEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

SEX 2 flutes corner radius end mills

圓鼻 2刃立銼刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS



Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
SEX2F010R0203005004	1.0	0.2	3	50	4	○	○
SEX2F015R0204005004	1.5	0.2	4	50	4	○	○
SEX2F015R0504005004	1.5	0.5	4	50	4	○	○
SEX2F020R0206005004	2.0	0.2	6	50	4	○	○
SEX2F020R0506005004	2.0	0.5	6	50	4	○	○
SEX2F025R0208005004	2.5	0.2	8	50	4	○	○
SEX2F025R0508005004	2.5	0.5	8	50	4	○	○
SEX2F030R0208005004	3.0	0.2	8	50	4	○	○
SEX2F030R0508005004	3.0	0.5	8	50	4	○	○
SEX2F030R1008005004	3.0	1.0	8	50	4	○	○
SEX2F040R0211005004	4.0	0.2	11	50	4	○	○
SEX2F040R0511005004	4.0	0.5	11	50	4	○	○
SEX2F040R1011005004	4.0	1.0	11	50	4	○	○
SEX2F050R0513005006	5.0	0.5	13	50	6	○	○
SEX2F050R1013005006	5.0	1.0	13	50	6	○	○
SEX2F060R0215005006	6.0	0.2	15	50	6	○	○
SEX2F060R0515005006	6.0	0.5	15	50	6	○	○
SEX2F060R1015005006	6.0	1.0	15	50	6	○	○
SEX2F060R1515005006	6.0	1.5	15	50	6	○	○
SEX2F060R2015005006	6.0	2.0	15	50	6	○	○
SEX2F080R0520006008	8.0	0.5	20	60	8	○	○
SEX2F080R1020006008	8.0	1.0	20	60	8	○	○
SEX2F080R1520006008	8.0	1.5	20	60	8	○	○
SEX2F080R2020006008	8.0	2.0	20	60	8	○	○
SEX2F100R0525007510	10.0	0.5	25	75	10	○	○
SEX2F100R1025007510	10.0	1.0	25	75	10	○	○
SEX2F100R1525007510	10.0	1.5	25	75	10	○	○
SEX2F100R2025007510	10.0	2.0	25	75	10	○	○
SEX2F100R2525007510	10.0	2.5	25	75	10	○	○
SEX2F100R3025007510	10.0	3.0	25	75	10	○	○
SEX2F120R0530007512	12.0	0.5	30	75	12	○	○
SEX2F120R1030007512	12.0	1.0	30	75	12	○	○
SEX2F120R1530007512	12.0	1.5	30	75	12	○	○
SEX2F120R2030007512	12.0	2.0	30	75	12	○	○
SEX2F120R2530007512	12.0	2.5	30	75	12	○	○
SEX2F120R3030007512	12.0	3.0	30	75	12	○	○

★ WORK MATERAIL 被削材質

SEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ12.0	-0.01~-0.04	

SEX Long shank 2 flutes corner radius end mills

長柄圓鼻2刃立銼刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS

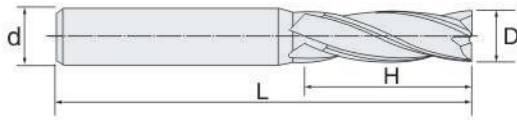
Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
SEX2F010R0203007504	1.0	0.2	3	75	4	○	○
SEX2F015R0204007504	1.5	0.2	4	75	4	○	○
SEX2F015R0504007504	1.5	0.5	4	75	4	○	○
SEX2F020R0206007504	2.0	0.2	6	75	4	○	○
SEX2F020R0506007504	2.0	0.5	6	75	4	○	○
SEX2F025R0208007504	2.5	0.2	8	75	4	○	○
SEX2F025R0508007504	2.5	0.5	8	75	4	○	○
SEX2F030R0208007504	3.0	0.2	8	75	4	○	○
SEX2F030R0508007504	3.0	0.5	8	75	4	○	○
SEX2F030R1008007504	3.0	1.0	8	75	4	○	○
SEX2F040R0211007504	4.0	0.2	11	75	4	○	○
SEX2F040R0511007504	4.0	0.5	11	75	4	○	○
SEX2F040R1011007504	4.0	1.0	11	75	4	○	○
SEX2F050R0513007506	5.0	0.5	13	75	6	○	○
SEX2F050R1013007506	5.0	1.0	13	75	6	○	○
SEX2F060R0215007506	6.0	0.2	15	75	6	○	○
SEX2F060R0515007506	6.0	0.5	15	75	6	○	○
SEX2F060R1015007506	6.0	1.0	15	75	6	○	○
SEX2F060R1515007506	6.0	1.5	15	75	6	○	○
SEX2F060R2015007506	6.0	2.0	15	75	6	○	○
SEX2F080R0520007508	8.0	0.5	20	75	8	○	○
SEX2F080R1020007508	8.0	1.0	20	75	8	○	○
SEX2F080R1520007508	8.0	1.5	20	75	8	○	○
SEX2F080R2020007508	8.0	2.0	20	75	8	○	○
SEX2F040R0211010006	4.0	0.2	11	100	6	○	○
SEX2F040R0511010006	4.0	0.5	11	100	6	○	○
SEX2F040R1011010006	4.0	1.0	11	100	6	○	○
SEX2F050R0513010006	5.0	0.5	13	100	6	○	○
SEX2F050R1013010006	5.0	1.0	13	100	6	○	○
SEX2F060R0215010006	6.0	0.2	15	100	6	○	○
SEX2F060R0515010006	6.0	0.5	15	100	6	○	○
SEX2F060R1015010006	6.0	1.0	15	100	6	○	○
SEX2F060R1515010006	6.0	1.5	15	100	6	○	○
SEX2F060R2015010006	6.0	2.0	15	100	6	○	○
SEX2F080R0520010008	8.0	0.5	20	100	8	○	○
SEX2F080R1020010008	8.0	1.0	20	100	8	○	○
SEX2F080R1520010008	8.0	1.5	20	100	8	○	○
SEX2F080R2020010008	8.0	2.0	20	100	8	○	○
SEX2F100R0525010010	10.0	0.5	25	100	10	○	○
SEX2F100R1025010010	10.0	1.0	25	100	10	○	○
SEX2F100R1525010010	10.0	1.5	25	100	10	○	○
SEX2F100R2025010010	10.0	2.0	25	100	10	○	○
SEX2F100R2525010010	10.0	2.5	25	100	10	○	○
SEX2F100R3025010010	10.0	3.0	25	100	10	○	○
SEX2F120R0530010012	12.0	0.5	30	100	12	○	○
SEX2F120R1030010012	12.0	1.0	30	100	12	○	○
SEX2F120R1530010012	12.0	1.5	30	100	12	○	○
SEX2F120R2030010012	12.0	2.0	30	100	12	○	○
SEX2F120R2530010012	12.0	2.5	30	100	12	○	○
SEX2F120R3030010012	12.0	3.0	30	100	12	○	○

Special specifications can be customized. 特殊規格可訂制。



SEX 4 flutes square end mills

4刃立铣刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
SEX4F01003005004	1.0	3	50	4	○	○
SEX4F01504505004	1.5	4.5	50	4	○	○
SEX4F02006005004	2.0	6	50	4	○	○
SEX4F02507005004	2.5	7	50	4	○	○
SEX4F03008005004	3.0	8	50	4	○	○
SEX4F03510005004	3.5	10	50	4	○	○
SEX4F04011005004	4.0	11	50	4	○	○
SEX4F04513005006	4.5	13	50	6	○	○
SEX4F05013005006	5.0	13	50	6	○	○
SEX4F05513005006	5.5	13	50	6	○	○
SEX4F06015005006	6.0	15	50	6	○	○
SEX4F06517006008	6.5	17	60	8	○	○
SEX4F07017006008	7.0	17	60	8	○	○
SEX4F07517006008	7.5	17	60	8	○	○
SEX4F08020006008	8.0	20	60	8	○	○
SEX4F08523007510	8.5	23	75	10	○	○
SEX4F09023007510	9.0	23	75	10	○	○
SEX4F09525007510	9.5	25	75	10	○	○
SEX4F10025007510	10.0	25	75	10	○	○
SEX4F10525007512	10.5	25	75	12	○	○
SEX4F11028007512	11.0	28	75	12	○	○
SEX4F11528007512	11.5	28	75	12	○	○
SEX4F12030007512	12.0	30	75	14	○	○
SEX4F13033010014	13.0	33	100	14	○	○
SEX4F14035010014	14.0	35	100	14	○	○
SEX4F15038010016	15.0	38	100	16	○	○
SEX4F16040010016	16.0	40	100	16	○	○
SEX4F17040010018	17.0	40	100	18	○	○
SEX4F18040010018	18.0	40	100	18	○	○
SEX4F19040010020	19.0	40	100	20	○	○
SEX4F20040010020	20.0	40	100	20	○	○
SEX4F22040010025	22.0	40	100	25	○	○
SEX4F25040010025	25.0	40	100	25	○	○

★ WORK MATERAIL 被削材質

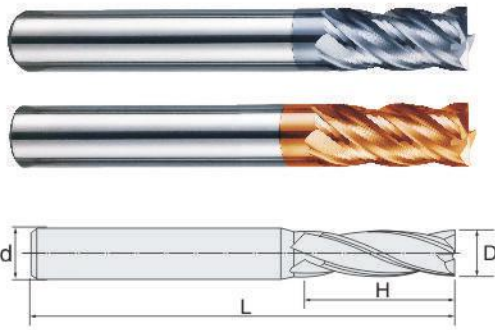
SEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

SEX Long shank 4 flutes square end mills

長柄標準刃 4刃立銑刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
SEX4F01003007504	1.0	3	75	4	○	○
SEX4F01504507504	1.5	4.5	75	4	○	○
SEX4F02006007504	2.0	6	75	4	○	○
SEX4F02507007504	2.5	7	75	4	○	○
SEX4F03008007504	3.0	8	75	4	○	○
SEX4F03510007504	3.5	10	75	4	○	○
SEX4F04011007504	4.0	11	75	4	○	○
SEX4F04513007506	4.5	13	75	6	○	○
SEX4F05013007506	5.0	13	75	6	○	○
SEX4F05513007506	5.5	13	75	6	○	○
SEX4F06015007506	6.0	15	75	6	○	○
SEX4F06517007508	6.5	17	75	8	○	○
SEX4F07017007508	7.0	17	75	8	○	○
SEX4F07517007508	7.5	17	75	8	○	○
SEX4F08020007508	8.0	20	75	8	○	○
SEX4F03008010006	3.0	8	100	6	○	○
SEX4F04011010006	4.0	11	100	6	○	○
SEX4F05013010006	5.0	13	100	6	○	○
SEX4F06015010006	6.0	15	100	6	○	○
SEX4F07017010008	7.0	17	100	8	○	○
SEX4F08020010008	8.0	20	100	8	○	○
SEX4F09023010010	9.0	23	100	10	○	○
SEX4F10025010010	10.0	25	100	10	○	○
SEX4F11028010012	11.0	28	100	12	○	○
SEX4F12030010012	12.0	30	100	12	○	○
SEX4F08020015008	8.0	20	150	8	○	○
SEX4F10025015010	10.0	25	150	10	○	○
SEX4F12030015012	12.0	30	150	12	○	○
SEX4F16040015016	16.0	40	150	16	○	○
SEX4F18040015018	18.0	40	150	18	○	○
SEX4F20040015020	20.0	40	150	20	○	○
SEX4F16040020016	16.0	40	200	16	○	○
SEX4F20040020020	20.0	40	200	20	○	○

★ WORK MATERAIL 被削材質

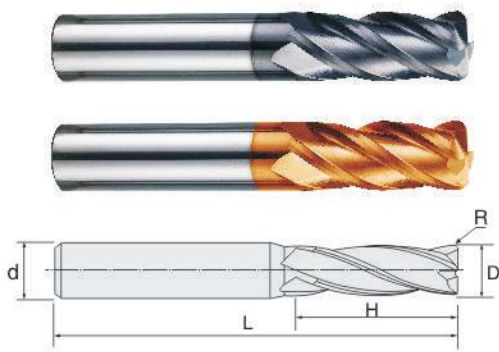
SEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

SEX 4 flutes corner radius end mills

圓鼻 4刃立銼刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS



Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
SEX4F010R0203005004	1.0	0.2	3	50	4	○	○
SEX4F015R0204005004	1.5	0.2	4	50	4	○	○
SEX4F015R0504005004	1.5	0.5	4	50	4	○	○
SEX4F020R0206005004	2.0	0.2	6	50	4	○	○
SEX4F020R0506005004	2.0	0.5	6	50	4	○	○
SEX4F025R0208005004	2.5	0.2	8	50	4	○	○
SEX4F025R0508005004	2.5	0.5	8	50	4	○	○
SEX4F030R0208005004	3.0	0.2	8	50	4	○	○
SEX4F030R0508005004	3.0	0.5	8	50	4	○	○
SEX4F030R1008005004	3.0	1.0	8	50	4	○	○
SEX4F040R0211005004	4.0	0.2	11	50	4	○	○
SEX4F040R0511005004	4.0	0.5	11	50	4	○	○
SEX4F040R1011005004	4.0	1.0	11	50	4	○	○
SEX4F050R0513005006	5.0	0.5	13	50	6	○	○
SEX4F050R1013005006	5.0	1.0	13	50	6	○	○
SEX4F060R0215005006	6.0	0.2	15	50	6	○	○
SEX4F060R0515005006	6.0	0.5	15	50	6	○	○
SEX4F060R1015005006	6.0	1.0	15	50	6	○	○
SEX4F060R1515005006	6.0	1.5	15	50	6	○	○
SEX4F060R2015005006	6.0	2.0	15	50	6	○	○
SEX4F080R0520006008	8.0	0.5	20	60	8	○	○
SEX4F080R1020006008	8.0	1.0	20	60	8	○	○
SEX4F080R1520006008	8.0	1.5	20	60	8	○	○
SEX4F080R2020006008	8.0	2.0	20	60	8	○	○
SEX4F100R0525007510	10.0	0.5	25	75	10	○	○
SEX4F100R1025007510	10.0	1.0	25	75	10	○	○
SEX4F100R1525007510	10.0	1.5	25	75	10	○	○
SEX4F100R2025007510	10.0	2.0	25	75	10	○	○
SEX4F100R2525007510	10.0	2.5	25	75	10	○	○
SEX4F100R3025007510	10.0	3.0	25	75	10	○	○
SEX4F120R0530007512	12.0	0.5	30	75	12	○	○
SEX4F120R1030007512	12.0	1.0	30	75	12	○	○
SEX4F120R1530007512	12.0	1.5	30	75	12	○	○
SEX4F120R2030007512	12.0	2.0	30	75	12	○	○
SEX4F120R2530007512	12.0	2.5	30	75	12	○	○
SEX4F120R3030007512	12.0	3.0	30	75	12	○	○

★ WORK MATERIAL 被削材質

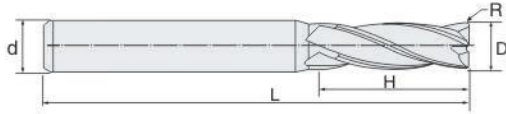
SEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ12.0	-0.01~-0.04	

SEX Long shank 4 flutes corner radius end mills

長柄圓鼻 4刃立銼刀

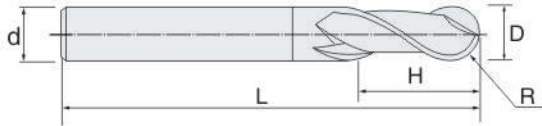


Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
SEX4F010R0203007504	1.0	0.2	3	75	4	○	○
SEX4F015R0204007504	1.5	0.2	4	75	4	○	○
SEX4F015R0504007504	1.5	0.5	4	75	4	○	○
SEX4F020R0206007504	2.0	0.2	6	75	4	○	○
SEX4F020R0506007504	2.0	0.5	6	75	4	○	○
SEX4F025R0208007504	2.5	0.2	8	75	4	○	○
SEX4F025R0508007504	2.5	0.5	8	75	4	○	○
SEX4F030R0208007504	3.0	0.2	8	75	4	○	○
SEX4F030R0508007504	3.0	0.5	8	75	4	○	○
SEX4F030R1008007504	3.0	1.0	8	75	4	○	○
SEX4F040R0211007504	4.0	0.2	11	75	4	○	○
SEX4F040R0511007504	4.0	0.5	11	75	4	○	○
SEX4F040R1011007504	4.0	1.0	11	75	4	○	○
SEX4F050R0513007506	5.0	0.5	13	75	6	○	○
SEX4F050R1013007506	5.0	1.0	13	75	6	○	○
SEX4F060R0215007506	6.0	0.2	15	75	6	○	○
SEX4F060R0515007506	6.0	0.5	15	75	6	○	○
SEX4F060R1015007506	6.0	1.0	15	75	6	○	○
SEX4F060R1515007506	6.0	1.5	15	75	6	○	○
SEX4F060R2015007506	6.0	2.0	15	75	6	○	○
SEX4F080R0520007508	8.0	0.5	20	75	8	○	○
SEX4F080R1020007508	8.0	1.0	20	75	8	○	○
SEX4F080R1520007508	8.0	1.5	20	75	8	○	○
SEX4F080R2020007508	8.0	2.0	20	75	8	○	○
SEX4F040R0211010006	4.0	0.2	11	100	6	○	○
SEX4F040R0511010006	4.0	0.5	11	100	6	○	○
SEX4F040R1011010006	4.0	1.0	11	100	6	○	○
SEX4F050R0513010006	5.0	0.5	13	100	6	○	○
SEX4F050R1013010006	5.0	1.0	13	100	6	○	○
SEX4F060R0215010006	6.0	0.2	15	100	6	○	○
SEX4F060R0515010006	6.0	0.5	15	100	6	○	○
SEX4F060R1015010006	6.0	1.0	15	100	6	○	○
SEX4F060R1515010006	6.0	1.5	15	100	6	○	○
SEX4F060R2015010006	6.0	2.0	15	100	6	○	○
SEX4F080R0520010008	8.0	0.5	20	100	8	○	○
SEX4F080R1020010008	8.0	1.0	20	100	8	○	○
SEX4F080R1520010008	8.0	1.5	20	100	8	○	○
SEX4F080R2020010008	8.0	2.0	20	100	8	○	○
SEX4F100R0525010010	10.0	0.5	25	100	10	○	○
SEX4F100R1025010010	10.0	1.0	25	100	10	○	○
SEX4F100R1525010010	10.0	1.5	25	100	10	○	○
SEX4F100R2025010010	10.0	2.0	25	100	10	○	○
SEX4F100R2525010010	10.0	2.5	25	100	10	○	○
SEX4F100R3025010010	10.0	3.0	25	100	10	○	○
SEX4F120R0530010012	12.0	0.5	30	100	12	○	○
SEX4F120R1030010012	12.0	1.0	30	100	12	○	○
SEX4F120R1530010012	12.0	1.5	30	100	12	○	○
SEX4F120R2030010012	12.0	2.0	30	100	12	○	○
SEX4F120R2530010012	12.0	2.5	30	100	12	○	○
SEX4F120R3030010012	12.0	3.0	30	100	12	○	○

■ Special specifications can be customized. ■ 特殊規格可訂制。

SEX 2 flutes ball nose end mills

2刃球型立銑刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS



Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
SEX2FR005002005004	R0.50	2.0	50	4	○	○
SEX2FR007503005004	R0.75	3.0	50	4	○	○
SEX2FR010004005004	R1.00	4.0	50	4	○	○
SEX2FR012505005004	R1.25	5.0	50	4	○	○
SEX2FR015006005004	R1.50	6.0	50	4	○	○
SEX2FR017507005004	R1.75	7.0	50	4	○	○
SEX2FR020008005004	R2.00	8.0	50	4	○	○
SEX2FR005002006006	R0.50	2.0	60	6	○	○
SEX2FR007503006006	R0.75	3.0	60	6	○	○
SEX2FR010004006006	R1.00	4.0	60	6	○	○
SEX2FR012505006006	R1.25	5.0	60	6	○	○
SEX2FR015006006006	R1.50	6.0	60	6	○	○
SEX2FR017507006006	R1.75	7.0	60	6	○	○
SEX2FR020008006006	R2.00	8.0	60	6	○	○
SEX2FR022509006006	R2.25	9.0	60	6	○	○
SEX2FR025010006006	R2.50	10.0	60	6	○	○
SEX2FR027511006006	R2.75	11.0	60	6	○	○
SEX2FR030012006006	R3.00	12.0	60	6	○	○
SEX2FR032513006008	R3.25	13.0	60	8	○	○
SEX2FR035014006008	R3.50	14.0	60	8	○	○
SEX2FR037515006008	R3.75	15.0	60	8	○	○
SEX2FR040016006008	R4.00	16.0	60	8	○	○
SEX2FR045018007510	R4.50	18.0	75	10	○	○
SEX2FR050020007510	R5.00	20.0	75	10	○	○
SEX2FR060024007512	R6.00	24.0	75	12	○	○
SEX2FR070030010014	R7.00	30.0	100	14	○	○
SEX2FR080030010016	R8.00	30.0	100	16	○	○
SEX2FR090030010018	R9.00	30.0	100	18	○	○
SEX2FR100030010020	R10.0	30.0	100	20	○	○
SEX2FR125030010025	R12.5	30.0	100	25	○	○

★ WORK MATERAIL 被削材質

SEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

R	R diameter tolerance
R	R ± 0.015

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	



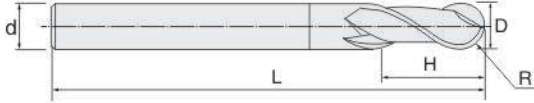
P.B151-B156

www.dohrecnc.com

B70

SEX Long shank 2 flutes ball nose end mills

長柄 2刃球型立銼刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS

Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					AL	AS
SEX2FR005002007504	R0.50	2	75	4	○	○
SEX2FR007503007504	R0.75	3	75	4	○	○
SEX2FR010004007504	R1.00	4	75	4	○	○
SEX2FR012505007504	R1.25	5	75	4	○	○
SEX2FR015006007504	R1.50	6	75	4	○	○
SEX2FR017507007504	R1.75	7	75	4	○	○
SEX2FR020008007504	R2.00	8	75	4	○	○
SEX2FR022509007506	R2.25	9	75	6	○	○
SEX2FR025010007506	R2.50	10	75	6	○	○
SEX2FR027511007506	R2.75	11	75	6	○	○
SEX2FR030012007506	R3.00	12	75	6	○	○
SEX2FR040016007508	R4.00	16	75	8	○	○
SEX2FR005002010006	R0.50	2	100	6	○	○
SEX2FR007503010006	R0.75	3	100	6	○	○
SEX2FR010004010006	R1.00	4	100	6	○	○
SEX2FR012505010006	R1.25	5	100	6	○	○
SEX2FR015006010006	R1.50	6	100	6	○	○
SEX2FR017507010006	R1.75	7	100	6	○	○
SEX2FR020008010006	R2.00	8	100	6	○	○
SEX2FR022509010006	R2.25	9	100	6	○	○
SEX2FR025010010006	R2.50	10	100	6	○	○
SEX2FR027511010006	R2.75	11	100	6	○	○
SEX2FR030012010006	R3.00	12	100	6	○	○
SEX2FR040016010008	R4.00	16	100	8	○	○
SEX2FR050020010010	R5.00	20	100	10	○	○
SEX2FR060024010012	R6.00	24	100	12	○	○
SEX2FR030012015006	R3.00	12	150	6	○	○
SEX2FR040016015008	R4.00	16	150	8	○	○
SEX2FR050020015010	R5.00	20	150	10	○	○
SEX2FR060024015012	R6.00	24	150	12	○	○
SEX2FR070030015014	R7.00	30	150	14	○	○
SEX2FR080030015016	R8.00	30	150	16	○	○
SEX2FR100030015020	R10.00	30	150	20	○	○
SEX2FR040016020008	R4.00	16	200	8	○	○
SEX2FR050020020010	R5.00	20	200	10	○	○
SEX2FR060024020012	R6.00	24	200	12	○	○
SEX2FR070030020014	R7.00	30	200	14	○	○
SEX2FR080030020016	R8.00	30	200	16	○	○
SEX2FR100030020020	R10.00	30	200	20	○	○

★ WORK MATERAIL 被削材質

SEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

R R diameter tolerance

R R ± 0.015

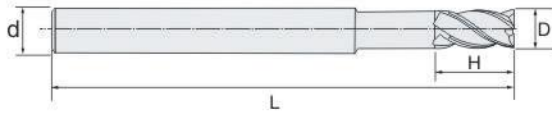
★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	



SEX 4 flutes high strength flat end mills

四刃強力平底銼刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
SEX4F01001502505004	1.0	1.5	2.5	50	4	○	○
SEX4F02003005005004	2.0	3.0	5.0	50	4	○	○
SEX4F03004507505006	3.0	4.5	7.5	50	6	○	○
SEX4F04006010005006	4.0	6.0	10.0	50	6	○	○
SEX4F05007512505006	5.0	7.5	12.5	50	6	○	○
SEX4F06009015005006	6.0	9.0	15.0	50	6	○	○
SEX4F08012020006008	8.0	12.0	20.0	60	8	○	○
SEX4F10015025075010	10.0	15.0	25.0	75	10	○	○
SEX4F12018030075012	12.0	18.0	30.0	75	12	○	○
SEX4F16024040100016	16.0	24.0	40.0	100	16	○	○
SEX4F20030050100020	20.0	30.0	50.0	100	20	○	○

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
						AL	AS
SEX4F1/8-B	1/8	5/32	1/2	2-1/2	1/4	○	○
SEX4F3/16-B	3/16	7/32	3/4	2-1/2	1/4	○	○
SEX4F1/4-B	1/4	9/32	3/4	2-1/2	1/4	○	○
SEX4F5/16-B	5/16	13/32	1	2-1/2	5/16	○	○
SEX4F3/8-B	3/8	15/32	1	2-1/2	3/8	○	○
SEX4F1/2-B	1/2	5/8	1-1/4	3	1/2	○	○
SEX4F5/8-B	5/8	3/4	1-1/2	3-1/2	5/8	○	○
SEX4F3/4-B	3/4	15/16	1-3/4	4	3/4	○	○

★ WORK MATERIAL 被削材質

SEX

P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

Working material 被切材質	Hardened steel 淬火鋼	Hardened steel 淬火鋼	Hardened steel 淬火鋼
Material code 材質編碼	SKT,SKD	SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC 45	HRC 55	HRC 60
Vc	160M/min	150M/min	99M/min

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
Φ ≤ 12.0	0~-0.02
Φ > 12.0	0~-0.03

Diameter 直徑	R.P.M		Feed (mm/mm)		R.P.M		Feed (mm/mm)	
	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)
6MM	8,500	2,450	7,950	2,000	5,300	1,210		
8MM	6,350	2,440	5,950	1,995	4,000	1,215		
10MM	5,100	2,450	4,700	1,970	3,200	1,215		
12MM	4,250	2,450	3,950	1,985	2,650	1,210		
14MM	3,600	2,420	3,400	1,995	2,250	1,200		
16MM	3,150	2,420	3,000	2,000	1,950	1,285		
18MM	2,800	2,420	2,650	2,000	1,750	1,200		
20MM	2,500	2,400	2,350	1,970	1,550	1,180		
25MM	2,000	2,400	1,900	1,990	1,250	1,190		



Milling amount
(mm)

ap	ae
1.0D	0.02D
aeMax=0.2mm以下	

ap	ae
1.0D	0.01D
aeMax=0.2mm以下	

ap	ae
1.0D	0.01D
aeMax=0.2mm以下	

The feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.

SEX 2 flutes high strength ball nose end mills

二刃強力球頭銼刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS

Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
SEX2FR0050100100205004	0.50R	1.0	1.0	2	50	4	○	○
SEX2FR0075150150305004	0.75R	1.5	1.5	3	50	4	○	○
SEX2FR0100200200405006	1.00R	2.0	2.0	4	50	6	○	○
SEX2FR0150300300605006	1.50R	3.0	3.0	6	50	6	○	○
SEX2FR0200400400805006	2.00R	4.0	4.0	8	50	6	○	○
SEX2FR0250500501005006	2.50R	5.0	5.0	10	50	6	○	○
SEX2FR0300600601205006	3.00R	6.0	6.0	12	50	6	○	○
SEX2FR0400800801606008	4.00R	8.0	8.0	16	60	8	○	○
SEX2FR0501001002007510	5.00R	10.0	10.0	20	75	10	○	○
SEX2FR0601201202407512	6.00R	12.0	12.0	24	75	12	○	○
SEX2FR0801601603210016	8.00R	16.0	16.0	32	100	16	○	○

★ WORK MATERIAL 被削材質

SEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

Working material 被切材質	Hardened steel 淬火鋼	Hardened steel 淬火鋼	Hardened steel 淬火鋼
Material code 材質編碼	SKT,SKD	SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC 45	HRC 55	HRC 60
Vc	190M/min	175M/min	95M/min

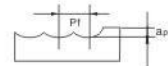
★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
Φ ≤ 12.0	R ± 0.01
Φ > 12.0	R ± 0.015

Diameter 直徑	R.P.M		Feed (mm/mm)		R.P.M		Feed (mm/mm)	
	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)
0.5R	32,000	960	30,000	850	25,500	500		
1.0R	31,500	1,900	28,500	1,880	15,500	600		
1.5R	21,000	2,080	19,000	1,880	10,500	625		
2.0R	15,500	2,050	14,000	1,850	7,950	630		
2.5R	12,500	2,060	11,000	1,815	6,350	630		
3.0R	10,500	2,080	9,500	1,880	5,300	630		
4.0R	7,950	1,550	7,150	1,400	3,950	470		
5.0R	6,350	1,250	5,700	1,100	3,150	375		
6.0R	5,300	1,050	4,750	950	2,650	315		
8.0R	3,950	790	3,550	710	1,950	230		

Milling amount
(mm)

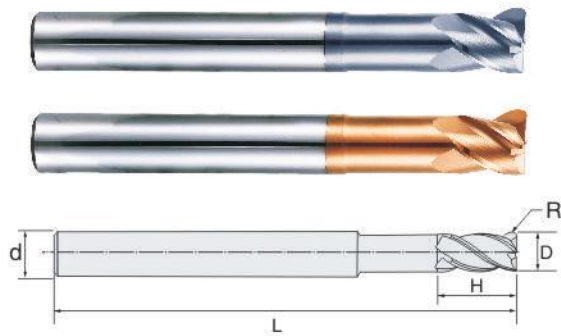
	ap	Pf
R ≤ 8	0.02D	0.1D
R > 8	0.32mm	0.1D



The feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.

SEX 4 flutes high strength corner radius end mills

四刃強力圓鼻銼刀



UMG 0.5 μm CO10% HRC-60 AITINL AITINS



Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存	
							AL	AS
SEX4F030R01003005006	0.1R	3	3	7.5	50	6	○	○
SEX4F030R05003005006	0.5R	3	3	7.5	50	6	○	○
SEX4F040R02004005006	0.2R	4	4	10.0	50	6	○	○
SEX4F040R05004005006	0.5R	4	4	10.0	50	6	○	○
SEX4F050R02005005006	0.2R	5	5	12.5	50	6	○	○
SEX4F050R05005005006	0.5R	5	5	12.5	50	6	○	○
SEX4F060R02006005006	0.2R	6	6	15.0	50	6	○	○
SEX4F060R05006005006	0.5R	6	6	15.0	50	6	○	○
SEX4F060R10006005006	1.0R	6	6	15.0	50	6	○	○
SEX4F080R03008006008	0.3R	8	8	20.0	60	8	○	○
SEX4F080R05008006008	0.5R	8	8	20.0	60	8	○	○
SEX4F080R10008006008	1.0R	8	8	20.0	60	8	○	○
SEX4F080R15008006008	1.5R	8	8	20.0	60	8	○	○
SEX4F100R03010007510	0.3R	10	10	25.0	75	10	○	○
SEX4F100R05010007510	0.5R	10	10	25.0	75	10	○	○
SEX4F100R10010007510	1.0R	10	10	25.0	75	10	○	○
SEX4F100R15010007510	1.5R	10	10	25.0	75	10	○	○
SEX4F100R20010007510	2.0R	10	10	25.0	75	10	○	○
SEX4F120R03012007512	0.3R	12	12	30.0	75	12	○	○
SEX4F120R05012007512	0.5R	12	12	30.0	75	12	○	○
SEX4F120R10012007512	1.0R	12	12	30.0	75	12	○	○
SEX4F120R15012007512	1.5R	12	12	30.0	75	12	○	○
SEX4F120R20012007512	2.0R	12	12	30.0	75	12	○	○

★ WORK MATERIAL 被削材質

SEX				
P20 S45C	SCM SK	FC FCD	CU	304
碳素鋼	合金鋼	鑄鐵	銅合金	不銹鋼
●	●	●	●	●

Working material 被削材質	Hardened steel 淬火鋼	Hardened steel 淬火鋼	Hardened steel 淬火鋼
Material code 材質編碼	SKT,SKD	SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC 35	HRC 45	HRC 55
Vc	110M/min	95M/min	79M/min

Diameter 直徑	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)
3MM	1,180	1,150	10,000	830	8,400	500
4MM	8,800	1,070	7,600	780	6,300	460
5MM	7,000	990	6,000	730	5,000	420
6MM	5,900	910	5,000	660	4,200	400
8MM	4,400	830	3,800	610	3,200	400
10MM	3,500	830	3,000	610	2,550	400
12MM	2,900	830	2,500	610	2,100	400

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
Φ ≤ 12.0	0~-0.02
Φ > 12.0	0~-0.03

R	R diameter tolerance
R	R ± 0.015

Milling amount (mm)

	a _a	a _r
D < Φ 6	0.9D	0.01D
Φ 6 ≤ D	0.9D	0.02D



The feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.

HEX

FOR HARDEND
CUTTING

AS- High Speed Hardened Coated
End Mill (Bronze) HRC65

AS-高速加硬塗層銑刀（古銅色）HRC65度

Micro Diameter End Mill (Minimum Diameter:0.09mm)

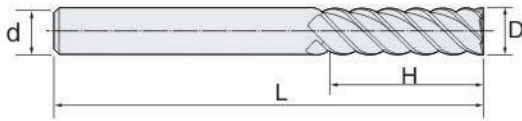


TUNGSTEN CARBIDE

www.dohretool.cn

HEX 6 flutes square end mills

6刃立铣刀



UMG 0.5 μm CO10% HRC-65 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
HEX6F04001105006	4.0	11	50	6	◎
HEX6F05001305006	5.0	13	50	6	◎
HEX6F06001505006	6.0	15	50	6	◎
HEX6F08002006008	8.0	20	60	8	◎
HEX6F10002507510	10.0	25	75	10	◎
HEX6F12003007512	12.0	30	75	12	◎
HEX6F16004010016	16.0	40	100	16	◎
HEX6F20004010020	20.0	40	100	20	◎
HEX6F25004510025	25.0	45	100	25	◎

★ WORK MATERIAL 被削材質

HEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

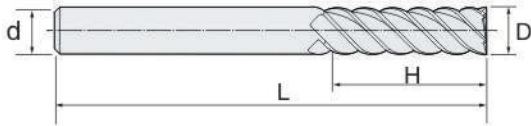
★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ4.0~Φ6.4	-0.01~-0.03	H6
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

Order code: HEX 6F 040 011 050 06 AS
 訂貨編號: D H L d HRC65

HEX Long flute 6 flutes square end mills

長刃型 6刃立銑刀



UMG 0.5 μm CO10% HRC-65 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
HEX6F04001607506	4.0	16	75	6	◎
HEX6F05002007506	5.0	20	75	6	◎
HEX6F06002507506	6.0	25	75	6	◎
HEX6F08003007508	8.0	30	75	8	◎
HEX6F04002010006	4.0	20	100	6	◎
HEX6F05002510006	5.0	25	100	6	◎
HEX6F06003010006	6.0	30	100	6	◎
HEX6F08003510008	8.0	35	100	8	◎
HEX6F10004010010	10.0	40	100	10	◎
HEX6F12004510012	12.0	45	100	12	◎
HEX6F08005015008	8.0	50	150	8	◎
HEX6F10005015010	10.0	50	150	10	◎
HEX6F12005015012	12.0	50	150	12	◎
HEX6F16007015016	16.0	70	150	16	◎
HEX6F20007015020	20.0	70	150	20	◎
HEX6F25008015025	25.0	80	150	25	◎

★ WORK MATERIAL 被削材質

HEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ4.0~Φ6.4	-0.01~-0.03	H6
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

HEX 2 flutes square end mills

2刃立铣刀



UMG 0.5 μm CO10% HRC-65 AITINS



Product Code 产品编号	Blade diameter 刃径	Blade length 刃长	Full 全长	Shank 柄径	Inventory 库存
HEX2F01003005004	1.0	3	50	4	○
HEX2F01504005004	1.5	4	50	4	○
HEX2F02006005004	2.0	6	50	4	○
HEX2F02507005004	2.5	7	50	4	○
HEX2F03008005004	3.0	8	50	4	○
HEX2F03510005004	3.5	10	50	4	○
HEX2F04011005004	4.0	11	50	4	○
HEX2F01003005006	1.0	3	50	6	○
HEX2F01504005006	1.5	4	50	6	○
HEX2F02006005006	2.0	6	50	6	○
HEX2F02507005006	2.5	7	50	6	○
HEX2F03008005006	3.0	8	50	6	○
HEX2F03510005006	3.5	10	50	6	○
HEX2F04011005006	4.0	11	50	6	○
HEX2F04513005006	4.5	13	50	6	○
HEX2F05013005006	5.0	13	50	6	○
HEX2F05513005006	5.5	13	50	6	○
HEX2F06015005006	6.0	15	50	6	○
HEX2F06517006008	6.5	17	60	8	○
HEX2F07017006008	7.0	17	60	8	○
HEX2F07517006008	7.5	17	60	8	○
HEX2F08020006008	8.0	20	60	8	○
HEX2F08523007510	8.5	23	75	10	○
HEX2F09023007510	9.0	23	75	10	○
HEX2F09525007510	9.5	25	75	10	○
HEX2F10025007510	10.0	25	75	10	○
HEX2F10525007512	10.5	25	75	12	○
HEX2F11028007512	11.0	28	75	12	○
HEX2F11528007512	11.5	28	75	12	○
HEX2F12030007512	12.0	30	75	12	○
HEX2F13040010014	13.0	40	100	14	○
HEX2F14040010014	14.0	40	100	14	○
HEX2F15040010016	15.0	40	100	16	○
HEX2F16040010016	16.0	40	100	16	○
HEX2F17040010018	17.0	40	100	18	○
HEX2F18040010018	18.0	40	100	18	○
HEX2F19040010020	19.0	40	100	20	○
HEX2F20040010020	20.0	40	100	20	○
HEX2F22040010025	22.0	40	100	25	○
HEX2F25040010025	25.0	40	100	25	○

★ WORK MATERIAL 被削材质

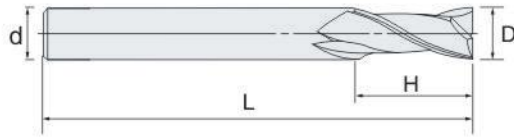
HEX			
P20 S45C 碳素钢	SCM SK 合金钢	SKT SKD 加硬模具钢	S316 加硬不锈钢
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直径	Blade diameter tolerance 刃部直径公差	Shank diameter tolerance 柄部直径公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

HEX Long shank 2 flutes square end mills

長柄標準刃 2刃立銑刀



UMG 0.5 μm CO10% HRC-65 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
HEX2F01003007504	1.0	3	75	4	◎
HEX2F01504507504	1.5	4.5	75	4	◎
HEX2F02006007504	2.0	6	75	4	◎
HEX2F02507007504	2.5	7	75	4	◎
HEX2F03008007504	3.0	8	75	4	◎
HEX2F03510007504	3.5	10	75	4	◎
HEX2F04011007504	4.0	11	75	4	◎
HEX2F04513007506	4.5	13	75	6	◎
HEX2F05013007506	5.0	13	75	6	◎
HEX2F05513007506	5.5	13	75	6	◎
HEX2F06015007506	6.0	15	75	6	◎
HEX2F06517007508	6.5	17	75	8	◎
HEX2F07017007508	7.0	17	75	8	◎
HEX2F07517007508	7.5	17	75	8	◎
HEX2F08020007508	8.0	20	75	8	◎
HEX2F03008010006	3.0	8	100	6	◎
HEX2F04011010006	4.0	11	100	6	◎
HEX2F05013010006	5.0	13	100	6	◎
HEX2F06015010006	6.0	15	100	6	◎
HEX2F07017010008	7.0	17	100	8	◎
HEX2F08020010008	8.0	20	100	8	◎
HEX2F09023010010	9.0	23	100	10	◎
HEX2F10025010010	10.0	25	100	10	◎
HEX2F11028010012	11.0	28	100	12	◎
HEX2F12030010012	12.0	30	100	12	◎
HEX2F08020015008	8.0	20	150	8	◎
HEX2F10025015010	10.0	25	150	10	◎
HEX2F12030015012	12.0	30	150	12	◎
HEX2F16030015016	16.0	30	150	16	◎
HEX2F18040015018	18.0	40	150	18	◎
HEX2F20040015020	20.0	40	150	20	◎
HEX2F16040020016	16.0	40	200	16	◎
HEX2F20040020020	20.0	40	200	20	◎

★ WORK MATERIAL 被削材質

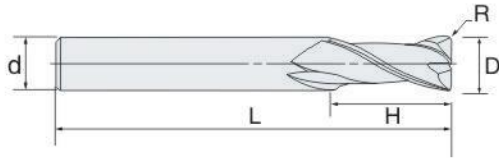
HEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

HEX 2 flutes corner radius end mills

圓鼻 2刃立銼刀



UMG 0.5 μm CO10% HRC-65 AITINS



Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
HEX2F010R0203005004	1.0	0.2	3	50	4	◎
HEX2F015R0204005004	1.5	0.2	4	50	4	◎
HEX2F015R0504005004	1.5	0.5	4	50	4	◎
HEX2F020R0206005004	2.0	0.2	6	50	4	◎
HEX2F020R0506005004	2.0	0.5	6	50	4	◎
HEX2F025R0208005004	2.5	0.2	8	50	4	◎
HEX2F025R0508005004	2.5	0.5	8	50	4	◎
HEX2F030R0208005004	3.0	0.2	8	50	4	◎
HEX2F030R0508005004	3.0	0.5	8	50	4	◎
HEX2F030R1008005004	3.0	1.0	8	50	4	◎
HEX2F040R0211005004	4.0	0.2	11	50	4	◎
HEX2F040R0511005004	4.0	0.5	11	50	4	◎
HEX2F040R1011005004	4.0	1.0	11	50	4	◎
HEX2F050R0513005006	5.0	0.5	13	50	6	◎
HEX2F050R1013005006	5.0	1.0	13	50	6	◎
HEX2F060R0215005006	6.0	0.2	15	50	6	◎
HEX2F060R0515005006	6.0	0.5	15	50	6	◎
HEX2F060R1015005006	6.0	1.0	15	50	6	◎
HEX2F060R1515005006	6.0	1.5	15	50	6	◎
HEX2F060R2015005006	6.0	2.0	15	50	6	◎
HEX2F080R0520006008	8.0	0.5	20	60	8	◎
HEX2F080R1020006008	8.0	1.0	20	60	8	◎
HEX2F080R1520006008	8.0	1.5	20	60	8	◎
HEX2F080R2020006008	8.0	2.0	20	60	8	◎
HEX2F100R0525007510	10.0	0.5	25	75	10	◎
HEX2F100R1025007510	10.0	1.0	25	75	10	◎
HEX2F100R1525007510	10.0	1.5	25	75	10	◎
HEX2F100R2025007510	10.0	2.0	25	75	10	◎
HEX2F100R2525007510	10.0	2.5	25	75	10	◎
HEX2F100R3030007510	10.0	3.0	25	75	10	◎
HEX2F120R0530007512	12.0	0.5	30	75	12	◎
HEX2F120R1030007512	12.0	1.0	30	75	12	◎
HEX2F120R1530007512	12.0	1.5	30	75	12	◎
HEX2F120R2030007512	12.0	2.0	30	75	12	◎
HEX2F120R2530007512	12.0	2.5	30	75	12	◎
HEX2F120R3030007512	12.0	3.0	30	75	12	◎

★ WORK MATERIAL 被削材質

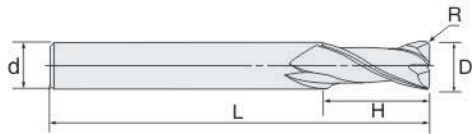
HEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ12.0	-0.01~-0.04	

HEX Long shank 2 flutes corner radius end mills

長柄圓鼻 2刃立銼刀



UMG 0.5 μm CO10% HRC-65 AITINS

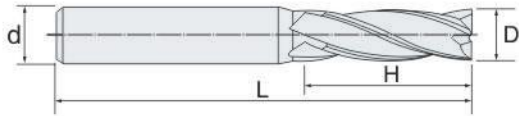
Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
HEX2F010R0203007504	1.0	0.2	3	75	4	◎
HEX2F015R0204007504	1.5	0.2	4	75	4	◎
HEX2F015R0504007504	1.5	0.5	4	75	4	◎
HEX2F020R0206007504	2.0	0.2	6	75	4	◎
HEX2F020R0506007504	2.0	0.5	6	75	4	◎
HEX2F025R0208007504	2.5	0.2	8	75	4	◎
HEX2F025R0508007504	2.5	0.5	8	75	4	◎
HEX2F030R0208007504	3.0	0.2	8	75	4	◎
HEX2F030R0508007504	3.0	0.5	8	75	4	◎
HEX2F030R1008007504	3.0	1.0	8	75	4	◎
HEX2F040R0211007504	4.0	0.2	11	75	4	◎
HEX2F040R0511007504	4.0	0.5	11	75	4	◎
HEX2F040R1011007504	4.0	1.0	11	75	4	◎
HEX2F050R0511007506	5.0	0.5	11	75	6	◎
HEX2F050R1013007506	5.0	1.0	13	75	6	◎
HEX2F060R0215007506	6.0	0.2	15	75	6	◎
HEX2F060R0515007506	6.0	0.5	15	75	6	◎
HEX2F060R1015007506	6.0	1.0	15	75	6	◎
HEX2F060R1515007506	6.0	1.5	15	75	6	◎
HEX2F060R2015007506	6.0	2.0	15	75	6	◎
HEX2F080R0520007508	8.0	0.5	20	75	8	◎
HEX2F080R1020007508	8.0	1.0	20	75	8	◎
HEX2F080R1520007508	8.0	1.5	20	75	8	◎
HEX2F080R2020007508	8.0	2.0	20	75	8	◎
HEX2F040R0211010006	4.0	0.2	11	100	6	◎
HEX2F040R0511010006	4.0	0.5	11	100	6	◎
HEX2F040R1011010006	4.0	1.0	11	100	6	◎
HEX2F050R0513010006	5.0	0.5	13	100	6	◎
HEX2F050R1013010006	5.0	1.0	13	100	6	◎
HEX2F060R0215010006	6.0	0.2	15	100	6	◎
HEX2F060R0515010006	6.0	0.5	15	100	6	◎
HEX2F060R1015010006	6.0	1.0	15	100	6	◎
HEX2F060R1515010006	6.0	1.5	15	100	6	◎
HEX2F060R2015010006	6.0	2.0	15	100	6	◎
HEX2F080R0520010008	8.0	0.5	20	100	8	◎
HEX2F080R1020010008	8.0	1.0	20	100	8	◎
HEX2F080R1520010008	8.0	1.5	20	100	8	◎
HEX2F080R2020010008	8.0	2.0	20	100	8	◎
HEX2F100R0525010010	10.0	0.5	25	100	10	◎
HEX2F100R1025010010	10.0	1.0	25	100	10	◎
HEX2F100R1525010010	10.0	1.5	25	100	10	◎
HEX2F100R2025010010	10.0	2.0	25	100	10	◎
HEX2F100R2525010010	10.0	2.5	25	100	10	◎
HEX2F100R3025010010	10.0	3.0	25	100	10	◎
HEX2F120R0530010012	12.0	0.5	30	100	12	◎
HEX2F120R1030010012	12.0	1.0	30	100	12	◎
HEX2F120R1530010012	12.0	1.5	30	100	12	◎
HEX2F120R2030010012	12.0	2.0	30	100	12	◎
HEX2F120R2530010012	12.0	2.5	30	100	12	◎
HEX2F120R3030010012	12.0	3.0	30	100	12	◎

Special specifications can be customized. 特殊規格可訂制。



HEX 4 flutes square end mills

4刃立铣刀



UMG 0.5 μm CO10% HRC-65 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
HEX4F01003005004	1.0	3	50	4	○
HEX4F01504505004	1.5	4.5	50	4	○
HEX4F02006005004	2.0	6	50	4	○
HEX4F02507005004	2.5	7	50	4	○
HEX4F03008005004	3.0	8	50	4	○
HEX4F03510005004	3.5	10	50	4	○
HEX4F04011005004	4.0	11	50	4	○
HEX4F04513005006	4.5	13	50	6	○
HEX4F05013005006	5.0	13	50	6	○
HEX4F05513005006	5.5	13	50	6	○
HEX4F06015005006	6.0	15	50	6	○
HEX4F06517006008	6.5	17	60	8	○
HEX4F07017006008	7.0	17	60	8	○
HEX4F07517006008	7.5	17	60	8	○
HEX4F08020006008	8.0	20	60	8	○
HEX4F08523007510	8.5	23	75	10	○
HEX4F09023007510	9.0	23	75	10	○
HEX4F09525007510	9.5	25	75	10	○
HEX4F10025007510	10.0	25	75	10	○
HEX4F10525007512	10.5	25	75	12	○
HEX4F11028007512	11.0	28	75	12	○
HEX4F11528007512	11.5	28	75	12	○
HEX4F12030007512	12.0	30	75	12	○
HEX4F13033010014	13.0	33	100	14	○
HEX4F14035010014	14.0	35	100	14	○
HEX4F15038010016	15.0	38	100	16	○
HEX4F16040010016	16.0	40	100	16	○
HEX4F17040010018	17.0	40	100	18	○
HEX4F18040010018	18.0	40	100	18	○
HEX4F19040010020	19.0	40	100	20	○
HEX4F20040010020	20.0	40	100	20	○
HEX4F22040010025	22.0	40	100	25	○
HEX4F25040010025	25.0	40	100	25	○

★ WORK MATERAIL 被削材質

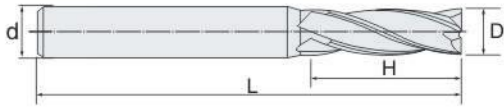
HEX			
P20 S45C 碳素钢	SCM SK 合金钢	SKT SKD 加硬模具钢	S316 加硬不锈钢
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直径	Blade diameter tolerance 刃部直径公差	Shank diameter tolerance 柄部直径公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

HEX Long shank 4 flutes square end mills

長柄標準刃 4刃立銼刀



UMG 0.5 μm CO10% HRC-65 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
HEX4F01003007504	1.0	3	75	4	◎
HEX4F01504507504	1.5	4.5	75	4	◎
HEX4F02006007504	2.0	6	75	4	◎
HEX4F02507007504	2.5	7	75	4	◎
HEX4F03008007504	3.0	8	75	4	◎
HEX4F03510007504	3.5	10	75	4	◎
HEX4F04011007504	4.0	11	75	4	◎
HEX4F04513007506	4.5	13	75	6	◎
HEX4F05013007506	5.0	13	75	6	◎
HEX4F05513007506	5.5	13	75	6	◎
HEX4F06015007506	6.0	15	75	6	◎
HEX4F06517007508	6.5	17	75	8	◎
HEX4F07017007508	7.0	17	75	8	◎
HEX4F07517007508	7.5	17	75	8	◎
HEX4F08020007508	8.0	20	75	8	◎
HEX4F03008010006	3.0	8	100	6	◎
HEX4F04011010006	4.0	11	100	6	◎
HEX4F05013010006	5.0	13	100	6	◎
HEX4F06015010006	6.0	15	100	6	◎
HEX4F07017010008	7.0	17	100	8	◎
HEX4F08020010008	8.0	20	100	8	◎
HEX4F09023010010	9.0	23	100	10	◎
HEX4F10025010010	10.0	25	100	10	◎
HEX4F11028010012	11.0	28	100	12	◎
HEX4F12030010012	12.0	30	100	12	◎
HEX4F08020015008	8.0	20	150	8	◎
HEX4F10025015010	10.0	25	150	10	◎
HEX4F12030015012	12.0	30	150	12	◎
HEX4F16040015016	16.0	40	150	16	◎
HEX4F18040015018	18.0	40	150	18	◎
HEX4F20040015020	20.0	40	150	20	◎
HEX4F16040020016	16.0	40	200	16	◎
HEX4F20040020020	20.0	40	200	20	◎

★ WORK MATERAIL 被削材質

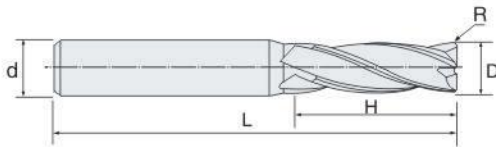
HEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

HEX 4 flutes corner radius end mills

圓鼻 4刃立銼刀



UMG 0.5 μm CO10% HRC-65 AITINS



Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
HEX4F010R0203005004	1.0	0.2	3	50	4	◎
HEX4F015R0204005004	1.5	0.2	4	50	4	◎
HEX4F015R0504005004	1.5	0.5	4	50	4	◎
HEX4F020R0206005004	2.0	0.2	6	50	4	◎
HEX4F020R0506005004	2.0	0.5	6	50	4	◎
HEX4F025R0208005004	2.5	0.2	8	50	4	◎
HEX4F025R0508005004	2.5	0.5	8	50	4	◎
HEX4F030R0208005004	3.0	0.2	8	50	4	◎
HEX4F030R0508005004	3.0	0.5	8	50	4	◎
HEX4F030R1008005004	3.0	1.0	8	50	4	◎
HEX4F040R0211005004	4.0	0.2	11	50	4	◎
HEX4F040R0511005004	4.0	0.5	11	50	4	◎
HEX4F040R1011005004	4.0	1.0	11	50	4	◎
HEX4F050R0513005006	5.0	0.5	13	50	6	◎
HEX4F050R1013005006	5.0	1.0	13	50	6	◎
HEX4F060R0215005006	6.0	0.2	15	50	6	◎
HEX4F060R0515005006	6.0	0.5	15	50	6	◎
HEX4F060R1015005006	6.0	1.0	15	50	6	◎
HEX4F060R1515005006	6.0	1.5	15	50	6	◎
HEX4F060R2015005006	6.0	2.0	15	50	6	◎
HEX4F080R0520006008	8.0	0.5	20	60	8	◎
HEX4F080R1020006008	8.0	1.0	20	60	8	◎
HEX4F080R1520006008	8.0	1.5	20	60	8	◎
HEX4F080R2020006008	8.0	2.0	20	60	8	◎
HEX4F100R0525007510	10.0	0.5	25	75	10	◎
HEX4F100R1025007510	10.0	1.0	25	75	10	◎
HEX4F100R1525007510	10.0	1.5	25	75	10	◎
HEX4F100R2025007510	10.0	2.0	25	75	10	◎
HEX4F100R2525007510	10.0	2.5	25	75	10	◎
HEX4F100R3025007510	10.0	3.0	25	75	10	◎
HEX4F120R0530007512	12.0	0.5	30	75	12	◎
HEX4F120R1030007512	12.0	1.0	30	75	12	◎
HEX4F120R1530007512	12.0	1.5	30	75	12	◎
HEX4F120R2030007512	12.0	2.0	30	75	12	◎
HEX4F120R2530007512	12.0	2.5	30	75	12	◎
HEX4F120R3030007512	12.0	3.0	30	75	12	◎

★ WORK MATERIAL 被削材質

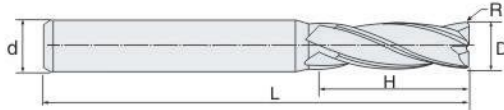
HEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ12.0	-0.01~-0.04	

HEX Long shank 4 flutes corner radius end mills

長柄圓鼻 4刃立銼刀



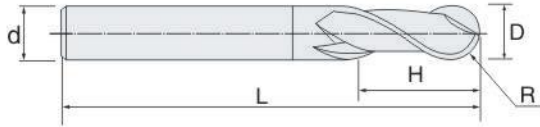
UMG 0.5 μm CO10% HRC-65 AITINS

Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
HEX4F010R0203007504	1.0	0.2	3	75	4	◎
HEX4F015R0204007504	1.5	0.2	4	75	4	◎
HEX4F015R0504007504	1.5	0.5	4	75	4	◎
HEX4F020R0206007504	2.0	0.2	6	75	4	◎
HEX4F020R0506007504	2.0	0.5	6	75	4	◎
HEX4F025R0208007504	2.5	0.2	8	75	4	◎
HEX4F025R0508007504	2.5	0.5	8	75	4	◎
HEX4F030R0208007504	3.0	0.2	8	75	4	◎
HEX4F030R0508007504	3.0	0.5	8	75	4	◎
HEX4F030R1008007504	3.0	1.0	8	75	4	◎
HEX4F040R0211007504	4.0	0.2	11	75	4	◎
HEX4F040R0511007504	4.0	0.5	11	75	4	◎
HEX4F040R1011007504	4.0	1.0	11	75	4	◎
HEX4F050R0513007506	5.0	0.5	13	75	6	◎
HEX4F050R1013007506	5.0	1.0	13	75	6	◎
HEX4F060R0215007506	6.0	0.2	15	75	6	◎
HEX4F060R0515007506	6.0	0.5	15	75	6	◎
HEX4F060R1015007506	6.0	1.0	15	75	6	◎
HEX4F060R1515007506	6.0	1.5	15	75	6	◎
HEX4F060R2015007506	6.0	2.0	15	75	6	◎
HEX4F080R0520007508	8.0	0.5	20	75	8	◎
HEX4F080R1020007508	8.0	1.0	20	75	8	◎
HEX4F080R1520007508	8.0	1.5	20	75	8	◎
HEX4F080R2020007508	8.0	2.0	20	75	8	◎
HEX4F040R0211010006	4.0	0.2	11	100	6	◎
HEX4F040R0511010006	4.0	0.5	11	100	6	◎
HEX4F040R1011010006	4.0	1.0	11	100	6	◎
HEX4F050R0513010006	5.0	0.5	13	100	6	◎
HEX4F050R1013010006	5.0	1.0	13	100	6	◎
HEX4F060R0215010006	6.0	0.2	15	100	6	◎
HEX4F060R0515010006	6.0	0.5	15	100	6	◎
HEX4F060R1015010006	6.0	1.0	15	100	6	◎
HEX4F060R1515010006	6.0	1.5	15	100	6	◎
HEX4F060R2015010006	6.0	2.0	15	100	6	◎
HEX4F080R0520010008	8.0	0.5	20	100	8	◎
HEX4F080R1020010008	8.0	1.0	20	100	8	◎
HEX4F080R1520010008	8.0	1.5	20	100	8	◎
HEX4F080R2020010008	8.0	2.0	20	100	8	◎
HEX4F100R0525010010	10.0	0.5	25	100	10	◎
HEX4F100R1025010010	10.0	1.0	25	100	10	◎
HEX4F100R1525010010	10.0	1.5	25	100	10	◎
HEX4F100R2025010010	10.0	2.0	25	100	10	◎
HEX4F100R2525010010	10.0	2.5	25	100	10	◎
HEX4F100R3025010010	10.0	3.0	25	100	10	◎
HEX4F120R0530010012	12.0	0.5	30	100	12	◎
HEX4F120R1030010012	12.0	1.0	30	100	12	◎
HEX4F120R1530010012	12.0	1.5	30	100	12	◎
HEX4F120R2030010012	12.0	2.0	30	100	12	◎
HEX4F120R2530010012	12.0	2.5	30	100	12	◎
HEX4F120R3030010012	12.0	3.0	30	100	12	◎

Special specifications can be customized. 特殊規格可訂制。

HEX 2 flutes ball nose end mills

2刃球型立铣刀



UMG 0.5 μm CO10% HRC-65 AITINS



Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
HEX2FR005002005004	R0.50	2.0	50	4	○
HEX2FR007503005004	R0.75	3.0	50	4	○
HEX2FR010004005004	R1.00	4.0	50	4	○
HEX2FR012505005004	R1.25	5.0	50	4	○
HEX2FR015006005004	R1.50	6.0	50	4	○
HEX2FR017507005004	R1.75	7.0	50	4	○
HEX2FR020008005004	R2.00	8.0	50	4	○
HEX2FR005002006006	R0.50	2.0	60	6	○
HEX2FR007503006006	R0.75	3.0	60	6	○
HEX2FR010004006006	R1.00	4.0	60	6	○
HEX2FR012505006006	R1.25	5.0	60	6	○
HEX2FR015006006006	R1.50	6.0	60	6	○
HEX2FR017507006006	R1.75	7.0	60	6	○
HEX2FR020008006006	R2.00	8.0	60	6	○
HEX2FR022509006006	R2.25	9.0	60	6	○
HEX2FR025010006006	R2.50	10.0	60	6	○
HEX2FR027511006006	R2.75	11.0	60	6	○
HEX2FR030012006006	R3.00	12.0	60	6	○
HEX2FR032513006008	R3.25	13.0	60	8	○
HEX2FR035014006008	R3.50	14.0	60	8	○
HEX2FR037515006008	R3.75	15.0	60	8	○
HEX2FR040016006008	R4.00	16.0	60	8	○
HEX2FR045018007510	R4.50	18.0	75	10	○
HEX2FR050020007510	R5.00	20.0	75	10	○
HEX2FR060024007512	R6.00	24.0	75	12	○
HEX2FR070030010014	R7.00	30.0	100	14	○
HEX2FR080030010016	R8.00	30.0	100	16	○
HEX2FR090030010018	R9.00	30.0	100	18	○
HEX2FR100030010020	R10.0	30.0	100	20	○
HEX2FR125030010025	R12.5	30.0	100	25	○

★ WORK MATERAIL 被削材質

HEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

R	R diameter tolerance
R	R ± 0.015

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	



HEX Long shank 2 flutes ball nose end mills

長柄 2刃球型立銼刀



UMG 0.5 μm CO10% HRC-65 AITINS

Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
HEX2FR005002007504	R0.50	2	75	4	◎
HEX2FR007503007504	R0.75	3	75	4	◎
HEX2FR010004007504	R1.00	4	75	4	◎
HEX2FR012505007504	R1.25	5	75	4	◎
HEX2FR015006007504	R1.50	6	75	4	◎
HEX2FR017507007504	R1.75	7	75	4	◎
HEX2FR020008007504	R2.00	8	75	4	◎
HEX2FR022509007506	R2.25	9	75	6	◎
HEX2FR025010007506	R2.50	10	75	6	◎
HEX2FR027511007506	R2.75	11	75	6	◎
HEX2FR030012007506	R3.00	12	75	6	◎
HEX2FR040016007508	R4.00	16	75	8	◎
HEX2FR005002010006	R0.50	2	100	6	◎
HEX2FR007503010006	R0.75	3	100	6	◎
HEX2FR010004010006	R1.00	4	100	6	◎
HEX2FR012505010006	R1.25	5	100	6	◎
HEX2FR015006010006	R1.50	6	100	6	◎
HEX2FR017507010006	R1.75	7	100	6	◎
HEX2FR020008010006	R2.00	8	100	6	◎
HEX2FR022509010006	R2.25	9	100	6	◎
HEX2FR025010010006	R2.50	10	100	6	◎
HEX2FR027511010006	R2.75	11	100	6	◎
HEX2FR030012010006	R3.00	12	100	6	◎
HEX2FR040016010008	R4.00	16	100	8	◎
HEX2FR050020010010	R5.00	20	100	10	◎
HEX2FR060024010012	R6.00	24	100	12	◎
HEX2FR030012015006	R3.00	12	150	6	◎
HEX2FR040016015008	R4.00	16	150	8	◎
HEX2FR050020015010	R5.00	20	150	10	◎
HEX2FR060024015012	R6.00	24	150	12	◎
HEX2FR070030015014	R7.00	30	150	14	◎
HEX2FR080030015016	R8.00	30	150	16	◎
HEX2FR100030015020	R10.00	30	150	20	◎
HEX2FR040016020008	R4.00	16	200	8	◎
HEX2FR050020020010	R5.00	20	200	10	◎
HEX2FR060024020012	R6.00	24	200	12	◎
HEX2FR070030020014	R7.00	30	200	14	◎
HEX2FR080030020016	R8.00	30	200	16	◎
HEX2FR100030020020	R10.00	30	200	20	◎

★ WORK MATERAIL 被削材質

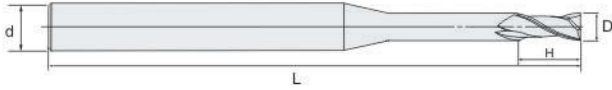
HEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●
R	R diameter tolerance		
R	R ± 0.015		

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

HEX 2 flutes long neck short flute square end mills

二刃平底深溝銑刀



UMG 0.5 μm CO10% HRC-65 AITINS

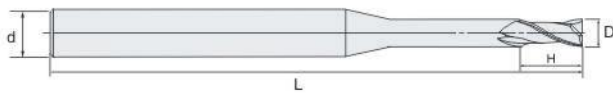


Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
HEX2F00200301005004	0.2	0.3	1	50	4	◎
HEX2F00200302005004	0.2	0.3	2	50	4	◎
HEX2F00300401005004	0.3	0.4	1	50	4	◎
HEX2F00300402005004	0.3	0.4	2	50	4	◎
HEX2F00300403005004	0.3	0.4	3	50	4	◎
HEX2F00300404005004	0.3	0.4	4	50	4	◎
HEX2F00300405005004	0.3	0.4	5	50	4	◎
HEX2F00400501005004	0.4	0.5	1	50	4	◎
HEX2F00400502005004	0.4	0.5	2	50	4	◎
HEX2F00400503005004	0.4	0.5	3	50	4	◎
HEX2F00400504005004	0.4	0.5	4	50	4	◎
HEX2F00400505005004	0.4	0.5	5	50	4	◎
HEX2F00400506005004	0.4	0.5	6	50	4	◎
HEX2F00400508005004	0.4	0.5	8	50	4	◎
HEX2F00400510005004	0.4	0.5	10	50	4	◎
HEX2F00500602005004	0.5	0.6	2	50	4	◎
HEX2F00500603005004	0.5	0.6	3	50	4	◎
HEX2F00500604005004	0.5	0.6	4	50	4	◎
HEX2F00500605005004	0.5	0.6	5	50	4	◎
HEX2F00500606005004	0.5	0.6	6	50	4	◎
HEX2F00500608005004	0.5	0.6	8	50	4	◎
HEX2F00500610005004	0.5	0.6	10	50	4	◎
HEX2F00500612005004	0.5	0.6	12	50	4	◎
HEX2F00500614005004	0.5	0.6	14	50	4	◎
HEX2F00600702005004	0.6	0.7	2	50	4	◎
HEX2F00600703005004	0.6	0.7	3	50	4	◎
HEX2F00600704005004	0.6	0.7	4	50	4	◎
HEX2F00600705005004	0.6	0.7	5	50	4	◎
HEX2F00600706005004	0.6	0.7	6	50	4	◎
HEX2F00600708005004	0.6	0.7	8	50	4	◎
HEX2F00600710005004	0.6	0.7	10	50	4	◎
HEX2F00600712005004	0.6	0.7	12	50	4	◎
HEX2F00600714005004	0.6	0.7	14	50	4	◎
HEX2F00600716005004	0.6	0.7	16	50	4	◎
HEX2F00700802005004	0.7	0.8	2	50	4	◎
HEX2F00700804005004	0.7	0.8	4	50	4	◎
HEX2F00700806005004	0.7	0.8	6	50	4	◎
HEX2F00700808005004	0.7	0.8	8	50	4	◎
HEX2F00700810005004	0.7	0.8	10	50	4	◎
HEX2F00700812005004	0.7	0.8	12	50	4	◎
HEX2F00801002005004	0.8	1.0	2	50	4	◎
HEX2F00801004005004	0.8	1.0	4	50	4	◎
HEX2F00801006005004	0.8	1.0	6	50	4	◎
HEX2F00801008005004	0.8	1.0	8	50	4	◎
HEX2F00801010005004	0.8	1.0	10	50	4	◎
HEX2F00801012005004	0.8	1.0	12	50	4	◎
HEX2F00801014005004	0.8	1.0	14	50	4	◎
HEX2F00901106005004	0.9	1.1	6	50	4	◎
HEX2F00901108005004	0.9	1.1	8	50	4	◎
HEX2F00901110005004	0.9	1.1	10	50	4	◎
HEX2F01001202005004	1.0	1.2	2	50	4	◎
HEX2F01001203005004	1.0	1.2	3	50	4	◎
HEX2F01001204005004	1.0	1.2	4	50	4	◎
HEX2F01001205005004	1.0	1.2	5	50	4	◎
HEX2F01001206005004	1.0	1.2	6	50	4	◎
HEX2F01001208005004	1.0	1.2	8	50	4	◎
HEX2F01001210005004	1.0	1.2	10	50	4	◎



HEX 2 flutes long neck short flute square end mills

二刃平底深溝銑刀

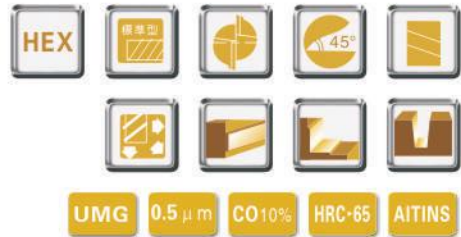
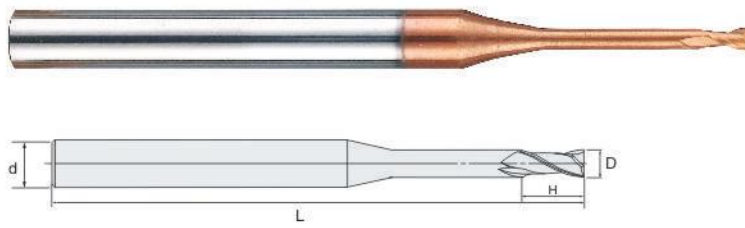


UMG 0.5 μm CO10% HRC-65 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
HEX2F01001212005004	1.0	1.2	12	50	4	◎
HEX2F01001214005004	1.0	1.2	14	50	4	◎
HEX2F01001216005004	1.0	1.2	16	50	4	◎
HEX2F01001218005004	1.0	1.2	18	50	4	◎
HEX2F01001220005004	1.0	1.2	20	50	4	◎
HEX2F01201504005004	1.2	1.5	4	50	4	◎
HEX2F01201506005004	1.2	1.5	6	50	4	◎
HEX2F01201508005004	1.2	1.5	8	50	4	◎
HEX2F01201510005004	1.2	1.5	10	50	4	◎
HEX2F01201512005004	1.2	1.5	12	50	4	◎
HEX2F01201516005004	1.2	1.5	16	50	4	◎
HEX2F01201520005004	1.2	1.5	20	50	4	◎
HEX2F01401806005004	1.4	1.8	6	50	4	◎
HEX2F01401808005004	1.4	1.8	8	50	4	◎
HEX2F01401810005004	1.4	1.8	10	50	4	◎
HEX2F01401814005004	1.4	1.8	14	50	4	◎
HEX2F01401816005004	1.4	1.8	16	50	4	◎
HEX2F01401820005004	1.4	1.8	20	50	4	◎
HEX2F01501804005004	1.5	1.8	4	50	4	◎
HEX2F01501806005004	1.5	1.8	6	50	4	◎
HEX2F01501808005004	1.5	1.8	8	50	4	◎
HEX2F01501810005004	1.5	1.8	10	50	4	◎
HEX2F01501812005004	1.5	1.8	12	50	4	◎
HEX2F01501814005004	1.5	1.8	14	50	4	◎
HEX2F01501816005004	1.5	1.8	16	50	4	◎
HEX2F01501818005004	1.5	1.8	18	50	4	◎
HEX2F01501820005004	1.5	1.8	20	50	4	◎
HEX2F01601910005004	1.6	1.9	10	50	4	◎
HEX2F01601914005004	1.6	1.9	14	50	4	◎
HEX2F01601918005004	1.6	1.9	18	50	4	◎
HEX2F01802010005004	1.8	2.0	10	50	4	◎
HEX2F01802014005004	1.8	2.0	14	50	4	◎
HEX2F01802018005004	1.8	2.0	18	50	4	◎
HEX2F02002504005004	2.0	2.5	4	50	4	◎
HEX2F02002506005004	2.0	2.5	6	50	4	◎
HEX2F02002508005004	2.0	2.5	8	50	4	◎
HEX2F02002510005004	2.0	2.5	10	50	4	◎
HEX2F02002512005004	2.0	2.5	12	50	4	◎
HEX2F02002514005004	2.0	2.5	14	50	4	◎
HEX2F02002516005004	2.0	2.5	16	50	4	◎
HEX2F02002518005004	2.0	2.5	18	50	4	◎
HEX2F02002520005004	2.0	2.5	20	50	4	◎
HEX2F02002522005004	2.0	2.5	22	50	4	◎
HEX2F02002525005004	2.0	2.5	25	50	4	◎
HEX2F02002530005004	2.0	2.5	30	50	4	◎
HEX2F02002535005004	2.0	2.5	35	50	4	◎
HEX2F02503008005004	2.5	3.0	8	50	4	◎
HEX2F02503010005004	2.5	3.0	10	50	4	◎
HEX2F02503012005004	2.5	3.0	12	50	4	◎
HEX2F02503016005004	2.5	3.0	16	50	4	◎
HEX2F02503020005004	2.5	3.0	20	50	4	◎
HEX2F02503025005004	2.5	3.0	25	50	4	◎
HEX2F02503030005004	2.5	3.0	30	50	4	◎
HEX2F02503035005004	2.5	3.0	35	50	4	◎

HEX 2 flutes long neck short flute square end mills

二刃平底深溝銑刀



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
HEX2F03003506005006	3.0	3.5	6	50	6	○
HEX2F03003510005006	3.0	3.5	10	50	6	○
HEX2F03003512005006	3.0	3.5	12	50	6	○
HEX2F03003516005006	3.0	3.5	16	50	6	○
HEX2F03003520006006	3.0	3.5	20	60	6	○
HEX2F03003525006006	3.0	3.5	25	60	6	○
HEX2F03003530006006	3.0	3.5	30	60	6	○
HEX2F03003535007506	3.0	3.5	35	75	6	○
HEX2F04004508005006	4.0	4.5	8	50	6	○
HEX2F04004510005006	4.0	4.5	10	50	6	○
HEX2F04004512005006	4.0	4.5	12	50	6	○
HEX2F04004516005006	4.0	4.5	16	50	6	○
HEX2F04004520006006	4.0	4.5	20	60	6	○
HEX2F04004525006006	4.0	4.5	25	60	6	○
HEX2F04004530006006	4.0	4.5	30	60	6	○
HEX2F04004535007506	4.0	4.5	35	75	6	○
HEX2F05007016005006	5.0	7.0	16	50	6	○
HEX2F05007020006006	5.0	7.0	20	60	6	○
HEX2F05007025006006	5.0	7.0	25	60	6	○
HEX2F05007030006006	5.0	7.0	30	60	6	○
HEX2F05007035075006	5.0	7.0	35	75	6	○
HEX2F06010020006006	6.0	10.0	20	60	6	○
HEX2F06010030075006	6.0	10.0	30	75	6	○
HEX2F08015020006008	8.0	15.0	20	60	8	○
HEX2F08015030075008	8.0	15.0	30	75	8	○
HEX2F08015040010008	8.0	15.0	40	100	8	○
HEX2F10020025075010	10.0	20.0	25	75	10	○
HEX2F10020035075010	10.0	20.0	35	75	10	○
HEX2F10020045010010	10.0	20.0	45	100	10	○
HEX2F12025030075012	12.0	25.0	30	75	12	○
HEX2F12025040010012	12.0	25.0	40	100	12	○
HEX2F12025050010012	12.0	25.0	50	100	12	○

★ WORK MATERAIL 被削材質

HEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
Φ	0~-0.02

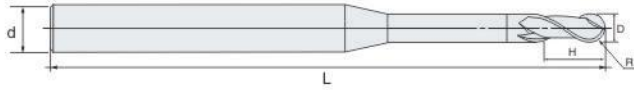
Working material 被切材質	Alloy steel/Tool steel 合金鋼/工具鋼		Alloy steel/Tool steel 合金鋼/工具鋼		Alloy steel/Tool steel 合金鋼/工具鋼		Alloy steel/Tool steel 合金鋼/工具鋼	
	Material code 材質編碼		Material code 材質編碼		Material code 材質編碼		Material code 材質編碼	
Hardness grade 硬度等級	HRC < 20		HRC 20-30		HRC 30-40		HRC 40-50	
	Diameter 直徑	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M
0.2MM	52,000	310	52,000	290	52,000	250	52,000	250
0.3MM	56,000	520	56,000	460	56,000	410	56,000	410
0.4MM	52,000	610	52,000	580	44,600	420	44,600	420
0.5MM	52,800	840	50,000	720	37,600	470	37,600	470
0.8MM	34,100	830	28,100	650	21,100	450	21,100	450
1.0MM	30,100	1,070	24,400	770	19,500	480	19,500	480
1.5MM	20,000	980	17,500	740	12,400	450	12,400	450
2.0MM	18,500	1,250	16,400	930	11,500	550	11,500	550
2.5MM	14,000	1,240	11,800	950	8,800	650	8,800	650
3.0MM	10,600	1,150	8,700	850	6,200	560	6,200	560
4.0MM	8,500	1,280	7,100	950	5,100	600	5,100	600
5.0MM	5,800	1,040	4,800	760	3,300	460	3,300	460
6.0MM	3,900	890	3,600	680	2,400	440	2,400	440
8.0MM	3,200	910	2,800	710	2,300	450	2,300	450
10.0MM	2,900	890	2,700	680	2,100	430	2,100	430
12.0MM	2,500	710	2,300	580	2,000	400	2,000	400

Milling amount (mm) Please refer to 3xD table, reduce R.P.M. & Feed while efficient length is increasing.



HEX 2 flutes long neck short flute ball nose end mills

二刃深溝球頭銼刀

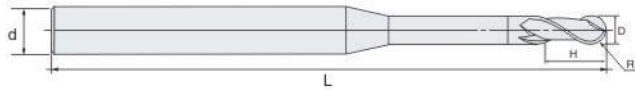


UMG 0.5 μm CO10% HRC-65 AITINS

Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
HEX2FR01500301005004	0.15R	0.3	0.3	1	50	4	◎
HEX2FR01500302005004	0.15R	0.3	0.3	2	50	4	◎
HEX2FR01500303005004	0.15R	0.3	0.3	3	50	4	◎
HEX2FR02000401005004	0.20R	0.4	0.4	1	50	4	◎
HEX2FR02000402005004	0.20R	0.4	0.4	2	50	4	◎
HEX2FR02000403005004	0.20R	0.4	0.4	3	50	4	◎
HEX2FR02000404005004	0.20R	0.4	0.4	4	50	4	◎
HEX2FR02000405005004	0.20R	0.4	0.4	5	50	4	◎
HEX2FR02000406005004	0.20R	0.4	0.4	6	50	4	◎
HEX2FR02500408005004	0.20R	0.4	0.4	8	50	4	◎
HEX2FR02500501005004	0.25R	0.5	0.5	1	50	4	◎
HEX2FR02500502005004	0.25R	0.5	0.5	2	50	4	◎
HEX2FR02500503005004	0.25R	0.5	0.5	3	50	4	◎
HEX2FR02500504005004	0.25R	0.5	0.5	4	50	4	◎
HEX2FR02500505005004	0.25R	0.5	0.5	5	50	4	◎
HEX2FR02500506005004	0.25R	0.5	0.5	6	50	4	◎
HEX2FR02500508005004	0.25R	0.5	0.5	8	50	4	◎
HEX2FR03000510005004	0.25R	0.5	0.5	10	50	4	◎
HEX2FR03000601005004	0.30R	0.6	0.6	1	50	4	◎
HEX2FR03000602005004	0.30R	0.6	0.6	2	50	4	◎
HEX2FR03000603005004	0.30R	0.6	0.6	3	50	4	◎
HEX2FR03000604005004	0.30R	0.6	0.6	4	50	4	◎
HEX2FR03000605005004	0.30R	0.6	0.6	5	50	4	◎
HEX2FR03000606005004	0.30R	0.6	0.6	6	50	4	◎
HEX2FR03000608005004	0.30R	0.6	0.6	8	50	4	◎
HEX2FR03000610005004	0.30R	0.6	0.6	10	50	4	◎
HEX2FR03500612005004	0.30R	0.6	0.6	12	50	4	◎
HEX2FR03500702005004	0.35R	0.7	0.7	2	50	4	◎
HEX2FR03500704005004	0.35R	0.7	0.7	4	50	4	◎
HEX2FR03500708005004	0.35R	0.7	0.7	8	50	4	◎
HEX2FR03500710005004	0.35R	0.7	0.7	10	50	4	◎
HEX2FR04000712005004	0.35R	0.7	0.7	12	50	4	◎
HEX2FR04000802005004	0.40R	0.8	0.8	2	50	4	◎
HEX2FR04000804005004	0.40R	0.8	0.8	4	50	4	◎
HEX2FR04000806005004	0.40R	0.8	0.8	6	50	4	◎
HEX2FR04000808005004	0.40R	0.8	0.8	8	50	4	◎
HEX2FR04000810005004	0.40R	0.8	0.8	10	50	4	◎
HEX2FR04500812005004	0.40R	0.8	0.8	12	50	4	◎
HEX2FR05000904005004	0.45R	0.9	0.9	4	50	4	◎
HEX2FR05001002005004	0.50R	1.0	1.0	2	50	4	◎
HEX2FR05001003005004	0.50R	1.0	1.0	3	50	4	◎
HEX2FR05001004005004	0.50R	1.0	1.0	4	50	4	◎
HEX2FR05001005005004	0.50R	1.0	1.0	5	50	4	◎
HEX2FR05001006005004	0.50R	1.0	1.0	6	50	4	◎
HEX2FR05001008005004	0.50R	1.0	1.0	8	50	4	◎
HEX2FR05001010005004	0.50R	1.0	1.0	10	50	4	◎
HEX2FR05001012005004	0.50R	1.0	1.0	12	50	4	◎
HEX2FR05001014005004	0.50R	1.0	1.0	14	50	4	◎
HEX2FR05001016005004	0.50R	1.0	1.0	16	50	4	◎
HEX2FR05001018005004	0.50R	1.0	1.0	18	50	4	◎
HEX2FR05001020005004	0.50R	1.0	1.0	20	50	4	◎
HEX2FR05001022005004	0.50R	1.0	1.0	22	60	4	◎

HEX 2 flutes long neck short flute ball nose end mills

二刃深溝球頭銼刀



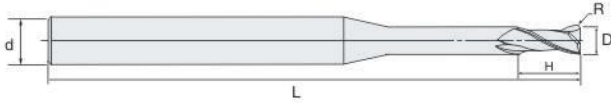
UMG 0.5 μm CO10% HRC-65 AITINS



Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
HEX2FR06012045004	0.60R	1.2	1.2	4	50	4	◎
HEX2FR06012065004	0.60R	1.2	1.2	6	50	4	◎
HEX2FR06012085004	0.60R	1.2	1.2	8	50	4	◎
HEX2FR06012105004	0.60R	1.2	1.2	10	50	4	◎
HEX2FR06012125004	0.60R	1.2	1.2	12	50	4	◎
HEX2FR06012165004	0.60R	1.2	1.2	16	50	4	◎
HEX2FR06012205004	0.60R	1.2	1.2	20	50	4	◎
HEX2FR06012245004	0.60R	1.2	1.2	24	50	4	◎
HEX2FR07014065004	0.70R	1.4	1.4	6	50	4	◎
HEX2FR07014085004	0.70R	1.4	1.4	8	50	4	◎
HEX2FR07014125004	0.70R	1.4	1.4	12	50	4	◎
HEX2FR07014165004	0.70R	1.4	1.4	16	50	4	◎
HEX2FR07515035004	0.75R	1.5	1.5	3	50	4	◎
HEX2FR07515045004	0.75R	1.5	1.5	4	50	4	◎
HEX2FR07515065004	0.75R	1.5	1.5	6	50	4	◎
HEX2FR07515085004	0.75R	1.5	1.5	8	50	4	◎
HEX2FR07515105004	0.75R	1.5	1.5	10	50	4	◎
HEX2FR07515125004	0.75R	1.5	1.5	12	50	4	◎
HEX2FR07515145004	0.75R	1.5	1.5	14	50	4	◎
HEX2FR07515165004	0.75R	1.5	1.5	16	50	4	◎
HEX2FR07515185004	0.75R	1.5	1.5	18	50	4	◎
HEX2FR07515205004	0.75R	1.5	1.5	20	50	4	◎
HEX2FR07515225004	0.75R	1.5	1.5	22	50	4	◎
HEX2FR07515255004	0.75R	1.5	1.5	25	50	4	◎
HEX2FR07515305004	0.75R	1.5	1.5	30	50	4	◎
HEX2FR08016065004	0.80R	1.6	1.6	6	50	4	◎
HEX2FR08016085004	0.80R	1.6	1.6	8	50	4	◎
HEX2FR08016125004	0.80R	1.6	1.6	12	50	4	◎
HEX2FR08016165004	0.80R	1.6	1.6	16	50	4	◎
HEX2FR08016205004	0.80R	1.6	1.6	20	50	4	◎
HEX2FR09018065004	0.90R	1.8	1.8	6	50	4	◎
HEX2FR09018085004	0.90R	1.8	1.8	8	50	4	◎
HEX2FR09018125004	0.90R	1.8	1.8	12	50	4	◎
HEX2FR09018165004	0.90R	1.8	1.8	16	50	4	◎
HEX2FR09018205004	0.90R	1.8	1.8	20	50	4	◎
HEX2FR10020045004	1.00R	2.0	2.0	4	50	4	◎
HEX2FR10020065004	1.00R	2.0	2.0	6	50	4	◎
HEX2FR10020085004	1.00R	2.0	2.0	8	50	4	◎
HEX2FR10020105004	1.00R	2.0	2.0	10	50	4	◎
HEX2FR10020125004	1.00R	2.0	2.0	12	50	4	◎
HEX2FR10020145004	1.00R	2.0	2.0	14	50	4	◎
HEX2FR10020165004	1.00R	2.0	2.0	16	50	4	◎
HEX2FR10020185004	1.00R	2.0	2.0	18	50	4	◎
HEX2FR10020205004	1.00R	2.0	2.0	20	50	4	◎
HEX2FR10020225004	1.00R	2.0	2.0	22	50	4	◎
HEX2FR10020255004	1.00R	2.0	2.0	25	50	4	◎
HEX2FR12525085004	1.25R	2.5	2.5	8	50	4	◎
HEX2FR12525105004	1.25R	2.5	2.5	10	50	4	◎
HEX2FR12525165004	1.25R	2.5	2.5	16	50	4	◎
HEX2FR12525205004	1.25R	2.5	2.5	20	50	4	◎
HEX2FR12525255004	1.25R	2.5	2.5	25	50	4	◎
HEX2FR12525305004	1.25R	2.5	2.5	30	60	4	◎

HEX 2 flutes long neck short flute corner radius end mills

二刃深溝圓鼻銼刀



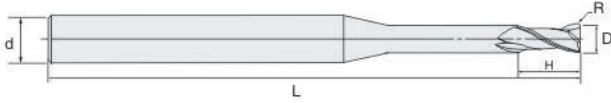
UMG 0.5 μm CO10% HRC-65 AITINS

Product Code 產品編號	Blade diameter 刃徑	Corner radius R角	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
HEX010R0010100405004	1.0	0.1R	1.0	4	50	4	⊙
HEX010R0010100605004	1.0	0.1R	1.0	6	50	4	⊙
HEX010R0010100805004	1.0	0.1R	1.0	8	50	4	⊙
HEX010R0010101005004	1.0	0.1R	1.0	10	50	4	⊙
HEX010R0010101205004	1.0	0.1R	1.0	12	50	4	⊙
HEX010R0020100405004	1.0	0.2R	1.0	4	50	4	⊙
HEX010R0020100605004	1.0	0.2R	1.0	6	50	4	⊙
HEX010R0020100805004	1.0	0.2R	1.0	8	50	4	⊙
HEX010R0020101005004	1.0	0.2R	1.0	10	50	4	⊙
HEX010R0020101205004	1.0	0.2R	1.0	12	50	4	⊙
HEX010R0030100405004	1.0	0.3R	1.0	4	50	4	⊙
HEX010R0030100605004	1.0	0.3R	1.0	6	50	4	⊙
HEX010R0030100805004	1.0	0.3R	1.0	8	50	4	⊙
HEX010R0030101005004	1.0	0.3R	1.0	10	50	4	⊙
HEX010R0030101205004	1.0	0.3R	1.0	12	50	4	⊙
HEX012R0010120405004	1.2	0.1R	1.2	4	50	4	⊙
HEX012R0010120605004	1.2	0.1R	1.2	6	50	4	⊙
HEX012R0010120805004	1.2	0.1R	1.2	8	50	4	⊙
HEX012R0010121005004	1.2	0.1R	1.2	10	50	4	⊙
HEX012R0010121205004	1.2	0.1R	1.2	12	50	4	⊙
HEX012R0020120405004	1.2	0.2R	1.2	4	50	4	⊙
HEX012R0020120605004	1.2	0.2R	1.2	6	50	4	⊙
HEX012R0020120805004	1.2	0.2R	1.2	8	50	4	⊙
HEX012R0020121005004	1.2	0.2R	1.2	10	50	4	⊙
HEX012R0020121205004	1.2	0.2R	1.2	12	50	4	⊙
HEX012R0030120405004	1.2	0.3R	1.2	4	50	4	⊙
HEX012R0030120605004	1.2	0.3R	1.2	6	50	4	⊙
HEX012R0030120805004	1.2	0.3R	1.2	8	50	4	⊙
HEX012R0030121005004	1.2	0.3R	1.2	10	50	4	⊙
HEX012R0030121205004	1.2	0.3R	1.2	12	50	4	⊙
HEX015R0010150605004	1.5	0.1R	1.5	6	50	4	⊙
HEX015R0010150805004	1.5	0.1R	1.5	8	50	4	⊙
HEX015R0010151005004	1.5	0.1R	1.5	10	50	4	⊙
HEX015R0010151205004	1.5	0.1R	1.5	12	50	4	⊙
HEX015R0010151605004	1.5	0.1R	1.5	16	50	4	⊙
HEX015R0020150605004	1.5	0.2R	1.5	6	50	4	⊙
HEX015R0020150805004	1.5	0.2R	1.5	8	50	4	⊙
HEX015R0020151005004	1.5	0.2R	1.5	10	50	4	⊙
HEX015R0020151205004	1.5	0.2R	1.5	12	50	4	⊙
HEX015R0020151605004	1.5	0.2R	1.5	16	50	4	⊙
HEX015R0030150605004	1.5	0.3R	1.5	6	50	4	⊙
HEX015R0030150805004	1.5	0.3R	1.5	8	50	4	⊙
HEX015R0030151005004	1.5	0.3R	1.5	10	50	4	⊙
HEX015R0030151205004	1.5	0.3R	1.5	12	50	4	⊙
HEX015R0030151605004	1.5	0.3R	1.5	16	50	4	⊙
HEX015R0050150605004	1.5	0.5R	1.5	6	50	4	⊙
HEX015R0050150805004	1.5	0.5R	1.5	8	50	4	⊙
HEX015R0050151005004	1.5	0.5R	1.5	10	50	4	⊙
HEX015R0050151205004	1.5	0.5R	1.5	12	50	4	⊙
HEX015R0050151605004	1.5	0.5R	1.5	16	50	4	⊙
HEX020R0010200605004	2.0	0.1R	2.0	6	50	4	⊙
HEX020R0010200805004	2.0	0.1R	2.0	8	50	4	⊙
HEX020R0010201005004	2.0	0.1R	2.0	10	50	4	⊙
HEX020R0010201205004	2.0	0.1R	2.0	12	50	4	⊙
HEX020R0010201605004	2.0	0.1R	2.0	16	50	4	⊙
HEX020R0010202005004	2.0	0.1R	2.0	20	50	4	⊙
HEX020R0010202505004	2.0	0.1R	2.0	25	60	4	⊙



HEX 2 flutes long neck short flute corner radius end mills

二刃深溝圓鼻銼刀



UMG 0.5 μm CO10% HRC-65 AITINS

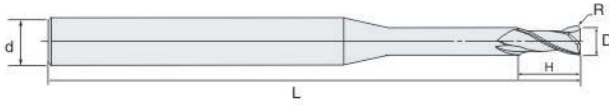


Product Code 產品編號	Blade diameter 刃徑	Corner radius R角	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
HEX20R02065004	2.0	0.2R	2.0	6	50	4	◎
HEX20R02085004	2.0	0.2R	2.0	8	50	4	◎
HEX20R02105004	2.0	0.2R	2.0	10	50	4	◎
HEX20R02125004	2.0	0.2R	2.0	12	50	4	◎
HEX20R02165004	2.0	0.2R	2.0	16	50	4	◎
HEX20R02205004	2.0	0.2R	2.0	20	50	4	◎
HEX20R02256004	2.0	0.2R	2.0	25	60	4	◎
HEX20R03065004	2.0	0.3R	2.0	6	50	4	◎
HEX20R03085004	2.0	0.3R	2.0	8	50	4	◎
HEX20R03105004	2.0	0.3R	2.0	10	50	4	◎
HEX20R03125004	2.0	0.3R	2.0	12	50	4	◎
HEX20R03165004	2.0	0.3R	2.0	16	50	4	◎
HEX20R03205004	2.0	0.3R	2.0	20	50	4	◎
HEX20R03256004	2.0	0.3R	2.0	25	60	4	◎
HEX20R05065004	2.0	0.5R	2.0	6	50	4	◎
HEX20R05085004	2.0	0.5R	2.0	8	50	4	◎
HEX20R05105004	2.0	0.5R	2.0	10	50	4	◎
HEX20R05125004	2.0	0.5R	2.0	12	50	4	◎
HEX20R05165004	2.0	0.5R	2.0	16	50	4	◎
HEX20R05205004	2.0	0.5R	2.0	20	50	4	◎
HEX20R05256004	2.0	0.5R	2.0	25	60	4	◎
HEX25R01105004	2.5	0.1R	2.5	10	50	4	◎
HEX25R01165004	2.5	0.1R	2.5	16	50	4	◎
HEX25R01205004	2.5	0.1R	2.5	20	50	4	◎
HEX25R01256004	2.5	0.1R	2.5	25	60	4	◎
HEX25R02105004	2.5	0.2R	2.5	10	50	4	◎
HEX25R02165004	2.5	0.2R	2.5	16	50	4	◎
HEX25R02205004	2.5	0.2R	2.5	20	50	4	◎
HEX25R02256004	2.5	0.2R	2.5	25	60	4	◎
HEX25R03105004	2.5	0.3R	2.5	10	50	4	◎
HEX25R03165004	2.5	0.3R	2.5	16	50	4	◎
HEX25R03205004	2.5	0.3R	2.5	20	50	4	◎
HEX25R03256004	2.5	0.3R	2.5	25	60	4	◎
HEX25R05105004	2.5	0.5R	2.5	10	50	4	◎
HEX25R05165004	2.5	0.5R	2.5	16	50	4	◎
HEX25R05205004	2.5	0.5R	2.5	20	50	4	◎
HEX25R05255004	2.5	0.5R	2.5	25	60	4	◎
HEX30R01105006	3.0	0.1R	3.0	10	50	6	◎
HEX30R01166006	3.0	0.1R	3.0	16	60	6	◎
HEX30R01206006	3.0	0.1R	3.0	20	60	6	◎
HEX30R01256006	3.0	0.1R	3.0	25	60	6	◎
HEX30R01307506	3.0	0.1R	3.0	30	75	6	◎
HEX30R01357506	3.0	0.1R	3.0	35	75	6	◎
HEX30R02105006	3.0	0.2R	3.0	10	50	6	◎
HEX30R02166006	3.0	0.2R	3.0	16	60	6	◎
HEX30R02206006	3.0	0.2R	3.0	20	60	6	◎
HEX30R02256006	3.0	0.2R	3.0	25	60	6	◎
HEX30R02307506	3.0	0.2R	3.0	30	75	6	◎
HEX30R02357506	3.0	0.2R	3.0	35	75	6	◎
HEX30R03105006	3.0	0.3R	3.0	10	50	6	◎
HEX30R03166006	3.0	0.3R	3.0	16	60	6	◎
HEX30R03206006	3.0	0.3R	3.0	20	60	6	◎
HEX30R03256006	3.0	0.3R	3.0	25	60	6	◎
HEX30R03307506	3.0	0.3R	3.0	30	75	6	◎
HEX30R03357506	3.0	0.3R	3.0	35	75	6	◎



HEX 2 flutes long neck short flute corner radius end mills

二刃深溝圓鼻銼刀

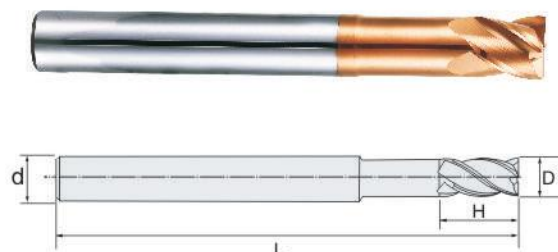


UMG 0.5 μm CO10% HRC-65 AITINS

Product Code 產品編號	Blade diameter 刃徑	Corner radius R角	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
HEX30R05105006	3.0	0.5R	3.0	10	50	6	○
HEX30R05166006	3.0	0.5R	3.0	16	60	6	○
HEX30R05206006	3.0	0.5R	3.0	20	60	6	○
HEX30R05256006	3.0	0.5R	3.0	25	60	6	○
HEX30R05307506	3.0	0.5R	3.0	30	75	6	○
HEX30R05357506	3.0	0.5R	3.0	35	75	6	○
HEX30R10105006	3.0	1.0R	3.0	10	50	6	○
HEX30R10166006	3.0	1.0R	3.0	16	60	6	○
HEX30R10206006	3.0	1.0R	3.0	20	60	6	○
HEX30R10256006	3.0	1.0R	3.0	25	60	6	○
HEX30R10307506	3.0	1.0R	3.0	30	75	6	○
HEX30R10357506	3.0	1.0R	3.0	35	75	6	○
HEX40R01135006	4.0	0.1R	4.0	13	50	6	○
HEX40R01166006	4.0	0.1R	4.0	16	60	6	○
HEX40R01206006	4.0	0.1R	4.0	20	60	6	○
HEX40R01256006	4.0	0.1R	4.0	25	60	6	○
HEX40R01307506	4.0	0.1R	4.0	30	75	6	○
HEX40R01357506	4.0	0.1R	4.0	35	75	6	○
HEX40R02135006	4.0	0.2R	4.0	13	50	6	○
HEX40R02166006	4.0	0.2R	4.0	16	60	6	○
HEX40R02206006	4.0	0.2R	4.0	20	60	6	○
HEX40R02256006	4.0	0.2R	4.0	25	60	6	○
HEX40R02307506	4.0	0.2R	4.0	30	75	6	○
HEX40R02357506	4.0	0.2R	4.0	35	75	6	○
HEX40R03135006	4.0	0.3R	4.0	13	50	6	○
HEX40R03166006	4.0	0.3R	4.0	16	60	6	○
HEX40R03206006	4.0	0.3R	4.0	20	60	6	○
HEX40R03256006	4.0	0.3R	4.0	25	60	6	○
HEX40R03307506	4.0	0.3R	4.0	30	75	6	○
HEX40R03357506	4.0	0.3R	4.0	35	75	6	○
HEX40R05135006	4.0	0.5R	4.0	13	50	6	○
HEX40R05166006	4.0	0.5R	4.0	16	60	6	○
HEX40R05206006	4.0	0.5R	4.0	20	60	6	○
HEX40R05256006	4.0	0.5R	4.0	25	60	6	○
HEX40R05307506	4.0	0.5R	4.0	30	75	6	○
HEX40R05357506	4.0	0.5R	4.0	35	75	6	○
HEX40R10135006	4.0	1.0R	4.0	13	50	6	○
HEX40R10166006	4.0	1.0R	4.0	16	60	6	○
HEX40R10206006	4.0	1.0R	4.0	20	60	6	○
HEX40R10256006	4.0	1.0R	4.0	25	60	6	○
HEX40R10307506	4.0	1.0R	4.0	30	75	6	○
HEX40R10357506	4.0	1.0R	4.0	35	75	6	○
HEX50R01166006	5.0	0.1R	5.0	16	60	6	○
HEX50R01306006	5.0	0.1R	5.0	30	60	6	○
HEX50R02166006	5.0	0.2R	5.0	16	60	6	○
HEX50R02306006	5.0	0.2R	5.0	30	60	6	○
HEX50R03166006	5.0	0.3R	5.0	16	60	6	○
HEX50R03306006	5.0	0.3R	5.0	30	60	6	○
HEX50R05166006	5.0	0.5R	5.0	16	60	6	○
HEX50R05306006	5.0	0.5R	5.0	30	60	6	○
HEX50R10166006	5.0	1.0R	5.0	16	60	6	○
HEX50R10306006	5.0	1.0R	5.0	30	60	6	○

HEX 4 flutes high strength flat end mills

四刃強力平底銼刀



UMG 0.5 μm CO10% HRC-65 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
HEX4F01001502505004	1.0	1.5	2.5	50	4	◎
HEX4F02003005005004	2.0	3.0	5.0	50	4	◎
HEX4F03004507505006	3.0	4.5	7.5	50	6	◎
HEX4F04006010005006	4.0	6.0	10.0	50	6	◎
HEX4F05007512505006	5.0	7.5	12.5	50	6	◎
HEX4F06009015005006	6.0	9.0	15.0	50	6	◎
HEX4F08012020006008	8.0	12.0	20.0	60	8	◎
HEX4F10015025075010	10.0	15.0	25.0	75	10	◎
HEX4F12018030075012	12.0	18.0	30.0	75	12	◎
HEX4F16024040100016	16.0	24.0	40.0	100	16	◎
HEX4F20030050100020	20.0	30.0	50.0	100	20	◎

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
HEX4F1/8-B	1/8	5/32	1/2	2-1/2	1/4	◎
HEX4F3/16-B	3/16	7/32	3/4	2-1/2	1/4	◎
HEX4F1/4-B	1/4	9/32	3/4	2-1/2	1/4	◎
HEX4F5/16-B	5/16	13/32	1	2-1/2	5/16	◎
HEX4F3/8-B	3/8	15/32	1	2-1/2	3/8	◎
HEX4F1/2-B	1/2	5/8	1-1/4	3	1/2	◎
HEX4F5/8-B	5/8	3/4	1-1/2	3-1/2	5/8	◎
HEX4F3/4-B	3/4	15/16	1-3/4	4	3/4	◎

★ WORK MATERIAL 被削材質

HEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

Working material 被切材質	Hardened steel 淬火鋼	Hardened steel 淬火鋼	Hardened steel 淬火鋼
Material code 材質編碼	SKT,SKD	SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC 55	HRC 60	HRC 65
Vc	160M/min	150M/min	99M/min

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
Φ ≤ 12.0	0~-0.02
Φ > 12.0	0~-0.03

Diameter 直徑	R.P.M		Feed (mm/mm)		R.P.M		Feed (mm/mm)	
	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)
6MM	8,500	2,450	7,950	2,000	5,300	1,210		
8MM	6,350	2,440	5,950	1,995	4,000	1,215		
10MM	5,100	2,450	4,700	1,970	3,200	1,215		
12MM	4,250	2,450	3,950	1,985	2,650	1,210		
14MM	3,600	2,420	3,400	1,995	2,250	1,200		
16MM	3,150	2,420	3,000	2,000	1,950	1,285		
18MM	2,800	2,420	2,650	2,000	1,750	1,200		
20MM	2,500	2,400	2,350	1,970	1,550	1,180		
25MM	2,000	2,400	1,900	1,990	1,250	1,190		



Milling amount
(mm)

ap	ae
1.0D	0.02D
aeMax=0.2mm以下	

ap	ae
1.0D	0.01D
aeMax=0.2mm以下	

ap	ae
1.0D	0.01D
aeMax=0.2mm以下	

The feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.

HEX 4 flutes high strength ball nose end mills

二刃強力球頭銼刀



UMG 0.5 μm CO10% HRC-65 AITINS

Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
HEX2FR0050100100205004	0.50R	1.0	1.0	2	50	4	◎
HEX2FR0075150150305004	0.75R	1.5	1.5	3	50	4	◎
HEX2FR0100200200405006	1.00R	2.0	2.0	4	50	6	◎
HEX2FR0150300300605006	1.50R	3.0	3.0	6	50	6	◎
HEX2FR0200400400805006	2.00R	4.0	4.0	8	50	6	◎
HEX2FR0250500501005006	2.50R	5.0	5.0	10	50	6	◎
HEX2FR0300600601205006	3.00R	6.0	6.0	12	50	6	◎
HEX2FR0400800801606008	4.00R	8.0	8.0	16	60	8	◎
HEX2FR0501001002007510	5.00R	10.0	10.0	20	75	10	◎
HEX2FR0601201202407512	6.00R	12.0	12.0	24	75	12	◎
HEX2FR0801601603210016	8.00R	16.0	16.0	32	100	16	◎

★ WORK MATERAIL 被削材質

HEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

Working material 被切材質	Hardened steel 淬火鋼	Hardened steel 淬火鋼	Hardened steel 淬火鋼
Material code 材質編碼	SKT,SKD	SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC 55	HRC 60	HRC 65
Vc	190M/min	175M/min	95M/min

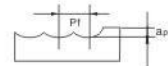
★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
$\Phi \leq 12.0$	$R \pm 0.01$
$\Phi > 12.0$	$R \pm 0.015$

Diameter 直徑	R.P.M		Feed (mm/mm)		R.P.M		Feed (mm/mm)	
	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)
0.5R	32,000	960	30,000	850	25,500	500		
1.0R	31,500	1,900	28,500	1,880	15,500	600		
1.5R	21,000	2,080	19,000	1,880	10,500	625		
2.0R	15,500	2,050	14,000	1,850	7,950	630		
2.5R	12,500	2,060	11,000	1,815	6,350	630		
3.0R	10,500	2,080	9,500	1,880	5,300	630		
4.0R	7,950	1,550	7,150	1,400	3,950	470		
5.0R	6,350	1,250	5,700	1,100	3,150	375		
6.0R	5,300	1,050	4,750	950	2,650	315		
8.0R	3,950	790	3,550	710	1,950	230		

Milling amount
(mm)

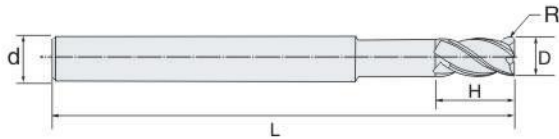
	a_p	P_t
$R \leq 8$	0.02D	0.1D
$R > 8$	0.32mm	0.1D



The feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.

HEX 4 flutes high strength corner radius end mills

四刃強力圓鼻銼刀



UMG 0.5 μm CO10% HRC-65 AITINS



Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
HEX4F030R01003005006	0.1R	3	3	7.5	50	6	◎
HEX4F030R05003005006	0.5R	3	3	7.5	50	6	◎
HEX4F040R02004005006	0.2R	4	4	10.0	50	6	◎
HEX4F040R05004005006	0.5R	4	4	10.0	50	6	◎
HEX4F050R02005005006	0.2R	5	5	12.5	50	6	◎
HEX4F050R05005005006	0.5R	5	5	12.5	50	6	◎
HEX4F060R02006005006	0.2R	6	6	15.0	50	6	◎
HEX4F060R05006005006	0.5R	6	6	15.0	50	6	◎
HEX4F060R10006005006	1.0R	6	6	15.0	50	6	◎
HEX4F080R03008006008	0.3R	8	8	20.0	60	8	◎
HEX4F080R05008006008	0.5R	8	8	20.0	60	8	◎
HEX4F080R10008006008	1.0R	8	8	20.0	60	8	◎
HEX4F080R15008006008	1.5R	8	8	20.0	60	8	◎
HEX4F100R03010007510	0.3R	10	10	25.0	75	10	◎
HEX4F100R05010007510	0.5R	10	10	25.0	75	10	◎
HEX4F100R10010007510	1.0R	10	10	25.0	75	10	◎
HEX4F100R15010007510	1.5R	10	10	25.0	75	10	◎
HEX4F100R20010007510	2.0R	10	10	25.0	75	10	◎
HEX4F120R03012007512	0.3R	12	12	30.0	75	12	◎
HEX4F120R05012007512	0.5R	12	12	30.0	75	12	◎
HEX4F120R10012007512	1.0R	12	12	30.0	75	12	◎
HEX4F120R15012007512	1.5R	12	12	30.0	75	12	◎
HEX4F120R20012007512	2.0R	12	12	30.0	75	12	◎

★ WORK MATERIAL 被削材質

HEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

Working material 被切材質	Hardened steel 淬火鋼	Hardened steel 淬火鋼	Hardened steel 淬火鋼
Material code 材質編碼	SKT,SKD	SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC 35-45	HRC 45-55	HRC 55-60
Vc	110M/min	95M/min	79M/min

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
$\Phi \leq 12.0$	0~-0.02
$\Phi > 12.0$	0~-0.03

R	R diameter tolerance
R	$R \pm 0.015$

Diameter 直徑	R.P.M		Feed (mm/mm)		R.P.M		Feed (mm/mm)	
3MM	1,180	1,150	10,000	830	8,400	500		
4MM	8,800	1,070	7,600	780	6,300	460		
5MM	7,000	990	6,000	730	5,000	420		
6MM	5,900	910	5,000	660	4,200	400		
8MM	4,400	830	3,800	610	3,200	400		
10MM	3,500	830	3,000	610	2,550	400		
12MM	2,900	830	2,500	610	2,100	400		

Milling amount
(mm)

	a_a	a_r
$D < \Phi 6$	0.9D	0.01D
$\Phi 6 \leq D$	0.9D	0.02D



The feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.

CEX

FOR HARDEND
CUTTING

AS Super High Speed High Polished Hardened
End Mill (Bronze) HRC70

AS超高速高光加硬銑刀（古銅色）HRC70度

Micro Diameter End Mill (Minimum Diameter:0.09mm)



TUNGSTEN CARBIDE

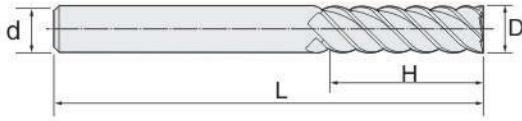
www.dohrecnc.com

CEX 6 flutes square end mills

6刃立铣刀



NMG 0.4 μm CO10% HRC70 AITINS



Product Code 產品編號	Blade diameter 刃徑	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
CEX6F04001105006	4.0	11	50	6	◎
CEX6F05001305006	5.0	13	50	6	◎
CEX6F06001505006	6.0	15	50	6	◎
CEX6F08002006008	8.0	20	60	8	◎
CEX6F10002507510	10.0	25	75	10	◎
CEX6F12003007512	12.0	30	75	12	◎
CEX6F16004010016	16.0	40	100	16	◎
CEX6F20004010020	20.0	40	100	20	◎
CEX6F25004510025	25.0	45	100	25	◎

★ WORK MATERIAL 被削材質

CEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

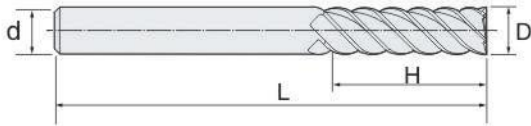
★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ4.0~Φ6.4	-0.01~-0.03	H6
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

Order code: CEX 6F 040 011 050 06 AS
訂貨編號: D H L d HRC70

CEX Long flute 6 flutes square end mills

長刃型 6刃立銼刀



NMG 0.4 μm CO10% HRC-70 AITINS

Product Code 產品編號	Blade diameter 刃徑	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
CEX6F04001607506	4.0	16	75	6	◎
CEX6F05002007506	5.0	20	75	6	◎
CEX6F06002507506	6.0	25	75	6	◎
CEX6F08003007508	8.0	30	75	8	◎
CEX6F04002010006	4.0	20	100	6	◎
CEX6F05002510006	5.0	25	100	6	◎
CEX6F06003010006	6.0	30	100	6	◎
CEX6F08003510008	8.0	35	100	8	◎
CEX6F10004010010	10.0	40	100	10	◎
CEX6F12004510012	12.0	45	100	12	◎
CEX6F08005015008	8.0	50	150	8	◎
CEX6F10005015010	10.0	50	150	10	◎
CEX6F12005015012	12.0	50	150	12	◎
CEX6F16007015016	16.0	70	150	16	◎
CEX6F20007015020	20.0	70	150	20	◎
CEX6F25008015025	25.0	80	150	25	◎

★ WORK MATERIAL 被削材質

CEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ4.0~Φ6.4	-0.01~-0.03	H6
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

CEX 2 flutes square end mills

2刃立铣刀



NMG 0.4 μm CO10% HRC-70 AITINS



Product Code 产品编号	Blade diameter 刃径	Blade length 刃长	Full 全长	Shank 柄径	Inventory 库存
CEX2F01003005004	1.0	3	50	4	○
CEX2F01504005004	1.5	4	50	4	○
CEX2F02006005004	2.0	6	50	4	○
CEX2F02507005004	2.5	7	50	4	○
CEX2F03008005004	3.0	8	50	4	○
CEX2F03510005004	3.5	10	50	4	○
CEX2F04011005004	4.0	11	50	4	○
CEX2F01003005006	1.0	3	50	6	○
CEX2F01504005006	1.5	4	50	6	○
CEX2F02006005006	2.0	6	50	6	○
CEX2F02507005006	2.5	7	50	6	○
CEX2F03008005006	3.0	8	50	6	○
CEX2F03510005006	3.5	10	50	6	○
CEX2F04011005006	4.0	11	50	6	○
CEX2F04513005006	4.5	13	50	6	○
CEX2F05013005006	5.0	13	50	6	○
CEX2F05513005006	5.5	13	50	6	○
CEX2F06015005006	6.0	15	50	6	○
CEX2F06517006008	6.5	17	60	8	○
CEX2F07017006008	7.0	17	60	8	○
CEX2F07517006008	7.5	17	60	8	○
CEX2F08020006008	8.0	20	60	8	○
CEX2F08523007510	8.5	23	75	10	○
CEX2F09023007510	9.0	23	75	10	○
CEX2F09525007510	9.5	25	75	10	○
CEX2F10025007510	10.0	25	75	10	○
CEX2F10525007512	10.5	25	75	12	○
CEX2F11028007512	11.0	28	75	12	○
CEX2F11528007512	11.5	28	75	12	○
CEX2F12030007512	12.0	30	75	12	○
CEX2F13040010014	13.0	40	100	14	○
CEX2F14040010014	14.0	40	100	14	○
CEX2F15040010016	15.0	40	100	16	○
CEX2F16040010016	16.0	40	100	16	○
CEX2F17040010018	17.0	40	100	18	○
CEX2F18040010018	18.0	40	100	18	○
CEX2F19040010020	19.0	40	100	20	○
CEX2F20040010020	20.0	40	100	20	○
CEX2F22040010025	22.0	40	100	25	○
CEX2F25040010025	25.0	40	100	25	○

★ WORK MATERIAL 被削材质

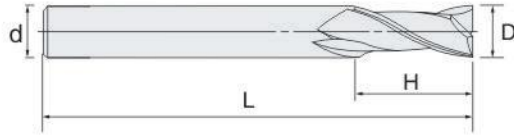
CEX			
P20 S45C 碳素钢	SCM SK 合金钢	SKT SKD 加硬模具钢	S316 加硬不锈钢
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直径	Blade diameter tolerance 刃部直径公差	Shank diameter tolerance 柄部直径公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

CEX Long shank 2 flutes square end mills

長柄標準刃 2刃立銑刀



NMG 0.4 μm CO10% HRC-70 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
CEX2F01003007504	1.0	3	75	4	◎
CEX2F01504507504	1.5	4.5	75	4	◎
CEX2F02006007504	2.0	6	75	4	◎
CEX2F02507007504	2.5	7	75	4	◎
CEX2F03008007504	3.0	8	75	4	◎
CEX2F03510007504	3.5	10	75	4	◎
CEX2F04011007504	4.0	11	75	4	◎
CEX2F04513007506	4.5	13	75	6	◎
CEX2F05013007506	5.0	13	75	6	◎
CEX2F05513007506	5.5	13	75	6	◎
CEX2F06015007506	6.0	15	75	6	◎
CEX2F06517007508	6.5	17	75	8	◎
CEX2F07017007508	7.0	17	75	8	◎
CEX2F07517007508	7.5	17	75	8	◎
CEX2F08020007508	8.0	20	75	8	◎
CEX2F03008010006	3.0	8	100	6	◎
CEX2F04011010006	4.0	11	100	6	◎
CEX2F05013010006	5.0	13	100	6	◎
CEX2F06015010006	6.0	15	100	6	◎
CEX2F07017010008	7.0	17	100	8	◎
CEX2F08020010008	8.0	20	100	8	◎
CEX2F09023010010	9.0	23	100	10	◎
CEX2F10025010010	10.0	25	100	10	◎
CEX2F11028010012	11.0	28	100	12	◎
CEX2F12030010012	12.0	30	100	12	◎
CEX2F08020015008	8.0	20	150	8	◎
CEX2F10025015010	10.0	25	150	10	◎
CEX2F12030015012	12.0	30	150	12	◎
CEX2F16030015016	16.0	30	150	16	◎
CEX2F18040015018	18.0	40	150	18	◎
CEX2F20040015020	20.0	40	150	20	◎
CEX2F16040020016	16.0	40	200	16	◎
CEX2F20040020020	20.0	40	200	20	◎

★ WORK MATERIAL 被削材質

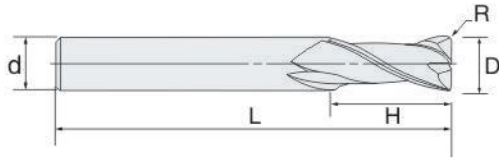
CEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

CEX 2 flutes corner radius end mills

圓鼻 2刃立銼刀



NMG 0.4 μm CO10% HRC-70 AITINS



Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
CEX2F010R0203005004	1.0	0.2	3	50	4	◎
CEX2F015R0204005004	1.5	0.2	4	50	4	◎
CEX2F015R0504005004	1.5	0.5	4	50	4	◎
CEX2F020R0206005004	2.0	0.2	6	50	4	◎
CEX2F020R0506005004	2.0	0.5	6	50	4	◎
CEX2F025R0208005004	2.5	0.2	8	50	4	◎
CEX2F025R0508005004	2.5	0.5	8	50	4	◎
CEX2F030R0208005004	3.0	0.2	8	50	4	◎
CEX2F030R0508005004	3.0	0.5	8	50	4	◎
CEX2F030R1008005004	3.0	1.0	8	50	4	◎
CEX2F040R0211005004	4.0	0.2	11	50	4	◎
CEX2F040R0511005004	4.0	0.5	11	50	4	◎
CEX2F040R1011005004	4.0	1.0	11	50	4	◎
CEX2F050R0513005006	5.0	0.5	13	50	6	◎
CEX2F050R1013005006	5.0	1.0	13	50	6	◎
CEX2F060R0215005006	6.0	0.2	15	50	6	◎
CEX2F060R0515005006	6.0	0.5	15	50	6	◎
CEX2F060R1015005006	6.0	1.0	15	50	6	◎
CEX2F060R1515005006	6.0	1.5	15	50	6	◎
CEX2F060R2015005006	6.0	2.0	15	50	6	◎
CEX2F080R0520006008	8.0	0.5	20	60	8	◎
CEX2F080R1020006008	8.0	1.0	20	60	8	◎
CEX2F080R1520006008	8.0	1.5	20	60	8	◎
CEX2F080R2020006008	8.0	2.0	20	60	8	◎
CEX2F100R0525007510	10.0	0.5	25	75	10	◎
CEX2F100R1025007510	10.0	1.0	25	75	10	◎
CEX2F100R1525007510	10.0	1.5	25	75	10	◎
CEX2F100R2025007510	10.0	2.0	25	75	10	◎
CEX2F100R2525007510	10.0	2.5	25	75	10	◎
CEX2F100R3025007510	10.0	3.0	25	75	10	◎
CEX2F120R0530007512	12.0	0.5	30	75	12	◎
CEX2F120R1030007512	12.0	1.0	30	75	12	◎
CEX2F120R1530007512	12.0	1.5	30	75	12	◎
CEX2F120R2030007512	12.0	2.0	30	75	12	◎
CEX2F120R2530007512	12.0	2.5	30	75	12	◎
CEX2F120R3030007512	12.0	3.0	30	75	12	◎

★ WORK MATERIAL 被削材質

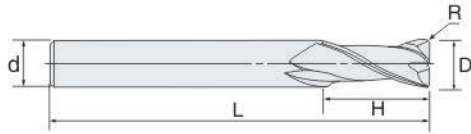
CEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ12.0	-0.01~-0.04	

CEX Long shank 2 flutes corner radius end mills

長柄圓鼻 2 刃立銑刀



NMG 0.4 μm CO10% HRC-70 AITINS

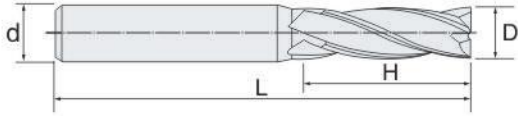
Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
CEX2F010R0203007504	1.0	0.2	3	75	4	◎
CEX2F015R0204007504	1.5	0.2	4	75	4	◎
CEX2F015R0504007504	1.5	0.5	4	75	4	◎
CEX2F020R0206007504	2.0	0.2	6	75	4	◎
CEX2F020R0506007504	2.0	0.5	6	75	4	◎
CEX2F025R0208007504	2.5	0.2	8	75	4	◎
CEX2F025R0508007504	2.5	0.5	8	75	4	◎
CEX2F030R0208007504	3.0	0.2	8	75	4	◎
CEX2F030R0508007504	3.0	0.5	8	75	4	◎
CEX2F030R1008007504	3.0	1.0	8	75	4	◎
CEX2F040R0211007504	4.0	0.2	11	75	4	◎
CEX2F040R0511007504	4.0	0.5	11	75	4	◎
CEX2F040R1011007504	4.0	1.0	11	75	4	◎
CEX2F050R0513007506	5.0	0.5	13	75	6	◎
CEX2F050R1013007506	5.0	1.0	13	75	6	◎
CEX2F060R0215007506	6.0	0.2	15	75	6	◎
CEX2F060R0515007506	6.0	0.5	15	75	6	◎
CEX2F060R1015007506	6.0	1.0	15	75	6	◎
CEX2F060R1515007506	6.0	1.5	15	75	6	◎
CEX2F060R2015007506	6.0	2.0	15	75	6	◎
CEX2F080R0520007508	8.0	0.5	20	75	8	◎
CEX2F080R1020007508	8.0	1.0	20	75	8	◎
CEX2F080R1520007508	8.0	1.5	20	75	8	◎
CEX2F080R2020007508	8.0	2.0	20	75	8	◎
CEX2F040R0211010006	4.0	0.2	11	100	6	◎
CEX2F040R0511010006	4.0	0.5	11	100	6	◎
CEX2F040R1011010006	4.0	1.0	11	100	6	◎
CEX2F050R0513010006	5.0	0.5	13	100	6	◎
CEX2F050R1013010006	5.0	1.0	13	100	6	◎
CEX2F060R0215010006	6.0	0.2	15	100	6	◎
CEX2F060R0515010006	6.0	0.5	15	100	6	◎
CEX2F060R1015010006	6.0	1.0	15	100	6	◎
CEX2F060R1515010006	6.0	1.5	15	100	6	◎
CEX2F060R2015010006	6.0	2.0	15	100	6	◎
CEX2F080R0520010008	8.0	0.5	20	100	8	◎
CEX2F080R1020010008	8.0	1.0	20	100	8	◎
CEX2F080R1520010008	8.0	1.5	20	100	8	◎
CEX2F080R2020010008	8.0	2.0	20	100	8	◎
CEX2F100R0525010010	10.0	0.5	25	100	10	◎
CEX2F100R1025010010	10.0	1.0	25	100	10	◎
CEX2F100R1525010010	10.0	1.5	25	100	10	◎
CEX2F100R2025010010	10.0	2.0	25	100	10	◎
CEX2F100R2525010010	10.0	2.5	25	100	10	◎
CEX2F100R3025010010	10.0	3.0	25	100	10	◎
CEX2F120R0530010012	12.0	0.5	30	100	12	◎
CEX2F120R1030010012	12.0	1.0	30	100	12	◎
CEX2F120R1530010012	12.0	1.5	30	100	12	◎
CEX2F120R2030010012	12.0	2.0	30	100	12	◎
CEX2F120R2530010012	12.0	2.5	30	100	12	◎
CEX2F120R3030010012	12.0	3.0	30	100	12	◎

Special specifications can be customized. 特殊規格可訂制。



CEX 4 flutes square end mills

4刃立铣刀



NMG 0.4 μm CO10% HRC-70 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
CEX4F01003005004	1.0	3	50	4	○
CEX4F01504505004	1.5	4.5	50	4	○
CEX4F02006005004	2.0	6	50	4	○
CEX4F02507005004	2.5	7	50	4	○
CEX4F03008005004	3.0	8	50	4	○
CEX4F03510005004	3.5	10	50	4	○
CEX4F04011005004	4.0	11	50	4	○
CEX4F04513005006	4.5	13	50	6	○
CEX4F05013005006	5.0	13	50	6	○
CEX4F05513005006	5.5	13	50	6	○
CEX4F06015005006	6.0	15	50	6	○
CEX4F06517006008	6.5	17	60	8	○
CEX4F07017006008	7.0	17	60	8	○
CEX4F07517006008	7.5	17	60	8	○
CEX4F08020006008	8.0	20	60	8	○
CEX4F08523007510	8.5	23	75	10	○
CEX4F09023007510	9.0	23	75	10	○
CEX4F09525007510	9.5	25	75	10	○
CEX4F10025007510	10.0	25	75	10	○
CEX4F10525007512	10.5	25	75	12	○
CEX4F11028007512	11.0	28	75	12	○
CEX4F11528007512	11.5	28	75	13	○
CEX4F12030007512	12.0	30	75	13	○
CEX4F13033010014	13.0	33	100	16	○
CEX4F14035010014	14.0	35	100	16	○
CEX4F15038010016	15.0	38	100	16	○
CEX4F16040010016	16.0	40	100	16	○
CEX4F17040010018	17.0	40	100	20	○
CEX4F18040010018	18.0	40	100	20	○
CEX4F19040010020	19.0	40	100	20	○
CEX4F20040010020	20.0	40	100	20	○
CEX4F22040010025	22.0	40	100	25	○
CEX4F25040010025	25.0	40	100	25	○

★ WORK MATERAIL 被削材質

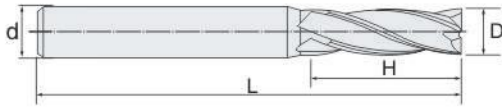
CEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

CEX Long shank 4 flutes square end mills

長柄標準刃 4刃立銑刀



NMG 0.4 μm CO10% HRC70 AITINS

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
CEX4F01003007504	1.0	3	75	4	◎
CEX4F01504507504	1.5	4.5	75	4	◎
CEX4F02006007504	2.0	6	75	4	◎
CEX4F02507007504	2.5	7	75	4	◎
CEX4F03008007504	3.0	8	75	4	◎
CEX4F03510007504	3.5	10	75	4	◎
CEX4F04011007504	4.0	11	75	4	◎
CEX4F04513007506	4.5	13	75	6	◎
CEX4F05013007506	5.0	13	75	6	◎
CEX4F05513007506	5.5	13	75	6	◎
CEX4F06015007506	6.0	15	75	6	◎
CEX4F06517007508	6.5	17	75	8	◎
CEX4F07017007508	7.0	17	75	8	◎
CEX4F07517007508	7.5	17	75	8	◎
CEX4F08020007508	8.0	20	75	8	◎
CEX4F03008010006	3.0	8	100	6	◎
CEX4F04011010006	4.0	11	100	6	◎
CEX4F05013010006	5.0	13	100	6	◎
CEX4F06015010006	6.0	15	100	6	◎
CEX4F07017010008	7.0	17	100	8	◎
CEX4F08020010008	8.0	20	100	8	◎
CEX4F09023010010	9.0	23	100	10	◎
CEX4F10025010010	10.0	25	100	10	◎
CEX4F11028010012	11.0	28	100	12	◎
CEX4F12030010012	12.0	30	100	12	◎
CEX4F08020015008	8.0	20	150	8	◎
CEX4F10025015010	10.0	25	150	10	◎
CEX4F12030015012	12.0	30	150	12	◎
CEX4F16040015016	16.0	40	150	16	◎
CEX4F18040015018	18.0	40	150	18	◎
CEX4F20040015020	20.0	40	150	20	◎
CEX4F16040020016	16.0	40	200	16	◎
CEX4F20040020020	20.0	40	200	20	◎

★ WORK MATERAIL 被削材質

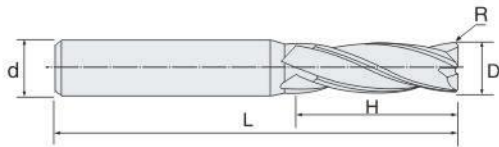
CEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

CEX 4 flutes corner radius end mills

圓鼻 4刃立銼刀



NMG 0.4 μm CO10% HRC-70 AITINS



Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
CEX4F010R0203005004	1.0	0.2	3	50	4	◎
CEX4F015R0204005004	1.5	0.2	4	50	4	◎
CEX4F015R0504005004	1.5	0.5	4	50	4	◎
CEX4F020R0206005004	2.0	0.2	6	50	4	◎
CEX4F020R0506005004	2.0	0.5	6	50	4	◎
CEX4F025R0208005004	2.5	0.2	8	50	4	◎
CEX4F025R0508005004	2.5	0.5	8	50	4	◎
CEX4F030R0208005004	3.0	0.2	8	50	4	◎
CEX4F030R0508005004	3.0	0.5	8	50	4	◎
CEX4F030R1008005004	3.0	1.0	8	50	4	◎
CEX4F040R0211005004	4.0	0.2	11	50	4	◎
CEX4F040R0511005004	4.0	0.5	11	50	4	◎
CEX4F040R1011005004	4.0	1.0	11	50	4	◎
CEX4F050R0513005006	5.0	0.5	13	50	6	◎
CEX4F050R1013005006	5.0	1.0	13	50	6	◎
CEX4F060R0215005006	6.0	0.2	15	50	6	◎
CEX4F060R0515005006	6.0	0.5	15	50	6	◎
CEX4F060R1015005006	6.0	1.0	15	50	6	◎
CEX4F060R1515005006	6.0	1.5	15	50	6	◎
CEX4F060R2015005006	6.0	2.0	15	50	6	◎
CEX4F080R0520006008	8.0	0.5	20	60	8	◎
CEX4F080R1020006008	8.0	1.0	20	60	8	◎
CEX4F080R1520006008	8.0	1.5	20	60	8	◎
CEX4F080R2020006008	8.0	2.0	20	60	8	◎
CEX4F100R0525007510	10.0	0.5	25	75	10	◎
CEX4F100R1025007510	10.0	1.0	25	75	10	◎
CEX4F100R1525007510	10.0	1.5	25	75	10	◎
CEX4F100R2025007510	10.0	2.0	25	75	10	◎
CEX4F100R2525007510	10.0	2.5	25	75	10	◎
CEX4F100R3025007510	10.0	3.0	25	75	10	◎
CEX4F120R0530007512	12.0	0.5	30	75	12	◎
CEX4F120R1030007512	12.0	1.0	30	75	12	◎
CEX4F120R1530007512	12.0	1.5	30	75	12	◎
CEX4F120R2030007512	12.0	2.0	30	75	12	◎
CEX4F120R2530007512	12.0	2.5	30	75	12	◎
CEX4F120R3030007512	12.0	3.0	30	75	12	◎

★ WORK MATERIAL 被削材質

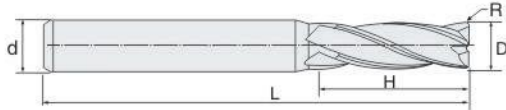
CEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ12.0	-0.01~-0.04	

CEX Long shank 4 flutes corner radius end mills

長柄圓鼻 4 刃立銼刀



NMG 0.4 μm CO10% HRC-70 AITINS

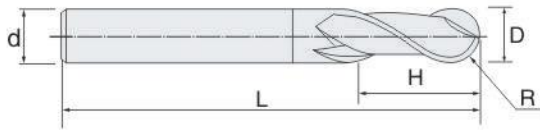
Product Code 產品編號	Blade diameter 刃徑	R	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
CEX4F010R0203007504	1.0	0.2	3	75	4	◎
CEX4F015R0204007504	1.5	0.2	4	75	4	◎
CEX4F015R0504007504	1.5	0.5	4	75	4	◎
CEX4F020R0206007504	2.0	0.2	6	75	4	◎
CEX4F020R0506007504	2.0	0.5	6	75	4	◎
CEX4F025R0208007504	2.5	0.2	8	75	4	◎
CEX4F025R0508007504	2.5	0.5	8	75	4	◎
CEX4F030R0208007504	3.0	0.2	8	75	4	◎
CEX4F030R0508007504	3.0	0.5	8	75	4	◎
CEX4F030R1008007504	3.0	1.0	8	75	4	◎
CEX4F040R0211007504	4.0	0.2	11	75	4	◎
CEX4F040R0511007504	4.0	0.5	11	75	4	◎
CEX4F040R1011007504	4.0	1.0	11	75	4	◎
CEX4F050R0513007506	5.0	0.5	13	75	6	◎
CEX4F050R1013007506	5.0	1.0	13	75	6	◎
CEX4F060R0215007506	6.0	0.2	15	75	6	◎
CEX4F060R0515007506	6.0	0.5	15	75	6	◎
CEX4F060R1015007506	6.0	1.0	15	75	6	◎
CEX4F060R1515007506	6.0	1.5	15	75	6	◎
CEX4F060R2015007506	6.0	2.0	15	75	6	◎
CEX4F080R0520007508	8.0	0.5	20	75	8	◎
CEX4F080R1020007508	8.0	1.0	20	75	8	◎
CEX4F080R1520007508	8.0	1.5	20	75	8	◎
CEX4F080R2020007508	8.0	2.0	20	75	8	◎
CEX4F040R0211010006	4.0	0.2	11	100	6	◎
CEX4F040R0511010006	4.0	0.5	11	100	6	◎
CEX4F040R1011010006	4.0	1.0	11	100	6	◎
CEX4F050R0513010006	5.0	0.5	13	100	6	◎
CEX4F050R1013010006	5.0	1.0	13	100	6	◎
CEX4F060R0215010006	6.0	0.2	15	100	6	◎
CEX4F060R0515010006	6.0	0.5	15	100	6	◎
CEX4F060R1015010006	6.0	1.0	15	100	6	◎
CEX4F060R1515010006	6.0	1.5	15	100	6	◎
CEX4F060R2015010006	6.0	2.0	15	100	6	◎
CEX4F080R0520010008	8.0	0.5	20	100	8	◎
CEX4F080R1020010008	8.0	1.0	20	100	8	◎
CEX4F080R1520010008	8.0	1.5	20	100	8	◎
CEX4F080R2020010008	8.0	2.0	20	100	8	◎
CEX4F100R0525010010	10.0	0.5	25	100	10	◎
CEX4F100R1025010010	10.0	1.0	25	100	10	◎
CEX4F100R1525010010	10.0	1.5	25	100	10	◎
CEX4F100R2025010010	10.0	2.0	25	100	10	◎
CEX4F100R2525010010	10.0	2.5	25	100	10	◎
CEX4F100R3025010010	10.0	3.0	25	100	10	◎
CEX4F120R0530010012	12.0	0.5	30	100	12	◎
CEX4F120R1030010012	12.0	1.0	30	100	12	◎
CEX4F120R1530010012	12.0	1.5	30	100	12	◎
CEX4F120R2030010012	12.0	2.0	30	100	12	◎
CEX4F120R2530010012	12.0	2.5	30	100	12	◎
CEX4F120R3030010012	12.0	3.0	30	100	12	◎

Special specifications can be customized. 特殊規格可訂制。



CEX 2 flutes ball nose end mills

2刃球型立铣刀



NMG 0.4 μm CO10% HRC-70 AITINS



Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
CEX2FR005002005004	R0.50	2.0	50	4	◎
CEX2FR007503005004	R0.75	3.0	50	4	◎
CEX2FR010004005004	R1.00	4.0	50	4	◎
CEX2FR012505005004	R1.25	5.0	50	4	◎
CEX2FR015006005004	R1.50	6.0	50	4	◎
CEX2FR017507005004	R1.75	7.0	50	4	◎
CEX2FR020008005004	R2.00	8.0	50	4	◎
CEX2FR005002006006	R0.50	2.0	60	6	◎
CEX2FR007503006006	R0.75	3.0	60	6	◎
CEX2FR010004006006	R1.00	4.0	60	6	◎
CEX2FR012505006006	R1.25	5.0	60	6	◎
CEX2FR015006006006	R1.50	6.0	60	6	◎
CEX2FR017507006006	R1.75	7.0	60	6	◎
CEX2FR020008006006	R2.00	8.0	60	6	◎
CEX2FR022509006006	R2.25	9.0	60	6	◎
CEX2FR025010006006	R2.50	10.0	60	6	◎
CEX2FR027511006006	R2.75	11.0	60	6	◎
CEX2FR030012006006	R3.00	12.0	60	6	◎
CEX2FR032513006008	R3.25	13.0	60	8	◎
CEX2FR035014006008	R3.50	14.0	60	8	◎
CEX2FR037515006008	R3.75	15.0	60	8	◎
CEX2FR040016006008	R4.00	16.0	60	8	◎
CEX2FR045018007510	R4.50	18.0	75	10	◎
CEX2FR050020007510	R5.00	20.0	75	10	◎
CEX2FR060024007512	R6.00	24.0	75	12	◎
CEX2FR070030010014	R7.00	30.0	100	14	◎
CEX2FR080030010016	R8.00	30.0	100	16	◎
CEX2FR090030010018	R9.00	30.0	100	18	◎
CEX2FR100030010020	R10.0	30.0	100	20	◎
CEX2FR125030010025	R12.5	30.0	100	25	◎

★ WORK MATERAIL 被削材質

CEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●
R	R diameter tolerance		
R	R ± 0.015		

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	



CEX Long shank 2 flutes ball nose end mills

長柄 2刃球型立銼刀



NMG 0.4 μm CO10% HRC-70 AITINS

Product Code 產品編號	R Blade R 徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存
CEX2FR005002007504	R0.50	2	75	4	◎
CEX2FR007503007504	R0.75	3	75	4	◎
CEX2FR010004007504	R1.00	4	75	4	◎
CEX2FR012505007504	R1.25	5	75	4	◎
CEX2FR015006007504	R1.50	6	75	4	◎
CEX2FR017507007504	R1.75	7	75	4	◎
CEX2FR020008007504	R2.00	8	75	4	◎
CEX2FR022509007506	R2.25	9	75	6	◎
CEX2FR025010007506	R2.50	10	75	6	◎
CEX2FR027511007506	R2.75	11	75	6	◎
CEX2FR030012007506	R3.00	12	75	6	◎
CEX2FR040016007508	R4.00	16	75	8	◎
CEX2FR005002010006	R0.50	2	100	6	◎
CEX2FR007503010006	R0.75	3	100	6	◎
CEX2FR010004010006	R1.00	4	100	6	◎
CEX2FR012505010006	R1.25	5	100	6	◎
CEX2FR015006010006	R1.50	6	100	6	◎
CEX2FR017507010006	R1.75	7	100	6	◎
CEX2FR020008010006	R2.00	8	100	6	◎
CEX2FR022509010006	R2.25	9	100	6	◎
CEX2FR025010010006	R2.50	10	100	6	◎
CEX2FR027511010006	R2.75	11	100	6	◎
CEX2FR030012010006	R3.00	12	100	6	◎
CEX2FR040016010008	R4.00	16	100	8	◎
CEX2FR050020010010	R5.00	20	100	10	◎
CEX2FR060024010012	R6.00	24	100	12	◎
CEX2FR030012015006	R3.00	12	150	6	◎
CEX2FR040016015008	R4.00	16	150	8	◎
CEX2FR050020015010	R5.00	20	150	10	◎
CEX2FR060024015012	R6.00	24	150	12	◎
CEX2FR070030015014	R7.00	30	150	14	◎
CEX2FR080030015016	R8.00	30	150	16	◎
CEX2FR100030015020	R10.00	30	150	20	◎
CEX2FR040016020008	R4.00	16	200	8	◎
CEX2FR050020020010	R5.00	20	200	10	◎
CEX2FR060024020012	R6.00	24	200	12	◎
CEX2FR070030020014	R7.00	30	200	14	◎
CEX2FR080030020016	R8.00	30	200	16	◎
CEX2FR100030020020	R10.00	30	200	20	◎

★ WORK MATERAIL 被削材質

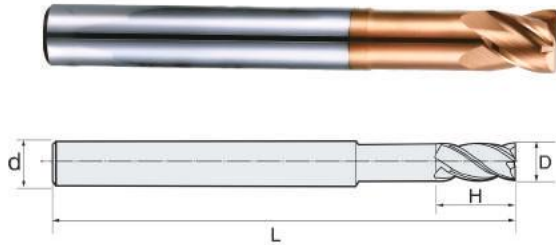
CEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●
R	R diameter tolerance		
R	R ± 0.015		

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

CEX 4 flutes high strength flat end mills

四刃強力平底銼刀



NMG 0.4 μm CO10% HRC-70 AITINS



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
CEX4F01001502505004	1.0	1.5	2.5	50	4	◎
CEX4F02003005005004	2.0	3.0	5.0	50	4	◎
CEX4F03004507505006	3.0	4.5	7.5	50	6	◎
CEX4F04006010005006	4.0	6.0	10.0	50	6	◎
CEX4F05007512505006	5.0	7.5	12.5	50	6	◎
CEX4F06009015005006	6.0	9.0	15.0	50	6	◎
CEX4F08012020006008	8.0	12.0	20.0	60	8	◎
CEX4F10015025075010	10.0	15.0	25.0	75	10	◎
CEX4F12018030075012	12.0	18.0	30.0	75	12	◎
CEX4F16024040100016	16.0	24.0	40.0	100	16	◎
CEX4F20030050100020	20.0	30.0	50.0	100	20	◎

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
CEX4F1/8-B	1/8	5/32	1/2	2-1/2	1/4	◎
CEX4F3/16-B	3/16	7/32	3/4	2-1/2	1/4	◎
CEX4F1/4-B	1/4	9/32	3/4	2-1/2	1/4	◎
CEX4F5/16-B	5/16	13/32	1	2-1/2	5/16	◎
CEX4F3/8-B	3/8	15/32	1	2-1/2	3/8	◎
CEX4F1/2-B	1/2	5/8	1-1/4	3	1/2	◎
CEX4F5/8-B	5/8	3/4	1-1/2	3-1/2	5/8	◎
CEX4F3/4-B	3/4	15/16	1-3/4	4	3/4	◎

★ WORK MATERIAL 被削材質

CEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

Working material 被切材質	Hardened steel 淬火鋼	Hardened steel 淬火鋼	Hardened steel 淬火鋼
Material code 材質編碼	SKT,SKD	SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC 45~55	HRC 55~60	HRC 60~70
Vc	160M/min	150M/min	99M/min

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
Φ ≤ 12.0	0~-0.02
Φ > 12.0	0~-0.03

Diameter 直徑	R.P.M		Feed (mm/mm)		R.P.M		Feed (mm/mm)	
	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)
6MM	8,500	2,450	7,950	2,000	5,300	1,210		
8MM	6,350	2,440	5,950	1,995	4,000	1,215		
10MM	5,100	2,450	4,700	1,970	3,200	1,215		
12MM	4,250	2,450	3,950	1,985	2,650	1,210		
14MM	3,600	2,420	3,400	1,995	2,250	1,200		
16MM	3,150	2,420	3,000	2,000	1,950	1,285		
18MM	2,800	2,420	2,650	2,000	1,750	1,200		
20MM	2,500	2,400	2,350	1,970	1,550	1,180		
25MM	2,000	2,400	1,900	1,990	1,250	1,190		



Milling amount
(mm)

ap	ae
1.0D	0.02D
aeMax=0.2mm以下	

ap	ae
1.0D	0.01D
aeMax=0.2mm以下	

ap	ae
1.0D	0.01D
aeMax=0.2mm以下	

The feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.



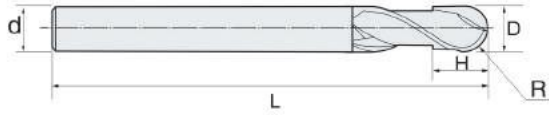
P.B157-B160

www.dohrecnc.com

B112

CEX 4 flutes high strength ball nose end mills

二刃強力球頭銼刀



NMG 0.4 μm CO10% HRC-70 AITINS

Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
CEX2FR0050100100205004	0.50R	1.0	1.0	2	50	4	◎
CEX2FR0075150150305004	0.75R	1.5	1.5	3	50	4	◎
CEX2FR0100200200405006	1.00R	2.0	2.0	4	50	6	◎
CEX2FR0150300300605006	1.50R	3.0	3.0	6	50	6	◎
CEX2FR0200400400805006	2.00R	4.0	4.0	8	50	6	◎
CEX2FR0250500501005006	2.50R	5.0	5.0	10	50	6	◎
CEX2FR0300600601205006	3.00R	6.0	6.0	12	50	6	◎
CEX2FR0400800801606008	4.00R	8.0	8.0	16	60	8	◎
CEX2FR0501001002007510	5.00R	10.0	10.0	20	75	10	◎
CEX2FR0601201202407512	6.00R	12.0	12.0	24	75	12	◎
CEX2FR0801601603210016	8.00R	16.0	16.0	32	100	16	◎

★ WORK MATERIAL 被削材質

CEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

Working material 被切材質	Hardened steel 淬火鋼	Hardened steel 淬火鋼	Hardened steel 淬火鋼
Material code 材質編碼	SKT,SKD	SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC 45~55	HRC 55~60	HRC 60~70
Vc	190M/min	175M/min	95M/min

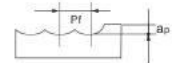
★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
$\Phi \leq 12.0$	$R \pm 0.01$
$\Phi > 12.0$	$R \pm 0.015$

Diameter 直徑	R.P.M		Feed (mm/mm)		R.P.M		Feed (mm/mm)	
	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)
0.5R	32,000	960	30,000	850	25,500	500		
1.0R	31,500	1,900	28,500	1,880	15,500	600		
1.5R	21,000	2,080	19,000	1,880	10,500	625		
2.0R	15,500	2,050	14,000	1,850	7,950	630		
2.5R	12,500	2,060	11,000	1,815	6,350	630		
3.0R	10,500	2,080	9,500	1,880	5,300	630		
4.0R	7,950	1,550	7,150	1,400	3,950	470		
5.0R	6,350	1,250	5,700	1,100	3,150	375		
6.0R	5,300	1,050	4,750	950	2,650	315		
8.0R	3,950	790	3,550	710	1,950	230		

Milling amount
(mm)

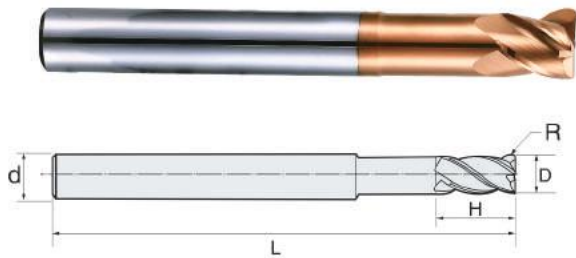
	a_p	P_t
$R \leq 8$	0.02D	0.1D
$R > 8$	0.32mm	0.1D



The feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.

CEX 4 flutes high strength corner radius end mills

四刃強力圓鼻銼刀



NMG 0.4 μm CO10% HRC-70 AITINS



Product Code 產品編號	Radius 半徑	Blade diameter 刃徑	Blade length 刃長	Effective length 有效長	Full 全長	Shank 柄徑	Inventory 庫存
CEX4F030R01003005006	0.1R	3	3	7.5	50	6	◎
CEX4F030R05003005006	0.5R	3	3	7.5	50	6	◎
CEX4F040R02004005006	0.2R	4	4	10.0	50	6	◎
CEX4F040R05004005006	0.5R	4	4	10.0	50	6	◎
CEX4F050R02005005006	0.2R	5	5	12.5	50	6	◎
CEX4F050R05005005006	0.5R	5	5	12.5	50	6	◎
CEX4F060R02006005006	0.2R	6	6	15.0	50	6	◎
CEX4F060R05006005006	0.5R	6	6	15.0	50	6	◎
CEX4F060R10006005006	1.0R	6	6	15.0	50	6	◎
CEX4F080R03008006008	0.3R	8	8	20.0	60	8	◎
CEX4F080R05008006008	0.5R	8	8	20.0	60	8	◎
CEX4F080R10008006008	1.0R	8	8	20.0	60	8	◎
CEX4F080R15008006008	1.5R	8	8	20.0	60	8	◎
CEX4F100R03010007510	0.3R	10	10	25.0	75	10	◎
CEX4F100R05010007510	0.5R	10	10	25.0	75	10	◎
CEX4F100R10010007510	1.0R	10	10	25.0	75	10	◎
CEX4F100R15010007510	1.5R	10	10	25.0	75	10	◎
CEX4F100R20010007510	2.0R	10	10	25.0	75	10	◎
CEX4F120R03012007512	0.3R	12	12	30.0	75	12	◎
CEX4F120R05012007512	0.5R	12	12	30.0	75	12	◎
CEX4F120R10012007512	1.0R	12	12	30.0	75	12	◎
CEX4F120R15012007512	1.5R	12	12	30.0	75	12	◎
CEX4F120R20012007512	2.0R	12	12	30.0	75	12	◎

★ WORK MATERIAL 被削材質

CEX			
P20 S45C 碳素鋼	SCM SK 合金鋼	SKT SKD 加硬模具鋼	S316 加硬不銹鋼
●	●	●	●

Working material 被削材質	Hardened steel 淬火鋼	Hardened steel 淬火鋼	Hardened steel 淬火鋼
Material code 材質編碼	SKT,SKD	SKT,SKD	SKT,SKD
Hardness grade 硬度等級	HRC 35~45	HRC 45~55	HRC 55~60
Vc	110M/min	95M/min	79M/min

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差
$\Phi \leq 12.0$	0~-0.02
$\Phi > 12.0$	0~-0.03

R	R diameter tolerance
R	$R \pm 0.015$

Diameter 直徑	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)	R.P.M	Feed (mm/mm)
3MM	1,180	1,150	10,000	830	8,400	500
4MM	8,800	1,070	7,600	780	6,300	460
5MM	7,000	990	6,000	730	5,000	420
6MM	5,900	910	5,000	660	4,200	400
8MM	4,400	830	3,800	610	3,200	400
10MM	3,500	830	3,000	610	2,550	400
12MM	2,900	830	2,500	610	2,100	400

Milling amount
(mm)

	aa	ar
$D < \Phi 6$	0.9D	0.01D
$\Phi 6 \leq D$	0.9D	0.02D



The feed & RPM may be changed depending on the M/C Conditions, Lubricating & Cooling systems.

**TUNGSTEN
CARBIDE**

MEX

DIA For Graphite Hardened Coated End Mill (Gray)

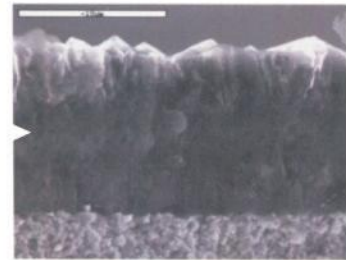
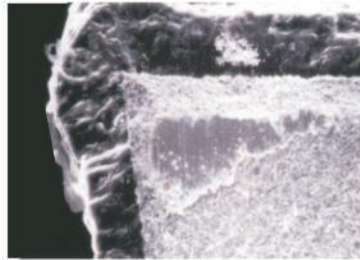
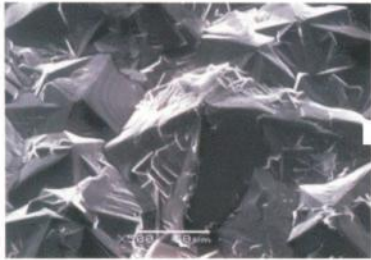
MEX DIA 石墨专用加硬涂层铣刀 (灰色)



TUNGSTEN CARBIDE

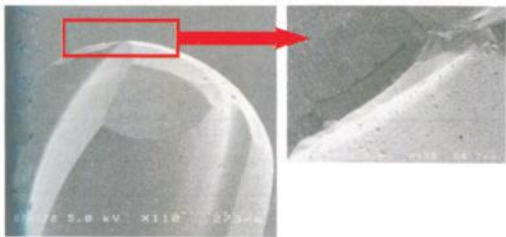
www.dohretool.cn

DIA_{coating}

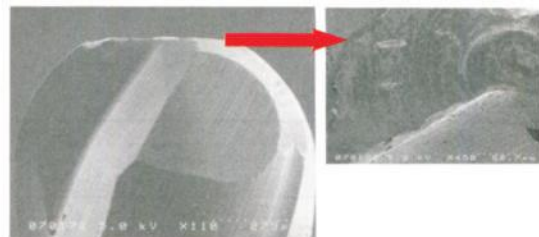


- Special parent material of the diamond coating
- High-purity diamond coating material, Hardness can reach more than 80Gpa
- Wear resistance, superior performance, the most suitable for machining graphite, high-silicon aluminum alloy, fiber resin (FRP).

DIA_{coating}

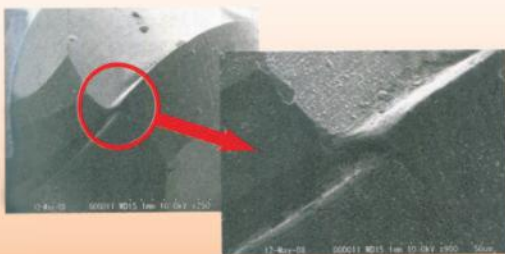


G-PRO Diamond coating

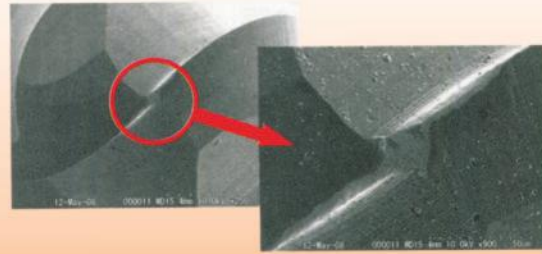


Other companies coating

DIA_{coating}



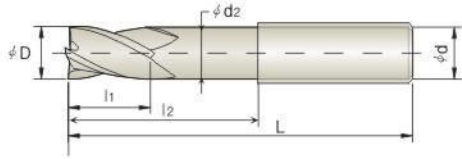
G-PRO Diamond coating



Other companies coating

MEX4 flutes graphite square end mills

4刃石墨鋸刀



MG 0.6 μm CO10% HRC-50 DIA

unit(mm)

Model No.	Outside Diameter D	Length of cut l ₁	Effective Length l ₂	Neck Diameter d ₂	Overall Length L	Shank Diameter d	Inventory
MEX4030-060	3.0	10	-	-	60	3.0	◎
MEX4030-075	3.0	10	-	-	75	3.0	◎
MEX4030-100	3.0	10	-	-	100	3.0	◎
MEX4040-060	4.0	20	-	-	60	4.0	◎
MEX4040-075	4.0	20	-	-	75	4.0	◎
MEX4040-100	4.0	20	-	-	100	4.0	◎
MEX4040-150	4.0	20	-	-	150	4.0	◎
MEX4060-060	6.0	20	20	5.8	60	6.0	◎
MEX4060-075	6.0	20	25	5.8	75	6.0	◎
MEX4060-100	6.0	20	40	5.8	100	6.0	◎
MEX4060-150	6.0	20	60	5.8	150	6.0	◎
MEX4060-200	6.0	20	65	5.8	200	6.0	◎
MEX4080-080	8.0	30	35	7.8	80	8.0	◎
MEX4080-110	8.0	30	50	7.8	110	8.0	◎
MEX4080-150	8.0	30	80	7.8	150	8.0	◎
MEX4080-200	8.0	30	85	7.8	200	8.0	◎
MEX4100-080	10.0	35	40	9.8	80	10.0	◎
MEX4100-110	10.0	35	50	9.8	110	10.0	◎
MEX4100-150	10.0	35	80	9.8	150	10.0	◎
MEX4100-200	10.0	35	85	9.8	200	10.0	◎
MEX4120-080	12.0	40	45	11.8	80	12.0	◎
MEX4120-110	12.0	40	50	11.8	110	12.0	◎
MEX4120-150	12.0	40	80	11.8	150	12.0	◎
MEX4120-200	12.0	40	85	11.8	200	12.0	◎
MEX4160-110	16.0	50	60	15.8	110	16.0	◎
MEX4160-150	16.0	50	80	15.8	180	16.0	◎
MEX4160-200	16.0	50	85	15.8	200	16.0	◎

★ WORK MATERIAL 被削材質

MEX
石墨

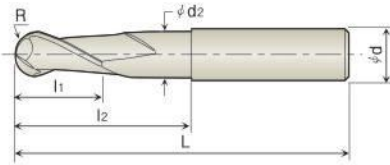
★ TOLERANCES 公差

Blade diameter 刃部直径	Blade diameter tolerance 刃部直径公差	Shank diameter tolerance 柄部直径公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

Order code: MEX 4F 030 060 DIA
訂貨編號: D L HRC50

MEX2 flutes graphite ball nose end mills

2刃石墨球頭銑刀



MG 0.6 μm CO10% HRC-50 DIA

unit(mm)

Model No.	Radius of Ball Nose R	Effective Length l ₂	Length of cut l ₁	Overall Length L	Shank Diameter d	Inventory
MEX2006-045	R0.3	-	1.2	45	4	⊙
MEX2008-045	R0.4	-	1.5	45	4	⊙
MEX2010-050	R0.5	-	2	50	4	⊙
MEX2010-090	R0.5	6	2	90	6	⊙
MEX2015-050	R0.75	-	3	50	4	⊙
MEX2015-090	R0.75	6	3	90	6	⊙
MEX2020-060	R1.0	-	5	60	4	⊙
MEX2020-090	R1.0	8	5	90	6	⊙
MEX2030S-060	R1.5	-	8	60	3	⊙
MEX2030S-075	R1.5	-	8	75	3	⊙
MEX2030-090	R1.5	-	8	90	6	⊙
MEX2030S-100	R1.5	-	10	100	3	⊙
MEX2040S-060	R2.0	-	8	60	4	⊙
MEX2040S-075	R2.0	-	8	75	4	⊙
MEX2040-090	R2.0	12	8	90	6	⊙
MEX2040S-100	R2.0	-	8	100	4	⊙
MEX2050-060	R2.5	20	10	60	6	⊙
MEX2050-075	R2.5	35	10	75	6	⊙
MEX2050-100	R2.5	50	10	100	6	⊙
MEX2060-060	R3.0	20	12	60	6	⊙
MEX2060-075	R3.0	35	12	75	6	⊙
MEX2060-100	R3.0	40	12	100	6	⊙
MEX2060-150	R3.0	60	12	150	6	⊙
MEX2060-200	R3.0	80	12	200	6	⊙
MEX2080-080	R4.0	40	16	80	8	⊙
MEX2080-110	R4.0	45	16	110	8	⊙
MEX2080-150	R4.0	80	16	150	8	⊙
MEX2080-200	R4.0	85	16	200	8	⊙
MEX2100-080	R5.0	40	20	80	10	⊙
MEX2100-110	R5.0	60	20	110	10	⊙
MEX2100-150	R5.0	80	20	150	10	⊙
MEX2100-200	R5.0	85	20	200	10	⊙
MEX2120-080	R6.0	40	24	80	12	⊙
MEX2120-110	R6.0	65	24	110	12	⊙
MEX2120-150	R6.0	80	24	150	12	⊙
MEX2120-200	R6.0	85	24	200	12	⊙
MEX2160-110	R8.0	65	32	110	16	⊙
MEX2160-150	R8.0	80	32	150	16	⊙
MEX2160-200	R8.0	85	32	200	16	⊙

★ WORK MATERIAL 被削材質

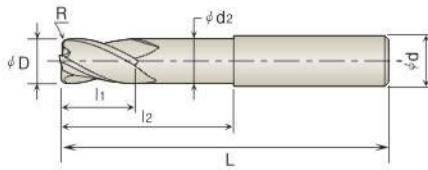
MEX
石墨

★ TOLERANCES 公差

Blade diameter 刃部直径	Blade diameter tolerance 刃部直径公差	Shank diameter tolerance 柄部直径公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

MEX4 flutes graphite corner radius end mills

4刃石墨圓鼻銼刀



MG 0.6 μm CO10% HRC-50 DIA

unit(mm)

Model No.	Outside Diameter D	Radius of Ball Nose R	Effective Length l ₂	Length of cut l ₁	Neck Diameter d ₂	Overall Length L	Shank Diameter d	Inventory
MEX4030R03-060	3.0	3.0	-	9	-	60	3	○
MEX4030R03-075	3.0	3.0	-	9	-	75	3	○
MEX4030R03-100	3.0	3.0	-	9	-	100	3	○
MEX4030R03-060	3.0	3.0	-	9	-	60	3	○
MEX4030R03-075	3.0	3.0	-	9	-	75	3	○
MEX4030R03-100	3.0	3.0	-	9	-	100	3	○
MEX4030R03-060	3.0	3.0	-	9	-	60	3	○
MEX4030R03-075	3.0	3.0	-	9	-	75	3	○
MEX4030R03-100	3.0	3.0	-	9	-	100	3	○
MEX4030R04-060	4.0	4.0	-	12	-	60	4	○
MEX4030R04-075	4.0	4.0	-	12	-	75	4	○
MEX4030R04-100	4.0	4.0	-	12	-	100	4	○
MEX4040R04-060	4.0	4.0	-	12	-	60	4	○
MEX4040R04-075	4.0	4.0	-	12	-	75	4	○
MEX4040R04-100	4.0	4.0	-	12	-	100	4	○
MEX4040R04-060	4.0	4.0	-	12	-	60	4	○
MEX4040R04-075	4.0	4.0	-	12	-	75	4	○
MEX4040R04-100	4.0	4.0	-	12	-	100	4	○
MEX4040R04-060	4.0	4.0	-	12	-	60	4	○
MEX4040R04-075	4.0	4.0	-	12	-	75	4	○
MEX4040R04-100	4.0	4.0	-	12	-	100	4	○
MEX4050R05-060	5.0	5.0	20	15	4.8	60	6	○
MEX4050R05-075	5.0	5.0	30	15	4.8	75	6	○
MEX4050R05-100	5.0	5.0	50	15	4.8	100	6	○
MEX4050R05-060	5.0	5.0	20	15	4.8	60	6	○
MEX4050R05-075	5.0	5.0	30	15	4.8	75	6	○
MEX4050R05-100	5.0	5.0	50	15	4.8	100	6	○

★ WORK MATERIAL 被削材質

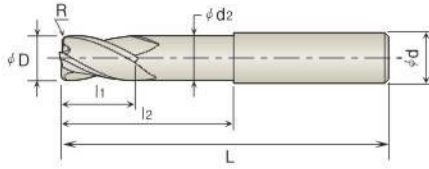
MEX
石墨

★ TOLERANCES 公差

Blade diameter 刃部直径	Blade diameter tolerance 刃部直径公差	Shank diameter tolerance 柄部直径公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

MEX4 flutes graphite corner radius end mills

4刃石墨圓鼻銼刀



MG 0.6 μm CO10% HRC-50 DIA

unit(mm)

Model No.	Outside Diameter D	Radius of Ball Nose R	Effective Length l ₂	Length of cut l ₁	Neck Diameter d ₂	Overall Length L	Shank Diameter d	Inventory
MEX4050R03-060	5.0	R0.3	20	20	4.8	60	6	○
MEX4050R03-075	5.0	R0.3	30	30	4.8	75	6	○
MEX4050R03-100	5.0	R0.3	50	50	4.8	100	6	○
MEX4050R05-060	5.0	R0.5	20	20	4.8	60	6	○
MEX4050R05-075	5.0	R0.5	30	30	4.8	75	6	○
MEX4050R05-100	5.0	R0.5	50	50	4.8	100	6	○
MEX4050R10-060	5.0	R1.0	20	20	5.8	60	6	○
MEX4050R10-075	5.0	R1.0	30	30	5.8	75	6	○
MEX4050R10-100	5.0	R1.0	50	50	5.8	100	6	○
MEX4060R02-060	6.0	R0.2	25	25	5.8	60	6	○
MEX4060R02-075	6.0	R0.2	30	30	5.8	75	6	○
MEX4060R02-100	6.0	R0.2	40	40	5.8	100	6	○
MEX4060R02-150	6.0	R0.2	60	60	5.8	150	6	○
MEX4060R02-200	6.0	R0.2	80	80	5.8	200	6	○
MEX4060R03-060	6.0	R0.3	25	25	5.8	60	6	○
MEX4060R03-075	6.0	R0.3	30	30	5.8	75	6	○
MEX4060R03-100	6.0	R0.3	40	40	5.8	100	6	○
MEX4060R03-150	6.0	R0.3	60	60	5.8	150	6	○
MEX4060R03-200	6.0	R0.5	80	80	5.8	200	6	○
MEX4060R05-060	6.0	R0.5	25	25	5.8	60	6	○
MEX4060R05-075	6.0	R0.5	30	30	5.8	75	6	○
MEX4060R05-100	6.0	R0.5	40	40	5.8	100	6	○
MEX4060R05-150	6.0	R0.5	60	60	5.8	150	6	○
MEX4060R05-200	6.0	R0.5	80	80	5.8	200	6	○
MEX4060R10-060	6.0	R1.0	25	25	5.8	60	6	○
MEX4060R10-075	6.0	R1.0	30	30	5.8	75	6	○
MEX4060R10-100	6.0	R1.0	40	40	5.8	100	6	○
MEX4060R10-150	6.0	R1.0	60	60	5.8	150	6	○
MEX4060R10-200	6.0	R1.0	80	80	5.8	200	6	○
MEX4080R02-080	8.0	R0.2	-	-	7.8	80	8	○
MEX4080R02-110	8.0	R0.2	50	50	7.8	110	8	○
MEX4080R02-150	8.0	R0.2	80	80	7.8	150	8	○
MEX4080R02-200	8.0	R0.2	85	85	7.8	200	8	○

★ WORK MATERAIL 被削材質

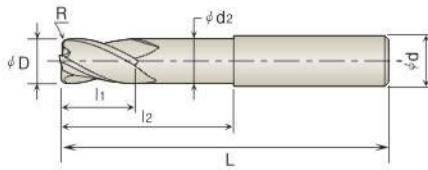
MEX
石墨

★ TOLERANCES 公差

Blade diameter 刃部直径	Blade diameter tolerance 刃部直径公差	Shank diameter tolerance 柄部直径公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

MEX4 flutes graphite corner radius end mills

4刃石墨圓鼻銼刀



MG 0.6 μm CO10% HRC-50 DIA

unit(mm)

Model No.	Outside Diameter D	Radius of Ball Nose R	Effective Length l ₂	Length of cut l ₁	Neck Diameter d ₂	Overall Length L	Shank Diameter d	Inventory
MEX4080R03-080	8.0	R0.3	-	30	7.8	80	8	○
MEX4080R03-110	8.0	R0.3	50	30	7.8	110	8	○
MEX4080R03-150	8.0	R0.3	80	30	7.8	150	8	○
MEX4080R03-200	8.0	R0.3	85	30	7.8	200	8	○
MEX4080R05-080	8.0	R0.5	-	30	7.8	80	8	○
MEX4080R05-110	8.0	R0.5	50	30	7.8	110	8	○
MEX4080R05-150	8.0	R0.5	80	30	7.8	150	8	○
MEX4080R05-200	8.0	R0.5	85	30	7.8	200	8	○
MEX4080R10-080	8.0	R1.0	-	30	7.8	80	8	○
MEX4080R10-110	8.0	R1.0	50	30	7.8	110	8	○
MEX4080R10-150	8.0	R1.0	80	30	7.8	150	8	○
MEX4080R10-200	8.0	R1.0	85	30	7.8	200	8	○
MEX4080R15-080	8.0	R1.5	-	30	7.8	80	8	○
MEX4080R15-110	8.0	R1.5	50	30	7.8	110	8	○
MEX4080R15-150	8.0	R1.5	80	30	7.8	150	8	○
MEX4080R15-200	8.0	R1.5	85	30	7.8	200	8	○
MEX4080R20-080	8.0	R2.0	-	30	7.8	80	8	○
MEX4080R20-110	8.0	R2.0	50	30	7.8	110	8	○
MEX4080R20-150	8.0	R2.0	80	30	7.8	150	8	○
MEX4080R20-200	8.0	R2.0	85	30	7.8	200	8	○
MEX4100R02-080	10.0	R0.2	-	30	9.8	80	10	○
MEX4100R02-110	10.0	R0.2	50	30	9.8	110	10	○
MEX4100R02-150	10.0	R0.2	80	30	9.8	150	10	○
MEX4100R02-200	10.0	R0.2	85	30	9.8	200	10	○
MEX4100R03-080	10.0	R0.3	-	30	9.8	80	10	○
MEX4100R03-110	10.0	R0.3	50	30	9.8	110	10	○
MEX4100R03-150	10.0	R0.3	80	30	9.8	150	10	○
MEX4100R03-200	10.0	R0.3	85	30	9.8	200	10	○
MEX4100R05-080	10.0	R0.5	-	30	9.8	80	10	○
MEX4100R05-110	10.0	R0.5	50	30	9.8	110	10	○
MEX4100R05-150	10.0	R0.5	80	30	9.8	150	10	○
MEX4100R05-200	10.0	R0.5	85	30	9.8	200	10	○
MEX4100R10-080	10.0	R1.0	-	30	9.8	80	10	○
MEX4100R10-110	10.0	R1.0	50	30	9.8	110	10	○
MEX4100R10-150	10.0	R1.0	80	30	9.8	150	10	○
MEX4100R10-200	10.0	R1.0	85	30	9.8	200	10	○

★ WORK MATERIAL 被削材質

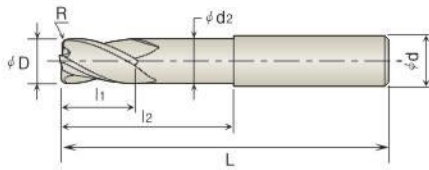
MEX
石墨

★ TOLERANCES 公差

Blade diameter 刃部直径	Blade diameter tolerance 刃部直径公差	Shank diameter tolerance 柄部直径公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

MEX4 flutes graphite corner radius end mills

4刃石墨圆鼻铣刀



MG 0.6 μm CO10% HRC-50 DIA

unit(mm)

Model No.	Outside Diameter	Radius of Ball Nose	Effective Length	Length of cut	Neck Diameter	Overall Length	Shank Diameter	Inventory
	D	R	l ₂	l ₁	d ₂	L	d	
MEX4100R15-080	10.0	R1.5	-	30	9.8	80	10	○
MEX4100R15-110	10.0	R1.5	50	30	9.8	110	10	○
MEX4100R15-150	10.0	R1.5	80	30	9.8	150	10	○
MEX4100R15-200	10.0	R1.5	85	30	9.8	200	10	○
MEX4100R20-080	10.0	R2.0	-	30	9.8	80	10	○
MEX4100R20-110	10.0	R2.0	50	30	9.8	110	10	○
MEX4100R20-150	10.0	R2.0	80	30	9.8	150	10	○
MEX4100R20-200	10.0	R2.0	85	30	9.8	200	10	○
MEX4120R02-080	12.0	R0.2	-	40	11.8	80	12	○
MEX4120R02-110	12.0	R0.2	50	40	11.8	110	12	○
MEX4120R02-150	12.0	R0.2	80	40	11.8	150	12	○
MEX4120R02-200	12.0	R0.2	85	40	11.8	200	12	○
MEX4120R03-080	12.0	R0.3	-	40	11.8	80	12	○
MEX4120R03-110	12.0	R0.3	50	40	11.8	110	12	○
MEX4120R03-150	12.0	R0.3	80	40	11.8	150	12	○
MEX4120R03-200	12.0	R0.3	85	40	11.8	200	12	○
MEX4120R05-080	12.0	R0.5	-	40	11.8	80	12	○
MEX4120R05-110	12.0	R0.5	50	40	11.8	110	12	○
MEX4120R05-150	12.0	R0.5	80	40	11.8	150	12	○
MEX4120R05-200	12.0	R0.5	85	40	11.8	200	12	○
MEX4120R10-080	12.0	R1.0	-	40	11.8	80	12	○
MEX4120R10-110	12.0	R1.0	50	40	11.8	110	12	○
MEX4120R10-150	12.0	R1.0	80	40	11.8	150	12	○
MEX4120R10-200	12.0	R1.0	85	40	11.8	200	12	○
MEX4120R15-080	12.0	R1.5	-	40	11.8	80	12	○
MEX4120R15-110	12.0	R1.5	50	40	11.8	110	12	○
MEX4120R15-150	12.0	R1.5	80	40	11.8	150	12	○
MEX4120R15-200	12.0	R1.5	85	40	11.8	200	12	○
MEX4120R20-080	12.0	R2.0	-	40	11.8	80	12	○
MEX4120R20-110	12.0	R2.0	50	40	11.8	110	12	○
MEX4120R20-150	12.0	R2.0	80	40	11.8	150	12	○
MEX4120R20-200	12.0	R2.0	85	40	11.8	200	12	○
MEX4160R05-110	16.0	R0.5	50	40	15.8	110	16	○
MEX4160R05-150	16.0	R0.5	80	40	15.8	150	16	○
MEX4160R05-200	16.0	R0.5	85	40	15.8	200	16	○

★ WORK MATERIAL 被削材质

MEX
石墨

★ TOLERANCES 公差

Blade diameter 刃部直径	Blade diameter tolerance 刃部直径公差	Shank diameter tolerance 柄部直径公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.4	-0.01~-0.03	
Φ6.5~Φ10.9	-0.01~-0.035	
Φ11.0~Φ16.5	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	
Φ20.5~Φ25.0	-0.015~-0.05	

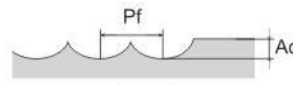
MEX Graphite cutting parameters

石墨刀具切削参数

Danger of fire by spark incidence or heat caused by tool breakage can happen during processing.
Confirm fire prevention countermeasure beforehand necessarily before use.

Work Material	GRAPHITE		COPPER ALLOYS		ALUMINIUM ALLOYS	
Radius of Ball Nose	SPEED (min ⁻¹)	FEED (mm/min)	SPEED (min ⁻¹)	FEED (mm/min)	SPEED (min ⁻¹)	FEED (mm/min)
R0.5	28,000	230	50,000	400	50,000	500
R0.75	20,000	250	36,000	450	36,000	550
R1.0	16,000	260	30,000	450	30,000	580
R1.5	11,000	260	21,000	650	20,000	600
R2.0	8,000	270	16,000	550	16,000	680
R3.0	5,500	290	11,000	590	11,000	740
R4.0	4,000	300	8,000	600	8,000	780
R5.0	3,200	320	6,500	650	6,500	780
R6.0	2,800	350	5,500	650	6,300	780

DEPTH OF CUT



$$Ad = 0.1D$$

$$Pf = 0.2D$$

1. Use a rigid and precise machine and holder.
2. Use a water soluble fluid.

Work Material	GRAPHITE		COPPER ALLOYS		ALUMINIUM ALLOYS	
Outside Diameter	SPEED (min ⁻¹)	FEED (mm/min)	SPEED (min ⁻¹)	FEED (mm/min)	SPEED (min ⁻¹)	FEED (mm/min)
1.0	15,000	700	32,000	850	32,000	1,000
1.5	15,000	900	31,000	1,100	31,000	1,300
2.0	15,000	1,100	24,000	1,200	30,000	1,600
3.0	15,000	1,600	16,000	1,200	21,000	1,600
4.0	15,000	1,800	12,000	1,200	15,500	1,600
5.0	15,000	2,000	10,000	1,200	12,000	1,500
6.0	15,000	2,200	8,000	1,200	10,000	1,500
8.0	14,000	2,500	6,000	1,200	8,000	1,800
10.0	11,000	2,000	5,000	1,400	6,500	1,600
12.0	9,000	2,000	4,000	1,200	5,500	1,500

DEPTH OF CUT



$$Ad = 0.25D \quad (D \leq \varnothing 3)$$

$$Ad = 0.5 D \quad (D > \varnothing 3)$$

1. Use a rigid and precise machine and holder.
2. Use a water soluble fluid.

AU

Exclusive For Cutting Aluminum

AEX SEX



AEX-High Polished Aluminum End Mill (Uncoated) HRC50

AEX-高光鋁用銑刀（本色-未塗層）HRC50度

AEX-DLC High Polished Coated Aluminum End Mill (Blue or Black) HRC55

AEX- DLC高光鋁用銑刀（本色-未塗層）HRC55度

**SEX-High Polished
Hardened Aluminum
End Mill (Uncoated)
HRC58**

SEX-高光加硬鋁用
銑刀（本色-未塗層）
HRC58度

**SEX-DLC High
Polished Coated
Aluminum Coated
End Mill (Blue or
Black) HRC60**

SEX-DLC 高光加硬塗
層鋁用銑刀（藍色或黑
色）HRC60度



TUNGSTEN CARBIDE

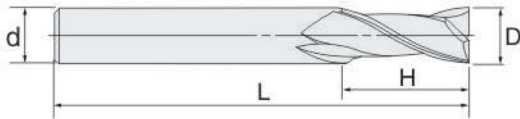
www.dohrecnc.com

AEX2 Flutes Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle)

鋁合金專用2刃立銑刀(45°螺旋角、雙後角)



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX2F01003005004	1.0	3	50	4	○	○
AEX2F01504505004	1.5	4.5	50	4	○	○
AEX2F02006005004	2.0	6	50	4	○	○
AEX2F02507005004	2.5	7	50	4	○	○
AEX2F03008005004	3.0	8	50	4	○	○
AEX2F04011005004	4.0	11	50	4	○	○
AEX2F05013005006	5.0	13	50	6	○	○
AEX2F06015005006	6.0	15	50	6	○	○
AEX2F07018006008	7.0	18	60	8	○	○
AEX2F08020006008	8.0	20	60	8	○	○
AEX2F09023007510	9.0	23	75	10	○	○
AEX2F10025007510	10.0	25	75	10	○	○
AEX2F11028007512	11.0	28	75	12	○	○
AEX2F12030007512	12.0	30	75	12	○	○
AEX2F16040010016	16.0	40	100	16	○	○
AEX2F20040010020	20.0	40	100	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金

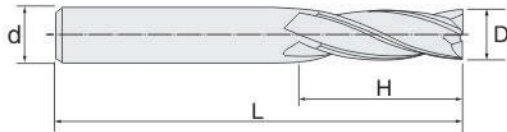
★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

Order code: AEX 2F 010 030 050 04 DLC
 訂貨編號: D H L d HRC55
 AEX 2F 010 030 050 04 NO
 D H L d HRC50

AEX2 Flutes long Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle)

鋁合金專用 2刃長刃立銑刀(45° 螺旋角、雙後角)



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX2F03012007506	3.0	12	75	6	○	○
AEX2F04016007506	4.0	16	75	6	○	○
AEX2F05020007506	5.0	20	75	6	○	○
AEX2F06025007506	6.0	25	75	6	○	○
AEX2F08030007508	8.0	30	75	8	○	○
AEX2F03012010006	3.0	12	100	6	○	○
AEX2F04016010006	4.0	16	100	6	○	○
AEX2F05020010006	5.0	20	100	6	○	○
AEX2F06025010006	6.0	25	100	6	○	○
AEX2F08030010008	8.0	30	100	8	○	○
AEX2F10040010010	10.0	40	100	10	○	○
AEX2F12045010012	12.0	45	100	12	○	○
AEX2F08040015008	8.0	40	150	8	○	○
AEX2F10050015010	10.0	50	150	10	○	○
AEX2F12050015012	12.0	50	150	12	○	○
AEX2F16070015016	16.0	70	150	16	○	○
AEX2F20080015020	20.0	80	150	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金

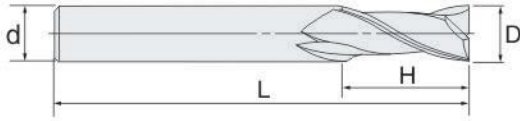


★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ 1.0~Φ 2.9	0~-0.02	H6
Φ 3.0~Φ 6.0	-0.01~-0.03	
Φ 6.5~Φ 10.5	-0.01~-0.035	
Φ 11.0~Φ 16.0	-0.01~-0.04	
Φ 17.0~Φ 20.0	-0.015~-0.045	

AEX2 Flutes Aluminum Square End Mill (55 Degree Helix Angle, Single Axis Relief Angle)

鋁合金專用2刃立銑刀(55°螺旋角、單後角)



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX2F01003005004	1.0	3	50	4	○	○
AEX2F01504505004	1.5	4.5	50	4	○	○
AEX2F02006005004	2.0	6	50	4	○	○
AEX2F02507005004	2.5	7	50	4	○	○
AEX2F03008005004	3.0	8	50	4	○	○
AEX2F04011005004	4.0	11	50	4	○	○
AEX2F05013005006	5.0	13	50	6	○	○
AEX2F06015005006	6.0	15	50	6	○	○
AEX2F07018006008	7.0	18	60	8	○	○
AEX2F08020006008	8.0	20	60	8	○	○
AEX2F09023007510	9.0	23	75	10	○	○
AEX2F10025007510	10.0	25	75	10	○	○
AEX2F11028007512	11.0	28	75	12	○	○
AEX2F12030007512	12.0	30	75	12	○	○
AEX2F16040010016	16.0	40	100	16	○	○
AEX2F20040010020	20.0	40	100	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金

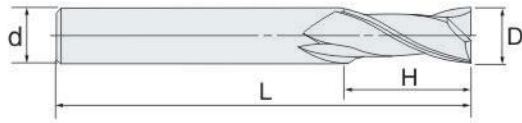


★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

AEX2 Flutes long Aluminum Square End Mill (55 Degree Helix Angle, Single Axis Relief Angle)

鋁合金專用2刃長刃立銑刀(55° 螺旋角、單後角)



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX2F03012007506	3.0	12	75	6	○	○
AEX2F04016007506	4.0	16	75	6	○	○
AEX2F05020007506	5.0	20	75	6	○	○
AEX2F06025007506	6.0	25	75	6	○	○
AEX2F08030007508	8.0	30	75	8	○	○
AEX2F03012010006	3.0	12	100	6	○	○
AEX2F04016010006	4.0	16	100	6	○	○
AEX2F05020010006	5.0	20	100	6	○	○
AEX2F06025010006	6.0	25	100	6	○	○
AEX2F08030010008	8.0	30	100	8	○	○
AEX2F10040010010	10.0	40	100	10	○	○
AEX2F12045010012	12.0	45	100	12	○	○
AEX2F08040015008	8.0	40	150	8	○	○
AEX2F10050015010	10.0	50	150	10	○	○
AEX2F12050015012	12.0	50	150	12	○	○
AEX2F16070015016	16.0	70	150	16	○	○
AEX2F20080015020	20.0	80	150	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金



★ TOLERANCES 公差

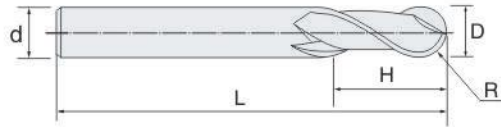
Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

AEX2 Flutes Aluminum Ball Nose End Mill (45 Degree Helix Angle, Double Axis Relief Angle)

鋁合金專用2刃球型立銑刀(45° 螺旋角、雙後角)



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX 2FR05002005004	R0.50	2	50	4	○	○
AEX 2FR07503005004	R0.75	3	50	4	○	○
AEX 2FR10004005004	R1.00	4	50	4	○	○
AEX 2FR12505005004	R1.25	5	50	4	○	○
AEX 2FR12506005004	R1.50	6	50	4	○	○
AEX 2FR17507005004	R1.75	7	50	4	○	○
AEX 2FR20008005004	R2.00	8	50	4	○	○
AEX 2FR25010005006	R2.50	10	50	6	○	○
AEX 2FR30012005006	R3.00	12	50	6	○	○
AEX 2FR40016006008	R4.00	16	60	8	○	○
AEX 2FR50020007510	R5.00	20	75	10	○	○
AEX 2FR60024007512	R6.00	24	75	12	○	○
AEX 2FR80040010016	R8.00	30	100	16	○	○
AEX 2FR100040010020	R10.00	30	100	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

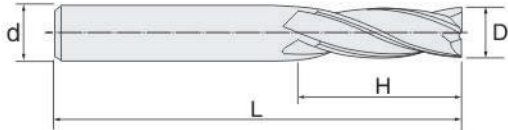
鋁合金

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

AEX3 Flutes Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle)

鋁合金專用3刃立銑刀(45°螺旋角、雙後角)



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX3F01003005004	1.0	3	50	4	○	○
AEX3F01504505004	1.5	4.5	50	4	○	○
AEX3F02006005004	2.0	6	50	4	○	○
AEX3F02507005004	2.5	7	50	4	○	○
AEX3F03008005004	3.0	8	50	4	○	○
AEX3F04011005004	4.0	11	50	4	○	○
AEX3F05013005006	5.0	13	50	6	○	○
AEX3F06015005006	6.0	15	50	6	○	○
AEX3F07018006008	7.0	18	60	8	○	○
AEX3F08020006008	8.0	20	60	8	○	○
AEX3F09023007510	9.0	23	75	10	○	○
AEX3F10025007510	10.0	25	75	10	○	○
AEX3F11028007512	11.0	28	75	12	○	○
AEX3F12030007512	12.0	30	75	12	○	○
AEX3F16040010016	16.0	40	100	16	○	○
AEX3F20040010020	20.0	40	100	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金

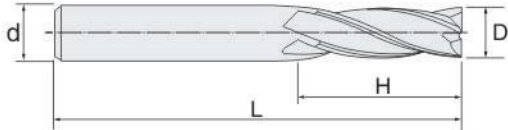


★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

AEX3 Flutes long Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle)

鋁合金專用 3刃長刃立銑刀(45° 螺旋角、雙後角)



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX3F03012007506	3.0	12	75	6	○	○
AEX3F04016007506	4.0	16	75	6	○	○
AEX3F05020007506	5.0	20	75	6	○	○
AEX3F06025007506	6.0	25	75	6	○	○
AEX3F08030007508	8.0	30	75	8	○	○
AEX3F03012010006	3.0	12	100	6	○	○
AEX3F04016010006	4.0	16	100	6	○	○
AEX3F05020010006	5.0	20	100	6	○	○
AEX3F06025010006	6.0	25	100	6	○	○
AEX3F08030010008	8.0	30	100	8	○	○
AEX3F10040010010	10.0	40	100	10	○	○
AEX3F12045010012	12.0	45	100	12	○	○
AEX3F08040015008	8.0	40	150	8	○	○
AEX3F10050015010	10.0	50	150	10	○	○
AEX3F12050015012	12.0	50	150	12	○	○
AEX3F16070015016	16.0	70	150	16	○	○
AEX3F20080015020	20.0	80	150	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金

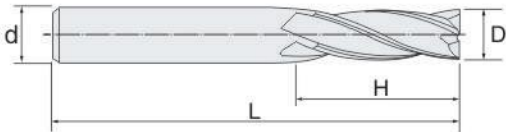


★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

AEX3 Flutes Aluminum Square End Mill (55 Degree Helix Angle, Single Axis Relief Angle)

鋁合金專用3刃立銑刀(55°螺旋角、單後角)



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX3F01003005004	1.0	3	50	4	◎	◎
AEX3F01504505004	1.5	4.5	50	4	◎	◎
AEX3F02006005004	2.0	6	50	4	◎	◎
AEX3F02507005004	2.5	7	50	4	◎	◎
AEX3F03008005004	3.0	8	50	4	◎	◎
AEX3F04011005004	4.0	11	50	4	◎	◎
AEX3F05013005006	5.0	13	50	6	◎	◎
AEX3F06015005006	6.0	15	50	6	◎	◎
AEX3F07018006008	7.0	18	60	8	◎	◎
AEX3F08020006008	8.0	20	60	8	◎	◎
AEX3F09023007510	9.0	23	75	10	◎	◎
AEX3F10025007510	10.0	25	75	10	◎	◎
AEX3F11028007512	11.0	28	75	12	◎	◎
AEX3F12030007512	12.0	30	75	12	◎	◎
AEX3F16040010016	16.0	40	100	16	◎	◎
AEX3F20040010020	20.0	40	100	20	◎	◎

★ WORK MATERAIL 被削材質

ALUMINUM ALLOY

鋁合金

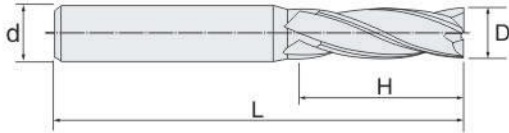


★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

AEX3 Flutes long Aluminum Square End Mill (55 Degree Helix Angle, Single Axis Relief Angle)

鋁合金專用 3刃長刃立銑刀(55° 螺旋角、單後角)



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX3F03012007506	3.0	12	75	6	○	○
AEX3F04016007506	4.0	16	75	6	○	○
AEX3F05020007506	5.0	20	75	6	○	○
AEX3F06025007506	6.0	25	75	6	○	○
AEX3F08030007508	8.0	30	75	8	○	○
AEX3F03012010006	3.0	12	100	6	○	○
AEX3F04016010006	4.0	16	100	6	○	○
AEX3F05020010006	5.0	20	100	6	○	○
AEX3F06025010006	6.0	25	100	6	○	○
AEX3F08030010008	8.0	30	100	8	○	○
AEX3F10040010010	10.0	40	100	10	○	○
AEX3F12045010012	12.0	45	100	12	○	○
AEX3F08040015008	8.0	40	150	8	○	○
AEX3F10050015010	10.0	50	150	10	○	○
AEX3F12050015012	12.0	50	150	12	○	○
AEX3F16070015016	16.0	70	150	16	○	○
AEX3F20080015020	20.0	80	150	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

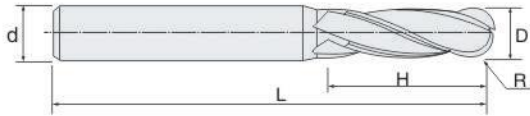
鋁合金

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

AEX3 Flutes Aluminum Ball Nose End Mill (45 Degree Helix Angle, Double Axis Relief Angle)

鋁合金專用3刃球型立銑刀(45° 螺旋角、雙後角)



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX 3FR05002005004	R0.50	2	50	4	○	○
AEX 3FR07503005004	R0.75	3	50	4	○	○
AEX 3FR10004005004	R1.00	4	50	4	○	○
AEX 3FR12505005004	R1.25	5	50	4	○	○
AEX 3FR15006005004	R1.50	6	50	4	○	○
AEX 3FR17507005004	R1.75	7	50	4	○	○
AEX 3FR20008005004	R2.00	8	50	4	○	○
AEX 3FR25010005006	R2.50	10	50	6	○	○
AEX 3FR30012005006	R3.00	12	50	6	○	○
AEX 3FR40016006008	R4.00	16	60	8	○	○
AEX 3FR50020007510	R5.00	20	75	10	○	○
AEX 3FR60024007512	R6.00	24	75	12	○	○
AEX 3FR80030010016	R8.00	30	100	16	○	○
AEX 3FR10030010020	R10.00	30	100	20	○	○

★ WORK MATERAIL 被削材質

ALUMINUM ALLOY

鋁合金

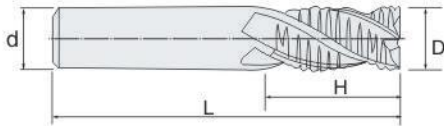


★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

AEX3 Flutes Aluminum Roughing End Mill

鋁合金專用三刃粗皮銑刀



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX 3F01003005004	1.0	3	50	4	○	○
AEX 3F01504505004	1.5	4.5	50	4	○	○
AEX 3F02006005004	2.0	6	50	4	○	○
AEX 3F02507005004	2.5	7	50	4	○	○
AEX 3F03008005004	3.0	8	50	4	○	○
AEX 3F03011005004	4.0	11	50	4	○	○
AEX 3F05013005006	5.0	13	50	6	○	○
AEX 3F 06015005006	6.0	15	50	6	○	○
AEX 3F07018006008	7.0	18	60	8	○	○
AEX 3F08020006008	8.0	20	60	8	○	○
AEX 3F09023007510	9.0	23	75	10	○	○
AEX 3F10025007510	10.0	25	75	10	○	○
AEX 3F11028007512	11.0	28	75	12	○	○
AEX 3F12030007512	12.0	30	75	12	○	○
AEX 3F16040010016	16.0	40	100	16	○	○
AEX 3F20040010020	20.0	40	100	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

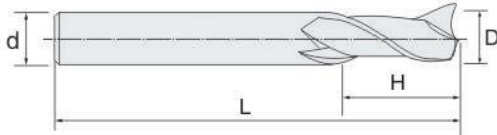
鋁合金

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

AEX Single Flute End Mill (A.For Aluminum)

單刃鏡面立銑刀(A鋁專用)



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX 1F00502005004A	0.50	2	50	4	○	○
AEX 1F01003005004A	1.00	3	50	4	○	○
AEX 1F01504005004A	1.50	4	50	4	○	○
AEX 1F02005005004A	2.00	5	50	4	○	○
AEX 1F02506005004A	2.50	6	50	4	○	○
AEX 1F03007005004A	3.00	7	50	4	○	○
AEX 1F04008005004A	4.00	8	50	4	○	○
AEX 1F05010005006A	5.00	10	50	6	○	○
AEX 1F06012005006A	6.00	12	50	6	○	○
AEX 1F08016006008A	8.00	16	60	8	○	○
AEX 1F10020007510A	10.00	20	75	10	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金

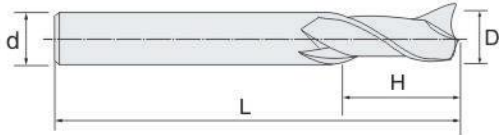


★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

AEX Single Flute End Mill (B.For Acrylic)

單刃鏡面立銑刀(B亞克力專用)



MG 0.6 μm CO10% HRC-50 NO HRC-55 DLC

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
AEX 1F00502005004B	0.50	2	50	4	○	○
AEX 1F01003005004B	1.00	3	50	4	○	○
AEX 1F01504005004B	1.50	4	50	4	○	○
AEX 1F02005005004B	2.00	5	50	4	○	○
AEX 1F02506005004B	2.50	6	50	4	○	○
AEX 1F03007005004B	3.00	7	50	4	○	○
AEX 1F04008005004B	4.00	8	50	4	○	○
AEX 1F05010005006B	5.00	10	50	6	○	○
AEX 1F06012005006B	6.00	12	50	6	○	○
AEX 1F08016006008B	8.00	16	60	8	○	○
AEX 1F10020007510B	10.00	20	75	10	○	○

★ WORK MATERIAL 被削材質

ACRYLIC

亚克力

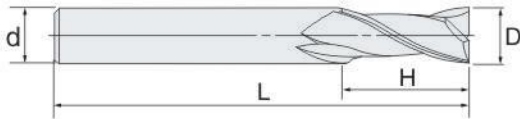


★ TOLERANCES 公差

Blade diameter 刃部直径	Blade diameter tolerance 刃部直径公差	Shank diameter tolerance 柄部直径公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

SEX2 Flutes Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle)

鋁合金專用2刃立銑刀(45°螺旋角、雙後角)



UMG 0.5 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
SEX2F01003005004	1.0	3	50	4	○	○
SEX2F01504505004	1.5	4.5	50	4	○	○
SEX2F02006005004	2.0	6	50	4	○	○
SEX2F02507005004	2.5	7	50	4	○	○
SEX2F03008005004	3.0	8	50	4	○	○
SEX2F04011005004	4.0	11	50	4	○	○
SEX2F05013005006	5.0	13	50	6	○	○
SEX2F06015005006	6.0	15	50	6	○	○
SEX2F07018006008	7.0	18	60	8	○	○
SEX2F08020006008	8.0	20	60	8	○	○
SEX2F09023007510	9.0	23	75	10	○	○
SEX2F10025007510	10.0	25	75	10	○	○
SEX2F11028007512	11.0	28	75	12	○	○
SEX2F12030007512	12.0	30	75	12	○	○
SEX2F16040010016	16.0	40	100	16	○	○
SEX2F20040010020	20.0	40	100	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金

★ TOLERANCES 公差

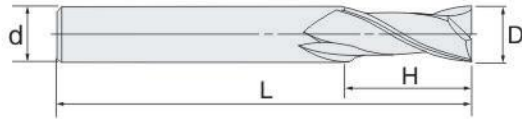
Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

例: AEX 2F 010 030 050 04

系列 刃數 刃徑 刃長 全長 柄徑

SEX2 Flutes long Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle)

鋁合金專用2刃長刃立銑刀(45° 螺旋角、雙後角)



UMG 0.5 μm CO10% HRC-50 NO HRC-55 DLC

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
SEX2F03012007506	3.0	12	75	6	○	○
SEX2F04016007506	4.0	16	75	6	○	○
SEX2F05020007506	5.0	20	75	6	○	○
SEX2F06025007506	6.0	25	75	6	○	○
SEX2F08030007508	8.0	30	75	8	○	○
SEX2F03012010006	3.0	12	100	6	○	○
SEX2F04016010006	4.0	16	100	6	○	○
SEX2F05020010006	5.0	20	100	6	○	○
SEX2F06025010006	6.0	25	100	6	○	○
SEX2F08030010008	8.0	30	100	8	○	○
SEX2F10040010010	10.0	40	100	10	○	○
SEX2F12045010012	12.0	45	100	12	○	○
SEX2F08040015008	8.0	40	150	8	○	○
SEX2F10050015010	10.0	50	150	10	○	○
SEX2F12050015012	12.0	50	150	12	○	○
SEX2F16070015016	16.0	70	150	16	○	○
SEX2F20080015020	20.0	80	150	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金

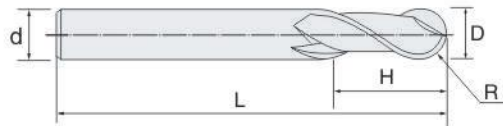


★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

SEX2 Flutes Aluminum Ball Nose End Mill (45 Degree Helix Angle, Double Axis Relief Angle)

鋁合金專用2刃球型立銑刀(45° 螺旋角、雙後角)



UMG 0.5 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
SEX 2FR05002005004	R0.50	2	50	4	○	○
SEX 2FR07503005004	R0.75	3	50	4	○	○
SEX 2FR10004005004	R1.00	4	50	4	○	○
SEX 2FR12505005004	R1.25	5	50	4	○	○
SEX 2FR15006005004	R1.50	6	50	4	○	○
SEX 2FR17507005004	R1.75	7	50	4	○	○
SEX 2FR20008005004	R2.00	8	50	4	○	○
SEX 2FR25010005006	R2.50	10	50	6	○	○
SEX 2FR30012005006	R3.00	12	50	6	○	○
SEX 2FR40016006008	R4.00	16	60	8	○	○
SEX 2FR50020007510	R5.00	20	75	10	○	○
SEX 2FR60024007512	R6.00	24	75	12	○	○
SEX 2FR80030010016	R8.00	30	100	16	○	○
SEX 2FR10030010020	R10.00	30	100	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金

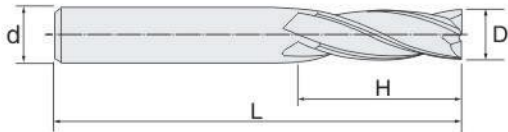


★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

SEX3 Flutes Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle)

鋁合金專用3刃立銑刀(45°螺旋角、雙後角)



UMG 0.5 μm CO10% HRC-50 NO HRC-55 DLC

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
SEX3F01003005004	1.0	3	50	4	○	○
SEX3F01504505004	1.5	4.5	50	4	○	○
SEX3F02006005004	2.0	6	50	4	○	○
SEX3F02507005004	2.5	7	50	4	○	○
SEX3F03008005004	3.0	8	50	4	○	○
SEX3F04011005004	4.0	11	50	4	○	○
SEX3F05013005006	5.0	13	50	6	○	○
SEX3F06015005006	6.0	15	50	6	○	○
SEX3F07018006008	7.0	18	60	8	○	○
SEX3F08020006008	8.0	20	60	8	○	○
SEX3F09023007510	9.0	23	75	10	○	○
SEX3F10025007510	10.0	25	75	10	○	○
SEX3F11028007512	11.0	28	75	12	○	○
SEX3F12030007512	12.0	30	75	12	○	○
SEX3F16040010016	16.0	40	100	16	○	○
SEX3F20040010020	20.0	40	100	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

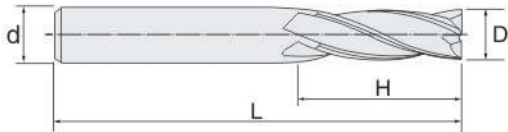
鋁合金

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

SEX3 Flutes long Aluminum Square End Mill (45 Degree Helix Angle, Double Axis Relief Angle)

鋁合金專用3刃長刃立銑刀(45°螺旋角、雙後角)



UMG 0.5 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
SEX3F03012007506	3.0	12	75	6	○	○
SEX3F04016007506	4.0	16	75	6	○	○
SEX3F05020007506	5.0	20	75	6	○	○
SEX3F06025007506	6.0	25	75	6	○	○
SEX3F08030007508	8.0	30	75	8	○	○
SEX3F03012010006	3.0	12	100	6	○	○
SEX3F04016010006	4.0	16	100	6	○	○
SEX3F05020010006	5.0	20	100	6	○	○
SEX3F06025010006	6.0	25	100	6	○	○
SEX3F08030010008	8.0	30	100	8	○	○
SEX3F10040010010	10.0	40	100	10	○	○
SEX3F12045010012	12.0	45	100	12	○	○
SEX3F08040015008	8.0	40	150	8	○	○
SEX3F10050015010	10.0	50	150	10	○	○
SEX3F12050015012	12.0	50	150	12	○	○
SEX3F16070015016	16.0	70	150	16	○	○
SEX3F20080015020	20.0	80	150	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金

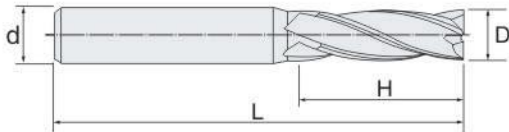


★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

SEX3 Flutes Aluminum Square End Mill (55 Degree Helix Angle, Single Axis Relief Angle)

鋁合金專用3刃立銑刀(55°螺旋角、單後角)



UMG 0.5 μm CO10% HRC-50 NO HRC-55 DLC

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
SEX3F01003005004	1.0	3	50	4	○	○
SEX3F01504505004	1.5	4.5	50	4	○	○
SEX3F02006005004	2.0	6	50	4	○	○
SEX3F02507005004	2.5	7	50	4	○	○
SEX3F03008005004	3.0	8	50	4	○	○
SEX3F04011005004	4.0	11	50	4	○	○
SEX3F05013005006	5.0	13	50	6	○	○
SEX3F06015005006	6.0	15	50	6	○	○
SEX3F07018006008	7.0	18	60	8	○	○
SEX3F08020006008	8.0	20	60	8	○	○
SEX3F09023007510	9.0	23	75	10	○	○
SEX3F10025007510	10.0	25	75	10	○	○
SEX3F11028007512	11.0	28	75	12	○	○
SEX3F12030007512	12.0	30	75	12	○	○
SEX3F16040010016	16.0	40	100	16	○	○
SEX3F20040010020	20.0	40	100	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

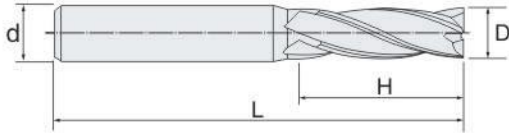
鋁合金

★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

SEX3 Flutes long Aluminum Square End Mill (55 Degree Helix Angle, Single Axis Relief Angle)

鋁合金專用 3刃長刃立銑刀(55° 螺旋角、單後角)



UMG 0.5 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
SEX3F03012007506	3.0	12	75	6	○	○
SEX3F04016007506	4.0	16	75	6	○	○
SEX3F05020007506	5.0	20	75	6	○	○
SEX3F06025007506	6.0	25	75	6	○	○
SEX3F08030007508	8.0	30	75	8	○	○
SEX3F03012010006	3.0	12	100	6	○	○
SEX3F04016010006	4.0	16	100	6	○	○
SEX3F05020010006	5.0	20	100	6	○	○
SEX3F06025010006	6.0	25	100	6	○	○
SEX3F08030010008	8.0	30	100	8	○	○
SEX3F10040010010	10.0	40	100	10	○	○
SEX3F12045010012	12.0	45	100	12	○	○
SEX3F08040015008	8.0	40	150	8	○	○
SEX3F10050015010	10.0	50	150	10	○	○
SEX3F12050015012	12.0	50	150	12	○	○
SEX3F16070015016	16.0	70	150	16	○	○
SEX3F20080015020	20.0	80	150	20	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金

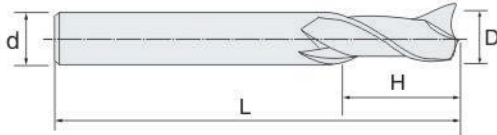


★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

SEX Single Flute End Mill (A.For Aluminum)

單刃鏡面立銑刀(A鋁專用)



UMG 0.5 μm CO10% HRC-50 NO HRC-55 DLC

Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
SEX 1F00502005004A	0.50	2	50	4	○	○
SEX 1F01003005004A	1.00	3	50	4	○	○
SEX 1F01504005004A	1.50	4	50	4	○	○
SEX 1F02005005004A	2.00	5	50	4	○	○
SEX 1F02506005004A	2.50	6	50	4	○	○
SEX 1F03007005004A	3.00	7	50	4	○	○
SEX 1F04008005004A	4.00	8	50	4	○	○
SEX 1F05010005006A	5.00	10	50	6	○	○
SEX 1F06012005006A	6.00	12	50	6	○	○
SEX 1F08016006008A	8.00	16	60	8	○	○
SEX 1F10020007510A	10.00	20	75	10	○	○

★ WORK MATERIAL 被削材質

ALUMINUM ALLOY

鋁合金

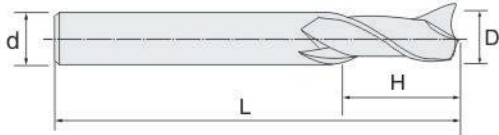


★ TOLERANCES 公差

Blade diameter 刃部直徑	Blade diameter tolerance 刃部直徑公差	Shank diameter tolerance 柄部直徑公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

SEX Single Flute End Mill (A.For Aluminum)

單刃鏡面立銼刀(B亞克力專用)



UMG 0.5 μm CO10% HRC-50 NO HRC-55 DLC



Product Code 產品編號	Blade diameter 刃徑	Blade length 刃長	Full 全長	Shank 柄徑	Inventory 庫存	
					NO	DLC
SEX 1F00502005004B	0.50	2	50	4	○	○
SEX 1F01003005004B	1.00	3	50	4	○	○
SEX 1F01504005004B	1.50	4	50	4	○	○
SEX 1F02005005004B	2.00	5	50	4	○	○
SEX 1F02506005004B	2.50	6	50	4	○	○
SEX 1F03007005004B	3.00	7	50	4	○	○
SEX 1F04008005004B	4.00	8	50	4	○	○
SEX 1F05010005006B	5.00	10	50	6	○	○
SEX 1F06012005006B	6.00	12	50	6	○	○
SEX 1F08016006008B	8.00	16	60	8	○	○
SEX 1F10020007510B	10.00	20	75	10	○	○

★ WORK MATERIAL 被削材質

ACRYLIC

亚克力



★ TOLERANCES 公差

Blade diameter 刃部直径	Blade diameter tolerance 刃部直径公差	Shank diameter tolerance 柄部直径公差
Φ1.0~Φ2.9	0~-0.02	H6
Φ3.0~Φ6.0	-0.01~-0.03	
Φ6.5~Φ10.5	-0.01~-0.035	
Φ11.0~Φ16.0	-0.01~-0.04	
Φ17.0~Φ20.0	-0.015~-0.045	

Solid carbide end mills

整體硬質合金立銑刀



Two flutes aquare end mills cutting parameters

二刃平刀切削參數

Material Science 被切材料	Cast iron Ductile cast iron 鑄鐵 球墨鑄鐵		Carbon steel Alloy steel 碳素鋼, 合金鋼 ~750N/mm ²		Carbon steel Alloy steel 碳素鋼, 合金鋼 ~30HRC		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~40HRC		Stainless steel 不銹鋼		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~50HRC	
	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)
D1.0	20000	165	20000	165	20000	135	20000	135	20000	50	20000	100
D2.0	15000	265	15000	265	15000	240	15000	235	11500	70	13000	150
D3.0	14000	455	14000	455	13000	420	10600	350	7500	100	8500	275
D4.0	10800	465	10800	465	10000	430	8000	355	5500	110	6500	280
D5.0	8200	485	8200	485	7600	450	6400	370	4500	110	5000	295
D6.0	7000	500	7000	500	6400	460	5300	385	3700	115	4200	300
D8.0	5200	495	5200	495	4800	455	4000	380	2800	115	3200	305
D10.0	4200	485	4200	485	3800	450	3200	370	2200	115	2500	290
D12.0	3500	485	3500	485	3200	450	2650	370	1850	115	2100	290
D14.0	3000	455	3000	455	2700	420	2300	350	1600	110	1800	275
D16.0	2600	455	2600	455	2400	420	2000	350	1400	100	1600	275
D18.0	2300	445	2300	445	2100	410	1800	345	1250	100	1400	270
D20.0	2050	445	2050	445	1900	410	1600	345	1100	100	1250	270

maximum cutting depth 最大切深量							
	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>刀具直徑</th> <th>切深 ap</th> </tr> </thead> <tbody> <tr> <td>$\Phi 1 \leq D < \Phi 3$</td> <td>0.15D</td> </tr> <tr> <td>$\Phi 3 \leq D$</td> <td>0.3D</td> </tr> </tbody> </table>	刀具直徑	切深 ap	$\Phi 1 \leq D < \Phi 3$	0.15D	$\Phi 3 \leq D$	0.3D
刀具直徑	切深 ap						
$\Phi 1 \leq D < \Phi 3$	0.15D						
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- 1, the table is side milling standard value, cutting groove, speed to the above table 50%~70%, feed rate to 40%~60% as the standard value.
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 - 3, please cutting fluid using air cooling or not easy to have a smoke.
 - 4, side milling recommended clockwise milling.
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 - 6, in the no interference conditions as far as possible to make the tool overhang length shortest.
- 1、上表是側銑加工的标准值，刀具切槽時，轉速要以上表的50%~70%、進給速度要以40%~60%為标准值。
 - 2、請使用高精度的機床和刀柄。
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 - 6、在不干涉的條件下儘可能使刀具懸長最短。

Solid carbide end mills

整體硬質合金立銑刀

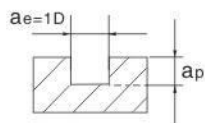
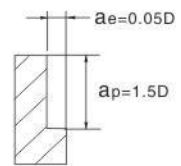
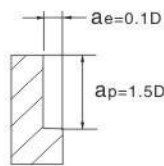


Four flutes square end mills cutting parameters

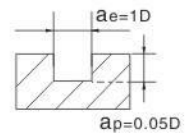
四刃平刀切削參數

Material Science 被切材料	Cast iron Ductile cast iron 鑄鐵 球墨鑄鐵		Carbon steel Alloy steel 碳素鋼, 合金鋼 ~750N/mm ²		Carbon steel Alloy steel 碳素鋼, 合金鋼 ~30HRC		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~40HRC		Stainless steel 不銹鋼		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~50HRC	
	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)
D1.0	20000	225	20000	225	20000	180	20000	180	20000	80	20000	135
D2.0	15000	360	15000	360	15000	325	15000	315	11500	90	13000	200
D3.0	14000	610	14000	610	13000	570	10600	470	7500	110	8500	370
D4.0	10800	630	10800	630	10000	575	8000	480	5500	115	6500	380
D5.0	8200	660	8200	660	7600	600	6400	505	4500	115	5000	400
D6.0	7000	675	7000	675	6400	620	5300	515	3700	120	4200	405
D8.0	5200	665	5200	665	4800	610	4000	510	2800	120	3200	415
D10.0	4200	660	4200	660	3800	600	3200	505	2200	120	2500	390
D12.0	3500	660	3500	660	3200	600	2650	505	1850	120	2100	390
D14.0	3000	610	3000	610	2700	570	2300	470	1600	115	1800	370
D16.0	2600	610	2600	610	2400	570	2000	470	1400	110	1600	370
D18.0	2300	600	2300	600	2100	560	1800	460	1250	95	1400	365
D20.0	2050	600	2050	600	1900	560	1600	460	1100	95	1250	365

maximum cutting depth
最大切深量



刀具直径	切深 ap
$\Phi 1 \leq D < \Phi 3$	0.15D
$\Phi 3 \leq D$	0.3D



- 1, the table is side milling standard value, cutting groove, speed to the above table 50%~70%, feed rate to 40%~60% as the standard value.
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 - 3、請使用空氣冷卻或不易產生煙霧的切削液。
 - 4、側面銑削推薦順銑加工。
 - 5、機床與工件安裝剛性較差的情況下，會產生振動和異常聲音，此時應將上表的轉速與進給速度同比降低。
 - 6、在不干涉的條件下儘可能使刀具具長最短。

Solid carbide end mills

整體硬質合金立銑刀



Two flutes ball nose end mills cutting parameters

二刃球刀切削參數

Material Science 被切材料	Cast iron Ductile cast iron 鑄鐵 球墨鑄鐵		Carbon steel Alloy steel 碳素鋼, 合金鋼 ~750N/mm ²		Carbon steel Alloy steel 碳素鋼, 合金鋼 ~30HRC		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~40HRC		Stainless steel 不銹鋼		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~50HRC	
	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)
R0.5	40000	800	40000	800	38000	700	32000	320	22300	200	25000	275
R1.0	24000	900	24000	900	19000	760	16000	400	11150	230	13000	275
R1.5	15500	950	15500	950	12750	760	10600	450	7400	290	8500	280
R2.0	11500	950	11500	950	9550	760	8000	550	5550	370	6500	370
R2.5	9500	1050	9500	1050	7650	800	6400	550	4450	370	5000	375
R3.0	8000	1050	8000	1050	6400	800	5300	580	3700	390	4200	390
R4.0	6000	1300	6000	1300	4800	950	4000	700	2750	455	3200	440
R5.0	4800	1200	4800	1200	3800	900	3200	650	2200	430	2500	440
R6.0	4000	1100	4000	1100	3200	840	2650	610	1850	430	2100	420
R8.0	3000	1050	3000	1050	2400	800	2000	600	1350	380	1600	375
R10.0	2400	950	2400	950	1900	680	1600	560	1100	370	1250	330

maximum cutting depth 最大切深量												
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- 1, please use the high precision machine tool and toolholder.
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 - 2、请使用空气冷却或不易产生烟雾的切削液。
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 - 4、在不干涉的条件下尽可能使刀具悬长最短。

Solid carbide end mills

整體硬質合金立銑刀



Four ball nose end mills cutting parameters

四刃球刀切削參數

Material Science 被切材料	Cast iron Ductile cast iron 鑄鐵 球墨鑄鐵		Carbon steel Alloy steel 碳素鋼, 合金鋼 ~750N/mm ²		Carbon steel Alloy steel 碳素鋼, 合金鋼 ~30HRC		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~40HRC		Stainless steel 不銹鋼		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~50HRC	
	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)
R1.5	15500	1710	15500	1710	12750	1340	10600	810	7400	520	8500	500
R2.0	11500	1710	11500	1710	9550	1340	8000	990	5550	660	6500	665
R2.5	9500	1890	9500	1890	7650	1440	6400	990	4450	660	5000	675
R3.0	8000	1890	8000	1890	6400	1440	5300	1040	3700	700	4200	700
R4.0	6000	2340	6000	2340	4800	1710	4000	1260	2750	820	3200	790
R5.0	4800	2160	4800	2160	3800	1620	3200	1170	2200	770	2500	790
R6.0	4000	1980	4000	1980	3200	1510	2650	1100	1850	770	2100	755
R8.0	3000	1890	3000	1890	2400	1440	2000	1080	1350	680	1600	675
R10.0	2400	1710	2400	1710	1900	1220	1600	1000	1100	660	1250	595

maximum cutting depth 最大切深量		
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- 1, please use the high precision machine tool and toolholder.
 - 3, please cutting fluid using air cooling or not easy to have a smoke.
 - 3, machine tool and workpiece installation rigid poor circumstances, will produce vibration and abnormal sound, this should be the last table speed and feed speed down.
 - 4, in the no interference conditions as far as possible to make the tool overhang length shortest.
- 1、请使用高精度的机床和刀柄。
 - 2、请使用空气冷却或不易产生烟雾的切削液。
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 - 4、在不干涉的条件下尽可能使刀具悬长最短。

Solid carbide end mills

整體硬質合金立銑刀



Two flutes square end mills cutting parameters

二刃平刀切削參數

Material Science 被切材料	Cast iron Carbon steel Alloy steel 鑄鐵, 碳素鋼, 合金鋼 ~30HRC		Stainless steel 不銹鋼		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~40HRC		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~50HRC		Hardened steel 淬硬鋼 ~50HRC	
	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)
D1.0	20000	200	20000	60	20000	165	20000	120	20000	90
D2.0	15000	320	11150	85	15000	285	13000	180	11140	130
D3.0	14000	545	7500	120	10600	420	8500	330	7430	240
D4.0	10800	560	5500	135	8000	425	6500	335	5570	245
D5.0	8200	585	4500	135	6400	445	5000	355	4460	260
D6.0	7000	600	3700	140	5300	465	4200	360	3710	260
D8.0	5200	595	2800	140	4000	455	3200	365	2785	270
D10.0	4200	585	2200	140	3200	445	2500	350	2230	250
D12.0	3500	585	1850	140	2650	445	2100	350	1855	250
D14.0	3000	545	1600	135	2300	420	1800	330	1590	240
D16.0	2600	545	1400	120	2000	420	1600	330	1390	240
D18.0	2300	535	1250	120	1800	415	1400	325	1240	235
D20.0	2050	535	1100	120	1600	415	1250	325	1115	235

maximum cutting depth 最大切深量															
	<table border="1"> <thead> <tr> <th>刀具直徑</th> <th>切深 ap</th> </tr> </thead> <tbody> <tr><td>Φ1 ≤ D < Φ3</td><td>0.15D</td></tr> <tr><td>Φ3 ≤ D < Φ6</td><td>0.3D</td></tr> <tr><td>Φ6 ≤ D < Φ20</td><td>0.5D</td></tr> </tbody> </table>	刀具直徑	切深 ap	Φ1 ≤ D < Φ3	0.15D	Φ3 ≤ D < Φ6	0.3D	Φ6 ≤ D < Φ20	0.5D	<table border="1"> <thead> <tr> <th>刀具直徑</th> <th>切深 ap</th> </tr> </thead> <tbody> <tr><td>Φ1 ≤ D < Φ3</td><td>0.1D</td></tr> <tr><td>Φ3 ≤ D</td><td>0.2D</td></tr> </tbody> </table>	刀具直徑	切深 ap	Φ1 ≤ D < Φ3	0.1D	Φ3 ≤ D
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Solid carbide end mills

整體硬質合金立銑刀



Four flutes square end mills cutting parameters

四刃平刀切削參數

Material Science 被切材料	Cast iron Carbon steel Alloy steel 鑄鐵, 碳素鋼, 合金鋼 ~30HRC		Stainless steel 不銹鋼		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~40HRC		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~50HRC		Hardened steel 淬硬鋼 ~50HRC												
	Diameter (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)										
D1.0	20000	270	20000	95	20000	215	20000	135	20000	120											
D2.0	15000	435	11150	110	15000	380	13000	200	11140	175											
D3.0	14000	735	7500	135	10600	565	8500	370	7430	325											
D4.0	10800	755	5500	140	8000	575	6500	380	5570	335											
D5.0	8200	795	4500	140	6400	605	5000	400	4460	350											
D6.0	7000	810	3700	145	5300	620	4200	405	3710	350											
D8.0	5200	800	2800	145	4000	615	3200	415	2785	365											
D10.0	4200	795	2200	145	3200	605	2500	390	2230	340											
D12.0	3500	795	1850	145	2650	605	2100	390	1855	340											
D14.0	3000	735	1600	140	2300	565	1800	370	1590	325											
D16.0	2600	735	1400	135	2000	565	1600	370	1390	325											
D18.0	2300	720	1250	115	1800	555	1400	365	1240	315											
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Solid carbide end mills

整體硬質合金立銑刀

PEX

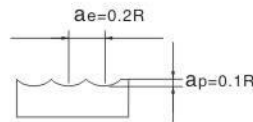
Two flutes ball nose end mills cutting parameters

SEX

二刃球刀切削參數

Material Science 被切材料	Cast iron Carbon steel Alloy steel 鑄鐵, 碳素鋼, 合金鋼 ~30HRC		Stainless steel 不銹鋼		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~40HRC		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~50HRC		Hardened steel 淬硬鋼 ~50HRC	
	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)
R0.5	40000	960	22300	240	32000	385	25000	330	22280	295
R1.0	24000	1080	11150	75	16000	480	13000	330	11140	295
R1.5	15500	1150	7400	350	10600	545	8500	335	7430	295
R2.0	11500	1150	5550	445	8000	665	6500	450	5570	385
R2.5	9500	1270	4450	445	6400	665	5000	455	4455	405
R3.0	8000	1270	3700	470	5300	700	4200	470	3715	420
R4.0	6000	1575	2750	550	4000	850	3200	535	2785	465
R5.0	4800	1455	2200	520	3200	785	2500	535	2230	465
R6.0	4000	1330	1850	520	1650	740	2100	505	1855	450
R8.0	3000	1270	1350	455	2000	725	1600	455	1395	395
R10.0	2400	1150	1100	445	1600	675	1250	400	1115	360

maximum cutting depth
最大切深量



- 1, please use the high precision machine tool and toolholder.
 - 3, please cutting fluid using air cooling or not easy to have a smoke.
 - 3, machine tool and workpiece installation rigid poor circumstances, will produce vibration and abnormal sound, this should be the last table speed and feed speed down.
 - 4, in the no interference conditions as far as possible to make the tool overhang length shortest.
- 1、请使用高精度的机床和刀柄。
 - 2、请使用空气冷却或不易产生烟雾的切削液。
 - 3、机床与工件安装刚性较差的情况下, 会产生振动和异常声音, 此时应将上表的转速与进给速度同比降低。
 - 4、在不干涉的条件下尽可能使刀具悬长最短。

Solid carbide end mills

整體硬質合金立銑刀

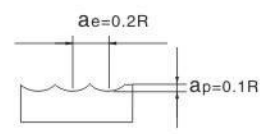


Four flutes ball nose end mills cutting parameters

四刃球刀切削參數

Material Science 被切材料	Cast iron Carbon steel Alloy steel 鑄鐵, 碳素鋼, 合金鋼 ~30HRC		Stainless steel 不銹鋼		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~40HRC		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~50HRC		Hardened steel 淬硬鋼 ~50HRC	
	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)
Diameter (mm)										
R1.5	15500	2055	7400	625	10600	975	8500	600	7430	525
R2.0	11500	2055	5550	795	8000	1190	6500	800	5570	685
R2.5	9500	2270	4450	795	6400	1190	5000	810	4455	720
R3.0	8000	2270	3700	840	5300	1245	4200	840	3715	745
R4.0	6000	2810	2750	985	4000	1515	3200	950	2785	825
R5.0	4800	2595	2200	925	3200	1405	2500	950	2230	825
R6.0	4000	2375	1850	925	1650	1320	2100	905	1855	800
R8.0	3000	2270	1350	815	2000	1295	1600	810	1395	705
R10.0	2400	2055	1100	795	1600	1200	1250	715	1115	640

maximum cutting depth
最大切深量



- 1, please use the high precision machine tool and toolholder.
 - 3, please cutting fluid using air cooling or not easy to have a smoke.
 - 3, machine tool and workpiece installation rigid poor circumstances, will produce vibration and abnormal sound, this should be the last table speed and feed speed down.
 - 4, in the no interference conditions as far as possible to make the tool overhang length shortest.
- 1、请使用高精度的机床和刀柄。
 - 2、请使用空气冷却或不易产生烟雾的切削液。
 - 3、机床与工件安装刚性较差的情况下, 会产生振动和异常声音, 此时应将上表的转速与进给速度同比降低。
 - 4、在不干涉的条件下尽可能使刀具悬长最短。



Solid carbide end mills

整體硬質合金立銑刀



Four flutes corner radius end mills cutting parameters

四刃圓鼻刀切削參數

Material Science 被切材料	Cast iron Carbon steel Alloy steel 鑄鐵, 碳素鋼, 合金鋼 ~30HRC		Quenched and tempered steel 調質鋼 ~40HRC		Quenched and tempered steel 調質鋼 ~45HRC		Quenched and tempered steel 調質鋼 ~50HRC		Quenched and tempered steel 調質鋼 ~55HRC	
	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)
Diameter of X radius 直徑X圓弧半徑										
3.0XR0.8	10500	6250	8500	4500	7450	3900	5300	2600	3200	995
4.0XR1.0	7950	6600	6350	4800	5550	4200	4000	2750	2400	1050
5.0XR1.2	6350	7000	5100	5100	4450	4450	3200	2850	1900	1150
6.0XR1.0	5300	7000	4250	5100	3700	4450	3650	2850	1600	1150
6.0XR1.5										
8.0XR1.0	4550	7000	3200	5100	2800	4450	2000	2850	1200	1150
8.0XR2.0										
10.0XR1.0	3200	7000	2550	5100	2250	4450	1600	2850	955	1150
10.0XR2.0										
12.0XR2.0	2650	7000	2100	5100	1850	4450	1350	2850	795	1150
12.0XR3.0										
maximum cutting depth 最大切深	最大 ap=0.5mm						最大 ap=0.4mm		最大 ap=0.2mm	

- 1, please use the high precision machine tool and toolholder.
 - 2, please cutting fluid using air cooling or not easy to have a smoke.
 - 3, recommend clockwise milling.
 - 4, machine tool and workpiece installation rigid poor circumstances, will produce vibration and abnormal sound, this should be the last table speed and feed speed down.
 - 5, in the no interference conditions as far as possible to make the tool overhang length shortest.
 - 6, the cutting parameters based on extended L/D ≤ 4 higher processing, when the suspension is not at the same time, please press table adjustment.
- 1、请使用高精度的机床和刀柄。
 - 2、请使用空气冷却或不易产生烟雾的切削液。
 - 3、推荐顺铣加工。
 - 4、机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
 - 5、在不干涉的条件下尽可能使刀具悬长最短。
 - 6、以上切削参数时基于悬伸L/D≤4的高等加工，当悬伸不同时，请按下表进行调整。

Overhang is not at the same time, cutting parameter adjustment:
悬伸不同时，切削参数的调整：

Overhang 悬伸	Cutting speed 切削速度 (m/min)	Axial depth of cut 轴向切深 (mm)	Feed speed 进给速度 (mm/min)
L/D ≤ 4	100%	100%	100%
L/D = 5	80%~90%	70%~90%	80%~90%
L/D = 6	60%~80%	50%~70%	60%~80%



Solid carbide end mills

整體硬質合金立銑刀



Six flutes finishing end mills cutting parameters

六刃精銑刀切削參數

Material Science 被切材料	Cast iron Carbon steel Alloy steel 鑄鐵, 碳素鋼, 合金鋼 ~30HRC		Stainless steel 不銹鋼		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~40HRC		Pre hardened steel Quenched and tempered steel 預硬鋼, 調質鋼 ~50HRC		Hardened steel 淬硬鋼 ~50HRC	
	Diameter (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)
6	7000	1070	3700	195	5300	815	4200	650	3710	470
8	5200	1070	2800	195	4000	815	3200	660	2785	485
10	4200	1035	2200	195	3200	800	2500	630	2230	450
12	3500	1035	1850	195	2650	800	2100	630	1855	450
16	2600	975	1400	180	2000	750	1600	590	1390	435
20	2050	960	1100	150	1600	740	1250	580	1115	420
maximum cutting depth 最大切深量	<p>最大 $a_e=1.0\text{mm}$</p>					<p>最大 $a_e=0.5\text{mm}$</p>				

- 1, please use the high precision machine tool and toolholder.
 - 2, please cutting fluid using air cooling or not easy to have a smoke.
 - 3, side milling recommended clockwise milling.
 - 4, machine tool and workpiece installation rigid poor circumstances, will produce vibration and abnormal sound, this should be the last table speed and feed speed down.
 - 5, in the no interference conditions as far as possible to make the tool overhang length shortest.
- 1、请使用高精度的机床和刀柄。
 - 2、请使用空气冷却或不易产生烟雾的切削液。
 - 3、侧面铣削推荐顺铣加工。
 - 4、机床与工件安装刚性较差的情况下, 会产生振动和异常声音, 此时应将上表的转速与进给速度同比降低。
 - 5、在不干涉的条件下尽可能使刀具悬长最短。

Solid carbide end mills

整體硬質合金立銑刀



Two flutes square end mills cutting parameters

二刃平刀切削參數

Material Science 被切材料	Pre hardened steel Hardened steel 預硬鋼, 淬硬鋼 40-50HRC		Hardened steel 淬硬鋼 50-60HRC		Hardened steel 淬硬鋼 60-68HRC	
	Diameter (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)
1	40000	160	40000	160	32000	130
2	40000	400	24000	240	16000	160
3	32000	510	16000	255	11000	175
4	24000	625	12000	310	8000	210
5	19000	685	9500	340	6400	230
6	16000	770	8000	385	5300	255
8	12000	770	6000	385	4000	255
10	9600	770	4800	385	3200	255
12	8000	800	4000	400	2700	270
14	6800	680	3400	340	2300	230
16	6000	600	3000	300	2000	200
18	5300	530	2700	270	1800	180
20	4800	480	2400	240	1600	160

maximum cutting depth 最大切深量	Pre hardened steel Hardened steel 預硬鋼, 淬硬鋼 40-50HRC		Hardened steel 淬硬鋼 50-60HRC		Hardened steel 淬硬鋼 60-68HRC	
	Diagram	Parameters	Diagram	Parameters	Diagram	Parameters
		最大 ae=1.0mm		最大 ae=0.5mm		最大 ae=0.3mm

- 1, please use equipment and fixture, high precision, high rigidity.
 - 2, machine tool and workpiece installation rigid poor circumstances, will produce vibration and abnormal sound, this should be the last table speed and feed speed down.
 - 3, please use the air cooling or the MQL (minimum oil mist cooling).
 - 4, side milling recommended clockwise milling.
 - 5, in the no interference conditions as far as possible to make the tool overhang length shortest.
-
- 1、請使用高精度、高剛性的設備及夾具。
 - 2、機床與工件安裝剛性較差的情況下，會產生振動和異常聲音，此時應將上表的轉速與進給速度同比降低。
 - 3、請使用空氣冷卻或MQL（最小量油霧冷卻）。
 - 4、側面銑削推薦順銑加工。
 - 5、在不干涉的條件下儘可能使刀具懸長最短。



Solid carbide end mills

整體硬質合金立銑刀



Four flutes square end mills cutting parameters

四刃平刀切削參數

Material Science 被切材料	Pre hardened steel Hardened steel 預硬鋼, 淬硬鋼 40-50HRC		Hardened steel 淬硬鋼 50-60HRC		Hardened steel 淬硬鋼 60-68HRC	
	Diameter (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)
1	40000	320	40000	320	32000	260
2	40000	800	24000	480	16000	320
3	32000	1020	16000	510	11000	350
4	24000	1250	12000	620	8000	420
5	19000	1360	9500	680	6400	460
6	16000	1540	8000	770	5300	510
8	12000	1540	6000	770	4000	510
10	9600	1540	4800	770	3200	510
12	8000	1600	4000	800	2700	540
14	6800	1340	3400	680	2300	460
16	6000	1200	3000	600	2000	400
18	5300	1060	2700	530	1800	360
20	4800	960	2400	480	1600	320

maximum cutting depth 最大切深量	Pre hardened steel Hardened steel 預硬鋼, 淬硬鋼 40-50HRC		Hardened steel 淬硬鋼 50-60HRC		Hardened steel 淬硬鋼 60-68HRC	
	Diagram	Parameters	Diagram	Parameters	Diagram	Parameters
		最大 ae=1.0mm		最大 ae=0.5mm		最大 ae=0.3mm

- 1, please use equipment and fixture, high precision, high rigidity.
 - 2, machine tool and workpiece installation rigid poor circumstances, will produce vibration and abnormal sound, this should be the last table speed and feed speed down.
 - 3, please use the air cooling or the MQL (minimum oil mist cooling).
 - 4, side milling recommended clockwise milling.
 - 5, in the no interference conditions as far as possible to make the tool overhang length shortest.
-
- 1、請使用高精度、高剛性的設備及夾具。
 - 2、機床與工件安裝剛性較差的情況下，會產生振動和異常聲音，此時應將上表的轉速與進給速度同比降低。
 - 3、請使用空氣冷卻或MQL（最小量油霧冷卻）。
 - 4、側面銑削推薦順銑加工。
 - 5、在不干涉的條件下儘可能使刀具懸長最短。

Solid carbide end mills

整體硬質合金立銑刀

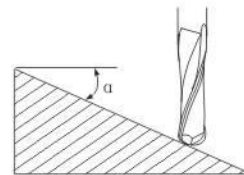
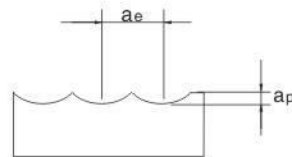


Two flutes ball nose end mills cutting parameters

二刃球刀切削參數

Material Science 被切材料	Pre hardened steel Hardened steel 預硬鋼, 淬硬鋼 40-50HRC				Hardened steel 淬硬鋼 50-60HRC				Hardened steel 淬硬鋼 60-68HRC			
	Ball radius 球頭半徑 (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	ap (mm)	ae (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	ap (mm)	ae (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	ap (mm)
R0.5	40000	1900	0.01	0.05	36000	1500	0.01	0.05	32000	1400	0.01	0.05
R1.0	33000	3100	0.02	0.075	26000	2100	0.02	0.075	24000	2000	0.02	0.075
R1.5	29000	4100	0.03	0.1	23000	2900	0.03	0.1	21000	2600	0.03	0.1
R2.0	22000	3900	0.04	0.15	17000	2500	0.04	0.15	15500	2100	0.04	0.15
R2.5	17500	3500	0.05	0.15	13500	2200	0.05	0.15	13000	2000	0.05	0.15
R3.0	15000	3100	0.06	0.2	11500	1700	0.06	0.2	10500	1500	0.06	0.2
R4.0	11000	2500	0.08	0.25	8600	1600	0.08	0.25	8000	1400	0.08	0.25
R5.0	9000	2000	0.1	0.3	7000	1400	0.1	0.3	6000	1200	0.1	0.3
R6.0	7500	1800	0.1	0.35	5700	1300	0.1	0.35	5300	1200	0.1	0.35
R8.0	5500	1800	0.1	0.4	4300	1300	0.1	0.4	4000	1200	0.1	0.4
R10.0	4500	1800	0.1	0.5	3500	1300	0.1	0.5	3200	1200	0.1	0.5

maximum cutting depth
最大切深量



- 1, said high processing load changes in small benchmark.
 - 2, please equipment and fixture using high precision, high rigidity.
 - 3, machine tool and workpiece installation rigid poor circumstances, will produce vibration and abnormal sound, this should be the last table speed and feed speed down.
 - 4, please use the air cooling or the MQL (minimum oil mist cooling).
 - 5, the angle of tilt α exceeds 15° , please will speed, feeding speed on the table down to 50%~80%.
 - 6, in the no interference conditions as far as possible to make the tool overhang length shortest.
- 1、上表示高等線加工等負荷變化較小時的基準。
 - 2、請使用高精度、高剛性的設備及夾具。
 - 3、機床與工件安裝剛性較差的情況下，會產生振動和異常聲音，此時應將上表的轉速與進給速度同比降低。
 - 4、請使用空氣冷卻或MQL（最小量油霧冷卻）。
 - 5、傾斜角度 α 超過 15° 時，請將上表的轉速、進給速度下調至50%~80%。
 - 6、在不干涉的條件下儘可能使刀具懸長最短。

Solid carbide end mills

整體硬質合金立銑刀

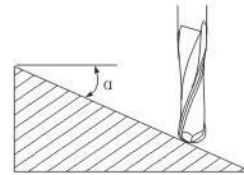
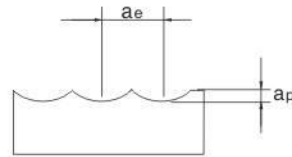


Four flutes ball nose end mills cutting parameters

四刃球刀切削參數

Material Science 被切材料	Pre hardened steel Hardened steel 預硬鋼, 淬硬鋼 40-50HRC				Hardened steel 淬硬鋼 50-60HRC				Hardened steel 淬硬鋼 60-68HRC			
	Ball radius 球頭半徑 (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	a _p (mm)	a _e (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	a _p (mm)	a _e (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	a _p (mm)
R1.5	29000	6560	0.03	0.1	22800	4560	0.03	0.1	21100	4240	0.03	0.1
R2.0	22000	6250	0.04	0.15	17100	4000	0.04	0.15	15800	3520	0.04	0.15
R2.5	17500	5600	0.05	0.15	13600	3520	0.05	0.15	1270	3200	0.05	0.15
R3.0	15000	5000	0.06	0.2	11400	3000	0.06	0.2	10600	2500	0.06	0.2
R4.0	11000	4200	0.08	0.25	8550	2500	0.08	0.25	7950	2250	0.08	0.25
R5.0	9000	3500	0.1	0.3	6850	2200	0.1	0.3	6350	2000	0.1	0.3
R6.0	7500	3000	0.1	0.35	5700	2000	0.1	0.35	5300	1900	0.1	0.35
R8.0	5500	3000	0.1	0.4	4280	2000	0.1	0.4	4000	1900	0.1	0.4
R10.0	4500	3000	0.1	0.5	3425	2000	0.1	0.5	3200	1900	0.1	0.5

maximum cutting depth
最大切深量



- 1, said high processing load changes in small benchmark.
 - 2, please equipment and fixture using high precision, high rigidity.
 - 3, machine tool and workpiece installation rigid poor circumstances, will produce vibration and abnormal sound, this should be the last table speed and feed speed down.
 - 4, please use the air cooling or the MQL (minimum oil mist cooling).
 - 5, the angle of tilt α exceeds 15° , please will speed, feeding speed on the table down to 50%-80%.
 - 6, in the no interference conditions as far as possible to make the tool overhang length shortest.
- 1、上表示高等線加工等負荷變化較小時的基準。
 - 2、請使用高精度、高剛性的設備及夾具。
 - 3、機床與工件安裝剛性較差的情況下，會產生振動和異常聲音，此時應將上表的轉速與進給速度同比降低。
 - 4、請使用空氣冷卻或MQL（最小量油霧冷卻）。
 - 5、傾斜角度 α 超過 15° 時，請將上表的轉速、進給速度下調至50%-80%。
 - 6、在不干涉的條件下儘可能使刀具懸長最短。

Solid carbide end mills

整體硬質合金立銑刀

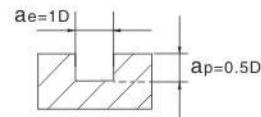
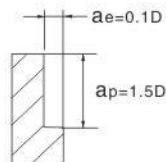


2 flutes aluminum end mills cutting parameters

鋁用2刃銑刀切削參數

Material Science 被切材料	Aluminium alloy 鋁合金		Silicon aluminum alloy 硅鋁合金 Si≤10%	
	Diameter (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)
1	40000	650	40000	500
2	40000	950	32000	750
3	26500	1500	21000	1100
4	20000	1600	16000	1250
5	16000	1500	13000	1100
6	13000	1250	10600	1000
8	10000	1400	8000	1100
10	8000	1600	6500	1250
12	6600	1650	5300	1300
14	5700	1700	4600	1350
16	5000	1700	4000	1350
18	4400	1700	3500	1350
20	4000	1700	3200	1350

maximum cutting depth
最大切深量



- 1, the table is the reference value based on the side milling. The slot milling conditions table feed rate of 70% for the benchmark.
 - 2, please use the tool shank rigidity and high precision machine tool and the workpiece, when the installation of rigid poor circumstances, will produce vibration and abnormal sound, this should be the last table speed and feed speed down.
 - 3, please use the water soluble cutting fluid.
 - 4, side milling recommended clockwise milling.
 - 5, in the no interference conditions as far as possible to make the tool overhang length shortest.
- 1、上表是基于侧面铣削的基准值。槽铣切削条件以上表进给速度的70%为基准。
 - 2、请使用刚性精度高的机床和刀柄，当机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
 - 3、请使用水溶性切削液。
 - 4、侧面铣削推荐顺铣加工。
 - 5、在不干涉的条件下尽可能使刀具悬长最短。

Solid carbide end mills

整體硬質合金立銑刀



3 flutes aluminum end mills cutting parameters

鋁用3刃銑刀切削參數

Material Science 被切材料	Aluminium alloy 鋁合金		Silicon aluminum alloy 硅鋁合金 Si≤10%		
	Diameter (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)
	1	40000	800	40000	600
	2	40000	1200	32000	900
	3	26500	1800	21000	1300
	4	20000	2000	16000	1500
	5	16000	1750	13000	1300
	6	13000	1500	10600	1200
	8	10000	1650	8000	1300
	10	8000	1900	6500	1500
	12	6600	1950	5300	1550
	14	5700	2000	4600	1600
	16	5000	2000	4000	1600
	18	4400	2000	3500	1600
	20	4000	2000	3200	1600

maximum cutting depth 最大切深量		
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- 1, the table is the reference value based on the side milling. The slot milling conditions table feed rate of 70% for the benchmark.
 - 2, please use the tool shank rigidity and high precision machine tool and the workpiece, when the installation of rigid poor circumstances, will produce vibration and abnormal sound, this should be the last table speed and feed speed down.
 - 3, please use the water soluble cutting fluid.
 - 4, side milling recommended clockwise milling.
 - 5, in the no interference conditions as far as possible to make the tool overhang length shortest.
- 1、上表是基于侧面铣削的基准值。槽铣切削条件以上表进给速度的70%为基准。
 - 2、请使用刚性精度高的机床和刀柄，当机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
 - 3、请使用水溶性切削液。
 - 4、侧面铣削推荐顺铣加工。
 - 5、在不干涉的条件下尽可能使刀具悬长最短。

Solid carbide end mills

整體硬質合金立銑刀

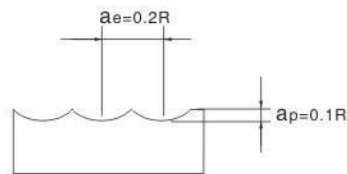


Aluminum ball nose end mills cutting parameters

鋁用球刀切削參數

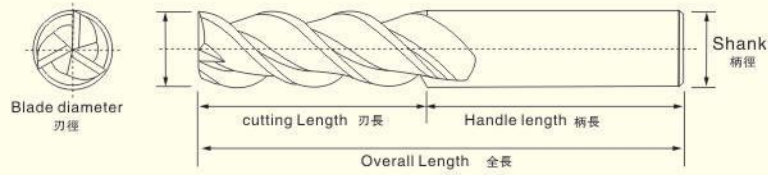
Material Science 被切材料	Aluminium alloy 鋁合金		Silicon aluminum alloy 硅鋁合金 Si≤10%		
	Diameter (mm)	Speed (mm ⁻¹)	Feed speed (mm/min)	Speed (mm ⁻¹)	Feed speed (mm/min)
R1.0	40000	2000	32000	1600	
R1.5	26500	1950	21000	1550	
R2.0	20000	1950	16000	1550	
R2.5	16000	1950	13000	1550	
R3.0	13000	2000	10600	1600	
R4.0	10000	2450	8000	2000	
R5.0	8000	2200	6500	1750	
R6.0	6600	2050	5300	1650	

maximum cutting depth
最大切深量

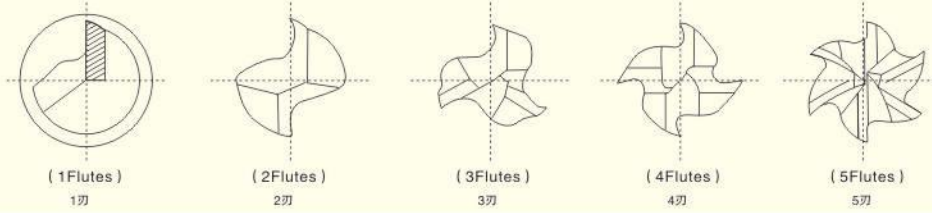


- 1, please use the tool shank rigidity and high precision machine tool and the workpiece, when the installation of rigid poor circumstances, will produce vibration and abnormal sound, this should be the last table speed and feed speed down.
 - 2, the cutting depth is small, speed and feed speed can increase.
 - 3, please use the water soluble cutting fluid.
 - 4, in the no interference conditions as far as possible to make the tool overhang length shortest.
- 1、请使用刚性精度高的机床和刀柄，当机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
 - 2、切削深度较小时，转速和进给速度可以同比提高。
 - 3、请使用水溶性切削液。
 - 4、在不干涉的条件下尽可能使刀具悬长最短。

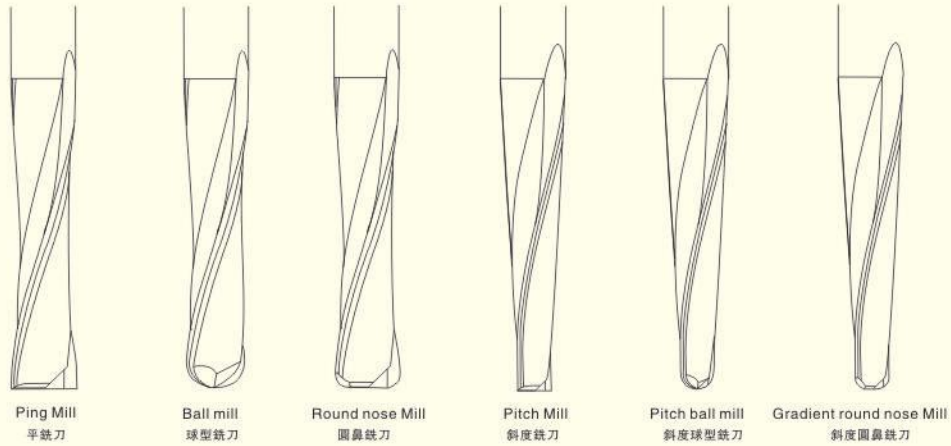
Size Name Description 尺寸名稱介紹



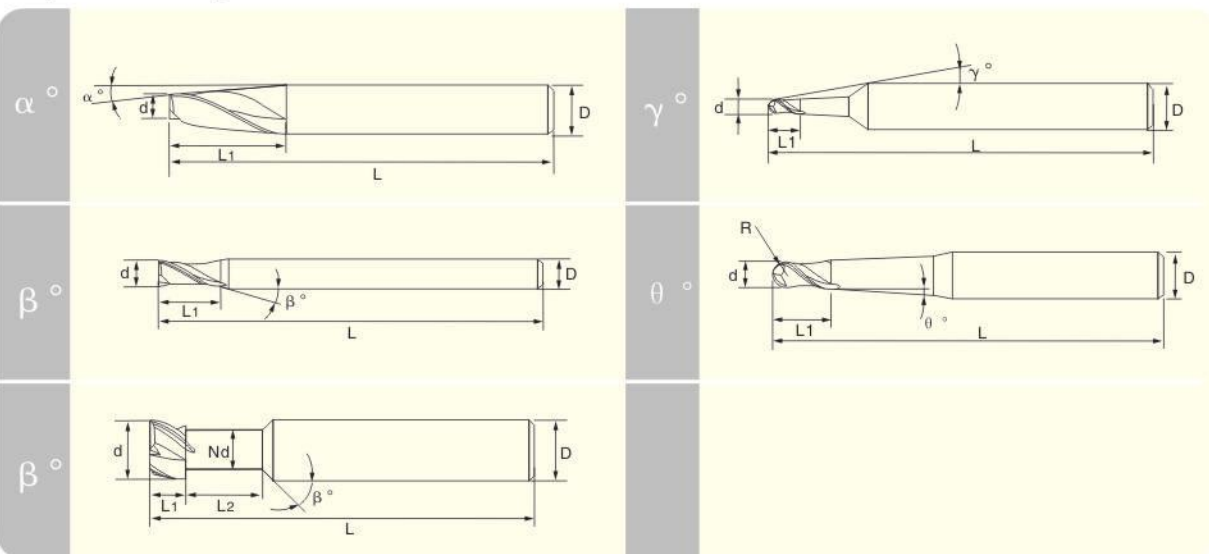
Flutes 刃數





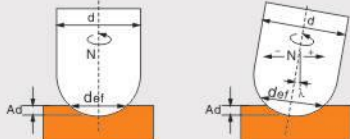
Types 類型



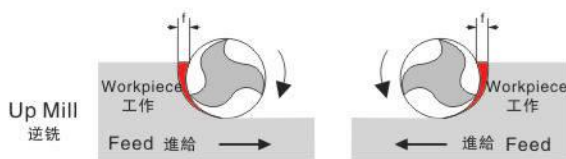
Explanation of symbols 符號說明



Explanation of symbols 符號說明

A_d	Processing axis depth 加工軸深(mm)	
R_d	Diameter deep processing 加工徑深(mm)	
V_c	Cutting speed 切削速度 (M/min)	$V_c = \frac{D \times N \times \pi}{1000}$
N	Back to Speed 回轉速 (min^{-1})	$N = \frac{V_c \times 1000}{d \times \pi}$
V_f	Feed rate 每分鐘進給速度 (mm/min)	$V_f = f_z \times N \times Z$
f_z	Feed per tooth 每刃進給量(mm)	$f_z = \frac{V_f}{N \times Z}$
f	Feed per revolution 每轉進給量 (mm/rev.)	$f = f_z \times Z$
Q	Removal rate cut 切削移除率 (mm^3/min)	$Q = A_d \times R_d \times V_f$
λ°	Blade angle ($^\circ$) 刃傾角 ($^\circ$)	如下圖所示
d_{ef}	Effective diameter of the ball knife 球刀有效直徑(mm)	 <p>當 $\lambda^\circ = 0$ 時 $d_{ef} = 2\sqrt{A_d(d - A_d)}$</p> <p>當 $\lambda^\circ \neq 0$ 時 $d_{ef} = d \cdot \sin\left[\lambda \pm \arccos\left(\frac{d - 2A_d}{d}\right)\right]$</p>
V_{ef}	Effective cutting speed milling 銑刀的有效切削速度 (M/min)	$V_{ef} = \frac{d_{ef} \times N \times \pi}{1000}$
d	Cutter diameter 銑刀直徑 (mm)	
Z	Teeth 齒數 (-)	

Side cutting 側面切削



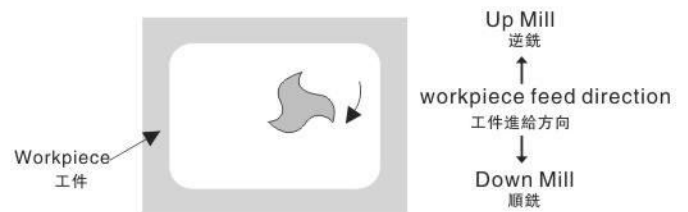
Up Mill VS Down Mill:

In general, to make the long tool life and get a good surface roughness, is recommended (climb milling); if the working surface is very rough and uneven sand, recommended (inverse milling).

逆銑VS順銑:

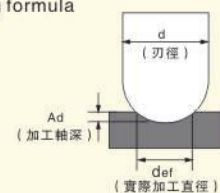
一般而言, 要使刀具壽命長及得到好的表面粗糙度, 推薦用【順銑】; 若工作表面很粗糙不平整且夾砂, 推薦用【逆銑】。

Slot hole cutting 槽穴切削



Diameter of the actual processing formula
實際加工直徑計算式

$$d_{ef} = 2\sqrt{A_d(d - A_d)}$$





端銑削加工中問題及對策

問題	原因	對策
(1) 刀具微小崩刃急速發生	1. 刀具安裝不當	1. 安裝懸伸量最小 2. 檢查彈簧夾頭是否老化磨損，精度不好，夾持不良，是否有毛刺，更換正常品。
	2. 工件安裝方法或機床抗振的對策考慮不充分	1. 提高工件的安裝剛性（使用油壓頂尖，擋塊，墊片等，使工件在切削作用下不滑動） 2. 工作臺滑動面的間隙調整（確認賽塊固定是否良好） 3. 檢查主軸的上下，工作臺的跳動在切削中固定是否可靠 4. 檢查機床的習慣性，避免齒輪系統，傳動軸類系統產生振動的轉速，適當地調整一下轉速。
(2) 切削刃破裂破損劇烈	1. 與微小崩刃相同原因的影響更大，更表面化。	1. 降低進給，亦有提高轉速會好一些的情況
	2. 相對負荷（切深×進給）來說，立銑刀過于細長	1. 增大立銑刀的直徑（減小懸伸）
	3. 刀具或工件安裝不穩定	1. 刀具安裝時懸伸最小 2. 機床及工件的安裝精度剛性盡量高
	4. 肉眼難以看到的磨削時的裂紋	1. 用鋒利的樹脂結合劑金剛石砂輪以不太高的速度（1500m/min以下）濕式研磨后，用10倍以上的顯微鏡仔細檢查。
	5. 沒有硬質合金端銑刀使用經驗，產生初級錯誤。	1. 在吃力狀態下停機，先停進給，再停旋轉（機床功率不足或因負荷跳開時，應先停進給） 2. 檢查是否忘記擰緊壓緊楔塊和螺釘 3. 切削刃磨損過于嚴重之前進行更換 4. 特別注意快進，工進不能出錯 5. 請注意機夾刀的旋轉方向是否正確 6. 不要同時一手抓機床，刀與刀之間不能有碰撞，謹慎裝卸不要落在地上
(3) 切削中折損嚴重	1. 工件切入，切出時，進給方向突然改變等，引起負荷衝擊性變化	1. 降低進給（局部即可） 2. 減小安裝時的懸伸量 3. 根據需要，最大限度減短刃長 4. 對有夾頭的夾持性進行檢查
	2. 切削負荷過大。	1. 防止過磨損發生，及時換刀。 2. 降低每刃進給量。 3. 進給量不變，提高轉速。 4. 減小切深。 5. 提高轉數或減小刃數以避免切屑堵塞及啃屑。 6. 切勿未進行倒棧時，進行倒棧。減小刀具頸部拐角避免應力集中。 7. 減小安裝懸伸量，避免夾頭夾具不良。 8. 增加切削液或壓縮空氣束束性，增強排屑能力。 9. 將逆銑變為順銑。
	3. 疲勞損壞。	1. 切削力引起整體端銑刀的彎曲應力超過時90kg/mm ² 。焊接時端銑刀鋼刀體部應力過50kg/mm ² 的重切削的場合。經過共計107（2000轉×83小時）以上的使用後，有可能發生疲勞破壞，應在此前更換工具。
(4) 加工表面欠佳	1. 切削力變動引起立銑刀的彈性擾變或恢復是間斷性的且各刃受力狀態相異。	1. 降低進給 2. 減小切深 3. 將順銑變為逆銑試一試 4. 增大螺旋角 5. 增多刃數 6. 減小刃長 7. 提高切削刃的跳動精度 8. 在刃口鋒利度下降過多之前換刀
	2. 產生顫振	1. 降低轉數（切削速度），但也有增加轉速會好一些的情況 2. 提高進給但0.04mm/刃以上時應降低試試 3. 增加工件的安裝剛性 4. 提高刀具的安裝剛性（減小懸伸，夾緊牢固） 5. 采用不等分工具
(5) 加工精度不良	1. 徑向切削量比設定值大，發生吃刀。	1. 減小加工餘量 2. 變逆銑為順銑 3. 增大轉數以提高刃口實際鋒利性 4. 提高刀具的安裝剛性（減小懸伸，夾緊牢固）
	2. 端銑刀傾斜，彎曲，加工表面垂直度差，發生讓刀。	1. 減小加工餘量 2. 提高轉速 3. 減小進給 4. 增加刃數 5. 提高刀具的安裝剛性（減小懸伸，夾緊牢固） 6. 針對被加工面實際的傾斜量選擇適當的倒錐量，對刀具外周刃進行刃磨。

The reference data of end mills

銑刀篇之參考資料

Milling-side in the issue and countermeasures

Problems	Reason	Countermeasures
1. Cutter blade small rapid collapse occurred	1. Improper installation tool	1. Suspended the installation of a minimum amount of stretching 2. Spring check whether Bush or Chuck aging wear, precision is not good, bad clip, Whether there is a glitch. The replacement of normal goods.
	2. Workpiece methods or tools to install anti-seismic measures are not taken into full improper installation tool	1. Enhance the work of the installation of rigid (the use of top oil, block, gaskets and so on, So that the workpiece or cutting under non-slip) 2. Sliding table to adjust the gap (to confirm whether the good side fixed block). 3. Check up and down the main shaft, the drive platform in the fixed-cutting in the reliability. 4. Survey of the machine tools used to avoid gear, shaft vibration system to produce the type Of speed, appropriate adjustments to speed.
2. Breakdown of the cutting edge, severe damage	1. With the same edge of collapse small impact on larger, more superficial.	1. Lower feed, but also improve the speed will be better.
	2. Comparative load (to cut deep into x), the cutter is too long	1. Increase the diameter of the cutter (by hanging under the stretch)
	3. Workpiece or tool to install unstable.	1. Is hanging tool to install the smallest stretch 2. Workpiece and the machine to install high-accuracy rigid as far as possible.
	4. Naked eye can hardly see the ground when the crack	1. With sharp resin binders diamond grinding wheel with not too high speed (1500m/min below) Wet grinding, with more than 10 times the microscope of scrutiny.
	5. Has not carbide cutter-side experience, have a primary error.	1. Downtime in the difficult conditions, to stop feeding, and then stop rotating (or lack of power tools As a result of load trip, should stop feeding). 2. Forget to check tightening screws and pressed Lease block. 3. Cutting edge wear too serious before replacement. 4. Special attention to fast-forward, can not go wrong. 5. Please note that folder machine tool rotary direction is correct. 6. Do not single-handedly arrested several at the same time, with the knife blade between the collision can not be prudent not to fall at the end of the loading and unloading.
3. Cutting in a serious impairment	1. Workpiece cut, cut out, feel all of a sudden change in direction, and so on, caused by the impact of changes in the load.	1. Lower feed (to local) 2. To reduce the installation time suspended the amount of stretch. 3. Necessary, to reduce the maximum length Duanren. 4. Bushing on. The holding chuck of the inspection.
	2. Cutting load is too large	1. To prevent the occurrence of excessive wear, the tool change in a timely manner. 2. To the cost of each and every blade into the volume. 3. To enter the same amount, to increase speed. 4. Reduce the depth of cut. 5. To raise or reduce speed to avoid a number of cutting-edge plug and eating crumbs. 6. Without cutting edge chamfering, corner of the neck to avoid cutting tools to reduce stress concentration. 7. To reduce the installation of hanging stretch, to avoid bad set of gripping chuck 8. Increase the cutting fluid cluster of compressed air to enhance the ability Chip 9. Milling into the inverse cis-milling.
	3. Fatigue damage	1. Cutter cutting force cause the whole side of the bending stress, when more than 90kg/m m, welding-end steel cutter body stress over 50kg/m m occasion of the recutting, after a total of 10 (2000 to x 83hours) over the use of the possibility of a fatigue failure, should be the replacement of the previous blade.
4. Poor surface	1. Cutter cutting force changes in the flexibility to restore or change is intermittent and the edge of the state of stress differences	1. Lower feed. 2. Reduce the depth of cut. 3. Shun the milling milling try to reverse. 4. Helix angle increased. 5. Increase the number edge. 6. Reduce the long edge. 7. Enhance the cutting edge of precision beat. 8. Edge in sharp decline over time prior to the ATC
	2. Have a flutter	1. Lower speed (speed). But there are also some increase in speed will be good. 2. Enhance the feed but 0.04mm/blade to be lowered more than try. 3. Workpiece increase in the installation of rigid. 4. Tool to improve the installation of rigid (reducing stretch Suspended, firmly clamp). 5. Ranging from sub-tool use.
5. Machining accuracy bad	1. Radial cutting volume settings, took place to eat edge	1. Allowance reduced. 2. Inverse change for the milling milling-shun. 3. Speed increases to improve the sharp edge of reality. 4. Tool to improve the installation of rigid (reducing stretch suspended, firmly clamp). 5. Ranging from sub-tool use.
	2. Cutter-side tilt, the vertical surface difference. Let occurred knife	1. Allowance reduced. 2. Speed to raise 3. Reduce feed 4. Blade increase in the number 5. Tool to improve the installation of rigid (reducing stretch suspended, firmly clamping) 6. Edge in sharp decline over time prior to the Attached. 7. Was for the actual processing side of the inclined to choose the appropriate amount of the cone back, on the peripheral edge tool for grinding.