



# VOL.6

## 2019-2020 CATALOG



# INNOVATION

## 正河源創立於1991年

### 致力於切削領域及整合金屬切削方案為客戶解決加工上的問題

近30年來我們累積了應用上的實務經驗，了解客戶需求提供最佳應用方案予客戶，為客戶提高生產率。誠信一直是正河源發展的基石，對於客戶及供應商的密切合作秉持誠實守信原則，遵循國際標準，朝向高精度、高效率、高創新發展，不斷追求技術上的突破，擁有完整的整合優勢及合作經驗，以誠信原則及務實的態度為客戶提供是好的服務。

### **Chain Headway was established in 1991, we commitment to the cutting offerings and integrated metal cutting solution to enhancing our customer productivity.**

We have accumulated know-how and high level of process more than 30 years, to understand our customer needs and provide them a better solution to increase their productivity. Integrity has always been the cornerstone of Chain Headway, process reliability, efficiency and the highest productivity for customer and supplier are therefore guaranteed. We constantly pursuing on technological breakthroughs. Chain Headway offers cutting-edge solutions and innovative products. Our main goal is to provide good faith and pragmatic manner to our customer.



# I V E



# RELIABLE

# STABILITY





## 企業品牌架構

自2013年起正河源希望透過識別整合以創造企業品牌最大的價值，希望在正河源服務宗旨 - 快速解決客戶的加工需求下更能在企業形象、品牌識別、產品包裝、展覽形象上整體展現出正河源的核心理念。

正河源機械配件有限公司CHAIN-HEADWAY以CC做為主要企業識別，其中綠色的C代表著正河源的生命象徵著繁榮，意謂著開始及暢通，橘色C代表著客戶CUSTOMER的忠誠、尊貴，意謂著雙方的合作關係暢通無阻的生命力及忠誠，以二者「環環相扣」結合，希望與顧客建立緊密的合作關係，打造全新的服務品質，成為顧客信賴的夥伴。

## Corporate Brand Architecture

Since 2013 onwards Chain Headway hoped to identify integration by using the corporate brand in order to create the most valued brand, in hoping that Chain Headway service purpose - can quickly resolve customer processing needs & can show more the corporate image, brand identity, product packaging, exhibitions that will show the whole image of Chain Headway core philosophy. Chain Headway Machinery Parts Corp., Ltd. -CHAIN HEADWAY use CC as the main corporate identity, including the green C represents Chain Headway life symbolizes prosperity, which means the start and smooth, orange C represents CUSTOMER loyalty, honor, means the cooperation between the two sides unimpeded vitality and loyalty to both 「chain」 combination, hoping to establish a close working relationship with customers, create all-new service quality to be served as customers trusted partner.



# 全產品線的完整服務

## Full Service of All Product Lines

正河源銷售的高性能優質工具產品多達22000多種  
· 其類別含蓋如下:

Chain Headway sales of high-performance products up to more than 22,000 kinds of high-quality tool, which covers the following categories:



精密刀桿  
Tool Holder



切削刀具  
Tool Holder  
精密刀片  
High Precision Insert



輔助工具  
Aid Tool



# INDUSTRY



## 為您量身打造的產業

正河源銷售多達22000多件的產品，也提供客製化產品的服務解決任何加工需求。我們有專業人員可提供最佳的整合方案為客戶創造最大的生產效益。正河源提供切削整合方案及創新研發的產品來幫助客戶在這千變萬化的產業中取得先機。

## An Industry Tailored For You

With over 22,000 products, we are able to customize production to suit any manufacturing needs. Our specialists are trained to identify and integrate your tooling systems in order to optimize production. At Chain-Headway, we offer cutting-edge solutions and innovative products that will help your company succeed in an ever-changing industry.

# FULL CUSTOMER SERVICE TRAINING&CONSULTING



# Cutting



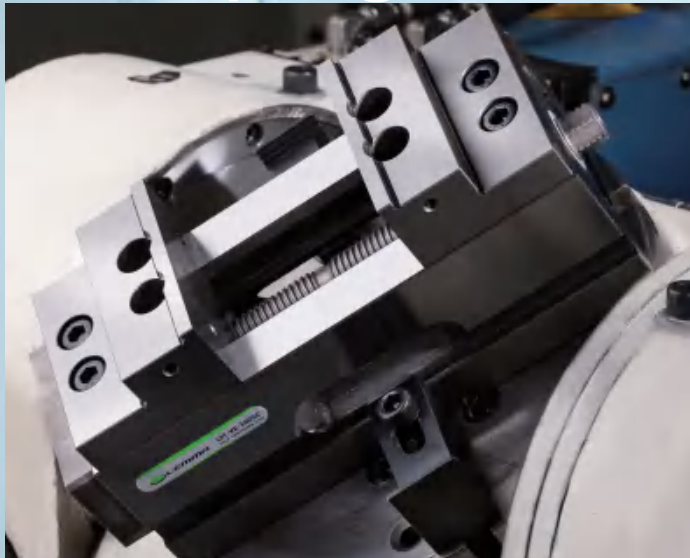
## 切削系統

正河源在切削領域累積了多年的實務經驗，因此，針對不同之客戶皆可提供專業的工藝方案為客戶在最短時間內克服加工上的難題。

Chain headway have accumulated many years of practical experience in the field of cutting, so I can provide professional work for different customers.

The art solution allows customers to overcome the processing problems in the shortest time.

# Clamping



## 夾治具系統

整合現有夾具治資源及與歐洲配合零點定位系統，可將夾治具與機台床台做為快速更換的連接，提升機台稼動率，更是邁向自動化的前哨戰。

Integrating the existing fixture management resources and cooperating with the zero positioning system in Europe, the fixture and the machine bed can be used as a quick-change connection to increase the utilization rate of the machine, and it is an out-of-war battle for automation.



# 全面性服務 Total Solution

## 客製化服務 Customized Service

金屬切削領域切削方式千變萬化，要找到特殊加工或合適之加工刀具與刀片相當不易，為解決以上問題其最有效之方式就是找到合適的合作夥伴，而正河源就是您最佳的夥伴，正河源在專業的客製化服務已經長達20年之久，多年來累積了許多實際案例，我們相信一定能成為您事業上的好夥伴且提供您全面性的規劃，正河源相信從幫助規劃到生產一定能提高到最高效益。

The cutting method in the field of metal cutting is ever-changing. It is quite difficult to find special machining or suitable machining tools and insert. The most effective way to solve the above problems is to find a suitable partner, and Chain headway is your best partner. Chain headway is in Professional customized service has been for 20 years. Many practical cases have been accumulated over the years. We believe that we can be a good partner in your business and provide you with comprehensive planning. Chain headway believes that from planning to production Can improve to the highest efficiency.



客戶需求

專業研發團隊

專業製造團隊

測試與完成

Customer demand

Professional R&D team



















Professional manufacturing team

Testing and completion



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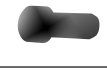

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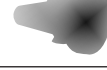


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













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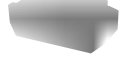





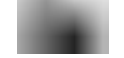





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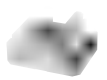

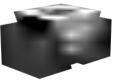
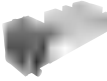





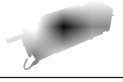

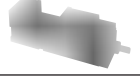

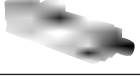



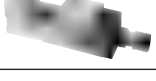
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









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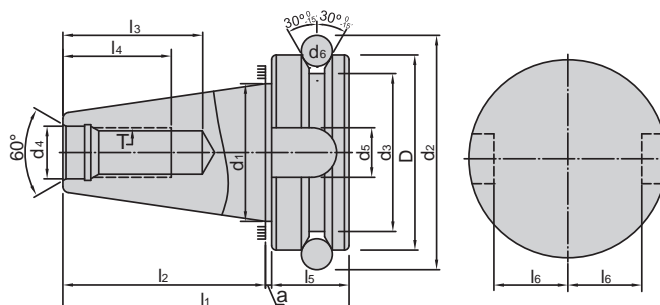
# BT

## Precision Tool Holder Systems

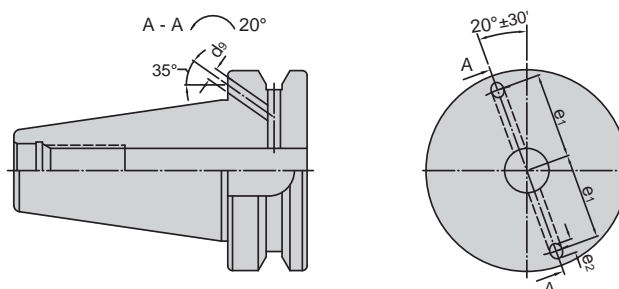




MAS403/BT A



MAS403/BT AD+B



規格 Spec.	D h8	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub> H8	d <sub>5</sub> H12	d <sub>6</sub>	d <sub>9</sub> H12	a ±0.4
BT30	46	31.75	56.14	38	12.5	16.1	8	-	2
BT40	63	44.45	75.679	53	17	16.1	10	4	2
BT50	100	69.85	119.02	83	25	25.7	15	6	3

規格 Spec.	l <sub>1</sub>	l <sub>2</sub> ±0.2	l <sub>3</sub> min	l <sub>4</sub> min	l <sub>5</sub>	l <sub>6</sub> 0 -0.2	e <sub>1</sub> ±0.1	e <sub>2</sub> Max	T 6H
BT30	70.4	48.4	34	24	20	16.3	-	-	M12×1.75P
BT40	92.4	65.4	43	30	25	22.6	27	5	M16×2.0P
BT50	139.8	101.8	62	45	35	35.4	42	7	M24×3.0P

1. 錐度精度 : <AT3
2. 硬度 : >HRC 56°
3. 滲碳深度 : >0.8mm
4. 真圓度 : < 0.8μm
5. 表面粗糙度 : Ra < 0.25μm
6. 本體規範 : JIS MAS 403

- 1.Taper tolerance < AT3.
- 2.Hardness > HRC 56°
- 3.Carbon depth > 0.8mm.
- 4.Roundness < 0.8μm.
- 5.Surface roughness : Ra < 0.25μm.
- 6.Shank body standard : JIS MAS 403.



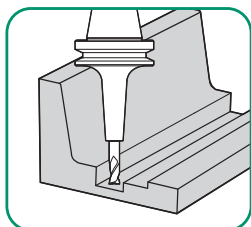
## BT/SBL 後拉式立銑刀夾頭

### BT/SBL SILM-FIT COLLET CHUCK

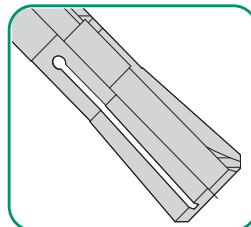
JIS  
PAT.NO: M274178 MAS 403



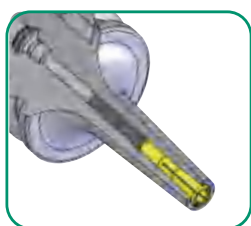
刀桿全研磨·標準動平衡G2.5 25000rpm  
Tool holder with polishing and fully balanced  
is up to G2.5 36000 rpm.



前端小徑設計·  
降低干涉的情形。  
The slim design reduces  
interference while machining.



內孔4°錐角設計·  
方便刀具鬆脫並加大夾持力·  
提高穩定性。  
Tapered design always leads to good  
clamping force right.



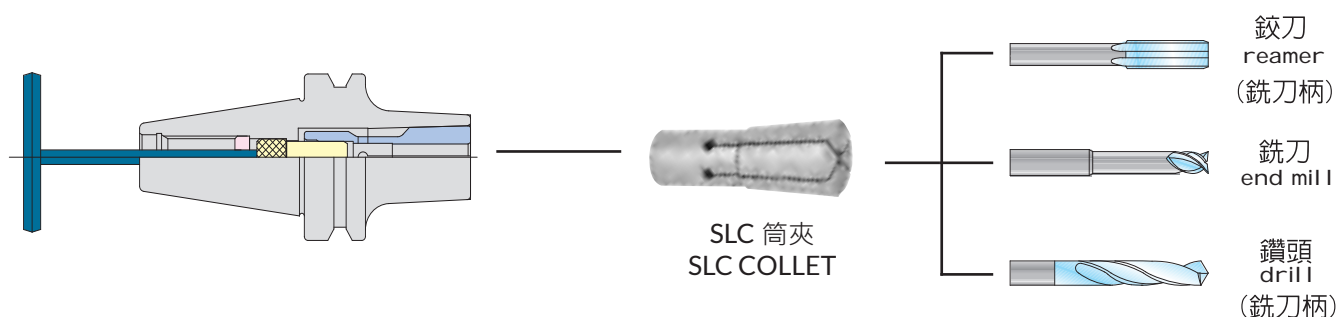
內藏式筒夾設計·無需使用螺帽·  
更適合高速加工。  
The built-in collet does  
not need a clamping nut  
and is perfect for high  
speed processing.



標準動平衡 G2.5 25000rpm。  
Standard balance of  
G2.5 at 25000 rpm.

### SBL 後拉式使用方式：

SBL Silm-fit Application Method:



- 本體規格 : BT、DAT、CAT、HSK、C  
- 筒夾規格 : SLC6、SLC12、SLC20

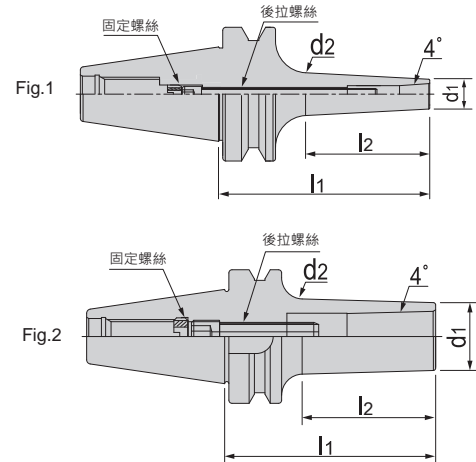
- Spindle Taper : BT、DAT、CAT、HSK、C.  
- Collet type : SLC6、SLC12、SLC20.



# BT/SBL 後拉式立銑刀夾頭

## BT/SBL SILM-FIT COLLET CHUCK

JIS  
PAT.NO: M274178 MAS 403



### 特點 Feature

- 偏擺精度: 5 $\mu$ m(4D)
- 標準動平衡 G2.5 25000rpm

- Precision 5 $\mu$ m up to 4D length.
- Dynamic balancing G2.5 at 25000rpm.

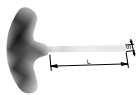
規格 Spec.	夾持範圍 Clamping Range	筒夾 Collet	$l_1$	$l_2$	$d_1$	$d_2$	後拉螺絲 Slim-Fit Screw	固定螺絲 Fixed Screw	扳手 Wrench	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
BT30 × SBL6-70	2~6	SLC6	70	38	14	18.1	SBL6-M6-40L	SBL6-M12	PT5	6.0	1	1.00
BT30 × SBL6-100	2~6	SLC6	100	68	14	21.2	SBL6-M6-70L	SBL6-M12	PT5	6.0	1	0.60
BT30 × SBL12-70	3~12	SLC12	70	47	26	33.4	SBL12-M10-25L	SBL12-M15	PT6	10.0	2	0.63
BT30 × SBL12-100	3~12	SLC12	100	77	26	38.1	SBL12-M10-25L	SBL12-M15	PT6	10.0	2	0.84
BT30 × SBL20-80	3~20	SLC20	80	55	34	37.7	SBL20-M12-30L	SBL20-M18	PT8	12.0	2	0.68
BT30 × SBL20-100	3~20	SLC20	100	77	34	39.2	SBL20-M12-30L	SBL20-M18	PT8	12.0	2	0.85
BT40 × SBL6-70	2~6	SLC6	70	28	14	17.1	SBL6-M6-50L	SBL6-M16	PT5	6.0	1	1.20
BT40 × SBL6-100	2~6	SLC6	100	58	14	20.1	SBL6-M6-75L	SBL6-M16	PT5	6.0	1	1.20
BT40 × SBL12-70	3~12	SLC12	70	33	26	31	SBL12-M10-25L	SBL12-M16	PT6	10.0	2	1.30
BT40 × SBL12-100	3~12	SLC12	100	63	26	31.6	SBL12-M10-55L	SBL12-M16	PT6	10.0	2	1.38
BT40 × SBL20-70	3~20	SLC20	70	33	35	38.1	SBL20-M12-30L	SBL20-M16	PT8	12.0	2	1.50
BT40 × SBL20-100	3~20	SLC20	100	68	35	41	SBL20-M12-52L	SBL20-M16	PT8	12.0	2	1.45
BT50 × SBL6-70	2~6	SLC6	70	17	14	15.9	SBL6-M6-50L	SBL6-M16	PT5-S	6.0	1	4.00
BT50 × SBL6-100	2~6	SLC6	100	47	14	19.1	SBL6-M6-40L	SBL6-M16	PT5-S	6.0	1	3.93
BT50 × SBL12-70	3~12	SLC12	70	22	26	28.1	SBL12-M10-25L	SBL12-M16	PT6-S	10.0	2	4.00
BT50 × SBL12-100	3~12	SLC12	100	52	26	30.6	SBL12-M10-55L	SBL12-M16	PT6-S	10.0	2	4.30
BT50 × SBL20-70	3~20	SLC20	70	22	35	36.9	SBL20-M12-30L	SBL20-M16	PT8-S	12.0	2	3.90
BT50 × SBL20-100	3~20	SLC20	100	52	35	39.6	SBL20-M12-52L	SBL20-M16	PT8-S	12.0	2	4.70

PT 型扳手 PT-Type Wrench

止動螺帽 Stop Nut

固定螺絲 Fixed Screw

後拉螺絲 Slim-Fit Screw



規格 Spec.	5	L	扭力值 (N.m) Torque
PT5	5	70	6.0
PT5-S		130	
PT6	6	70	10.0
PT6-S		130	
PT8	8	140	12.0

規格 Spec.	L
SBL6-SN	17

規格 Spec.	規格 Spec.
SBL6-M12	SBL12-M16
SBL6-M16	SBL20-M16
SBL12-M15	SBL20-M18

規格 Spec.	L	規格 Spec.	L
SBL6-M6-30L	30	SBL6-M6-80L	80
SBL6-M6-35L	35	SBL6-M6-95L	95
SBL6-M6-40L	40	SBL6-M6-127L	127
SBL6-M6-50L	50	SBL12-M10-25L	25
SBL6-M6-65L	65	SBL12-M10-55L	55
SBL6-M6-70L	70	SBL20-M12-30L	30
SBL6-M6-72L	72	SBL20-M12-52L	52
SBL6-M6-75L	75		

### 選配表 Option

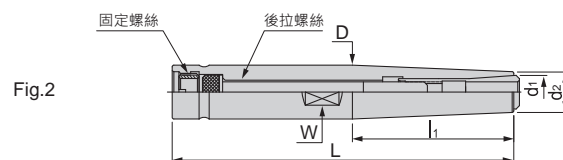
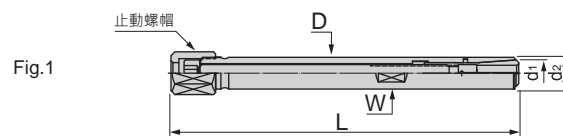
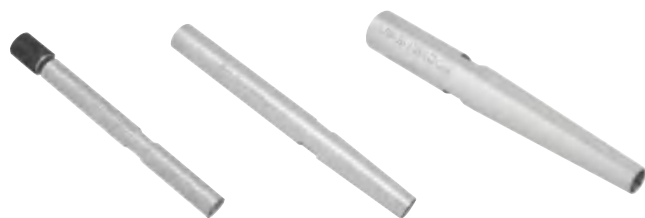
拉頭 Pull Stud	筒夾 Collet
A290-A293	A276





## 直柄 SBL 小徑延長桿 STRAIGHT SHANK SBL COLLET CHUCK

JIS  
MAS 403



規格 Spec.	L	$l_1$	D	$d_1$	$d_2$	W	後拉螺絲 Slim-Fit Screw	固定螺絲 Fixed Screw	止動螺帽 Stop Nut	扳手 Wrench	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
C12 × SBL6-120	120	-	12	9.93	12	10	SBL6-M6-95	-	SBL6-SN	PT5	6	1	0.12
C12 × SBL6-150	150	-	12	9.93	12	10	SBL6-M6-127	-	SBL6-SN	PT5	6	1	0.14
C16 × SBL6-120	120	48	16	9.93	12	14	SBL6-M6-70	M11X1.0P	-	PT5	6	2	0.16
C16 × SBL6-150	150	48	16	9.93	12	14	SBL6-M6-40	M11X1.0P	-	PT5-S	6	2	0.2
C16 × SBL6-200	200	48	16	9.93	12	14	SBL6-M6-80	M11X1.0P	-	PT5-S	6	2	0.24
C20 × SBL6-120	120	76.5	20	9.93	12	17	SBL6-M6-70	M11X1.0P	-	PT5	6	2	0.19
C20 × SBL6-150	150	86	20	9.93	12	17	SBL6-M6-40	M11X1.0P	-	PT5-S	6	2	0.25
C20 × SBL6-200	200	76.5	20	9.93	12	17	SBL6-M6-72	M11X1.0P	-	PT5-S	6	2	0.35
C25 × SBL6-120	120	60	25	9.93	14	22	SBL6-M6-30	M11X1.0P	-	PT5	6	2	0.38
C25 × SBL6-150	150	60	25	9.93	14	22	SBL6-M6-35	M11X1.0P	-	PT5-S	6	2	0.44
C25 × SBL6-200	200	60	25	9.93	14	22	SBL6-M6-75	M11X1.0P	-	PT5-S	6	2	0.6
C25 × SBL12-120	120	50	25	18	22	22	SBL12-M10-25	M16X2.0P	-	PT6	10	2	0.28
C25 × SBL12-150	150	50	25	18	22	22	SBL12-M10-55	M16X2.0P	-	PT6	10	2	0.39
C25 × SBL12-200	200	50	25	18	22	22	SBL12-M10-55	5/8"-11UNC	-	PT6-S	10	2	0.55

- 附扳手 Comes with a spanner.



## 直柄 SBL 小徑延長桿套裝組 STRAIGHT SHANK SBL COLLET CHUCK SET



規格 Spec.	內容物 Contents						重量 (KGS) Weight
	延長桿 Chuck	止動螺帽 Stop Nut	筒夾 Collet	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty	
C12 × SBL6-120-3P	C12 × SBL6-120	SBL6-SN	SLC6-3	PT5	6.0	1	0.60
			SLC6-4				
			SLC6-6				
C16 × SBL6-150-3P	C16 × SBL6-150	-	SLC6-3	PT5-S	6.0	1	0.66
			SLC6-4				
			SLC6-6				

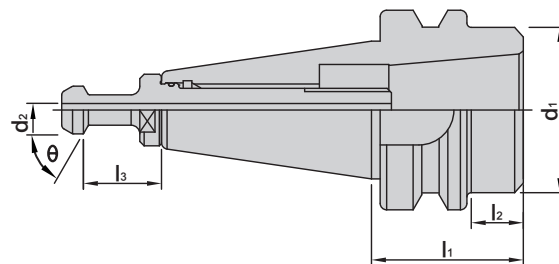




## SFS 後拉式立銑刀夾頭 SLIM-FIT COLLET CHUCK

JIS  
MAS 403

**NEW**



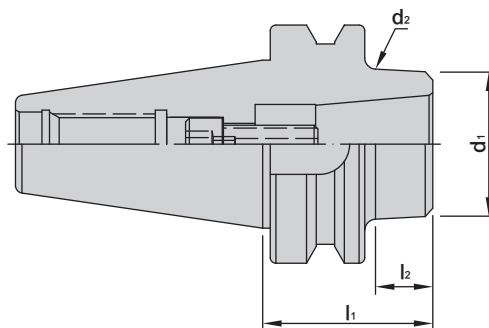
### 特點 Feature

- 需搭配 MFS 熱膨脹延長桿做使用

-Need to be used with MFS shrink-fit extension.

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$\theta$	重量 (KGS) Weight
BT30 x SFS12-35-A	35	12	18	38.1	3	45°	0.4
BT30 x SFS12-35-B	35	12	18	38.1	3	60°	0.4
SBT30 x SFS12-35-A	35	12	18	38.1	3	45°	0.4
SBT30 x SFS12-35-B	35	12	18	38.1	3	60°	0.4

※ 含拉頭 With pull studs



規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	重量 (KGS) Weight
BT40 x SFS12 - 45	45	15.1	38.1	39.6	1.1
BT40 x SFS12 - 75	75	60.1	38.1	42.8	1.4
BT40 x SFS12 - 90	90	45.1	38.1	44.4	1.6
BT40 x SFS12 - 135	135	105.1	38.1	49.1	2.2
BT50 x SFS12 - 75	75	34.1	38.1	41.6	4.0
BT50 x SFS12 - 105	105	64.1	38.1	44.8	4.4
BT50 x SFS12 - 135	135	94.1	38.1	47.9	4.7
BT50 x SFS12 - 225	225	184.1	38.1	57.4	6.4
BT50 x SFS12 - 315	315	274.1	38.1	66.8	11

※ 不含拉頭 Not included pull studs

### 選配表 Option

拉頭 Pull Stud	
A290	A290-A293





# MFS 熱膨脹延長桿

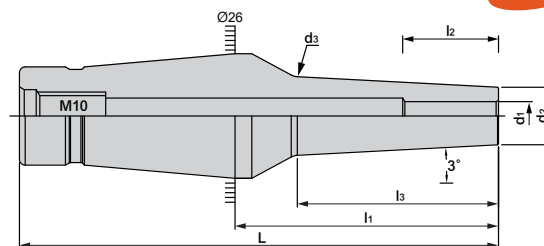
## MFS SHRINK-FIT EXTENSION

JIS  
MAS 403

燒結式 Shrink-Fit

壁薄型 Thin

**NEW**



### 特點 Feature

- 材質：不鏽鋼
- 需搭配 SFS 後拉式立銑刀夾頭做使用

- Material: heat resistant steel.
- Need to be used with SFS slim-fit collet chuck.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	重量 (KGS) Weight
MFS12S x 3mm - 35	80	35	10	22	3	6	8.3	0.16
MFS12S x 3mm - 55	100	55	10	42	3	6	10.4	0.17
MFS12S x 3mm - 80	125	80	10	67	3	6	13.0	0.20
MFS12S x 3mm - 110	155	110	10	97	3	6	16.2	0.23
MFS12S x 3.175mm - 35	80	35	10	22	3.175	6.175	8.5	0.16
MFS12S x 3.175mm - 55	100	55	10	42	3.175	6.175	10.6	0.17
MFS12S x 3.175mm - 80	125	80	10	67	3.175	6.175	13.2	0.19
MFS12S x 3.175mm - 110	155	110	10	97	3.175	6.175	16.3	0.23
MFS12S x 4mm - 35	80	35	10	22	4	7	9.3	0.16
MFS12S x 4mm - 55	100	55	10	42	4	7	11.4	0.18
MFS12S x 4mm - 80	125	80	10	67	4	7	14.0	0.20
MFS12S x 4mm - 110	155	110	10	97	4	7	17.2	0.24
MFS12S x 6mm - 35	80	35	20	22	6	9	11.3	0.17
MFS12S x 6mm - 55	100	55	20	42	6	9	13.4	0.18
MFS12S x 6mm - 80	125	80	20	67	6	9	16.2	0.21
MFS12S x 6mm - 110	155	110	20	97	6	9	19.2	0.26
MFS12S x 8mm - 35	80	35	26	22	8	11	13.3	0.17
MFS12S x 8mm - 55	100	55	26	42	8	11	15.4	0.19
MFS12S x 8mm - 80	125	80	26	67	8	11	18.0	0.23
MFS12S x 8mm - 110	155	110	26	97	8	11	21.2	0.29
MFS12S x 10mm - 35	80	35	32	22	10	13	15.3	0.17
MFS12S x 10mm - 55	100	55	32	42	10	13	17.4	0.20
MFS12S x 10mm - 80	125	80	32	67	10	13	20.0	0.24
MFS12S x 10mm - 110	155	110	32	97	10	13	23.2	0.32
MFS12S x 12mm - 35	80	35	37	22	12	15	17.3	0.17
MFS12S x 12mm - 55	100	55	37	42	12	15	19.4	0.20
MFS12S x 12mm - 80	125	80	37	67	12	15	22.0	0.26
MFS12S x 12mm - 110	155	110	37	97	12	15	25.2	0.35

### 選配表 Option





## MFS 熱膨脹延長桿

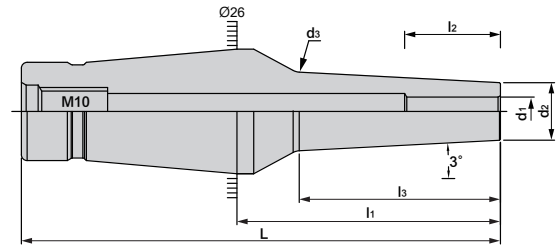
### MFS SHRINK EXTENSION

JIS  
MAS 403

燒結式 Shrink-Fit

標準型 Standard

**NEW**



#### 特點 Feature

- 材質：不鏽鋼
- 需搭配 SFS 後拉式立銑刀夾頭做使用

- Material: heat resistant steel.
- Need to be used with SFS slim-fit collet chuck.

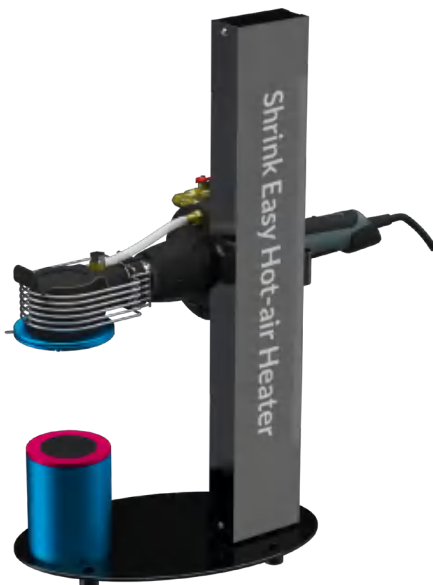
規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	重量 (KGS) Weight
MFS12R x 3mm - 35	80	35	10	22	3	7.5	9.8	0.2
MFS12R x 3mm - 55	100	55	10	42	3	7.5	11.9	0.2
MFS12R x 3mm - 80	125	80	10	67	3	7.5	14.5	0.2
MFS12R x 4mm - 35	80	35	10	22	4	10	12.3	0.2
MFS12R x 4mm - 55	100	55	10	42	4	10	14.4	0.2
MFS12R x 4mm - 80	125	80	10	67	4	10	17	0.2
MFS12R x 6mm - 35	80	35	20	22	6	12	14.3	0.2
MFS12R x 6mm - 55	100	55	20	42	6	12	16.4	0.2
MFS12R x 6mm - 80	125	80	20	67	6	12	19	0.2
MFS12R x 8mm - 35	80	35	26	22	8	14	16.3	0.2
MFS12R x 8mm - 55	100	55	26	42	8	14	18.4	0.2
MFS12R x 8mm - 80	125	80	26	67	8	14	21	0.3
MFS12R x 10mm - 35	80	35	32	22	10	16	18.3	0.2
MFS12R x 10mm - 55	100	55	32	42	10	16	20.4	0.2
MFS12R x 10mm - 80	125	80	32	67	10	16	23	0.3
MFS12R x 12mm - 35	80	35	37	22	12	20	22.3	0.2
MFS12R x 12mm - 55	100	55	37	42	12	20	24.4	0.2
MFS12R x 12mm - 80	125	80	37	67	12	20	25.4	0.3



## HF-2200 熱風式加熱器

### SHRINK EASY HOT-AIR HEATER

**NEW**



- 適用刀桿：MFS
- Applicable chuck: MFS

規格 Spec.	HF-2200
尺寸 (長 x 寬 x 高) Size(DxWxH)	560X260x600(mm)
輸出電源 Power output	220V 單向
功率 Output	2200 瓦 (watts)
加熱時間 Heating time	以 3mm(1/8") 約 70 秒
使用刀具尺寸 Cutting tools size	3mm(1/8")~12mm(1/2")
加熱刀桿材質 Shrink-fit chuck material	不鏽鋼材質 stainless steel



## SFC 電磁誘導加熱原理 (熱脹冷縮) SFC SHRINK-FIT PRINCIPLE

JIS  
MAS 403

### | 快速加熱原理 Rapid Heating Principle:

由加熱器內之感應線圈，產生高頻電磁波使刀桿感應渦電流而生熱，加熱迅速，提升換刀效率

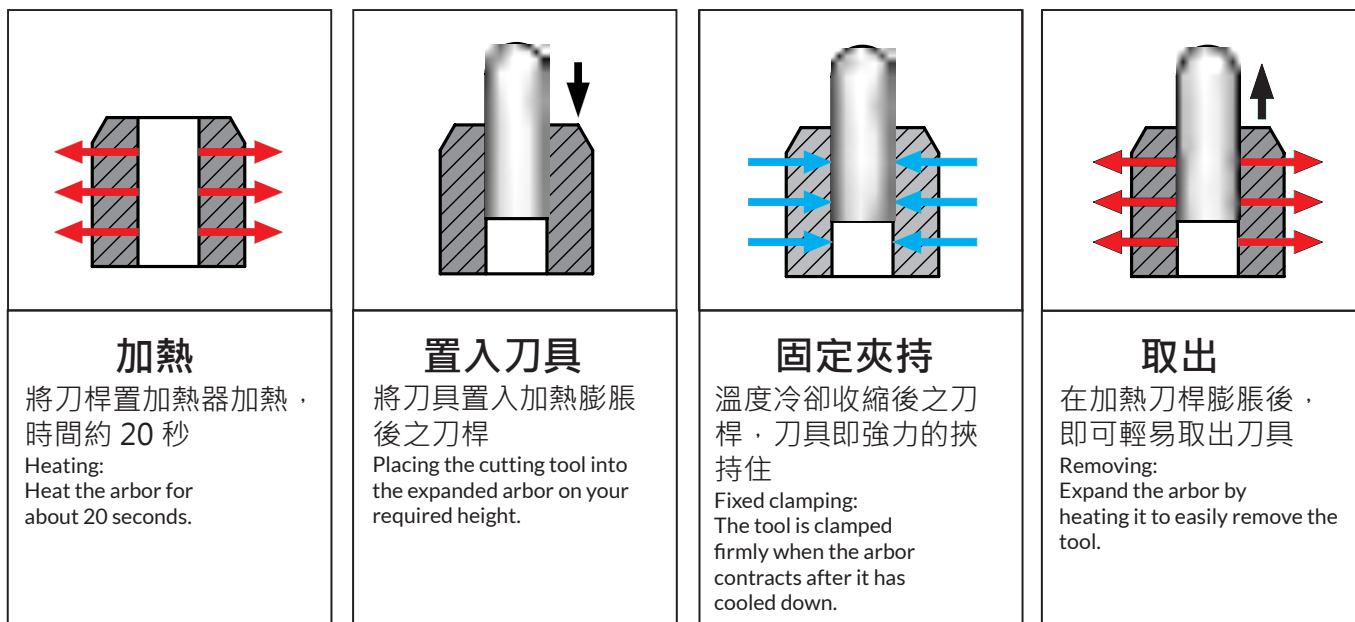
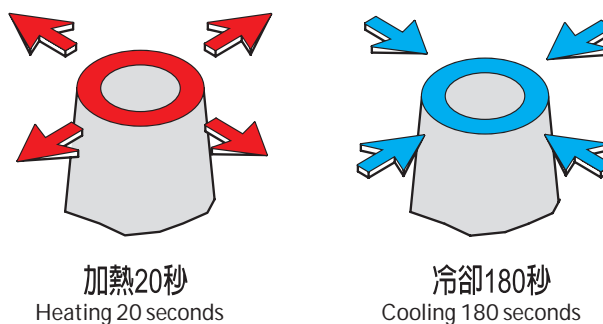
With the induction coil of the Shrink-fit machine, high frequency electro-magnetic waves rapidly to heat the arbor. It leads to quick clamping and unclamping of the tools.

### | 冷卻原理 Cooling Principle:

利用空壓機之風力強制降溫冷卻，使刀桿能迅速到達常溫狀態。(冷卻時間與空壓機馬力大小成反比)

Using the wind of air compressor to make the tool holder cool down quickly. (Cooling time and air compressor power are in inverse proportion.)

例 Example: BT40×SFC12-90



### | 操作便利安全 Convenient safety instruction:

刀桿被加熱至換刀溫度後，約五秒後自動開啟送風裝置冷卻刀桿，不必移動加熱器，提高操作之安全性

After heating the arbor to the desired temp for changing the tool, the air compressor will automatically turn on after 5 seconds and blow the cool air to cool down for clamping the tool.



# SFC 電磁誘導加熱器

## SFC SHRINK-FIT MACHINE

PAT.NO: M260359 PAT.NO: M296769  
 PAT.NO: M260982 PAT.NO: 3110095  
 PAT.NO: M247320 PAT.NO: 3110096  
 ZL 200320116467X ZL 200420074353.8 JIS  
 MAS 403



規格 Spec.	SFC-300	SFC-1000
尺寸 (寬 x 深 x 高) Size(WxDxH)	300X300x685(mm)	650X410X820(mm)
輸出電源 Power output	單相 SINGLE-PHASE 220V、50/60HZ 15 安培 AMP	三相 3-PHASE 220V 50/60HZ 25 安培 AMP
瞬間輸出最大功率 Maximum output	2000~3000 瓦 (watts)	6000~9000 瓦 (watts)
建議使用範圍 Tool size range	Ø3~Ø20mm、大型加熱罩 Ø25~Ø32mm (另購) Ø3~Ø20mm、large heating mantle、Ø25~Ø32mm (optional)	適用於 Ø3~Ø32mm 刀具 Suitable for Ø3~Ø32mm Tool
加熱時間 Heating time	-	3~18 秒 (視刀桿尺寸、形狀而定) 3-18 seconds. (It depends on the arbor size and shape)
使用刀具 Cutting tools	限用鎢鋼刀具 Only tungsten steel tools	可使用在 HSS 刀具或一般捨棄式刀具 (Ø10 以上) HSS tools and garden-variety abandon cutting tools
加熱刀桿 Shrink-fit tool holder	合金鋼材質 (不建議加熱不鏽鋼材質) Alloy steel(stainless steel is not recommended for heating)	
重量 (KGS) Weight	18.75(KGS)	63.2(KGS)

### 選配配件 Option Accessories

圖示 Pic.	規格 Spec.	名稱 Name	用途 Use
	HSK25、HSK32、HSK40、 HSK50、HSK63、HSK80	HSK 變徑刀桿座 HSK Arbor Base	用於固定不同規格刀桿尺寸上 For different types of arbor specifications.
	BT30、BT40、 PSC-63A、BT50	BT 變徑刀桿座 BT Arbor Base	
	Ø3~Ø5、Ø6~Ø12、 Ø14~Ø20、Ø25~Ø32	導熱環 Thermal Conductive Ring Housing	有效阻絕熱源、冷空氣與外界接觸 Thermal housing prevents and ensures during heating and cooling the exact place of the arbor.
	Ø84×101	HSK 變徑刀桿座 HSK - Arbor Base	用於固定不同規格刀桿尺寸上 For different types of arbor specifications.
	Ø3、Ø4、Ø6、Ø8、Ø10、Ø12	刀具夾持器 (需另購) Cutting tool holder(Optional)	用於置入、取出刀具使用，並可設定刀具長度 To hold the cutting tool at any height during clamp and easily remove during unclamp.





# BT/SFCT 熱膨脹刀桿

## BT/SFCT SHRINK-FIT CHUCK

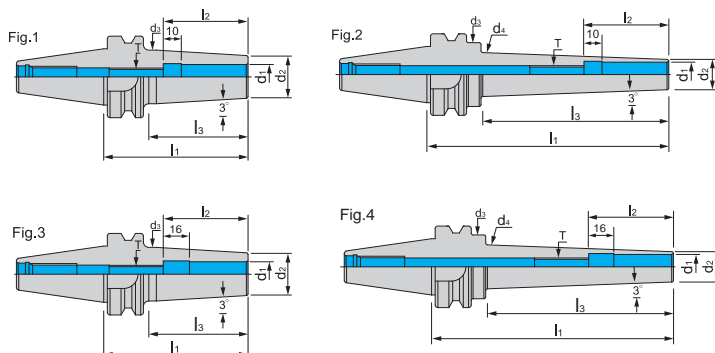
PAT.NO: M284478 PAT.NO: TR 200703317Y  
 PAT.NO: 3134091 PAT.NO: Nr.202007006594.9  
 PAT.NO: 3200356 PAT.NO: US75564618.2

JIS  
 MAS 403

燒結式 Shrink-Fit



台灣精品 2009  
 TAIWAN EXCELLENCE



### 特點 Feature

- 整支通孔，利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	$d_4$	T	Fig.	重量 (KGS) Weight
BT30 × SFCT4-80	80	20	48	4	10	15	-	M6×1.0P	1	0.40
BT30 × SFCT4-135	135	20	102	4	10	26	20.6	-	2	0.60
BT30 × SFCT5-80	80	20	53	5	16	19	-	M6×1.0P	1	0.42
BT30 × SFCT5-135	135	20	102	5	11	26	21.6	-	2	0.62
BT30 × SFCT6-80	80	36	53	6	21	26	-	M5×0.8P	3	0.44
BT30 × SFCT6-135	135	36	101	6	12	26	22.6	M5×0.8P	4	0.64
BT30 × SFCT8-80	80	36	53	8	21	26	-	M6×1.0P	1	0.45
BT30 × SFCT8-135	135	36	103	8	14	26	24.7	M6×1.0P	2	0.65
BT30 × SFCT10-80	80	42	53	10	24	29	-	M8×1.25P	2	0.65
BT30 × SFCT10-135	135	42	108	10	16	26	-	M8×1.25P	2	0.70
BT30 × SFCT12-80	80	52	53	12	24	29	-	M10×1.5P	1	0.50
BT30 × SFCT12-135	135	52	108	12	18	26	-	M10×1.5P	2	0.70
BT30 × SFCT14-80	80	52	46	14	24	32	-	M10×1.5P	2	0.52
BT30 × SFCT14-135	135	52	102	14	20	36	30.6	M10×1.5P	2	0.72
BT30 × SFCT16-80	80	52	55	16	27	32	-	M12×1.75P	1	0.54
BT30 × SFCT16-135	135	52	101	16	22	36	32.6	M12×1.75P	2	0.74
BT30 × SFCT18-90	90	52	66	18	33	38	-	M12×1.75P	2	0.56
BT30 × SFCT18-135	135	52	102	18	24	36	34.7	M12×1.75P	2	0.75
BT30 × SFCT20-90	90	52	66	20	33	38	-	M16×2.0P	1	0.80
BT30 × SFCT20-135	135	52	111	20	26	36	-	M16×2.0P	2	0.78
BT30 × SFCT25-100	100	58	78	25	44	49	-	M20×2.0P	2	0.60
BT30 × SFCT25-160	160	58	136	25	31	36	-	M20×2.0P	2	0.80

### 選配表 Option

拉頭 Pull Stud	加熱器 Hot-Air
A290-A293	A044





# BT/SFCT 熱膨脹刀桿

## BT/SFCT SHRINK-FIT CHUCK

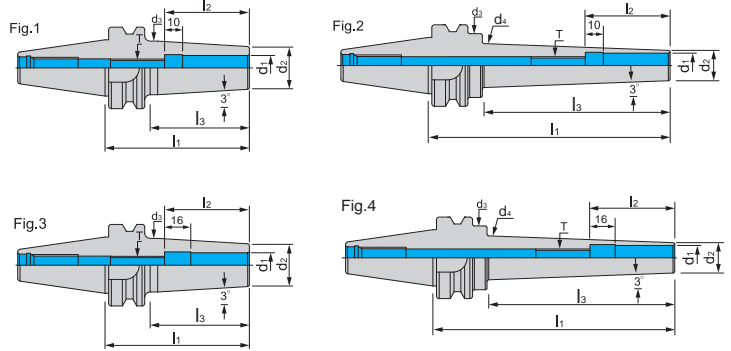
PAT.NO: M284478 PAT.NO: TR 200703317Y  
 PAT.NO: 3134091 PAT.NO: Nr.202007006594.9  
 PAT.NO: 3200356 PAT.NO: US75564618.2

JIS  
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燒結式 Shrink-Fit



台灣精品 2009  
 TAIWAN EXCELLENCE



### 特點 Feature

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- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	$d_4$	T	Fig.	重量 (KGS) Weight
BT40 × SFCT4-90	90	20	53	4	10	15.6	-	M6×1.0P	1	1.10
BT40 × SFCT4-135	135	20	97	4	10	26	20	-	2	1.20
BT40 × SFCT5-90	90	20	58	5	16	21	-	M6×1.0P	1	1.00
BT40 × SFCT5-135	135	20	97	5	11	26	21	-	2	1.20
BT40 × SFCT5-165	165	20	127	5	11	26	24	-	2	1.40
BT40 × SFCT5-200	200	20	168	5	11	26	-	-	2	1.80
BT40 × SFCT6-90	90	36	58	6	21	26	-	M5×0.8P	3	1.22
BT40 × SFCT6-135	135	36	96	6	12	26	22	M5×0.8P	4	1.30
BT40 × SFCT6-165	165	36	127	6	12	26	22	M5×0.8P	4	1.50
BT40 × SFCT6-200	200	36	168	6	12	26	-	M5×0.8P	4	2.00
BT40 × SFCT8-90	90	36	58	8	21	26	-	M6×1.0P	1	1.21
BT40 × SFCT8-135	135	36	97	8	14	36	24	M6×1.0P	2	1.30
BT40 × SFCT8-165	165	36	127	8	14	36	27	M6×1.0P	2	1.50
BT40 × SFCT8-200	200	36	162	8	14	36	30	M6×1.0P	2	1.59
BT40 × SFCT10-90	90	42	58	10	24	29	-	M8×1.25P	1	1.28
BT40 × SFCT10-135	135	42	97	10	16	36	26	M8×1.25P	2	1.30
BT40 × SFCT10-165	165	42	127	10	16	36		M8×1.25P	2	1.50
BT40 × SFCT10-200	200	42	161	10	16	36	32	M8×1.25P	2	2.00
BT40 × SFCT12-90	90	52	58	12	24	29	-	M10×1.5P	1	3.94
BT40 × SFCT12-135	135	52	97	12	18	36	28	M10×1.5P	2	1.30
BT40 × SFCT12-165	165	52	125	12	18	36	31	M10×1.5P	2	1.50
BT40 × SFCT12-200	200	52	162	12	18	36	35	M10×1.5P	2	1.69

### 選配表 Option

拉頭 Pull Stud	加熱器 Hot-Air
A290-A293	A044





# BT/SFCT 熱膨脹刀桿

## BT/SFCT SHRINK-FIT CHUCK

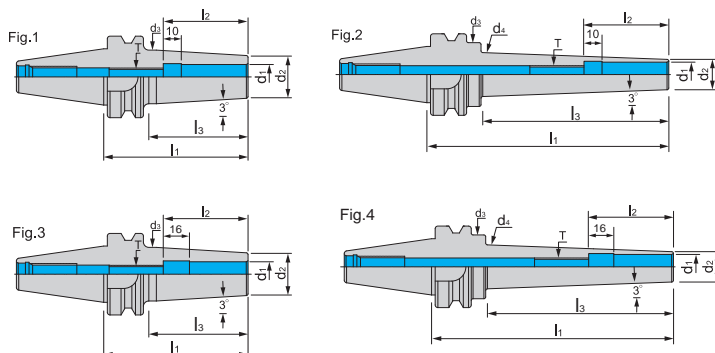
PAT.NO: M284478 PAT.NO: TR 200703317Y  
 PAT.NO: 3134091 PAT.NO: Nr.202007006594.9  
 PAT.NO: 3200356 PAT.NO: US75564618.2

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燒結式 Shrink-Fit



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 TAIWAN EXCELLENCE



### 特點 Feature

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- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	$d_4$	T	Fig.	重量 (KGS) Weight
BT40 × SFCT14-90	90	52	58	14	27	32	-	M10×1.5P	1	1.20
BT40 × SFCT14-135	135	52	97	14	20	36	30	M10×1.5P	2	1.40
BT40 × SFCT14-165	165	52	126	14	20	36	33	M10×1.5P	2	1.50
BT40 × SFCT14-200	200	52	168	14	20	36	-	M10×1.5P	2	2.00
BT40 × SFCT16-90	90	52	58	16	27	32	-	M12×1.75P	1	1.28
BT40 × SFCT16-135	135	52	96	16	22	36	32	M12×1.75P	2	1.40
BT40 × SFCT16-165	165	52	127	16	22	36	35	M12×1.75P	2	1.50
BT40 × SFCT16-200	200	52	168	16	22	36	-	M12×1.75P	2	2.00
BT40 × SFCT18-100	100	52	68	18	33	38	-	M12×1.75P	1	1.30
BT40 × SFCT18-135	135	52	97	18	24	36	34	M12×1.75P	2	1.50
BT40 × SFCT18-165	165	52	133	18	24	36	-	M12×1.75P	2	2.00
BT40 × SFCT18-200	200	52	133	2	24	36	-	M12×1.75P	2	2.10
BT40 × SFCT19-90	90	52	168	2	24	36	-	M12×1.75P	2	1.80
BT40 × SFCT20-100	100	60	58	19	33	38	-	M16×2.0P	1	1.42
BT40 × SFCT20-135	135	52	68	20	33	38	-	M16×2.0P	1	1.50
BT40 × SFCT20-165	165	52	103	20	26	36	-	M16×2.0P	2	1.64
BT40 × SFCT20-200	200	52	133	20	26	36	-	M16×2.0P	2	2.10
BT40 × SFCT24-90	90	52	168	20	26	36	-	M16×2.0P	2	1.86
BT40 × SFCT25-100	100	72	61	24	44	49	-	M20×2.0P	1	1.78
BT40 × SFCT25-135	135	58	71	25	44	49	-	M20×2.0P	1	1.90
BT40 × SFCT25-165	165	58	97	25	31	49	41	M20×2.0P	2	2.10
BT40 × SFCT25-200	200	58	127	25	31	49	44	M20×2.0P	2	2.20
BT40 × SFCT32-100	100	58	162	25	31	49	48	M20×2.0P	2	1.55
BT40 × SFCT32-135	135	58	71	32	44	49	-	M20×2.0P	1	1.90
BT40 × SFCT32-165	165	58	97	32	38	49	48	M20×2.0P	2	2.22
BT40 × SFCT32-200	200	58	136	32	38	49	-	M20×2.0P	2	2.20

### 選配表 Option

拉頭 Pull Stud	加熱器 Hot-Air
A290-A293	A044





# BT/SFCT 熱膨脹刀桿

## BT/SFCT SHRINK-FIT CHUCK

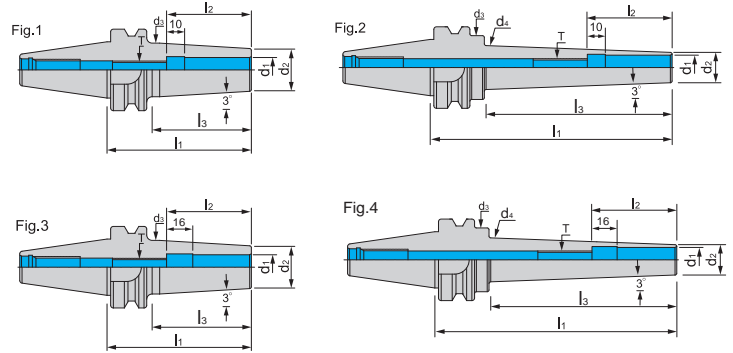
PAT.NO: M284478 PAT.NO: TR 200703317Y  
 PAT.NO: 3134091 PAT.NO: Nr.202007006594.9  
 PAT.NO: 3200356 PAT.NO: US75564618.2

JIS  
 MAS 403

燒結式 Shrink-Fit



台灣精品 2009  
 TAIWAN EXCELLENCE



### 特點 Feature

- 整支通孔，利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	$d_4$	T	Fig.	重量 (KGS) Weight
BT50 × SFCT4-100	100	20	52	4	10	15.5	-	M6×1.0P	1	3.86
BT50 × SFCT4-135	135	20	86	4	10	26	19	-	2	3.56
BT50 × SFCT5-100	100	20	57	5	16	21	-	M6×1.0P	1	1.00
BT50 × SFCT5-135	135	20	86	5	11	26	20	-	2	1.20
BT50 × SFCT5-165	165	20	115	5	11	26	23	-	2	3.71
BT50 × SFCT5-200	200	20	157	5	11	26	-	-	2	1.80
BT50 × SFCT6-100	100	36	57	6	21	26	-	M5×0.8P	3	3.92
BT50 × SFCT6-135	135	36	86	6	12	26	21	M5×0.8P	4	3.62
BT50 × SFCT6-165	165	36	116	6	12	26	24	M5×0.8P	4	3.68
BT50 × SFCT6-200	200	36	157	6	12	26	-	M5×0.8P	4	3.77
BT50 × SFCT8-100	100	36	57	8	21	26	-	M6×1.0P	1	3.92
BT50 × SFCT8-135	135	36	86	8	14	36	23	M6×1.0P	2	3.65
BT50 × SFCT8-165	165	36	116	8	14	36	26	M6×1.0P	2	3.71
BT50 × SFCT8-200	200	36	151	8	14	36	29	M6×1.0P	2	3.84
BT50 × SFCT10-100	100	42	58	10	24	29	-	M8×1.25P	1	3.90
BT50 × SFCT10-135	135	42	86	10	16	36	25	M8×1.25P	2	1.30
BT50 × SFCT10-165	165	42	116	10	16	36	28	M8×1.25P	2	3.76
BT50 × SFCT10-200	200	42	151	10	16	36	31	M8×1.25P	2	3.89
BT50 × SFCT12-100	100	52	52	12	24	29	-	M10×1.5P	1	3.94
BT50 × SFCT12-135	135	52	86	12	18	36	27	M10×1.5P	2	1.30
BT50 × SFCT12-165	165	52	116	12	18	36	30	M10×1.5P	2	3.79
BT50 × SFCT12-200	200	52	150	12	18	36	33	M10×1.5P	2	3.98

### 選配表 Option

拉頭 Pull Stud	加熱器 Hot-Air
A290-A293	A044







# BT/SFCT 熱膨脹刀桿

## BT/SFCT SHRINK-FIT CHUCK

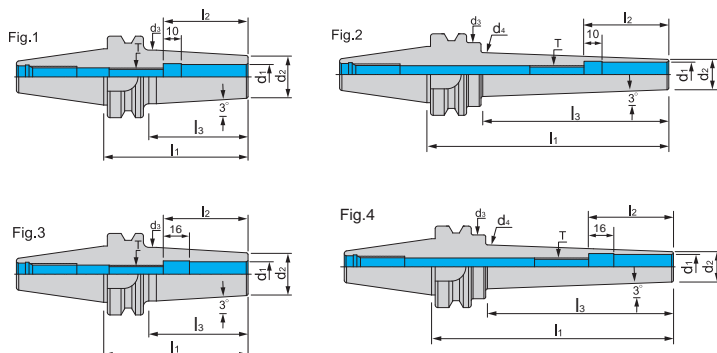
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- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	$d_4$	T	Fig.	重量 (KGS) Weight
BT50×SFCT14-100	100	52	57	14	27	32	-	M10×1.5P	1	4.02
BT50×SFCT14-135	135	52	86	14	20	36	29	M10×1.5P	2	1.40
BT50×SFCT14-165	165	52	116	14	20	36	32	M10×1.5P	2	1.50
BT50×SFCT14-200	200	52	157	14	20	36	-	M10×1.5P	2	2.00
BT50×SFCT16-100	100	52	52	16	27	32	-	M12×1.75P	1	3.96
BT50×SFCT16-135	135	52	86	16	22	36	31	M12×1.75P	2	1.40
BT50×SFCT16-165	165	52	116	16	22	36	34	M12×1.75P	2	3.75
BT50×SFCT16-200	200	52	157	16	22	36	-	M12×1.75P	2	4.06
BT50×SFCT18-110	110	52	62	18	33	38	-	M12×1.75P	1	4.18
BT50×SFCT18-135	135	52	85	18	24	36	32	M12×1.75P	2	1.50
BT50×SFCT18-165	165	52	122	18	24	36	-	M12×1.75P	2	2.00
BT50×SFCT18-200	200	52	157	18	24	36	-	M12×1.75P	2	2.10
BT50×SFCT20-110	110	52	67	20	33	38	-	M16×2.0P	1	4.17
BT50×SFCT20-135	135	52	86	20	26	36	35	M16×2.0P	2	3.76
BT50×SFCT20-165	165	52	117	20	26	36	-	M16×2.0P	2	3.90
BT50×SFCT20-200	200	52	152	20	26	36	-	M16×2.0P	2	2.10
BT50×SFCT25-110	110	58	67	25	44	49	-	M20×2.0P	1	4.46
BT50×SFCT25-135	135	58	86	25	31	49	40	M20×2.0P	2	1.90
BT50×SFCT25-165	165	58	116	25	31	49	43	M20×2.0P	2	2.10
BT50×SFCT25-200	200	58	150	25	31	49	46	M20×2.0P	2	2.20
BT50×SFCT32-110	110	58	67	32	44	49	-	M20×2.0P	1	4.30
BT50×SFCT32-135	135	58	86	32	38	49	47	M20×2.0P	2	1.90
BT50×SFCT32-165	165	58	122	32	38	49	-	M20×2.0P	2	4.33
BT50×SFCT32-200	200	58	157	32	38	49	-	M20×2.0P	2	2.68

### 選配表 Option

拉頭 Pull Stud	加熱器 Hot-Air
A290-A293	A044



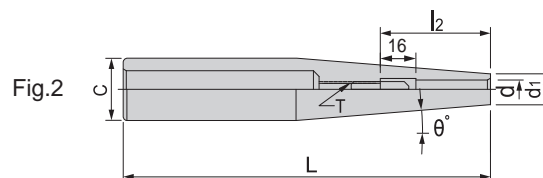
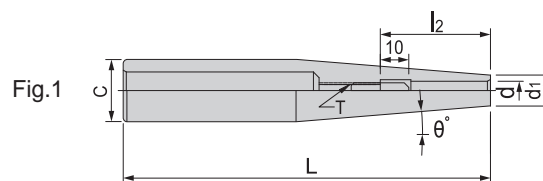


# 直柄 SFC 熱膨脹刀桿

## STRAIGHT SHANK SFC SHRINK-FIT CHUCK

JIS  
MAS 403

燒結式 Shrink-Fit



### 特點 Feature

- 搭配任何筒夾式刀桿使用，應用廣泛且便利
- 精度 5μ

- Compatible with all collet type tool holder. Wide application and economical
- Precision 5μ.

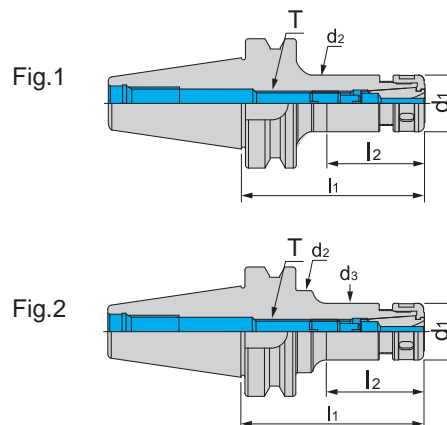
規格 Spec.	C	L	l <sub>2</sub>	d	d <sub>1</sub>	θ	T	Fig.	重量 (KGS) Weight
C10 × SFC3-120	10	120	20	3	7	4.5°	-	1	0.06
C10 × SFC4-120	10	120	20	4	7	4.5°	-	1	0.12
C12 × SFC6-120	12	120	36	6	10	4.5°	M5×0.8P	2	0.12
C16 × SFC4-150	16	150	10	4	7	3°	M6×1.0P	1	0.18
C16 × SFC6-150	16	150	36	6	9	3°	M5×0.8P	2	0.20
C20 × SFC6-150	20	150	26	6	10	3°	-	2	0.25
C20 × SFC8-150	20	150	20	8	14	3°	-	1	0.28
C20 × SFC10-150	20	150	42	10	14	3°	-	1	0.24
C25 × SFC6-250	25	250	26	6	10	3°	-	2	0.64
C25 × SFC8-250	25	250	26	8	12	3°	-	1	0.66
C25 × SFC10-250	25	250	32	10	14	3°	-	1	0.68
C25 × SFC12-250	25	250	37	12	16	3°	-	1	0.62



# BT/SKS 高速機專用夾頭

## BT/SKS COLLET CHUCK

JIS  
PAT.NO: M270871 MAS 403



### 特點 Feature

- 偏擺精度 :5 $\mu$  以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 $\mu$ .
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Dynamic balancing G2.5 at 25000rpm.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	T	Fig.	重量 (KGS) Weight
BT30 × SKS6-45	45	22	18	20	-	M8x1.25P	1	0.80
BT30 × SKS6-60	60	33	18	20	-	M8x1.25P	1	0.90
BT30 × SKS6-90	90	55	18	20	-	M8x1.25P	1	0.52
BT30 × SKS10-45	45	22	30	27.6	-	M12x1.75P	1	0.80
BT30 × SKS10-60	60	33	30	27.6	-	M12x1.75P	1	0.90
BT30 × SKS10-90	90	63	30	27.6	-	M12x1.75P	1	1.00
BT30 × SKS13-60	60	35	35	33	-	M12x1.75P	1	0.84
BT30 × SKS13-90	90	65	35	33	-	M12x1.75P	1	0.74
BT30 × SKS13-120	120	95	35	33	-	M12x1.75P	1	1.60
BT30 × SKS16-60	60	37	40	40	-	M18x1.5P	1	0.59
BT30 × SKS16-90	90	67	40	40	-	M18x1.5P	1	0.82
BT30 × SKS20-60	60	33	48.5	48.5	-	M22x1.5P	1	0.64
BT30 × SKS20-90	90	60	48.5	48.5	-	M22x1.5P	1	0.98
BT40 × SKS6-90	90	44	18	32	18	M8x1.25P	2	1.20
BT40 × SKS6-120	120	74	18	32	18	M8x1.25P	2	1.21
BT40 × SKS10-60	60	30	30	40	27.6	M12x1.75P	2	1.14
BT40 × SKS10-90	90	45	30	40	27.6	M12x1.75P	2	1.20
BT40 × SKS10-120	120	74	30	40	27	M12x1.75P	2	1.40
BT40 × SKS13-60	60	30	35	33	-	M12x1.75P	1	1.12
BT40 × SKS13-90	90	60	35	33	-	M12x1.75P	1	1.28
BT40 × SKS13-120	120	90	35	33	-	M12x1.75P	1	1.44
BT40 × SKS13-150	150	120	35	33	-	M12x1.75P	1	1.70
BT40 × SKS13-200	200	170	35	33	-	M12x1.75P	1	2.00
BT40 × SKS16-60	60	23.2	40	40	-	M18x1.5P	1	1.10
BT40 × SKS16-90	90	58	40	40	-	M18x1.5P	1	1.30
BT40 × SKS16-120	120	88	40	40	-	M18x1.5P	1	1.70
BT40 × SKS16-150	150	118	40	40	-	M18x1.5P	1	1.90
BT40 × SKS16-200	200	168	40	40	-	M18x1.5P	1	2.10
BT40 × SKS20-60	60	32	48.5	48.5	-	M22x1.5P	1	1.14
BT40 × SKS20-90	90	60	48.5	48.5	-	M22x1.5P	1	0.46
BT40 × SKS20-120	120	88	48.5	48.5	-	M22x1.5P	1	1.90
BT40 × SKS20-150	150	118	48.5	48.5	-	M22x1.5P	1	2.10
BT40 × SKS20-200	200	168	48.5	48.5	-	M22x1.5P	1	2.20
BT40 × SKS25-90	90	61	55.1	55	-	M28x2.0P	1	1.70
BT40 × SKS25-120	120	91	55.1	55	-	M28x2.0P	1	1.80

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
			
A290-A293	A272-A275	A286	A297

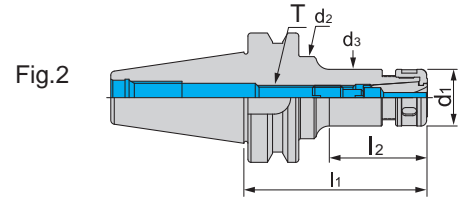
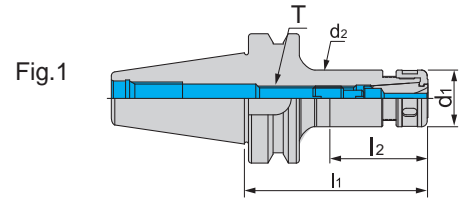




# BT/SKS 高速機專用夾頭

## BT/SKS COLLET CHUCK

JIS  
PAT.NO: M270871 MAS 403



### 特點 Feature

- 偏擺精度 :5 $\mu$  以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 $\mu$ .
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Balance of G2.5 at 25000rpm.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	T	Fig.	重量 (KGS) Weight
BT50 × SKS6-90	90	42	18	18	-	M8x1.25P	1	4.00
BT50 × SKS6-120	120	60	18	32	18	M8x1.25P	2	4.20
BT50 × SKS10-105	105	57	30	27.6	-	M12x1.75P	1	4.50
BT50 × SKS10-150	150	94	30	40	27	M12x1.75P	2	4.17
BT50 × SKS10-165	165	108	30	40	27	M12x1.75P	2	4.30
BT50 × SKS10-200	200	145	30	36	27	M12x1.75P	2	5.20
BT50 × SKS10-250	250	193	30	40	27	M12x1.75P	2	5.60
BT50 × SKS13-105	105	62	35	33	-	M12x1.75P	1	4.11
BT50 × SKS13-135	135	92	35	33	-	M12x1.75P	1	4.18
BT50 × SKS13-150	150	77	35	33	45	M12x1.75P	2	4.80
BT50 × SKS13-165	165	92	35	45	33	M12x1.75P	2	4.55
BT50 × SKS13-200	200	157	35	45	33	M12x1.75P	2	4.74
BT50 × SKS13-250	250	207	35	45	33	M12x1.75P	2	5.16
BT50 × SKS16-105	105	57	40	40	-	M18x1.5P	1	4.18
BT50 × SKS16-150	150	93	40	52	40	M18x1.5P	2	4.70
BT50 × SKS16-165	165	108	40	52	40	M18x1.5P	2	4.50
BT50 × SKS16-200	200	157	40	52	40	M18x1.5P	2	5.12
BT50 × SKS16-250	250	207	40	52	40	M18x1.5P	2	5.66
BT50 × SKS20-105	105	62	48.5	48.5	-	M22x1.5P	1	4.32
BT50 × SKS20-135	135	92	48.5	48.5	-	M22x1.5P	1	4.66
BT50 × SKS20-165	165	122	48.5	48.5	-	M22x1.5P	1	5.00
BT50 × SKS20-200	200	157	48.5	48.5	-	M22x1.5P	1	5.45
BT50 × SKS20-250	250	207	48.5	48.5	-	M22x1.5P	1	6.05
BT50 × SKS25-105	105	62	55.1	55	-	M28x2.0P	1	4.50
BT50 × SKS25-150	150	107	55.1	55	-	M22x1.5P	1	4.80
BT50 × SKS25-200	200	157	55.1	55	-	M22x1.5P	1	6.00
BT50 × SKS25-250	250	207	55.1	55	-	M22x1.5P	1	6.68

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A272-A275	A286	A297

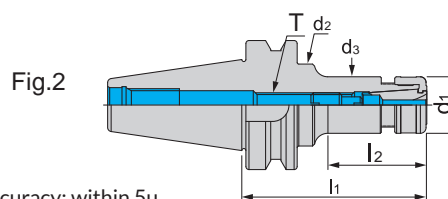
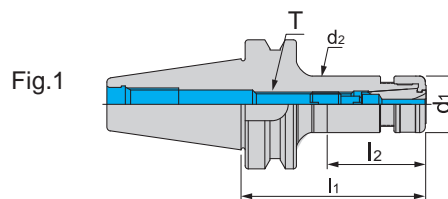




# BT/SKS 高速機專用夾頭 (無風阻)

## BT/SKS COLLET CHUCK (NON WIND RESISTANCE)

JIS  
MAS 403



### 特點 Feature

- 偏擺精度 :5 $\mu$  以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 $\mu$ .
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Balance of G2.5 at 25000rpm.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	T	Fig.	重量 (KGS) Weight
BT30 × SKS6-45-HS	45	22	18	20	-	M8x1.25P	1	0.80
BT30 × SKS6-60-HS	60	33	18	20	-	M8x1.25P	1	0.90
BT30 × SKS6-90-HS	90	55	18	20	-	M8x1.25P	1	0.52
BT30 × SKS10-45-HS	45	22	30	27.6	-	M12x1.75P	1	0.80
BT30 × SKS10-60-HS	60	33	30	27.6	-	M12x1.75P	1	0.90
BT30 × SKS10-90-HS	90	63	30	27.6	-	M12x1.75P	1	1.00
BT30 × SKS13-60-HS	60	35	35	33	-	M12x1.75P	1	0.84
BT30 × SKS13-90-HS	90	65	35	33	-	M12x1.75P	1	0.74
BT30 × SKS13-120-HS	120	95	35	33	-	M12x1.75P	1	1.60
BT30 × SKS16-60-HS	60	37	40	40	-	M18x1.5P	1	0.59
BT30 × SKS16-90-HS	90	67	40	40	-	M18x1.5P	1	0.82
BT30 × SKS20-60-HS	60	33	48.5	48.5	-	M22x1.5P	1	0.64
BT30 × SKS20-90-HS	90	60	48.5	48.5	-	M22x1.5P	1	0.98
BT40 × SKS6-90-HS	90	44	18	32	18	M8x1.25P	2	1.20
BT40 × SKS6-120-HS	120	74	18	32	18	M8x1.25P	2	1.21
BT40 × SKS10-60-HS	60	30	30	40	27.6	M12x1.75P	2	1.14
BT40 × SKS10-90-HS	90	45	30	40	27.6	M12x1.75P	2	1.20
BT40 × SKS10-120-HS	120	74	30	40	27	M12x1.75P	2	1.40
BT40 × SKS13-60-HS	60	30	35	33	-	M12x1.75P	1	1.12
BT40 × SKS13-90-HS	90	60	35	33	-	M12x1.75P	1	1.28
BT40 × SKS13-120-HS	120	90	35	33	-	M12x1.75P	1	1.44
BT40 × SKS13-150-HS	150	120	35	33	-	M12x1.75P	1	1.70
BT40 × SKS13-200-HS	200	170	35	33	-	M12x1.75P	1	2.00
BT40 × SKS16-60-HS	60	23.2	40	40	-	M18x1.5P	1	1.10
BT40 × SKS16-90-HS	90	58	40	40	-	M18x1.5P	1	1.30
BT40 × SKS16-120-HS	120	88	40	40	-	M18x1.5P	1	1.70
BT40 × SKS16-150-HS	150	118	40	40	-	M18x1.5P	1	1.90
BT40 × SKS16-200-HS	200	168	40	40	-	M18x1.5P	1	2.10
BT40 × SKS20-60-HS	60	32	48.5	48.5	-	M22x1.5P	1	1.14
BT40 × SKS20-90-HS	90	60	48.5	48.5	-	M22x1.5P	1	0.46
BT40 × SKS20-120-HS	120	88	48.5	48.5	-	M22x1.5P	1	1.90
BT40 × SKS20-150-HS	150	118	48.5	48.5	-	M22x1.5P	1	2.10
BT40 × SKS20-200-HS	200	168	48.5	48.5	-	M22x1.5P	1	2.20
BT40 × SKS25-90-HS	90	61	55.1	55	-	M28x2.0P	1	1.70
BT40 × SKS25-120-HS	120	91	55.1	55	-	M28x2.0P	1	1.80

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A272-A275	A286	A297

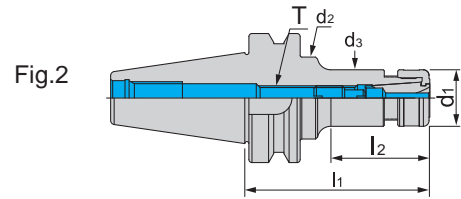
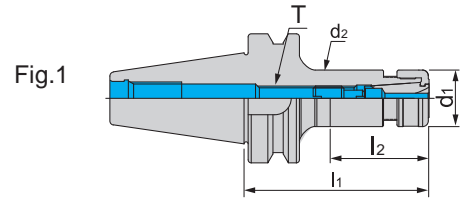




# BT/SKS 高速機專用夾頭 (無風阻)

## BT/SKS COLLET CHUCK (NON WIND RESISTANCE)

JIS  
MAS 403



### 特點 Feature

- 偏擺精度 :5 $\mu$  以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 $\mu$ .
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Balance of G2.5 at 25000rpm.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	T	Fig.	重量 (KGS) Weight
BT50 × SKS6-90-HS	90	42	18	18	-	M8x1.25P	1	4.00
BT50 × SKS6-120-HS	120	60	18	32	18	M8x1.25P	2	4.20
BT50 × SKS10-105-HS	105	57	30	27.6	-	M12x1.75P	1	4.50
BT50 × SKS10-150-HS	150	94	30	40	27	M12x1.75P	2	4.17
BT50 × SKS10-165-HS	165	108	30	40	27	M12x1.75P	2	4.30
BT50 × SKS10-200-HS	200	145	30	36	27	M12x1.75P	2	5.20
BT50 × SKS10-250-HS	250	193	30	40	27	M12x1.75P	2	5.60
BT50 × SKS13-105-HS	105	62	35	33	-	M12x1.75P	1	4.11
BT50 × SKS13-135-HS	135	92	35	33	-	M12x1.75P	1	4.18
BT50 × SKS13-150-HS	150	77	35	33	45	M12x1.75P	2	4.80
BT50 × SKS13-165-HS	165	92	35	45	33	M12x1.75P	2	4.55
BT50 × SKS13-200-HS	200	157	35	45	33	M12x1.75P	2	4.74
BT50 × SKS13-250-HS	250	207	35	45	33	M12x1.75P	2	5.16
BT50 × SKS16-105-HS	105	57	40	40	-	M18x1.5P	1	4.18
BT50 × SKS16-150-HS	150	93	40	52	40	M18x1.5P	2	4.70
BT50 × SKS16-165-HS	165	108	40	52	40	M18x1.5P	2	4.50
BT50 × SKS16-200-HS	200	157	40	52	40	M18x1.5P	2	5.12
BT50 × SKS16-250-HS	250	207	40	52	40	M18x1.5P	2	5.66
BT50 × SKS20-105-HS	105	62	48.5	48.5	-	M22x1.5P	1	4.32
BT50 × SKS20-135-HS	135	92	48.5	48.5	-	M22x1.5P	1	4.66
BT50 × SKS20-165-HS	165	122	48.5	48.5	-	M22x1.5P	1	5.00
BT50 × SKS20-200-HS	200	157	48.5	48.5	-	M22x1.5P	1	5.45
BT50 × SKS20-250-HS	250	207	48.5	48.5	-	M22x1.5P	1	6.05
BT50 × SKS25-105-HS	105	62	55.1	55	-	M28x2.0P	1	4.50
BT50 × SKS25-150-HS	150	107	55.1	55	-	M22x1.5P	1	4.80
BT50 × SKS25-200-HS	200	157	55.1	55	-	M22x1.5P	1	6.00
BT50 × SKS25-250-HS	250	207	55.1	55	-	M22x1.5P	1	6.68

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A272-A275	A286	A297

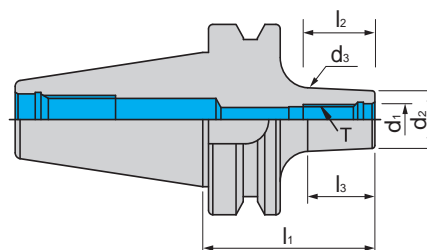




# BT/SOM 螺紋鎖固式刀桿

## BT/SOM SCREWED END MILL HOLDER

JIS  
MAS 403



### 特點 Feature

- 標準平衡 G6.3 10000rpm
- 整支通孔 · 利於出水及抗震

- Standard balance of G6.3 at 10000 rpm.
- With through-tool design for coolant and vibration resistance.

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	T	重量 (KGS) Weight
BT40 × SOM6-60	60	25	23.4	6.5	13	15.1	M6×1.0P	1.06
BT40 × SOM8-60	60	25	23.4	8.5	15	17.1	M8×1.25P	1.08
BT40 × SOM10-60	60	25	23.4	10.5	19	21.1	M10×1.5P	1.10
BT40 × SOM12-70	70	31	31.5	12.5	21	22.8	M12×1.75P	1.13
BT40 × SOM12-100	100	31	42.4	12.5	21	23.8	M12×1.75P	1.37
BT40 × SOM16-80	80	30	48.2	17	25	29.1	M16×2.0P	1.17
BT50 × SOM6-60	60	25	12.4	6.5	13	14.1	M6×1.0P	3.94
BT50 × SOM8-60	60	25	12.4	8.5	15	16.1	M8×1.25P	3.95
BT50 × SOM10-60	60	25	12.4	10.5	19	20.1	M10×1.5P	3.00
BT50 × SOM12-70	70	31	22.4	12.5	21	22.9	M12×1.75P	3.92
BT50 × SOM12-100	100	31	52.4	12.5	21	25.6	M12×1.75P	3.00
BT50 × SOM16-80	80	30	32.4	17	25	27.7	M16×2.0P	3.86

### 選配表 Option

拉頭 Pull Stud	延長桿 Extension	刀具 Tools		
A290-A293	B540	B541	B543	B562



# LHC

## 液壓刀桿系列

# Hydraulic

- 提高刀具100%的壽命
- 加工表面無振紋
- 一般六角扳手快速換刀

- Up to 100% tool life.
- Excellent vibration damping for perfect surfaces.
- Convincingly simple handling using an Allen key means no additional investment cost for peripheral equipment.



# GERMANY



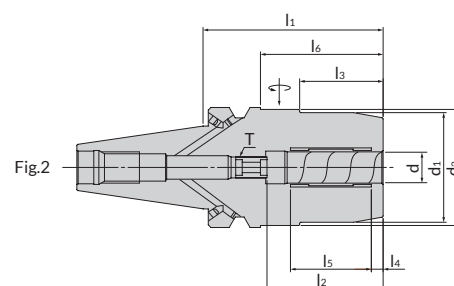
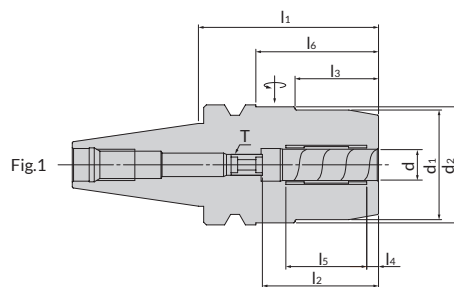


## BT/LHC 扭力型液壓刀桿

### BT/LHC TORQUE HYDRAULIC TOOLHOLDER

JIS  
MAS 403  
B6339

**NEW**

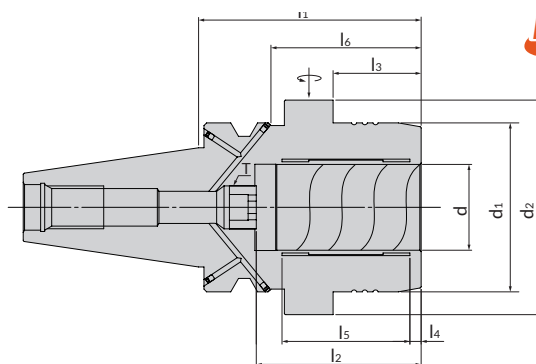


規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	d	d <sub>1</sub>	d <sub>2</sub>	T	扳手 Wrench	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
BT30-LHC12-69	69	46	32	4.5	47	23	12	42	44.5	M8X1.0P	PT5	110	1	0.60
BT30-LHC20-90	90	51	50	5	68	39	20	42	44.5	M8X1.0P	PT5	400	1	0.90
BT40-LHC12-58	58	46	-	4.5	31	31	12	42	-	M8X1.0P	PT5	110	2	1.20
BT40-LHC16-72	72.5	51	-	5	37	45.5	16	49.25	-	M8X1.0P	PT5	350	2	1.30
BT40-LHC20-72	72.5	51	-	5	37	45.5	20	49.25	-	M8X1.0P	PT5	520	2	1.40
BT50-LHC20-83	83.5	51	-	5	37	45.5	20	49.25	-	M8X1.0P	PT5	520	2	4.10
BT50-LHC32-90	90	61	-	6	44	52	32	72	-	M8X1.0P	PT6	900	2	4.60



## BT/LHC 精密型液壓刀桿

### BT/LHC PRECISION HYDRAULIC TOOLHOLDER



**NEW**

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	d	d <sub>1</sub>	d <sub>2</sub>	T	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
BT40-LHC32-83-P	83	61	10	4.2	47.7	56	32	63	80	M16X1.0P	PT6	650	2.10

#### 選配表 Option

拉頭 Pull Stud	筒夾 Collet
A290-A293	A278

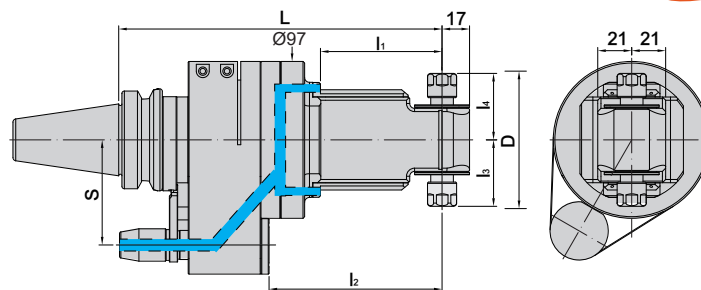


## BT/SAG-DE 雙龍頭銑削頭 (用於雙面加工)

BT/SAG-DE ANGLE HEAD HOLDER FOR DUAL SIDE MACHINE

JIS  
MAS 403

**NEW**



### 特點 Feature

- 可 180 度反方向加工
- 減少換刀頻率·提升加工效率
- 齒輪比為 1:1
- 最高轉速：6000rpm
- 最大扭力：15N.m
- 建議切深 ≤ 2mm
- 可承受最大水壓：7kgf/cm<sup>2</sup>(100PSI)

- Can achieve machining at 180 degree opposite directions.
- Reduce tool changing frequency and increase machining efficiency.
- Gear ratio 1:1.
- Max. revolution: 6000rpm.
- Max. torque: 15 N-m.
- Suggested Ap ≤ 2mm.
- Max. water pressure: 7kgf/cm<sup>2</sup> (100PSI).

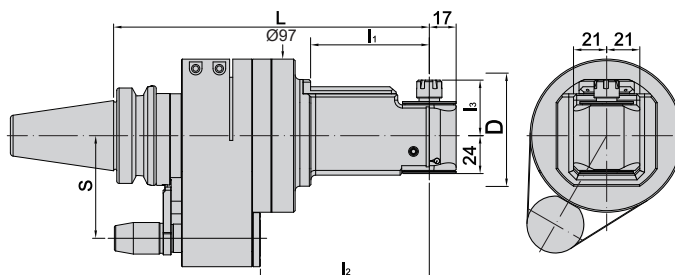
規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	S	D	夾持範圍 Clamping Range	扭力值 (N.m) Torque	筒夾 Collet	重量 (KGS) Weight
BT40×SAG11DE-170	170	45.2	77	39.2	39.2	65	80	1~7	10 N-m	ER11	5.10



## BT/SAG 小徑銑削頭

BT/SAG ANGLE HEAD HOLDER(SLIM TYPE)

**NEW**



### 特點 Feature

- 可 180 度反方向加工
- 減少換刀頻率·提升加工效率
- 齒輪比為 1:1
- 最高轉速：6000rpm
- 最大扭力：15N.m
- 建議切深 ≤ 2mm
- 可承受最大水壓：7kgf/cm<sup>2</sup>(100PSI)

- Can achieve machining at 180 degree opposite directions.
- Reduce tool changing frequency and increase machining efficiency.
- Gear ratio 1:1.
- Max. revolution: 6000rpm.
- Max. torque: 15 N-m.
- Suggested Ap ≤ 2mm.
- Max. water pressure: 7kgf/cm<sup>2</sup> (100PSI).

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	S	D	夾持範圍 Clamping Range	扭力值 (N.m) Torque	筒夾 Collet	重量 (KGS) Weight
BT40×SAG11E-170	170	45.2	77	39.2	65	72	1~7	10 N-m	ER11	5.10
BT40×SAG11E-200	200	75.2	107	39.2	65	72	1~7	10 N-m	ER11	5.30
BT40×SAG11E-230	230	105.2	137	39.2	65	72	1~7	10 N-m	ER11	5.50
BT40×SAG11E-260	260	135.2	167	39.2	65	72	1~7	10 N-m	ER11	5.70
BT40×SAG6S-170	170	45.2	77	42	65	85	3~6	10 N-m	SKS6	4.80
BT40×SAG6S-200	200	75.2	107	42	65	85	3~6	10 N-m	SKS6	5.10
BT40×SAG6S-230	230	105.2	137	42	65	85	3~6	10 N-m	SKS6	5.30
BT40×SAG6S-260	260	135.2	167	42	65	85	3~6	10 N-m	SKS6	5.52



# BT/SAM 小鋼炮銑削頭

## BT/SAM ANGLE HEAD HOLDER FOR LIGHT CUTTING

PAT.NO : M349811  
 PAT.NO : M353057  
 PAT.NO : M353064  
 PAT.NO : M3150976

PAT.NO : US7563062B1  
 PAT.NO : Nr.20 2009 001 623.4

JIS  
 MAS 403



台灣精品 2009  
 TAIWAN EXCELLENCE

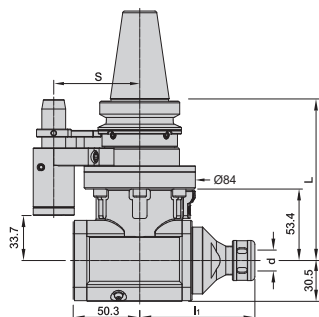


Fig.1

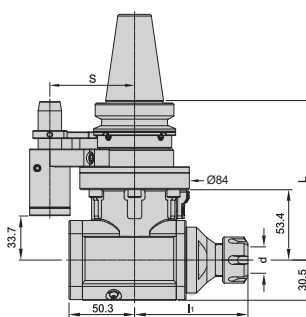


Fig.2

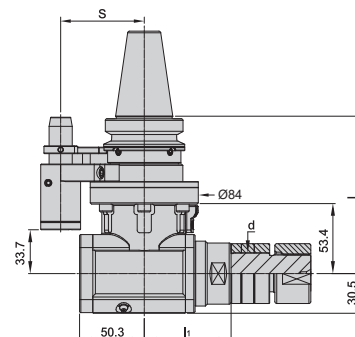


Fig.3

### 特點 Feature

- 主軸方向呈 90°轉向加工
- 夾頭心軸能再做 360°旋轉
- 夾頭心軸部分規格有 SKS、ER 便利使用
- 心軸夾持部偏度 0.02 以內
- 設有簡單的角度刻劃，能讓使用者很輕易調整所需的角
- 最高轉速：4000rpm

- The angular position of spindle is 90° and process vertically.
- Spindle chuck could rotate in 360 degree.
- Combine with SKS, ER collects; convenient to use.
- Run-out of spindle chuck is within 0.02.
- Design of angular scale enables users easily adjust the angles they need.
- Max. revolution: 4000 rpm.

規格 Spec.	L	l <sub>1</sub>	S	d	扭力值 (N.m) Torque	筒夾 Collet	Fig.	重量 (KGS) Weight
BT40 × SAM10SX-120	120	87	65	Ø2~Ø10	20 N-m	SKS10	1	6.40
BT40 × SAM13SX-120	120	87	65	Ø3~Ø13	20 N-m	SKS13	1	6.40
BT40 × SAM16SX-120	120	89.5	65	Ø3~Ø16	20 N-m	SKS16	1	6.40
BT40 × SAM20SX-120	120	90	65	Ø3~Ø20	20 N-m	SKS20	1	6.40
BT50 × SAM10SX-130	130	87	80	Ø2~Ø10	20 N-m	SKS10	1	8.40
BT50 × SAM13SX-130	130	87	80	Ø3~Ø13	20 N-m	SKS13	1	8.40
BT50 × SAM16SX-130	130	89.5	80	Ø3~Ø16	20 N-m	SKS16	1	8.40
BT50 × SAM20SX-130	130	90	80	Ø3~Ø20	20 N-m	SKS20	1	8.40
BT40 × SAM16EX-120	120	87	65	Ø1~Ø10	20 N-m	ER16	2	6.40
BT40 × SAM20EX-120	120	87	65	Ø1~Ø13	20 N-m	ER20	2	6.40
BT40 × SAM25EX-120	120	87	65	Ø1~Ø16	20 N-m	ER25	2	6.40
BT40 × SAM32EX-120	120	82	65	Ø2~Ø20	20 N-m	ER32	2	6.44
BT50 × SAM16EX-130	130	87	80	Ø1~Ø10	20 N-m	ER16	2	6.40
BT50 × SAM20EX-130	130	87	80	Ø1~Ø13	20 N-m	ER20	2	6.40
BT50 × SAM25EX-130	130	87	80	Ø1~Ø16	20 N-m	ER25	2	6.40
BT50 × SAM32EX-130	130	82	80	Ø2~Ø20	20 N-m	ER32	2	6.44
BT40 × SAM25.4SCX-120	120	66	65	25.4	20 N-m	-	3	6.40
BT40 × SAM31.75SCX-120	120	66	65	31.75	20 N-m	-	3	6.40
BT50 × SAM25.4SCX-130	130	66	80	25.4	20 N-m	-	3	6.44
BT50 × SAM31.75SCX-130	130	66	80	31.75	20 N-m	-	3	6.44

※ 歡迎詢問 SBT 雙面拘束形式 Welcome to ask SBT DualDRIVE+ type.

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner	定位塊 Fix block
A290-A293	A258/A272	A280/A286	A296/A297	A063-A067





# BT/SAM 小鋼炮銑削頭

## BT/SAM ANGLE HEAD HOLDER FOR LIGHT CUTTING

PAT.NO : M349811  
 PAT.NO : M353057  
 PAT.NO : M353064  
 PAT.NO : M3150976

PAT.NO : US7563062B1  
 PAT.NO : Nr.20 2009 001 623.4

JIS  
 MAS 403

出水型 With Coolant



台灣精品 2009  
 TAIWAN EXCELLENCE

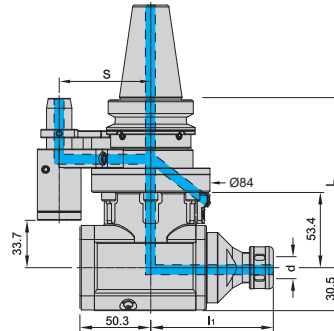


Fig.1

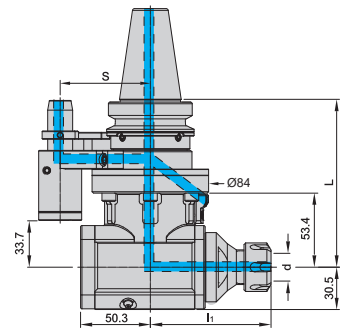


Fig.2

### 特點 Feature

- 主軸方向呈 90°轉向加工
- 夾頭心軸能再做 360°旋轉
- 夾頭心軸部分規格有 SKS、ER 便利使用
- 心軸夾持部偏度 0.02 以內
- 設有簡單的角度刻劃，能讓使用者很輕易調整所需的角
- 最高轉速：4000rpm
- 針對不同機械設備提供多元化冷卻出水系統供客戶作選擇：
  - (1) 中心入水刀具出水
  - (2) 中心入水給水油珠出水
  - (3) 側邊定位塊入水刀具出水
  - (4) 側邊定位塊入水給水油珠出水

- The angular position of spindle is 90° and process vertically.
- Spindle chuck could rotate in 360 degree.
- Combine with SKS, ER collects; convenient to use.
- Run-out of spindle chuck is within 0.02.
- Design of angular scale enables users easily adjust the angles they need.
- Max. revolution: 4000 rpm.
- According to different machine devices, it is equipped with versatile coolant systems for customer to choose from.
  - (1)Coolant feed from the center and exhaust from the cutting tool.
  - (2)Coolant feed from the center and exhaust from the oil ball.
  - (3)Coolant feed from stop block and exhaust from cutting tool.
  - (4)Coolant feed from the stop block and exhaust from oil ball.

規格 Spec.	L	l <sub>1</sub>	S	d	扭力值 (N.m) Torque	筒夾 Collet	Fig.	重量 (KGS) Weight
BT40 × SAM10S-120	120	87	65	Ø2~Ø10	20 N-m	SKS10	1	6.40
BT40 × SAM13S-120	120	87	65	Ø3~Ø13	20 N-m	SKS13	1	6.40
BT40 × SAM16S-120	120	89.5	65	Ø3~Ø16	20 N-m	SKS16	1	6.40
BT40 × SAM20S-120	120	90	65	Ø3~Ø20	20 N-m	SKS20	1	6.4
BT50 × SAM10S-130	130	87	80	Ø2~Ø10	20 N-m	SKS10	1	8.40
BT50 × SAM13S-130	130	87	80	Ø3~Ø13	20 N-m	SKS13	1	8.40
BT50 × SAM16S-130	130	89.5	80	Ø3~Ø16	20 N-m	SKS16	1	8.40
BT50 × SAM20S-130	130	90	80	Ø3~Ø20	20 N-m	SKS20	1	8.40
BT40 × SAM16E-120	120	87	65	Ø1~Ø10	20 N-m	ER16	2	6.40
BT40 × SAM20E-120	120	87	65	Ø1~Ø13	20 N-m	ER20	2	6.40
BT40 × SAM25E-120	120	87	65	Ø1~Ø16	20 N-m	ER25	2	6.40
BT40 × SAM32E-120	120	82	65	Ø2~Ø20	20 N-m	ER32	2	6.44
BT50 × SAM16E-130	130	87	80	Ø1~Ø10	20 N-m	ER16	2	6.40
BT50 × SAM20E-130	130	87	80	Ø1~Ø13	20 N-m	ER20	2	6.40
BT50 × SAM25E-130	130	87	80	Ø1~Ø16	20 N-m	ER25	2	6.40
BT50 × SAM32E-130	130	82	80	Ø2~Ø20	20 N-m	ER32	2	6.44

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner	定位塊 Fix block
A290-A293	A258/A272	A280/A286	A296/A297	A063-A067





# BT/SAC 中鋼炮銑削頭

## BT/SAC ANGLE HEAD HOLDER FOR MEDIAL CUTTING

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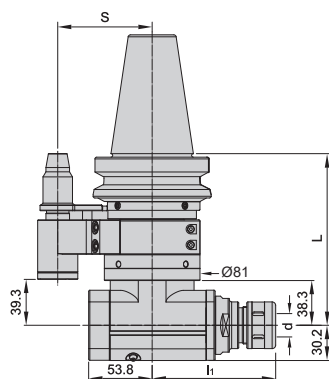


Fig.1

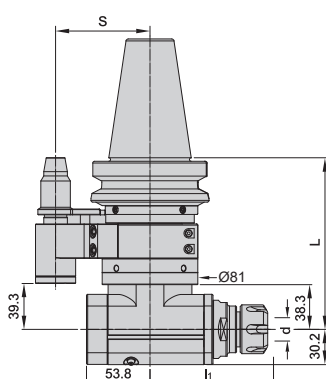


Fig.2

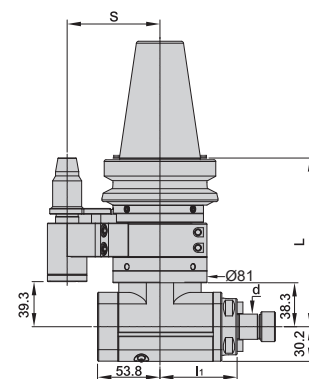


Fig.3

### 特點 Feature

- 適用鑽孔、攻牙、銑削
- 主軸及主軸夾頭型式 90°，用於側切割的程度
- 主軸卡盤可 360°旋轉
- 新類型的鎖定系統，減少鎖定時間和增加切削扭矩
- 規模角度的設計，使用者能夠很容易調整到他們所需要的角度
- 最高轉速：3000rpm

- Applicable for drilling、tapping、milling.
- The main shaft and spindle chuck form 90 degree for side cutting.
- The spindle chuck could rotate for 360 degree.
- New type of locking system decreases locking time and increases cutting torque.
- The design of angle scale enables users to easily adjust to the processing angles they need.
- Max. revolution: 3000 rpm.

規格 Spec.	L	l <sub>1</sub>	S	d	扭力值 (N.m) Torque	筒夾 Collet	Fig.	重量 (KGS) Weight
BT40 × SAC10S-130	130	88	65	Ø2~Ø10	25 N·m	SKS10	1	6.40
BT40 × SAC13S-130	130	89.6	65	Ø3~Ø13	25 N·m	SKS13	1	6.40
BT40 × SAC16S-130	130	102.3	65	Ø3~Ø16	25 N·m	SKS16	1	6.40
BT40 × SAC20S-130	130	110.3	65	Ø3~Ø20	25 N·m	SKS20	1	6.40
BT50 × SAC10S-147	147	88	80	Ø2~Ø10	25 N·m	SKS10	1	8.40
BT50 × SAC13S-147	147	89.6	80	Ø3~Ø13	25 N·m	SKS13	1	8.40
BT50 × SAC16S-147	147	102.3	80	Ø3~Ø16	25 N·m	SKS16	1	8.40
BT50 × SAC20S-147	147	110.3	80	Ø3~Ø20	25 N·m	SKS20	1	8.40
BT40 × SAC16E-130	130	89.6	65	Ø1~Ø10	25 N·m	ER16	2	6.40
BT40 × SAC20E-130	130	91	65	Ø1~Ø13	25 N·m	ER20	2	6.40
BT40 × SAC25E-130	130	92	65	Ø1~Ø16	25 N·m	ER25	2	6.40
BT40 × SAC32E-130	130	96	65	Ø3~Ø16	25 N·m	ER32	2	6.44
BT50 × SAC16E-147	147	89.6	80	Ø1~Ø10	25 N·m	ER16	2	8.40
BT50 × SAC20E-147	147	91	80	Ø1~Ø13	25 N·m	ER20	2	8.40
BT50 × SAC25E-147	147	92	80	Ø1~Ø16	25 N·m	ER25	2	8.40
BT50 × SAC32E-147	147	96	80	Ø3~Ø16	25 N·m	ER32	2	8.44
BT40 × SAC25.4FA-130	130	66	65	25.4	25 N·m	-	3	6.54
BT40 × SAC22FB-130	130	66	65	22	25 N·m	-	3	6.54
BT50 × SAC25.4FA-147	147	66	80	25.4	25 N·m	-	3	8.54
BT50 × SAC22FB-147	147	66	80	22	25 N·m	-	3	8.54

### 選配表 Option

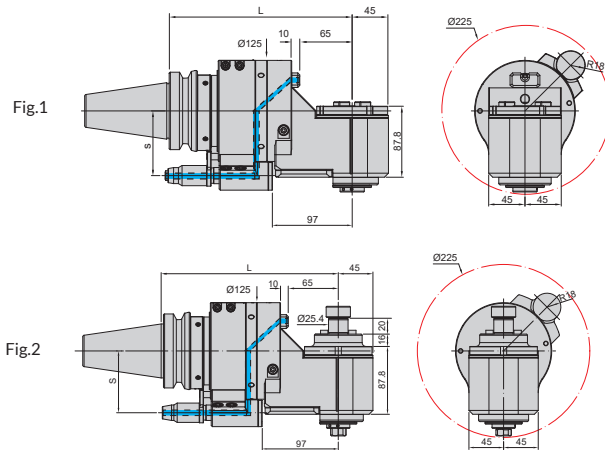
拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner	定位塊 Fix block
A290-A293	A258/A272	A280/A286	A296/A297	A063-A067





## BT/SAR 大鋼炮銑削頭 BT/SAR ANGLE HEAD HOLDER (FOR HEAVY-DUTY CUTTING)

JIS  
MAS 403



### 特點 Feature

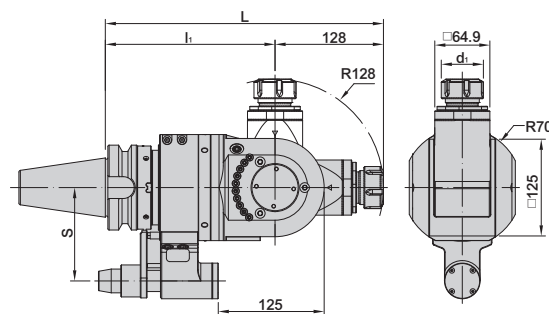
- 齒輪比為 1:1 · 主軸不需再逆轉
- 最高轉速：3000rpm
- 最大扭力：50N.m
- 建議切深 ≥ 4mm
- 可承受最大水壓：7kgf/cm<sup>2</sup>(100PSI)

- Gear ratio 1:1. The spindle and the tool rotate in the same direction.
- Max. revolution: 3000rpm.
- Max. torque: 50 N-m.
- Suggested Ap ≥ 4mm.
- Max. water pressure: 7kgf/cm<sup>2</sup> (100PSI).

規格 Spec.	L	S	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
BT50xSAR50/SBT30-230	230	80	50 N-m	1	16.1
BT50xSAR50/SBT30-230S	230	110	50 N-m	1	16.1
BT50xSAR50/FMA25.4-230	230	80	50 N-m	2	16.1
BT50xSAR50/FMA25.4-230S	230	110	50 N-m	2	16.1



## BT/SAU 萬向銑削頭 BT/SAU ANGLE HEAD HOLDER (UNIVERSAL TYPE FOR MIDDLE CUTTING)



### 特點 Feature

- 齒輪比為 1:1
- 最高轉速：3000rpm
- 最大扭力：40N.m
- 建議切深 ≤ 4mm
- 主軸角度可調整 0°~90°
- 角度調整間距 1°

- Gear ratio 1:1.
- Max. revolution: 3000rpm.
- Max. torque: 40 N-m.
- Suggested Ap ≤ 4mm.
- Adjustable spindle angle from 0° to 90° on inclined surfaces.
- Adjustable angle increment: 1°.

規格 Spec.	L	l <sub>1</sub>	S	夾持範圍 Clamping Range	扭力值 (N.m) Torque	筒夾 Collet	重量 (KGS) Weight
BT50 × SAU32E-328	328	200	110	2~20	40 N-m	ER32	20.9

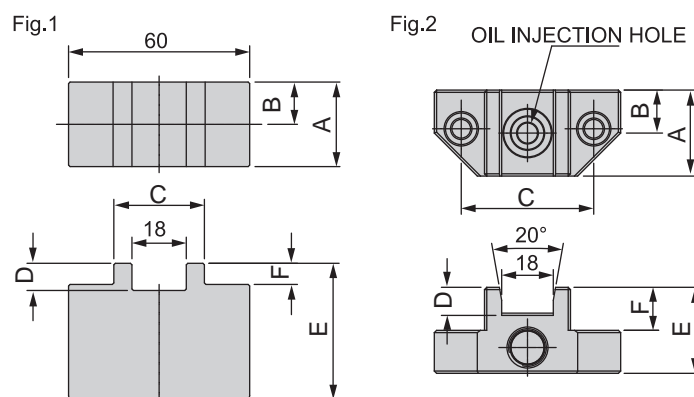




# SFB 定位塊 (直柄梢)

## SFB FIXED BLOCK

JIS  
MAS 403





### 特點 Feature

- 定位塊需配合定位梢形式購買
- 購買 SFB-1 的定位塊為素材，客戶可自行加工為機台所需之形式
- 定位塊可以裝置在軸上，但要固定在機器上，才不會妨礙到 ATC 臂，固定方法因機台而異，因此裝置前應詢問機器製造商其適合的定位塊裝置方法
- 接受特殊規格訂製，下單之前請詳細提供並填寫相關尺寸，填寫表在 A068

- Applicate for oil hole holder and angle head holder.
- SFB-1 Fixed block is blank, and customers can process the fixed block by themselves to fit the machines.
- The fixed block can be installed on the spindle, but it must be fastened on the machines, so that it won't interfere different machines, before installation, it's necessary to consult the machine manufacturers about the correct installation methods.
- Special type is accepted. Before making a purchase order, please informed detailed dimensions by filling out the form in A068

直槽型  
Straight Shank Type



定位梢 Fixed Pin	定位塊 Fixed Block
直柄梢 Straight Shank Pin 	SFB-2 

規格 Spec.	適用規格 Suitable Type	A	B	C	D	E	F	Fig.	重量 (KGS) Weight
SFB-1	素材	28	14	30	9	45	7	1	0.96
SFB-2	#40 定位塊 (直柄梢)	30	15	46.2	9	30	15	2	0.32
SFB-2	#50 定位塊 (直柄梢)	40	10	45~65	9	30	13	2	0.30

直柄梢：主要用於鑽孔和攻牙加工 Straight Shank Pin: Used for drilling and tapping.



## SFT 定位塊 ( 錐度梢 )

### SFT FIXED BLOCK

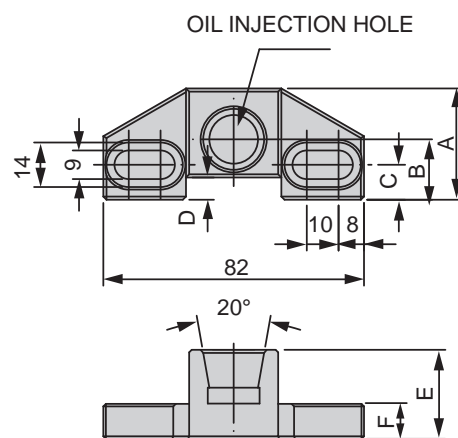
JIS  
MAS 403



錐度孔型  
Taper Type



錐度梢  
Taper Pin



### 特點 Feature

- 定位塊需配合定位梢形式購買
- 購買 SFB 的定位塊為素材，客戶可自行加工為機台所需之形式
- 定位塊可以裝置在軸上，但要固定在機器上，才不會妨礙到 ATC 臂，固定方法因機台而異，因此裝置前應詢問機器製造商其適合的定位塊裝置方法
- 接受特殊規格訂製，下單之前請詳細提供並填寫相關尺寸，填寫表在 A068

- Applicate for oil hole holder and angle head holder.
- SFB-1 Fixed block is blank, and customers can process the fixed block by themselves to fit the machines.
- The fixed block can be installed on the spindle, but it must be fastened on the machines, so that it won't interfere different machines, before installation, it's necessary to consult the machine manufacturers about the correct installation methods.
- Special type is accepted. Before making a purchase order, please informed detailed dimensions by filling out the form in A068

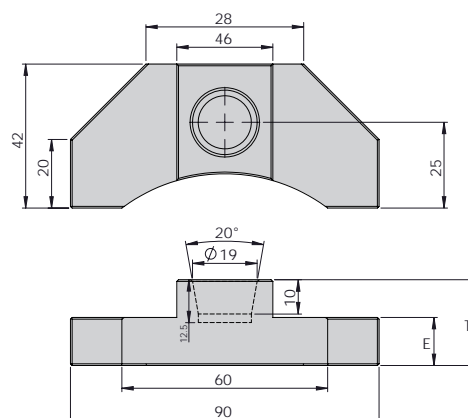
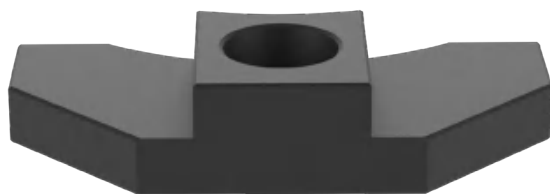
規格 Spec.	適用規格 Suitable Type	A	B	C	D	E	F	T	重量 (KGS) Weight
SFT-40	#40 定位塊 (錐度梢)	40	18.5	10	5	30	13	NPT1/4-18	0.30
SFT-50	#50 定位塊 (錐度梢)	34	19	11	7	35	15	NPT1/4-18	0.32

- 主要用於銑削加工、鑽孔和攻牙 Used for milling, drilling and tapping.



## SFT 定位塊素材 ( 錐度梢 )

### SFT FIXED BLOCK



NEW

規格 Spec.	E	T	重量 (KGS) Weight
SFT-19L	10	19	-
SFT-22L	12	22	-
SFT-25L	14	25	-

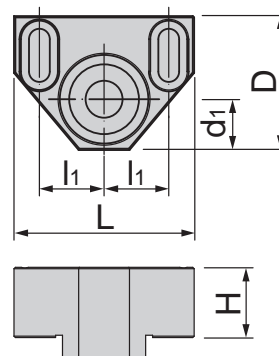




## 組合式定位塊 FIXED BLOCK(COMBINATION TYPE)

PAT.NO: M417219  
PAT.NO: ZL201120289100.2

JIS  
MAS 403

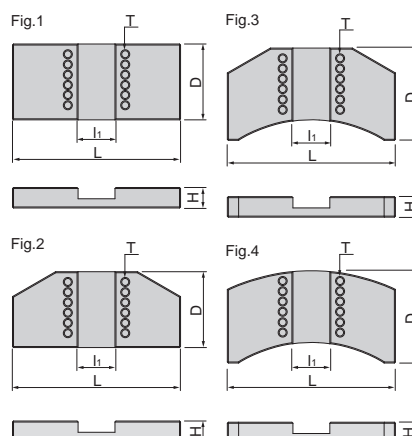


規格 Spec.	D	d <sub>1</sub>	L	l <sub>1</sub>	H	重量 (KGS) Weight
SFO-A	29	11	39	14	15.2	0.08



## 組合式定位塊 FIXED BLOCK(COMBINATION TYPE)

PAT.NO: M417219  
PAT.NO: ZL201120289100.2



### 特點 Feature

- 定位塊可以裝在主軸上，但要固定在機器上，才不會妨礙到 ATC 換刀臂，固定方法因機台而異，因此，裝置前應詢問機器製造商其適合的定位塊裝置方法
- 接受特殊規格訂製，下單之前請詳細提供並填寫相關尺寸，填寫表在 A068

- The fixed block can be installed on the spindle but it has to be a fixed installation so that it will not interfere with the ATC (Automatic Tool Changer). It is important to consult your machine manufacturer first before installing.
- Special order is accepted but fill out first the dimension form on A068 first before ordering.

規格 Spec.	D	L	l <sub>1</sub>	H	T	Fig.	重量 (KGS) Weight
SFO-1-10	37	82	18	10	M4	1	0.20
SFO-1-15	37	82	18	15	M4	1	0.32
SFO-2-10	37	82	18	10	M4	2	0.18
SFO-2-15	37	82	18	15	M4	2	0.28
SFO-3-10	45	82	18	10	M4	3	0.19
SFO-3-15	45	82	18	15	M4	3	0.31
SFO-4-10	45	82	18	10	M4	4	0.19
SFO-4-15	45	82	18	15	M4	4	0.31

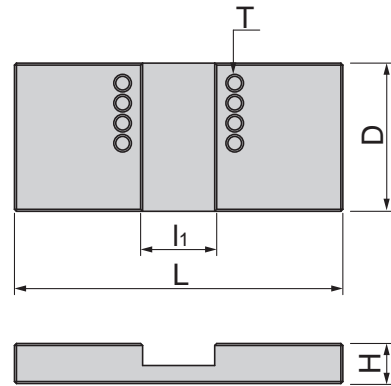


# SFB 角度頭定位塊畫線治具

## SFB ANGLE HEAD FIXED BLOCK MARKER

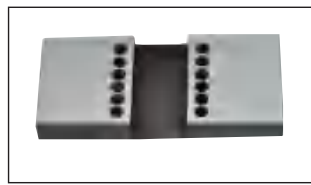
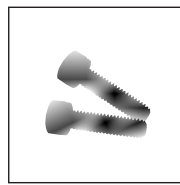
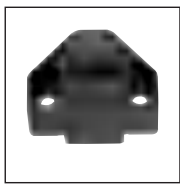
PAT.NO: M417219  
PAT.NO: ZL201120289100.2

JIS  
MAS 403



規格 Spec.	D	L	l <sub>1</sub>	H	T	重量 (KGS) Weight
SFB-B1-6A	37	82	18.5	6	M4	0.02

### 範例 Example



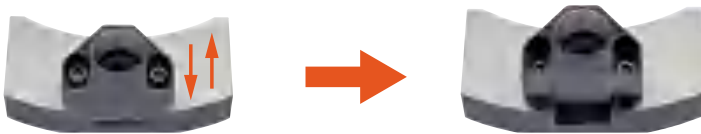
SFO-A(上座)  
SFO-A(Upper)

螺絲  
Screw

SFO-1-10(下座)  
SFO-1-10(Lower)

組合完成  
Installation complete

- ▶ 上座可前後做調整，調合角度頭上定位梢位置，達到完美貼合  
The upper angle-head fixed block can be adjusted first before bolting it together to achieve a perfect fit.





## SFB 角度頭定位塊套裝組

### SFB ANGLE HEAD FIXED BLOCK SET

PAT.NO : M417219 JIS  
MAS 403



規格 Spec.	內容物 Contents					重量 (KGS) Weight
	定位塊 Fixed Block	鑽頭 Drill	螺絲 Screw	扳手 Wrench	數量 Qty	
SFB-10P-SET	SFO-1-10	6.8mm 9mm	SH-M4-16 (2只 -15mm 座用) SH-M4-12 (2只 -10mm 座用)	PL3	1	3.28
	SFO-1-15					
	SFO-2-10					
	SFO-2-15					
	SFO-3-10					
	SFO-3-15					
	SFO-4-10					
	SFO-4-15					
	SFO-A					
	SFB-B1-6A					



## LM-GG 注油器

### LM-GG GREASE GUN

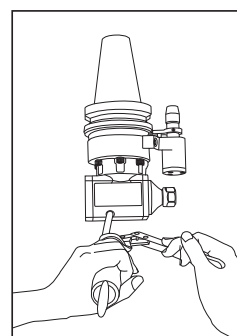
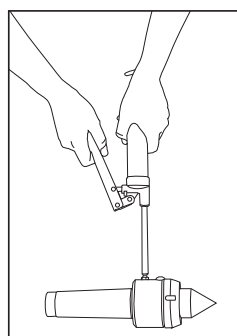
Fig.1



Fig.2



### 範例 Example



### 特點 Feature

- 攜帶方便
- 汽車、機械設備皆可適用
- 可放入條狀黃油或裝填桶裝黃油

- Easy to carry.
- Suitable for automobile and mechanical equipments.
- Grease from tubes or drums may be used.

規格 Spec.	工作壓力 (psi) Power	容量 (ml) Capacity	尺寸 size	Fig.	重量 (KGS) Weight
LM-GG-100	4500	100	210×60×35	1	0.15
LM-GG-500	-	500	380×130×50	2	1.28

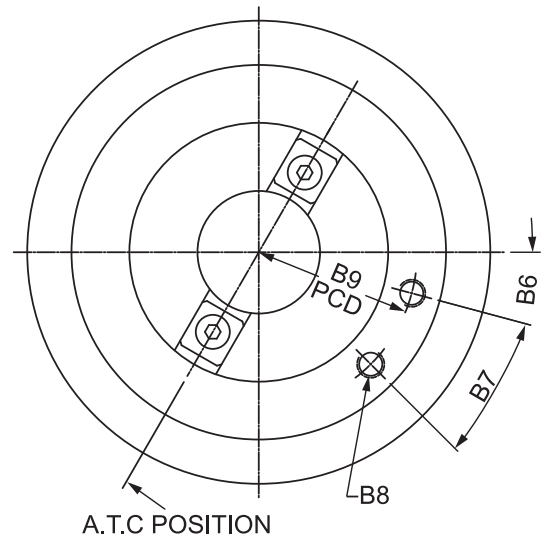
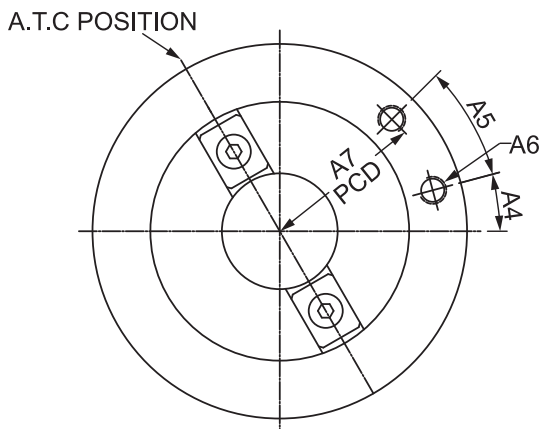
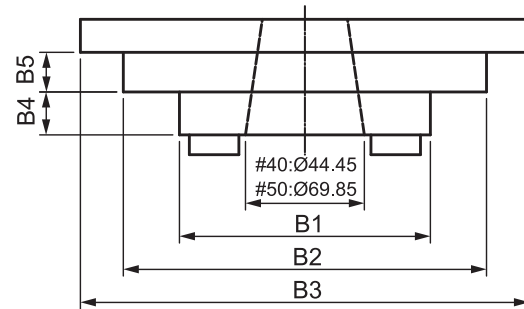
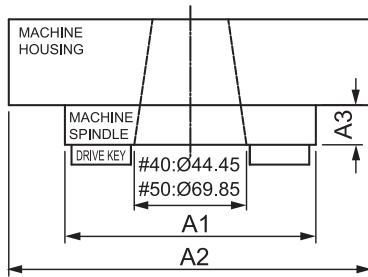


## 定位塊參考圖

### SFB ANGLE HEAD FIXED BLOCK REFERENCE DRAW

JIS  
MAS 403

- 訂製時請注意主軸中心與定位塊中心的間距的變動，並指明您機器主軸法蘭上的固定螺絲孔尺寸位置  
Before installation, first measure the distance between the center of the spindle and the center of the fixed block. Also, indicate clearly the position of the fixed screw on the flange of the spindle.
- 下單之前，請詳細提供並填寫相關尺寸，透過電子郵件、電話或者傳真與我們連繫  
Before purchasing, please send related detailed dimensions to us by email, phone or fax.



單位 (UNIT):mm

機械廠牌 MACHINE MAKER			
機械型號 MACHINE MODLE			
<b>A1</b>		<b>A5</b>	
<b>A2</b>		<b>A6</b>	
<b>A3</b>		<b>A7</b>	
<b>A4</b>			

單位 (UNIT):mm

機械廠牌 MACHINE MAKER			
機械型號 MACHINE MODLE			
<b>B1</b>		<b>B6</b>	
<b>B2</b>		<b>B7</b>	
<b>B3</b>		<b>B8</b>	
<b>B4</b>		<b>B9</b>	
<b>B5</b>			

- S= 主軸中心到定位塊的中心距離

S = the distance between the center of the spindle and the center of the fixed block.

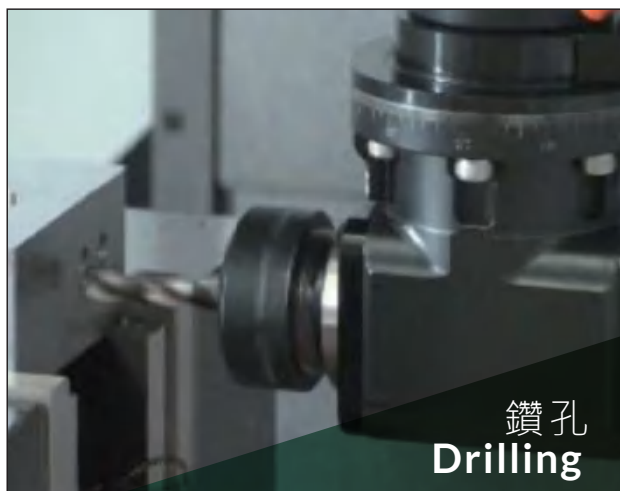


# BT/SAM 小鋼炮銑削頭加工實例

## BT/SAM ANGLE HEAD HOLDER CUTTING ILLUSTRATION

JIS  
MAS 403

最大切削扭力 Max. Torque: 20N.m



鑽孔  
Drilling

### BT40xSAM32EX-120

工件材料Workpiece material: S45C(Steels)

刀具Tool: Ø12高速鋼鑽頭

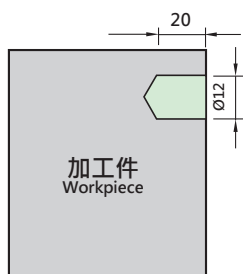
(Ø12 High Speed Steels Drills)

切削速度(Vc): 31m/min

轉速(S): 1000rpm

進給(Vf): 100mm/min

切削深度(Ap): 20mm



攻牙  
Tapping

### BT40xSAM32EX-120

工件材料Workpiece material: S45C(Steels)

刀具Tool: M12x1.75P絲攻

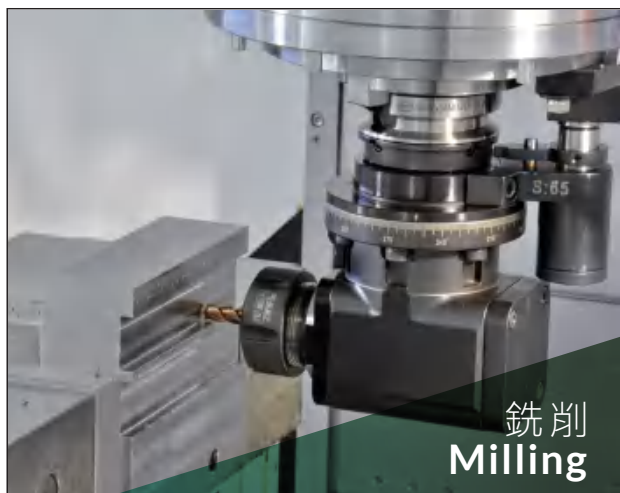
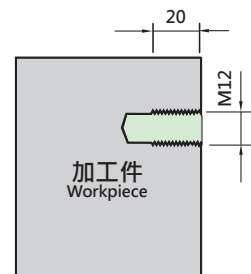
(M12x1.75P Tap)

切削速度(Vc): 7.53m/min

轉速(S): 200rpm

進給(Vf): 350mm/min

切削深度(Ap): 20mm



銑削  
Milling

### BT40xSAM32EX-120

工件材料Workpiece material: S45C(Steels)

刀具Tool: Ø12鎢鋼立銑刀

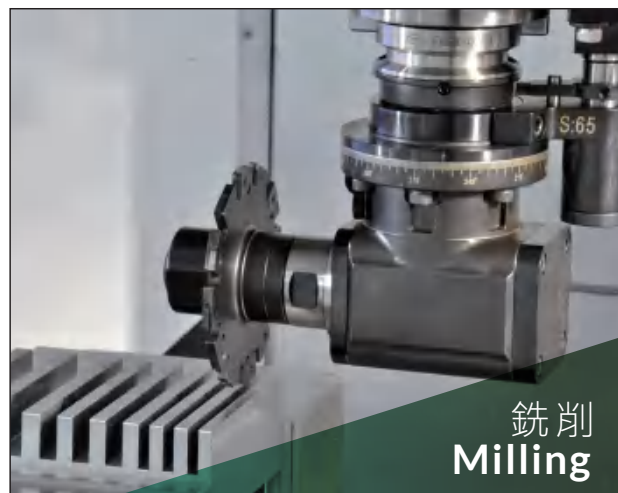
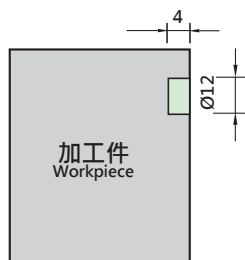
(Ø12 End mills)

切削速度(Vc): 18.8m/min

轉速(S): 500rpm

進給(Vf): 150mm/min

切削深度(Ap): 4mm



銑削  
Milling

### BT40xSAM25.4SCAX-120

工件材料Workpiece material: S45C(Steels)

刀具Tool: SDC-100X08A25.4

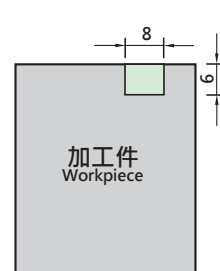
切削速度(Vc): 120m/min

轉速(S): 380rpm

進給(Vf): 90mm/min

切削深度(Ap): 6mm

切削深度(Ae): 8mm

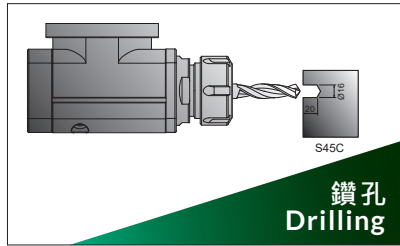




# BT/SAC&BT/SAR 加工實例

## BT/SAC&BT/SAR ANGLE HEAD HOLDER CUTTING ILLUSTRATION

JIS  
MAS 403



鑽孔  
Drilling

### BT50xSAC32E-147

工件材料Workpiece material: S45C(Steels)

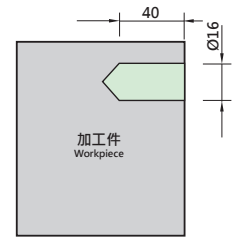
刀具Tool: Ø16高速鋼鑽頭  
(Ø16 High Speed Steels Drills)

切削速度(Vc): 30.14m/min

轉速(S): 600rpm

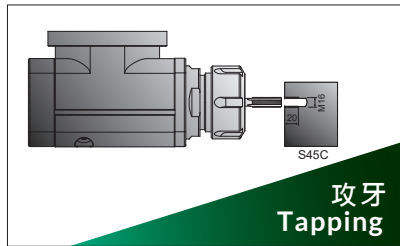
進給(Vf): 96mm/min

切削深度(Ap): 40mm



最大切削扭力

Max. Torque  
25N.m



攻牙  
Tapping

### BT50xSAC32E-147

工件材料Workpiece material: S45C(Steels)

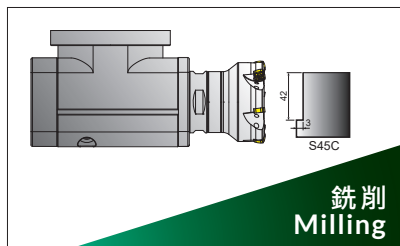
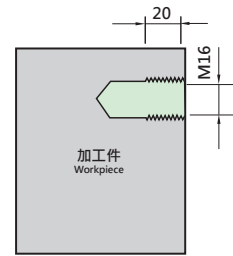
刀具Tool: M16x2.0P絲攻  
(M16x2.0P Tap)

切削速度(Vc): 10.05m/min

轉速(S): 200rpm

進給(Vf): 400mm/min

切削深度(Ap): 20mm



銑削  
Milling

### BT50xSAC25.4FA-147

工件材料Workpiece material: S45C(Steels)

刀具Tool: Ø50面銑刀  
(Ø50 Face mill)

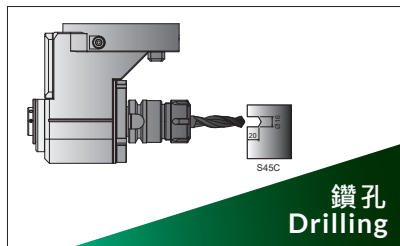
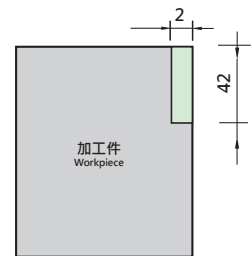
切削速度(Vc): 65.94m/min

轉速(S): 500rpm

進給(Vf): 150mm/min

切削深度(Ap): 2mm

切削寬度(Ae): 42mm



鑽孔  
Drilling

### BT50xSAR50/SBT30-230 BT30-ER32-50

工件材料Workpiece material: S45C(Steels)

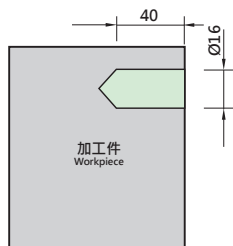
刀具Tool: Ø16高速鋼鑽頭  
(Ø16 High speed steels drills)

切削速度(Vc): 31m/min

轉速(S): 1000rpm

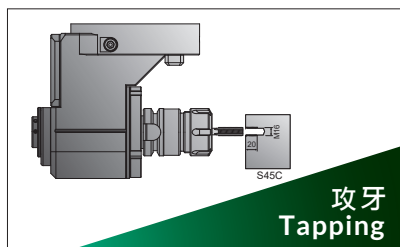
進給(Vf): 100mm/min

切削深度(Ap): 40mm



最大切削扭力

Max. Torque  
30N.m



攻牙  
Tapping

### BT50xSAR50/SBT30-230 BT30-ER32-50

工件材料Workpiece material: S45C(Steels)

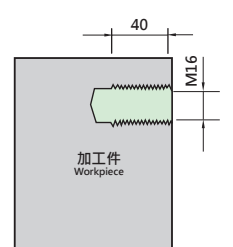
刀具Tool: M16x2.0P絲攻  
(M16x2.0P Tap)

切削速度(Vc): 10.05m/min

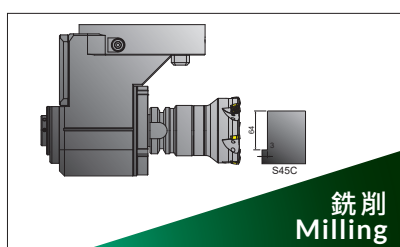
轉速(S): 200rpm

進給(Vf): 400mm/min

切削深度(Ap): 40mm



適用：龍門銑床  
Applicable: gantry  
milling machine



銑削  
Milling

### BT50xSAR50/SBT30-230 BT30-FMA25.4-45

工件材料Workpiece material: S45C(Steels)

刀具Tool: Ø80面銑刀  
(Ø80 Face mill)

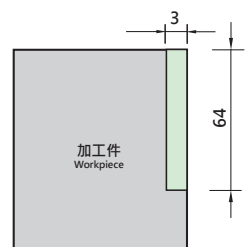
切削速度(Vc): 80.38m/min

轉速(S): 400rpm

進給(Vf): 360mm/min

切削深度(Ap): 3mm

切削寬度(Ae): 64mm





## BT/OHER 油路刀把

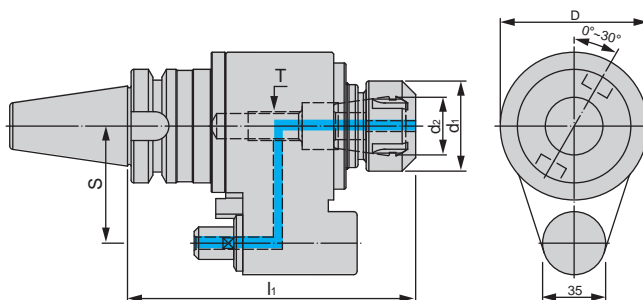
### BT/OHER OIL HOLE COLLET CHUCK

PAT.NO: M298033  
PAT.NO: M311791  
PAT.NO: 3128766  
PAT.NO: 3200356

PAT.NO: 20-0433603  
PAT.NO: ZL200620132661.0  
PAT.NO: 696550  
PAT.NO: TR 2007 02942 Y  
PAT.NO: N.0000266731

JIS  
MAS 403

水壓 Water pressure : 7bar



規格 Spec.	l <sub>1</sub>	D	d <sub>1</sub>	d <sub>2</sub> ER	S	T	重量 (KGS) Weight
BT40×OHER16-160	160	82	28	16	65	M10	3.80
BT40×OHER20-160	160	82	34	20	65	M12	4.10
BT40×OHER25-160	160	82	42	25	65	M16	4.30
BT40×OHER32-160	160	82	50	32	65	M16	4.50
BT50×OHER16-160	160	98	28	16	80	M10	7.00
BT50×OHER20-160	160	98	34	20	80	M12	7.10
BT50×OHER25-160	160	98	42	25	80	M16	7.20
BT50×OHER32-160	160	98	50	32	80	M16	7.30
BT50×OHER40-160	160	98	63	40	80	M20	7.50

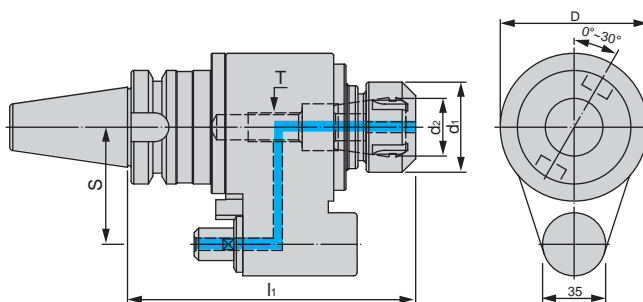
**NEW**



## BT/OHER 油路刀把

### BT/OHER OIL HOLE COLLET CHUCK

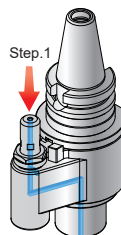
水壓 Water pressure : 20bar



規格 Spec.	l <sub>1</sub>	D	d <sub>1</sub>	d <sub>2</sub> ER	S	T	重量 (KGS) Weight
BT40×OHER32-160-20BAR	160	82	50	32	65	M16	4.50
BT50×OHER32-160-20BAR	160	98	50	32	80	M16	7.30

#### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner	定位塊 Fix block
A290-A293	A258-A269	A283	A296	A073



#### ⚠ 使用注意事項 Notice

使用前應先進行給水動作，再進行運轉，以提升產品壽命。

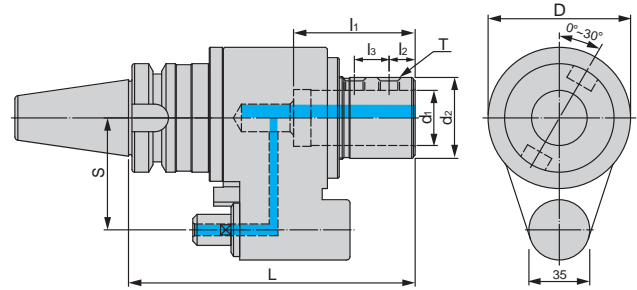
Before use should be the first water supply action, and then run to enhance product life.



# BT/OSL 側固式油路刀把

## BT/OSL SIDE LOCK OIL HOLE HOLDER

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MAS 403



### 特點 Feature

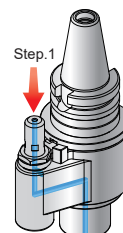
- 訂購前請先確認 "S" 尺寸 (中心距離)
- 使用前請先確認中心切削機的高壓裝置
- 承受  $7\text{kgf/cm}^2$  水壓
- 最高轉速限制 : 3000rpm

- Please confirm the "S" size before ordering.
- Please confirm the machining center with installation high pressure pump before use.
- Powerful  $7\text{kgf/cm}^2$  water pressure.
- Max. spindle : 3000rpm.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d <sub>1</sub>	d <sub>2</sub>	S	T	重量 (KGS) Weight
BT40×OSL16-165	165	48	25	-	82	16	46.5	65	M12×1.75P	3.10
BT40×OSL20-165		50				20				3.50
BT40×OSL25-165		56	15	20		25	3.50			
BT40×OSL32-165		60				32	47			5.20
BT50×OSL16-165	165	48	25	-	98	16	56	80	M14×2.0P	7.00
BT50×OSL20-165		50				20			M12×1.75P	7.50
BT50×OSL25-165		56	15	20		25			M16×2.0P	7.50
BT50×OSL32-165		60				32			7.80	
BT50×OSL40-170	170	62	15	25	105	40			M14×2.0P	8.50

### 選配表 Option

拉頭 Pull Stud	套筒 Sleeve	定位塊 Fix block
A290-A293	A309	A073



### ⚠ 使用注意事項 Notice

使用前應先進行給水動作，再進行運轉，以提升產品壽命。

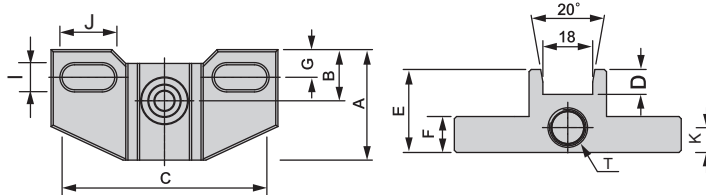
Before use should be the first water supply action, and then run to enhance product life.





## 油路刀把用定位塊 FIXED BLOCK(FOR OIL HOLE HOLDER)

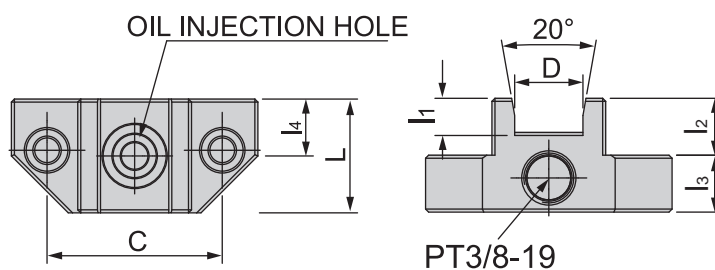
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規格 Spec.	A	B	C	D	E	F	G	I	J	K	T	重量 (KGS) Weight
SFB-3	40	18.5	45~65	9	30	13	10	9	19	9	NPT1/4-18	0.30



## ST-18 定位塊 ST-18 FIXED BLOCK



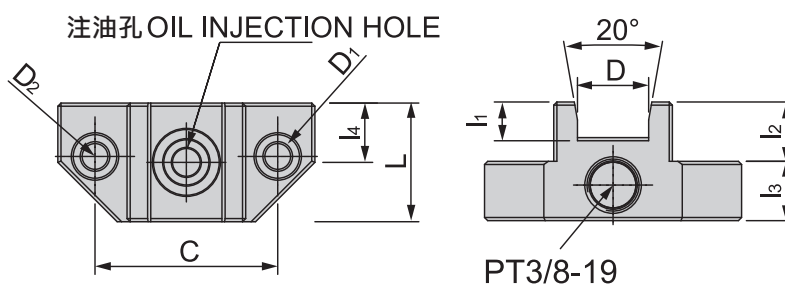
規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	C	D	重量 (KGS) Weight
ST-18	27	9	18.1	17.2	18	46.2	18	0.29

### 訂製產品圖面

- 接受特殊規格，請在下單之前告知詳細尺寸。
- 如果想要訂製，請注意主軸中心和定位塊中心的距離，並且請小心主軸法蘭上固定螺絲的尺寸和位置

### Drawing of custom-made products

- Special type is accepted. Please inform detailed dimensions before making a purchase order.
- If you'd like custom-made, please beware of the distance between spindle center and Fixed Block center. Also, please indicate the dimension and position of the Fixed Screw on the flange of spindle.



UNIT:mm

L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	C	D	D <sub>1</sub>	D <sub>2</sub>

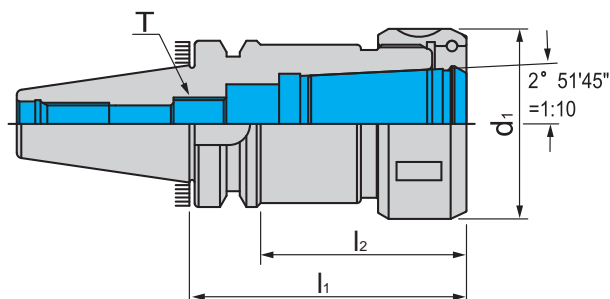


## BT/EOC 立銑刀夾頭

### BT/EOC COLLET CHUCK

DIN-ISO-10897 PAT.NO: M298033 PAT.NO: ZL200620132661.0  
 PAT.NO: M311791 PAT.NO: 696550  
 PAT.NO: 3128766 PAT.NO: TR 2007 02942Y  
 PAT.NO: 20-0433603 PAT.NO: 0000266731

JIS  
 MAS 403



### 特點 Feature

- 筒夾樣式有 OZ 型以及 B 型
  - 鋼珠螺帽設計，加大夾持力，重切削專用
  - 整支通孔，利於出水及抗震
  - 如需擋刀螺絲可另外指定
  - 裝置時筒夾必須先置入螺帽，再裝入刀具，接著鎖固入本體
  - 刀具置入筒夾內孔，必須超出筒夾內孔有效夾持長度，避免不當鎖固，造成損壞
  - 務必使用正確扳手來裝置不可任意改變，避免不當鎖固，造成損壞
- Compatible with OZ and B type collets.
  - Increased clamping force with the steel bearing nut design.
  - Through coolant design increase the tool life and vibration resistant.
  - A special stop screw is available for purchase to prevent the tool from being inserted too deep.
  - Place the collet first into the clamping nut, then install both on to the chuck.
  - Install the cutting tool to its proper length before tightening the clamping nut to avoid damaging the tool.
  - Do not use other spanners it might cause damage the nut during tightening

規格 Spec.	$l_1$	$l_2$	$d_1$	T	夾持範圍 Clamping Range	重量 (KGS) Weight
BT30×EOC25-70	70	48	60	M12×1.75P	Ø3~Ø25	0.88
BT40×EOC25-70	70	40.5	60	M16×2.0P	Ø3~Ø25	1.78
BT40×EOC25-100	100	70.5	60	M16×2.0P	Ø3~Ø25	2.25
BT40×EOC25-120	120	88	60	M16×2.0P	Ø3~Ø25	1.83
BT40×EOC32-90	90	63	72	M20×2.0P	Ø4~Ø32	2.00
BT40×EOC32-105	105	78	72	M20×2.0P	Ø4~Ø32	2.20
BT40×EOC32-120	120	93	72	M20×2.0P	Ø4~Ø32	2.60
BT50×EOC25-85	85	44.5	60	M16×2.0P	Ø3~Ø25	4.40
BT50×EOC25-100	100	59.5	60	M16×2.0P	Ø3~Ø25	4.76
BT50×EOC25-120	120	77	60	M16×2.0P	Ø3~Ø25	5.20
BT50×EOC32-90	90	44	72	M24×2.0P	Ø4~Ø32	4.63
BT50×EOC32-105	105	59	72	M24×2.0P	Ø4~Ø32	4.85
BT50×EOC32-120	120	74	72	M24×2.0P	Ø4~Ø32	5.35

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A279	A288	A299

# PNER特點

台灣精品 2017  
TAIWAN EXCELLENCE



PNER刀桿及筒夾可提升加工精度，減少昂貴的再加工時間；延長刀具壽命，使機台主軸精度能維持更久；降低整體生產成本，提高生產效益。其產品特色如下：

- 一、優化設計使PNER刀桿擁有高精度等級（偏擺精度  $< 3\mu\text{m}$ ），實踐證明刀桿偏擺精度每提升  $10\mu\text{m}$ ，刀具使用壽命能延長25%。
- 二、PNER刀桿針對夾持力進行設計提升，筒夾更合理化精進增加本身強度，且與刀桿和螺帽接觸更穩定且紮實，螺帽經過特殊鍍層，強化挾持力，較市場上常見螺帽夾持力提升30%以上。

PNER chuck and collet efficiently improve the accuracy in cutting process, decrease costly re-machining time, and extend the tool life for keep the precision of machine spindle. Reduce the total production cost and increase production efficiency to meet cutting requirement with high quality and high efficiency.



# ACCURATE





# BT/PNER 立銑刀夾頭

## BT/PNER COLLET CHUCK

PAT.NO:M298033  
PAT.NO:M311791  
PAT.NO:M501316  
PAT.NO:3128766  
PAT.NO:20-0433603

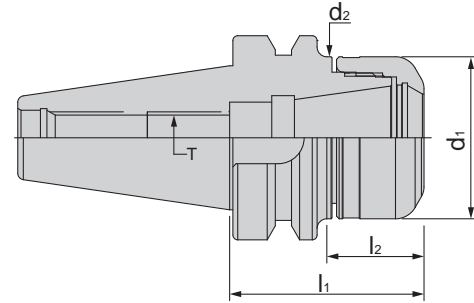
PAT.NO:ZL2006201326610  
PAT.NO:696550  
PAT.NO:TR 2007 02942 Y  
PAT.NO:N.0000266731  
PAT.NO:Nr.202015005621

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精度 Accuracy : <math><3\mu\text{m}</math>



台灣精品 2017  
TAIWAN EXCELLENCE



### 特點 Feature

- 標準動平衡 :G2.5 25000rpm

- Dynamic balancing G2.5 at 25000rpm.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	T	夾持範圍 Clamp Range	重量 (KGS) Weight
BT30xPNER20-60	60	37	32	32	M12x1.75P	3.0~13	0.80
BT30xPNER20-100	100	77	32	32	M12x1.75P	3.0~13	0.80
BT30xPNER25-60	60	37	40	40	M16x2.0P	3.0~16	0.90
BT30xPNER25-100	100	77	40	40	M16x2.0P	3.0~16	0.90
BT30xPNER32-60	60	33	50	50	-	3.0~20	1.00
BT30xPNER32-100	100	73	50	50	M16x2.0P	3.0~20	1.00
BT40xPNER16-70	70	40	30	30	M10x1.5P	3.0~10	1.12
BT40xPNER16-100	100	70	30	30	M10x1.5P	3.0~10	1.12
BT40xPNER16-130	130	100	30	30	M10x1.5P	3.0~10	1.14
BT40xPNER16-160	160	130	30	30	M10x1.5P	3.0~10	1.14
BT40xPNER20-70	70	40	32	32	M12x1.75P	3.0~13	1.14
BT40xPNER20-100	100	70	32	32	M12x1.75P	3.0~13	1.14
BT40xPNER20-130	130	100	32	32	M12x1.75P	3.0~13	1.16
BT40xPNER20-160	160	130	32	32	M12x1.75P	3.0~13	1.16
BT40xPNER25-70	70	40	40	40	M16x2.0P	3.0~16	1.19
BT40xPNER25-100	100	70	40	40	M16x2.0P	3.0~16	1.54
BT40xPNER25-130	130	100	40	40	M16x2.0P	3.0~16	2.00
BT40xPNER25-160	160	130	40	40	M16x2.0P	3.0~16	2.00
BT40xPNER32-70	70	40	50	50	M16x2.0P	3.0~20	1.20
BT40xPNER32-100	100	70	50	50	M16x2.0P	3.0~20	1.80
BT40xPNER32-130	130	100	50	50	M16x2.0P	3.0~20	1.40
BT40xPNER32-160	160	130	50	50	M16x2.0P	3.0~20	1.40
BT50xPNER16-100	100	59	30	30	M10x1.5P	3.0~10	4.28
BT50xPNER16-130	130	82	30	30	M10x1.5P	3.0~10	4.40
BT50xPNER16-160	160	112	30	30	M10x1.5P	3.0~10	4.52
BT50xPNER20-100	100	59	32	32	M12x1.75P	3.0~13	4.42
BT50xPNER20-130	130	82	32	32	M12x1.75P	3.0~13	4.60
BT50xPNER20-160	160	112	32	32	M12x1.75P	3.0~13	4.14
BT50xPNER25-100	100	59	40	40	M16x2.0P	3.0~16	4.36
BT50xPNER25-130	130	82	40	40	M16x2.0P	3.0~16	4.64
BT50xPNER25-160	160	112	40	40	M16x2.0P	3.0~16	4.84
BT50xPNER32-100	100	61	50	50	M16x2.0P	3.0~20	5.00
BT50xPNER32-130	130	82	50	50	M16x2.0P	3.0~20	5.02
BT50xPNER32-160	160	112	50	50	M16x2.0P	3.0~20	5.40
BT50xPNER40-100	100	59	63	63	M20x2.0P	6.0~26	4.88
BT50xPNER40-130	130	82	63	63	M20x2.0P	6.0~26	5.56
BT50xPNER40-160	160	112	63	63	M20x2.0P	6.0~26	6.22

※DAT-PNER 可接單生產 DAT-PNER made to order.

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A270-A271	A284-A285	A297

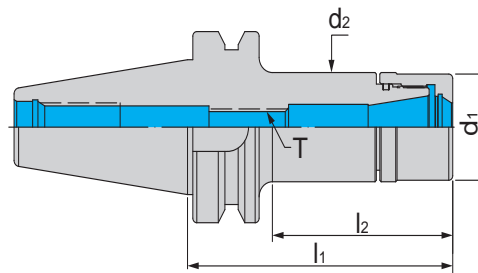




# BT/UTER 立銑刀夾頭

## BT/UTER COLLET CHUCK

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### 特點 Feature

- 標準動平衡 :G2.5 25000rpm

- Standard revolution G2.5 at 25000rpm.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	T	夾持範圍 Clamp Range	重量 (KGS) Weight
BT30 x UTER16-70	70	43	30	30	M10x1.5P	Ø1~Ø10	0.70
BT30 x UTER16-100	100	73	30	30	M10x1.5P	Ø1~Ø10	0.78
BT30 x UTER20-70	70	47	35	36	M12x1.75P	Ø1~Ø13	0.68
BT30 x UTER20-100	100	77	35	36	M12x1.75P	Ø1~Ø13	0.85
BT30 x UTER25-70	70	46	42	42	M16x2.0P	Ø1~Ø16	0.70
BT30 x UTER25-100	100	76	42	42	M16x2.0P	Ø1~Ø16	1.00
BT40 x UTER16-70	70	40	30	30	M10x1.5P	Ø1~Ø10	1.22
BT40 x UTER16-100	100	63	30	30	M10x1.5P	Ø1~Ø10	1.36
BT40 x UTER20-70	70	38	35	36	M12x1.75P	Ø1~Ø13	1.20
BT40 x UTER20-100	100	68	35	36	M12x1.75P	Ø1~Ø13	1.46
BT40 x UTER25-70	70	40	42	42	M16x2.0P	Ø1~Ø16	1.22
BT40 x UTER25-100	100	70	42	42	M16x2.0P	Ø1~Ø16	1.50
BT40 x UTER32-70	70	40	48	48	M16x2.0P	Ø2~Ø20	1.30
BT40 x UTER32-100	100	70	48	48	M16x2.0P	Ø2~Ø20	1.60
BT50 x UTER20-70	70	31.6	35	36	M12x1.75P	Ø1~Ø13	3.68
BT50 x UTER20-100	100	52	35	36	M12x1.75P	Ø1~Ø13	4.42
BT50 x UTER25-70	70	29.8	42	42	M16x2.0P	Ø1~Ø16	3.70
BT50 x UTER25-100	100	52	42	42	M16x2.0P	Ø1~Ø16	4.01
BT50 x UTER32-80	80	41	48	48	M16x2.0P	Ø2~Ø20	3.80
BT50 x UTER32-100	100	57	48	48	M16x2.0P	Ø2~Ø20	5.00

### ★ 切削數據 Cutting data -

刀桿 Shank : BT40xUTER20-100 筒夾 Collet : ER20-8mm 立銑刀 End Mill : 8mm 材料 Material : SKD61 S= 3100rpm F= 600mm/min Ap= 15mm

	結構 structure	筒夾規範 Collet Specification	ER20-8mm 夾持力 Clamping force	表面粗糙度 Surface roughness
UTER		ISO 國際標準規範筒夾(銑刀專用) ISO international standards collet (milling dedicated) 整數柄 Integer handle ✓ 點數柄 Points handle ✗	90 N.m	 <b>Ra=0.654um</b>
ER		ISO 國際標準規範筒夾 ISO international standards collet 整數柄 Integer handle ✓ 點數柄 Points handle ✓	50 N.m	 <b>Ra=1.039um</b>

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A270-A271	A285	A297





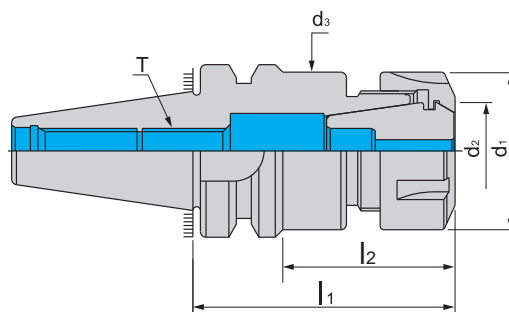
# BT/ER 立銑刀夾頭

## BT/ER COLLET CHUCK

DIN-ISO-15488

 PAT.NO: M298033  
 PAT.NO: M311791  
 PAT.NO: 3128766  
 PAT.NO: 20-0433603

 PAT.NO: ZL200620132261.0  
 PAT.NO: 696550  
 PAT.NO: TR 2007 02945 Y  
 PAT.NO: N.0000266731

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規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	T	夾持範圍 Clamping Range	重量 (KGS) Weight
BT30 × ER16A-70	70	40	28	16	28	M10×1.5P	Ø1-Ø10	0.57
BT30 × ER16A-100	100	70	28	16	28	M10×1.5P	Ø1-Ø10	0.70
BT30 × ER16A-120	120	93	28	16	28	M10×1.5P	Ø1-Ø10	0.95
BT30 × ER20A-70	70	45	34	20	34	M12×1.75P	Ø1-Ø13	0.61
BT30 × ER20A-100	100	63	34	20	34	M12×1.75P	Ø1-Ø13	0.80
BT30 × ER20A-135	135	110	34	20	34	M12×1.75P	Ø1-Ø13	1.15
BT30 × ER25-70	70	46	42	25	42	M16×2.0P	Ø1-Ø16	0.68
BT30 × ER25-135	135	111	42	25	42	M16×2.0P	Ø1-Ø16	1.47
BT30 × ER32-70	70	48	50	32	45	M16×2.0P	Ø2-Ø20	0.69
BT30 × ER32-100	100	78	50	32	45	M16×2.0P	Ø2-Ø20	1.04
BT30 × ER40-80	80	58	63	40	53	M16×2.0P	Ø3-Ø26	0.94
BT40 × ER16A-70	70	40	28	16	28	M10×1.5P	Ø1-Ø10	1.16
BT40 × ER16A-100	100	63	28	16	28	M10×1.5P	Ø1-Ø10	1.29
BT40 × ER16A-125	125	88	28	16	28	M10×1.5P	Ø1-Ø10	1.36
BT40 × ER16A-150	150	113	28	16	28	M10×1.5P	Ø1-Ø10	1.57
BT40 × ER16A-180	180	143	28	16	28	M10×1.5P	Ø1-Ø10	1.54
BT40 × ER20A-70	70	40	34	20	34	M12×1.75P	Ø1-Ø13	1.19
BT40 × ER20A-100	100	63	34	20	34	M12×1.75P	Ø1-Ø13	1.40
BT40 × ER20A-135	135	98	34	20	34	M12×1.75P	Ø1-Ø13	1.69
BT40 × ER20A-150	150	113	34	20	34	M12×1.75P	Ø1-Ø13	1.78
BT40 × ER25-70	70	40	42	25	42	M16×2.0P	Ø1-Ø16	1.24
BT40 × ER25-100	90	70	42	25	42	M16×2.0P	Ø1-Ø16	1.52
BT40 × ER25-125	125	95	42	25	42	M16×2.0P	Ø1-Ø16	1.86
BT40 × ER25-150	150	115	42	25	42	M16×2.0P	Ø1-Ø16	2.11
BT40 × ER32-70	70	40	50	32	45	M16×2.0P	Ø2-Ø20	1.28
BT40 × ER32-100	100	70	50	32	45	M16×2.0P	Ø2-Ø20	1.70
BT40 × ER32-150	150	118	50	32	45	M16×2.0P	Ø2-Ø20	2.49
BT40 × ER40-80	80	53	63	40	60	-	Ø3-Ø26	1.49
BT40 × ER40-100	100	73	63	40	60	M20×2.0P	Ø3-Ø26	1.90
BT40 × ER40-120	120	93	63	40	60	M20×2.0P	Ø3-Ø26	2.45
BT40 × ER40-150	150	123	63	40	60	M20×2.0P	Ø3-Ø26	3.05
BT40 × ER50-85	85	58	78	50	60	M24×2.0P	Ø5-Ø34	1.70
BT40 × ER50-100	100	73	78	50	60	M24×2.0P	Ø5-Ø34	2.01

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A258	A280	A296



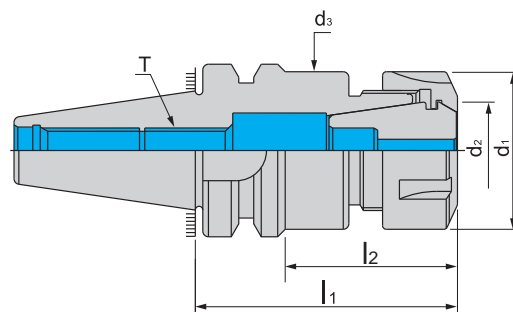
# BT/ER 立銑刀夾頭

## BT/ER COLLET CHUCK

DIN-ISO-15488

 PAT.NO: M298033  
 PAT.NO: M311791  
 PAT.NO: 3128766  
 PAT.NO: 20-0433603

 PAT.NO: ZL200620132261.0  
 PAT.NO: 696550  
 PAT.NO: TR 2007 02945 Y  
 PAT.NO: N.0000266731

 JIS  
 MAS 403


規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	T	夾持範圍 Clamping Range	重量 (KGS) Weight
BT50 × ER16A-70	70	29	28	16	28	M10×1.5P	Ø1~Ø10	4.10
BT50 × ER16A-90	90	47	28	16	28	M10×1.5P	Ø1~Ø10	4.16
BT50 × ER16A-105	105	57	28	16	28	M10×1.5P	Ø1~Ø10	4.19
BT50 × ER16A-135	135	87	28	16	28	M10×1.5P	Ø1~Ø10	4.19
BT50 × ER16A-150	150	102	28	16	28	M10×1.5P	Ø1~Ø10	4.46
BT50 × ER16A-165	165	117	28	16	28	M10×1.5P	Ø1~Ø10	4.36
BT50 × ER20A-70	70	29	34	20	34	M12×1.75P	Ø1~Ø13	4.09
BT50 × ER20A-90	90	47	34	20	34	M12×1.75P	Ø1~Ø13	4.18
BT50 × ER20A-105	105	57	34	20	34	M12×1.75P	Ø1~Ø13	4.28
BT50 × ER20A-135	135	87	34	20	34	M12×1.75P	Ø1~Ø13	4.37
BT50 × ER20A-150	150	102	34	20	34	M12×1.75P	Ø1~Ø13	4.47
BT50 × ER20A-165	165	117	34	20	34	M12×1.75P	Ø1~Ø13	4.55
BT50 × ER20A-200	200	152	34	20	34	M12×1.75P	Ø1~Ø13	4.74
BT50 × ER25-70	70	29	42	25	42	M16×2.0P	Ø1~Ø16	4.16
BT50 × ER25-105	105	57	42	25	42	M16×2.0P	Ø1~Ø16	4.45
BT50 × ER25-135	135	87	42	25	42	M16×2.0P	Ø1~Ø16	4.57
BT50 × ER25-165	165	117	42	25	42	M16×2.0P	Ø1~Ø16	4.89
BT50 × ER25-200	200	-	42	25	42	M16×2.0P	Ø1~Ø16	5.22
BT50 × ER32-80	80	39	50	32	50	M16×2.0P	Ø2~Ø20	4.21
BT50 × ER32-100	100	57	50	32	50	M16×2.0P	Ø2~Ø20	4.47
BT50 × ER32-120	120	72	50	32	50	M16×2.0P	Ø2~Ø20	4.90
BT50 × ER32-150	150	102	50	32	50	M16×2.0P	Ø2~Ø20	5.01
BT50 × ER32-200	200	152	50	32	50	M16×2.0P	Ø2~Ø20	5.71
BT50 × ER32-250	250	-	50	32	50	M16×2.0P	Ø2~Ø20	5.80
BT50 × ER40-80	80	39	63	40	63	M20×2.0P	Ø3~Ø26	4.26
BT50 × ER40-100	100	57	63	40	63	M20×2.0P	Ø3~Ø26	4.71
BT50 × ER40-120	120	72	63	40	63	M20×2.0P	Ø3~Ø26	5.05
BT50 × ER40-135	135	87	63	40	63	M20×2.0P	Ø3~Ø26	5.36
BT50 × ER40-150	150	-	63	40	63	M20×2.0P	Ø3~Ø26	5.68
BT50 × ER40-200	200	-	63	40	63	M20×2.0P	Ø3~Ø26	7.00
BT50 × ER50-90	90	49	78	50	78	M24×2.0P	Ø5~Ø34	4.45
BT50 × ER50-120	120	79	78	50	78	M24×2.0P	Ø5~Ø34	5.40
BT50 × ER50-165	165	124	78	50	78	M24×2.0P	Ø5~Ø34	7.10

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A258	A280	A296



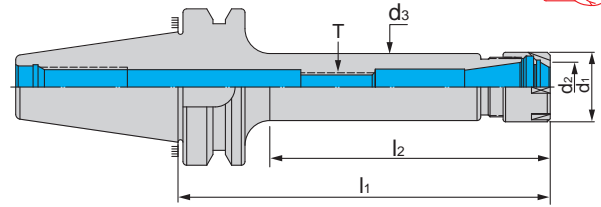
## M 型 BT/ER 立銑刀夾頭

### BT/ER COLLET CHUCK(M TYPE)

DIN-ISO-15488  
PATNO: M298033  
PATNO: M311791  
PATNO: 3128766  
PATNO: 20-0433603

PATNO: ZL2006201322610  
PATNO: 696550  
PATNO: TR 2007 02945 Y  
PATNO: N.0000266731

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#### 特點 Feature

- 前端採用小徑螺帽，避免干涉
- 本體與螺帽皆已預設定動平衡 G6.3 10000rpm

- M type with small diameter can avoid to interfere during machining.
- Dynamic balancing G6.3 at 10000rpm.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	T	夾持範圍 Clamping Range	重量 (KGS) Weight
BT30 × ER11M-70	70	40	16	11	15	M6 × 1.0P	Ø1~Ø7	0.50
BT30 × ER11M-100	100	70	16	11	15	M6 × 1.0P	Ø1~Ø7	0.51
BT30 × ER11M-120	120	88	16	11	15	M6 × 1.0P	Ø1~Ø7	0.56
BT30 × ER16M-70	70	43	22	16	21	M10 × 1.5P	Ø1~Ø10	0.50
BT30 × ER16M-100	100	68	22	16	21	M10 × 1.5P	Ø1~Ø10	0.57
BT30 × ER16M-120	120	88	22	16	21	M10 × 1.5P	Ø1~Ø10	0.61
BT30 × ER20M-70	70	45	28	20	27	M12 × 1.75P	Ø1~Ø13	0.53
BT30 × ER20M-100	100	71	28	20	27	M12 × 1.75P	Ø1~Ø13	0.65
BT30 × ER20M-120	120	91	28	20	27	M12 × 1.75P	Ø1~Ø13	0.74
BT30 × ER20M-150	150	121	28	20	27	M12 × 1.75P	Ø1~Ø13	0.96
BT40 × ER11M-70	70	33	16	11	15	M6 × 1.0P	Ø1~Ø7	1.07
BT40 × ER11M-100	100	63	16	11	15	M6 × 1.0P	Ø1~Ø7	1.09
BT40 × ER11M-125	125	88	16	11	15	M6 × 1.0P	Ø1~Ø7	1.40
BT40 × ER11M-150	150	113	16	11	15	M6 × 1.0P	Ø1~Ø7	1.34
BT40 × ER16M-70	70	38	22	16	21	M10 × 1.5P	Ø1~Ø10	1.10
BT40 × ER16M-100	100	63	22	16	21	M10 × 1.5P	Ø1~Ø10	1.17
BT40 × ER16M-125	125	88	22	16	21	M10 × 1.5P	Ø1~Ø10	1.50
BT40 × ER16M-150	150	113	22	16	21	M10 × 1.5P	Ø1~Ø10	1.43
BT40 × ER20M-70	70	38	28	20	27	M12 × 1.75P	Ø1~Ø13	1.16
BT40 × ER20M-100	100	63	28	20	27	M12 × 1.75P	Ø1~Ø13	1.24
BT40 × ER20M-125	125	88	28	20	27	M12 × 1.75P	Ø1~Ø13	1.38
BT40 × ER20M-150	150	113	28	20	27	M12 × 1.75P	Ø1~Ø13	1.80
BT50 × ER11M-70	70	22	16	11	15	M6 × 1.0P	Ø1~Ø7	3.80
BT50 × ER11M-90	90	42	16	11	15	M6 × 1.0P	Ø1~Ø7	3.90
BT50 × ER11M-105	105	57	16	11	15	M6 × 1.0P	Ø1~Ø7	4.00
BT50 × ER11M-135	135	87	16	11	15	M6 × 1.0P	Ø1~Ø7	4.10
BT50 × ER11M-165	165	92	16	11	15	M6 × 1.0P	Ø1~Ø7	4.15
BT50 × ER16M-70	70	29	22	16	21	M10 × 1.5P	Ø1~Ø10	3.90
BT50 × ER16M-90	90	42	22	16	21	M10 × 1.5P	Ø1~Ø10	4.00
BT50 × ER16M-105	105	57	22	16	21	M10 × 1.5P	Ø1~Ø10	4.10
BT50 × ER16M-135	135	87	22	16	21	M10 × 1.5P	Ø1~Ø10	4.20
BT50 × ER16M-165	165	117	22	16	21	M10 × 1.5P	Ø1~Ø10	4.30
BT50 × ER20M-90	90	42	28	20	27	M12 × 1.75P	Ø1~Ø13	4.10
BT50 × ER20M-105	105	57	28	20	27	M12 × 1.75P	Ø1~Ø13	4.20
BT50 × ER20M-135	135	87	28	20	27	M12 × 1.75P	Ø1~Ø13	4.40
BT50 × ER20M-165	165	117	28	20	27	M12 × 1.75P	Ø1~Ø13	4.60

#### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A258	A280	A296

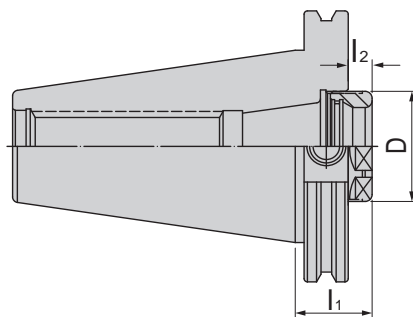




## BT/ER 短徑立銑刀夾頭

### BT/ER SHORT LENGTH COLLET CHUCK

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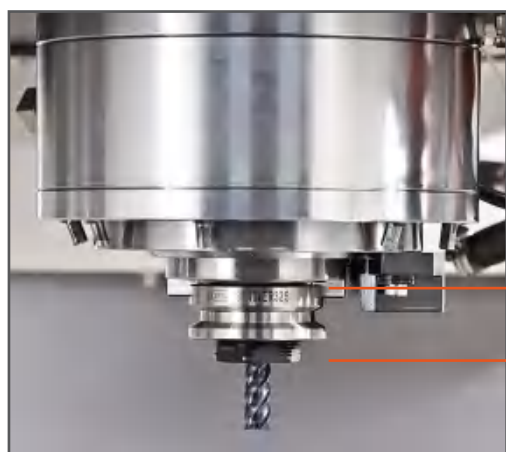


### 特點 Feature

- 用於加工件太高·無空間時使用
- Z軸長度不足時·可以使用
- 突出量少·剛性較佳

- Short length ER collet chuck.
- Shorten length leads less vibration and runout.

規格 Spec	$l_1$	$l_2$	D	T	重量 (KGS) Weight
BT40×ER16S	31.1	4.1	19	M24×1.0P	1.01
BT40×ER20S	31.1	4.1	22	M28×1.5P	0.98
BT40×ER25S	32.6	5.6	25	M32×1.5P	0.91
BT40×ER32S	32.4	5.4	36	M40×1.5P	0.83
BT50×ER16S	42.1	4.1	19	M24×1.0P	3.95
BT50×ER20S	42.1	4.1	22	M28×1.5P	3.91
BT50×ER25S	43.6	5.6	25	M32×1.5P	3.84
BT50×ER32S	43.6	5.4	36	M40×1.5P	3.80



較短突出量  
minimum



較長突出量  
Large Projection

較長突出量  
Large Projection

BT-ER-S 短徑立銑刀夾頭  
BT-ER-S SHORT LENGTH COLLET CHUCK

BT-ER 刀桿  
BT-ER COLLET CHUCK

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet
A290-A293	A258

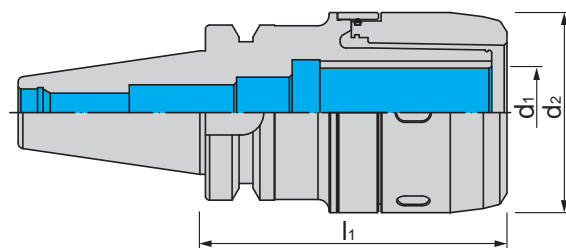


# BT/MLK 強力銑削夾頭

## BT/MLK FORCE COLLET CHUCK

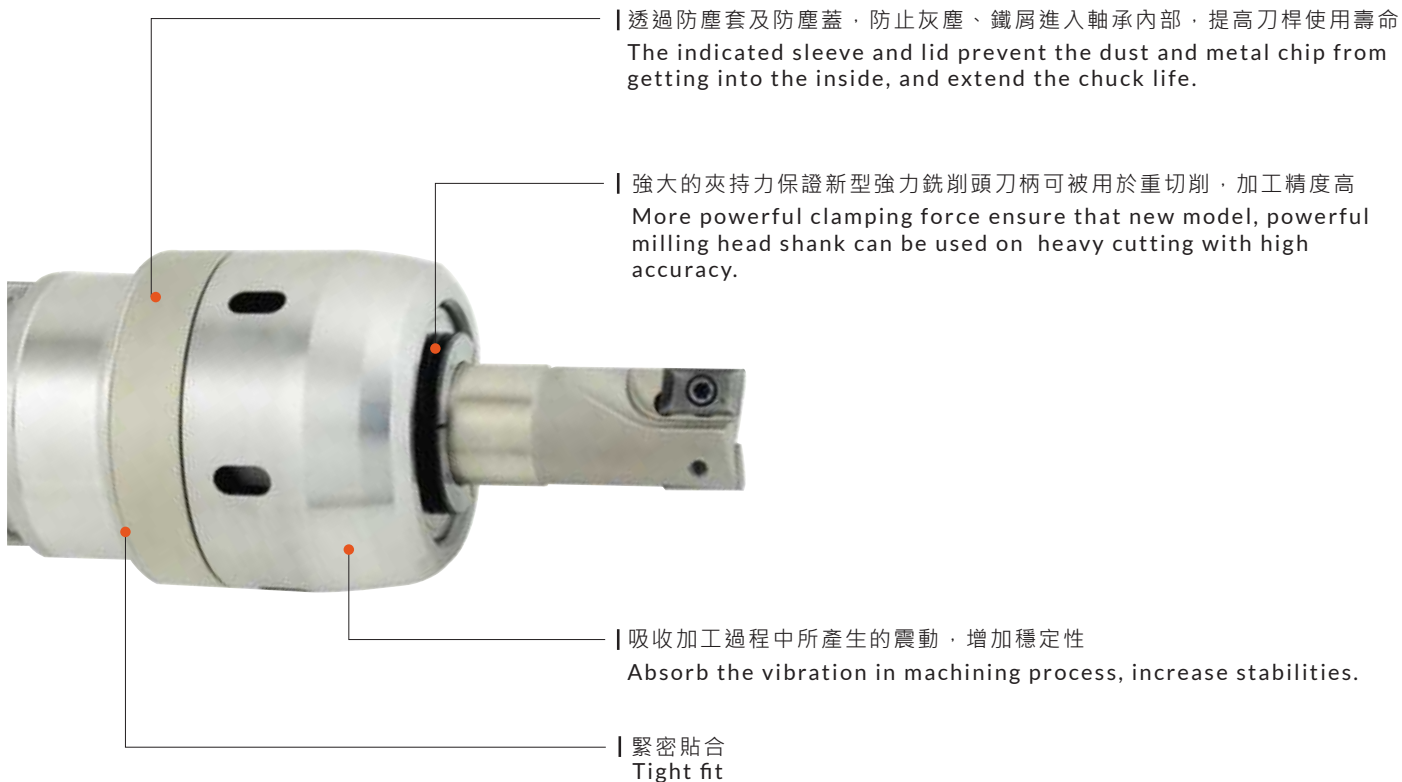
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MAS 403

防塵設計 Dust-proof design



規格 Spec.	$l_1$	$d_1$	$d_2$	重量 (KGS) Weight
BT40-MLK32-105	105	32	75	2.82
BT50-MLK32-110	110	32	75	5.42

- MLK32 扳手與 EOC32 扳手、MLD32 扳手共用 -MLK32 and EOC32、MLD32 spanner can be used in common.



### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	扳手 Spanner
A290-A293	A277	A299

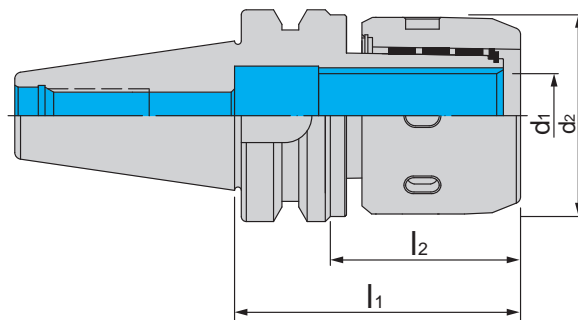




# BT/MLC 直式筒夾銑床夾頭

## BT/MLC MULTI-LOCK MILLING CHUCK

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### 特點 Feature

- 開槽：此款刀桿內孔分割 6 槽以防止滑動並加大夾持力
- 另有套裝可選購

- Slitting: Designed to keep away oil and contaminants while increasing clamping power.
- Available in a set.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	夾持範圍 Clamping Range	重量 (KGS) Weight
BT30 × MLC20-75	75	70	20	55	Ø6~Ø20	1.18
BT30 × MLC20-90	90	70	20	55	Ø6~Ø20	1.37
BT40 × MLC20-80	80	70	20	55	Ø6~Ø20	1.78
BT40 × MLC20-100	100	70	20	55	Ø6~Ø20	2.00
BT40 × MLC20-135	135	70	20	55	Ø6~Ø20	2.41
BT40 × MLC32-90	90	75	32	73	Ø6~Ø32	2.18
BT40 × MLC32-105	105	75	32	73	Ø6~Ø32	2.60
BT40 × MLC32-135	135	75	32	73	Ø6~Ø32	3.21
BT50 × MLC20-105	105	70	20	55	Ø6~Ø20	4.50
BT50 × MLC20-150	150	70	20	55	Ø6~Ø20	4.90
BT50 × MLC32-110	110	75	32	73	Ø6~Ø32	5.17
BT50 × MLC32-135	135	75	32	73	Ø6~Ø32	5.64
BT50 × MLC32-165	165	75	32	73	Ø6~Ø32	6.26
BT50 × MLC32-200	200	75	32	73	Ø6~Ø32	6.98
BT50 × MLC42-110	110	90	42	95	Ø6~Ø42	5.74
BT50 × MLC42-130	130	90	42	95	Ø6~Ø42	6.30
BT50 × MLC42-165	165	90	42	95	Ø6~Ø42	7.31

- 附扳手 Attaches the spanner.

※ 注意：銑刀裝置入筒夾需超過筒夾有效夾持長度，以避免因非完全夾持，導致筒夾損壞、變形

Note: To avoid the improper clamping (no clamp at all) & damage and deformation for collet, it should exceed the effective length of collet when installing the cutter on to collet.

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	扳手 Spanner
		
A290-A293	A277	A299



# BT/MLD 直式筒夾銑床夾頭

## BT/MLD MULTI-LOCK MILLING CHUCK

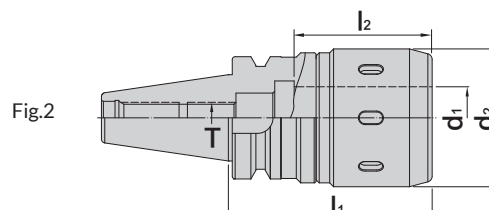
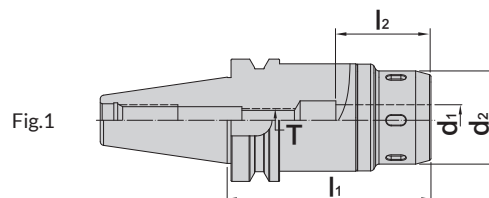
PAT.NO: M447277  
PAT.NO: M430337  
PAT.NO: M451185

PAT.NO: ZL201220749784.4  
PAT.NO: ZL201220749942.6

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台灣精品 2014  
TAIWAN EXCELLENCE



### 特點 Feature

- 開槽 - 此款刀桿內孔分割 6 槽以防止滑動並加大夾持力
- 另有套裝可選購
- MLD20、MLD-3/4、MLK20 扳手共用
- MLD25、EOC25、MLK25 扳手共用
- MLD32、MLD-1-1/4、MLK32 扳手共用

- SLITTING - In that case end mill shank or collet have oil or chips, divide the slitting into six in order to prevent slipping and to grip exactly.
- Available in a set.
- MLD20 and MLD-3/4、MLK20 spanner can be used in common.
- MLD25 and EOC25、MLK25 spanner can be used in common.
- MLD32 and MLD-1-1/4、MLK32 spanner can be used in common.

規格 Spec.	$l_1$	$d_1$	$d_2$	T	Fig.	重量 (KGS) Weight
BT30 × MLD12-80	80	12	42	M12×1.75P	2	1.00
BT30 × MLD16-75	75	16	48	M12×1.75P	1	1.20
BT30 × MLD20-80	80	20	56.5	M12×1.75P	2	1.90
BT30 × MLD20-90	90	20	56.5	M16×2.0P	2	2.10
BT30 × MLD25-90	90	25	60	M16×2.0P	2	1.34
BT40 × MLD12-75	75	12	42	M12×1.75P	1	2.10
BT40 × MLD12-105	105	12	42	M12×1.75P	1	2.10
BT40 × MLD12-135	135	12	42	M12×1.75P	1	2.20
BT40 × MLD16-75	75	16	48	M12×1.75P	1	2.20
BT40 × MLD16-105	105	16	48	M12×1.75P	1	2.30
BT40 × MLD16-135	135	16	48	M12×1.75P	1	2.30
BT40 × MLD20-80	80	20	56.5	M16×2.0P	1	2.30
BT40 × MLD20-100	100	20	56.5	M16×2.0P	1	2.50
BT40 × MLD20-135	135	20	56.5	M16×2.0P	1	2.40
BT40 × MLD25-85	85	25	60	M16×2.0P	1	2.40
BT40 × MLD25-100	100	25	60	M16×2.0P	1	2.40
BT40 × MLD32-95	95	32	71	M16×2.0P	2	2.70
BT40 × MLD32-105	105	32	71	M16×2.0P	2	2.70
BT40 × MLD32-135	135	32	71	M16×2.0P	2	3.00

- 附扳手 Attaches the spanner.

※ 注意：銑刀裝置入筒夾需超過筒夾有效夾持長度，以避免因非完全夾持，導致筒夾損壞、變形

Note: To avoid the improper clamping (no clamp at all) & damage and deformation for collect, it should exceed the effective length of collet when installing the cutter onto collet.

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	扳手 Spanner	止水端蓋 Sealed Cap
A290-A293	A277	A299	A288





# BT/MLD 直式筒夾銑床夾頭

## BT/MLD MULTI-LOCK MILLING CHUCK

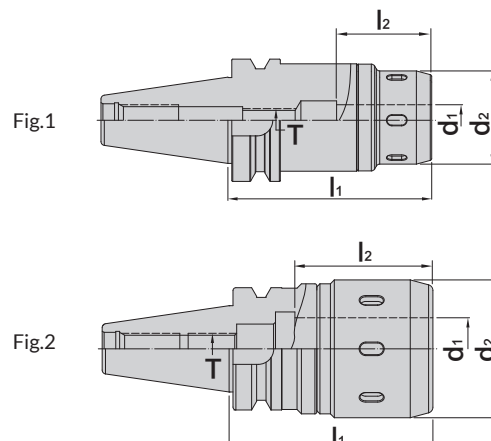
PAT.NO:M447277  
PAT.NO:M430337  
PAT.NO:M451185

PAT.NO: ZL201220749784.4  
PAT.NO: ZL201220749942.6

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TAIWAN EXCELLENCE



### 特點 Feature

- 開槽 - 此款刀桿內孔分割 6 槽以防止滑動並加大夾持力
- 另有套裝可選購
- MLD20、MLD-3/4、MLK20 扳手共用
- MLD25、EOC25、MLK25 扳手共用
- MLD32、MLD-1-1/4、MLK32 扳手共用

- SLITTING - In that case end mill shank or collet have oil or chips, divide the slitting into six in order to prevent slipping and to grip exactly.
- Available in a set.
- MLD20 and MLD-3/4、MLK20 spanner can be used in common.
- MLD25 and EOC25、MLK25 spanner can be used in common.
- MLD32 and MLD-1-1/4、MLK32 spanner can be used in common.

規格 Spec.	$l_1$	$d_1$	$d_2$	T	Fig.	重量 (KGS) Weight
BT50 × MLD12-105	105	12	42	M12×1.75P	1	4.60
BT50 × MLD12-135	135	12	42	M12×1.75P	1	5.10
BT50 × MLD12-165	165	12	42	M12×1.75P	1	5.80
BT50 × MLD16-105	105	16	48	M12×1.75P	1	4.90
BT50 × MLD16-135	135	16	48	M12×1.75P	1	5.60
BT50 × MLD16-165	165	16	48	M12×1.75P	1	6.50
BT50 × MLD20-105	105	20	56.5	M16×2.0P	1	4.50
BT50 × MLD20-150	150	20	56.5	M16×2.0P	1	4.90
BT50 × MLD25-100	100	25	60	M16×2.0P	1	4.80
BT50 × MLD25-130	130	25	60	M16×2.0P	1	5.70
BT50 × MLD32-105	105	32	71	M24×3.0P	1	5.00
BT50 × MLD32-135	135	32	71	M24×3.0P	1	5.20
BT50 × MLD32-165	165	32	71	M24×3.0P	1	6.70
BT50 × MLD42-115	115	42	90	M24×3.0P	1	5.50
BT50 × MLD42-130	130	42	90	M24×3.0P	1	6.50
BT50 × MLD42-165	165	42	90	M24×3.0P	1	7.70

- 附扳手 Attaches the spanner.

※ 注意：銑刀裝置入筒夾需超過筒夾有效夾持長度，以避免因非完全夾持，導致筒夾損壞、變形

Note: To avoid the improper clamping (no clamp at all) & damage and deformation for collect, it should exceed the effective length of collet when installing the cutter onto collet.

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	扳手 Spanner	止水螺帽 Sealed Cap
A290-A293	A277	A299	A288

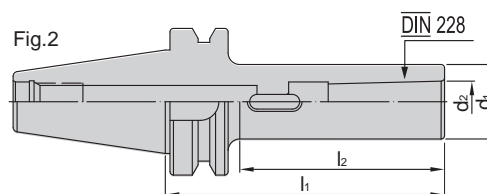
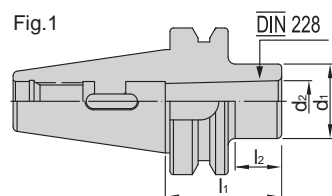




# BT 斜柄鑽頭套筒

## BT MORSE TAPER ADAPTER

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DIN-228-B MAS 403



規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	Fig.	重量 (KGS) Weight
BT30 × MTA1-45	45	20	25	12.065	1	0.48
BT30 × MTA1-105	105	78	25	12.065	2	0.80
BT30 × MTA2-60	60	35	32	17.78	1	0.55
BT30 × MTA2-120	120	95	32	17.78	2	0.90
BT30 × MTA3-80	80	56	40	23.825	1	0.73
BT40 × MTA1-45	45	15	25	12.065	1	1.07
BT40 × MTA1-120	120	83	25	12.065	2	1.41
BT40 × MTA2-50	50	20	32	17.78	1	1.10
BT40 × MTA2-120	120	88	32	17.78	2	1.80
BT40 × MTA3-70	70	38	40	23.825	1	1.20
BT40 × MTA3-135	135	102	40	23.825	2	1.85
BT40 × MTA4-95	95	63	48	31.267	1	1.42
BT40 × MTA4-165	165	133	48	31.267	2	2.41
BT50 × MTA1-45	45	2	25	12.065	1	3.95
BT50 × MTA1-120	120	74	25	12.065	2	4.06
BT50 × MTA1-180	180	132	25	12.065	2	4.32
BT50 × MTA2-60	60	17	32	17.78	1	3.98
BT50 × MTA2-135	135	89	32	17.78	2	4.24
BT50 × MTA2-180	180	132	32	17.78	2	5.00
BT50 × MTA3-65	65	22	40	23.825	1	4.02
BT50 × MTA3-150	150	107	40	23.825	2	4.61
BT50 × MTA3-180	180	132	40	23.825	2	4.91
BT50 × MTA4-95	95	52	48	31.267	1	4.20
BT50 × MTA4-180	180	132	48	31.267	2	5.50
BT50 × MTA5-105	105	62	63	44.399	1	4.30

### 選配表 Option

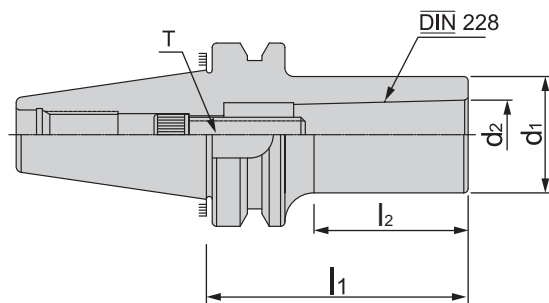
拉頭 Pull Stud	退鑽器 Hand Drift
	
A290-A293	A324



# BT 斜柄鑽頭套筒

## BT MORSE TAPER ADAPTER

DIN-6364 JIS  
MAS 403



### 特點 Feature

- 用於夾持莫式錐度、尾端附內螺紋的切削刀具或是延長桿

- Use in supporting on both sides not-like the taper, end to attach the box thread the cutting tool perhaps lengthens the pole.

規格 Spec.	莫式錐度 MT	$l_1$	$l_2$	$d_1$	$d_2$	T	適用鑽頭	重量 (KGS) Weight
BT30×MTB1-45	1	45	20	25	12.065	M6×1.0P	Ø10~Ø14	0.50
BT30×MTB2-60	2	60	36	32	17.78	M10×1.5P	Ø16~Ø22	0.58
BT40×MTB1-45	1	45	13	25	12.065	M6×1.0P	Ø10~Ø14	1.10
BT40×MTB2-45	2	45	13	32	17.78	M10×1.5P	Ø15~Ø22	1.10
BT40×MTB2-185	2	185	148	32	17.78	M10×1.5P	Ø15~Ø22	1.90
BT40×MTB3-75	3	75	45	40	23.825	M12×1.75P	Ø24~Ø32	1.30
BT40×MTB3-90	3	90	53	40	23.825	M12×1.75P	Ø24~Ø32	1.40
BT40×MTB3-120	3	120	83	40	23.825	M12×1.75P	Ø24~Ø32	1.80
BT40×MTB3-180	3	180	143	40	23.825	M12×1.75P	Ø24~Ø32	2.40
BT40×MTB4-100	4	100	67	48	31.267	M16×2.0P	Ø32~Ø50	1.59
BT40×MTB4-120	4	120	87	48	31.267	M16×2.0P	Ø32~Ø50	1.80
BT40×MTB4-180	4	180	147	48	31.267	M16×2.0P	Ø32~Ø50	2.60
BT50×MTB1-45	1	45	6	25	12.065	M6×1.0P	Ø10~Ø14	4.05
BT50×MTB2-45	2	45	5	32	17.78	M10×1.5P	Ø16~Ø22	4.02
BT50×MTB3-60	3	60	12	40	23.825	M12×1.75P	Ø24~Ø32	4.11
BT50×MTB3-250	3	250	-	34	23.825	M12×1.75P	Ø24~Ø32	6.70
BT50×MTB3-300	3	300	-	34	23.825	M12×1.75P	Ø24~Ø32	7.60
BT50×MTB3-350	3	350	-	34	23.825	M12×1.75P	Ø24~Ø32	8.38
BT50×MTB3-400	3	400	-	34	23.825	M12×1.75P	Ø24~Ø32	9.30
BT50×MTB4-75	4	75	32	48	31.267	M16×2.0P	Ø32~Ø50	4.20
BT50×MTB5-120-M20	5	120	77	63	44.399	M20×2.5P	Ø40	4.57
BT50×MTB5-120-M24	5	120	77	63	44.399	M24×3.0P	Ø40	4.60

### 選配表 Option

拉頭 Pull Stud



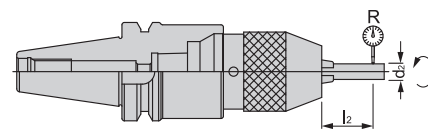
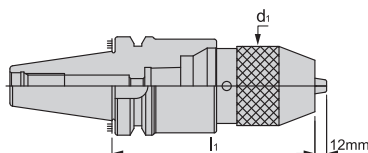
A290-A293



## BT/SPU 直結式鑽夾頭

### BT/SPU DRILL CHUCK ADAPTER

JIS  
MAS 403



規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	夾持範圍 Clamping Capacity	R	重量 (KGS) Weight
BT30 × SPU8-80	80	55	37	6	1~8mm	0.04	0.87
BT30 × SPU13-110	110	75	50	13	1~13mm	0.04	1.61
BT30 × SPU16-115	115	80	57	16	3~16mm	0.04	2.18
BT40 × SPU8-85	85	55	37	6	1~8mm	0.04	1.56
BT40 × SPU13-100	100	75	50	13	1~13mm	0.04	2.04
BT40 × SPU13-130	130	75	50	13	1~13mm	0.04	2.76
BT40 × SPU16-105	105	80	57	16	3~16mm	0.04	2.21
BT50 × SPU8-90	90	55	37	6	1~8mm	0.04	4.16
BT50 × SPU13-100	100	75	50	13	1~13mm	0.04	4.74
BT50 × SPU13-120	120	75	50	13	1~13mm	0.04	5.12
BT50 × SPU13-180	180	75	50	13	1~13mm	0.04	6.31
BT50 × SPU16-105	105	80	57	16	3~16mm	0.04	4.98
BT50 × SPU16-130	130	80	57	16	3~16mm	0.04	5.45
BT50 × SPU16-190	190	80	57	16	3~16mm	0.04	7.25

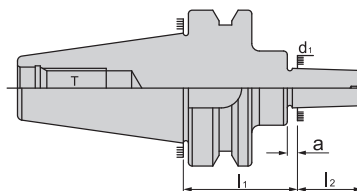
- 附扳手 Attaches the spanner.



## BT 鑽夾頭刀柄

### BT DRILL CHUCK ARBOR

DIN-238



規格 Spec.	$l_1$	$l_2$	$d_1$	a	拉桿規格 T	重量 (KGS) Weight
BT30 × JTA2-45	45	22.225	14.199	4	M12×1.75P	0.70
BT30 × JTA33-45	45	25.4	15.85	4	M12×1.75P	0.75
BT30 × JTA6-45	45	25.4	17.17	4	M12×1.75P	0.60
BT40 × JTA2-45	45	22.225	14.199	4	M16×2.0P	1.30
BT40 × JTA33-45	45	25.4	15.85	4	M16×2.0P	1.30
BT40 × JTA6-45	45	25.4	17.17	4	M16×2.0P	1.19
BT40 × JTA6-105	105	25.4	17.17	4	M16×2.0P	1.58
BT50 × JTA2-45	45	22.225	14.199	4	M24×3.0P	4.10
BT50 × JTA33-45	45	25.4	15.85	4	M24×3.0P	4.16
BT50 × JTA6-45	45	25.4	17.17	4	M24×3.0P	4.16
BT50 × JTA6-105	105	25.4	17.17	4	M24×3.0P	4.60

- 動平衡等級可依客戶需求做調整，但需另外加價 - The balancing grade and revolution can be done according to customer's request but the additional charge is needed.

### 選配表 Option

拉頭 Pull Stud



A290-A293

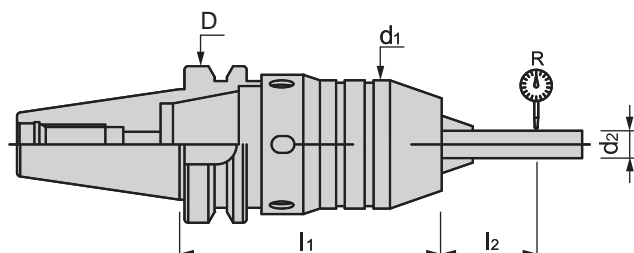




# BT/SPH 強力型直結式鑽頭刀桿

## BT/SPH DRILL CHUCK ADAPTER INTEGRATED TYPE

JIS  
MAS 403  
B6339



### 特點 Feature

- 能增加鑽夾頭的堅固性及精準性，於使用綜合加工中心機的換刀系統
  - 刀柄和鑽夾頭結合為一體。即使是作重切削的加工，鑽夾頭也不會脫落
  - 即使機器主軸立即停止，刀具也不會因此脫落
  - 超過長時間的使用，此夾頭仍保持高精度
- Designed to maximize drill chuck rigidity and precision on machine centers with automatic tool changer.
  - The Shank and Universal Drill Chuck are combined as one body, so that the Drill Chuck will not be fallen out when heavy cutting is being performed.
  - The drill will not be dropped out when the main spindle of machine instantly stops.
  - High precision can be maintained over a long period of time.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>2</sub>	夾持範圍 Clamping Range		R	重量 (KGS) Weight
						mm	inch		
BT30 × SPH08-80	83	55	46	38	6	1~8	1/24~5/16	0.04	2.20
BT30 × SPH13-100	102	80	46	50	8	1~13	1/24~1/2	0.04	2.50
BT40 × SPH08-85	87	55	63	38	6	1~8	1/24~5/16	0.04	2.40
BT40 × SPH13-105	102	80	63	50	8	1~13	1/24~1/2	0.04	2.18
BT40 × SPH16-110	119	80	63	57	10	3~16	1/8~5/8	0.04	3.00
BT50 × SPH13-115	115	80	100	50	8	1~13	1/24~1/2	0.04	4.88
BT50 × SPH16-120	120	80	100	57	10	3~16	1/8~5/8	0.04	6.00

- 附扳手 Attaches the spanner.

### 注意事項 Notice

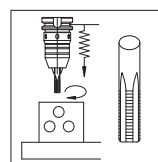
本產品之最大優點為簡單容易操作、快速方便、安全性極高。當使用本產品時，為了減少意外事故發生，延長產品壽命，必須遵守以下列舉的基本事項：夾持長度 (l<sub>1</sub>) 應將鑽頭柄插入到底或至少爪長 (L) 的 2/3。

The most advantage for this product is easy to operate, item saving and high safety. Please abide by following to avoid the accidents & extend the product life when in use. The shank of drill (clamping length L<sub>1</sub>) should be inserted into the bottom fully. Or at least 2/3 length of L

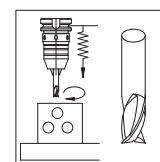
以下為各種規格爪長度及夾持量

Following table is the specification for clamping length & volume

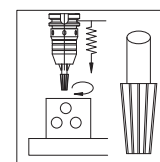
規格 Spec.	夾爪長度 L(mm)	夾持量 L <sub>1</sub> (mm) 至少
3mm (1/8")	14	9
6.5mm (1/4")	20	13
8mm (5/16")	26	17
10mm (3/8")	26	17
13mm (1/2")	28	19
16mm (5/8")	30	20



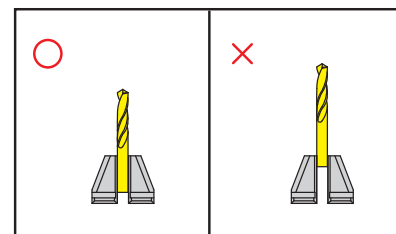
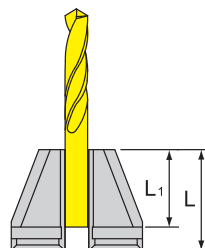
◎可攻牙  
◎ Able to tap



◎可銼  
◎ Able to mill



◎可絞孔  
◎ Able to ream



### 選配表 Option

拉頭 Pull Stud



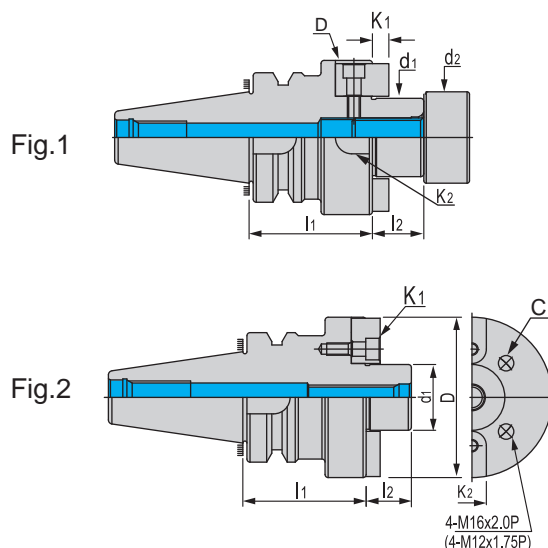
A290-A293



# BT/FMA 平面銑刀柄

## BT/FMA FACE MILL ARBOR(TYPE FMA)

JIS  
MAS 403



### 特點 Feature

- 平面銑刀配合部位 (d1) · 軸系公差 h6
- 整支通孔 · 利於出水及抗震

- d1 tolerance is h6.
- The tool holder is through-hole, which is better for water to get through vibration resistance.

FMA 為英制規格 FMA is INCH Size

規格 Spec.	$l_1$	$l_2$	D	$d_1$	$d_2$	$K_1$	$K_2$	C	Fig.	重量 (KGS) Weight
BT30 × FMA25.4-45	45	20	50	25.4	31.5	4.52	9.52	-	1	1.10
BT30 × FMA25.4-60	60	20	50	25.4	31.5	4.52	9.52	-	1	1.10
BT30 × FMA31.75-45	45	22	60	31.75	41	6.7	12.7	-	1	1.16
BT40 × FMA25.4-45	45	20	50	25.4	31.5	4.52	9.52	-	1	1.44
BT40 × FMA25.4-60	60	20	50	25.4	31.5	4.52	9.52	-	1	1.66
BT40 × FMA25.4-90	90	20	50	25.4	31.5	4.52	9.52	-	1	2.18
BT40 × FMA25.4-105	105	20	50	25.4	31.5	4.52	9.52	-	1	2.39
BT40 × FMA31.75-45	45	22	60	31.75	41	6.7	12.7	-	1	1.68
BT40 × FMA31.75-75	75	22	60	31.75	41	6.7	12.7	-	1	2.33
BT40 × FMA31.75-90	90	22	60	31.75	41	6.7	12.7	-	1	2.72
BT40 × FMA38.1-60	60	25	75	38.1	44.5	8.87	15.87	-	1	2.60
BT40 × FMA50.8-60	60	36	98	50.8	65	9.75	19.05	-	1	3.82
BT40 × FMA47.625-65	65	32	128.75	47.625	-	12.5	25.4	PCD Ø101.6	2	6.50
BT50 × FMA25.4-45	45	20	50	25.4	31.5	4.52	9.52	-	1	4.21
BT50 × FMA25.4-90	90	20	50	25.4	31.5	4.52	9.52	-	1	4.71
BT50 × FMA25.4-150	150	20	50	25.4	31.5	4.52	9.52	-	1	5.54
BT50 × FMA31.75-45	45	22	60	31.75	41	6.2	12.7	-	1	4.39
BT50 × FMA31.75-75	75	22	60	31.75	41	6.7	12.7	-	1	4.89
BT50 × FMA31.75-105	105	22	60	31.75	41	6.7	12.7	-	1	5.70
BT50 × FMA38.1-45	45	25	80	38.1	44.5	8.87	15.87	-	1	4.68
BT50 × FMA38.1-75	75	25	80	38.1	44.5	8.87	15.87	-	1	5.80
BT50 × FMA50.8-45	45	36	98	50.8	65	9.75	19.05	-	1	5.70
BT50 × FMA50.8-75	75	36	98	50.8	65	9.75	19.05	-	1	6.82
BT50 × FMA47.62-75	75	32	128.75	47.62	-	12.5	25.4	PCD Ø101.6	2	8.82

### 選配表 Option

拉頭 Pull Stud



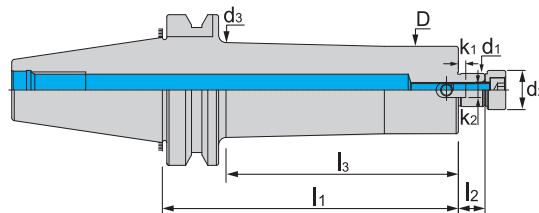
A290-A293



## BT/FMA 平面銑刀柄 ( 加長斜度柄 )

### BT/FMA FACE MILL ARBOR(EXTENSION TYPE)

JIS  
MAS 403



#### 特點 Feature

- 平面銑刀配合部位 (d1) · 軸系公差 h6
- 整支通孔 · 利於出水及抗震

- d1 tolerance is h6.
- The tool holder is through-hole, which is better for water to get through vibration resistance.

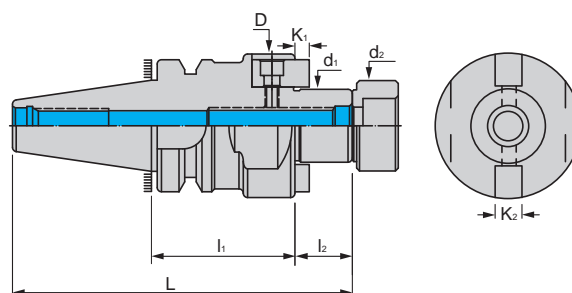
FMA 為英制規格 FMA is INCH Size

規格 Spec.	$l_1$	$l_2$	$l_3$	D	$d_1$	$d_2$	$d_3$	$K_1$	$K_2$	重量 (KGS) Weight
BT50 × FMA25.4-125BG	125	20	79	48	25.4	31.5	60	4.25	9.52	5.36
BT50 × FMA25.4-150BG	150	20	102	48	25.4	31.5	60	4.25	9.52	6.40
BT50 × FMA25.4-200BG	200	20	152	58	25.4	31.5	63	4.25	9.52	7.40
BT50 × FMA25.4-250BG	250	20	202	58	25.4	31.5	63	4.25	9.52	8.60
BT50 × FMA25.4-300BG	300	20	252	58	25.4	31.5	63	4.25	9.52	9.70
BT50 × FMA25.4-350BG	350	20	302	58	25.4	31.5	66	4.25	9.52	10.8
BT50 × FMA25.4-400BG	400	20	352	58	25.4	31.5	66	4.25	9.52	11.9
BT50 × FMA31.75-125BG	125	22	82	70	31.75	41	75	6.7	12.7	5.60
BT50 × FMA31.75-150BG	150	22	107	70	31.75	41	75	6.7	12.7	7.34
BT50 × FMA31.75-175BG	175	22	132	70	31.75	41	75	6.7	12.7	8.30
BT50 × FMA31.75-200BG	200	22	157	70	31.75	41	75	6.7	12.7	9.10
BT50 × FMA31.75-250BG	250	22	207	70	31.75	41	75	6.7	12.7	10.6
BT50 × FMA31.75-300BG	300	22	252	70	31.75	41	75	6.7	12.7	12.1
BT50 × FMA31.75-350BG	350	22	302	70	31.75	41	75	6.7	12.7	13.7



## BT 平面銑刀柄 ( 削平兩端輕量型 )

### BT FACE MILL ARBOR(LIGHT WEIGHT TYPE-WITH TWO FLAT SIDES)



規格 Spec.	L	$l_1$	$l_2$	D	$d_1$	$d_2$	$k_1$	$k_2$	重量 (KGS) Weight
BT30 × FMA25.4-50-BROTHER	118.4	50	20	50	25.4	31.5	4.52	9.52	0.94
BT30 × FMA31.75-50-BROTHER	120.4	50	22	60	31.75	41	6.7	12.7	1.22
BT30 × FMB22-50-BROTHER	117.7	50	19	48	22	26	4.8	10	0.90
BT30 × FMB27-50-BROTHER	118.4	50	20	60	27	31.5	5.8	12	1.00

#### 選配表 Option

拉頭 Pull Stud



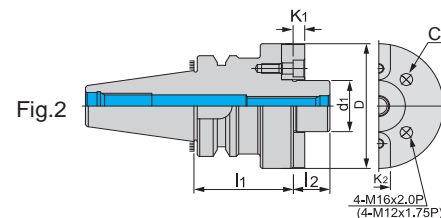
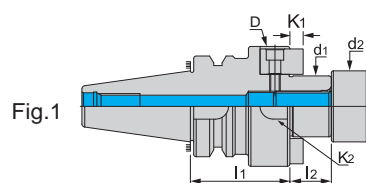
A290-A293



# BT/FMB 平面銑刀柄

## BT/FMB FACE MILL ARBOR(TYPE FMB)

JIS  
MAS 403



FMB 為英制規格 FMB is INCH Size

規格 Spec.	$l_1$	$l_2$	D	$d_1$	$d_2$	$k_1$	$k_2$	C	Fig.	重量 (KGS) Weight
BT30 × FMB16-50	50	16	46	16	-	5	8	-	1	-
BT30 × FMB22-45	45	19	48	22	26	4.8	10	-	1	0.82
BT30 × FMB22-60	60	19	48	22	26	4.8	10	-	1	1.00
BT30 × FMB27-45	45	20	60	27	31.5	5.8	12	-	1	1.05
BT30 × FMB27-60	60	20	60	27	31.5	5.8	12	-	1	1.30
BT30 × FMB32-45	45	22	78	32	41	6.8	14	-	1	1.58
BT40 × FMB16-50	50	16	63	16	-	5	8	-	1	-
BT40 × FMB16-90	90	16	63	16	-	5	8	-	1	-
BT40 × FMB22-45	45	19	48	22	26	4.8	10	-	1	1.38
BT40 × FMB22-60	60	19	48	22	26	4.8	10	-	1	1.57
BT40 × FMB22-100	100	19	48	22	26	4.8	10	-	1	2.17
BT40 × FMB22-150	150	19	48	22	26	4.8	10	-	1	2.86
BT40 × FMB22-200	200	19	48	22	26	4.8	10	-	1	3.58
BT40 × FMB27-45	45	20	60	27	31.5	5.8	12	-	1	1.58
BT40 × FMB27-60	60	20	60	27	31.5	5.8	12	-	1	1.89
BT40 × FMB27-90	90	20	60	27	31.5	5.8	12	-	1	2.61
BT40 × FMB27-105	105	20	60	27	31.5	5.8	12	-	1	2.93
BT40 × FMB32-45	45	22	78	32	41	6.8	14	-	1	2.12
BT40 × FMB32-60	60	22	78	32	41	6.8	14	-	1	2.10
BT40 × FMB40-60	60	25	80	40	48	8.3	16	-	1	2.80
BT50 × FMB16-50	50	16	100	16	-	5	8	-	1	-
BT50 × FMB16-90	90	16	100	16	-	5	8	-	1	-
BT50 × FMB22-45	45	19	48	22	26	4.8	10	-	1	4.15
BT50 × FMB22-90	90	19	48	22	26	4.8	10	-	1	4.68
BT50 × FMB22-150	150	19	48	22	26	4.8	10	-	1	5.35
BT50 × FMB22-200	200	19	48	22	26	4.8	10	-	1	6.02
BT50 × FMB22-250	250	19	48	22	26	4.8	10	-	1	6.64
BT50 × FMB22-300	300	19	48	22	26	4.8	10	-	1	9.40
BT50 × FMB22-350	350	19	48	22	26	4.8	10	-	1	10.5
BT50 × FMB22-400	400	19	48	22	26	4.8	10	-	1	10.88
BT50 × FMB27-50	50	20	60	27	31.5	5.8	12	-	1	4.41
BT50 × FMB27-90	90	20	60	27	31.5	5.8	12	-	1	5.09
BT50 × FMB27-150	150	20	60	27	31.5	5.8	12	-	1	6.30
BT50 × FMB27-200	200	20	60	27	31.5	5.8	12	-	1	7.42
BT50 × FMB27-250	250	20	60	27	31.5	5.8	12	-	1	8.43
BT50 × FMB32-50	50	22	78	32	41	6.8	14	-	1	4.69
BT50 × FMB32-90	90	22	78	32	41	6.8	14	-	1	5.96
BT50 × FMB40-50	50	25	89	40	48	8.3	16	-	1	5.20
BT50 × FMB40-90	90	25	89	40	48	8.3	16	-	1	6.00
BT50 × FMB40-105	105	25	89	40	48	8.3	16	-	1	7.20
BT50 × FS40F-75	75	26	110	40	-	8.3	16	PCD Ø66.7	2	6.00
BT50 × FS60F-75	75	25	138	60	-	12.5	25.4	PCD Ø101.6	2	8.49

### 選配表 Option

拉頭 Pull Stud



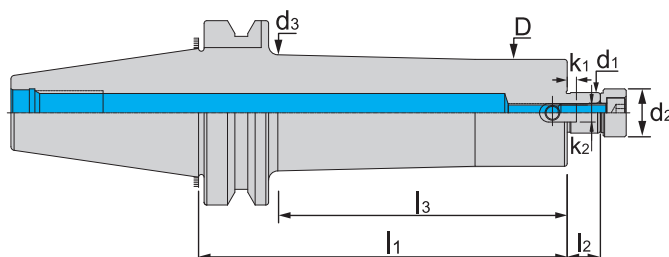
A290-A293



# BT/FMB 平面銑刀柄 ( 加長斜度柄 )

## BT/FMB FACE MILL ARBOR(EXTENSION TYPE)

JIS  
MAS 403



### 特點 Feature

- 平面銑刀配合部位 (d1) · 軸系公差 h6
- 整支通孔 · 利於出水及抗震

- d1 tolerance is h6.
- The tool holder is through-hole, which is better for water to get through vibration resistance.

FMB 為英制規格 FMB is INCH Size

規格 Spec.	$l_1$	$l_2$	$l_3$	D	$d_1$	$d_2$	$d_3$	$k_1$	$k_2$	重量 (KGS) Weight
BT40 × FMB22-150BG	150	19	118	48	22	31.75	51	4.25	10	2.95
BT40 × FMB22-200BG	200	19	168	48	22	31.75	51	4.25	10	3.68
BT40 × FMB22-250BG	250	19	218	48	22	31.75	51	4.25	10	4.38
BT40 × FMB22-300BG	300	19	-	48	22	31.75	51	4.25	10	5.40
BT50 × FMB22-100BG	100	19	-	58	22	31.75	62.5	4.25	10	6.00
BT50 × FMB22-150BG	150	19	107	58	22	31.75	62.5	4.25	10	6.17
BT50 × FMB22-200BG	200	19	157	58	22	31.75	62.5	4.25	10	7.30
BT50 × FMB22-250BG	250	19	207	58	22	31.75	62.5	4.25	10	9.40
BT50 × FMB22-300BG	300	19	257	58	22	31.75	62.5	4.25	10	10.24
BT50 × FMB22-350BG	350	19	307	58	22	31.75	62.5	4.25	10	10.3
BT50 × FMB22-400BG	400	19	352	58	22	31.75	62.5	4.25	10	11.4
BT50 × FMB22-450BG	450	19	402	58	22	31.75	62.5	4.25	10	12.3
BT50 × FMB22-500BG	500	19	452	58	22	31.75	62.5	4.25	10	13.7
BT50 × FMB22-600BG	600	19	-	58	22	31.75	62.5	4.25	10	17.2
BT50 × FMB27-150BG	150	20	107	60	27	31.5	78	5.8	12	6.82
BT50 × FMB27-200BG	200	20	157	60	27	31.5	78	5.8	12	8.50
BT50 × FMB27-250BG	250	20	207	60	27	31.5	78	5.8	12	9.50
BT50 × FMB27-300BG	300	20	257	60	27	31.5	78	5.8	12	10.4
BT50 × FMB27-350BG	350	20	307	60	27	31.5	78	5.8	12	11.4
BT50 × FMB27-400BG	400	20	352	60	27	31.5	78	5.8	12	12.4
BT50 × FMB27-450BG	450	20	402	60	27	31.5	78	5.8	12	13.4
BT50 × FMB27-500BG	500	20	452	60	27	31.5	78	5.8	12	14.4
BT50 × FMB32-150BG	150	22	107	78	32	41	85	6.8	14	7.00
BT50 × FMB32-200BG	200	22	157	78	32	41	85	6.8	14	8.50
BT50 × FMB32-250BG	250	22	207	78	32	41	85	6.8	14	9.50
BT50 × FMB32-300BG	300	22	257	78	32	41	85	6.8	14	10.5
BT50 × FMB32-350BG	350	22	307	78	32	41	85	6.8	14	11.5
BT50 × FMB32-400BG	400	22	352	78	32	41	85	6.8	14	12.5
BT50 × FMB32-450BG	450	22	402	78	32	41	85	6.8	14	13.5
BT50 × FMB32-500BG	500	22	460	80	32	41	96	6.8	14	14.5

### 選配表 Option

拉頭 Pull Stud



A290-A293

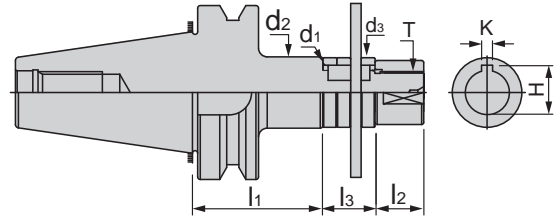


# BT/SCA 側銑刀柄

## BT/SCA SIDE CUTTER ADAPTER

螺帽類型 DIN-2082-1 NUT FORM DIN-2082-1  
軸襯類型 DIN-2084-B BUSH FORM DIN-2084-B

JIS  
MAS 403



規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	K	H	T	重量 (KGS) Weight
BT30 × SCA10-60	60	12	35	10	18	18	-	-	M8 × 1.25P	0.80
BT30 × SCA16-60	60	16	30	16	26	26	4	17.7	M14 × 1.5P	0.78
BT30 × SCA22-60	60	22	30	22	34	34	6	24.3	M20 × 1.5P	1.20
BT30 × SCA22-75	75	22	30	22	34	34	6	24.3	M20 × 1.5P	1.18
BT40 × SCA16-60	60	16	30	16	26	26	4	17.7	M14 × 1.5P	1.42
BT40 × SCA22-60	60	22	30	22	34	34	6	24.3	M20 × 1.5P	1.60
BT40 × SCA22-75	75	22	30	22	34	34	6	24.3	M20 × 1.5P	1.83
BT40 × SCA22-120	120	22	30	22	34	34	6	24.3	M20 × 1.5P	2.19
BT40 × SCA27-75	75	28	30	27	41	40	7	30	M24 × 1.5P	2.10
BT40 × SCA27-120	120	28	30	27	41	40	7	30	M24 × 1.5P	2.50
BT40 × SCA32-90	90	32	30	32	47	46	8	35.5	M30 × 1.5P	2.72
BT40 × SCA22.22-75	75	22	30	22.22	34	34	3.18	24.6	M20 × 1.5P	1.70
BT40 × SCA22.22-120	120	22	30	22.22	34	34	3.18	24.6	M20 × 1.5P	2.00
BT40 × SCA25.4-75	75	28	30	25.4	41	40	6.35	28.4	M24 × 1.5P	2.17
BT40 × SCA25.4-120	120	28	30	25.4	41	40	6.35	28.4	M24 × 1.5P	2.67
BT40 × SCA31.75-90	90	32	30	31.75	47	47	7.93	34.8	M30 × 1.5P	2.60
BT50 × SCA22-90	90	22	30	22	34	34	6	24.3	M20 × 1.5P	4.40
BT50 × SCA22-135	135	22	30	22	34	34	6	24.3	M20 × 1.5P	4.70
BT50 × SCA27-90	90	28	30	27	41	40	7	30	M24 × 1.5P	4.60
BT50 × SCA27-135	135	28	30	27	41	40	7	30	M24 × 1.5P	5.00
BT50 × SCA32-90	90	32	30	32	47	46	8	35.5	M30 × 1.5P	5.44
BT50 × SCA32-135	135	32	30	32	47	46	8	35.5	M30 × 1.5P	6.16
BT50 × SCA40-90	90	40	30	40	55	55	10	43.7	M36 × 2.0P	5.00
BT50 × SCA40-135	135	40	30	40	55	55	10	43.7	M36 × 2.0P	6.00
BT50 × SCA22.22-90	90	22	30	22.22	34	34	3.18	24.6	M20 × 1.5P	4.40
BT50 × SCA22.22-135	135	22	30	22.22	34	34	3.18	24.6	M20 × 1.5P	4.70
BT50 × SCA25.4-90	90	28	30	25.4	41	40	6.35	28.4	M24 × 1.5P	5.05
BT50 × SCA25.4-135	135	28	30	25.4	41	40	6.35	28.4	M24 × 1.5P	5.58
BT50 × SCA31.75-90	90	32	30	31.75	47	46	7.93	34.8	M30 × 1.5P	4.70
BT50 × SCA31.75-135	135	32	30	31.75	47	46	7.93	34.8	M30 × 1.5P	5.20
BT50 × SCA38.1-90	90	40	30	38.1	55	55	9.525	42.4	M36 × 2.0P	4.90
BT50 × SCA38.1-135	135	40	30	38.1	55	55	9.525	42.4	M36 × 2.0P	5.90

### 選配表 Option

拉頭 Pull Stud



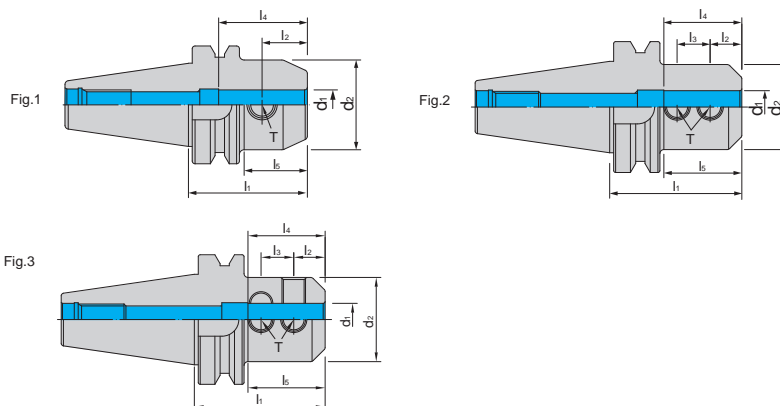
A290-A293



# BT/SLN 側固式立銑刀柄

## BT/SLN SIDE LOCK END MILL HOLDER

JIS  
DIN-1835 MAS 403



### 特點 Feature

- 孔徑公差 H5
- Ø20 以內一只鎖固螺絲 · Ø25 以上二只鎖固螺絲
- 預設定動平衡 G6.3 8000rpm( 削平處理 )

- Internal hole tolerance is H5.
- Ø20 which with one side-lock screw, Ø25 upward with two side-lock screws.
- Dynamic balancing G6.3 at 8000rpm.

規格 Spec.	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$d_1$	$d_2$	T	Fig.	重量 (KGS) Weight
BT30 × SLN6-60	60	18	-	35	33	6	25	M6 × 1.0P	1	0.55
BT30 × SLN8-60	60	18	-	35	33	8	28	M8 × 1.25P	1	0.57
BT30 × SLN10-60	60	20	-	39	35	10	35	M10 × 1.5P	1	0.65
BT30 × SLN12-60	60	22.5	-	44	36	12	42	M12 × 1.75P	1	0.75
BT30 × SLN16-75	75	24	-	47	53	16	48	M14 × 2.0P	1	1.00
BT30 × SLN20-75	75	25	-	49	53	20	52	M16 × 2.0P	1	1.10
BT30 × SLN25-90	90	24	25	58	68	25	65	M18 × 2.0P	2	1.76
BT40 × SLN6-50	50	18	-	35	20	6	25	M6 × 1.0P	1	1.10
BT40 × SLN6-150	150	18	-	35	113	6	25	M6 × 1.0P	1	1.32
BT40 × SLN8-50	50	18	-	35	20	8	28	M8 × 1.25P	1	1.10
BT40 × SLN8-150	150	18	-	35	113	8	28	M8 × 1.25P	1	1.30
BT40 × SLN10-63	63	20	-	39	33	10	35	M10 × 1.5P	1	1.25
BT40 × SLN10-150	150	20	-	39	113	10	35	M10 × 1.5P	1	1.40
BT40 × SLN12-63	63	22.5	-	44	33	12	42	M12 × 1.75P	1	1.30
BT40 × SLN12-150	150	22.5	-	44	116	12	42	M12 × 1.75P	1	2.24
BT40 × SLN16-63	63	24	-	47	33	16	48	M14 × 2.0P	1	1.40
BT40 × SLN16-150	150	24	-	47	120	16	48	M14 × 2.0P	1	2.64
BT40 × SLN18-63	63	24	-	44	33	18	50	M14 × 2.0P	1	1.65
BT40 × SLN20-63	63	25	-	49	33	20	52	M16 × 2.0P	1	1.43
BT40 × SLN25-100	100	24	25	58	73	25	65	M18 × 2.0P	2	2.50
BT40 × SLN32-100	100	24	28	63	73	32	72	M20 × 2.0P	2	2.75
BT50 × SLN6-63	63	18	-	35	20	6	25	M6 × 1.0P	1	3.80
BT50 × SLN8-63	63	18	-	39	20	8	28	M8 × 1.25P	1	3.80
BT50 × SLN10-63	63	20	-	39	22	10	35	M10 × 1.5P	1	3.00
BT50 × SLN12-80	80	22.5	-	44	39	12	42	M12 × 1.75P	1	4.00
BT50 × SLN16-80	80	24	-	47	32	16	48	M14 × 2.0P	1	4.40

### 選配表 Option

拉頭 Pull Stud



A290-A293



## BT/SLN 側固式立銑刀柄

### BT/SLN SIDE LOCK END MILL HOLDER

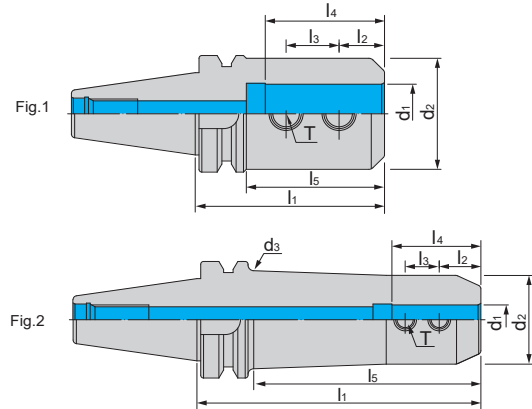
JIS  
DIN-1835 MAS 403

規格 Spec.	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$d_1$	$d_2$	T	Fig.	重量 (KGS) Weight
BT50 × SLN20-80	80	25	-	49	37	20	52	M16 × 2.0P	1	4.40
BT50 × SLN25-100	100	24	25	58	59	25	65	M18 × 2.0P	2	5.10
BT50 × SLN32-105	105	24	28	63	64	32	72	M20 × 2.0P	2	4.84
BT50 × SLN40-115	115	30	32	75	74	40	90	M20 × 2.0P	2	6.60
BT50 × SLN40-120	120	30	32	75	79	40	90	M20 × 2.0P	2	6.96
BT50 × SLN42-120	120	30	32	75	79	42	90	M20 × 2.0P	2	6.73
BT50 × SLN50-120	120	35	35	78	82	50	98	M24 × 2.0P	2	7.18
BT50 × SLN50.8-120	120	33.1	28.58	80	82	50.8	99	M20 × 2.0P	2	6.76
BT50 × SLN63-120	120	33.1	28.58	80	82	63	125	M16 × 2.0P	3	9.10



## BT/SLN 側固式立銑刀柄 (JIS 型)

### BT/SLN SIDE LOCK END MILL HOLDER (JIS TYPE)



#### 特點 Feature

- 預設定動平衡 G6.3 8000rpm( 削平處理 )
- 不分孔徑皆為兩只鎖回螺絲

- Dynamic balancing G6.3 at 8000rpm.
- With two side-lock screw.

規格 Spec.	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$d_1$	$d_2$	$d_3$	T	Fig.	重量 (KGS) Weight
BT40 × SLN 6-75JIS	75	12	10	35	45	6	25	-	M6 × 1.0P	1	1.17
BT40 × SLN 6-150JIS	150	12	10	35	113	6	25	30	M6 × 1.0P	2	1.50
BT40 × SLN 8-75JIS	75	14	12	35	45	8	28	-	M8 × 1.25P	1	1.21
BT40 × SLN 8-150JIS	150	14	12	35	113	8	28	33	M8 × 1.25P	2	1.50
BT40 × SLN10-75JIS	75	15	14	39	45	10	35	-	M10 × 1.5P	1	1.35
BT40 × SLN10-150JIS	150	15	14	39	118	10	35	40	M10 × 1.5P	2	1.50
BT40 × SLN12-75JIS	75	20	16	44	45	12	42	-	M10 × 1.5P	1	1.50
BT40 × SLN12-150JIS	150	20	16	44	118	12	42	47	M10 × 1.5P	2	1.70
BT40 × SLN16-75JIS	75	22	18	47	45	16	48	-	M10 × 1.5P	1	1.58
BT40 × SLN16-150JIS	150	22	18	47	120	16	48	53	M10 × 1.5P	2	2.75
BT40 × SLN20-90JIS	90	25	20	55	60	20	50	-	M12 × 1.75P	1	1.77
BT40 × SLN20-150JIS	150	25	20	55	120	20	52	57	M12 × 1.75P	2	1.80
BT40 × SLN25-90JIS	90	24	25	58	60	25	50	-	M12 × 1.75P	1	1.72
BT40 × SLN32-100JIS	100	24	28	63	73	32	60	-	M16 × 2.0P	1	2.08
BT40 × SLN40-105JIS	105	28	28	68	78	40	72	62.6	M16 × 2.0P	2	-

#### 選配表 Option



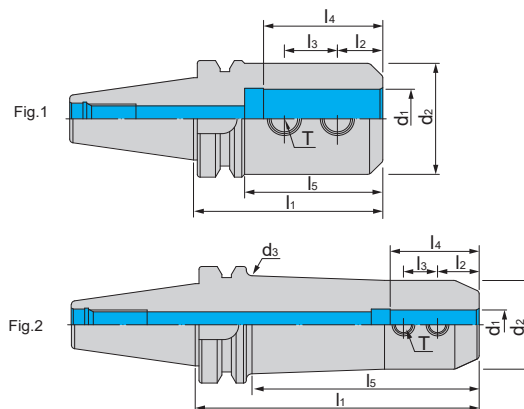




# BT/SLN 側固式立銑刀柄 (JIS 型)

## BT/SLN SIDE LOCK END MILL HOLDER (JIS TYPE)

JIS  
MAS 403



### 特點 Feature

- 預設定動平衡 G6.3 8000rpm( 削平處理 )
- 不分孔徑皆為兩只鎖固螺絲

- The pre-balance can reach G6.3 8000rpm.
- With two side-lock screw.

規格 Spec.	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$d_1$	$d_2$	$d_3$	T	Fig.	重量 (KGS) Weight
BT50 × SLN 6-75JIS	75	12	10	35	27	6	25	-	M6 × 1.0P	1	4.04
BT50 × SLN 8-75JIS	75	14	12	35	27	8	28	-	M8 × 1.25P	1	4.06
BT50 × SLN10-75JIS	75	15	14	39	32	10	35	-	M10 × 1.5P	-	3.90
BT50 × SLN12-90JIS	90	20	16	44	42	12	42	-	M10 × 1.5P	-	4.35
BT50 × SLN12-165JIS	165	20	16	44	124	12	42	47	M10 × 1.5P	2	5.05
BT50 × SLN16-90JIS	90	22	18	47	42	16	48	-	M10 × 1.5P	1	4.53
BT50 × SLN16-150JIS	150	22	18	47	102	16	48	53	M10 × 1.5P	2	4.98
BT50 × SLN16-165JIS	165	22	18	47	117	16	48	53	M10 × 1.5P	2	5.50
BT50 × SLN20-90JIS	90	25	20	55	49	20	50	-	M12 × 1.75P	1	4.53
BT50 × SLN20-150JIS	150	25	20	55	102	20	50	57	M12 × 1.75P	2	5.98
BT50 × SLN20-165JIS	165	25	20	55	117	20	50	57	M12 × 1.75P	2	5.67
BT50 × SLN20-210JIS	210	25	20	55	162	20	50	57	M12 × 1.75P	2	6.40
BT50 × SLN25-100JIS	100	24	25	58	59	25	50	-	M12 × 1.75P	1	4.58
BT50 × SLN25-150JIS	150	24	25	58	102	25	50	57	M12 × 1.75P	2	5.48
BT50 × SLN25-165JIS	165	24	25	58	117	25	50	57	M12 × 1.75P	2	5.55
BT50 × SLN25-210JIS	210	24	25	58	169	25	50	57	M12 × 1.75P	2	6.25
BT50 × SLN25-250JIS	250	24	25	58	202	25	50	60	M12 × 1.75P	2	7.10
BT50 × SLN32-105JIS	105	24	28	63	64	32	60	-	M16 × 2.0P	1	4.89
BT50 × SLN32-150JIS	150	24	28	63	102	32	50	60	M16 × 2.0P	2	7.48
BT50 × SLN32-165JIS	165	24	28	63	117	32	60	65	M16 × 2.0P	1	6.22
BT50 × SLN32-210JIS	210	24	28	63	162	32	50	60	M16 × 2.0P	2	6.34
BT50 × SLN32-250JIS	250	24	28	63	207	32	50	60	M16 × 2.0P	2	7.50
BT50 × SLN32-300JIS	300	24	28	63	257	32	60	65	M16 × 2.0P	2	9.30
BT50 × SLN40-115JIS	115	30	32	85	74	40	90	-	M20 × 2.0P	1	6.60
BT50 × SLN42-120JIS	120	30	32	85	79	42	90	-	M20 × 2.0P	1	6.73
BT50 × SLN42-210JIS	210	30	32	85	-	42	70	75	M20 × 2.0P	2	7.80
BT50 × SLN50-120JIS	120	35	35	90	82	50	90	-	M20 × 2.0P	1	5.28
● BT50 × SLN50.8-120JIS	120	33.9	35.78	90	82	50.8	90	-	M20 × 2.0P	1	6.61

- 有插梢 With pin

### 選配表 Option

拉頭 Pull Stud

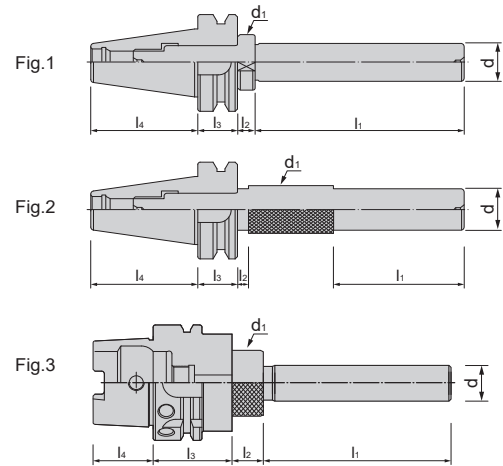


A290-A293

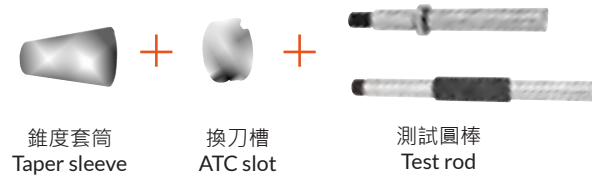


## 測試組 (三件組) REGULATE TOOLS SET (THREE-PIECE)

JIS  
MAS 403



### 範例 Example



規格 Spec.	$l_1$	$l_2$	$l_3$	$l_4$	$d$	$d_1$	Fig.	重量 (KGS) Weight
BT30	100	8	20	50.4	16	25	1	0.64
BT40	100	10	25	67.4	20	29	1	1.34
BT50	100	15	35	104.8	25	33	2	5.08
HSK63A	60	10	26	32	20	30	3	-

### 操作說明 Instructions

1. 錐度套筒端鎖上拉頭，置入主軸內  
Taper sleeve end lock pull stud, into the spindle.



2. 換刀槽零件置入換刀臂內  
ATC arm into the inner groove parts.



3. 將換刀槽旋轉到主軸中心  
The tool change to the spindle center of rotation groove.



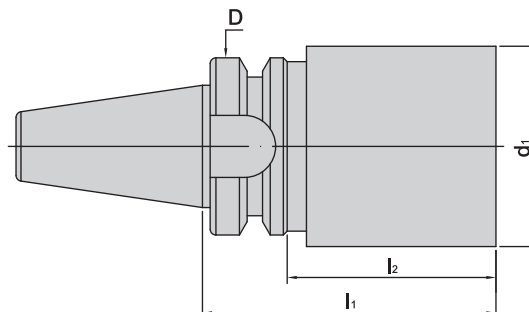
4. 將測試圓棒插入錐度套筒及換刀槽的中心孔，如能同時穿過，代表換刀臂與主軸有同心  
The test rod inserted into the taper sleeve and the grooves of the ATC center hole, such as to pass through at the same time, the representative ATC arm concentric with the spindle.





## BT 素材刀桿 BT BLANK

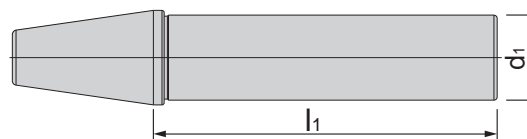
JIS  
MAS 403



規格 Spec.	$l_1$	$l_2$	D	$d_1$	重量 (KGS) Weight
BT30 × Ø50-200	200	-	46	50	-
BT40 × Ø40.5-160	160	133	63	40.5	2.30
BT40 × Ø63.5-160	160	133	63	63.5	4.21
BT40 × Ø63.5-250	250	223	63	63.5	6.41
BT50 × Ø50-300	300	262	100	50	7.53
BT50 × Ø80-160	160	122	100	80	8.29
BT50 × Ø80-200	200	162	100	80	9.84
BT50 × Ø80-300	300	262	100	80	13.71



## 測試棒 TEST BAR



### 特點 Feature

- 皆通過真圓度測試機，精確檢驗通過
- 附精度檢驗表

- Have passed the roundness testing machine, exact test passed.
- With precision test table.

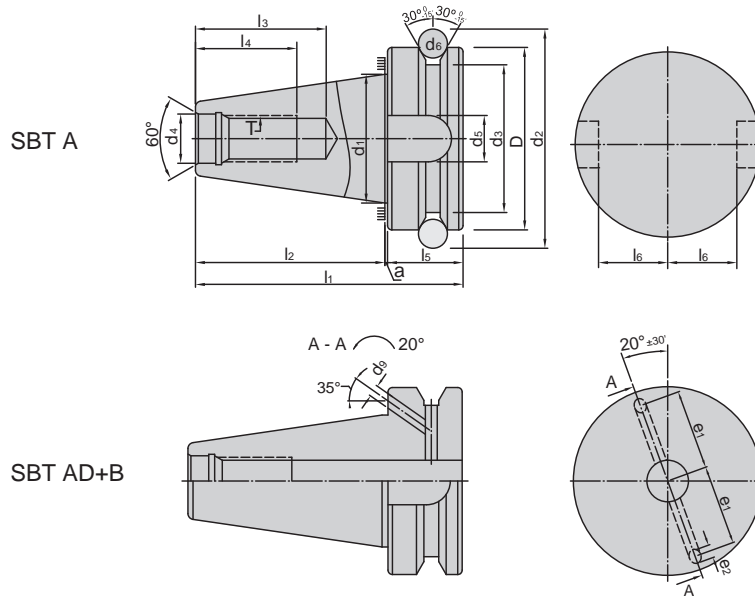
	錐度精度 Taper Precision	AT2
	真圓度 Roundness	0.001mm
	表面粗造度 Surface Roughness	Ra<0.4
	同心度 Concentricity	0.005mm

規格 Spec.	$l_1$	$d_1$	同心度 Concentricity	真圓度 Roundness	重量 (KGS) Weight
BT30 - TS250L	250	32	0.005	0.001	3.59
BT40 - TS300L	300	40	0.005	0.001	3.64
BT50 - TS300L	300	40	0.005	0.001	5.44

# SBT

Precision Tool Holder Systems





規格 Spec.	D h8	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub> H8	d <sub>5</sub> H12	d <sub>6</sub>	d <sub>7</sub> H12
SBT30	46	31.75	56.14	38	12.5	16.1	8	-
SBT40	63	44.45	75.679	53	17	16.1	10	4
SBT50	100	69.85	119.02	83	25	25.7	15	6

規格 Spec.	a 0 -0.005	l <sub>1</sub>	l <sub>2</sub> ±0.2	l <sub>3</sub> min	l <sub>4</sub> min	l <sub>5</sub>	l <sub>6</sub> 0 -0.2	e <sub>1</sub> ±0.1	e <sub>2</sub> MAX	T 6H
SBT30	1	70.4	48.4	34	24	21	16	-	-	M12×1.75P
SBT40	1	92.4	65.4	43	30	26	22.6	27	5	M16×2.0P
SBT50	1.5	139.8	101.8	62	45	36.5	35.4	42	7	M24×3.0P

1. 錐度精度 : <AT3
2. 硬度 : >HRC 56°
3. 滲碳深度 : >0.8mm
4. 真圓度 : < 0.8μm
5. 表面粗糙度 : Ra < 0.25μm

- 1.Taper tolerance < AT3.
- 2.Hardness > HRC 56°
- 3.Carbon depth > 0.8mm.
- 4.Roundness < 0.8μm.
- 5.Surface roughness : Ra < 0.25μm

# SBT

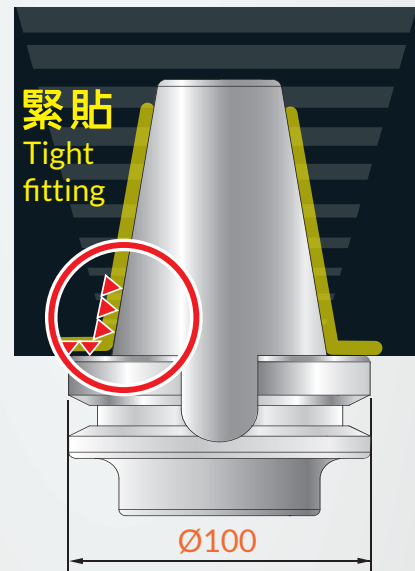
## 法蘭加厚型(雙面拘束)系列 DualDRIVE+ SBT Tool Holder System

可在高速加工時，增加刀桿的穩定性。降低刀桿在高速切削時，所造成主軸的擴孔及精度不佳的現象；接觸直徑加大，有助於延伸倍數增加。刀具穩定性提升，可增加刀具使用壽命，確保在換刀後，重覆定位精度，並且提高搪孔切削時的真圓度。

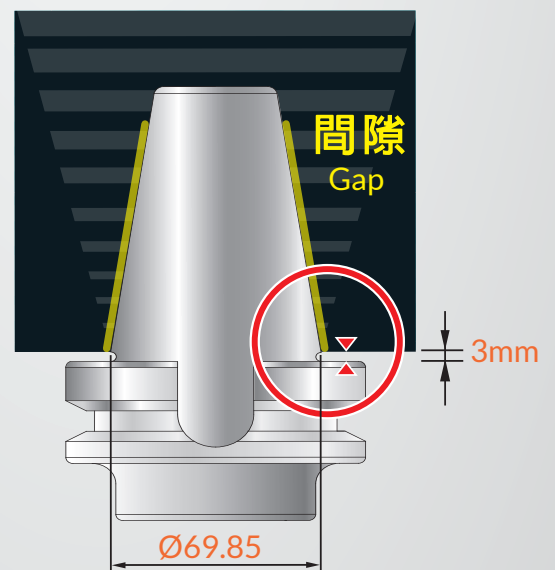
Increased stability to avoid hole enhancement and bad accuracy of spindle chuck during high speed cutting. The larger contact area enable larger extension rate, higher tool stability and longer tool life. After replacing cutting tool, the SBT series can stay the same repeatability and roundness.



SBT50 DualDRIVE+



BT50 Tool Holder



# DualDRIVE+



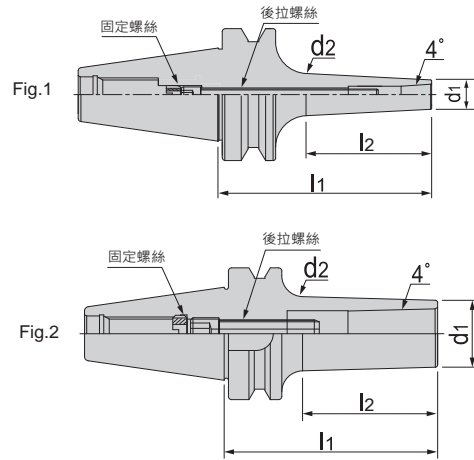
# SBT/SBL 法蘭加厚型後拉式立銑刀夾頭

## DualDRIVE+ SBT/SBL SLIM-FIT COLLET CHUCK

PAT.NO:M274178



雙面拘束 DualDRIVE+



### 特點 Feature

- 標準動平衡 G2.5 25000rpm

- Dynamic balancing G2.5 at 25000rpm.

規格 Spec.	$l_1$	夾持範圍 Clamping Range	筒夾 Collet	$l_2$	$d_1$	$d_2$	後拉螺絲 Slim-Fit Screw	固定螺絲 Fixed Screw	扳手 Wrench	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
SBT30 × SBL6-70	70	2~6	SLC6	38	14	18	SBL6-M6-40L	SBL6-M12	PT5	6	1	1.00
SBT30 × SBL6-100	100	2~6	SLC6	68	14	21	SBL6-M6-70L	SBL6-M12	PT5	6	1	1.25
SBT30 × SBL12-70	70	3~12	SLC12	47	26	33	SBL12-M10-25L	SBL12-M15	PT6	10	2	0.63
SBT30 × SBL12-100	100	3~12	SLC12	77	26	38	SBL12-M10-25L	SBL12-M15	PT6	10	2	0.84
SBT30 × SBL20-80	80	3~20	SLC20	54	34	37	SBL20-M12-30L	SBL20-M18	PT8-S	12	2	0.68
SBT30 × SBL20-100	100	3~20	SLC20	76	34	39	SBL20-M12-30L	SBL20-M18	PT8-S	12	2	0.85
SBT40 × SBL6-70	70	2~6	SLC6	28	14	17	SBL6-M6-50L	SBL6-M16	PT5	6	1	1.20
SBT40 × SBL6-100	100	2~6	SLC6	58	14	20	SBL6-M6-75L	SBL6-M16	PT5	6	1	1.26
SBT40 × SBL12-70	70	3~12	SLC12	33	26	31	SBL12-M10-25L	SBL12-M16	PT6	10	2	1.30
SBT40 × SBL12-100	100	3~12	SLC12	63	26	31	SBL12-M10-55L	SBL12-M16	PT6	10	2	1.70
SBT40 × SBL20-70	70	3~20	SLC20	33	35	38	SBL20-M12-30L	SBL20-M16	PT8-S	12	2	1.50
SBT40 × SBL20-100	100	3~20	SLC20	68	35	40	SBL20-M12-52L	SBL20-M16	PT8-S	12	2	1.62
SBT40 × SBL20-130	130	3~20	SLC20	106	35	41	SBL20-M12-52L	SBL20-M16	PT8-S	12	2	2.10
SBT50 × SBL6-70	70	2~6	SLC6	17	14	15	SBL6-M6-50L	SBL6-M16	PT5-S	6	1	4.00
SBT50 × SBL6-100	100	2~6	SLC6	47	14	19	SBL6-M6-40L	SBL6-M16	PT5-S	6	1	3.93
SBT50 × SBL12-70	70	3~12	SLC12	22	26	28	SBL12-M10-25L	SBL12-M16	PT6-S	10	2	4.00
SBT50 × SBL12-100	100	3~12	SLC12	52	26	30	SBL12-M10-55L	SBL12-M16	PT6-S	10	2	4.30
SBT50 × SBL12-125	125	3~12	SLC12	77	26	32	SBL12-M10-55L	SBL12-M16	PT6-S	10	2	4.50
SBT50 × SBL20-70	70	3~20	SLC20	22	35	36	SBL20-M12-30L	SBL20-M16	PT8-S	12	2	4.60
SBT50 × SBL20-100	100	3~20	SLC20	52	35	39	SBL20-M12-52L	SBL20-M16	PT8-S	12	2	4.70
SBT50 × SBL20-125	125	3~20	SLC20	77	35	41	SBL20-M12-52L	SBL20-M16	PT8-S	12	2	4.90

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet
A290-A293	A276



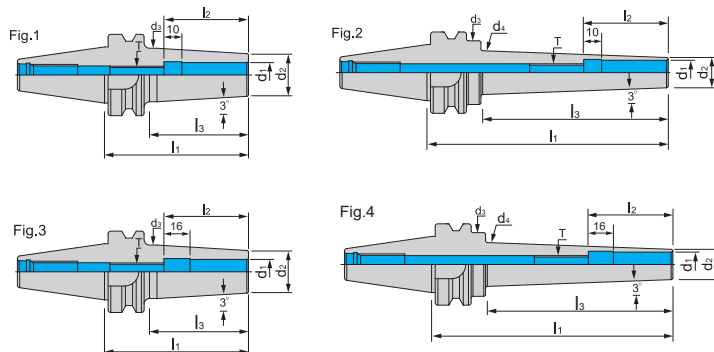
# SBT/SFCT 法蘭加厚型熱膨脹刀桿

## DualDRIVE+ SBT/SFCT SHRINK FIT CHUCK

PAT.NO:M284478  
 PAT.NO:3134091  
 PAT.NO:TR200703317Y  
 PAT.NO:Nr.202007006594.9

雙面拘束 DualDRIVE+

燒結式 Shrink-Fit



### 特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	$d_4$	T	Fig.	重量 (KGS) Weight
SBT30 × SFCT4-80	80	20	48	4	10	15	-	M6×1.0P	1	0.40
SBT30 × SFCT5-80	80	20	53	5	16	19	-	M6×1.0P	1	0.42
SBT30 × SFCT6-80	80	36	53	6	21	26	-	M5×0.8P	3	0.44
SBT30 × SFCT8-80	80	36	53	8	21	26	-	M6×1.0P	1	0.45
SBT30 × SFCT10-80	80	42	53	10	24	29	-	M8×1.25P	2	0.50
SBT30 × SFCT12-80	80	47	53	12	24	29	-	M10×1.5P	1	0.50
SBT30 × SFCT14-80	80	47	46	14	24	32	-	M10×1.5P	2	0.52
SBT30 × SFCT16-80	80	50	55	16	27	32	-	M12×1.75P	1	0.54
SBT30 × SFCT18-90	90	50	66	18	33	38	-	M12×1.75P	2	0.56
SBT30 × SFCT20-90	90	52	66	20	33	38	-	M16×2.0P	1	0.58
SBT30 × SFCT25-100	100	58	78	25	44	49	-	M20×2.0P	2	0.60
SBT40 × SFCT3-90	90	18	53	3	9	14.6	-	M6×1.0P	1	0.99
SBT40 × SFCT4-90	90	20	53	4	10	15.6	-	M6×1.0P	1	1.10
SBT40 × SFCT5-90	90	20	58	5	16	21	-	M6×1.0P	1	1.00
SBT40 × SFCT6-90	90	36	58	6	21	26	-	M5×0.8P	3	1.24
SBT40 × SFCT8-90	90	36	58	8	21	26	-	M6×1.0P	1	1.23
SBT40 × SFCT10-90	90	42	58	10	24	29	-	M8×1.25P	1	1.28
SBT40 × SFCT12-90	90	47	58	12	24	29	-	M10×1.5P	1	1.28
SBT40 × SFCT14-90	90	47	58	14	27	32	-	M10×1.5P	1	1.20
SBT40 × SFCT16-90	90	50	58	16	27	32	-	M12×1.75P	1	1.30
SBT40 × SFCT18-100	100	50	68	18	33	38	-	M12×1.75P	1	1.30
SBT40 × SFCT20-100	100	52	68	20	33	38	-	M16×2.0P	1	1.40
SBT40 × SFCT25-100	100	58	71	25	44	49	-	M20×2.0P	1	1.78
SBT40 × SFCT32-100	100	58	71	32	44	49	-	M20×2.0P	1	1.70

### 選配表 Option

拉頭 Pull Stud	加熱器 Hot-Air
A290-A293	A044





# SBT/SFCT 法蘭加厚型熱膨脹刀桿

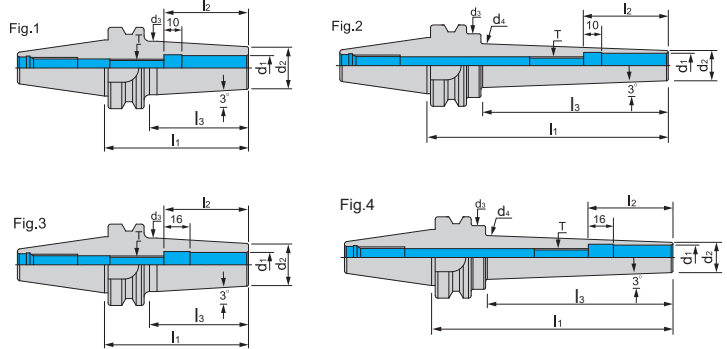
## DualDRIVE+ SBT/SFCT SHRINK FIT CHUCK

PAT.NO:M284478  
 PAT.NO:3134091  
 PAT.NO:TR200703317Y  
 PAT.NO:Nr.202007006594.9



雙面拘束 DualDRIVE+

燒結式 Shrink-Fit



### 特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	T	Fig.	重量 (KGS) Weight
SBT50 × SFCT4-100	100	20	52	4	10	15.5	-	M6×1.0P	1	3.86
SBT50 × SFCT5-100	100	20	57	5	16	21	-	M6×1.0P	1	1.00
SBT50 × SFCT6-100	100	36	57	6	21	26	-	M5×0.8P	3	3.92
SBT50 × SFCT8-100	100	36	57	8	21	26	-	M6×1.0P	1	3.92
SBT50 × SFCT10-100	100	42	58	10	24	29	-	M8×1.25P	1	3.90
SBT50 × SFCT12-100	100	47	52	12	24	29	-	M10×1.5P	1	3.94
SBT50 × SFCT14-100	100	47	57	14	27	32	-	M10×1.5P	1	4.20
SBT50 × SFCT16-100	100	50	52	16	27	32	-	M12×1.75P	1	3.96
SBT50 × SFCT18-110	110	50	62	18	33	38	-	M12×1.75P	1	4.18
SBT50 × SFCT20-110	110	52	67	20	33	38	-	M16×2.0P	1	4.14
SBT50 × SFCT25-110	110	58	67	25	44	49	-	M20×2.0P	1	4.46
SBT50 × SFCT32-110	110	58	67	32	44	49	-	M20×2.0P	1	4.30

### 選配表 Option

拉頭 Pull Stud	加熱器 Hot-Air
A290-A293	A044



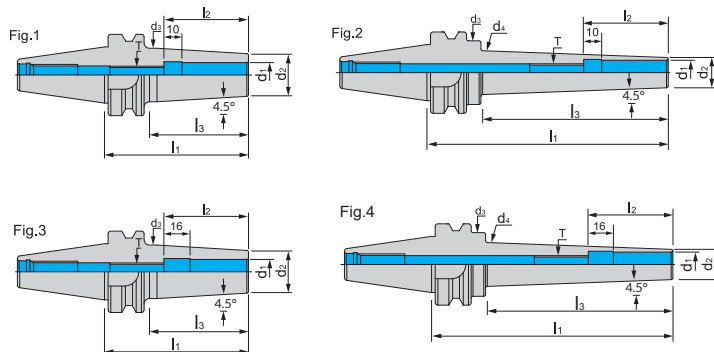
# SBT/SFC 法蘭加厚型熱膨脹刀桿

## DualDRIVE+ SBT/SFC SHRINK FIT CHUCK

PAT.NO:M284478  
PAT.NO:3134091  
PAT.NO:TR200703317Y  
PAT.NO:Nr.202007006594.9

雙面拘束 DualDRIVE+

燒結式 Shrink-Fit



### 特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	$d_4$	T	Fig.	重量 (KGS) Weight
SBT40 × SFC6-130	130	36	93	6	21	27	-	M5×0.8P	4	1.41
SBT40 × SFC6-160	160	36	93	6	21	27	-	M5×0.8P	4	1.54
SBT40 × SFC6-200	200	36	133	6	21	27	-	M5×0.8P	4	1.72
SBT40 × SFC8-130	130	36	93	8	21	27	-	M6×1.0P	2	1.41
SBT40 × SFC8-160	160	36	93	8	21	27	-	M6×1.0P	2	1.54
SBT40 × SFC8-200	200	36	133	8	21	27	-	M6×1.0P	2	1.72
SBT40 × SFC10-130	130	42	93	10	24	32	-	M8×1.25P	2	1.66
SBT40 × SFC10-160	160	42	93	10	24	32	-	M8×1.25P	2	1.79
SBT40 × SFC10-200	200	42	133	10	24	32	-	M8×1.25P	2	1.97
SBT40 × SFC12-130	130	47	93	12	27	32	-	M10×1.5P	2	1.86
SBT40 × SFC12-160	160	47	93	12	27	32	-	M10×1.5P	2	1.99
SBT40 × SFC12-200	200	47	133	12	27	32	-	M10×1.5P	2	2.17
SBT40 × SFC14-130	130	47	93	14	27	34	-	M10×1.5P	2	1.94
SBT40 × SFC14-160	160	47	93	14	27	34	-	M10×1.5P	2	2.07
SBT40 × SFC14-200	200	47	133	14	27	34	-	M10×1.5P	2	2.25
SBT40 × SFC16-130	130	50	93	16	27	34	-	M12×1.75P	2	1.75
SBT40 × SFC16-160	160	50	93	16	27	34	-	M12×1.75P	2	1.91
SBT40 × SFC16-200	200	50	133	16	27	34	-	M12×1.75P	2	2.06
SBT40 × SFC18-130	130	50	98	18	33	42	-	M12×1.75P	2	2.31
SBT40 × SFC18-160	160	50	98	18	33	42	-	M12×1.75P	2	2.46
SBT40 × SFC18-200	200	50	138	18	33	42	-	M12×1.75P	2	2.61
SBT40 × SFC20-130	130	52	98	20	33	42	-	M16×2.0P	2	2.28
SBT40 × SFC20-160	160	52	98	20	33	42	-	M16×2.0P	2	2.43
SBT40 × SFC20-200	200	52	138	20	33	42	-	M16×2.0P	2	2.57

### 選配表 Option

拉頭 Pull Stud	加熱器 Hot-Air
A290-A293	A044



# SBT/SFC 法蘭加厚型熱膨脹刀桿

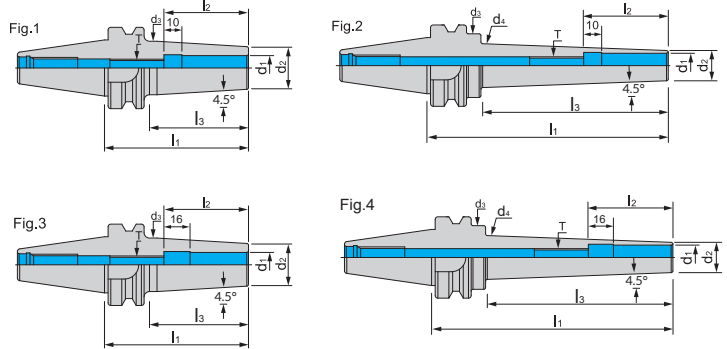
## DualDRIVE+ SBT/SFC SHRINK FIT CHUCK

PAT.NO:M284478  
 PAT.NO:3134091  
 PAT.NO:TR200703317Y  
 PAT.NO:Nr.202007006594.9



雙面拘束 DualDRIVE+

燒結式 Shrink-Fit



### 特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	$d_4$	T	Fig.	重量 (KGS) Weight
SBT40 × SFC25-130	130	58	101	25	44	53	-	M20×2.0P	2	2.34
SBT40 × SFC25-160	160	58	131	25	44	53	-	M20×2.0P	2	2.85
SBT40 × SFC25-200	200	58	171	25	44	53	-	M20×2.0P	2	3.53
SBT40 × SFC32-130	130	58	101	32	44	53	--	M20×2.0P	2	2.21
SBT40 × SFC32-160	160	58	131	32	44	53	-	M20×2.0P	2	2.71
SBT40 × SFC32-200	200	58	171	32	44	53	-	M20×2.0P	2	3.39
SBT50 × SFC6-130	130	36	82	6	21	27	-	M5×0.8P	4	3.94
SBT50 × SFC6-160	160	36	82	6	21	27	-	M5×0.8P	4	4.07
SBT50 × SFC6-200	200	36	122	6	21	27	-	M5×0.8P	4	4.24
SBT50 × SFC8-130	130	36	82	8	21	27	-	M6×1.0P	2	3.93
SBT50 × SFC8-160	160	36	82	8	21	27	-	M6×1.0P	2	4.06
SBT50 × SFC8-200	200	36	122	8	21	27	-	M6×1.0P	2	4.23
SBT50 × SFC10-130	130	42	82	10	24	32	-	M8×1.25P	2	4.05
SBT50 × SFC10-160	160	42	82	10	24	32	-	M8×1.25P	2	4.18
SBT50 × SFC10-200	200	42	122	10	24	32	-	M8×1.25P	2	4.35
SBT50 × SFC12-130	130	47	82	12	24	32	-	M10×1.5P	2	4.04
SBT50 × SFC12-160	160	47	82	12	24	32	-	M10×1.5P	2	4.17
SBT50 × SFC12-200	200	47	122	12	24	32	-	M10×1.5P	2	4.34
SBT50 × SFC14-130	130	47	82	14	27	34	-	M10×1.5P	2	4.11
SBT50 × SFC14-160	160	47	82	14	27	34	-	M10×1.5P	2	4.24
SBT50 × SFC14-200	200	47	122	14	27	34	-	M10×1.5P	2	4.41
SBT50 × SFC16-130	130	50	82	16	27	34	-	M12×1.75P	2	4.09
SBT50 × SFC16-160	160	50	82	16	27	34	-	M12×1.75P	2	4.26
SBT50 × SFC16-200	200	50	122	16	27	34	-	M12×1.75P	2	4.43

### 選配表 Option

拉頭 Pull Stud	加熱器 Hot-Air
A290-A293	A044



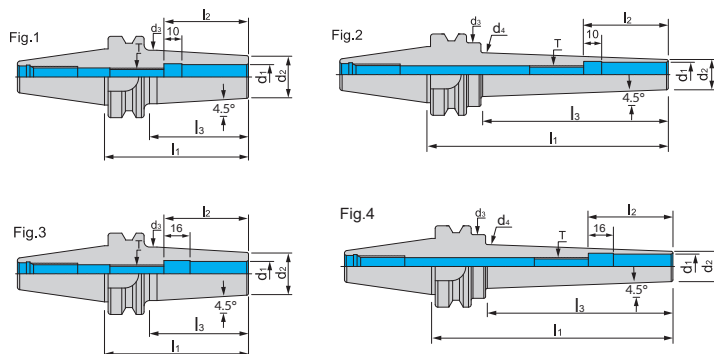
# SBT/SFC 法蘭加厚型熱膨脹刀桿

## DualDRIVE+ SBT/SFC SHRINK FIT CHUCK

PAT.NO:M284478  
 PAT.NO:3134091  
 PAT.NO:TR200703317Y  
 PAT.NO:Nr.202007006594.9

雙面拘束 DualDRIVE+

燒結式 Shrink-Fit



### 特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	$d_4$	T	Fig.	重量 (KGS) Weight
SBT50 × SFC18-130	130	50	82	18	33	42	-	M12×1.75P	2	4.34
SBT50 × SFC18-160	160	50	82	18	33	42	-	M12×1.75P	2	4.51
SBT50 × SFC18-200	200	50	122	18	33	42	-	M12×1.75P	2	4.68
SBT50 × SFC20-130	130	52	82	20	33	42	-	M16×2.0P	2	4.32
SBT50 × SFC20-160	160	52	82	20	33	42	-	M16×2.0P	2	4.53
SBT50 × SFC20-200	200	52	122	20	33	42	-	M16×2.0P	2	4.70
SBT50 × SFC25-130	130	58	82	25	44	53	-	M20×2.0P	2	4.78
SBT50 × SFC25-160	160	58	82	25	44	53	-	M20×2.0P	2	4.99
SBT50 × SFC25-200	200	58	122	25	44	53	-	M20×2.0P	2	5.16
SBT50 × SFC32-130	130	58	82	32	44	53	-	M20×2.0P	2	4.63
SBT50 × SFC32-160	160	58	82	32	44	53	-	M20×2.0P	2	4.84
SBT50 × SFC32-200	200	58	122	32	44	53	-	M20×2.0P	2	5.01

### 選配表 Option

拉頭 Pull Stud	加熱器 Hot-Air
A290-A293	A044

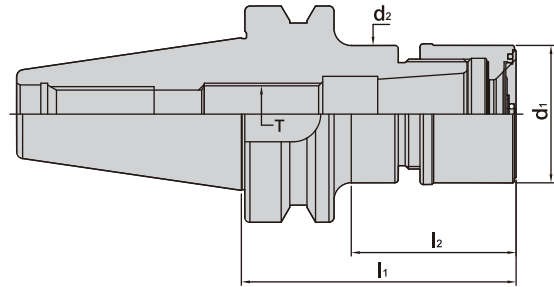


# SBT/SKX 法蘭加厚型立銑刀夾頭

## DualDRIVE+ SBT/SKX COLLET CHUCK

雙面拘束 DualDRIVE+

NEW



### 特點 Feature

- 標準動平衡 G2.5 25000rpm

- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	T	夾持範圍 Clamp Range	重量 (KGS) Weight
SBT30 × SKX6-60	60	33	18	18	M8x1.25P	3~6	0.70
SBT30 × SKX6-90	90	56	18	18	M8x1.25P	3~6	0.70
SBT30 × SKX6-120	120	86	18	18	M8x1.25P	3~6	0.80
SBT30 × SKX10-45	45	23	30	30	M12x1.75P	3~10	0.80
SBT30 × SKX10-60	60	35	30	30	M12x1.75P	3~10	0.90
SBT30 × SKX10-75	75	50	30	30	M12x1.75P	3~10	1.00
SBT30 × SKX10-90	90	65	30	30	M12x1.75P	3~10	1.00
SBT30 × SKX10-120	120	95	30	30	M12x1.75P	3~10	1.10
SBT30 × SKX16-60	60	35	40	40	M18x1.5P	3~16	1.10
SBT30 × SKX16-75	75	50	40	40	M18x1.5P	3~16	1.20
SBT30 × SKX16-90	90	65	40	40	M18x1.5P	3~16	1.20
SBT30 × SKX16-120	120	95	40	40	M18x1.5P	3~16	1.30
SBT30 × SKX20-60	60	30	48.5	48.5	M12x1.75P	3~20	0.70
SBT30 × SKX20-75	75	45	48.5	48.5	M12x1.75P	3~20	0.90
SBT30 × SKX20-90	90	60	48.5	48.5	M12x1.75P	3~20	1.20
SBT30 × SKX25-90	90	60	55	55	M12x1.75P	3~25	1.50

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	止水墊片 Sealed Cap
A229-A232	A274	A287	A287



# SBT/SKX 法蘭加厚型立銑刀夾頭

## DualDRIVE+ SBT/SKX COLLET CHUCK

雙面拘束 DualDRIVE+

NEW



Fig.1

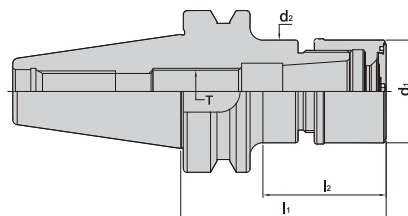
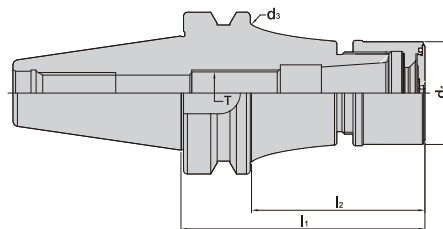


Fig.2



### 特點 Feature

- 標準動平衡 G2.5 25000rpm

- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	T	夾持範圍 Clamp Range	Fig.	重量 (KGS) Weight
SBT40 × SKX6-60	60	30	18	18	-	M8x1.25P	3~6	1	1.00
SBT40 × SKX6-90	90	51	18	18	-	M8x1.25P	3~6	1	1.10
SBT40 × SKX6-120	120	93	18	18	53	M8x1.25P	3~6	2	1.56
SBT40 × SKX6-150	150	123	18	18	53	M8x1.25P	3~6	2	1.72
SBT40 × SKX10-60	60	32	30	30	-	M12x1.75P	3~10	1	1.10
SBT40 × SKX10-75	75	45	30	30	-	M12x1.75P	3~10	1	1.20
SBT40 × SKX10-90	90	48	30	30	-	M12x1.75P	3~10	1	1.20
SBT40 × SKX10-120	120	93	30	30	53	M12x1.75P	3~10	2	1.40
SBT40 × SKX10-150	150	123	30	30	53	M12x1.75P	3~10	2	1.91
SBT40 × SKX10-180	180	153	30	30	53	M12x1.75P	3~10	2	2.08
SBT40 × SKX10-200	200	173	30	30	53	M12x1.75P	3~10	2	2.17
SBT40 × SKX10-250	250	223	30	30	53	M12x1.75P	3~10	2	2.31
SBT40 × SKX16-60	60	32	40	40	-	M18x1.5P	3~16	1	1.30
SBT40 × SKX16-75	75	43	40	40	-	M18x1.5P	3~16	1	1.40
SBT40 × SKX16-90	90	58	40	40	-	M18x1.5P	3~16	1	1.50
SBT40 × SKX16-120	120	93	40	40	62.5	M18x1.5P	3~16	2	1.83
SBT40 × SKX16-150	150	123	40	40	62.5	M18x1.5P	3~16	2	2.05
SBT40 × SKX16-180	180	153	40	40	62.5	M18x1.5P	3~16	2	2.27
SBT40 × SKX16-200	200	173	40	40	62.5	M18x1.5P	3~16	2	2.41
SBT40 × SKX16-250	250	223	40	40	62.5	M18x1.5P	3~16	2	3.21
SBT40 × SKX20-60	60	32	48.5	48.5	-	M22x1.5P	3~20	1	1.30
SBT40 × SKX20-75	75	42	48.5	48.5	-	M22x1.5P	3~20	1	1.40
SBT40 × SKX20-90	90	60	48.5	48.5	-	M22x1.5P	3~20	1	1.60
SBT40 × SKX20-120	120	93	48.5	48.5	62.2	M22x1.5P	3~20	2	2.00
SBT40 × SKX25-75	75	47	55	55	-	M28x2.0P	3~25	1	1.70
SBT40 × SKX25-90	90	61	55	55	-	M28x2.0P	3~25	1	1.80
SBT40 × SKX25-120	120	93	55	55	-	M28x2.0P	3~25	1	2.00

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	止水墊片 Sealed Cap
A229-A232	A274	A287	A287



# SBT/SKX 法蘭加厚型立銑刀夾頭

## DualDRIVE+ SBT/SKX COLLET CHUCK

雙面拘束 DualDRIVE+

NEW



Fig.1

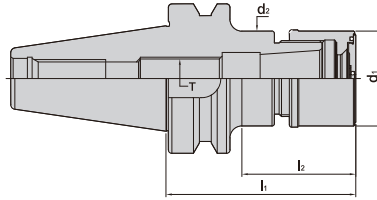
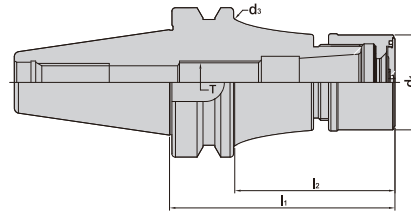


Fig.2



### 特點 Feature

- 標準動平衡 G2.5 25000rpm

- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	T	夾持範圍 Clamp Range	Fig.	重量 (KGS) Weight
SBT50 × SKX6-105	105	55	18	18	-	M8x1.25P	3~6	1	3.80
SBT50 × SKX6-135	135	60	18	18	-	M8x1.25P	3~6	1	3.90
SBT50 × SKX6-165	165	85	18	18	-	M8x1.25P	3~6	1	4.00
SBT50 × SKX6-200	200	162	18	18	85	M8x1.25P	3~6	2	5.83
SBT50 × SKX10-105	105	57	30	30	-	M12x1.75P	3~10	1	4.20
SBT50 × SKX10-135	135	70	30	30	-	M12x1.75P	3~10	1	4.40
SBT50 × SKX10-165	165	90	30	30	-	M12x1.75P	3~10	1	4.60
SBT50 × SKX10-200	200	162	30	30	85	M12x1.75P	3~10	2	6.19
SBT50 × SKX10-225	225	187	30	30	85	M12x1.75P	3~10	2	6.56
SBT50 × SKX10-250	250	212	30	30	85	M12x1.75P	3~10	2	6.92
SBT50 × SKX10-300	300	262	30	30	85	M12x1.75P	3~10	2	7.55
SBT50 × SKX16-105	105	62	40	40	-	M18x1.5P	3~16	1	4.70
SBT50 × SKX16-135	135	92	40	40	-	M18x1.5P	3~16	1	4.90
SBT50 × SKX16-165	165	90	40	40	-	M18x1.5P	3~16	1	5.10
SBT50 × SKX16-200	200	162	40	40	85	M18x1.5P	3~16	2	6.31
SBT50 × SKX16-250	250	212	40	40	85	M18x1.5P	3~16	2	7.13
SBT50 × SKX16-300	300	262	40	40	85	M18x1.5P	3~16	2	7.87
SBT50 × SKX20-105	105	62	48.5	48.5	-	M22x1.5P	3~20	1	4.30
SBT50 × SKX20-135	135	92	48.5	48.5	-	M22x1.5P	3~20	1	4.60
SBT50 × SKX20-165	165	122	48.5	48.5	-	M22x1.5P	3~20	1	5.00
SBT50 × SKX20-200	200	162	48.5	48.5	85	M22x1.5P	3~20	2	6.57
SBT50 × SKX20-250	250	212	48.5	48.5	85	M22x1.5P	3~20	2	7.47
SBT50 × SKX20-300	300	262	48.5	48.5	85	M22x1.5P	3~20	2	8.27
SBT50 × SKX25-105	105	62	55	55	-	M28x2.0P	3~25	1	5.20
SBT50 × SKX25-135	135	92	55	55	-	M28x2.0P	3~25	1	5.40
SBT50 × SKX25-165	165	122	55	55	-	M28x2.0P	3~25	1	5.60
SBT50 × SKX25-200	200	162	55	55	85	M28x2.0P	3~25	2	6.53
SBT50 × SKX25-250	250	212	55	55	85	M28x2.0P	3~25	2	7.57
SBT50 × SKX25-300	300	262	55	55	85	M28x2.0P	3~25	2	8.51

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	止水墊片 Sealed Cap
A229-A232	A274	A287	A287



# SBT/SKS 法蘭加厚型高速機專用夾頭

## DualDRIVE+ SBT/SKS COLLET CHUCK

雙面拘束 DualDRIVE+



Fig.1

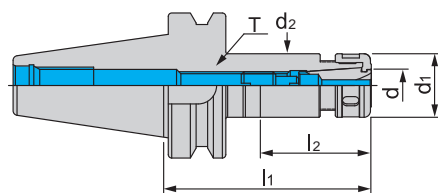
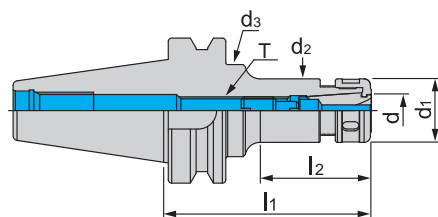


Fig.2



### 特點 Feature

- 偏擺精度 :5 $\mu$  以下 (延伸 4D 長度處)
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 $\mu$ .
- Balance of G2.5 at 25000rpm.

規格 Spec.	$l_1$	$l_2$	$d$	$d_1$	$d_2$	$d_3$	T	Fig.	重量 (KGS) Weight
SBT30×SKS6-45	45	22	Ø3~Ø6	18	18	-	M8x1.25P	1	0.80
SBT30×SKS6-60	60	33	Ø3~Ø6	18	18	-	M8x1.25P	1	0.90
SBT30×SKS10-45	45	22	Ø3~Ø10	30	27.6	-	M12x1.75P	1	0.80
SBT30×SKS10-60	60	33	Ø3~Ø10	30	27.6	-	M12x1.75P	1	0.90
SBT30×SKS10-90	90	63	Ø3~Ø10	30	27.6	-	M12x1.75P	1	1.00
SBT30×SKS13-60	60	35	Ø3~Ø13	35	33	-	M12x1.75P	1	1.10
SBT30×SKS13-90	90	65	Ø3~Ø13	35	33	-	M12x1.75P	1	0.78
SBT30×SKS13-120	120	95	Ø3~Ø13	35	33	-	M12x1.75P	1	1.20
SBT30×SKS16-60	60	36	Ø3~Ø16	40	40	-	M18x1.5P	1	0.76
SBT30×SKS16-90	90	66	Ø3~Ø16	40	40	-	M18x1.5P	1	1.02
SBT30×SKS20-60	60	37	Ø3~Ø20	48.5	48.5	45	M12x1.75P	2	0.68
SBT30×SKS20-90	90	67	Ø3~Ø20	48.5	48.5	45	M12x1.75P	2	1.02
SBT40×SKS6-90	90	44	Ø3~Ø6	18	18	32	M8x1.25P	2	1.20
SBT40×SKS6-120	120	74	Ø3~Ø6	18	18	32	M8x1.25P	2	1.21
SBT40×SKS10-60	60	22	Ø3~Ø10	30	27.6	-	M12x1.75P	1	1.36
SBT40×SKS10-90	90	45	Ø3~Ø10	30	27.6	40	M12x1.75P	2	1.20
SBT40×SKS10-120	120	74	Ø3~Ø10	30	27.6	40	M12x1.75P	2	1.40
SBT40×SKS13-60	60	30	Ø3~Ø13	35	33	-	M12x1.75P	1	1.16
SBT40×SKS13-90	90	60	Ø3~Ø13	35	33	-	M12x1.75P	1	1.32
SBT40×SKS13-120	120	90	Ø3~Ø13	35	33	-	M12x1.75P	1	1.56
SBT40×SKS16-60	60	23.2	Ø3~Ø16	40	40	-	M18x1.5P	1	1.14
SBT40×SKS16-90	90	58	Ø3~Ø16	40	40	-	M18x1.5P	1	1.60
SBT40×SKS16-120	120	90	Ø3~Ø16	40	40	-	M18x1.5P	1	1.70
SBT40×SKS20-60	60	32	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	1.18
SBT40×SKS20-90	90	60	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	1.56
SBT40×SKS20-120	120	88	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	1.96
SBT40×SKS25-90	90	61	Ø3~Ø25.4	55.1	55	-	M28x2.0P	1	1.70
SBT40×SKS25-120	120	91	Ø3~Ø25.4	55.1	55	-	M28x2.0P	1	1.80

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A272-A275	A286	A297

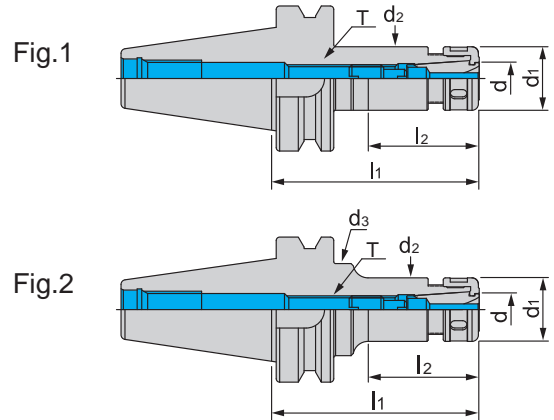




# SBT/SKS 法蘭加厚型高速機專用夾頭

## DualDRIVE+ SBT/SKS COLLET CHUCK

雙面拘束 DualDRIVE+



### 特點 Feature

- 偏擺精度 :5 $\mu$  以下 ( 延伸 4D 長度處 )
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 $\mu$ .
- Balance of G2.5 at 25000rpm.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	T	Fig.	重量 (KGS) Weight
SBT50 × SKS6-90	90	42	Ø3~Ø6	18	18	-	M8x1.25P	1	4.00
SBT50 × SKS6-120	120	59	Ø3~Ø6	18	18	32	M8x1.25P	2	4.20
SBT50 × SKS10-105	105	57	Ø3~Ø10	30	27.6	-	M12x1.75P	1	4.50
SBT50 × SKS10-150	150	94	Ø3~Ø10	30	27	40	M12x1.75P	2	4.60
SBT50 × SKS10-165	165	108	Ø3~Ø10	30	27	40	M12x1.75P	2	4.30
SBT50 × SKS10-200	200	143	Ø3~Ø10	30	27	36	M12x1.75P	2	5.20
SBT50 × SKS10-250	250	193	Ø3~Ø10	30	27	40	M12x1.75P	2	5.60
SBT50 × SKS13-105	105	62	Ø3~Ø13	35	33	-	M12x1.75P	1	4.12
SBT50 × SKS13-135	135	92	Ø3~Ø13	35	33	-	M12x1.75P	1	4.70
SBT50 × SKS13-165	165	92	Ø3~Ø13	35	33	45	M12x1.75P	2	4.46
SBT50 × SKS13-200	200	92	Ø3~Ø13	35	33	45	M12x1.75P	2	5.20
SBT50 × SKS13-250	250	92	Ø3~Ø13	35	33	45	M12x1.75P	2	5.70
SBT50 × SKS16-105	105	57	Ø3~Ø16	40	40	-	M18x1.5P	1	4.15
SBT50 × SKS16-150	150	98	Ø3~Ø16	40	40	52	M18x1.5P	2	4.70
SBT50 × SKS16-165	165	108	Ø3~Ø16	40	40	52	M18x1.5P	2	4.50
SBT50 × SKS16-200	200	92	Ø3~Ø16	40	40	52	M18x1.5P	2	5.22
SBT50 × SKS16-250	250	92	Ø3~Ø16	40	40	52	M18x1.5P	2	6.00
SBT50 × SKS20-105	105	62	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	4.40
SBT50 × SKS20-135	135	92	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	4.60
SBT50 × SKS20-165	165	122	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	5.16
SBT50 × SKS20-200	200	157	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	5.40
SBT50 × SKS20-250	250	207	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	6.10
SBT50 × SKS25-105	105	62	Ø3~Ø25.4	55.1	55	-	M28x2.0P	1	4.50
SBT50 × SKS25-150	150	107	Ø3~Ø25.4	55.1	55	-	M28x2.0P	1	4.80
SBT50 × SKS25-200	200	157	Ø3~Ø25.4	55.1	55	-	M28x2.0P	1	6.00
SBT50 × SKS25-250	250	207	Ø3~Ø25.4	55.1	55	-	M28x2.0P	1	6.70

### 選配表 Option

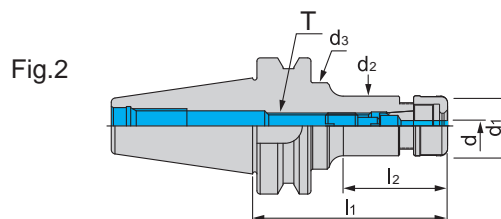
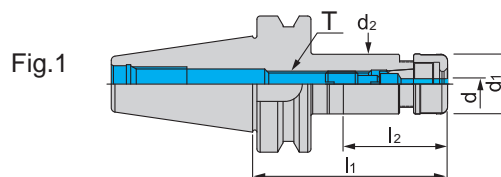
拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A272-A275	A286	A297



# SBT/SKS 法蘭加厚型高速機專用夾頭 (無風阻)

## DualDRIVE+ SBT/SKS COLLET CHUCK(NON WIND RESISTANCE)

雙面拘束 DualDRIVE+



### 特點 Feature

- 偏擺精度 :5 $\mu$  以下 (延伸 4D 長度處)
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 $\mu$ .
- Balance of G2.5 at 25000rpm.

規格 Spec.	$l_1$	$l_2$	d	$d_1$	$d_2$	$d_3$	T	Fig.	重量 (KGS) Weight
SBT30 × SKS6-45-HS	45	14.5	Ø3~Ø6	18	18	-	M8x1.25P	1	0.80
SBT30 × SKS6-60-HS	60	25	Ø3~Ø6	18	18	-	M8x1.25P	1	0.90
SBT30 × SKS10-45-HS	45	14.5	Ø3~Ø10	30	27.6	-	M12x1.75P	1	0.80
SBT30 × SKS10-60-HS	60	25	Ø3~Ø10	30	27.6	-	M12x1.75P	1	0.90
SBT30 × SKS10-90-HS	90	55	Ø3~Ø10	30	27.6	-	M12x1.75P	1	0.84
SBT30 × SKS13-60-HS	60	35	Ø3~Ø13	35	33	-	M12x1.75P	1	1.10
SBT30 × SKS13-90-HS	90	65	Ø3~Ø13	35	33	-	M12x1.75P	1	0.70
SBT30 × SKS13-120-HS	120	95	Ø3~Ø13	35	33	-	M12x1.75P	1	1.20
SBT30 × SKS16-60-HS	60	27.7	Ø3~Ø16	40	40	-	M18x1.75P	1	1.00
SBT30 × SKS16-90-HS	90	57.7	Ø3~Ø16	40	40	-	M18x1.75P	1	1.20
SBT30 × SKS20-60-HS	60	37	Ø3~Ø20	48.5	48.5	-	M12x1.75P	1	0.70
SBT30 × SKS20-90-HS	90	67	Ø3~Ø20	48.5	48.5	-	M12x1.75P	1	1.20
SBT30 × SKS25-90-HS	90	57.2	Ø3~Ø25.4	55.1	45	-	M28x2.0P	1	1.40
SBT40 × SKS6-90-HS	90	36.352	Ø3~Ø6	18	18	32	M8x1.25P	2	1.20
SBT40 × SKS6-120-HS	120	68.476	Ø3~Ø6	18	18	32	M8x1.25P	2	1.42
SBT40 × SKS10-60-HS	60	22	Ø3~Ø10	30	27.6	-	M12x1.75P	1	1.40
SBT40 × SKS10-90-HS	90	37.721	Ø3~Ø10	30	27.6	40	M12x1.75P	2	1.50
SBT40 × SKS10-120-HS	120	68.499	Ø3~Ø10	30	27.6	40	M12x1.75P	2	1.60
SBT40 × SKS13-60-HS	60	28	Ø3~Ø13	35	33	-	M12x1.75P	1	1.20
SBT40 × SKS13-90-HS	90	58	Ø3~Ø13	35	33	-	M12x1.75P	1	1.32
SBT40 × SKS13-120-HS	120	88	Ø3~Ø13	35	33	-	M12x1.75P	1	1.60
SBT40 × SKS16-60-HS	60	23.2	Ø3~Ø16	40	40	-	M18x1.5P	1	1.40
SBT40 × SKS16-90-HS	90	48.7	Ø3~Ø16	40	40	-	M18x1.5P	1	1.64
SBT40 × SKS16-120-HS	120	78.876	Ø3~Ø16	40	40	-	M18x1.5P	1	1.70
SBT40 × SKS20-60-HS	60	32	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	1.30
SBT40 × SKS20-90-HS	90	60	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	1.60
SBT40 × SKS20-120-HS	120	90	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	2.00
SBT40 × SKS25-90-HS	90	50.7	Ø3~Ø25.4	55.1	55	-	M28x2.0P	1	1.70
SBT40 × SKS25-120-HS	120	80.7	Ø3~Ø25.4	55.1	55	-	M28x2.0P	1	2.26

### 選配表 Option

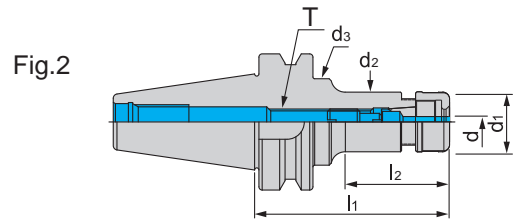
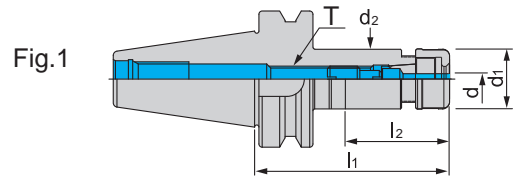
拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A272-A275	A286	A297



# SBT/SKS 法蘭加厚型高速機專用夾頭 (無風阻)

## DualDRIVE+ SBT/SKS COLLET CHUCK(NON WIND RESISTANCE)

雙面拘束 DualDRIVE+



### 特點 Feature

- 偏擺精度 :5 $\mu$  以下 (延伸 4D 長度處)
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 $\mu$ .
- Balance of G2.5 at 25000rpm.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	T	Fig.	重量 (KGS) Weight
SBT50 × SKS6-90-HS	90	42	Ø3~Ø6	18	18	-	M8x1.25P	1	4.00
SBT50 × SKS6-120-HS	120	59	Ø3~Ø6	18	18	32	M8x1.25P	2	4.20
SBT50 × SKS10-105-HS	105	57	Ø3~Ø10	30	27.6	-	M12x1.75P	1	4.50
SBT50 × SKS10-150-HS	150	94	Ø3~Ø10	30	27	40	M12x1.75P	2	4.60
SBT50 × SKS10-165-HS	165	108	Ø3~Ø10	30	27	40	M12x1.75P	2	5.00
SBT50 × SKS10-200-HS	200	143	Ø3~Ø10	30	27	36	M12x1.75P	2	5.20
SBT50 × SKS10-250-HS	250	193	Ø3~Ø10	30	27	40	M12x1.75P	2	5.60
SBT50 × SKS13-105-HS	105	62	Ø3~Ø13	35	33	-	M12x1.75P	1	4.50
SBT50 × SKS13-135-HS	135	92	Ø3~Ø13	35	33	-	M12x1.75P	1	4.70
SBT50 × SKS13-165-HS	165	92	Ø3~Ø13	35	33	45	M12x1.75P	2	4.90
SBT50 × SKS13-200-HS	200	92	Ø3~Ø13	35	33	45	M12x1.75P	2	5.20
SBT50 × SKS13-250-HS	250	92	Ø3~Ø13	35	33	45	M12x1.75P	2	5.70
SBT50 × SKS16-105-HS	105	57	Ø3~Ø16	40	40	-	M18x1.5P	1	4.50
SBT50 × SKS16-150-HS	150	98	Ø3~Ø16	40	40	52	M18x1.5P	2	4.70
SBT50 × SKS16-165-HS	165	108	Ø3~Ø16	40	40	52	M18x1.5P	2	5.00
SBT50 × SKS16-200-HS	200	92	Ø3~Ø16	40	40	52	M18x1.5P	2	5.50
SBT50 × SKS16-250-HS	250	92	Ø3~Ø16	40	40	52	M18x1.5P	2	6.00
SBT50 × SKS20-105-HS	105	62	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	4.30
SBT50 × SKS20-135-HS	135	92	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	4.60
SBT50 × SKS20-165-HS	165	122	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	5.00
SBT50 × SKS20-200-HS	200	157	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	5.40
SBT50 × SKS20-250-HS	250	207	Ø3~Ø20	48.5	48.5	-	M22x1.5P	1	6.10
SBT50 × SKS25-105-HS	105	62	Ø3~Ø25.4	55.1	55	-	M28x2.0P	1	4.50
SBT50 × SKS25-150-HS	150	107	Ø3~Ø25.4	55.1	55	-	M28x2.0P	1	5.28
SBT50 × SKS25-200-HS	200	157	Ø3~Ø25.4	55.1	55	-	M28x2.0P	1	6.00
SBT50 × SKS25-250-HS	250	207	Ø3~Ø25.4	55.1	55	-	M28x2.0P	1	6.70

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A272-A275	A286	A297

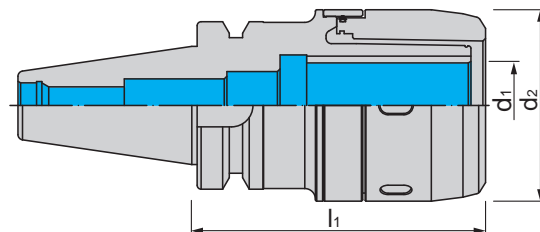


# SBT/MLK 法蘭加厚型強力銑削夾頭

## DualDRIVE+ SBT/MLK FORCE COLLET CHUCK

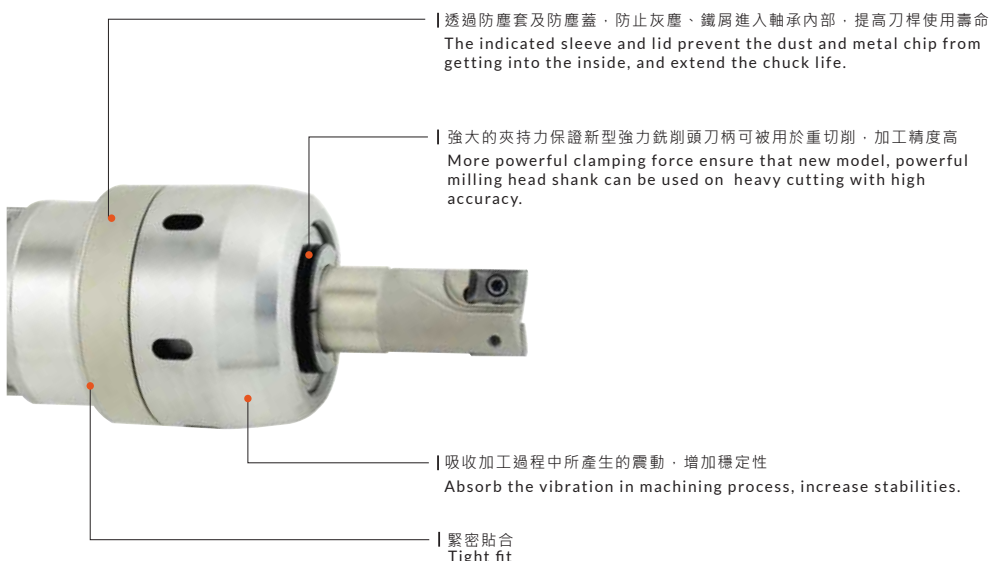
雙面拘束 DualDRIVE+

防塵設計 Dust-proof design



規格 Spec.	$l_1$	$d_1$	$d_2$	重量 (KGS) Weight
SBT30-MLK12-70	70	12	42	1.03
SBT30-MLK16-85	85	16	48	1.31
SBT30-MLK20-90	90	20	56.5	1.58
SBT40-MLK12-80	80	12	42	1.72
SBT40-MLK16-80	80	16	48	1.86
SBT40-MLK20-90	90	20	56.5	2.00
SBT40-MLK25-95	95	25	60	2.28
SBT40-MLK32-105	105	32	75	3.00
SBT40-MLK32-135	135	32	75	2.70
SBT50-MLK12-100	100	12	42	4.56
SBT50-MLK16-100	100	16	48	4.72
SBT50-MLK20-100	100	20	56.5	4.87
SBT50-MLK25-100	100	25	60	4.88
SBT50-MLK32-110	110	32	75	5.64
SBT50-MLK32-165	165	32	75	7.10
SBT50-MLK42-115	115	42	90	6.19

-MLK32 扳手與 EOC32 扳手、MLD32 扳手共用 MLK32 and MLK32、MLD32 spanner can be used in common.



### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	扳手 Spanner
		
A290-A293	A277	A297





# SBT/PNER 法蘭加厚型立銑刀夾頭

## DualDRIVE+ SBT/PNER COLLET CHUCK

PAT.NO:M298033  
PAT.NO:M311791  
PAT.NO:M501316  
PAT.NO:3128766  
PAT.NO:20-0433603

PAT.NO:ZL200620132661.0  
PAT.NO:696550  
PAT.NO:TR 2007 02942 Y  
PAT.NO:N.0000266731  
PAT.NO:Nr.202015005621

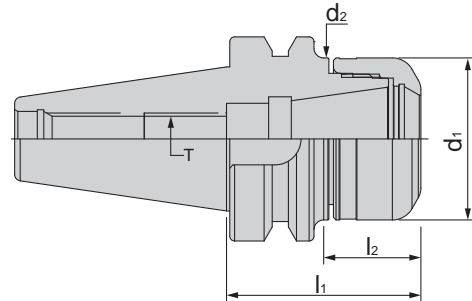
SBT

雙面拘束 DualDRIVE+

精度 Accuracy : <3μm



台灣精品 2017  
TAIWAN EXCELLENCE



### 特點 Feature

- 標準動平衡 :G2.5 25000rpm

- Standard revolution G2.5 at 25000rpm.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	T	夾持範圍 Clamp Range	重量 (KGS) Weight
SBT30xPNER16-50	50	25	30	30	M10x1.5P	3.0~10	0.70
SBT30xPNER16-100	100	75	30	30	M10x1.5P	3.0~10	0.87
SBT30xPNER20-60	60	37	32	32	M12x1.75P	3.0~13	0.74
SBT30xPNER20-100	100	77	32	32	M12x1.75P	3.0~13	0.95
SBT30xPNER25-60	60	37	40	40	M16x2.0P	3.0~16	0.90
SBT30xPNER25-100	100	77	40	40	M16x2.0P	3.0~16	1.17
SBT30xPNER32-60	60	33	50	50	M16x2.0P	3.0~20	1.00
SBT30xPNER32-100	100	73	50	50	M16x2.0P	3.0~20	1.40
SBT40xPNER16-70	70	40	30	30	M10x1.5P	3.0~10	1.40
SBT40xPNER16-100	100	70	30	30	M10x1.5P	3.0~10	1.59
SBT40xPNER16-130	130	100	30	30	M10x1.5P	3.0~10	1.76
SBT40xPNER16-160	160	130	30	30	M10x1.5P	3.0~10	1.88
SBT40xPNER20-70	70	40	32	32	M12x1.75P	3.0~13	1.42
SBT40xPNER20-100	100	70	32	32	M12x1.75P	3.0~13	1.58
SBT40xPNER20-130	130	100	32	32	M12x1.75P	3.0~13	1.78
SBT40xPNER20-160	160	130	32	32	M12x1.75P	3.0~13	1.92
SBT40xPNER25-70	70	40	40	40	M16x2.0P	3.0~16	1.52
SBT40xPNER25-100	100	70	40	40	M16x2.0P	3.0~16	1.78
SBT40xPNER25-130	130	100	40	40	M16x2.0P	3.0~16	2.04
SBT40xPNER25-160	160	130	40	40	M16x2.0P	3.0~16	2.30
SBT40xPNER32-70	70	40	50	50	M16x2.0P	3.0~20	1.62
SBT40xPNER32-100	100	70	50	50	M16x2.0P	3.0~20	2.04
SBT40xPNER32-130	130	100	50	50	M16x2.0P	3.0~20	2.46
SBT40xPNER32-160	160	130	50	50	M16x2.0P	3.0~20	2.90

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A270-A271	A284-A285	A297





# SBT/PNER 法蘭加厚型立銑刀夾頭

## DualDRIVE+ SBT/PNER COLLET CHUCK

PAT.NO:M298033  
PAT.NO:M311791  
PAT.NO:M501316  
PAT.NO:3128766  
PAT.NO:20-0433603

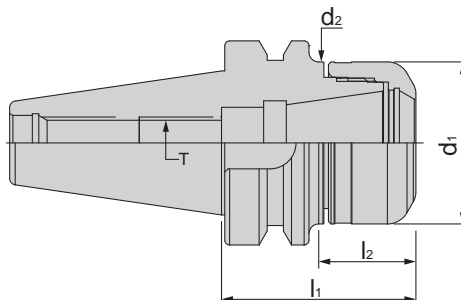
PAT.NO:ZL200620132661.0  
PAT.NO:696550  
PAT.NO:TR 2007 02942 Y  
PAT.NO:N.0000266731  
PAT.NO:Nr.202015005621

雙面拘束 DualDRIVE+

精度 Accuracy : <math><3\mu\text{m}</math>



台灣精品 2017  
TAIWAN EXCELLENCE



### 特點 Feature

- 標準動平衡 :G2.5 25000rpm

- Standard revolution G2.5 at 25000rpm.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	T	夾持範圍 Clamp Range	重量 (KGS) Weight
SBT40xPNER40-70	70	40	63	63	M20x2.0P	6.0~26	1.80
SBT40xPNER40-100	100	70	63	63	M20x2.0P	6.0~26	2.40
SBT50xPNER16-70	70	29	30	30	M10x1.5P	3.0~10	3.00
SBT50xPNER16-100	100	59	30	30	M10x1.5P	3.0~10	4.28
SBT50xPNER16-130	130	82	30	30	M10x1.5P	3.0~10	4.40
SBT50xPNER16-160	160	112	30	30	M10x1.5P	3.0~10	4.52
SBT50xPNER20-70	70	29	32	32	M12x1.75P	3.0~13	4.13
SBT50xPNER20-100	100	59	32	32	M12x1.75P	3.0~13	4.21
SBT50xPNER20-130	130	82	32	32	M12x1.75P	3.0~13	4.42
SBT50xPNER20-160	160	112	32	32	M12x1.75P	3.0~13	4.60
SBT50xPNER25-70	70	29	40	40	M16x2.0P	3.0~16	4.14
SBT50xPNER25-100	100	59	40	40	M16x2.0P	3.0~16	4.36
SBT50xPNER25-130	130	82	40	40	M16x2.0P	3.0~16	4.64
SBT50xPNER25-160	160	112	40	40	M16x2.0P	3.0~16	4.84
SBT50xPNER32-70	70	31	50	50	M16x2.0P	3.0~20	4.20
SBT50xPNER32-100	100	61	50	50	M16x2.0P	3.0~20	4.56
SBT50xPNER32-130	130	82	50	50	M16x2.0P	3.0~20	5.02
SBT50xPNER32-160	160	112	50	50	M16x2.0P	3.0~20	5.40
SBT50xPNER40-80	80	39	63	63	M20x2.0P	6.0~26	4.42
SBT50xPNER40-100	100	59	63	63	M20x2.0P	6.0~26	4.88
SBT50xPNER40-130	130	82	63	63	M20x2.0P	6.0~26	5.56
SBT50xPNER40-160	160	112	63	63	M20x2.0P	6.0~26	6.22

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A270-A271	A284-A285	A297





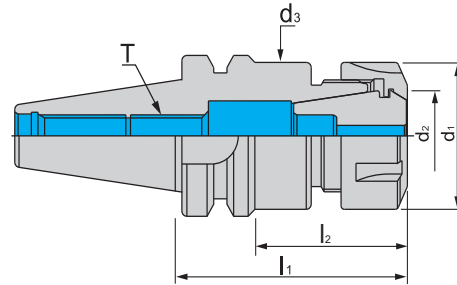
# SBT/ER 法蘭加厚型立銑刀夾頭

## DualDRIVE+ SBT/ER COLLET CHUCK

PAT.NO: M298033 PAT.NO: ZL200620132261.0  
 PAT.NO: M311791 PAT.NO: 696550  
 DIN-6388 PAT.NO: 3128766 PAT.NO: TR 2007 02945 Y  
 DIN-ISO-10897 PAT.NO: 20-0433603 PAT.NO: N.0000266731



雙面拘束 DualDRIVE+



規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	T	夾持範圍 Clamp Range	重量 (KGS) Weight
SBT30 × ER16A-50	50	27	28	16	28	M10×1.5P	Ø1~Ø10	0.50
SBT30 × ER16A-60	60	35	28	16	28	M10×1.5P	Ø1~Ø10	0.50
SBT30 × ER16A-70	70	40	28	16	28	M10×1.5P	Ø1~Ø10	0.50
SBT30 × ER16A-100	100	70	28	16	28	M10×1.5P	Ø1~Ø10	0.57
SBT30 × ER16A-120	120	93	28	16	28	M10×1.5P	Ø1~Ø10	0.70
SBT30 × ER20A-50	50	28	34	20	34	M12×1.75P	Ø1~Ø13	0.95
SBT30 × ER20A-70	70	45	34	20	34	M12×1.75P	Ø1~Ø13	0.61
SBT30 × ER20A-100	100	75	34	20	34	M12×1.75P	Ø1~Ø13	0.80
SBT30 × ER20A-135	135	110	34	20	34	M12×1.75P	Ø1~Ø13	1.15
SBT30 × ER25-70	70	46	42	25	42	M16×2.0P	Ø1~Ø16	0.68
SBT30 × ER25-135	135	111	42	25	42	M16×2.0P	Ø1~Ø16	1.47
SBT30 × ER32-70	70	48	50	32	45	M16×2.0P	Ø2~Ø20	0.69
SBT30 × ER32-100	100	78	50	32	45	M16×2.0P	Ø2~Ø20	1.04
SBT30 × ER40-80	80	58	63	40	53	M16×2.0P	Ø3~Ø26	0.94
SBT40 × ER16A-70	70	40	28	16	28	M10×1.5P	Ø1~Ø10	1.16
SBT40 × ER16A-100	100	63	28	16	28	M10×1.5P	Ø1~Ø10	1.29
SBT40 × ER16A-125	125	88	28	16	28	M10×1.5P	Ø1~Ø10	1.36
SBT40 × ER16A-150	150	103	28	16	28	M10×1.5P	Ø1~Ø10	1.50
SBT40 × ER16A-180	180	143	28	16	28	M10×1.5P	Ø1~Ø10	2.00
SBT40 × ER20A-70	70	40	34	20	34	M12×1.75P	Ø1~Ø13	1.19
SBT40 × ER20A-100	100	63	34	20	34	M12×1.75P	Ø1~Ø13	1.40
SBT40 × ER20A-135	135	98	34	20	34	M12×1.75P	Ø1~Ø13	1.69
SBT40 × ER20A-150	150	113	34	20	34	M12×1.75P	Ø1~Ø13	1.78
SBT40 × ER25-70	70	40	42	25	42	M16×2.0P	Ø1~Ø16	1.24
SBT40 × ER25-100	100	70	42	25	42	M16×2.0P	Ø1~Ø16	1.52
SBT40 × ER25-125	125	95	42	25	42	M16×2.0P	Ø1~Ø16	1.76
SBT40 × ER25-150	150	115	42	25	42	M16×2.0P	Ø1~Ø16	2.11
SBT40 × ER32-70	70	40	50	32	45	M16×2.0P	Ø2~Ø20	1.92
SBT40 × ER32-100	100	70	50	32	45	M16×2.0P	Ø2~Ø20	1.70
SBT40 × ER32-150	150	118	50	32	45	M16×2.0P	Ø2~Ø20	2.49
SBT40 × ER40-80	80	53	63	40	53	-	Ø3~Ø26	1.49
SBT40 × ER40-100	100	73	63	40	53	M20×2.0P	Ø3~Ø26	1.90
SBT40 × ER40-120	120	93	63	40	53	M20×2.0P	Ø3~Ø26	2.45
SBT40 × ER40-150	150	123	63	40	53	M20×2.0P	Ø3~Ø26	3.05
SBT40 × ER50-85	85	58	78	50	60	M24×2.0P	Ø5~Ø34	1.70
SBT40 × ER50-100	100	73	78	50	60	M24×2.0P	Ø5~Ø34	2.01

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A258	A280	A296

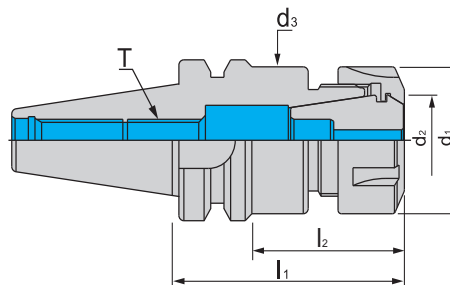


# SBT/ER 法蘭加厚型立銑刀夾頭

## DualDRIVE+ SBT/ER COLLET CHUCK

PAT.NO: M298033 PAT.NO: ZL200620132261.0  
 PAT.NO: M311791 PAT.NO: 696550  
 DIN-6388 PAT.NO: 3128766 PAT.NO: TR 2007 02945 Y  
 DIN-ISO-10897 PAT.NO: 20-0433603 PAT.NO: N.0000266731

雙面拘束 DualDRIVE+



規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	T	夾持範圍 Clamp Range	重量 (KGS) Weight
SBT50 × ER16A-70	70	28	28	16	28	M10×1.5P	Ø1~Ø10	4.10
SBT50 × ER16A-90	90	47	28	16	28	M10×1.5P	Ø1~Ø10	4.16
SBT50 × ER16A-105	105	57	28	16	28	M10×1.5P	Ø1~Ø10	4.19
SBT50 × ER16A-135	135	87	28	16	28	M10×1.5P	Ø1~Ø10	4.19
SBT50 × ER16A-150	150	102	28	16	28	M10×1.5P	Ø1~Ø10	4.50
SBT50 × ER16A-165	165	117	28	16	28	M10×1.5P	Ø1~Ø10	4.36
SBT50 × ER20A-70	70	29	34	20	34	M12×1.75P	Ø1~Ø13	4.09
SBT50 × ER20A-90	90	47	34	20	34	M12×1.75P	Ø1~Ø13	4.18
SBT50 × ER20A-105	105	57	34	20	34	M12×1.75P	Ø1~Ø13	4.22
SBT50 × ER20A-135	135	87	34	20	34	M12×1.75P	Ø1~Ø13	4.52
SBT50 × ER20A-150	150	102	34	20	34	M12×1.75P	Ø1~Ø13	4.47
SBT50 × ER20A-165	165	117	34	20	34	M12×1.75P	Ø1~Ø13	4.55
SBT50 × ER20A-200	200	152	34	20	34	M12×1.75P	Ø1~Ø13	4.90
SBT50 × ER25-70	70	29	42	25	42	M16×2.0P	Ø1~Ø16	4.16
SBT50 × ER25-105	105	57	42	25	42	M16×2.0P	Ø1~Ø16	4.45
SBT50 × ER25-135	135	87	42	25	42	M16×2.0P	Ø1~Ø16	4.57
SBT50 × ER25-165	165	117	42	25	42	M16×2.0P	Ø1~Ø16	4.89
SBT50 × ER32-80	80	39	50	32	50	M16×2.0P	Ø2~Ø20	4.21
SBT50 × ER32-100	100	57	50	32	50	M16×2.0P	Ø2~Ø20	4.46
SBT50 × ER32-120	120	72	50	32	50	M16×2.0P	Ø2~Ø20	4.66
SBT50 × ER32-150	150	102	50	32	50	M16×2.0P	Ø2~Ø20	5.01
SBT50 × ER32-200	200	152	50	32	50	M16×2.0P	Ø2~Ø20	5.71
SBT50 × ER40-80	80	39	63	40	63	M20×2.0P	Ø3~Ø26	4.26
SBT50 × ER40-100	100	57	63	40	63	M20×2.0P	Ø3~Ø26	4.71
SBT50 × ER40-120	120	72	63	40	63	M20×2.0P	Ø3~Ø26	5.05
SBT50 × ER40-135	135	87	63	40	63	M20×2.0P	Ø3~Ø26	5.36
SBT50 × ER40-150	150	102	63	40	63	M20×2.0P	Ø3~Ø26	5.76
SBT50 × ER50-90	90	49	78	50	78	M24×2.0P	Ø5~Ø34	4.45
SBT50 × ER50-120	120	79	78	50	78	M24×2.0P	Ø5~Ø34	5.40
SBT50 × ER50-165	165	124	78	50	78	M24×2.0P	Ø5~Ø34	7.10

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A258	A280	A296



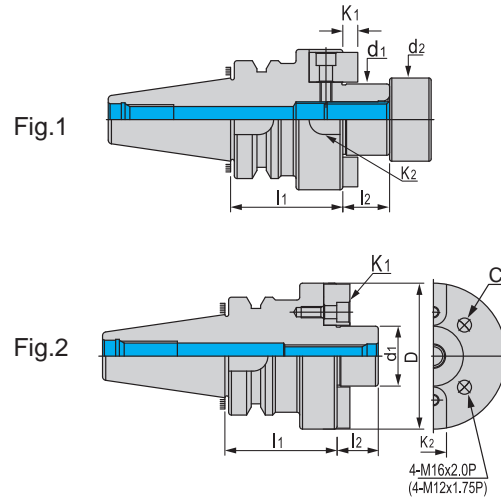


# SBT/FMA 法蘭加厚型平面銑刀柄

## DualDRIVE+ SBT/FMA FACE MILL ARBOR

SBT

雙面拘束 DualDRIVE+



規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>2</sub>	K <sub>1</sub>	K <sub>2</sub>	C	Fig.	重量 (KGS) Weight
SBT30 × FMA25.4-45	45	20	50	25.4	31.5	4.52	9.52	-	1	1.10
SBT30 × FMA25.4-60	60	20	50	25.4	31.5	4.52	9.52	-	1	1.10
SBT30 × FMA31.75-45	45	22	60	31.75	41	6.7	12.7	-	1	1.16
SBT40 × FMA25.4-45	45	20	50	25.4	31.5	4.52	9.52	-	1	1.44
SBT40 × FMA25.4-60	60	20	50	25.4	31.5	4.52	9.52	-	1	1.66
SBT40 × FMA25.4-90	90	20	50	25.4	31.5	4.52	9.52	-	1	2.18
SBT40 × FMA25.4-105	105	20	50	25.4	31.5	4.52	9.52	-	1	2.39
SBT40 × FMA31.75-45	45	22	60	31.75	41	6.7	12.7	-	1	1.52
SBT40 × FMA31.75-75	75	22	60	31.75	41	6.7	12.7	-	1	2.45
SBT40 × FMA31.75-90	90	22	60	31.75	41	6.7	12.7	-	1	2.72
SBT40 × FMA38.10-60	60	25	75	38.1	44.5	8.87	15.87	-	1	2.50
SBT40 × FMA50.80-60	60	36	98	50.8	65	9.75	19.05	-	1	2.25
SBT40 × FMA47.625-65	65	32	128.75	47.62	-	12.5	25.4	PCD Ø101.6	2	6.50
SBT50 × FMA25.4-45	45	20	50	25.4	31.5	4.52	9.52	-	1	4.21
SBT50 × FMA25.4-90	90	20	50	25.4	31.5	4.52	9.52	-	1	4.71
SBT50 × FMA25.4-150	150	20	50	25.4	31.5	4.52	9.52	-	1	5.54
SBT50 × FMA31.75-45	45	22	60	31.75	41	6.2	12.7	-	1	4.39
SBT50 × FMA31.75-75	75	22	60	31.75	41	6.7	12.7	-	1	4.89
SBT50 × FMA31.75-105	105	22	60	31.75	41	6.7	12.7	-	1	5.70
SBT50 × FMA38.10-45	45	25	80	38.1	44.5	8.87	15.87	-	1	5.20
SBT50 × FMA38.10-75	75	25	80	38.1	44.5	8.87	15.87	-	1	5.78
SBT50 × FMA50.80-45	45	36	98	50.8	65	9.75	19.05	-	1	5.70
SBT50 × FMA50.80-75	75	36	98	50.8	65	9.75	19.05	-	1	6.80
SBT50 × FMA47.62-75	75	32	128.75	47.62	-	12.5	25.4	PCD Ø101.6	2	8.82

### 選配表 Option

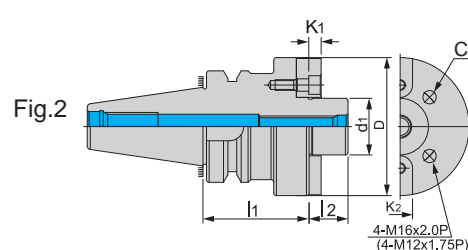
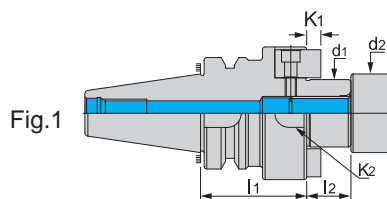




# SBT/FMB 法蘭加厚型平面銑刀柄

## DualDRIVE+ SBT/FMB FACE MILL ARBOR

雙面拘束 DualDRIVE+



規格 Spec.	$l_1$	$l_2$	D	$d_1$	$d_2$	$k_1$	$k_2$	C	Fig.	重量 (KGS) Weight
SBT30 × FMB22-45	45	19	48	22	26	4.8	10	-	1	0.82
SBT30 × FMB22-60	60	19	48	22	26	4.8	10	-	1	1.00
SBT30 × FMB27-45	45	20	60	27	31.5	5.8	12	-	1	1.06
SBT30 × FMB27-60	60	20	60	27	31.5	5.8	12	-	1	1.30
SBT30 × FMB32-45	45	22	78	32	41	6.8	14	-	1	1.62
SBT40 × FMB22-45	45	19	48	22	26	4.8	10	-	1	1.37
SBT40 × FMB22-60	60	19	48	22	26	4.8	10	-	1	1.57
SBT40 × FMB22-100	100	19	48	22	26	4.8	10	-	1	2.19
SBT40 × FMB22-150	150	19	48	22	26	4.8	10	-	1	2.87
SBT40 × FMB22-200	200	19	48	22	26	4.8	10	-	1	3.58
SBT40 × FMB27-45	45	20	60	27	31.5	5.8	12	-	1	1.56
SBT40 × FMB27-60	60	20	60	27	31.5	5.8	12	-	1	1.87
SBT40 × FMB27-90	90	20	60	27	31.5	5.8	12	-	1	2.61
SBT40 × FMB27-105	105	20	60	27	31.5	5.8	12	-	1	2.93
SBT40 × FMB32-45	45	22	78	32	41	6.8	14	-	1	1.96
SBT40 × FMB32-60	60	22	78	32	41	6.8	14	-	1	2.10
SBT40 × FMB40-60	60	25	80	40	48	8.3	16	-	1	2.80
SBT50 × FMB22-45	45	19	48	22	26	4.8	10	-	1	4.15
SBT50 × FMB22-90	90	19	48	22	26	4.8	10	-	1	4.68
SBT50 × FMB22-150	150	19	48	22	26	4.8	10	-	1	5.31
SBT50 × FMB22-200	200	19	48	22	26	4.8	10	-	1	6.06
SBT50 × FMB22-250	250	19	48	22	26	4.8	10	-	1	8.00
SBT50 × FMB22-300	300	19	48	22	26	4.8	10	-	1	10.0
SBT50 × FMB22-350	350	19	48	22	26	4.8	10	-	1	10.5
SBT50 × FMB22-400	400	19	48	22	26	4.8	10	-	1	12.5
SBT50 × FMB27-50	50	20	60	27	31.5	5.8	12	-	1	4.41
SBT50 × FMB27-90	90	20	60	27	31.5	5.8	12	-	1	5.40
SBT50 × FMB27-150	150	20	60	27	31.5	5.8	12	-	1	6.30
SBT50 × FMB27-200	200	20	60	27	31.5	5.8	12	-	1	7.42
SBT50 × FMB27-250	250	20	60	27	31.5	5.8	12	-	1	8.43
SBT50 × FMB32-50	50	22	78	32	41	6.8	14	-	1	4.69
SBT50 × FMB32-90	90	22	78	32	41	6.8	14	-	1	5.96
SBT50 × FMB40-50	50	25	89	40	48	8.3	16	-	1	5.04
SBT50 × FMB40-90	90	25	89	40	48	8.3	16	-	1	6.00
SBT50 × FMB40-105	105	25	89	40	48	8.3	16	-	1	7.20
SBT50 × FS40F-75	75	26	110	40	-	8.3	16	PCD Ø66.7	2	6.00
SBT50 × FS60F-75	75	25	138	60	-	12.5	25.4	PCD Ø101.6	2	8.49

### 選配表 Option

拉頭 Pull Stud



A290-A293



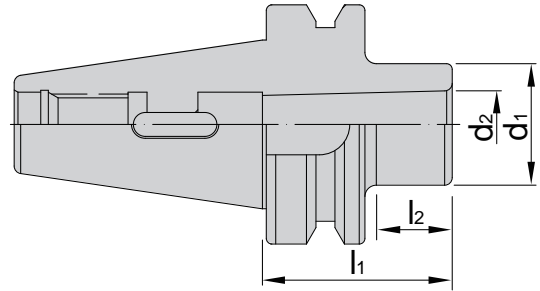
# SBT/MTA 法蘭加厚型斜柄鑽頭套筒

## DualDRIVE+ SBT/MTA MORSE TAPER ADAPTER

DIN-228-B

SBT

雙面拘束 DualDRIVE+



規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	重量 (KGS) Weight
SBT30 × MTA1-45	45	20	25	12.065	0.55
SBT30 × MTA1-105	105	78	25	12.065	0.80
SBT30 × MTA2-60	60	35	32	17.78	0.60
SBT30 × MTA2-120	120	95	25	12.065	0.90
SBT30 × MTA3-80	80	56	40	23.825	0.80
SBT40 × MTA1-45	45	15	25	12.065	1.05
SBT40 × MTA1-120	120	83	25	12.065	1.32
SBT40 × MTA2-50	50	20	32	17.78	1.10
SBT40 × MTA2-120	120	88	32	17.78	1.42
SBT40 × MTA3-70	70	38	40	23.825	1.70
SBT40 × MTA3-135	135	102	40	23.825	1.40
SBT40 × MTA4-95	95	63	48	31.267	2.00
SBT40 × MTA4-165	165	133	48	31.267	2.50
SBT50 × MTA1-45	45	2	25	12.065	3.80
SBT50 × MTA1-120	120	74	25	12.065	4.30
SBT50 × MTA1-180	180	132	25	12.065	5.00
SBT50 × MTA2-60	60	17	32	17.78	4.00
SBT50 × MTA2-135	135	89	32	17.78	4.70
SBT50 × MTA2-180	180	132	32	17.78	5.00
SBT50 × MTA3-65	65	22	40	23.825	3.90
SBT50 × MTA3-150	150	107	40	23.825	5.00
SBT50 × MTA3-180	180	132	40	23.825	5.50
SBT50 × MTA4-95	95	52	48	31.267	4.20
SBT50 × MTA4-180	180	132	48	31.267	5.50
SBT50 × MTA5-105	105	62	63	44.399	4.30

### 選配表 Option

拉頭 Pull Stud	退鑽器 Hand Drift
A290-A293	A324

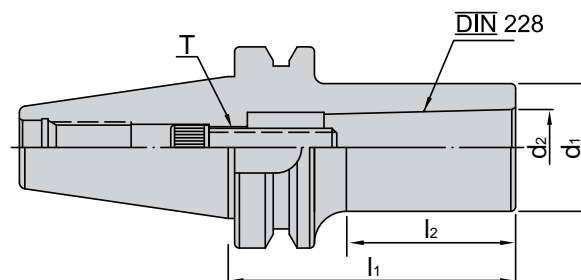


# SBT/MTB 法蘭加厚型斜柄鑽頭套筒

## DualDRIVE+ SBT/MTB MORSE TAPER ADAPTER

DIN-6364

雙面拘束 DualDRIVE+



規格 Spec.	T	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	重量 (KGS) Weight
SBT30 × MTB1-45	M6x1.0P	45	20	25	12.065	0.55
	1/4"-20	45	20	25	12.065	0.55
SBT30 × MTB2-60	M10x1.5P	60	36.5	32	17.78	0.60
	3/8"-16	60	36.5	32	17.78	0.60
SBT40 × MTB1-45	M6x1.0P	45	13	25	12.065	1.10
	1/4"-20	45	13	25	12.065	1.10
SBT40 × MTB2-45	M10x1.5P	45	13	32	17.78	1.10
	3/8"-16	45	13	32	17.78	1.10
SBT40 × MTB2-185	M10x1.5P	185	148	32	17.78	1.90
	3/8"-16	185	148	32	17.78	1.90
SBT40 × MTB3-75	M12x1.75P or 1/2"-12	75	45	40	23.825	1.30
SBT40 × MTB3-90		90	53	40	23.825	1.40
SBT40 × MTB3-120		120	83	40	23.825	1.80
SBT40 × MTB3-180		180	143	40	23.825	2.40
SBT40 × MTB4-100	M16x2.0P or 5/8"-10	100	67	48	31.267	1.60
SBT40 × MTB4-120		120	87	48	31.267	1.80
SBT40 × MTB4-180		180	147	48	31.267	2.60
SBT50 × MTB1-45	M6x1.0P	45	6	25	12.065	3.80
	1/4"-20	45	6	25	12.065	3.80
SBT50 × MTB2-45	M10x1.5P	45	5	32	17.78	3.90
	3/8"-16	45	5	32	17.78	3.90
SBT50 × MTB3-60	M12x1.75P	60	12	40	23.825	3.90
	1/2"-12	60	12	40	23.825	3.90
SBT50 × MTB4-75	M16x2.0P	75	32	48	31.267	4.20
	5/8"-11	75	32	48	31.267	4.20
SBT50 × MTB5-120	M24x3.0P	120	77	63	44.399	4.30
	1"-8	120	77	63	44.399	4.30

### 選配表 Option

拉頭 Pull Stud



A290-A293



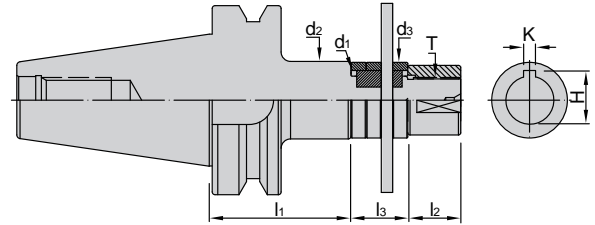
# SBT/SCA 法蘭加厚型側銑刀柄

## DualDRIVE+ SBT/SCA SIDE CUTTER ADAPTER

螺帽類型 DIN-2082-1  
Nut form DIN-2082-1  
軸襯類型 DIN-2084-B  
Bush form DIN-2084-B

SBT

雙面拘束 DualDRIVE+



### 特點 Feature

- 螺帽標準：DIN-2082-1
- 間隔環標準：DIN-2084-B

- Nut standard: DIN-2082-1
- Bush standard: DIN-2084-B

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	K	H	T	重量 (KGS) Weight
SBT30 × SCA10-60	60	12	35	10	18	18	-	-	M8x1.25P	0.80
SBT30 × SCA16-60	60	16	30	16	26	26	4	17.7	M14x1.5P	1.00
SBT30 × SCA22-60	60	22	30	22	34	34	6	24.3	M20x1.5P	1.20
SBT30 × SCA22-75	75	22	30	22	34	34	6	24.3	M20x1.5P	1.40
SBT40 × SCA16-60	60	16	30	16	26	26	4	17.7	M14x1.5P	1.50
SBT40 × SCA22-60	60	22	30	22	34	34	6	24.3	M20x1.5P	1.60
SBT40 × SCA22-75	75	22	30	22	34	34	6	24.3	M20x1.5P	1.70
SBT40 × SCA22-120	120	22	30	22	34	34	6	24.3	M20x1.5P	2.00
SBT40 × SCA27-75	75	28	30	27	41	40	7	30	M24x1.5P	2.10
SBT40 × SCA27-120	120	28	30	27	41	40	7	30	M24x1.5P	2.50
SBT40 × SCA32-90	90	32	30	32	47	47	8	35	M30x1.5P	2.60
SBT40 × SCA22.22-75	75	22	30	22.22	34	34	3.18	24.6	M20x1.5P	2.70
SBT40 × SCA22.22-120	120	22	30	22.22	34	34	3.18	24.6	M20x1.5P	2.00
SBT40 × SCA25.4-75	75	28	30	25.4	41	40	6.35	28.4	M24x1.5P	2.00
SBT40 × SCA25.4-120	120	28	30	25.4	41	40	6.35	28.4	M24x1.5P	2.40
SBT40 × SCA31.75-90	90	32	30	31.75	47	47	7.93	34.8	M30x1.5P	2.60
SBT50 × SCA22-90	90	22	30	22	34	34	6	24.3	M20x1.5P	4.40
SBT50 × SCA22-135	135	22	30	22	34	34	6	24.3	M20x1.5P	4.70
SBT50 × SCA27-90	90	28	30	27	41	40	7	30	M24x1.5P	4.60
SBT50 × SCA27-135	135	28	30	27	41	40	7	30	M24x1.5P	5.00
SBT50 × SCA32-90	90	32	30	32	47	47	8	35	M30x1.5P	4.70
SBT50 × SCA32-135	135	32	30	32	47	47	8	35	M30x1.5P	5.20
SBT50 × SCA40-90	90	40	30	40	55	55	10	43.7	M36x2.0P	5.00
SBT50 × SCA40-135	135	40	30	40	55	55	10	43.7	M36x2.0P	6.00
SBT50 × SCA22.22-90	90	22	30	22.22	34	34	3.18	24.6	M20x1.5P	4.40
SBT50 × SCA22.22-135	135	22	30	22.22	34	34	3.18	24.6	M20x1.5P	4.70
SBT50 × SCA25.4-90	90	28	30	25.4	41	40	6.35	28.4	M24x1.5P	4.50
SBT50 × SCA25.4-135	135	28	30	25.4	41	40	6.35	28.4	M24x1.5P	4.90
SBT50 × SCA31.75-90	90	32	30	31.75	47	47	7.93	34.8	M30x1.5P	4.70
SBT50 × SCA31.75-135	135	32	30	31.75	47	47	7.93	34.8	M30x1.5P	5.20
SBT50 × SCA38.1-90	90	40	30	38.1	55	55	9.525	42.4	M36x2.0P	4.90
SBT50 × SCA38.1-135	135	40	30	38.1	55	55	9.525	42.4	M36x2.0P	5.90

### 選配表 Option

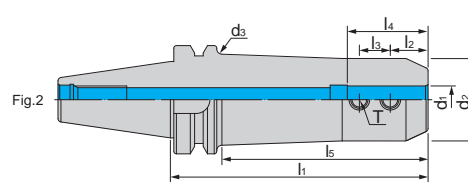
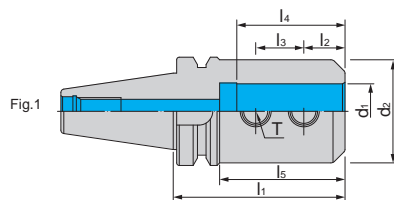




# SBT/SLN 法蘭加厚型側固式銑刀柄 (JIS 型)

## DualDRIVE+ SBT/SLN SIDE LOCK END MILL HOLDERS(JIS TYPE)

雙面拘束 DualDRIVE+



規格 Spec.	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$d_1$	$d_2$	$d_3$	T	Fig.	重量 (KGS) Weight
SBT40×SLN 6-75JIS	75	12	10	35	45	6	25	-	M6×1.0P	1	1.17
SBT40×SLN 6-150JIS	150	12	10	35	113	6	25	30	M6×1.0P	2	1.50
SBT40×SLN 8-75JIS	75	14	12	35	45	8	28	-	M8×1.25P	1	1.21
SBT40×SLN 8-150JIS	150	14	12	35	113	8	28	33	M8×1.25P	2	1.50
SBT40×SLN10-75JIS	75	15	14	39	45	10	35	-	M10×1.5P	1	1.35
SBT40×SLN10-150JIS	150	15	14	39	118	10	35	40	M10×1.5P	2	1.50
SBT40×SLN12-75JIS	75	20	16	44	45	12	42	-	M10×1.5P	1	1.50
SBT40×SLN12-150JIS	150	20	16	44	118	12	42	47	M10×1.5P	2	1.70
SBT40×SLN16-75JIS	75	22	18	47	45	16	48	-	M10×1.5P	1	1.58
SBT40×SLN16-150JIS	150	22	18	47	120	16	48	53	M10×1.5P	2	2.75
SBT40×SLN20-90JIS	90	25	20	55	60	20	50	-	M12×1.75P	1	1.77
SBT40×SLN20-150JIS	150	25	20	55	120	20	52	57	M12×1.75P	2	1.80
SBT40×SLN25-90JIS	90	24	25	58	60	25	50	-	M12×1.75P	1	1.92
SBT40×SLN32-100JIS	100	24	28	63	73	32	60	-	M16×2.0P	1	2.30
SBT50×SLN 6-75JIS	75	12	10	35	31	6	25	-	M6×1.0P	1	4.04
SBT50×SLN 8-75JIS	75	14	12	35	27	8	28	-	M8×1.25P	1	4.06
SBT50×SLN10-75JIS	75	15	14	39	32	10	35	-	M10×1.5P	-	3.90
SBT50×SLN12-90JIS	90	20	16	44	42	12	42	-	M10×1.5P	-	4.35
SBT50×SLN12-165JIS	165	20	16	44	124	12	42	47	M10×1.5P	2	5.05
SBT50×SLN16-90JIS	90	22	18	47	42	16	48	-	M10×1.5P	1	4.53
SBT50×SLN16-165JIS	165	22	18	47	117	16	48	53	M10×1.5P	2	5.50
SBT50×SLN20-90JIS	90	25	20	55	49	20	50	-	M12×1.75P	1	4.53
SBT50×SLN20-165JIS	165	25	20	55	117	20	50	57	M12×1.75P	2	5.67
SBT50×SLN20-210JIS	210	25	20	55	162	20	50	57	M12×1.75P	2	6.40
SBT50×SLN25-100JIS	100	24	25	68	59	25	50	57	M12×1.75P	1	4.58
SBT50×SLN25-165JIS	165	24	25	68	117	25	50	57	M12×1.75P	2	5.55
SBT50×SLN25-210JIS	210	24	25	68	169	25	50	57	M12×1.75P	2	6.25
SBT50×SLN25-250JIS	250	24	25	68	202	25	50	60	M12×1.75P	2	7.10
SBT50×SLN32-105JIS	105	24	28	73	64	32	60	-	M16×2.0P	1	4.89
SBT50×SLN32-165JIS	165	24	28	73	117	32	60	65	M16×2.0P	1	6.33
SBT50×SLN32-210JIS	210	24	28	73	162	32	60	60	M16×2.0P	2	6.34
SBT50×SLN32-250JIS	250	24	28	73	207	32	50	60	M16×2.0P	2	7.50
SBT50×SLN32-300JIS	300	24	28	73	257	32	60	65	M16×2.0P	2	8.00
SBT50×SLN40-115JIS	115	30	32	85	74	40	90	-	M20×2.0P	1	6.60
SBT50×SLN42-120JIS	120	30	32	85	79	42	90	-	M20×2.0P	1	6.73
SBT50×SLN42-210JIS	210	30	32	85	-	42	70	75	M20×2.0P	2	7.80
SBT50×SLN50-120JIS	120	35	35	90	82	50	90	-	M20×2.0P	1	5.28
● SBT50×SLN50.8-120JIS	120	33.9	35.78	90	82	50.8	90	-	M20×2.0P	1	6.61

●有插梢 With pin

### 選配表 Option

拉頭 Pull Stud



A290-A293

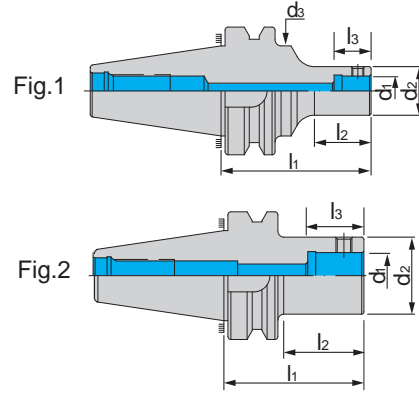


# SBT/MCK 法蘭加厚型搪孔刀柄

## DualDRIVE+ SBT/MCK BORING HEAD SHANK

雙面拘束 DualDRIVE+

細牙 Fine Teeth



### 特點 Feature

- 內孔公差 H6
- 整支通孔，利於出水及抗震
- 可共用並互容於大多數 "CK" 系列
- 側邊鎖固螺絲與鍵槽呈 90 度，確保搪孔切削完畢時的相對位置
- 鎖固時請使用螺絲防卡油防止因搪孔加工扭力過大，導致螺絲卡死難以拆卸組裝

- Internal tolerance is H6.
- The tool holder is through-one, which is better for water to get through and vibration resistance.
- Sharing and mutual tolerance in most of the "CK" series.
- Side of the locking screw and keyway is 90 degrees, to ensure that the relative position of the conclusion of the boring cutting.
- Locking screw preventing oil to prevent excessive torque due to boring processing, resulting in death is difficult to remove the assembly screws card.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	側邊螺絲 Screw	Fig.	重量 (KGS) Weight
SBT30-MCK1-55	55	28	18	11	19	-	M4x0.5P	2	0.70
SBT30-MCK1-70	70	43	18	11	19	-	M4x0.5P	2	0.80
SBT30-MCK2-60	60	33	18.5	14	23.5	-	M5x0.5P	2	0.80
SBT30-MCK2-75	75	48	18.5	14	23.5	-	M5x0.5P	2	0.80
SBT30-MCK2-80	80	53	18.5	14	23.5	-	M5x0.5P	2	0.81
SBT30-MCK3-50	50	26	24	18	31	-	M6x0.75P	2	0.90
SBT30-MCK3-80	80	56	24	18	31	-	M6x0.75P	2	0.95
SBT30-MCK4-60	60	37	22	22	39	-	M8x0.75P	2	1.00
SBT30-MCK4-70	70	47	29	22	39	-	M8x0.75P	2	1.00
SBT30-MCK5-70	70	47	35	28	50	-	M10x1.0P	2	1.10
SBT30-MCK6-60	60	38	42	36	63	-	M12x1.0P	2	1.20
SBT40-MCK1-100	100	51	18	11	19	44.45	M4x0.5P	1	1.48
SBT40-MCK1-115	115	66	18	11	19	44.45	M4x0.5P	1	1.30
SBT40-MCK2-75	75	28	18.5	14	23.5	44.45	M5x0.75P	1	1.14
SBT40-MCK2-85	85	38	18.5	14	23.5	44.45	M5x0.75P	1	1.24
SBT40-MCK2-115	115	68	18.5	14	23.5	44.45	M5x0.75P	1	1.30
SBT40-MCK3-80	80	48	24	18	31	-	M6x0.75P	2	1.22
SBT40-MCK3-95	95	63	24	18	31	-	M6x0.75P	2	1.32
SBT40-MCK3-125	125	93	24	18	31	-	M6x0.75P	2	1.40
SBT40-MCK3-155	155	123	24	18	31	-	M6x0.75P	2	1.42
SBT40-MCK4-70	70	40	28	22	39	-	M8x0.75P	2	1.50
SBT40-MCK4-100	100	70	28	22	39	-	M8x0.75P	2	1.56
SBT40-MCK4-130	130	98	28	22	39	-	M8x0.75P	2	1.66
SBT40-MCK4-175	175	143	28	22	39	-	M8x0.75P	2	1.76
SBT40-MCK5-60	60	30	35	28	50	-	M10x1.0P	2	1.30
SBT40-MCK5-80	80	51	35	28	50	-	M10x1.0P	2	1.60
SBT40-MCK5-125	125	96	35	28	50	-	M10x1.0P	2	1.70
SBT40-MCK5-175	175	146	35	28	50	-	M10x1.0P	2	1.90
SBT40-MCK6-55	55	28	42	36	63	-	M12x1.0P	2	2.15
SBT40-MCK6-65	65	38	42	36	63	-	M12x1.0P	2	2.20
SBT40-MCK6-115	115	88	42	36	63	-	M12x1.0P	2	2.40
SBT40-MCK6-165	165	138	42	36	63	-	M12x1.0P	2	2.50

### 選配表 Option

拉頭 Pull Stud	延長桿 Extension Spacer	搪頭 Boring Head					
A290-A293	A345-346	A329	A337	A386	A356	A366	A369

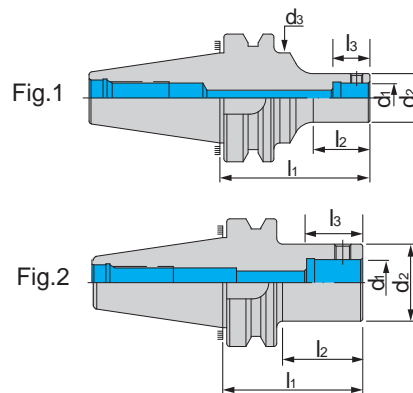


# SBT/MCK 法蘭加厚型搪孔刀柄

## DualDRIVE+ SBT/MCK BORING HEAD SHANK

雙面拘束 DualDRIVE+

細牙 Fine Teeth



### 特點 Feature

- 內孔公差 H6
- 整支通孔，利於出水及抗震
- 可共用並互容於大多數 "CK" 系列
- 側邊鎖固螺絲與鍵槽呈 90 度，確保搪孔切削完畢時的相對位置
- 鎖固時請使用螺絲防卡油防止因搪孔加工扭力過大，導致螺絲卡死難以拆卸組裝

- Internal tolerance is H6.
- The tool holder is through-one, which is better for water to get through and vibration resistance.
- Sharing and mutual tolerance in most of the "CK" series.
- Side of the locking screw and keyway was 90 degrees, to ensure that the relative position of the conclusion of the boring cutting.
- Locking screw preventing oil to prevent excessive torque due to boring processing, resulting in death is difficult to remove the assembly screws card.

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	側邊螺絲 Screw	Fig.	重量 (KGS) Weight
SBT50-MCK1-105	105	38	18	11	19	69.85	M4x0.5P	1	3.90
SBT50-MCK1-115	115	48	18	11	19	69.85	M4x0.5P	1	3.90
SBT50-MCK1-145	145	78	18	11	19	69.85	M4x0.5P	1	4.00
SBT50-MCK2-105	105	39	18.5	14	23.5	69.85	M5x0.5P	1	4.00
SBT50-MCK2-135	135	67	18.5	14	23.5	69.85	M5x0.5P	1	4.10
SBT50-MCK2-140	140	72	18.5	14	23.5	69.85	M5x0.5P	1	4.10
SBT50-MCK3-110	110	62	24	18	31	-	M6x0.75P	2	4.40
SBT50-MCK3-140	140	92	24	18	31	-	M6x0.75P	2	4.60
SBT50-MCK3-155	155	107	24	18	31	-	M6x0.75P	2	4.60
SBT50-MCK4-100	100	52	28	22	39	-	M8x0.75P	2	4.80
SBT50-MCK4-160	160	112	28	22	39	-	M8x0.75P	2	5.20
SBT50-MCK4-175	175	127	28	22	39	-	M8x0.75P	2	5.30
SBT50-MCK4-205	205	205	28	22	39	-	M8x0.75P	2	5.40
SBT50-MCK5-90	90	42	35	28	50	-	M10x1.0P	2	5.40
SBT50-MCK5-105	105	57	35	28	50	-	M10x1.0P	2	5.60
SBT50-MCK5-165	165	117	35	28	50	-	M10x1.0P	2	6.20
SBT50-MCK5-210	210	162	35	28	50	-	M10x1.0P	2	6.40
SBT50-MCK5-240	240	192	35	28	50	-	M10x1.0P	2	6.60
SBT50-MCK5-300	300	252	35	28	50	-	M10x1.0P	2	6.80
SBT50-MCK6-85	85	37	42	36	63	-	M12x1.0P	2	5.90
SBT50-MCK6-155	155	107	42	36	63	-	M12x1.0P	2	6.50
SBT50-MCK6-215	215	167	42	36	63	-	M12x1.0P	2	6.90
SBT50-MCK6-250	250	212	42	36	63	-	M12x1.0P	2	7.00
SBT50-MCK6-300	300	262	42	36	63	-	M12x1.0P	2	7.20
SBT50-MCK6-350	350	312	42	36	63	-	M12x1.0P	2	7.40
SBT50-MCK7-180	180	139	52	46	90	-	M12x1.0P	2	5.00
SBT50-MCK7-330	330	289	52	46	90	-	M12x1.0P	2	12.5

### 選配表 Option

拉頭 Pull Stud	延長桿 Extension Spacer	搪頭 Boring Head					
A290-A293	A345-346	A329	A337	A386	A356	A366	A369



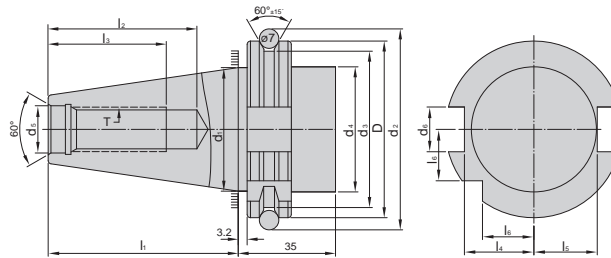
# DAT

Precision Tool Holder Systems

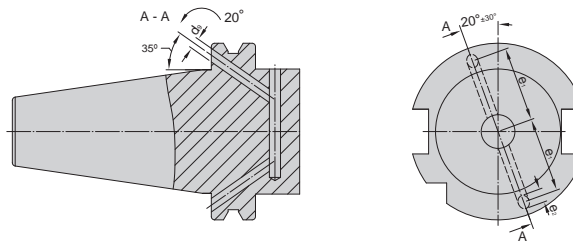




DIN69871/DAT A



DIN 69871/DAT AD+B



規格 Spec.	D 0 -0.1	d <sub>1</sub>	d <sub>2</sub> ±0.05	d <sub>3</sub> 0 -0.5	d <sub>4</sub> Max.	d <sub>5</sub> H7	d <sub>6</sub> H12	d <sub>7</sub>	l <sub>1</sub> 0 -0.3	l <sub>2</sub> min.	l <sub>3</sub> min.	l <sub>4</sub> 0 -0.4	l <sub>5</sub> 0 -0.5	l <sub>6</sub> 0 -0.3	e <sub>1</sub> ±0.1	e <sub>2</sub> max.	T
DAT30	50	31.75	59.30	44.30	45	13	16.1	4	47.8	33.5	24	19	16.4	15	21	5	M12
DAT40	63.55	44.45	72.30	56.25	50	17	16.1	4	68.4	42.5	32	25	22.8	18.5	27	5	M16
DAT50	97.50	69.85	107.25	91.25	80	25	25.7	6	101.75	61.5	47	37.7	35.5	30	42	7	M24

1. 錐度精度 : <AT3
2. 硬度 : >HRC 56°
3. 滲碳深度 : >0.8mm
4. 真圓度 : < 0.8µm
5. 表面粗糙度 : Ra < 0.25µm

1. Taper tolerance < AT3.
2. Hardness > HRC 56°
3. Carbon depth > 0.8mm.
4. Roundness < 0.8µm.
5. Surface roughness : Ra < 0.25µm

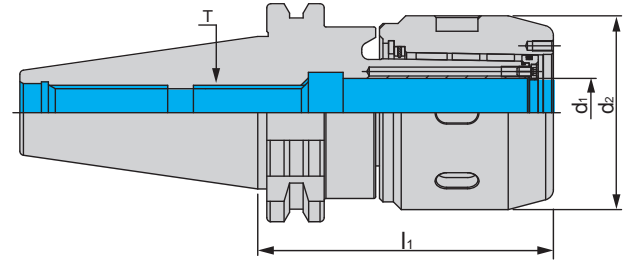


# DAT/MLD 直式筒夾銑床夾頭

## DAT/MLD MULTI-LOCK MILLING CHUCK

PAT NO. M447277  
PAT NO. M430337

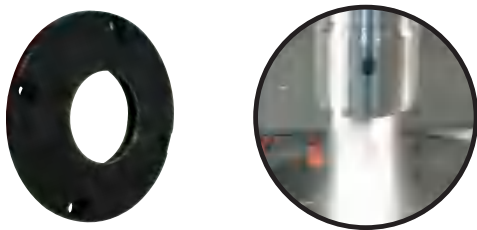
DIN  
69871



### 特點 Feature

- 內孔特殊溝槽設計，防止所夾持刀具脫刀滑落，可以割斷附著油膜，不會有脫刀現象產生，提高了使用的安全性
- 刀桿本體厚，可產生充分的夾持力。採用滾針軸承原理設計，滾動摩擦及脫落減到最小，裝置操作省力便捷
- 螺帽與刀桿端面鎖固後，緊貼牢靠，提高剛性並徹底的防塵
- 偏擺精度 :0.001~0.005 以內，真圓度 :0.02mm
- MLD20、MLD-3/4、MLK20 扳手共用
- MLD25、EOC25、MLK25 扳手共用
- MLD32、MLD-1-1/4、MLK32 扳手共用

- There is a special design for the slots of internal hole. It prevents the cutting tools from slipping and increases the clamping power.
- The body of the tool holder is thick, so it has good clamping power. It adopts the needle bearing design to prevent the slipping. The operation is convenient and easy.
- After locking the cutting tool (The tolerance of the cutting tool must be less than h6), it is more contacted with the flange while locking the clamping nut and tool holder. It can prevent the bearing cage from deformation easily. Also, rigidity and dust-proof function is improved.
- Run-out: Within 0.001~0.005mm. Concentricity: 0.02mm.
- MLD20 and MLD-3/4、MLK20 spanner can be used in common.
- MLD25 and EOC25、MLK25 spanner can be used in common.
- MLD32 and MLD-1-1/4、MLK32 spanner can be used in common.



使用 MLD 止水環可使冷卻液從刀具排出，利於散熱及有效排屑  
When using MLD sealed cap, the coolant fluid discharges from the cutting tool. It's good for heat dissipation and metal chips removal.

規格 Spec.	$l_1$	$d_1$	$d_2$	T	重量 (KGS) Weight
DAT30 x MLD20 - 85	85	20	56.5	M12x1.75P	1.90
DAT30 x MLD20 - 100	100	20	56.5	M12x1.75P	2.10
DAT40 x MLD20 - 85	85	20	56.5	M16x2.0P	2.40
DAT40 x MLD20 - 135	135	20	56.5	M16x2.0P	2.50
DAT40 x MLD32 - 105	105	32	71	M16x2.0P	2.70
DAT40 x MLD32 - 135	135	32	71	M16x2.0P	3.00
DAT50 x MLD20 - 105	105	20	56.5	M24x3.0P	4.50
DAT50 x MLD20 - 150	150	20	56.5	M16x2.0P	4.90
DAT50 x MLD32 - 105	105	32	71	M24x3.0P	5.10
DAT50 x MLD32 - 135	135	32	71	M16x2.0P	5.90

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	扳手 Spanner	止水端蓋 Sealed Cap
A290-A293	A277	A299	A288



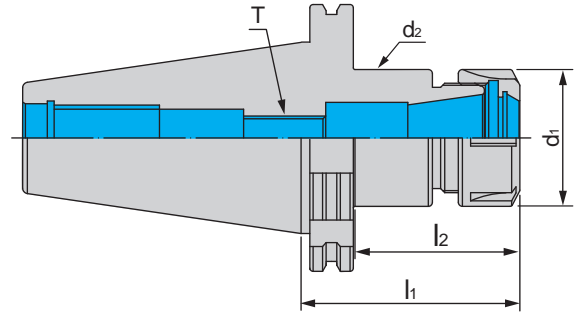
# DAT/ER 立銑刀夾頭

## DAT/ER COLLET CHUCK

DIN ISO-15488  
 PAT NO. M298033  
 PAT NO. M311791  
 PAT.NO. ZL200620132661.0

DIN  
 69871

DAT



### 特點 Feature

- 筒夾樣式有彈性、止水、剛性攻牙、伸縮攻牙、極小內孔、燒結式熱膨脹可供選擇
- 彈性筒夾偏擺精度有標準級 (0.02mm 以內) · A 級 (0.01mm 以內) · UP(0.005mm 以內)
- 螺帽預設動平衡設計 · 可在 RPM10,000 下使用
- 整支通孔 · 利於出水及抗震
- 如需擋刀螺絲可另外指定
- 裝置時筒夾必須先置入螺帽 · 再裝入刀具 · 接著鎖固入本體
- 刀具置入筒夾內孔 · 必須超出筒夾內孔有效夾持長度 · 避免不當鎖固 · 造成損壞
- 務必使用正確扳手來裝置不可任意改變 · 避免不當鎖固 · 造成損壞

- There are various features for collet, like flexibility, water sealed, rigid tapping, extend tapping, minimized inner hole, shrink-fitting for your selection.
- The ER collet has three kinds of classes for precision : general class 0.02mm, A class 0.01mm, and UP class 0.05mm.
- The pre-balance can reach 10000rpm.
- The tool holder is through-hole, which is better for waterto get through and vibration resistance.
- Additional selection if stop screw is needed.
- When using, please put the collet into the nut and then put them into the body together.
- It must exceed the effective clamping length of collet when inserting the cutter into collet to avoid the improper lock & damage.
- Please use the right wrench on installation to avoid the improper lock and damage.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	T	使用筒夾 Collet	夾持範圍 Size Range	重量 (KGS) Weight
DAT40 × ER11A - 80	80	50	19	19	M6×1.0P	ER11	1~7	1.05
DAT40 × ER11A - 125	125	95	19	19	M6×1.0P	ER11	1~7	1.15
DAT40 × ER16A - 70	70	40	28	28	M10×1.5P	ER16	1~10	1.30
DAT40 × ER16A - 100	100	70	28	28	M10×1.5P	ER16	1~10	1.40
DAT40 × ER16A - 125	125	95	28	28	M10×1.5P	ER16	1~10	1.60
DAT40 × ER16A - 150	150	120	28	28	M10×1.5P	ER16	1~10	1.65
DAT40 × ER16A - 180	180	150	28	28	M10×1.5P	ER16	1~10	1.85
DAT40 × ER20A - 70	70	47	34	34	M12×1.75P	ER20	1~13	1.40
DAT40 × ER20A - 100	100	70	34	34	M12×1.75P	ER20	1~13	1.50
DAT40 × ER20A - 135	135	105	34	34	M12×1.75P	ER20	1~13	1.95
DAT40 × ER20A - 160	160	130	34	34	M12×1.75P	ER20	1~13	2.20
DAT40 × ER25 - 70	70	50	42	42	M16×2.0P	ER25	1~16	1.60
DAT40 × ER25 - 100	100	80	42	42	M16×2.0P	ER25	1~16	1.85
DAT40 × ER25 - 150	150	130	42	42	M16×2.0P	ER25	1~16	2.25
DAT40 × ER25 - 180	180	160	42	42	M16×2.0P	ER25	1~16	2.45
DAT40 × ER25 - 200	200	180	42	42	M16×2.0P	ER25	1~16	2.55
DAT40 × ER32 - 70	70	50	50	49.7	M16×2.0P	ER32	2~20	1.22
DAT40 × ER32 - 100	100	80	50	49.5	M16×2.0P	ER32	2~20	1.64
DAT40 × ER32 - 135	135	115	50	49.7	M16×2.0P	ER32	2~20	2.15
DAT40 × ER32 - 150	150	130	50	49.7	M16×2.0P	ER32	2~20	2.65
DAT40 × ER40 - 70	70	50	63	50	M20×2.0P	ER40	3~26	1.50
DAT40 × ER40 - 100	100	80	63	50	M20×2.0P	ER40	3~26	2.00
DAT40 × ER40 - 135	135	115	63	50	M20×2.0P	ER40	3~26	3.30
DAT40 × ER50 - 100	100	80	78	64	M24×2.0P	ER50	5~34	1.70

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A258	A280	A296

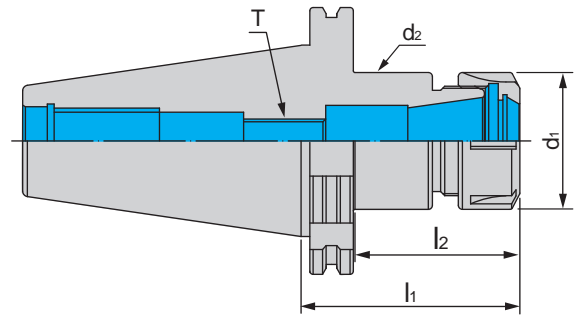


# DAT/ER 立銑刀夾頭

## DAT/ER COLLET CHUCK

DIN ISO-15488  
 PAT NO. M298033  
 PAT NO. M311791  
 PAT.NO. ZL200620132661.0  
 DIN 69871

DAT



### 特點 Feature

- 筒夾樣式有彈性、止水、剛性攻牙、伸縮攻牙、極小內孔、燒結式熱膨脹可供選擇
- 彈性筒夾偏擺精度有標準級 (0.02mm 以內) · A 級 (0.01mm 以內) · UP(0.005mm 以內)
- 螺帽預設動平衡設計 · 可在 RPM10,000 下使用
- 整支通孔 · 利於出水及抗震
- 如需擋刀螺絲可另外指定
- 裝置時筒夾必須先置入螺帽 · 再裝入刀具 · 接著鎖固入本體
- 刀具置入筒夾內孔 · 必須超出筒夾內孔有效夾持長度 · 避免不當鎖固 · 造成損壞
- 務必使用正確扳手來裝置不可任意改變 · 避免不當鎖固 · 造成損壞

- There are various features for collet, like flexibility, water sealed, rigid tapping, extend tapping, minimized inner hole, shrink-fitting for your selection.
- The ER collet has three kinds of classes for precision : general class 0.02mm, A class 0.01mm, and UP class 0.05mm.
- The pre-balance can reach 10000rpm.
- The tool holder is through-hole, which is better for waterto get through and vibration resistance.
- Additional selection if stop screw is needed.
- When using, please put the collet into the nut and then put them into the body together.
- It must exceed the effective clamping length of collet when inserting the cutter into collet to avoid the improper lock & damage.
- Please use the right wrench on installation to avoid the improper lock and damage.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	T	使用筒夾 Collet	夾持範圍 Clamp Range	重量 (KGS) Weight
DAT50 × ER16A - 100	100	70	28	28	M10×1.5P	ER16	1~10	3.20
DAT50 × ER16A - 135	135	105	28	28	M10×1.5P	ER16	1~10	4.30
DAT50 × ER16A - 160	160	130	28	28	M10×1.5P	ER16	1~10	4.50
DAT50 × ER16A - 180	180	150	28	28	M10×1.5P	ER16	1~10	4.80
DAT50 × ER20A - 100	100	70	34	34	M12×1.75P	ER20	1~13	3.40
DAT50 × ER20A - 135	135	105	34	34	M12×1.75P	ER20	1~13	3.60
DAT50 × ER20A - 160	160	130	34	34	M12×1.75P	ER20	1~13	3.80
DAT50 × ER25 - 70	70	40	42	42	M16×2.0P	ER25	1~16	3.40
DAT50 × ER25 - 100	100	70	42	42	M16×2.0P	ER25	1~16	4.15
DAT50 × ER25 - 150	150	120	42	42	M16×2.0P	ER25	1~16	4.50
DAT50 × ER25 - 200	200	170	42	42	M16×2.0P	ER25	1~16	4.70
DAT50 × ER32 - 80	80	50	50	50	M20×2.0P	ER32	2~20	3.60
DAT50 × ER32 - 120	120	90	50	50	M20×2.0P	ER32	2~20	3.93
DAT50 × ER32 - 160	160	130	50	50	M20×2.0P	ER32	2~20	4.75
DAT50 × ER32 - 200	200	170	50	50	M20×2.0P	ER32	2~20	4.90
DAT50 × ER40 - 80	80	50	63	60	M20×2.0P	ER40	3~26	3.65
DAT50 × ER40 - 120	120	90	63	60	M20×2.0P	ER40	3~26	4.80
DAT50 × ER40 - 160	160	130	63	60	M20×2.0P	ER40	3~26	5.20
DAT50 × ER40 - 200	200	170	63	60	M20×2.0P	ER40	3~26	5.40
DAT50 × ER50 - 80	80	57	78	-	M24×2.0P	ER50	5~34	4.85
DAT50 × ER50 - 120	120	99	78	78	M24×2.0P	ER50	5~34	5.45
DAT50 × ER50 - 160	160	139	78	78	M24×2.0P	ER50	5~34	5.55
DAT50 × ER50 - 200	200	179	78	78	M24×2.0P	ER50	5~34	5.70

### 選配表 Option

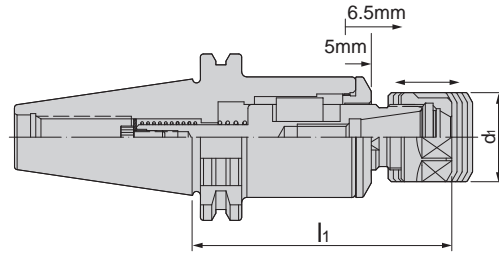
拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A258	A280	A296



## DAT 伸縮 ER 攻牙器 DAT EXPANSION ER TAPPER

DIN ISO-15488  
PAT NO. M298033  
PAT NO. M311791  
PAT.NO. ZL200620132661.0  
DIN 69871

DAT



### 特點 Feature

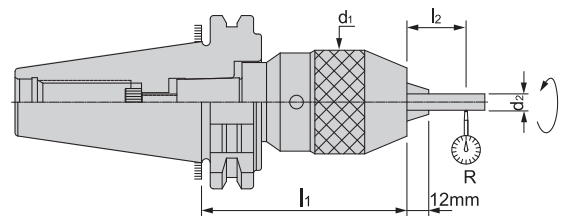
- 伸長 6.5mm · 收縮 5mm
- 搭配剛性攻牙筒夾 · 使用效果大增

- Elongates 6.5mm, contracts 5mm.
- Match the rigid tap collets, the effect greatly to increase.

規格 Spec.	$l_1$	$d_1$	使用筒夾 Collet	攻牙能力 Capacity	重量 (KGS) Weight
DAT40 × ETP16A-120	120	28	ER16	M3~M10	1.65
DAT40 × ETP16A-150	150	28	ER16	M3~M10	1.85
DAT40 × ETP20A-100	100	34	ER20	M3~M16	1.50
DAT40 × ETP20A-150	150	34	ER20	M3~M16	1.90
DAT40 × ETP20M-200	200	28	ER20	M3~M16	2.15
DAT40 × ETP32 -120	120	50	ER32	M3~M27	2.10
DAT50 × ETP16A-120	120	28	ER16	M3~M10	4.30
DAT50 × ETP16A-150	150	28	ER16	M3~M10	4.50
DAT50 × ETP20A-100	100	34	ER20	M3~M16	4.30
DAT50 × ETP20A-150	150	34	ER20	M3~M16	4.60
DAT50 × ETP20M-200	200	28	ER20	M3~M16	4.70
DAT50 × ETP32 -120	120	50	ER32	M3~M27	4.65



## DAT/SPU 直結式鑽夾頭 DAT/SPU DRILL CHUCK ADAPTER



### 特點 Feature

- 直結式設計 · 提高使用效果
- SPU 偏精度為 0.04mm · 如需更高精度要求 · 請使用 ER 或 SKS 系列

- The series type design, enhances the use effect.
- The SPU leaning precision is 0.04mm, like the need high accuracy request, please use ER or the SKS series.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	夾持範圍 Clamp Range		R	重量 (KGS) Weight
					mm	inch		
DAT40 × SPU8-75	75	55	37	6	1~8	1/24~5/16	0.04	1.35
DAT40 × SPU13-100	100	75	50	13	1~13	1/24~1/2	0.04	1.94
DAT40 × SPU16-115	115	80	57	16	3~16	1/8~5/8	0.04	2.33
DAT50 × SPU8-75	75	55	37	6	1~8	1/24~5/16	0.04	3.43
DAT50 × SPU13-100	100	75	50	13	1~13	1/24~1/2	0.04	4.40
DAT50 × SPU16-105	105	80	57	16	3~16	1/8~5/8	0.04	4.73

- 附扳手 Attaches the spanner.

### 選配表 Option

拉頭 Pull Stud



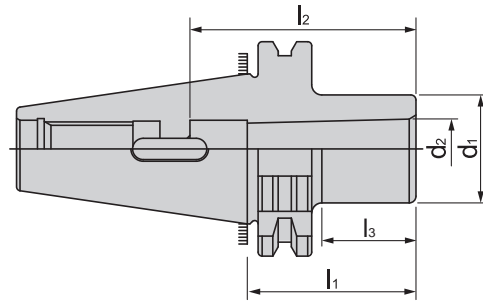
A291/A294



## DAT 斜柄鑽頭套筒 DAT MORSE TAPER ADAPTER

DIN 228-2  
DIN 6383

DIN  
69871



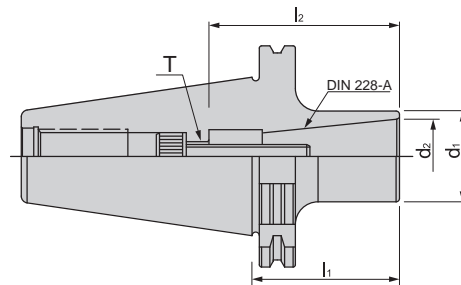
DAT

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	重量 (KGS) Weight
DAT40 × MTA1 - 50	50	56	22	25	12.065	1.20
DAT40 × MTA2 - 50	50	67	27	32	17.78	1.00
DAT40 × MTA3 - 70	70	84	47	40	23.825	1.10
DAT40 × MTA4 - 95	95	107	74	48	31.267	1.35
DAT50 × MTA1 - 45	45	56	22	25	12.065	3.00
DAT50 × MTA2 - 60	60	67	35	32	17.78	3.10
DAT50 × MTA2-135	135	67	-	32	17.78	4.70
DAT50 × MTA3 - 65	65	84	40	40	23.825	3.20
DAT50 × MTA3-150	150	84	-	40	23.825	5.00
DAT50 × MTA4 - 95	95	107	70	48	31.267	3.40
DAT50 × MTA5 - 105	105	133	80	63	44.399	3.60



## DAT 斜柄鑽頭套筒 DAT MORSE TAPER ADAPTER

DIN 228-2  
DIN 6383



### 特點 Feature

- 高精密的運作過程，即使長時間鑽孔，同心圓仍然在 0.015mm 之內

-High accurate working process.Even though using prolonged drill,the concentricity is still within 0.015mm.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	T	重量 (KGS) Weight
DAT40 × MTB2 - 45	45	67	32	17.78	M10X1.5P	0.96
DAT40 × MTB3 - 75	75	84	40	23.825	M12X1.75P	1.30
DAT40 × MTB4 - 100	100	107	48	31.267	M16X2.0P	1.50
DAT50 × MTB2 - 45	45	67	32	17.78	M10X1.5P	3.90
DAT50 × MTB3 - 65	65	84	40	23.825	M12X1.75P	4.02
DAT50 × MTB4 - 75	75	107	48	31.267	M16X2.0P	4.20
DAT50 × MTB4 - 95	95	107	48	31.267	M16X2.0P	4.40
DAT50 × MTB5 - 105	105	135	63	44.399	M24X3.0P	4.25

### 選配表 Option

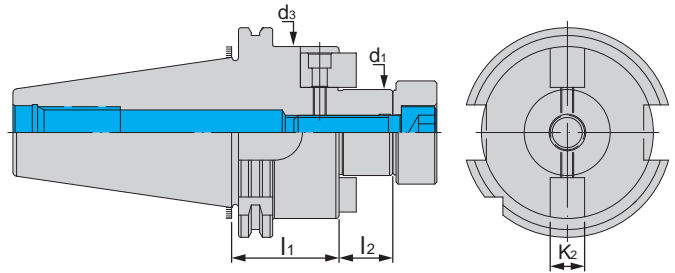
拉頭 Pull Stud	退鑽器 Hand Drift
	
A291/A294	A324



## DAT 平面銑刀柄 DAT FACE MILL ARBOR(TYPE FMA)

DIN  
69871

DAT



### 特點 Feature

- 平面銑刀配合部位 (d1) · 軸系公差 h6
- 預設動平衡達 G6.3 8000rpm · 不含檢測報告
- 若需更好的動平衡 · 須另外加價

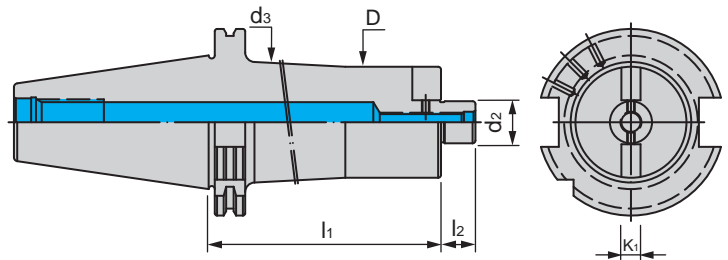
- d1 tolerance is h6.
- Dynamic balancing G6.3 at 8000rpm, without an inspection report.
- The balancing grade and revolution can be done according to customer request but the additional charge is needed.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_3$	$k_2$	重量 (KGS) Weight
DAT50 × FMA31.75-50	50	22	31.75	60	12.7	4.80
DAT50 × FMA38.1-100	100	25	38.1	80	15.875	6.70



## DAT/FMB 平面銑刀柄 (加長斜度柄) DAT/FMB FACE MILL ARBOR(EXTENSION TYPE)

DIN 6537-B



### 特點 Feature

- 平面銑刀配合部位 (d1) · 軸系公差 h6
- 預設動平衡達 G6.3 8000rpm · 不含檢測報告
- 若需更好的動平衡 · 須另外加價

- d1 tolerance is h6.
- Dynamic balancing G6.3 at 8000rpm, without an inspection report.
- The balancing grade and revolution can be done according to customer request but the additional charge is needed.

規格 Spec.	$l_1$	$l_2$	D	$d_1$	$d_2$	$d_3$	$k_1$	重量 (KGS) Weight
DAT50 × FMB22-100BG	100	19	58	22	23	62.5	10	2.50
DAT50 × FMB22-150BG	150	19	58	22	23	62.5	10	2.90
DAT50 × FMB22-200BG	200	19	58	22	23	62.5	10	6.74
DAT50 × FMB22-250BG	250	19	58	22	23	62.5	10	7.30
DAT50 × FMB22-300BG	300	19	58	22	23	62.5	10	5.40

### 選配表 Option





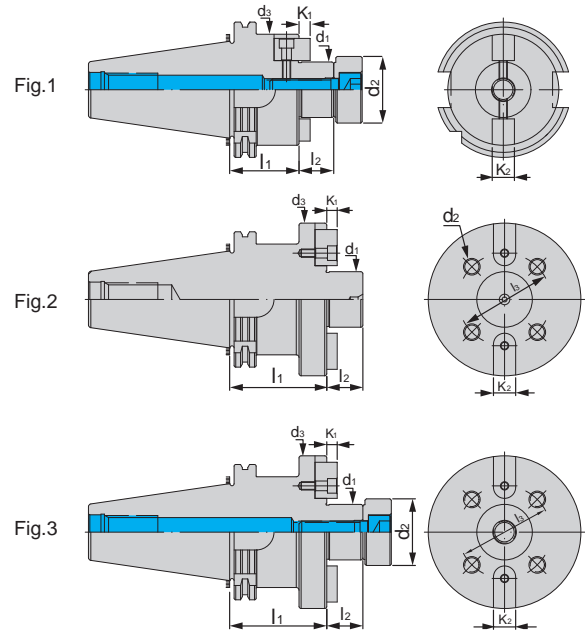


# DAT 平面銑刀柄

## DAT FACE MILL ARBOR(TYPE FMB)

DIN 6357-B  
DIN 69871

DAT



### 特點 Feature

- 平面銑刀配合部位 (d1) · 軸系公差 h6
- 預設動平衡達 G6.3 8000rpm · 不含檢測報告
- 若需更好的動平衡 · 須另外加價

- d1 tolerance is h6.
- The pre-balance can reach G6.3 8,000 rpm, without an inspection report.
- The balancing grade and revolution can be done according to customer request but the additional charge is needed.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	$k_1$	$k_2$	Fig.	重量 (KGS) Weight
DAT40 × FMB22-35	35	19	22	26	48	4.8	10	1	1.20
DAT40 × FMB22-60	60	19	22	26	48	4.8	10	1	1.50
DAT40 × FMB22-100	100	19	22	26	48	4.8	10	1	2.12
DAT40 × FMB22-150	150	19	22	26	48	4.8	10	1	1.80
DAT40 × FMB27-60	60	20	27	31.5	58	5.8	12	1	1.80
DAT40 × FMB32-60	60	22	32	41	66	6.8	14	1	2.30
DAT40 × FMB40-60	60	25	40	48	80	8.3	16	1	2.80
DAT50 × FMB22-35	35	19	22	26	48	4.8	10	1	3.40
DAT50 × FMB22-75	75	19	22	26	48	4.8	10	1	3.72
DAT50 × FMB22-90	90	19	22	26	48	4.8	10	1	3.86
DAT50 × FMB22-150	150	19	22	26	48	4.8	10	1	4.90
DAT50 × FMB22-200	200	19	22	26	48	4.8	10	1	5.30
DAT50 × FMB27-35	35	20	27	31.5	60	5.8	12	1	3.50
DAT50 × FMB32-35	35	22	32	41	66	6.8	14	1	3.70
DAT50 × FMB40-50	50	25	40	48	80	8.3	16	1	4.63
DAT50 × FMB50-60	60	30	50	68	95	9.7	19	1	5.80
DAT40 × FMB40F-60	60	30	40	M12	89	8.3	16	2	2.90
DAT50 × FMB40F-70	70	30	40	M12	89	8.3	16	2	5.50
DAT50 × FMB60F-70	70	40	60	M16	129	12.5	25.4	2	5.70
DAT40 × FS40 -60	60	26	40	50	110	8.3	16	3	3.20
DAT50 × FS40 -70	70	26	40	50	110	8.3	16	3	5.70
DAT50 × FS60 -70	70	25	60	M16	140	12.5	25.4	3	5.50

### 選配表 Option



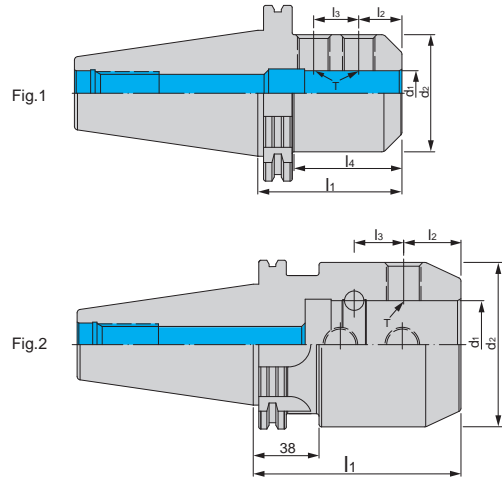


# DAT 側固式立銑刀柄

## DAT SIDE LOCK END MILL HOLDER

DIN 1835  
DIN 69871

DAT



### 特點 Feature

- 孔徑公差 H5
- 預設動平衡達 G6.3 8000rpm · 不含檢測報告
- 若需更好的動平衡 · 須另外加價

- Internal hole tolerance is H5.
- Dynamic balancing G6.3 at 8000rpm, without an inspection report.
- The balancing grade and revolution can be done according to customer request but the additional charge is needed.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	d <sub>1</sub>	d <sub>2</sub>	T	Fig.	重量 (KGS) Weight
DAT40 × SLN6-50	50	18	-	27	6	25	M6×1.0P	1	0.97
DAT40 × SLN8-50	50	18	-	27	8	28	M8×1.25P	1	1.00
DAT40 × SLN10-50	50	20	-	27	10	35	M10×1.5P	1	1.04
DAT40 × SLN12-50	50	22.5	-	30	12	42	M12×1.75P	1	1.15
DAT40 × SLN16-63	63	24	-	43	16	48	M14×2.0P	1	1.40
DAT40 × SLN20-63	63	25	-	43	20	52	M16×2.0P	1	1.30
DAT40 × SLN25-100	100	24	25	80	25	65	M18×2.0P	1	2.40
DAT40 × SLN32-100	100	24	28	80	32	72	M20×2.0P	1	2.70
DAT50 × SLN6-63	63	18	-	33	6	25	M6×1.0P	1	3.10
DAT50 × SLN8-63	63	18	-	33	8	28	M8×1.25P	1	3.10
DAT50 × SLN10-63	63	20	-	33	10	35	M10×1.5P	1	3.30
DAT50 × SLN12-63	63	22.5	-	40	12	42	M12×1.75P	1	3.35
DAT50 × SLN16-63	63	24	-	40	16	48	M14×2.0P	1	3.45
DAT50 × SLN20-63	63	25	-	40	20	52	M16×2.0P	1	3.47
DAT50 × SLN25-80	80	24	25	59	25	65	M18×2.0P	1	4.20
DAT50 × SLN32-100	100	24	28	78	32	72	M20×2.0P	1	4.88
DAT50 × SLN40-100	100	30	32	80	40	90	M20×2.0P	1	5.60
DAT50 × SLN42-100	100	30	32	80	42	90	M20×2.0P	1	5.70
DAT50 × SLN50-125	125	35	35	105	50	100	M24×2.0P	1	5.90
DAT50 × SLN63-150	150	40	40	130	63	125	M20×2.0P	1	6.20
DAT50 × SLN63-150	150	40	24	130	63	125	M16×2.0P	2	6.20

### 選配表 Option

拉頭 Pull Stud



A291/A294

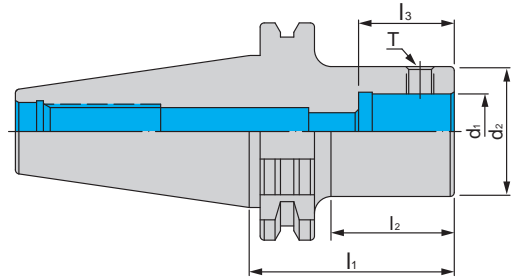


# DAT/MCK 搪孔刀柄

## DAT/MCK BORING HEAD SHANK

DIN  
69871

DAT



### 特點 Feature

- 內孔公差 H6
- 整支通孔，利於出水及抗震
- 可共用並互容於大多數 "CK" 系列
- 側邊鎖固螺絲與鍵槽呈 90 度，確保搪孔切削機能時的退刀相位
- 鎖固時請使用螺絲防卡油防止因搪孔加工扭力過大，導致螺絲卡死難以拆卸組裝

- Internal tolerance is H6.
- The tool holder is through-one, which is better for water to get through and vibration resistance.
- Compatible on most "CK" series
- 90 degree between the slide lock screw & notch, ensure the correct position of cutter when the cutter go back.
- Due to big boring torque, please apply the grease when screwing to avoid the screw jammed shut.

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	T	重量 (KGS) Weight
DAT30 × MCK1-50	50	27.9	15	11	19	M4x0.5P	0.60
DAT30 × MCK2-65	65	42.9	18.5	14	23.5	M5x0.5P	0.70
DAT30 × MCK3-50	50	27.9	22	18	31	M6x0.75P	0.80
DAT30 × MCK4-50	50	27.9	28	22	39	M8x0.75P	1.30
DAT40 × MCK1-80	80	50.9	18	11	19	M4x0.5P	1.00
DAT40 × MCK1-95	95	65.9	18	11	19	M4x0.5P	1.05
DAT40 × MCK2-80	80	50.9	18.5	14	23.5	M5x0.5P	1.10
DAT40 × MCK2-110	110	80.9	18.5	14	23.5	M5x0.5P	1.15
DAT40 × MCK3-90	90	65.9	24	18	31	M6x0.75P	1.20
DAT40 × MCK3-125	125	100.9	24	18	31	M6x0.75P	1.25
DAT40 × MCK4-80	80	55.9	28	22	39	M8x0.75P	1.30
DAT40 × MCK4-110	110	85.9	28	22	39	M8x0.75P	1.35
DAT40 × MCK5-95	95	75.4	35	28	50	M10x1.0P	1.40
DAT40 × MCK5-110	110	90.4	35	28	50	M10x1.0P	1.45
DAT40 × MCK6-65	65	45.4	42	36	63	M12x1.0P	1.50
DAT40 × MCK6-95	95	75.4	42	36	63	M12x1.0P	1.55
DAT50 × MCK1-110	110	80.9	18	11	19	M4x0.5P	3.10
DAT50 × MCK1-125	125	95.9	18	11	19	M4x0.5P	3.15
DAT50 × MCK2-95	95	65.9	18.5	14	23.5	M5x0.5P	3.20
DAT50 × MCK2-125	125	95.9	18.5	14	23.5	M5x0.5P	3.25
DAT50 × MCK3-125	125	95.9	24	18	31	M6x0.75P	3.30
DAT50 × MCK3-155	155	125.9	24	18	31	M6x0.75P	3.35
DAT50 × MCK4-110	110	80.9	28	22	39	M8x0.75P	3.40
DAT50 × MCK4-125	125	95.9	28	22	39	M8x0.75P	3.45
DAT50 × MCK5-65	65	35.9	35	28	50	M10x1.0P	3.50
DAT50 × MCK5-140	140	110.9	35	28	50	M10x1.0P	3.55
DAT50 × MCK6-140	140	110.9	42	36	63	M12x1.0P	3.60
DAT50 × MCK6-170	170	140.9	42	36	63	M12x1.0P	3.65
DAT50 × MCK7-95	95	60	52	46	90	M20x1.5P	5.00

### 選配表 Option

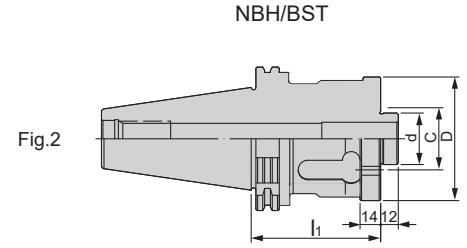
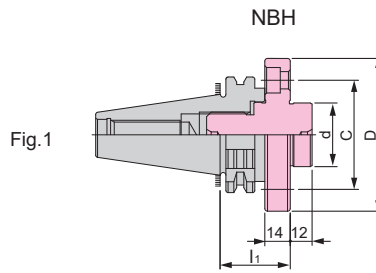
拉頭 Pull Stud	延長桿 Extension Spacer	搪頭 Boring Head					
A291/A294	A345-346	A329	A337	A386	A356	A366	A369



# DAT/NBH DAT/BST 搪孔刀柄 DAT BORING HEAD SHANK(PRECISION)

DIN  
69871

DAT



## 特點 Feature

- 孔徑公差 H5
- 預設動平衡達 G6.3 8000rpm · 不含檢測報告
- 若需更好的動平衡 · 須另外加價

- Internal hole tolerance is H5.
- Dynamic balancing G6.3 at 8000rpm, without an inspection report.
- The balancing grade and revolution can be done according to customer request but the additional charge is needed.

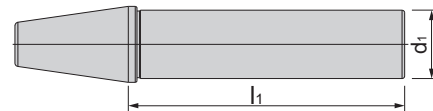
規格 Spec.	$l_1$	D	d	C	Fig.	重量 (KGS) Weight
DAT40×NBH2084A	35	84	35	PCD.Ø60 4-M8 x 1.25P	1	1.70
DAT50×NBH2084A	35	84	35		1	3.50
FR60×NBH2084	14	84	35	PCD.Ø60	-	-
DAT40×NBH2084B-100	100	84	35	PCD.Ø60 4-M8 x 1.25P	2	2.00
DAT50×NBH2084B-100	100	84	35		2	4.00
DAT50×NBH2084B-200	200	84	35		2	11.00
DAT50×BST-100	100	95	50	PCD.Ø72 4-Ø13	2	5.60
DAT50×BST-150	150	95	50		2	4.00
DAT50×BST-200	200	95	50		2	8.75
DAT50×BST-250	250	95	50		2	9.76
DAT50×BST-350	350	95	50		2	12.8
DAT50×BST-400	400	95	50		2	14.0

## 選配表 Option

拉頭 Pull Stud	搪頭 Boring Head					
A291/A294	A332	A340	A358	A367	A370	A393



# 測試棒 TEST BAR



## 特點 Feature

- 皆通過真圓度測試機 · 精確檢驗通過
- 附精度檢驗表

- Have passed the roundness testing machine, exact test passed.
- With precision test table.

	錐度精度 Taper Precision	AT2
	真圓度 Roundness	0.001mm
	表面粗糙度 Surface Roughness	Ra<0.4
	同心度 Concentricity	0.005mm

規格 Spec.	$l_1$	$d_1$	同心度 Concentricity	真圓度 Roundness	重量 (KGS) Weight
DAT40 - TS300L	300	40	0.005	0.001	3.00

※ DAT30 與 BT30 共用 ; DAT50 與 BT50 共用 DAT30 and BT30 can be used in common. DAT50 and BT50 can be used in common.

# CAT

Precision Tool Holder Systems





# CAT 精密刀桿系列

## CAT PRECISION TOOL HOLDER SERIES

ANSI  
B5.50

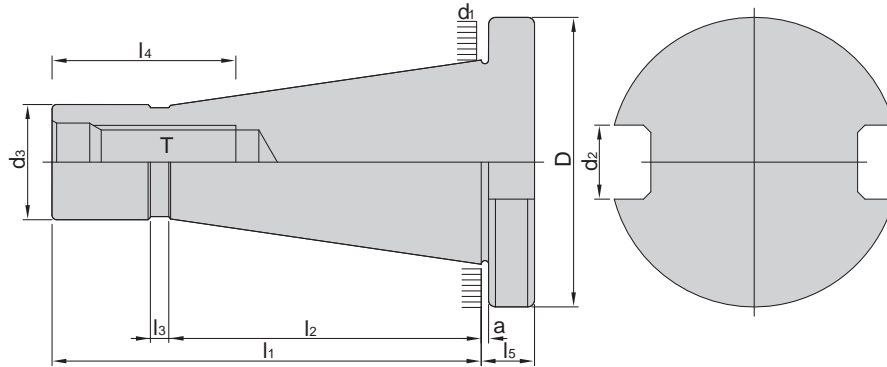
CAT

<p>CAT/EOC</p> 	<p>CAT/ER</p> 	<p>M 型 CAT/ER</p> 	<p>CAT/SPU</p> 
<p>CAT/SPH</p> 	<p>CAT/JTA</p> 	<p>CAT/MTA</p> 	<p>CAT/FMA</p> 
<p>CAT/SLN</p> 	<p>CAT/TG</p> 	<p>CAT/ETP</p> 	<p>CAT/MLD</p> 
<p>CAT/SBL</p> 	<p>CAT/SKS</p> 	<p>CAT/OSL</p> 	<p>CAT/OHER</p> 
<p>CAT/SOM</p> 	<p>CAT 套筒</p> 	<p>※ 詳細規格歡迎來電洽詢 Please feel free to contact us for more detailed spec.</p>	

# NT

## Precision Tool Holder Systems





規格 Spec.	D 0 -0.4	d <sub>1</sub>	d <sub>2</sub> H12	d <sub>3</sub> max.	a ±0.2	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub> ±0.15	T
NT30	50	31.75	16.1	17.04	1.6	68.4	48.4	3	24	8	1/2"-12W, M12×1.75P, 1/2"-13UNC
NT40	63	44.45	16.1	24.92	1.6	93.4	65.4	5	32	10	5/8"-11W, M16×2.0P
NT50	97.5	69.85	25.7	39.19	3.2	126.8	101.8	8	47	12	1"-8W, M24×3.0P

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. 錐度精度 : &lt;AT3</li> <li>2. 硬度 : &gt;HRC 56°</li> <li>3. 滲碳深度 : &gt;0.8mm</li> <li>4. 真圓度 : &lt; 0.8μm</li> <li>5. 表面粗糙度 : Ra &lt; 0.25μm</li> <li>6. 本體規範 : DIN 2080</li> <li>7. 刀桿有預設標準動平衡 G6.3 , 可另外指定精密動平衡 G2.5</li> </ol> | <ol style="list-style-type: none"> <li>1.Taper tolerance &lt; AT3.</li> <li>2.Hardness &gt; HRC 56°</li> <li>3.Carbon depth &gt; 0.8mm.</li> <li>4.Roundness &lt; 0.8μm.</li> <li>5.Surface roughness : Ra &lt; 0.25μm</li> <li>6. Shank body standard : DIN 2080</li> <li>7.The shank has pre-balance at G6.3,and can provide percision balance at G2.5,made by request.</li> </ol> |
|---|--|





## NT/MLC 直式筒夾銑床夾具組

NT/MLC STRAIGHT COLLET MULTI-LOCK COLLET CHUCK FULL SET

DIN  
2080



NT

※ 訂購前請確認本體拉桿牙數為公制或英制 Please in front DRAW BAR'S size when purchasing holder.

規格 Spec.	內容物 Contents		重量 (KGS) Weight
	內附筒夾 Collet	本體拉桿牙數 Draw Bar	
NT30 × MLC20 × 5PCS	6, 8, 10, 12, 16mm	M12×1.75P, 1/2"W12	3.50
NT40 × MLC32 × 7PCS	6, 8, 10, 12, 16, 20, 25mm	M16×2.0P, 5/8"W11	4.10
NT50 × MLC32 × 7PCS		M24×3.0P, 1"W8	6.30
NT50 × MLC42 × 8PCS	6, 8, 10, 12, 16, 20, 25, 32mm	M24×3.0P, 1"W8	13.50

規格 Spec.	型式 No.	重量 (KGS) Weight
NT30 × MLC20	本體	1.90
NT40 × MLC32		2.30
NT50 × MLC32		4.20
NT50 × MLC42		4.14
MLC20-W		扳手
MLC32-W	0.38	
MLC42-W	0.33	

規格 Spec.	筒夾內徑 d	重量 (KGS) Weight
SSC-20	6, 8, 10, 12, 16	0.10
SSC-32	6, 8, 10, 12, 16, 20, 25	0.30
SSC-32	3, 4, 5, 14, 18, 24, 1/8, 1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 1"	0.30
SSC-42	6, 8, 10, 12, 16, 20, 25, 32	0.60
SSC-42	1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 1"	0.60

- 附扳手 Attaches the spanner.



## EOC/OZ 銑床夾頭組

EOC/OZ MILLING CHUCK SET



規格 Spec.	內容物 Contents		重量 (KGS) Weight
	內附筒夾 Collet	本體牙數 Draw Bar	
MTB2 × EOC25 × 7M × SYOZ	SYOZ25-6, 8, 10, 12, 16, 20, 25mm	3/8"W16 · M10×1.5P	3.40
MTB3 × EOC25 × 7M × SYOZ		1/2"W12 · M12×1.75P	3.80
MTB4 × EOC25 × 7M × SYOZ		5/8"W11 · M16×2.0P	4.00
R8 × EOC25 × 7M × SYOZ		7/16"NF20	3.70
NT30 × EOC25 × 7M × SYOZ		1/2"W12 · M12×1.75P	3.44
NT40 × EOC25 × 7M × SYOZ		5/8"W11 · M16×2.0P	3.75
NT50 × EOC25 × 7M × SYOZ		1"W8 · M24×3.0P	6.20

- 附扳手 Attaches the spanner.



# EOC/OZ 銑床夾頭組

## EOC/OZ MILLING CHUCK SET

DIN 6388  
DIN-ISO-10897

DIN  
2080



MT

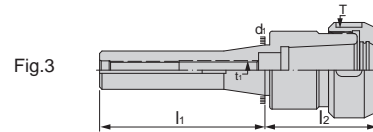
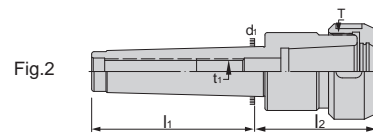
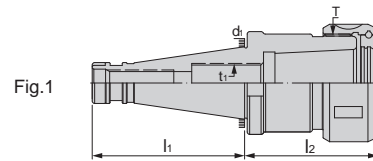
規格 Spec.	內容物 Contents		重量 (KGS) Weight
	內附筒夾 Collet Set	本體牙數 Draw Bar	
MTB4 × EOC32 × 8M × B	6, 8, 10, 12, 16, 20, 25, 32mm	5/8"W11 or M16 × 2.0P	6.50
MTB5 × EOC32 × 8M × B		1"W8 or M24 × 3.0P	9.07
NT40 × EOC32 × 8M × B		5/8"W11 or M16 × 2.0P	6.50
NT50 × EOC32 × 8M × B		1"W8 or M24 × 3.0P	9.45
MTB4 × EOC32 × 16M × B	5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 20, 25, 32mm	5/8"W11 or M16 × 2.0P	10.70
MTB5 × EOC32 × 16M × B		1"W8 or M24 × 3.0P	12.3
NT40 × EOC32 × 16M × B		5/8"W11 or M16 × 2.0P	10.80
NT50 × EOC32 × 16M × B		1"W8 or M24 × 3.0P	12.7

- 附扳手 Attaches the spanner.



# EOC 立銑刀夾頭

## EOC COLLET CHUCK



規格 Spec.	$l_1$	$l_2$	$d_1$	$t_1$	T	Fig.	重量 (KGS) Weight
MTB3 × EOC25	81	63	23.825	M12×1.75P	M48×2.0P	2	1.40
MTB4 × EOC25	102.5	59.5	31.267	M16×2.0P	M48×2.0P	2	1.55
R8 × EOC25	102	61	31.75	M12×1.75P	M48×2.0P	3	1.55
NT30 × EOC25	68.4	59.6	31.75	M12×1.75P	M48×2.0P	1	1.19
NT40 × EOC25	93.4	54.6	44.45	M16×2.0P	M48×2.0P	1	1.65
NT50 × EOC25	126.8	58.2	69.85	M24×2.0P	M48×2.0P	1	3.45
MTB4 × EOC32	102.5	71.5	31.267	M16×2.0P	M60×2.5P	2	2.25
MTB5 × EOC32	129.5	70.5	44.399	M24×2.0P	M60×2.5P	2	2.45
NT40 × EOC32	93.4	81.6	44.45	M24×2.0P	M60×2.5P	1	2.25
NT50 × EOC32	126.8	70	69.85	M24×2.0P	M60×2.5P	1	3.95

- 附扳手 Attaches the spanner.



# ER 銑床夾頭組

## ER MILLING CHUCK SET

DIN 6388  
DIN-ISO-10897  
PAT NO.M296033  
PAT NO.M311791  
PAT NO.ZL200620132661.0

DIN  
2080



- 套裝價格小徑筒夾不另加價
- 套裝價格 =(筒夾 × 數量)+ 包裝盒 + 扳手 + 本體
- 下訂單前請先決定拉桿規格及筒夾數量

- Collets of small sizes in the whole set are not added price.
- Whole set = (ER collet × Q'ty)+spanner+body+box.
- Please inform us the DRAW BARs size when making an order.

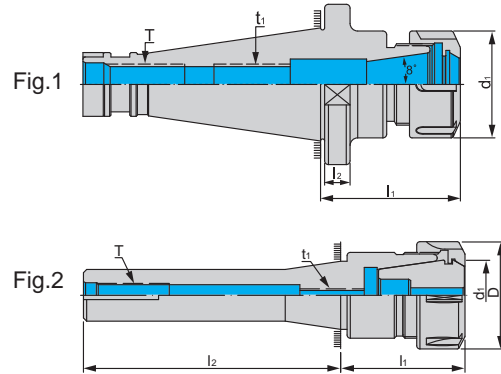
規格 Spec.	內容物 Contents		重量 (KGS) Weight
	內附筒夾 Collet	本體牙數 Draw Bar	
MTB3 × ER32 × 6PCS	6, 8, 10, 12, 16, 20mm	M12×1.75P, 1/2"W12	2.50
MTB4 × ER32 × 6PCS		M16×2.0P, 5/8"W11	2.70
R8 × ER32 × 6PCS		7/16" NF20	2.60
NT30 × ER32 × 6PCS		M12×1.75P, 1/2"W12	6.00
MTB3 × ER40 × 7PCS	6, 8, 10, 12, 16, 20, 25mm	M12×1.75P, 1/2"W12	4.10
MTB4 × ER40 × 7PCS		M16×2.0P, 5/8"W11	4.10
R8 × ER40 × 7PCS		7/16" NF20	4.00
NT30 × ER40 × 7PCS		M12×1.75P, 1/2"W12	4.10
NT40 × ER40 × 7PCS		M16×2.0P, 5/8"W11	3.90
MTB3 × ER32 × 18PCS	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20mm	M12×1.75P, 1/2"W12	4.00
MTB4 × ER32 × 18PCS		M16×2.0P, 5/8"W11	4.20
R8 × ER32 × 18PCS		7/16" NF20	4.00
NT30 × ER32 × 18PCS		M12×1.75P, 1/2"W12	4.00
NT40 × ER32 × 18PCS		M16×2.0P, 5/8"W11	4.30
MTB4 × ER40 × 23PCS	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26mm	M16×2.0P, 5/8"W11	8.45
R8 × ER40 × 23PCS		7/16" NF20	8.30
NT30 × ER40 × 23PCS		M12×1.75P, 1/2"W12	8.00
NT40 × ER40 × 23PCS		M16×2.0P, 5/8"W11	8.50
NT50 × ER40 × 23PCS		M24×3.0P, 1"W8	11.25
NT40 × ER50 × 17PCS	6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34mm	M16×2.0P, 5/8"W11	9.20
NT50 × ER50 × 17PCS		M24×3.0P, 1"W8	11.95
MTB3 × ER40 × 15PCS	4, 5, 6, 8, 10, 12, 13, 15, 16, 18, 20, 21, 23, 25, 26mm	M12×1.75P, 1/2"W12	6.45
MTB4 × ER40 × 15PCS		M16×2.0P, 5/8"W11	8.45
R8 × ER40 × 15PCS		7/16" NF20	6.30
NT30 × ER40 × 15PCS		M12×1.75P, 1/2"W12	8.00
NT40 × ER40 × 15PCS		M16×2.0P, 5/8"W11	6.45
NT50 × ER40 × 15PCS		M24×3.0P, 1"W8	9.30



# NT/ER 銑床夾頭柄 NT/ER COLLET HOLDER

DIN 6388  
DIN-ISO-10897  
PAT NO.M298033  
PAT NO.M311791  
PAT NO.ZL200620132661.0

DIN  
2080



## 特點 Feature

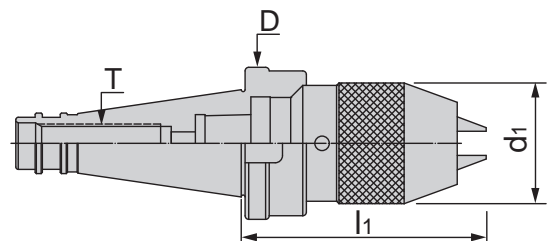
- NT 本體後端有塑膠套環設計，有效的保護機器主軸避免碰傷
- 訂購前請先確認本體拉桿牙數為公制或英制

- At the end of body, there's a plastic ring protecting the spindle form damage.
- Please inform DRAW BAR's size when purchasing holder.

規格 Spec.	$l_1$	$l_2$	$d_1$	$t_1$	T	Fig.	重量 (KGS) Weight
NT30×ER16A -45	45	8	28	M10×1.5P	M12×1.75P 或 1/2"×W12	1	0.50
NT30×ER20A -45	45	8	34	M12×1.75P		1	0.60
NT30×ER25 -55	55	8	42	M16×2.0P		1	0.65
NT30×ER32 -60	60	8	50	M16×2.0P		1	0.80
NT30×ER40 -75	75	8	63	M16×2.0P		1	0.90
NT40×ER16A -45	45	10	28	M10×1.5P	M16×2.0P 或 5/8"×W11	1	0.95
NT40×ER20A -45	45	10	34	M12×1.75P		1	0.88
NT40×ER25 -55	55	10	42	M16×2.0P		1	1.25
NT40×ER32 -60	60	10	50	M16×2.0P		1	1.09
NT40×ER40 -70	70	10	63	M20×2.0P		1	1.35
NT40×ER50 -80	80	10	78	M24×2.0P	M24×3.0P 或 1"×W24	1	2.00
NT50×ER32 -75	75	12	50	M16×2.0P		1	3.20
NT50×ER40 -80	80	12	63	M20×2.0P		1	3.40
NT50×ER50 -80	80	12	78	M24×2.0P	7/16" NF20	1	3.70
R8×ER16A -38	38	102	16	M10×1.5P		2	0.65
R8×ER32 -60	60	102	32	M12×1.75P		2	0.90
R8×ER40 -65	65	102	40	M16×2.0P	2	1.15	



# 直結式鑽夾頭 DRILL CHUCK INTEGRATED TYPE



規格 Spec.	$l_1$	D	$d_1$	T	重量 (KGS) Weight
NT30×SPU13-100	100	49	50	M12×1.75P	1.50
NT40×SPU13-90	90	63	50	M16×2.0P	1.85
NT50×SPU13-120	120	97.5	50	M24×3.0P	3.80

- 附扳手 Attaches the spanner.

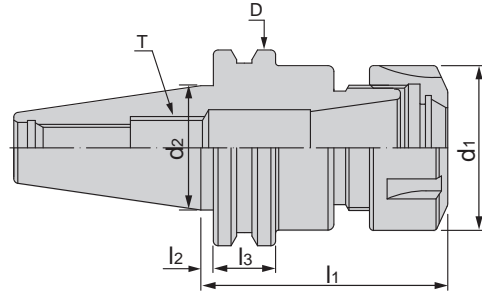
# ISO

## Precision Tool Holder Systems





## ISO/ER 立銑刀夾頭 ISO/ER COLLET CHUCK(FOR W/OUT SLOTS)



### 特點 Feature

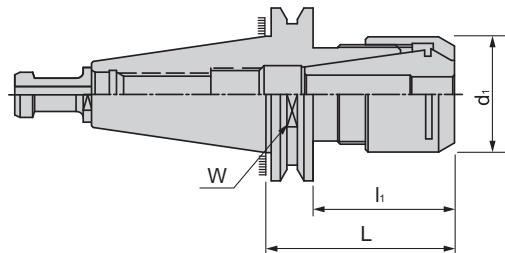
- 無鍵槽適用於高轉速下使用
- 動平衡校正 G2.5 36000rpm

- Is suitable without the key solt under the high speed uses.
- Dynamic balancing G2.5 at 36000rpm.

規格 (無鍵槽) Spec.	$l_1$	$l_2$	$l_3$	D	$d_1$	$d_2$	夾持範圍 Clamp Range	T	重量 (KGS) Weight
ISO20×ER11A-52	52	2	8	33	19	21.642	1~7	M6×1.0P	0.55
ISO20×ER16AD-52	52	2	8	30	28	21.642	1~10	M10×1.5P	0.22
ISO20×ER20AD-52	52	2	8	30	34	21.642	1~13	M12×1.75P	0.25
ISO25×ER11A-52	52	2.95	8	37	19	24.91	1~7	M6×1.0P	0.60
ISO25×ER16A-52	52	2.95	8	37	28	24.91	1~10	M10×1.5P	0.65
ISO25×ER20A-52	52	2.95	8	37	34	24.91	1~13	M12×1.75P	0.70
ISO30×ER11A-80	80	3.2	15.9	50	19	31.75	1~7	M6×1.0P	0.70
ISO30×ER16A-63	63	3.2	15.9	50	28	31.75	1~10	M10×1.5P	0.57
ISO30×ER20A-63	63	3.2	15.9	50	34	31.75	1~13	M12×1.75P	0.62
ISO30×ER25-63	63	3.2	15.9	50	42	31.75	1~16	M16×2.0P	0.67
ISO30×ER32-63	63	3.2	15.9	50	50	31.75	2~20	M16×2.0P	0.68
ISO30×ER40-57	57	3.2	15.9	50	63	31.75	3~26	M16×2.0P	1.00



## ISO/ER 高速刀把 ISO/ER HIGH SPEED COLLET CHUCK



### 特點 Feature

- 標準動平衡 G2.5 40000rpm

- Dynamic balancing G2.5 at 40000rpm.

規格 Spec.	L	$l_i$	$d_1$	W	扳手 Spanner	螺帽 Nut	重量 (KGS) Weight
ISO20×ER16M-35HG	35	27.2	22	ISO20-W	ER16-MHG-W	ER16-MHG	-
ISO25×ER16M-36HG	36	27.2	22	ISO25-W	ER16-MHG-W	ER16-MHG	-
ISO25×ER20M-36HG	36	27.2	28	ISO25-W	ER20-MHG-W	ER20-MHG	0.20
ISO30×ER16M-60HG	60	40.9	22	ISO30-W	ER16-MHG-W	ER16-MHG	-
ISO30×ER20M-60HG	60	40.9	28	ISO30-W	ER20-MHG-W	ER20-MHG	-
ISO30×ER25M-60HG	60	40.9	35	ISO30-W	ER25-MHG-W	ER25-MHG	-

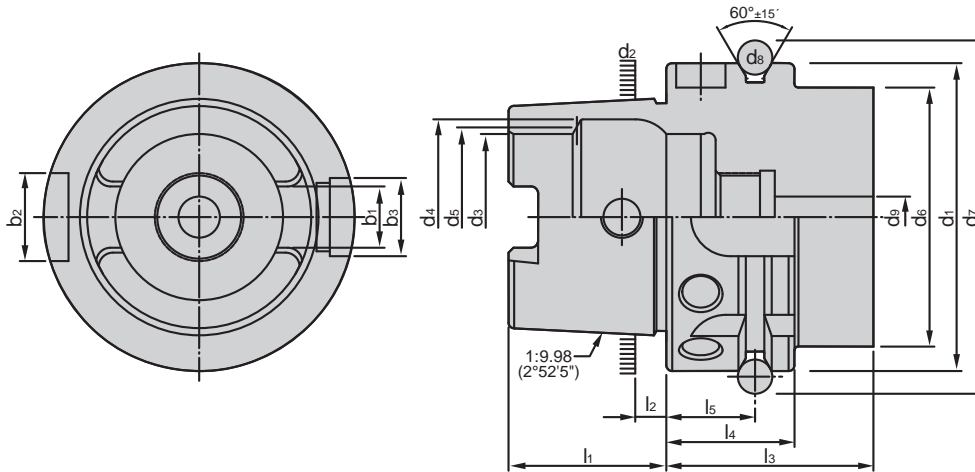
### 選配表 Option

拉頭 Pull Stud	螺帽 Nut	扳手 Spanner	鎖刀座 Locking Device
A292/A295	A283	A298	A302

# HSK Precision Tool Holder Systems



DIN 69893 A



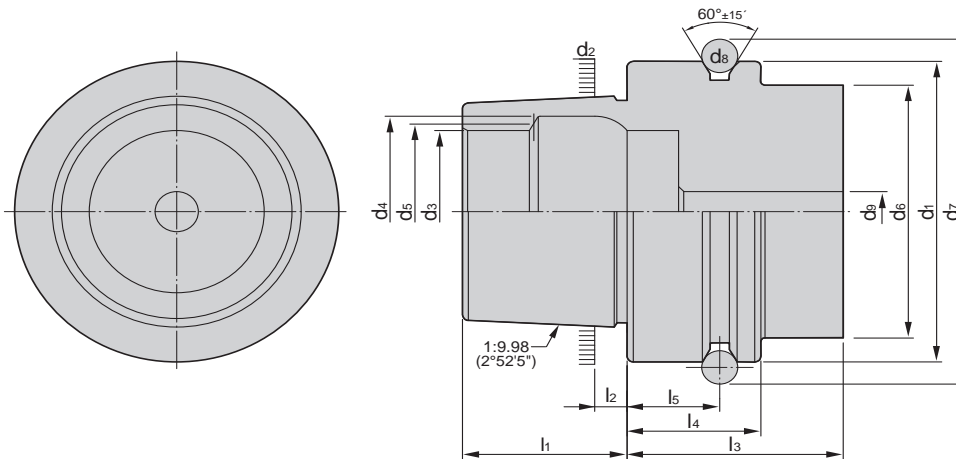
規格 Spec.	d <sub>1</sub> h10	d <sub>2</sub>	d <sub>3</sub> H10	d <sub>4</sub> H11	d <sub>5</sub>	d <sub>6</sub> Max.	d <sub>7</sub> -0.1	d <sub>8</sub>	d <sub>9</sub> Max.	l <sub>1</sub> -0.2	l <sub>2</sub>	l <sub>3</sub> Min.	l <sub>4</sub> -0.1	l <sub>5</sub> ±0.1	b <sub>1</sub> ±0.04	b <sub>2</sub> H10	b <sub>3</sub> H10
HSK25	25	19.006	14	16.4	15	20	28.5	3	3	13	2.5	20	10	4.5	6.05	6	7
HSK32	32	24.007	17	20.5	19	26	37	4	4.2	16	3.2	35	20	16	7.05	7	9
HSK40	40	30.007	21	25.5	23	34	45	4	5	20	4	35	20	16	8.05	9	11
HSK50	50	38.009	26	32	29	42	59.3	7	6.8	25	5	42	26	18	10.54	12	14
HSK63	63	48.010	34	40	37	53	72.3	7	8.4	32	6.3	42	26	18	12.54	16	18
HSK80	80	60.012	42	50	46	68	88.8	7	10.2	40	8	42	26	18	16.04	18	20
HSK100	100	75.013	53	63	58	88	109.75	7	12	50	10	45	29	20	20.02	20	22
HSK125	125	95.016	67	80	73	111	134.75	7	14	63	12.5	45	29	20	25.02	25	28

1. 錐度精度 : < AT3
2. 硬度 : > HRC 56°
3. 滲碳深度 : > 0.8mm
4. 真圓度 : < 0.6μm
5. 表面粗糙度 : Ra < 0.25μm
6. 刀桿有預設標準動平衡 G6.3 · 可另外指定精密動平衡 G2.5
7. 本體規範 : DIN 69893-1

1. Taper tolerance < AT3.
2. Hardness > HRC 56°
3. Carbon depth > 0.8mm.
4. Roundness < 0.6μm.
5. Surface roughness : Ra < 0.25μm.
6. The shank has pre-balance at G6.3, and can provide precision balance at G2.5, made by request.
7. Shank body standard : DIN69893-1



## DIN 69893 E



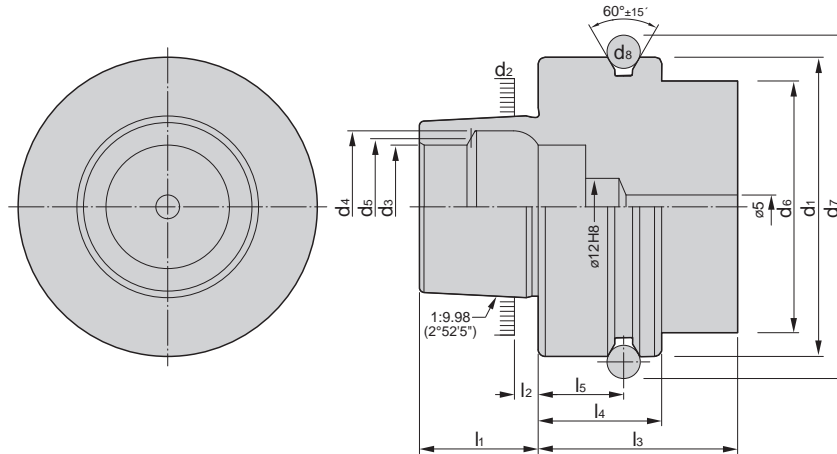
HSK

規格 Spec.	d <sub>1</sub> h10	d <sub>2</sub>	d <sub>3</sub> H10	d <sub>4</sub> H11	d <sub>5</sub>	d <sub>6</sub> Max.	d <sub>7</sub> 0 -0.1	d <sub>8</sub>	d <sub>9</sub> Max.	l <sub>1</sub> 0 -0.2	l <sub>2</sub>	l <sub>3</sub> Min.	l <sub>4</sub> 0 -0.1	l <sub>5</sub> ±0.1
HSK25	25	19.006	14	16.4	15	20	28.5	3	3	13	2.5	20	10	4.5
HSK32	32	24.007	17	20.5	19	26	37	4	4.2	16	3.2	35	20	16
HSK40	40	30.007	21	25.5	23	34	45	4	5	20	4	35	20	16
HSK50	50	38.009	26	32	29	42	59.3	7	6.8	25	5	42	26	18
HSK63	63	48.010	34	40	37	53	72.3	7	8.4	32	6.3	42	26	18
HSK80	80	60.012	42	50	46	68	88.8	7	10.2	40	8	42	26	18
HSK100	100	75.013	53	63	58	88	109.75	7	12	50	10	45	29	20
HSK125	125	95.016	67	80	73	111	134.75	7	14	63	12.5	45	29	20

1. 錐度精度 : < AT3
2. 硬度 : > HRC 56°
3. 滲碳深度 : > 0.8mm
4. 真圓度 : < 0.6μm
5. 表面粗糙度 : Ra < 0.25μm
6. 刀桿有預設標準動平衡 G6.3 · 可另外指定精密動平衡 G2.5
7. 本體規範 : DIN 69893-E

1. Taper tolerance < AT3.
2. Hardness > HRC 56°
3. Carbon depth > 0.8mm.
4. Roundness < 0.6μm.
5. Surface roughness : Ra < 0.25μm.
6. The shank has pre-balance at G6.3, and can provide precision balance at G2.5, made by request.
7. Shank body standard : DIN69893-E

DIN 69893 F



規格 Spec.	d1 h10	d2	d3 H10	d4 H11	d5	d6 Max.	d7 0 -0.1	d8	l1 0 -0.2	l2	l3 Min.	l4 0 -0.1	l5 ±0.1
HSK50	50	30.007	21	25.5	23	42	59.3	7	20	4	42	26	18
HSK63	63	38.009	26	32	29	53	72.3	7	25	5	42	26	18

1. 錐度精度 : <AT3
2. 硬度 : > HRC 56°
3. 滲碳深度 : >0.8mm
4. 真圓度 : < 0.6µm
5. 表面粗糙度 : Ra < 0.25µm
6. 刀桿有預設標準動平衡 G6.3 · 可另外指定精密動平衡 G2.5
7. 本體規範 : DIN 69893-F

- 1.Taper tolerance < AT3.
- 2.Hardness > HRC 56°
3. Carbon depth > 0.8mm.
- 4.Roundness < 0.6µm.
- 5.Surface roughness : Ra < 0.25µm.
- 6.The shank has pre-balance at G6.3,and can provide percision balance at G2.5,made by request.
- 7.Shank body standard : DIN69893-F

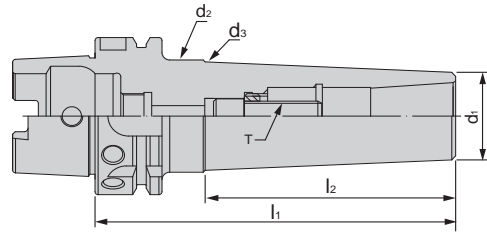


# HSK/SBL 後拉式立銑刀夾頭

## HSK/SBL SLIM-FIT COLLET CHUCK(FOR TYPE A)

DIN 69893/ISO 12164  
PAT.NO: M274178

DIN  
69893-A



### 特點 Feature

- 標準動平衡 G2.5 25000rpm

- Dynamic balancing G2.5 at 25000rpm.

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	T	夾持範圍 Size Range	重量 (KGS) Weight
HSK50A × SBL6-80	80	44	14	18	-	M6x1.0P	2~6	1.40
HSK50A × SBL6-120	120	84	14	22	-	M6x1.0P	2~6	1.50
HSK50A × SBL12-110	110	65	26	42	36	M10x1.5P	3~12	1.50
HSK50A × SBL12-130	130	86	26	42	39	M10x1.5P	3~12	1.85
HSK50A × SBL20-120	120	93	35	42	-	M12x1.75P	3~20	1.80
HSK50A × SBL20-150	150	123	35	42	-	M12x1.75P	3~20	2.00
HSK63A × SBL6-80	80	39	14	18	-	M6x1.0P	2~6	1.70
HSK63A × SBL6-120	120	79	14	22	-	M6x1.0P	2~6	1.90
HSK63A × SBL12-110	110	79	26	37	-	M10x1.5P	3~12	1.90
HSK63A × SBL12-150	150	119	26	42	-	M10x1.5P	3~12	2.20
HSK63A × SBL20-120	120	89	35	42	-	M12x1.75P	3~20	2.00
HSK63A × SBL20-140	140	97	35	45	43	M12x1.75P	3~20	2.45
HSK100A × SBL12-120	120	81	26	37	-	M10x1.5P	3~12	2.40
HSK100A × SBL20-135	135	88	35	45	42	M12x1.75P	3~20	2.74

- 附扳手 Attaches the spanner.

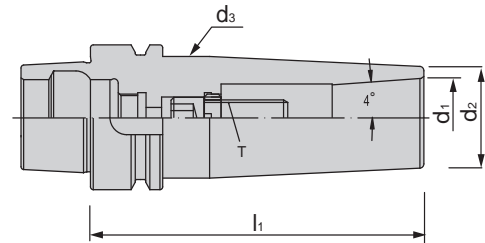
-HSK25E-32E-40E-50E-63E-63F 可接受訂製 HSK25E-32E-40E-50E-63E-63F may accept ordering.



# HSK/SBL 後拉式立銑刀夾頭

## HSK/SBL SLIM-FIT COLLET CHUCK(FOR TYPE E)

DIN 69893/ISO 12164



### 特點 Feature

- 標準動平衡 G2.5 25000rpm

- The balancing garde reaches the revolting of G2.5 25000rpm.

規格 Spec.	$l_1$	$d_1$	$d_2$	$d_3$	T	夾持範圍 Clamp Range	重量 (KGS) Weight
HSK50E × SBL6-80	80	9.93	14	19.188	M6x1.0P	2~6	1.40
HSK50E × SBL12-110	110	18	26	42	M10x1.5P	3~12	1.50
HSK50E × SBL20-110	110	27	35	42	M12x1.75P	3~20	1.80
HSK50E × SBL20-120	120	27	35	42	M12x1.75P	3~20	1.80

- 附扳手 Attaches the spanner.

### 選配表 Option

筒夾 Collet	給水管 Coolant Supply Unti
A276	A176

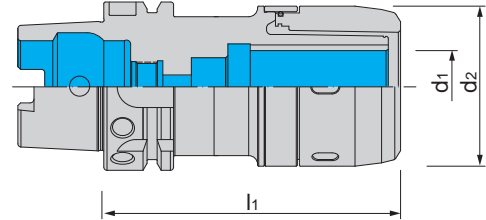
HSK



## HSK/MLK 強力銑削夾頭 HSK/MLK FORCE COLLET CHUCK

DIN  
69893-A

防塵設計 Dust-proof design



規格 Spec.	$l_1$	$d_1$	$d_2$	重量 (KGS) Weight
HSK63A × MLK32-120	120	32	72	2.53
HSK100A × MLK32-120	120	32	72	4.36

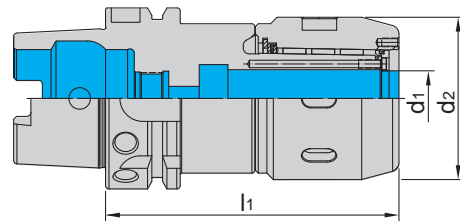
HSK



## HSK/MLD 直式筒夾銑床夾頭 HSK/MLD MULTI-LOCK MILLING CHUCK(STRAIGHT COLLET)

DIN 69893  
NO.M430337

DIN  
69893-A



### 特點 Feature

- 偏擺精度 :0.001~0.005 以內，真圓度 :0.02mm
- 預設動平衡至 G6.3 8000rpm，可依照客戶指定動平衡等級及轉速，並附檢驗報告，但需另外付費
- MLD20、MLD-3/4、MLK20 扳手共用
- MLD25、EOC25、MLK25 扳手共用
- MLD32、MLD-1-1/4、MLK32 扳手共用

- Run-out: Within 0.001~0.005mm. Concentricity: 0.02mm.
- Dynamic balancing G6.3 at 8000rpm., with an inspection report. The balancing grade and revolution can be done according to customer request but the additional charge is needed.
- MLD20 and MLD-3/4、MLK20 spanner can be used in common.
- MLD25 and EOC25、MLK25 spanner can be used in common.
- MLD32 and MLD-1-1/4、MLK32 spanner can be used in common.

規格 Spec.	$l_1$	$d_1$	$d_2$	重量 (KGS) Weight
HSK50A × MLD20 - 120	120	20	56.5	1.62
HSK50A × MLD32 - 130	130	32	71	1.80
HSK63A × MLD20 - 120	120	20	56.5	2.07
HSK63A × MLD32 - 120	120	32	71	2.54
HSK100A × MLD20 - 120	120	20	56.5	3.40
HSK100A × MLD32 - 120	120	31	71	4.00

※ 注意：銑刀裝置入筒夾需超過筒夾有效挾持長度，以避免因非完全挾持，導致筒夾損壞、變形

Note: To avoid the improper clamping ( no clamp at all) & damage and deformation for collect, it should exceed the effective length of collet when installing the cutter onto collet.

### 選配表 Option

筒夾 Collet	扳手 Spanner	給水管 Coolant Supply Unti
A277	A299	A176

# LHC

## 液壓刀桿系列

- 提高刀具100%的壽命
- 加工表面無振紋
- 一般六角扳手快速換刀

- Up to 100% tool life.
- Excellent vibration damping for perfect surfaces.
- Convincingly simple handling using an Allen key means no additional investment cost for peripheral equipment.

# Hydraulic



# GERMANY

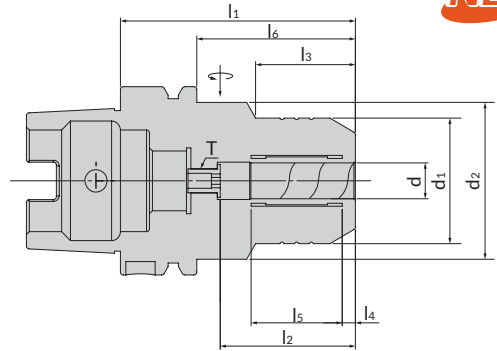


# HSK/LHC 扭力型液壓刀桿

## HSK/LHC TORQUE HYDRAULIC TOOLHOLDER

DIN  
69893-A

**NEW**



HSK

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	d	d <sub>1</sub>	d <sub>2</sub>	T	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
HSK63A-LHC12-80	80	46	34	4.5	31	54	12	42	52.5	M8X1.0P	PT5	110	1.25
HSK63A-LHC16-80	80	51	-	5	37	54	16	52.5	-	M8X1.0P	PT5	350	1.30
HSK63A-LHC20-80	80	51	-	5	37	54	20	52.5	-	M8X1.0P	PT5	520	1.32
● HSK100A-LHC20-90	90	51	-	5	37	61	20	52.5	-	M8X1.0P	PT5	520	2.80
● HSK100A-LHC32-100	100	61	-	6	44	71	32	72	-	M8X1.0P	PT6	900	3.80

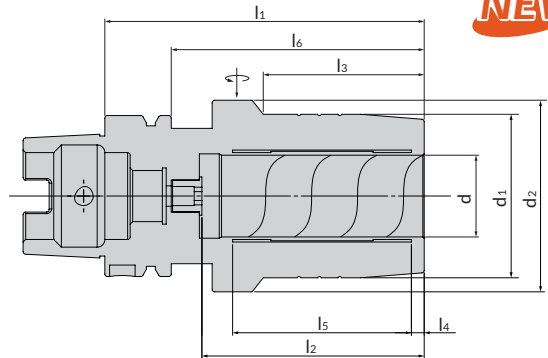
●-接單生產 Made to order.



# HSK/LHC 精密型液壓刀桿


## HSK/LHC PRECISION HYDRAULIC TOOLHOLDER

**NEW**



規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	d	d <sub>1</sub>	d <sub>2</sub>	T	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
HSK63A-LHC32-125-P	125	61	10	63	47.7	99	32	64	75	M16X1.0P	PT6	650	2.70

### 選配表 Option

筒夾 Collet	給水管 Coolant Supply Unit
	
A276	A176

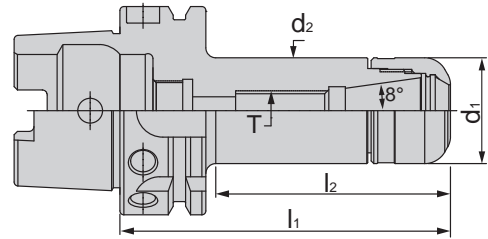


# HSK/PNER 立銑刀夾頭

## HSK/PNER COLLET CHUCK(FOR TYPE A)

DIN  
69893-A

精度 Accuracy : <3μm



### 特點 Feature

- 標準動平衡 G2.5 25000rpm

- The balancing grade reaches the revolving of G2.5 25000rpm.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	T	夾持範圍 Clamp Range	重量 (KGS) Weight
HSK32AxPNER16-50	50	29	30	26	-	3.0~10	0.14
HSK32AxPNER20-60	60	39	32	-	-	3.0~13	0.24
HSK40AxPNER16-60	60	37	30	26	-	3.0~10	0.36
HSK40AxPNER20-60	60	38	32	32	-	3.0~13	0.37
HSK40AxPNER25-60	60	38	40	-	-	3.0~16	0.47
HSK40AxPNER32-70	70	35	50	40.5	-	3.0~20	0.57
HSK50AxPNER16-60	60	31	30	26	-	3.0~10	0.54
HSK50AxPNER20-60	60	31	32	32	-	3.0~13	0.55
HSK50AxPNER25-60	60	32	40	32.5	-	3.0~16	0.65
HSK50AxPNER32-70	70	42	50	-	-	3.0~20	0.75
HSK50AxPNER40-80	80	38	63	-	-	6.0~26	0.85
HSK63AxPNER16-60	60	31	30	26	-	3.0~10	1.00
HSK63AxPNER16-100	100	64	30	26	M10x1.5P	3.0~10	1.10
HSK63AxPNER16-130	130	94	30	26	M10x1.5P	3.0~10	1.20
HSK63AxPNER16-160	160	124	30	26	M10x1.5P	3.0~10	1.30
HSK63AxPNER20-60	60	31	32	32	-	3.0~13	1.60
HSK63AxPNER20-100	100	71	32	32	M12x1.75P	3.0~13	1.70
HSK63AxPNER20-130	130	99	32	32	M12x1.75P	3.0~13	1.80
HSK63AxPNER20-160	160	129	32	32	M12x1.75P	3.0~13	1.90
HSK63AxPNER25-100	100	71	40	40	M16x2.0P	3.0~16	1.80
HSK63AxPNER25-130	130	101	40	40	M16x2.0P	3.0~16	1.90
HSK63AxPNER25-160	160	131	40	40	M16x2.0P	3.0~16	2.00
HSK63AxPNER32-100	100	71	50	50	-	3.0~20	2.55
HSK63AxPNER32-130	130	101	50	50	M16x2.0P	3.0~20	2.65
HSK63AxPNER32-160	160	131	50	50	M16x2.0P	3.0~20	2.75
HSK63AxPNER40-100	100	71	63	-	M20x2.0P	6.0~26	2.65
HSK63AxPNER40-130	130	101	63	-	M20x2.0P	6.0~26	2.75
HSK63AxPNER40-160	160	131	63	-	M20x2.0P	6.0~26	2.85
HSK80AxPNER32-100	100	69	50	50	-	3.0~20	3.10
HSK80AxPNER40-120	120	91	63	63	M20x2.0P	6.0~26	3.20
HSK100AxPNER16-100	100	61	30	26	M10x1.5P	3.0~10	2.90
HSK100AxPNER20-100	100	61	32	32	M12x1.75P	3.0~13	3.00
HSK100AxPNER25-100	100	61	40	40	M16x2.0P	3.0~16	3.10
HSK100AxPNER32-100	100	61	50	50	-	3.0~20	3.20
HSK100AxPNER40-100	100	61	63	63	-	6.0~26	3.30

HSK

### 選配表 Option

筒夾 Collet	螺帽 Nut	扳手 Spanner	給水管 Coolant Supply Unit
A270-A271	A284-A285	A297	A176

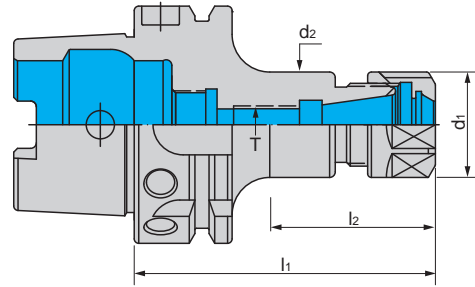




# HSK/ER 立銑刀夾頭

## HSK/ER COLLET CHUCK(FOR TYPE A)

DIN 6499/ISO 15488  
DIN 69893-A



HSK

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	T	重量 (KGS) Weight
HSK 40A × ER20A-80	80	59	34	32	M10 × 1.5P	0.35
HSK 40A × ER25-80	80	59	42	32	M10 × 1.5P	0.40
HSK 50A × ER16A-80	80	49	28	28	M10 × 1.5P	0.50
HSK 50A × ER16A-100	100	71	28	28	M10 × 1.5P	0.55
HSK 50A × ER16A-120	120	91	28	28	M10 × 1.5P	0.70
HSK 50A × ER20A-80	80	53	34	34	M12 × 1.75P	0.60
HSK 50A × ER20A-100	100	71	34	34	M12 × 1.75P	0.65
HSK 50A × ER20A-120	120	91	34	34	M12 × 1.75P	0.70
HSK 50A × ER25-80	80	53	42	40	M16 × 2.0P	0.70
HSK 50A × ER25-100	100	73	42	42	M16 × 2.0P	0.80
HSK 50A × ER25-135	135	108	42	42	M16 × 2.0P	0.90
HSK 50A × ER32-100	100	73	50	50	M16 × 2.0P	1.08
HSK 50A × ER32-135	135	108	50	50	M16 × 2.0P	1.50
HSK 50A × ER32-160	160	133	50	50	M16 × 2.0P	1.70
HSK 63A × ER16A-80	80	44	28	28	M10 × 1.5P	0.90
HSK 63A × ER16A-100	100	64	28	28	M10 × 1.5P	0.98
HSK 63A × ER16A-120	120	84	28	28	M10 × 1.5P	1.70
HSK 63A × ER16A-160	160	124	28	28	M10 × 1.5P	1.28
HSK 63A × ER20A-80	80	49	34	34	M12 × 1.75P	0.96
HSK 63A × ER20A-100	100	66	34	34	M12 × 1.75P	1.09
HSK 63A × ER20A-120	120	91	34	34	M12 × 1.75P	1.19
HSK 63A × ER20A-160	160	131	34	34	M12 × 1.75P	2.00
HSK 63A × ER25-80	80	49	42	42	M16 × 2.0P	1.07
HSK 63A × ER25-100	100	69	42	42	M16 × 2.0P	1.25
HSK 63A × ER25-120	120	89	42	42	M16 × 2.0P	1.44
HSK 63A × ER25-150	150	119	42	42	M16 × 2.0P	2.30

### 選配表 Option

筒夾 Collet	螺帽 Nut	扳手 Spanner	給水管 Coolant Supply Unti
A258	A280	A296	A176

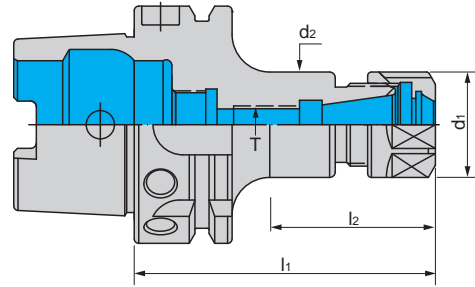




# HSK/ER 立銑刀夾頭

## HSK/ER COLLET CHUCK(FOR TYPE A)

DIN 6499/ISO 15488  
DIN 69893-A



規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	T	重量 (KGS) Weight
HSK 63A × ER32-80	80	53	50	50	-	1.16
HSK 63A × ER32-100	100	72	50	50	M16 × 2.0P	1.44
HSK 63A × ER32-145	145	118	50	50	M16 × 2.0P	2.70
HSK 63A × ER32-160	160	133	50	50	M16 × 2.0P	2.33
HSK 63A × ER40-80	80	53	63	52	-	1.28
HSK 63A × ER40-100	100	73	63	60	M20 × 2.0P	1.69
HSK 63A × ER40-120	120	93	63	60	M20 × 2.0P	2.03
HSK 63A × ER40-150	150	123	63	60	M20 × 2.0P	2.95
HSK 63A × ER40-170	170	143	63	60	M20 × 2.0P	3.10
HSK 63A × ER50-120	120	93	78	60	M24 × 2.0P	3.50
HSK 100A × ER16A-80	80	41	28	28	M10 × 1.5P	2.90
HSK 100A × ER16A-100	100	61	28	28	M10 × 1.5P	2.95
HSK 100A × ER16A-160	160	116	28	28	M10 × 1.5P	3.45
HSK 100A × ER20A-80	80	41	34	34	M12 × 1.75P	2.9
HSK 100A × ER20A-100	100	61	34	34	M12 × 1.75P	2.57
HSK 100A × ER20A-160	160	121	34	34	M12 × 1.75P	3.30
HSK 100A × ER25-100	100	61	42	42	M16 × 2.0P	3.00
HSK 100A × ER25-130	130	96	42	42	M16 × 2.0P	3.00
HSK 100A × ER32-100	100	61	50	50	M16 × 2.0P	2.92
HSK 100A × ER32-135	135	96	50	50	M16 × 2.0P	3.35
HSK 100A × ER32-150	150	116	50	50	M16 × 2.0P	3.50
HSK 100A × ER40-80	80	46	63	62	-	3.30
HSK 100A × ER40-120	120	86	63	63	M20 × 2.0P	3.71
HSK 100A × ER40-175	175	141	63	60	M20 × 2.0P	4.20
HSK 100A × ER50-100	100	68	78	78	-	4.50
HSK 100A × ER50-120	120	88	78	64	M24 × 2.0P	5.00

HSK

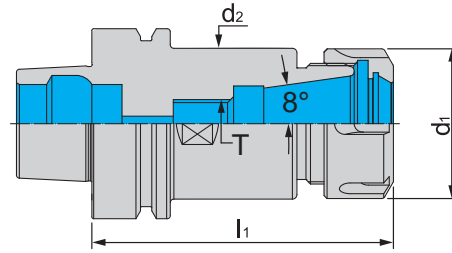
### 選配表 Option

筒夾 Collet	螺帽 Nut	扳手 Spanner	給水管 Coolant Supply Unit
A258	A280	A296	A176



## HSK/ER 立銑刀夾頭 HSK/ER COLLET CHUCK(FOR TYPE F)

DIN 6499/ISO 15488  
DIN 69893-A



規格 Spec.	$l_1$	$d_1$	$d_2$	T	重量 (KGS) Weight
HSK 63F × ER32-70	70	50	53	-	0.97
HSK 63F × ER32-100	100	50	53	M16 × 2.0P	2.55
HSK 63F × ER40-75	75	63	53	-	2.65
HSK 63F × ER40-100	100	63	53	M20 × 2.0P	2.50
HSK 63F × ER40-120	120	63	53	M20 × 2.0P	2.77

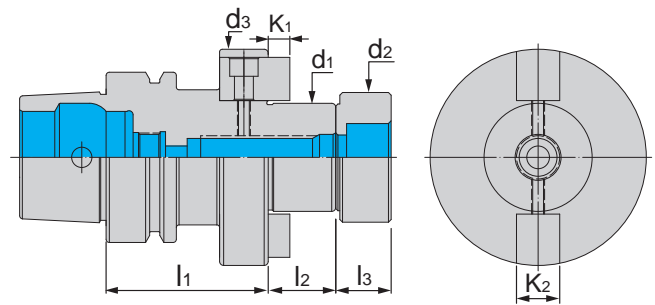
### 選配表 Option

筒夾 Collet	螺帽 Nut	扳手 Spanner
A258	A280	A296



## HSK/FMB 平面銑刀柄 HSK/FMB FACE MILL ARBOR(FOR TYPE E)

DIN 69893-A



### 特點 Feature

- 平面銑刀配合部位 ( $d_1$ ) 軸系公差 h6.

-  $d_1$  tolerance: h6.

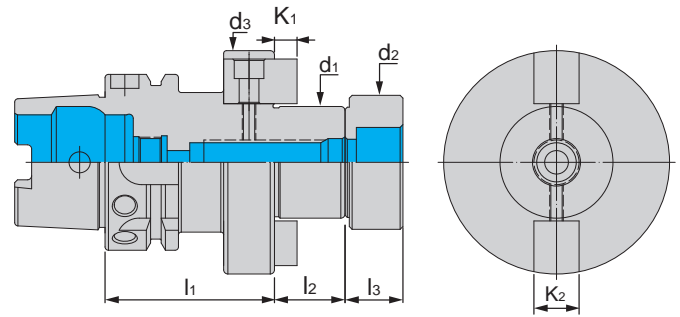
規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	$k_1$	$k_2$	重量 (KGS) Weight
HSK 40E × FMB22 - 60	60	19	14	22	26	50	4.8	10	0.86
HSK 50E × FMB22 - 60	60	19	14	22	26	50	4.8	10	1.20
HSK 50E × FMB27 - 60	60	21	16	27	31.5	60	5.8	12	1.30



# HSK/FMB 平面銑刀柄

## HSK/FMB FACE MILL ARBOR(FOR TYPE A)

DIN  
69893-A



### 特點 Feature

- 平面銑刀配合部位 (d1) 軸系公差 h6.

- d1 tolerance: h6.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	k <sub>1</sub>	k <sub>2</sub>	重量 (KGS) Weight
HSK 40A × FMB16 - 50	50	17	-	16	-	40	5	8	0.70
HSK 40A × FMB22 - 60	60	19	14	22	26	52	4.8	10	0.86
HSK 40A × FMB27 - 60	60	21	16	27	31.5	60	5.8	12	1.00
HSK 40A × FMB32 - 60	60	24	16	32	41	78	6.8	14	1.10
HSK 50A × FMB16 - 50	50	17	-	16	-	40	5	8	1.10
HSK 50A × FMB22 - 60	60	19	14	22	26	48	4.8	10	0.95
HSK 50A × FMB27 - 60	60	21	16	27	31.5	60	5.8	12	1.30
HSK 50A × FMB32 - 60	60	24		32	41	78	6.8	14	1.50
HSK 63A × FMB16 - 50	50	17	-	16	-	40	5	8	0.96
HSK 63A × FMB22 - 50	50	19	14	22	26	50	4.8	10	1.17
HSK 63A × FMB27 - 60	60	21	16	27	31.5	53	5.8	12	1.45
HSK 63A × FMB32 - 60	60	24		32	41	78	6.8	14	1.98
HSK 63A × FMB40 - 60	60	25	20.5	40	48	80	8.3	16	2.17
HSK 100A × FMB22 - 50	50	19	14	22	26	48	4.8	10	2.70
HSK 100A × FMB27 - 50	50	21	16	27	31.5	60	5.8	12	2.90
HSK 100A × FMB32 - 50	50	24		32	41	78	6.8	14	3.00
HSK 100A × FMB40 - 60	60	25	20.5	40	48	80	8.3	16	4.00
HSK 100A × FMB50 - 70	70	30	25	50	68	120	9.7	19	5.10
HSK 100A × FMB60 - 70	70	40	-	60	-	129	12.5	25.4	5.50

HSK

### 選配表 Option

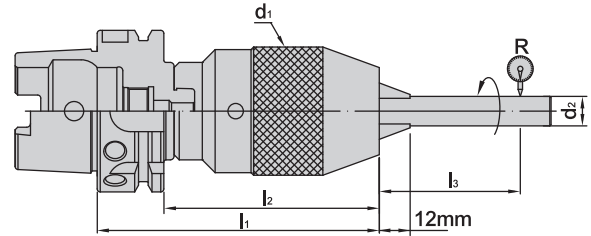




# HSK/SPU 直結式鑽夾頭

## HSK/SPU DRILL CHUCK ADAPTER(FOR TYPE A)

DIN  
69893-A

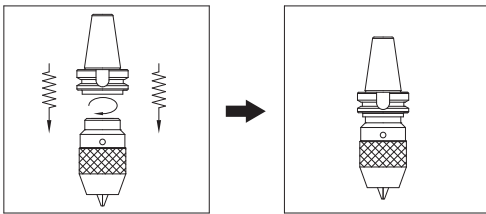


HSK

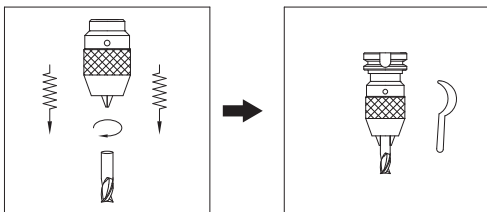
### 特點 Feature

- 本產品因為增加了多層安全性設計，能提供給綜合切削中心機使用，在電腦操作的全自動作業中，以及無人化的管理整個流程，都能夠安全及順利地進行

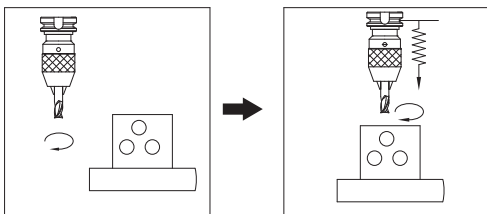
- This product adds multi safety design, able to provide for machine center, in full automatic operation control by computer, and unmanned management process, can be processed safely and smoothly.



- 防止夾頭脫落
- 內部螺紋鎖緊設計
- Avoid chuck falling off.
- Inside with tightening design for thread.



- 可用於重切削及高速切削
- 鑽頭絕不脫落
- Attaches the spanner.
- Drill never loosening or falling off.



- 可加工較高工件
- 增加機器使用範圍
- It also can process higher workpiece.
- Additional use range of machine.

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	R	重量 (KGS) Weight
HSK 50A × SPU13- 150	150	124	55	50	5	0.04	1.40
HSK 63A × SPU13- 150	150	124	55	50	10	0.04	2.69
HSK 100A × SPU13- 155	155	126	75	50	13	0.04	4.30

- 附扳手 Attaches the spanner.

### 選配表 Option

給水管 Coolant Supply Unti



A176

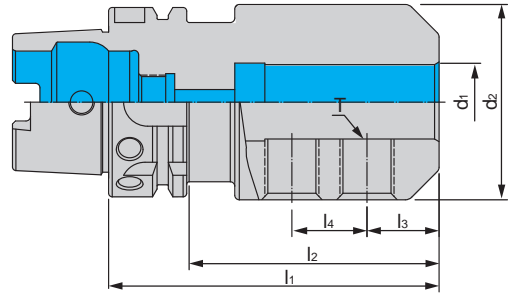


# HSK/SLN 側固式立銑刀柄

## HSK/SLN SIDE LOCK END MILL HOLDER(FOR TYPE A)

PAT.NO: 193405  
DIN-1835-B

DIN  
69893-A



### 特點 Feature

- 內孔精度 : H5

- Internal hole tolerance : H5

規格 Spec.	$l_1$	$l_2$	$l_3$	$l_4$	$d_1$	$d_2$	T	重量 (KGS) Weight
HSK 50A × SLN6 - 65	65	34	18	-	6	25	M 6 × 1.0P	0.70
HSK 50A × SLN8 - 65	65	36	18	-	8	28	M 8 × 1.25P	0.80
HSK 50A × SLN10 - 65	65	36.5	20	-	10	35	M10 × 1.5P	0.80
HSK 50A × SLN12 - 80	80	53.5	22.5	-	12	42	M12 × 1.75P	1.20
HSK 50A × SLN14 - 80	80	53.5	22.5	-	14	44	M12 × 1.75P	1.30
HSK 50A × SLN16 - 80	80	53.5	24	-	16	48	M14 × 2.0P	1.30
HSK 50A × SLN18 - 80	80	53.5	24	-	18	50	M14 × 2.0P	1.40
HSK 50A × SLN20 - 80	80	53	25	-	20	52	M16 × 2.0P	1.50
HSK 63A × SLN6 - 65	65	36	18	-	6	25	M 6 × 1.0P	0.83
HSK 63A × SLN8 - 65	65	36	18	-	8	28	M 8 × 1.25P	0.86
HSK 63A × SLN10 - 65	65	36	20	-	10	35	M10 × 1.5P	1.00
HSK 63A × SLN12 - 80	80	49	22.5	-	12	42	M12 × 1.75P	1.70
HSK 63A × SLN14 - 80	80	51	22.5	-	14	44	M12 × 1.75P	1.70
HSK 63A × SLN16 - 80	80	51.5	24	-	16	48	M14 × 2.0P	1.70
HSK 63A × SLN18 - 80	80	51.5	24	-	18	50	M14 × 2.0P	1.80
HSK 63A × SLN20 - 80	80	53.5	25	-	20	52	M16 × 2.0P	1.41
HSK 63A × SLN25 - 110	110	83.2	24	25	25	65	M18 × 2.0P	2.35
HSK 63A × SLN32 - 110	110	83.2	24	28	32	72	M20 × 2.0P	2.61
HSK 100A × SLN6 - 80	80	41	18	-	6	25	M 6 × 1.0P	3.00
HSK 100A × SLN8 - 80	80	41	18	-	8	28	M 8 × 1.25P	3.20
HSK 100A × SLN10 - 80	80	46	20	-	10	35	M10 × 1.5P	3.40
HSK 100A × SLN12 - 80	80	46	22.5	-	12	42	M12 × 1.75P	3.40
HSK 100A × SLN14 - 80	80	46	22.5	-	14	44	M12 × 1.75P	3.50
HSK 100A × SLN16 - 100	100	66	24	-	16	48	M14 × 2.0P	3.80
HSK 100A × SLN18 - 100	100	66	24	-	18	50	M14 × 2.0P	3.80
HSK 100A × SLN20 - 100	100	61	25	-	20	52	M16 × 2.0P	3.20
HSK 100A × SLN25 - 100	100	66	24	25	25	65	M18 × 2.0P	3.67
HSK 100A × SLN32 - 100	100	66	24	28	32	72	M20 × 2.0P	3.96
HSK 100A × SLN40 - 120	120	89	30	32	40	90	M20 × 2.0P	5.59

### 選配表 Option



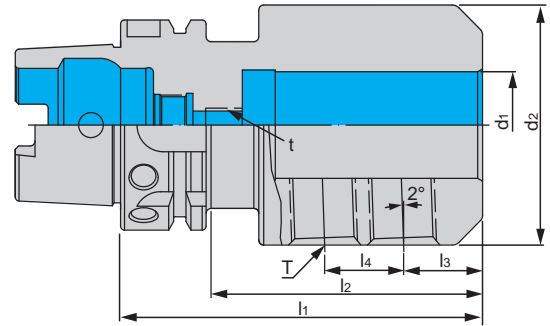
HSK



# HSK/SLNB 側固式立銑刀柄

## HSK/SLNB SIDE LOCK END MILL HOLDER(FOR TYPE A)

DIN-1835-E  
69893-A



HSK

### 特點 Feature

- 內孔精度 : H5
- 側固螺絲角度 2°

- Internal hole tolerance : H5
- The side lock screw angle 2°

規格 Spec.	$l_1$	$l_2$	$l_3$	$l_4$	$d_1$	$d_2$	$t$	T	重量 (KGS) Weight
HSK 50A × SLNB6 - 80	80	49	18	-	6	25	M 5	M 6 × 1.0P	0.80
HSK 50A × SLNB8 - 80	80	49	18	-	8	28	M 6	M 8 × 1.25P	0.90
HSK 50A × SLNB10 - 80	80	51	20	-	10	35	M 8	M10 × 1.5P	0.90
HSK 50A × SLNB12 - 90	90	64	22.5	-	12	42	M10	M12 × 1.75P	1.30
HSK 50A × SLNB14 - 90	90	63.2	22.5	-	14	44	M10	M12 × 1.75P	1.40
HSK 50A × SLNB16 - 90	90	63.2	24	-	16	48	M12	M14 × 2.0P	1.40
HSK 50A × SLNB18 - 90	90	63.2	24	-	18	50	M12	M14 × 2.0P	1.60
HSK 50A × SLNB20 - 100	100	73	25	-	20	52	M16	M16 × 2.0P	1.70
HSK 63A × SLNB6 - 80	80	49	18	-	6	25	M 5	M 6 × 1.0P	1.00
HSK 63A × SLNB8 - 80	80	49	18	-	8	28	M 6	M 8 × 1.25P	1.10
HSK 63A × SLNB10 - 80	80	51	20	-	10	35	M 8	M10 × 1.5P	1.10
HSK 63A × SLNB12 - 90	90	64	22.5	-	12	42	M10	M12 × 1.75P	2.00
HSK 63A × SLNB14 - 90	90	61	22.5	-	14	44	M10	M12 × 1.75P	2.00
HSK 63A × SLNB16 - 100	100	72	24	-	16	48	M12	M14 × 2.0P	2.00
HSK 63A × SLNB18 - 100	100	72.5	24	-	18	50	M12	M14 × 2.0P	2.10
HSK 63A × SLNB20 - 100	100	72.5	25	-	20	52	M16	M16 × 2.0P	2.10
HSK 63A × SLNB25 - 110	110	83.2	24	25	25	65	M20	M18 × 2.0P	2.60
HSK 63A × SLNB32 - 110	110	82.5	24	24	32	72	-	M20 × 2.0P	2.80
HSK 100A × SLNB6 - 90	90	51	18	-	6	25	M 5	M 6 × 1.0P	3.40
HSK 100A × SLNB8 - 90	90	51	18	-	8	28	M 6	M 8 × 1.25P	3.50
HSK 100A × SLNB10 - 90	90	51	20	-	10	35	M 8	M10 × 1.5P	3.80
HSK 100A × SLNB12 - 100	100	61	22.5	-	12	42	M10	M12 × 1.75P	3.80
HSK 100A × SLNB14 - 100	100	61	22.5	-	14	44	M10	M12 × 1.75P	4.00
HSK 100A × SLNB16 - 100	100	66	24	-	16	48	M12	M14 × 2.0P	4.00
HSK 100A × SLNB18 - 100	100	61	24	-	18	50	M12	M14 × 2.0P	4.00
HSK 100A × SLNB20 - 110	110	71	25	-	20	52	M16	M16 × 2.0P	4.20
HSK 100A × SLNB25 - 120	120	86	24	22	25	65	M20	M18 × 2.0P	4.40
HSK 100A × SLNB32 - 120	120	86	24	24	32	72	M20	M20 × 2.0P	4.50
HSK 100A × SLNB40 - 120	120	89	30	32	40	90	M20	M20 × 2.0P	5.00

### 選配表 Option

給水管 Coolant Supply Unit



A176

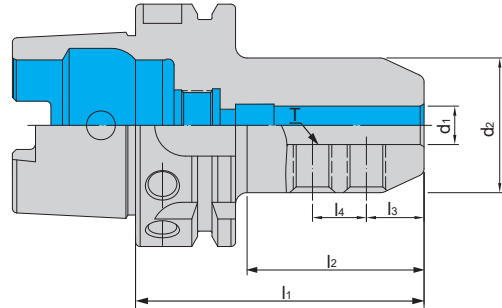


# HSK/SLN 側固式立銑刀柄 (JIS 型)

## HSK/SLN SIDE LOCK END MILL HOLDER(JIS TYPE)

DIN  
69893-A

**NEW**



HSK

規格 Spec.	$l_1$	$l_2$	$l_3$	$l_4$	$d_1$	$d_2$	T	重量 (KGS) Weight
HSK 63A × SLN10 - 75JIS	75	46	15	14	10	35	M10X1.5P	-
HSK 63A × SLN10 - 150JIS	150	119.154	15	14	10	35	M10X1.5P	-
HSK 63A × SLN12 - 80JIS	80	51	20	16	12	42	M10X1.5P	-
HSK 63A × SLN12 - 150JIS	150	121.101	20	16	12	45	M10X1.5P	-
HSK 63A × SLN16 - 90JIS	90	62	22	18	16	48	M10X1.5P	-
HSK 63A × SLN16 - 150JIS	150	124	22	18	16	48	M10X1.5P	-
HSK 63A × SLN20 - 90JIS	90	62.5	25	20	20	50	M12X1.75P	-
HSK 63A × SLN20 - 150JIS	150	124	25	20	20	50	M12X1.75P	-
HSK 63A × SLN25 - 90JIS	90	62.5	24	25	25	50	M12X1.75P	-
HSK 63A × SLN25 - 150JIS	150	124	24	25	25	50	M12X1.75P	-
HSK 63A × SLN32 - 105JIS	105	79	24	28	32	60	M16X2.0P	-

### 選配表 Option

給水管 Coolant Supply Unti



A176



# HSK/SAC 中鋼炮銑削頭

## HSK/SAC ANGLE HEAD HOLDER FOR MEDIAL CUTTING

DIN  
69893-A

**NEW**

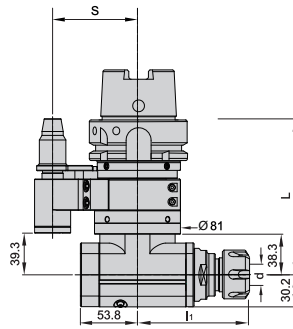


Fig.1

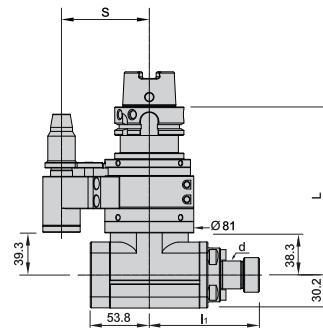


Fig.2

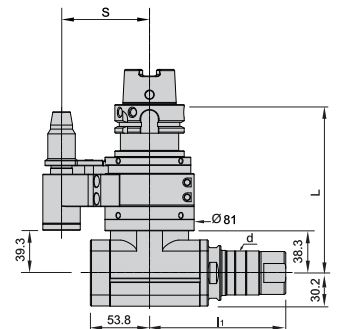


Fig.3

HSK

### 特點 Feature

- 適用鑽孔、攻牙、銑削
- 最高轉速：3000rpm
- 建議最大切深 ≤4mm

- Applicable for drilling、tapping、milling.
- Max. revolution: 3000 rpm.
- Suggest  $A_p \leq 4\text{mm}$

規格 Spec.	L	$l_1$	S	d	筒夾 Collet	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
HSK 63A × SAC16E - 155	155	89.6	65	1~10	ER16	25N-m	1	6.40
HSK 63A × SAC20E - 155	155	91	65	1~13	ER20	25N-m	1	6.40
HSK 63A × SAC25E - 155	155	92	65	1~16	ER25	25N-m	1	6.40
HSK 63A × SAC32E - 155	155	96	65	3~16	ER32	25N-m	1	6.40
HSK 100A × SAC16E - 151	151	89.6	80	1~10	ER16	25N-m	1	8.40
HSK 100A × SAC20E - 151	151	91	80	1~13	ER20	25N-m	1	8.40
HSK 100A × SAC25E - 151	151	92	80	1~16	ER25	25N-m	1	8.40
HSK 100A × SAC32E - 151	151	96	80	3~16	ER32	25N-m	1	8.44
HSK 63A × SAC25.4FA - 155	155	66	65	25.4	-	25N-m	2	6.54
HSK 63A × SAC22FB - 155	155	66	65	22	-	25N-m	2	6.54
HSK 100A × SAC25.4FA - 151	151	66	80	25.4	-	25N-m	2	8.54
HSK 100A × SAC22FB - 151	151	66	80	22	-	25N-m	2	8.54
HSK 63A × SAC22SC - 155	155	67.5	65	22	-	25N-m	3	8.40
HSK 63A × SAC25.4SC - 155	155	67.5	65	25.4	-	25N-m	3	8.40
HSK 100A × SAC22SC - 151	151	67.5	80	22	-	25N-m	3	8.40
HSK 100A × SAC25.4SC - 151	151	67.5	80	25.4	-	25N-m	3	8.40

### 選配表 Option

給水管 Coolant Supply Unti



A176



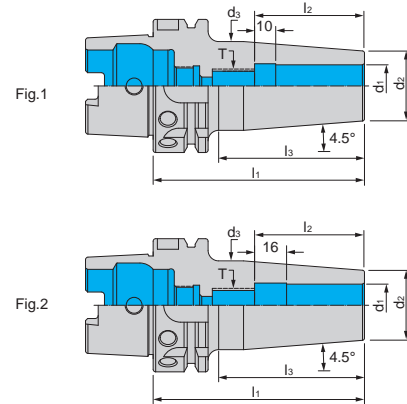


# HSK/SFC 熱膨脹刀桿

## HSK/SFC SHRINK-FIT CHUCK(FOR TYPE A)

PAT.NO: M284478  
DIN 69893-A

燒結式 Shrink-Fit



### 特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	T	Fig.	重量 (KGS) Weight
HSK50A × SFC3-80	80	18	49	3	9	16.7	-	1	0.54
HSK50A × SFC4-80	80	20	49	4	10	17.7	-	1	0.55
HSK50A × SFC5-80	80	20	49	5	16	22	-	1	0.56
HSK50A × SFC6-80	80	36	49	6	21	27	M5 × 0.8P	2	0.57
HSK50A × SFC8-80	80	36	49	8	21	27	M6 × 1.0P	1	0.58
HSK50A × SFC10-85	85	42	54	10	24	32	M8 × 1.25P	1	0.67
HSK50A × SFC12-90	90	47	59	12	24	32	M10 × 1.5P	1	0.67
HSK50A × SFC14-90	90	47	59	14	24	32	M10 × 1.5P	1	0.72
HSK50A × SFC16-95	95	50	64	16	27	34	M12 × 1.75P	1	0.73
HSK50A × SFC18-95	95	52	67	18	33	42	M12 × 1.75P	1	0.90
HSK50A × SFC20-100	100	52	73	20	33	42	M16 × 2.0P	1	0.92
HSK50A × SFC25-115	115	47	88	25	44	53	M20 × 2.0P	1	0.95
HSK63A × SFC3-80	80	18	40	3	9	18	-	1	0.70
HSK63A × SFC4-80	80	20	44	4	10	17.049	-	1	0.70
HSK63A × SFC5-80	80	20	51	5	16	22	-	1	0.70
HSK63A × SFC6-80	80	36	51	6	21	27	M5 × 0.8P	2	0.89
HSK63A × SFC8-80	80	36	51	8	21	27	M6 × 1.0P	1	0.82
HSK63A × SFC10-85	85	42	54	10	24	32	M8 × 1.25P	1	0.91
HSK63A × SFC12-90	90	47	59	12	24	32	M10 × 1.5P	1	0.97
HSK63A × SFC14-90	90	47	59	14	27	34	M10 × 1.5P	1	0.97
HSK63A × SFC16-95	95	50	64	16	27	34	M12 × 1.75P	1	0.98
HSK63A × SFC18-95	95	50	64	18	33	42	M12 × 1.75P	1	0.99
HSK63A × SFC20-100	100	52	69	20	33	42	M16 × 2.0P	1	1.00
HSK63A × SFC25-115	115	58	88	25	44	53	M20 × 2.0P	1	1.40
HSK63A × SFC32-120	120	58	93	32	44	53	M20 × 2.0P	1	1.39
HSK100A × SFC6-85	85	36	46	6	21	27	M5 × 0.8P	2	2.15
HSK100A × SFC8-85	85	36	46	8	21	27	M6 × 1.0P	1	2.15
HSK100A × SFC10-90	90	42	51	10	24	32	M8 × 1.25P	1	2.23
HSK100A × SFC12-95	95	47	56	12	24	32	M10 × 1.5P	1	2.25
HSK100A × SFC16-100	100	50	61	16	27	34	M12 × 1.75P	1	2.31
HSK100A × SFC20-105	105	52	71	20	33	42	M16 × 2.0P	1	2.51
HSK100A × SFC25-115	115	58	81	25	44	53	M20 × 2.0P	1	3.04
HSK100A × SFC32-120	120	58	86	32	44	53	M20 × 2.0P	1	2.98

### 選配表 Option



HSK



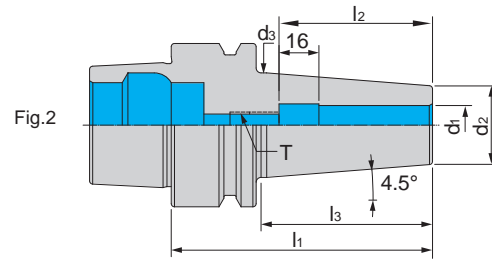
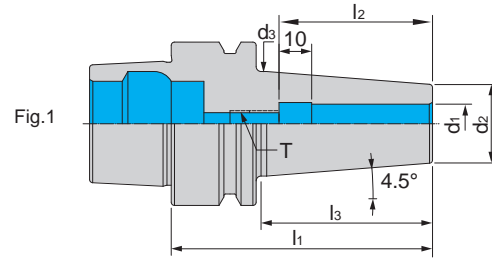
# HSK/SFC 熱膨脹刀桿

## HSK/SFC SHRINK-FIT CHUCK(FOR TYPE E)

PAT.NO: M284478

DIN 69893-A

燒結式 Shrink-Fit



HSK

### 特點 Feature

- 整支通孔 · 利於出水及抗震
- 標準動平衡 G2.5 25000rpm

- A through coolant shank which allows water to pass through easily and vibration resistance.
- Dynamic balancing G2.5 at 25000rpm

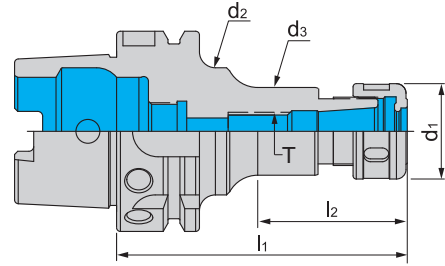
規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	T	Fig.	重量 (KGS) Weight
HSK25E × SFC3-50	50	20	37	3	9	13	-	1	0.14
HSK25E × SFC4-50	50	20	38	4	10	16.079	-	1	0.15
HSK25E × SFC5-50	50	20	39	5	16	20	-	1	0.16
HSK32E × SFC3-50	50	18	27	3	9	13.287	-	1	0.54
HSK32E × SFC4-50	50	20	27	4	10	14.287	-	1	0.55
HSK32E × SFC5-50	50	20	29	5	16	20	-	1	0.56
HSK32E × SFC6-50	50	36	29	6	21	25	-	2	0.57
HSK32E × SFC8-60	60	36	39	8	21	26	M6 × 1.0P	1	0.58
HSK32E × SFC10-60	60	42	39	10	21	26	M8 × 1.25P	1	0.60
HSK32E × SFC12-70	70	47	49	12	21	26	M10 × 1.5P	1	0.70
HSK40E × SFC3-80	80	20	49	3	9	18	-	1	0.54
HSK40E × SFC4-80	80	20	49	4	10	22	-	1	0.55
HSK40E × SFC5-80	80	20	55	5	16	22	-	1	0.56
HSK40E × SFC6-80	80	36	59	6	21	27	M5 × 0.8P	2	0.57
HSK40E × SFC8-80	80	36	59	8	21	27	M6 × 1.0P	1	0.58
HSK40E × SFC10-85	85	42	64	10	24	32	M8 × 1.25P	1	0.65
HSK40E × SFC12-90	90	47	69	12	24	32	M10 × 1.5P	1	0.67
HSK50E × SFC3-80	80	20	42	3	9	18	M6X1.0P	1	0.54
HSK50E × SFC4-80	80	20	49	4	10	17.7	M6X1.0P	1	0.58
HSK50E × SFC5-80	80	20	49	5	16	22	M6X1.0P	1	0.56
HSK50E × SFC6-80	80	36	49	6	21	27	M5 × 0.8P	2	0.67
HSK50E × SFC8-80	80	36	49	8	21	27	M6 × 1.0P	1	0.68
HSK50E × SFC10-80	80	42	52	10	24	32	M8 × 1.25P	1	0.72
HSK50E × SFC12-80	80	47	52	12	24	32	M10 × 1.5P	1	0.70
HSK50E × SFC16-95	95	50	67	16	27	34	M12 × 1.75P	1	0.73
HSK50E × SFC20-100	100	52	73	20	33	42	M16 × 2.0P	1	0.92
HSK50E × SFC25-115	115	47	88	25	44	53	M20 × 2.0P	1	0.95



# HSK/SKS 高速機專用夾頭

## HSK/SKS COLLET CHUCK(FOR TYPE A)

DIN  
PAT.NO: M270871 69893-A



### 特點 Feature

- 偏擺精度 :5μ 以下 ( 延伸 4D 長度處 )
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5μ.
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Dynamic balancing G2.5 at 25000rpm.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	T	重量 (KGS) Weight
HSK50A × SKS10-90	90	45	30	40	27.6	M12 × 1.75P	0.80
HSK50A × SKS10-120	120	75	30	40	27.6	M12 × 1.75P	1.00
HSK50A × SKS16-90	90	63	40	40	-	M18 × 1.5P	1.00
HSK50A × SKS16-120	120	93	40	40	-	M18 × 1.5P	1.20
HSK63A × SKS6-90	90	44	18	32	18	M8 × 1.25P	1.00
HSK63A × SKS10-90	90	45	30	40	27.6	M12 × 1.75P	1.00
HSK63A × SKS10-120	120	75	30	40	27.6	M12 × 1.75P	1.11
HSK63A × SKS16-90	90	59	40	40	-	M18 × 1.5P	1.10
HSK63A × SKS16-120	120	89	40	40	-	M18 × 1.5P	1.35
HSK63A × SKS25-90	90	63	55	52	-	M28 × 2.0P	1.33
HSK100A × SKS10-100	100	45	30	40	27.6	M12 × 1.75P	2.55
HSK100A × SKS16-105	105	66	40	40	-	M18 × 1.5P	2.70
HSK100A × SKS25-120	120	81	55	55	-	M28 × 2.0P	3.40

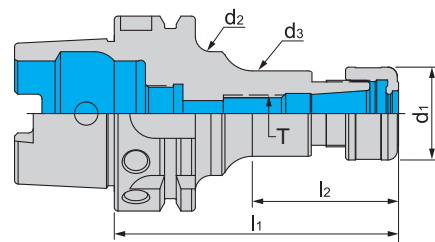
HSK



# HSK/SKS 高速機專用夾頭 ( 無風阻 )

## HSK/SKS COLLET CHUCK(FOR TYPE A) (NON WIND RESISTANCE)

PAT.NO: M270871



### 特點 Feature

- 偏擺精度 :5μ 以下 ( 延伸 4D 長度處 )
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5μ.
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Dynamic balancing G2.5 at 25000rpm.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	T	重量 (KGS) Weight
HSK32A × SKS10-60-HS	60	-	30	40	-	M12 × 1.75P	0.26
HSK40A × SKS10-60-HS	60	-	30	40	-	M12 × 1.75P	0.60

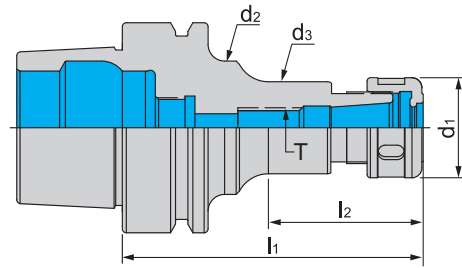
### 選配表 Option

筒夾 Collet	螺帽 Nut	扳手 Spanner	給水管 Coolant Supply Unit
A272-A275	A286	A297	A176



## HSK/SKS 高速機專用夾頭 HSK/SKS COLLET CHUCK(FOR TYPE E)

DIN  
PAT.NO: M270871 69893-A



### 特點 Feature

- 偏擺精度 :5 $\mu$  以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 $\mu$ .
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Balance of G2.5 at 25000rpm.

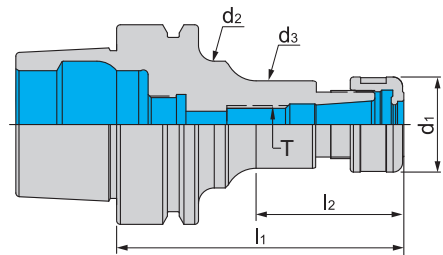
規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	T	重量 (KGS) Weight
HSK50E × SKS10-90	90	45	30	40	27.6	M12 × 1.75P	0.83
HSK50E × SKS10-120	120	75	30	40	27.6	M12 × 1.75P	0.93
HSK50E × SKS16-90	90	63	40	40	-	M18 × 1.5P	0.90
HSK50E × SKS16-120	120	93	40	40	-	M18 × 1.5P	1.13

HSK



## HSK/SKS 高速機專用夾頭 (無風阻) HSK/SKS COLLET CHUCK(FOR TYPE E)(NON WIND RESISTANCE)

PAT.NO: M270871



### 特點 Feature

- 偏擺精度 :5 $\mu$  以下 (延伸 4D 長度處)
- SKS 筒夾錐度 :4° · 增加夾持力、提高穩定性
- 標準動平衡 :G2.5 25000rpm

- Run-out accuracy: within 5 $\mu$ .
- SKS tapered collet: 4° degrees, increases clamping power and stability.
- Balance of G2.5 at 25000rpm.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	T	重量 (KGS) Weight
HSK40E × SKS6-60-HS	60	44	18	32	18	M8x1.25P	0.32
HSK40E × SKS10-60-HS	60	45	30	40	27.6	M12x1.75P	0.42
HSK40E × SKS16-90-HS	90	59	40	40	-	M18x1.5P	0.68
HSK50E × SKS10-90-HS	90	45	30	40	27.6	M12x1.75P	0.80
HSK50E × SKS10-120-HS	120	75	30	40	27.6	M12x1.75P	1.00
HSK50E × SKS16-90-HS	90	63	40	40	-	M18x1.5P	1.00
HSK50E × SKS16-120-HS	120	93	40	40	-	M18x1.5P	1.20

### 選配表 Option

筒夾 Collet	螺帽 Nut		扳手 Spanner	
A272-A275	A286	A0286	A297	A297

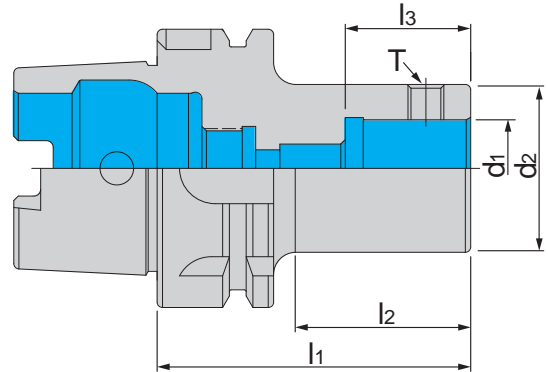


# HSK/MCK 擴孔刀柄

## HSK/MCK BORING HEAD SHANK(FOR TYPE A)

DIN  
69893-A

細牙 Fine Teeth



規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	T	重量 (KGS) Weight
HSK40A x MCK1 - 50	50	27	15	11	19	M4x0.5P	0.60
HSK40A x MCK2 - 60	60	37	18.5	14	23.5	M5x0.5P	0.36
HSK40A x MCK3 - 60	60	38	22	18	31	M6x0.75P	0.80
HSK50A x MCK1 - 60	60	31	15	11	19	M4x0.5P	1.00
HSK50A x MCK2 - 60	60	31	18.5	14	23.5	M5x0.5P	1.10
HSK50A x MCK3 - 60	60	32	22	18	31	M6x0.75P	1.20
HSK50A x MCK4 - 60	60	32	24	22	39	M8x0.75P	1.30
HSK50A x MCK5 - 80	80	53	30	28	50	M10x1.0P	1.00
HSK50A x MCK6 - 80	80	53	40	36	63	M12x1.0P	1.50
HSK63A x MCK1 - 80	80	49	15	11	19	M4x0.5P	1.20
HSK63A x MCK1 - 95	95	64	15	11	19	M4x0.5P	1.25
HSK63A x MCK2 - 80	80	44	18.5	14	23.5	M5x0.5P	0.86
HSK63A x MCK2 - 110	110	79	18.5	14	23.5	M5x0.5P	1.35
HSK63A x MCK3 - 90	90	59	24	18	31	M6x0.75P	1.02
HSK63A x MCK3 - 125	125	94	24	18	31	M6x0.75P	0.52
HSK63A x MCK4 - 80	80	49	28	22	39	M8x0.5P	1.09
HSK63A x MCK4 - 110	110	79	28	22	39	M8x0.5P	1.55
HSK63A x MCK5 - 95	95	67.5	35	28	50	M10x1.0P	1.60
HSK63A x MCK5 - 110	110	82.5	35	28	50	M10x1.0P	1.78
HSK63A x MCK6 - 70	70	43.5	42	36	63	M12x1.0P	1.31
HSK63A x MCK6 - 95	95	68.5	42	36	63	M12x1.0P	1.84
HSK100A x MCK1 - 100	100	61	18	11	19	M4x0.5P	2.07
HSK100A x MCK2 - 75	75	36	18.5	14	23.5	M5x0.5P	2.09
HSK100A x MCK2 - 115	115	76	18.5	14	23.5	M5x0.5P	2.18
HSK100A x MCK3 - 60	60	21	24	18	31	M6x0.75P	2.15
HSK100A x MCK3 - 125	125	86	24	18	31	M6x0.75P	2.47
HSK100A x MCK4 - 70	70	31	28	22	39	M8x0.75P	2.34
HSK100A x MCK4 - 120	120	86	28	22	39	M8x0.75P	2.76
HSK100A x MCK5 - 70	70	31	35	28	50	M10x1.0P	2.60
HSK100A x MCK5 - 110	110	76	35	28	50	M10x1.0P	3.17
HSK100A x MCK6 - 75	75	41	42	36	63	M12x1.0P	3.02
HSK100A x MCK6 - 100	100	66	42	36	63	M12x1.0P	3.60

HSK

### 選配表 Option

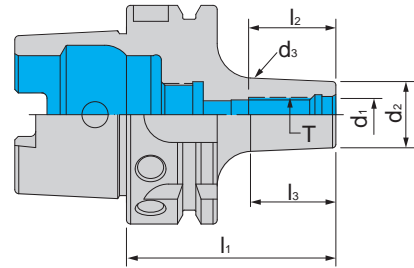
延長桿 Extension Spacer	擴頭 Boring Head						給水管 Coolant Supply Unit
A345-346	A329	A337	A386	A356	A366	A369	A176



## HSK/SOM 螺紋鎖固式刀桿

HSK/SOM SCREWED END MILL HOLDER(FOR TPYE A)

DIN  
69893-A



規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	T	重量 (KGS) Weight
HSK50A × SOM6-60	60	25	24	6.5	13	15	M6 × 1.0P	0.70
HSK50A × SOM8-60	60	25	24	8.5	15	17	M8 × 1.25P	0.70
HSK50A × SOM10-60	60	25	24	10.5	19	21	M10 × 1.5P	0.80
HSK50A × SOM12-70	70	31	36	12.5	21	24	M12 × 1.75P	0.80
HSK50A × SOM16-80	80	30	49	17	25	29	M16 × 2.0P	0.80
HSK63A × SOM6-60	60	25	24	6.5	13	15	M6 × 1.0P	1.00
HSK63A × SOM8-60	60	25	24	8.5	15	17	M8 × 1.25P	0.77
HSK63A × SOM10-60	60	25	24	10.5	19	21	M10 × 1.5P	0.79
HSK63A × SOM12-70	70	31	34	12.5	21	23	M12 × 1.75P	1.10
HSK63A × SOM16-80	80	30	49	17	25	29	M16 × 2.0P	1.10

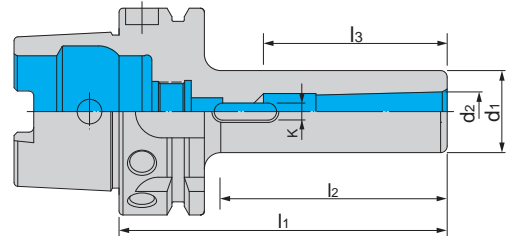
HSK



## HSK/MTA 斜柄鑽頭套筒

HSK/MTA MORSE TAPER ADAPTER(FOR TYPE A)

DIN 228



### 特點 Feature

- MTA= 榫舌型式本 =DIN 228-B

- MTA=TANG TYPE=DIN 228-B

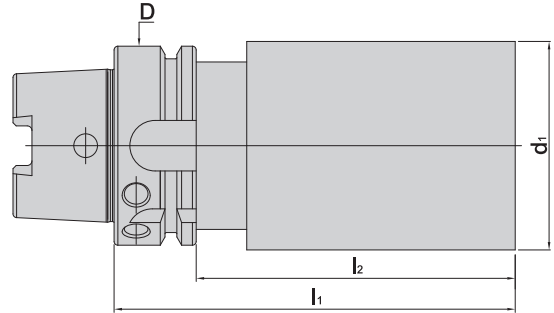
規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	K	重量 (KGS) Weight
HSK 50A × MTA1- 100	100	69	56	25	12.065	5.2	0.93
HSK 50A × MTA2- 120	120	89	67	32	17.78	6.3	1.80
HSK 50A × MTA3- 140	140	113	84	40	23.825	7.9	1.90
HSK 63A × MTA1- 100	100	69	56	25	12.065	5.2	1.90
HSK 63A × MTA2- 120	120	89	67	32	17.78	6.3	1.15
HSK 63A × MTA3- 140	140	109	84	40	23.825	7.9	2.20
HSK 63A × MTA4- 160	160	132	107	48	31.267	11.9	1.99
HSK 100A × MTA1- 110	110	71	56	25	12.065	5.2	3.40
HSK 100A × MTA2- 120	120	81	67	32	17.78	6.3	3.80
HSK 100A × MTA3- 150	150	111	84	40	23.825	7.9	4.00
HSK 100A × MTA4- 170	170	131	107	48	31.267	11.9	4.60
HSK 100A × MTA5- 200	200	166	135	63	44.399	15.9	5.20



# HSK 素材 HSK BLANK

DIN  
69893-A

**NEW**



規格 Spec.	$l_1$	$l_2$	D	$d_1$	重量 (KGS) Weight
HSK32A x Ø67-43.8	43.8	23.8	32	67	-
HSK63A x Ø64-240	240	-	63	64	-
HSK63A x Ø80-250	250	224	63	80	-
HSK63A x Ø100-150	150	124	63	100	-
HSK100A x Ø97-250	250	221	100	97	-

HSK



# HSK 測試棒 HSK STANDARD TEST



Fig.1



Fig.2

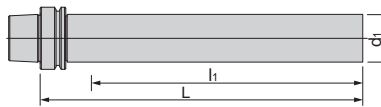


Fig.3

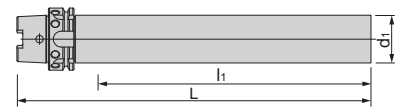
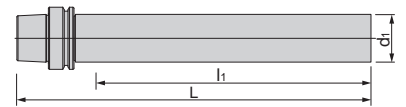


Fig.4



	錐度精度 Taper Precision	AT2
	真圓度 Roundness	0.001mm
	表面粗造度 Surface Roughness	Ra<0.4
	同心度 Concentricity	0.005mm

規格 Spec.	L	$l_1$	$d_1$	Fig.	重量 (KGS) Weight
HSK40A-TS180L	215	180	32	1	2.86
HSK50A-TS240L	282	240	32	1	-
HSK63A-TS300L	374	300	40	3	3.66
HSK100A-TS300L	395	300	50	3	7.61
HSK25E-TS175L	195	175	20	2	-
HSK32E-TS180L	215	180	20	2	2.38
HSK40E-TS180L	215	180	32	2	2.98
HSK50E-TS240L	282	240	32	2	3.70
HSK63F-TS300L	367	300	40	4	4.48

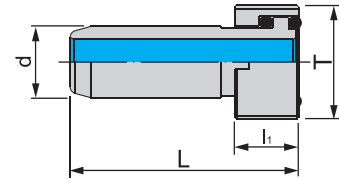
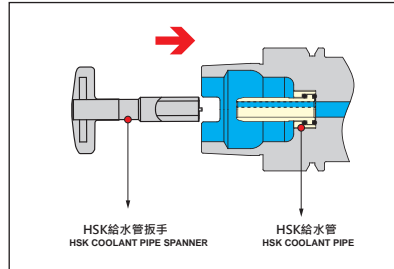


## 給水管 COOLANT SUPPLY UNIT

DIN  
69893-A



### 範例 Example



### 特點 Feature

- HSK 刀桿中心出水使用導管

- HSK cutter bar center water leakage use drive pipe.

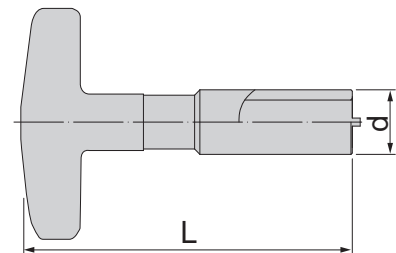
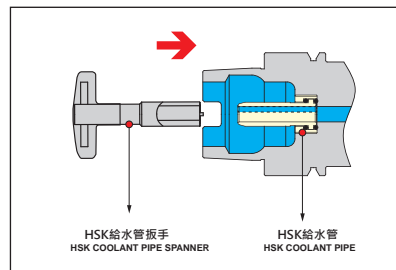
規格 Spec.	L	l <sub>1</sub>	d	T	重量 (KGS) Weight
HSK32-CP	26	5.5	6	M10 × 1.0P	0.01
HSK40-CP	29.3	7.5	8	M12 × 1.0P	0.01
HSK50-CP	33	9.5	10	M16 × 1.0P	0.02
HSK63-CP	36.3	11.5	12	M18 × 1.0P	0.02
HSK100-CP	44	15.5	16	M24 × 1.5P	0.06



## 給水管扳手 KEY FOR COOLANT SUPPLY UNIT



### 範例 Example



### 特點 Feature

- HSK 給水管鎖緊扳手

- In HSK cold tube locking spanner.

規格 Spec.	L	d	重量 (KGS) Weight
HSK32-CPW	90	10	0.10
HSK40-CPW	90	13.5	0.12
HSK50-CPW	95	15.5	0.14
HSK63-CPW	100	17.5	0.16
HSK100-CPW	125	23.5	0.32



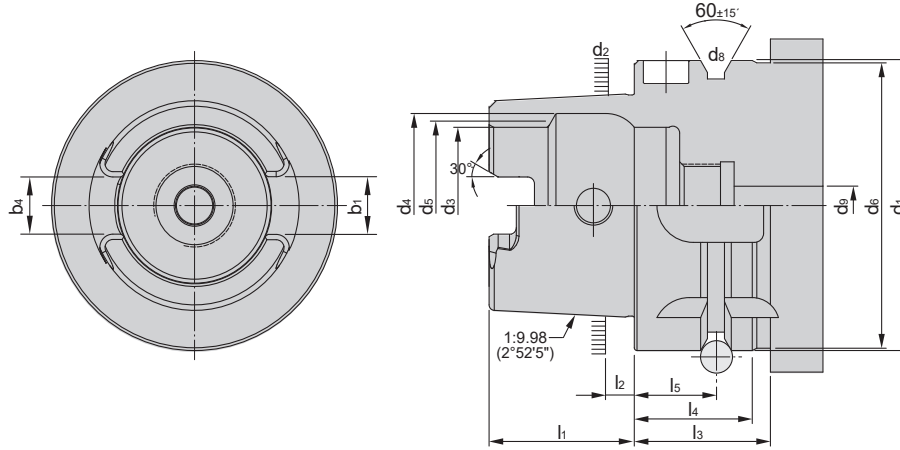
# HSK-T

Precision Tool Holder Systems





# 參考資料 REFERENCE DETAILS



HSK-T

規格 Spec.	d <sub>1</sub> h <sub>10</sub>	d <sub>2</sub>	d <sub>3</sub> H <sub>10</sub>	d <sub>4</sub> H <sub>11</sub>	d <sub>5</sub>	d <sub>6</sub> Max.	d <sub>8</sub>	d <sub>9</sub> Max.	l <sub>1</sub> 0 -0.2	l <sub>2</sub>	l <sub>3</sub> Min.	l <sub>4</sub> 0 -0.1	l <sub>5</sub> ±0.1	b <sub>1</sub> ±0.04	b <sub>4</sub>	
HSK-T32	32	24.007	17	20.5	19	31	4	4.2	16	3.2	23	20	16	7.05	6.932	+0.03 0
HSK-T40	40	30.007	21	25.5	23	39	4	5	20	4	23	20	16	8.05	7.932	+0.03 0
HSK-T50	50	38.009	26	32	29	49	7	6.8	25	5	30	26	18	10.54	10.425	+0.035 0
HSK-T63	63	48.010	34	40	37	62	7	8.4	32	6.3	30	26	18	12.54	12.425	+0.035 0
HSK-T80	80	60.012	42	50	46	79	7	10.2	40	8	30	26	18	16.04	15.93	+0.035 0
HSK-T100	100	75.013	53	63	58	99	7	12	50	10	34	26	20	20.02	19.91	+0.035 0

1. 錐度精度 : < AT3
2. 硬度 : > HRC 56°
3. 滲碳深度 : > 0.8mm
4. 真圓度 : < 0.8μm
5. 表面粗糙度 : Ra < 0.25μm
6. 刀桿有預設標準動平衡 G6.3 · 可另外指定精密動平衡 G2.5
7. 本體規範 : DIN ISO 12164-3:20008

1. Taper tolerance < AT3.
2. Hardness > HRC 56°
3. Carbon depth > 0.8mm.
4. Roundness < 0.8μm.
5. Surface roughness : Ra < 0.25μm.
6. The shank has pre-balance at G6.3, and can provide precision balance at G2.5, made by request.
7. Shank body standard : DIN ISO 12164-3:20008



# 車刀規格介紹

## DISPLAY FOR TURNING TOOLS

鎖固方式Clamp mechanism			
A	Back clamp system	M	Multi-clamp system
C	Clamp-on system	P	Pin lock system
D	Double clamp system	S	Screw-on system
E	Off-set pin system	T	Taper lock system
JS	Screw-on system	W	Wedge-on system
JT	Back clamp system		

離隙角 Insert clearance	
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°

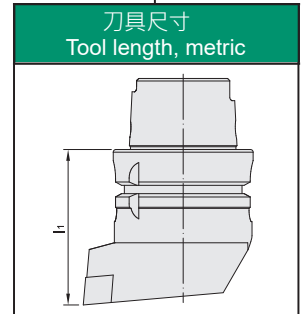
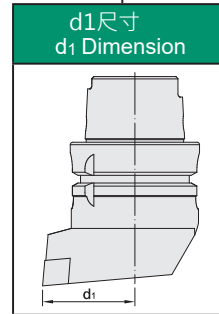
刀具長度 Insert edge length						
Insert inscribed circle		6.35	7.94	9.525	12.00	12.70
	80°	06	08	09	-	12
	55°	07	-	11	-	15
	35°	11	-	16	-	-
		-	-	-	12	-
		11	13	16	-	22
		-	-	09	-	12

**HSK - T63 - M C L N R - 45 065 - 12**

刀片形狀 Insert geometry	
C	
D	
K	
R	
S	
T	
V	
W	
L	
H	
A	
B	
E	
M	
O	
P	

進刀角度 Cutting edge geometry				
90°	75°	90°	45°	
60°	90°	90°	107.5°	
93°	75°	95°	95°	50°
63°	117.5°	75°	45°	
60°	93°	72.5°	60°	
85°				

切削方向 Hand
R 
L 
N 

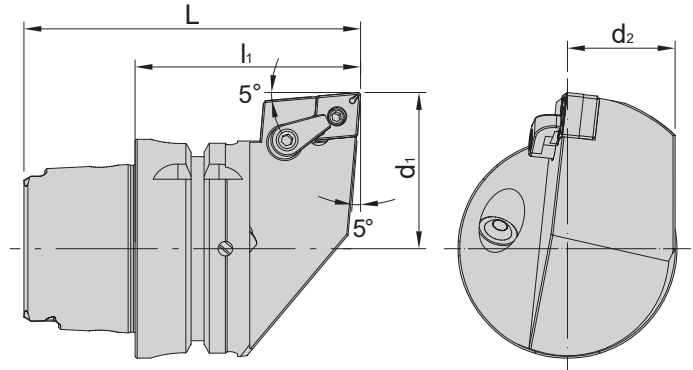


HSK-T



## MCLN 外徑車刀

### MCLN EXTERNAL TURNING TOOL



規格 Spec.	L	l <sub>1</sub>	d <sub>1</sub>	d <sub>2</sub>	刀片 Insert	重量 (KGS) Weight
HSK-T63-MCLNR-45065-12	97	65	45	31	CN..1204	1.26
HSK-T63-MCLNL-45065-12	97	65	45	31	CN..1204	1.26

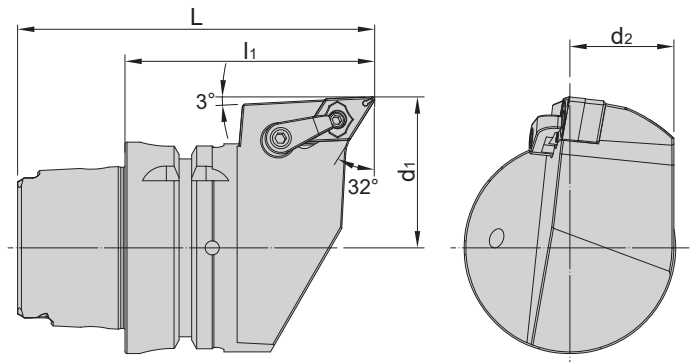
#### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
CN..1204	CMS432	MLP46L-A	PL2.5	5.0	MC620	MS630	PL3	5.0



## MDJN 外徑車刀

### MDJN EXTERNAL TURNING TOOL



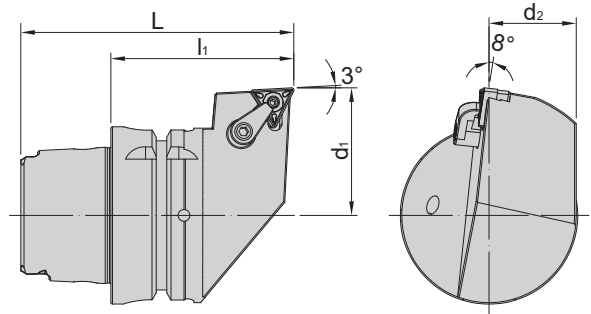
規格 Spec.	L	l <sub>1</sub>	d <sub>1</sub>	d <sub>2</sub>	刀片 Insert	重量 (KGS) Weight
HSK-T63-MDJNR-45075-15	107	75	45	31	DN..1504	1.38
HSK-T63-MDJNL-45075-15	107	75	45	31	DN..1504	1.38

#### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
DN..1504	DMS442	MLP46L-A	PL2.5	5.0	MC622	MS630	PL3	5.0



## MTJN 外徑車刀 MTJN EXTERNAL TURNING TOOL



規格 Spec.	L	l <sub>1</sub>	d <sub>1</sub>	d <sub>2</sub>	刀片 Insert	重量 (KGS) Weight
HSK-T63-MTJNR-45065-16	97	65	45	31	TN..1604	1.27
HSK-T63-MTJNL-45065-16	97	65	45	31	TN..1604	1.27

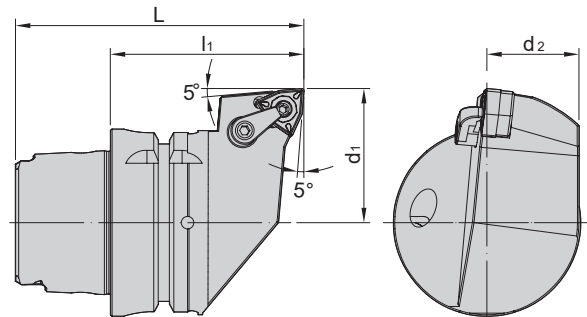
### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
TN..1604	TMS322	MLP34L-A	PL2	3.0	MC620	MS630	PL3	5.0

HSK-T



## MWLN 外徑車刀 MWLN EXTERNAL TURNING TOOL



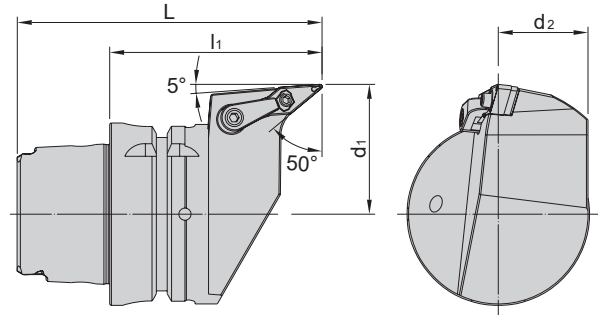
規格 Spec.	L	l <sub>1</sub>	d <sub>1</sub>	d <sub>2</sub>	刀片 Insert	重量 (KGS) Weight
HSK-T63-MWLN-45065-08	97	65	45	31	WN..0804	1.22
HSK-T63-MWLN-45065-08	97	65	45	31	WN..0804	1.22

### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
WN..0804	WMS432	MLP46L-A	PL2.5	5.0	MC620	MS630	PL3	5.0



## MVLN 外徑車刀 MVLN EXTERNAL TURNING TOOL



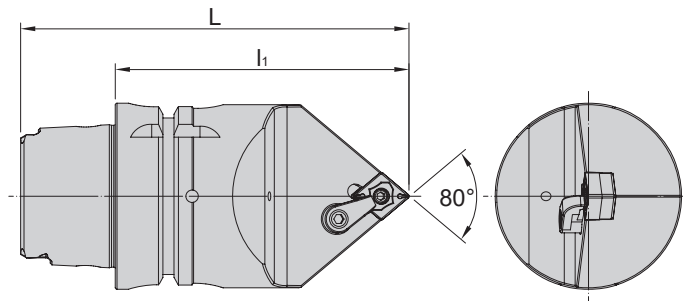
規格 Spec.	L	l <sub>1</sub>	d <sub>1</sub>	d <sub>2</sub>	刀片 Insert	重量 (KGS) Weight
HSK-T63-MVLNR-45075-16	107	75	45	31	VN..1604	1.30
HSK-T63-MVLNL-45075-16	107	75	45	31	VN..1604	1.30

### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
VN..1604	VMS322	MLP34L-A	PL2	3.0	MC622	MS630	PL3	5.0



## MCMN 外徑車刀 MCMN EXTERNAL TURNING TOOL



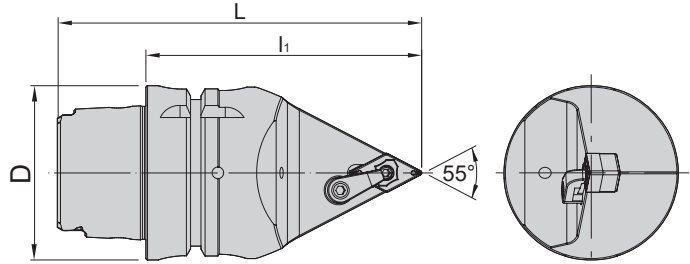
規格 Spec.	L	l <sub>1</sub>	刀片 Insert	重量 (KGS) Weight
HSK-T63-MCMNN-00100-12	132	100	CN..1204	1.68
HSK-T63-MCMNN-00140-12	172	140	CN..1204	1.68

### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
CN..1204	CMS432	MLP46L-A	PL2.5	5.0	MC620	MS620	PL3	5.0



## MDNN 外徑車刀 MDNN EXTERNAL TURNING TOOL



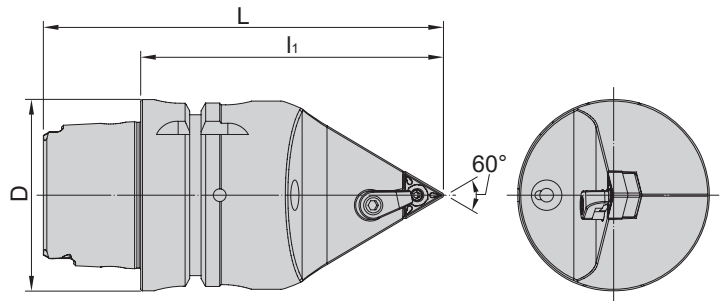
規格 Spec.	L	l <sub>1</sub>	D	刀片 Insert	重量 (KGS) Weight
HSK-T63-MDNNN-00100-15	132	100	63	DN..1504	1.55
HSK-T63-MDNNN-00140-15	172	140	63	DN..1504	1.55

### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
DN..1504	DMS442	MLP46L-A	PL2.5	5.0	MC622	MS625	PL3	5.0



## MTEN 外徑車刀 MTEN EXTERNAL TURNING TOOL



規格 Spec.	L	l <sub>1</sub>	D	刀片 Insert	重量 (KGS) Weight
HSK-T63-MTENN-00100-16	132	100	63	TN..1604	1.62
HSK-T63-MTENN-00140-16	172	140	63	TN..1604	1.62

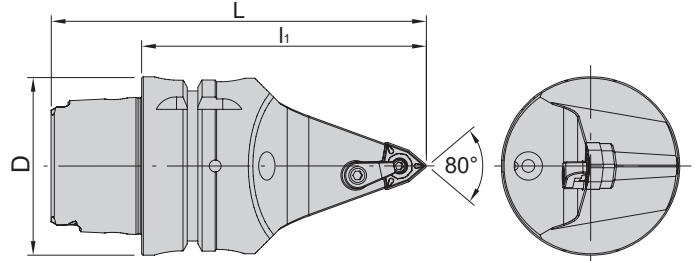
### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
TN..1604	TMS322	MLP34L-A	PL2	3.0	MC620	MS630	PL3	5.0



## MWMN 外徑車刀

### MWMN EXTERNAL TURNING TOOL



規格 Spec.	L	l <sub>1</sub>	D	刀片 Insert	重量 (KGS) Weight
HSK-T63-MWMNN-00100-08	132	100	63	WN..0804	1.48
HSK-T63-MWMNN-00140-08	172	140	63	WN..0804	1.48

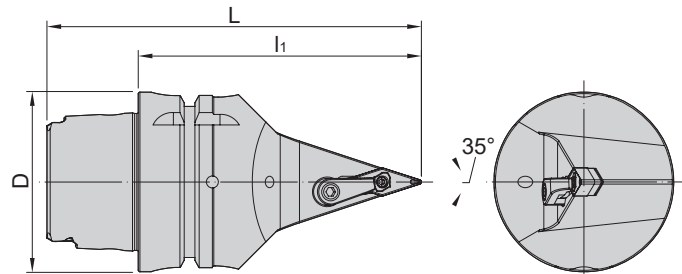
#### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
WN..0804	WMS432	MLP46L-A	PL2.5	5.0	MC620	MS630	PL3	5.0



## MVVN 外徑車刀

### MVVN EXTERNAL TURNING TOOL



規格 Spec.	L	l <sub>1</sub>	D	刀片 Insert	重量 (KGS) Weight
HSK-T63-MVVNN-00100-16	132	100	63	VN..1604	1.40
HSK-T63-MVVNN-00140-16	172	140	63	VN..1604	1.40

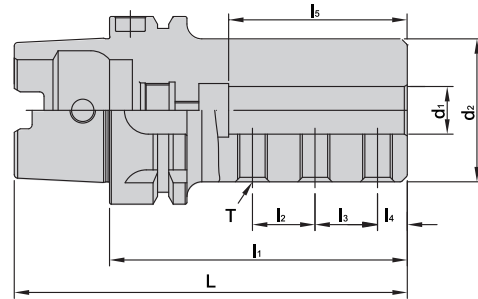
刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
VN..1604	VMS322	MLP34L-A	PL2	3.0	MC622	MS630	PL3	5.0





# SLT 側固式刀柄

## SIDE LOCK HOLDER FOR INTERNAL TURNING BAR



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	d <sub>1</sub>	d <sub>2</sub>	T	重量 (KGS) Weight
HSK-T63xSLT8-70	102	70	10	10	6	32	8	28	M6	0.93
HSK-T63xSLT10-80	112	80	12	12	8	40	10	35	M8	1.10
HSK-T63xSLT12-90	122	90	16	16	8	45	12	42	M8	1.36
HSK-T63xSLT16-100	132	100	21	21	10	60	16	48	M10	1.60
HSK-T63xSLT20-120	152	120	20	20	12	60	20	52	M10	2.03
HSK-T63xSLT25-140	172	140	23	23	14	67	25	56	M12	2.52
HSK-T63xSLT32-160	192	160	26	26	16	74	32	64	M12	3.34

HSK-T

Fig.1

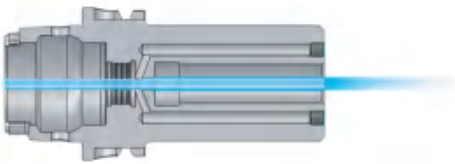
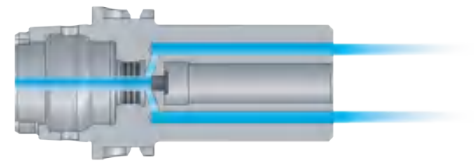


Fig.2



### 刀具中心出水螺絲 Screw For Coolant Outlet From Tool

規格 Spec.	適用規格 Applicable Spec.	T	Fig.	重量 (KGS) Weight
B06-01M4x0.7P-503	SLT8	M4x0.7P	1	-
B06-01M5x0.5P-503	SLT10	M5x0.8P		-
B06-01M6x1.0P-603	SLT12	M6x1.0P		-
	SLT16			-
	SLT20			-
B06-01M8x1.25P-603	SLT25	M8x1.25P		-
	SLT32		-	

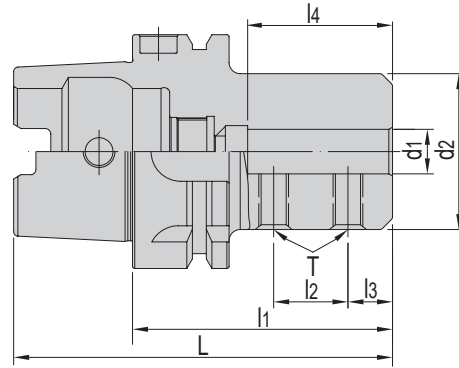
### 刀具中心出水螺絲 Screw For Coolant Outlet From Tool Holder

規格 Spec.	適用規格 Applicable Spec.	T	Fig.	重量 (KGS) Weight
C-EBSS6-8	SLT8	M6x1.0P	2	-
	SLT10			-
	SLT12			-
	SLT16			-
	SLT20			-
	SLT25			-
	SLT32			-



## SLD 側固式鑽頭用刀柄

SIDE LOCK HOLDER FOR HIGH SPEED DRILL



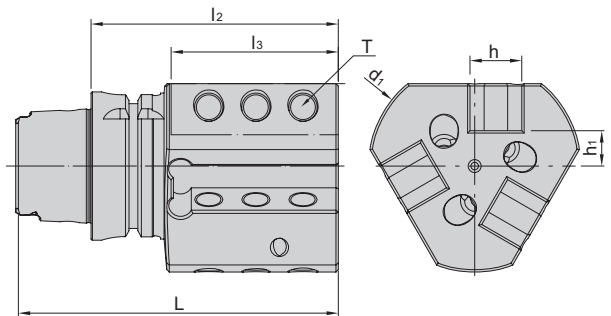
HSK-T

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	d <sub>1</sub>	d <sub>2</sub>	T	重量 (KGS) Weight
HSK-T63xSLD8-65	97	65	18	10	34	8	28	M8	0.84
HSK-T63xSLD10-70	102	70	20	12	39	10	35	M8	0.97
HSK-T63xSLD12-70	102	70	20	12	39	12	42	M8	1.10
HSK-T63xSLD16-75	107	75	20	15	44	16	48	M10	1.26
HSK-T63xSLD20-75	104	75	20	15	44	20	52	M10	1.34
HSK-T63xSLD25-85	117	85	23	17	52	25	62	M12	1.79
HSK-T63xSLD32-90	122	90	27	17	56	32	62	M12	1.74
HSK-T63xSLD40-100	132	100	28	22	62	40	68	M16	2.00



## SV 外徑車刀架

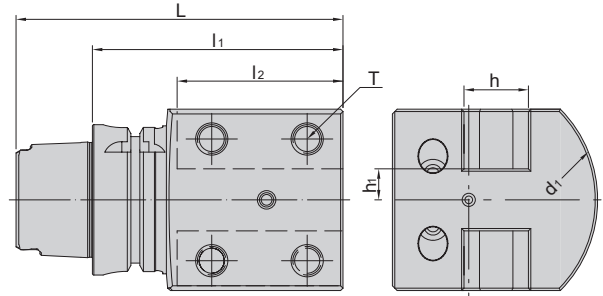
EXTERNAL TURNING TOOL HOLDERS



規格 Spec.	L	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>	h	h <sub>1</sub>	T	重量 (KGS) Weight
HSK-T63xSV20R-105	137	105	70	90	20	15	M12x1.75P	2.72
HSK-T63xSV20L-105	137	105	70	90	20	15	M12x1.75P	2.72



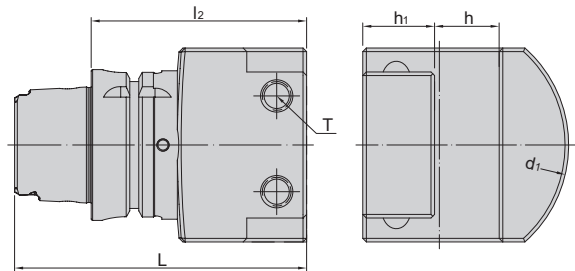
## SB 外徑車刀架 EXTERNAL TURNING TOOL HOLDERS



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	h	h <sub>1</sub>	d <sub>1</sub>	T	重量 (KGS) Weight
HSK-T63xSB25R-105	137	105	70	25	13	54	M12x1.75P	2.98



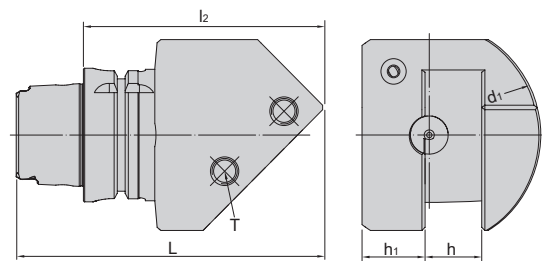
## SF 外徑車刀架 EXTERNAL TURNING TOOL HOLDERS



規格 Spec.	L	l <sub>2</sub>	h	h <sub>1</sub>	d <sub>1</sub>	T	重量 (KGS) Weight
HSK-T63xSF25-90	122	90	25	30	54	M12x1.75P	3.05
HSK-T63xSF25-120	152	120	25	30	54	M12x1.75P	3.99



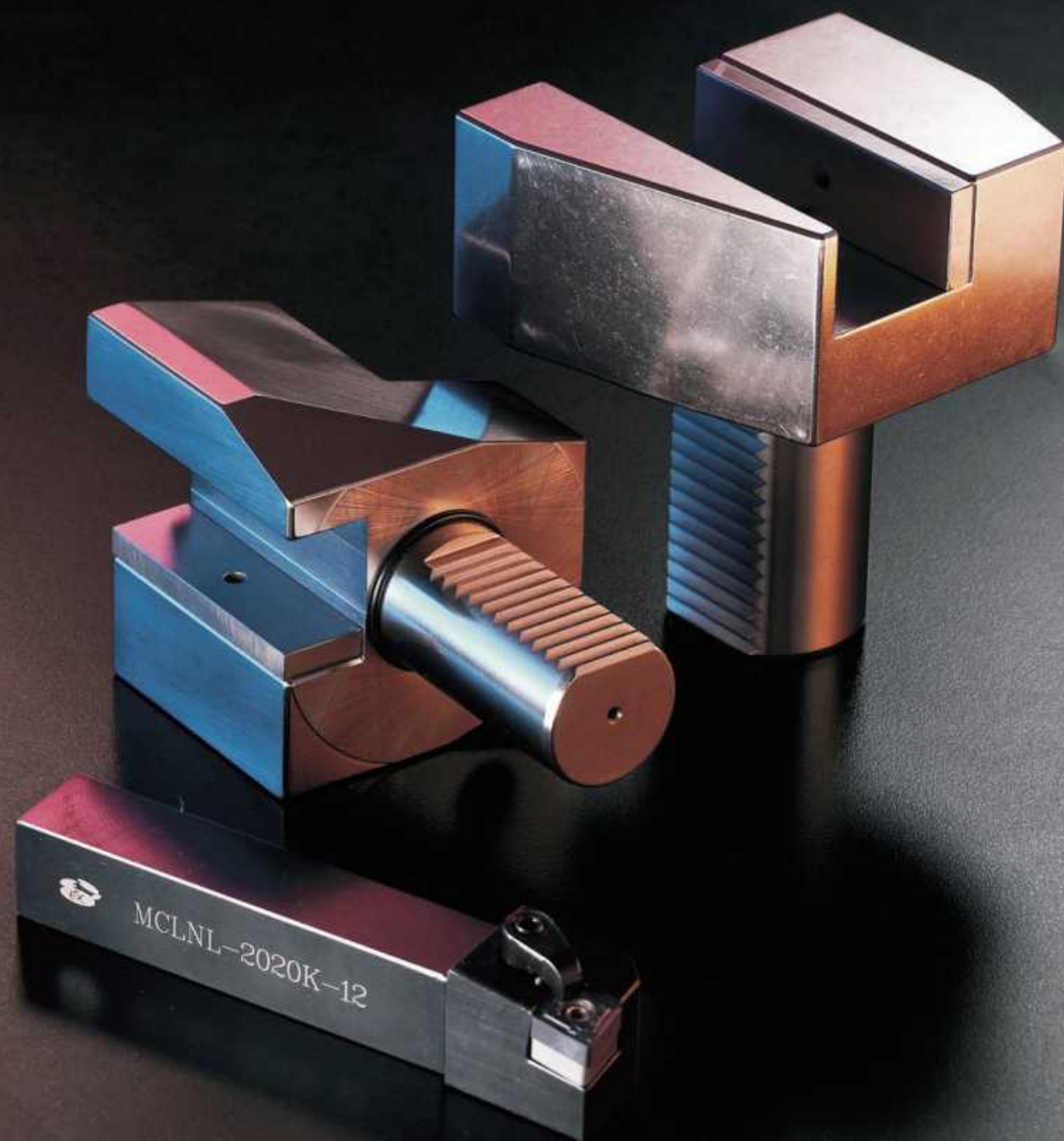
## SN 外徑車刀架 EXTERNAL TURNING TOOL HOLDERS

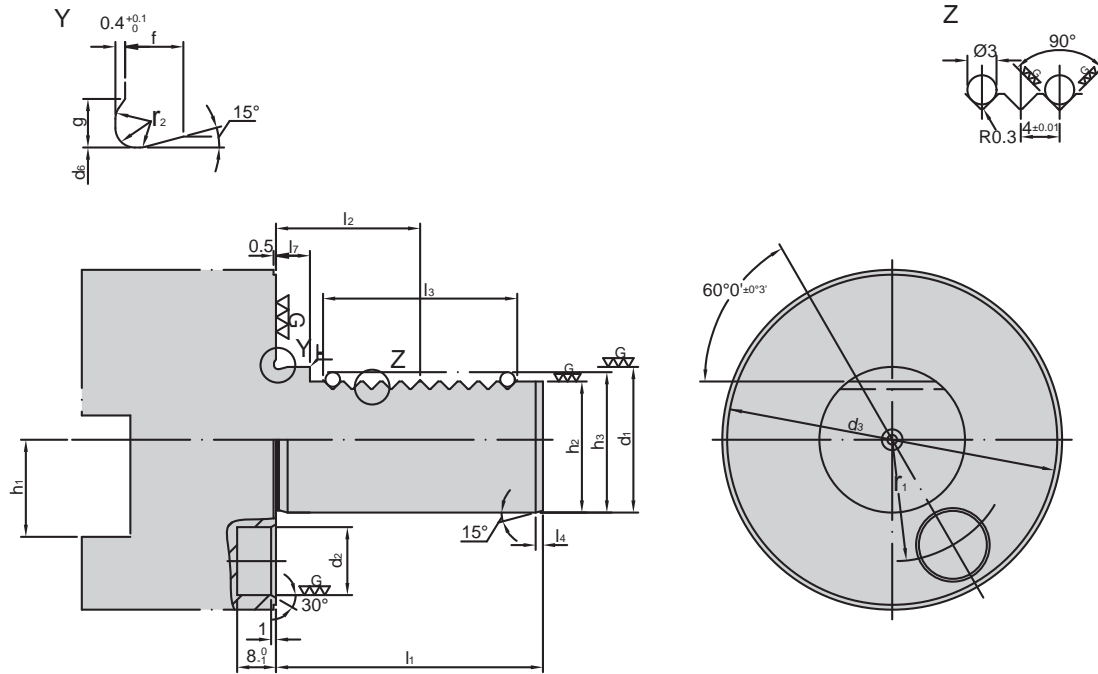


規格 Spec.	L	l <sub>2</sub>	d <sub>1</sub>	h	h <sub>1</sub>	T	重量 (KGS) Weight
HSK-T63xSN25R-115	147	115	53	25	30	M12x1.75P	3.40
HSK-T63xSN25L-115	147	115	53	25	30	M12x1.75P	3.40

# VDI

Precision Tool Holder Systems





$$\sqrt{v_v} = Rz 2.5$$

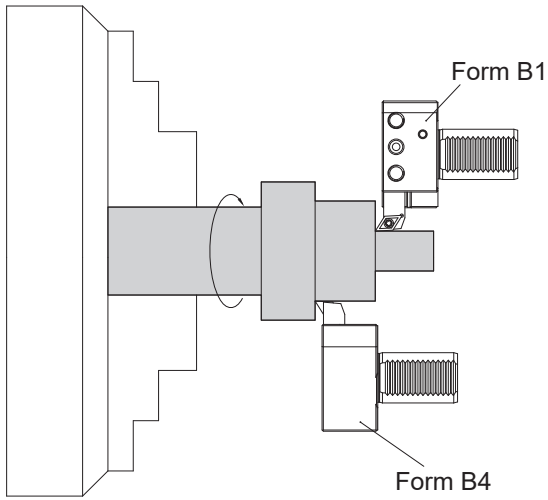
- 德規排齒規範標準 (DIN ISO 10889) 具有結構先進、製造精度高、使用方便、互換功能性強等優點。
- DIN ISO 10889 德規排齒規範標準。柄徑從 VDI 16、VDI 20、VDI 30、VDI 40、VDI 50、VDI 60、VDI 80 .... 可依照需求選擇各式功能刀座。如：外徑刀座、孔內刀座、快速鑽頭刀座、鑽夾頭刀座、切斷刀座等。
- DIN ISO 10889 Tool Holders have features as the followings:  
Advanced structure, high manufacturing precision, easy operation and strong exchangeability function, etc.
- DIN ISO 10889 Tool Holders have such tapers as VDI16, VDI20, VDI30, VDI40, VDI50, VDI60, VDI80, etc. It's available for customers to choose suitable types according to their requests, such as TURNING TOOL HOLDER, BORING BAR HOLDER, HIGH SPEED DRILL TOOL HOLDER, DRILL CHUCK TOOL HOLDER, CUTTING TOOL HOLDER, etc.

d <sub>1</sub>	l <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>6</sub>	f	g	h <sub>1</sub>	h <sub>2</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>7</sub>	r <sub>1</sub>	r <sub>2</sub>	O-Ring	
h <sub>1</sub>	±0.3			$\begin{matrix} 0 \\ -0.1 \end{matrix}$			Max.	±0.1	±0.05	Min.	$\begin{matrix} -1 \\ 0 \end{matrix}$		±0.02			
16	32	8	H6	40	15.4	2	1.7	12	15	12.7	16	2	3.5	14.5	0.6	15 x 15
20	40	10	H6	50	19.1	2.4	2	16	18	21.7	24	2	7	18	0.8	18.77 x 1.78
25	48	10	H6	58	24.1	2.4	2	16	23.5	21.7	24	2	7	21	0.8	23.52 x 1.78
30	55	14	H8	68	29.1	2.4	2	20	27	29.7	40	2	7	25	0.8	28.3 x 1.78
40	63	14	H8	83	38.7	3.7	2.8	25	36	29.7	40	3	7	32	1.2	37.77 x 2.62
50	78	16	H8	98	48.7	3.7	2.8	32	45	35.7	48	3	8	37	1.2	47.29 x 2.62
60	94	16	H8	123	58.7	4.3	3.7	32	55	43.7	56	4	10	48	1.6	56.74 x 3.53
80	124	20	H8	158	78.7	4.3	3.7	40	72	59.7	80	4	10	65	1.6	75.79 x 3.53

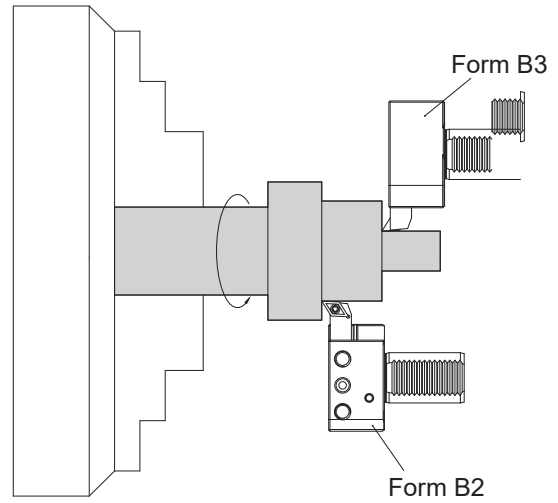




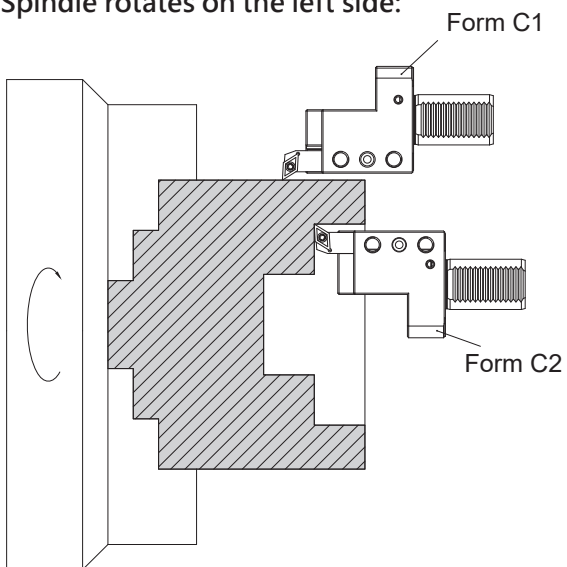
主軸左旋  
Spindle rotates on the left side:



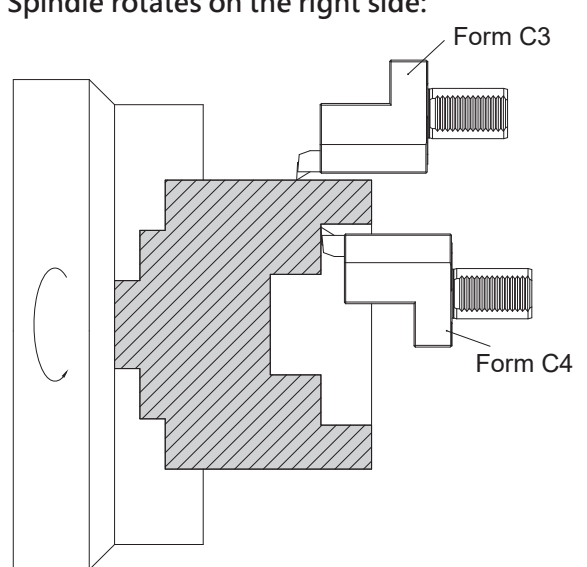
主軸右旋  
Spindle rotates on the right side:



主軸左旋  
Spindle rotates on the left side:



主軸右旋  
Spindle rotates on the right side:



# VDI

## 動力刀座系列

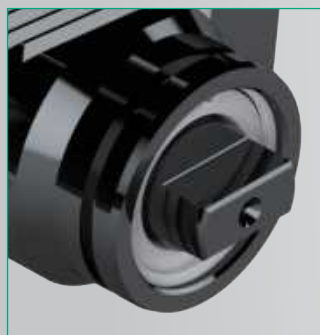
- 研磨級齒輪-高精度、低噪音、低溫升
- 品質保證，保固一年
- 提供客製化服務
- Grinding gears - high precision, low noise, low temperature rise.
- Quality assurance, one year warranty.
- Provide customized service.



# VDI

## 傳動方式

-DIN1809



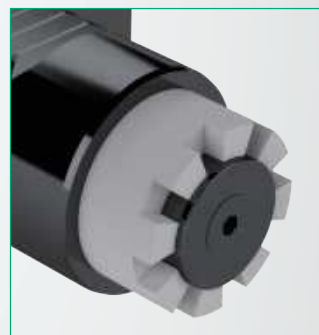
-DIN5480



-DIN5482



-TOME



# Driven



VDI刀座系統



BMT動力刀座系統



VDI動力刀座系統



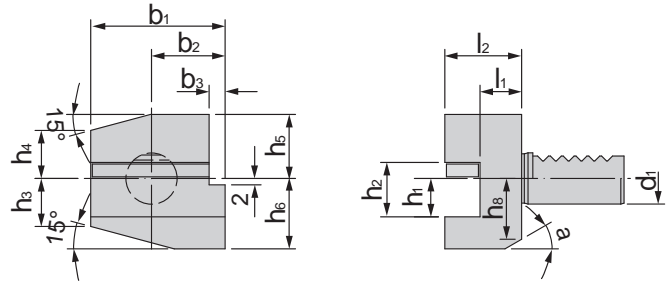
# Tool Holder



# 外徑刀座 TURNING TOOL HOLDER

DIN ISO 10889-3

DIN  
ISO  
10889



## 特點 Feature

- 徑向 - 右撇
- 短刀架
- 附出水孔

- Radial-right handed.
- Short tool holder.
- With coolant hole.

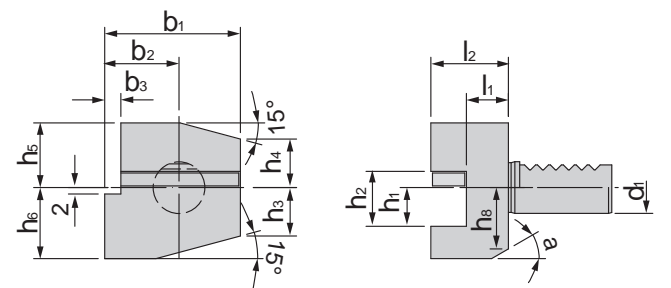
規格 Spec.	尺寸 Size d1 x h2 x l2	d1	b1	b2	b3	h1	h2	h3	h4	h5	h6	h8	l1	l2	a	重量 (KGS) Weight
150.B1.30.20.40	30 x 20 x 40	30	70	35	10	20	29	26	22	28	38	30	22	40	25°	1.38
150.B1.30.20.60	30 x 20 x 60	30	70	35	10	20	29	26	22	28	38	30	42	60	25°	2.02
150.B1.40.25.44	40 x 25 x 44	40	85	42.5	12.5	25	34	35	30	32.5	48	-	22	44	-	2.36
150.B1.50.32.55	50 x 32 x 55	50	100	50	16	32	41	42	35	35	60	-	30	55	-	-

VDI



# 外徑刀座 TURNING TOOL HOLDER

DIN ISO 10889-3



## 特點 Feature

- 徑向 - 左撇
- 短刀架
- 附出水孔

- Radial-left handed.
- Short tool holder.
- With coolant hole

規格 Spec.	尺寸 Size d1 x h2 x l2	d1	b1	b2	b3	h1	h2	h3	h4	h5	h6	h8	l1	l2	a	重量 (KGS) Weight
150.B2.30.20.40	30 x 20 x 40	30	70	35	10	20	29	26	22	28	38	30	22	40	25°	1.40
150.B2.30.20.60	30 x 20 x 60	30	70	35	10	20	29	26	22	28	38	30	42	60	25°	2.02
150.B2.40.25.44	40 x 25 x 44	40	85	42.5	12.5	25	34	35	30	32.5	48	-	22	44	-	2.38
150.B2.50.32.55	50 x 32 x 55	50	100	50	16	32	41	42	35	35	60	-	30	55	-	-

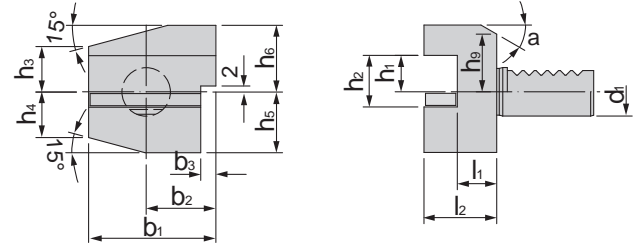




# 外徑刀座 TURNING TOOL HOLDER

DIN ISO 10889-3

DIN  
ISO  
10889



## 特點 Feature

- 徑向 - 右撇
- 短刀架
- 刀片向下
- 附出水孔

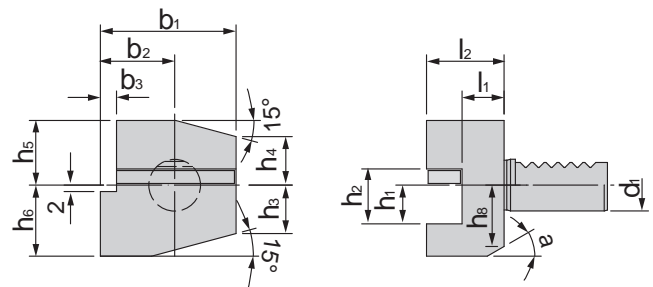
- Radial-right handed.
- Short tool holder.
- Turning insert downwards.
- With coolant hole.

規格 Spec.	尺寸 Size d <sub>1</sub> × h <sub>1</sub> × l <sub>2</sub>	d <sub>1</sub>	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	h <sub>6</sub>	h <sub>7</sub>	h <sub>8</sub>	l <sub>1</sub>	l <sub>2</sub>	a	重量 (KGS) Weight
150.B3.30.20.40	30 x 20 x 40	30	70	35	10	20	29	26	22	38	35	28	22	40	25°	1.42
150.B3.30.20.60	30 x 20 x 60	30	70	35	10	20	29	26	22	38	35	28	42	60	25°	-
150.B3.40.25.44	40 x 25 x 44	40	85	42.5	12.5	25	34	35	30	48	42.5	-	22	44	-	2.52
150.B3.50.32.55	50 x 32 x 55	50	100	50	16	32	41	42	35	60	50	-	30	55	-	-



# 外徑刀座 TURNING TOOL HOLDER

DIN ISO 10889-3



## 特點 Feature

- 徑向 - 左撇
- 短刀架
- 刀片向下
- 附出水孔

- Radial-left handed.
- Short tool holder.
- Turning insert downwards.
- With coolant hole.

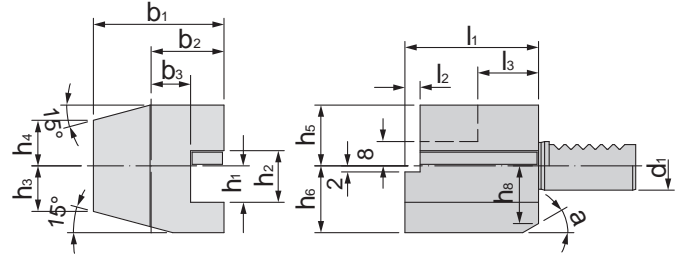
規格 Spec.	尺寸 Size d <sub>1</sub> × h <sub>1</sub> × l <sub>2</sub>	d <sub>1</sub>	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	h <sub>6</sub>	h <sub>7</sub>	h <sub>8</sub>	l <sub>1</sub>	l <sub>2</sub>	a	重量 (KGS) Weight
150.B4.30.20.40	30 x 20 x 40	30	70	35	10	20	29	26	22	38	35	28	22	40	25°	-
150.B4.30.20.60	30 x 20 x 60	30	70	35	10	20	29	26	22	38	35	28	42	60	25°	-
150.B4.40.25.44	40 x 25 x 44	40	85	42.5	12.5	25	34	35	30	48	42.5	-	22	44	-	2.52
150.B4.50.32.55	50 x 32 x 55	50	100	50	16	32	41	42	35	60	50	-	30	55	-	-



# 端面刀座 FACE TURNING TOOL HOLDER

DIN ISO 10889-4

DIN  
ISO  
10889



## 特點 Feature

- 軸向 - 右撇
- 短刀架
- 附出水孔
- Axial-right handed.
- Short tool holder.
- With coolant hole.

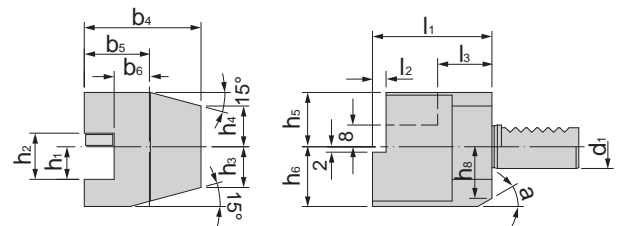
規格 Spec.	尺寸 Size $d_1 \times h_1$	$d_1$	$b_1$	$b_2$	$b_3$	$h_1$	$h_2$	$h_3$	$h_4$	$h_5$	$h_6$	$h_8$	$l_1$	$l_2$	$l_3$	$a$	重量 (KGS) Weight
150.C1.30.20	30 x 20	30	70	35	17	20	29	26	22	28	38	30	70	10	30	25°	1.90
150.C1.40.25	40 x 25	40	85	42.5	21	25	34	35	30	32.5	48	-	85	12.5	30	-	3.38
150.C1.50.32	50 x 32	50	100	50	26	32	41	42	35	35	60	-	100	16	40	-	-

VDI



# 端面刀座 FACE TURNING TOOL HOLDER

DIN ISO 10889-4



## 特點 Feature

- 軸向 - 左撇
- 短刀架
- 附出水孔
- Axial-left handed.
- Short tool holder.
- With coolant hole.

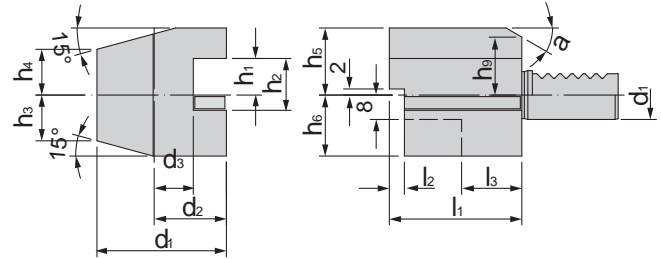
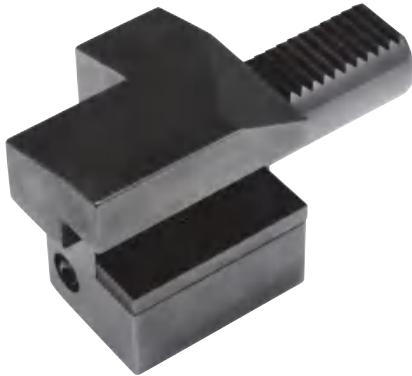
規格 Spec.	尺寸 Size $d_1 \times h_1$	$d_1$	$b_4$	$b_5$	$b_6$	$h_1$	$h_2$	$h_3$	$h_4$	$h_5$	$h_6$	$h_8$	$l_1$	$l_2$	$l_3$	$a$	重量 (KGS) Weight
150.C2.30.20	30 x 20	30	76	41	23	20	29	26	22	28	38	30	70	10	30	25°	2.06
150.C2.40.25	40 x 25	40	90	47.5	25.5	25	34	35	30	32.5	48	-	85	12.5	30	-	3.64
150.C2.50.32	50 x 32	50	105	55	30.5	32	41	42	35	35	60	-	100	16	40	-	-



# 端面刀座 FACE TURNING TOOL HOLDER

DIN ISO 10889-4

DIN  
ISO  
10889



## 特點 Feature

- 軸向 - 右撇
- 短刀架
- 刀片向下
- 附出水孔

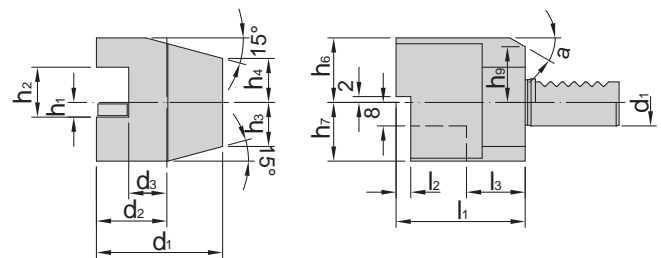
- Axial-right handed.
- Short tool holder.
- Turning insert downwards.
- With coolant hole.

規格 Spec.	尺寸 Size $d_1 \times h_1$	$d_1$	$b_1$	$b_2$	$b_3$	$h_1$	$h_2$	$h_3$	$h_4$	$h_6$	$h_7$	$h_9$	$l_1$	$l_2$	$l_3$	$a$	重量 (KGS) Weight
150.C3.30.20	30 x 20	30	70	35	17	20	29	26	22	28	35	28	70	10	30	25°	1.96
150.C3.40.25	40 x 25	40	85	42.5	21	25	34	35	30	48	42.5	-	85	12.5	30	-	3.54
150.C3.50.32	50 x 32	50	100	50	26	32	41	42	35	60	50	-	100	16	40	-	-



# 端面刀座 FACE TURNING TOOL HOLDER

DIN ISO 10889-4



## 特點 Feature

- 軸向 - 左撇
- 短刀架
- 刀片向下
- 附出水孔

- Axial-left handed.
- Short tool holder.
- Turning insert downwards.
- With coolant hole.

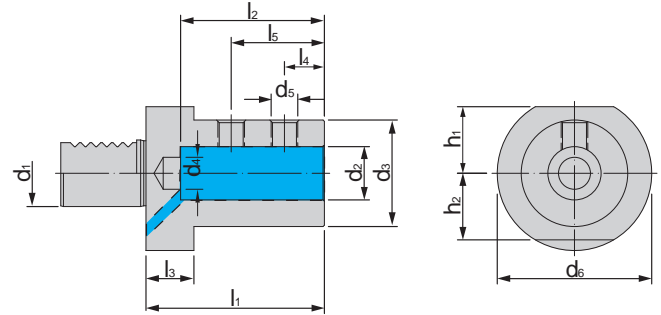
規格 Spec.	尺寸 Size $d_1 \times h_1$	$d_1$	$b_4$	$b_5$	$b_6$	$h_1$	$h_2$	$h_3$	$h_4$	$h_6$	$h_7$	$h_9$	$l_1$	$l_2$	$l_3$	$a$	重量 (KGS) Weight
150.C4.30.20	30 x 20	30	76	41	23	20	29	26	22	38	35	28	70	10	30	25°	2.2
150.C4.40.25	40 x 25	40	90	47.5	25.5	25	34	35	30	48	42.5	-	85	12.5	30	-	-
150.C4.50.32	50 x 32	50	105	55	30.5	32	41	42	35	60	50	-	100	16	40	-	-



# 內孔搪刀座 BORING BAR HOLDER

DIN ISO 10889-5

DIN  
ISO  
10889



## 特點 Feature

- 內徑公差：H5
- 中心出水

- Tolerance of internal hole: H5.
- With center coolant.

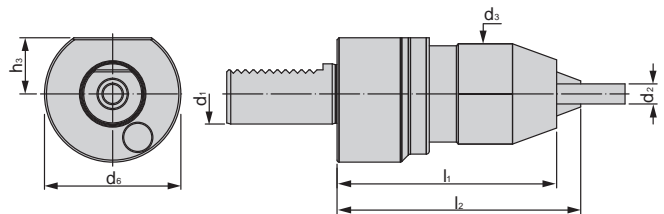
規格 Spec.	尺寸 Size d <sub>1</sub> × d <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	d <sub>6</sub>	h <sub>1</sub>	h <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	重量 (KGS) Weight
150.E1.30.20	30 x 20	30	20	40	12	M10x1	68	28	30	67	54	22	15	35	1.28
150.E1.30.25	30 x 25	30	25	45	17	M12x1	68	28	30	71	59	22	17	40	1.34
150.E1.30.32	30 x 32	30	32	52	24	M12x1	68	28	30	75	63	22	17	44	1.43
150.E1.30.40	30 x 40	30	40	65	24	M16x1	68	28	30	90	73	22	22	50	-
150.E1.40.18	40 x 18	40	18	40	12	M10x1	83	32.5	-	67	54	22	15	35	-
150.E1.40.20	40 x 20	40	20	40	12	M10x1	83	32.5	-	67	54	22	15	35	1.84
150.E1.40.25	40 x 25	40	25	45	17	M12x1	83	32.5	-	75	59	22	17	40	1.98
150.E1.40.32	40 x 32	40	32	52	24	M12x1	83	32.5	-	75	63	22	17	44	1.98
150.E1.40.40	40 x 40	40	40	65	24	M16x1	83	32.5	-	90	73	22	22	50	2.58
150.E1.40.50	40 x 50	40	50	75	32	M16x1	83	32.5	-	100	83	22	24	60	3.54
150.E1.50.20	50 x 20	50	20	40	12	M10x1	98	35	-	67	54	30	15	35	-
150.E1.50.25	50 x 25	50	25	45	17	M12x1	98	35	-	80	59	30	17	40	-
150.E1.50.32	50 x 32	50	32	52	24	M12x1	98	35	-	80	63	30	17	44	-
150.E1.50.40	50 x 40	50	40	65	32	M16x1	98	35	-	90	73	30	22	50	-
150.E1.50.50	50 x 50	50	50	75	42	M16x1	98	35	-	100	83	30	24	60	-

VDI



# VDI 車刀架 VDI DRILLING CHUCK

TYPE SPU



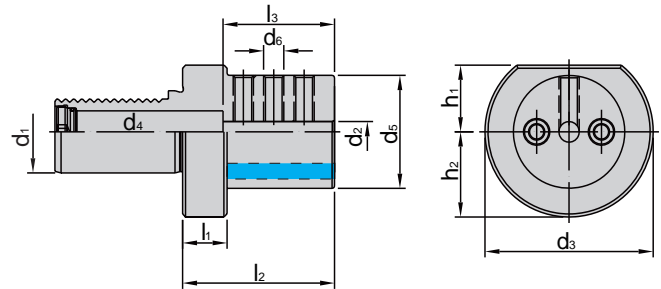
規格 Spec.	尺寸 Size	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>6</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	重量 (KGS) Weight
150.30.669.08	30 x SPU8	30	0.5-8	36	68	28	68	71	-
150.30.669.13	30 x SPU13	30	1-13	50	68	28	90	96	2.32
150.30.669.16	30 x SPU16	30	3-16	57	68	28	90	101	2.46
150.40.669.08	40 x SPU8	40	0.5-8	36	83	32.5	68	71	-
150.40.669.13	40 x SPU13	40	1-13	50	83	32.5	90	96	2.46
150.40.669.16	40 x SPU16	40	3-16	57	83	32.5	90	101	3.12
150.50.669.13	50 x SPU13	50	1-13	57	98	35	90	96	-
150.50.669.16	50 x SPU16	50	3-16	57	98	35	90	101	-



# 內孔搪刀座 BORING BAR HOLDER

DIN ISO 10889-6

DIN  
ISO  
10889



## 特點 Feature

- 內徑公差：H5
- 中心出水

- Tolerance of internal hole: H5.
- With center coolant.

規格 Spec.	尺寸 Size d <sub>1</sub> × d <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	d <sub>6</sub>	h <sub>1</sub>	h <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	重量 (KGS) Weight
150.E2.30.08	30 × 8	30	8	68	6	55	M6	28	30	22	60	51	1.60
150.E2.30.10	30 × 10	30	10	68	8	55	M6	28	30	22	60	51	1.59
150.E2.30.12	30 × 12	30	12	68	10	55	M8	28	30	22	60	51	1.57
150.E2.30.14	30 × 14	30	14	68	10	55	M8	28	30	22	60	52	1.82
150.E2.30.16	30 × 16	30	16	68	12	55	M8	28	30	22	60	51	1.48
150.E2.30.18	30 × 18	30	18	68	10	55	M8	28	30	22	60	52	-
150.E2.30.20	30 × 20	30	20	68	16	55	M8	28	30	22	60	51	1.44
150.E2.30.25	30 × 25	30	25	68	16	55	M8	28	30	22	60	51	1.36
150.E2.30.32	30 × 32	30	32	68	16	68	M8	28	30	22	75	51	1.88
150.E2.40.10	40 × 10	40	10	83	8	55	M10	32.5	-	22	75	67	-
150.E2.40.12	40 × 12	40	12	83	10	55	M10	32.5	-	22	75	61	2.44
150.E2.40.14	40 × 14	40	14	83	10	55	M8	32.5	-	22	75	63	-
150.E2.40.16	40 × 16	40	16	83	12	55	M10	32.5	-	22	75	61	2.30
150.E2.40.18	40 × 18	40	18	83	10	55	M8	32.5	-	22	75	62	-
150.E2.40.20	40 × 20	40	20	83	16	55	M10	32.5	-	22	75	61	2.25
150.E2.40.25	40 × 25	40	25	83	20.5	55	M10	32.5	-	22	75	61	2.23
150.E2.40.32	40 × 32	40	32	83	20.5	83	M10	32.5	-	22	75	61	3.20
150.E2.40.40	40 × 40	40	40	83	20.5	83	M10	32.5	-	22	75	75	3.64
150.E2.40.50	40 × 50	40	50	83	20.5	83	M12	32.5	-	22	75	75	1.86
150.E2.50.12	50 × 12	50	12	98	10	68	M8	35	-	30	90	76	-
150.E2.50.16	50 × 16	50	16	98	12	68	M10	35	-	30	90	76	-
150.E2.50.20	50 × 20	50	20	98	16	68	M12	35	-	30	90	76	-
150.E2.50.25	50 × 25	50	25	98	20	68	M12	35	-	30	90	76	-
150.E2.50.32	50 × 32	50	32	98	25	68	M12	35	-	30	90	76	-
150.E2.50.40	50 × 40	50	40	98	25	98	M12	35	-	30	90	76	-
150.E2.50.50	50 × 50	50	50	98	25	98	M12	35	-	30	100	86	-

V01

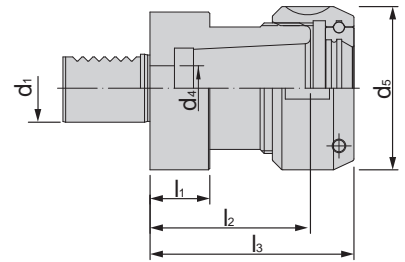
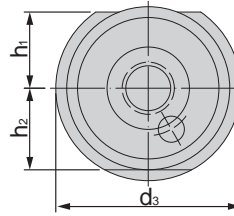


# EOC 套筒式刀座

## EOC COLLET CHUCK HOLDER FOR EOC COLLETS

DIN ISO 10889-6

DIN ISO 10889



規格 Spec.	尺寸 Size	d <sub>1</sub>	d <sub>3</sub>	d <sub>4</sub> min	d <sub>5</sub>	h <sub>1</sub>	h <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	重量 (KGS) Weight
150.E3.30.25	30 x EOC25	30	68	16.5	60	28	30	22	59	75	-
150.E3.40.25	40 x EOC25	40	83	20.5	60	32.5	-	22	59	75	-
150.E3.40.32	40 x EOC32	40	83	20.5	72	32.5	-	22	73	90	-
150.E3.50.25	50 x EOC25	50	98	25.5	60	35	-	30	59	75	-
150.E3.50.32	50 x EOC32	50	98	25.5	72	35	-	30	73	90	-

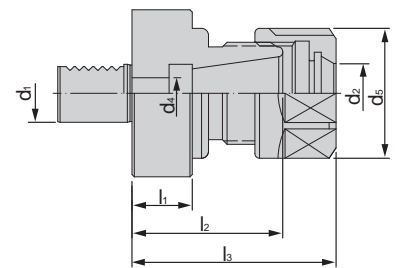
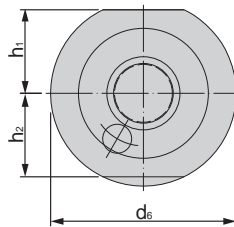
VDI



# ER 套筒式刀座

## ER COLLET CHUCK HOLDER FOR ER COLLETS

DIN ISO 10889-6  
DIN ISO 15488



### 特點 Feature

- 搭配 DIN-15488 系列彈性筒夾，可夾持各直柄刀具
- 使用包固得螺帽提高剛性
- 無風阻螺帽搭配使用，夾持力大、穩定性與精度提高

- It can match with ER Spring Collet (DIN-15488 standard) and can clamp all kinds of straight shank tools.
- Rigidity can be raised by using ER Power Good Clamping Nut.
- Matching with non wind resistance nut can raise clamping power, stability and precision.

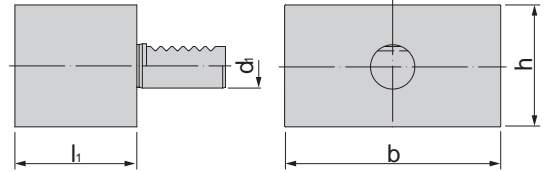
規格 Spec.	尺寸 Size	d <sub>1</sub>	d <sub>2</sub> ER	d <sub>3</sub>	d <sub>4</sub> min	d <sub>5</sub>	h <sub>1</sub>	h <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	重量 (KGS) Weight
150.E4.30.25	30 x ER25	30	25	68	16.5	42	28	30	22	45	57	1.08
150.E4.30.32	30 x ER32	30	32	68	16.5	50	28	30	22	49	62	-
150.E4.30.40	30 x ER40	30	40	68	16.5	63	28	30	22	56	70	-
150.E4.40.25	40 x ER25	40	25	83	20.5	42	32.5	-	22	45	57	1.66
150.E4.40.32	40 x ER32	40	32	83	20.5	50	32.5	-	22	49.5	62	1.77
150.E4.40.40	40 x ER40	40	40	83	20.5	63	32.5	-	22	61	75	2.10
150.E4.50.40	50 x ER40	50	40	98	20.5	63	35	-	30	61	75	-



## VDI 素材 VDI TOOL HOLDER BLANK

DIN ISO 10889-2

DIN  
ISO  
10889

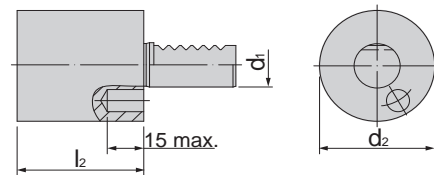


規格 Spec.	尺寸 Size $d_1 \times l_1$	$d_1$	$l_1$	$b$	$h$	重量 (KGS) Weight
150.A1.30.85	30 x 85	30	85	130	76	-
150.A1.40.100	40 x 100	40	100	151	96	-



## VDI 素材 VDI TOOL HOLDER BLANK

DIN ISO 10889-2

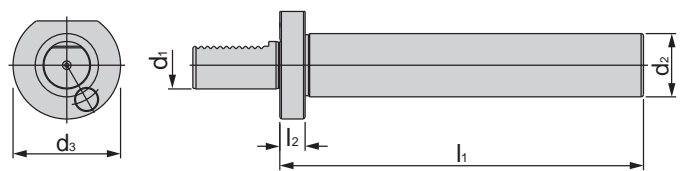


規格 Spec.	尺寸 Size $d_1 \times l_2$	$d_1$	$d_2$	$l_2$	重量 (KGS) Weight
150.A2.30.100	30 x 100	30	68	100	-
150.A2.30.240	30 x 240	30	68	240	-
150.A2.40.120	40 x 120	40	83	120	-
150.A2.40.200	40 x 200	40	83	200	-
150.A2.40.320	40 x 320	40	83	320	-



## VDI 主軸檢測棒 VDI SPINDLE TEST BAR

TYPE BC



	錐度精度 Taper Precision	AT2
	真圓度 Roundness	0.001mm
	表面粗造度 Surface Roughness	Ra<0.4
	同心度 Concentricity	0.005mm

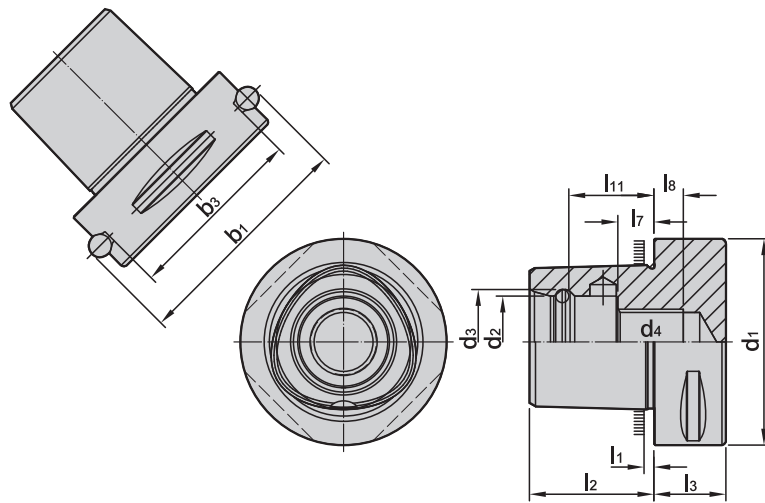
規格 Spec.	尺寸 Size $d_1 \times d_2 \times l_1$	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	重量 (KGS) Weight
150.30.40.230	30 x 40 x 230	230	16	30	40	68	4.30
150.40.40.200	40 x 40 x 200	200	16	40	40	83	-
150.50.40.200	50 x 40 x 200	200	15	50	40	98	-

# PSC

Precision Tool Holder Systems







規格 Spec.	b <sub>1</sub> ±0.1	b <sub>3</sub> ±0.1	d <sub>1</sub> ±0.1	d <sub>2</sub> +0.1 -0.05	d <sub>3</sub> ±0.05	d <sub>4</sub>	l <sub>1</sub>	l <sub>2</sub> ±0.1	l <sub>3</sub> Min	l <sub>7</sub> ±0.15	l <sub>8</sub> Min	l <sub>11</sub> ±0.1
PSC32	39	27.9	32	15	16.5	M12x1.5P	2.5	19	15	6	6	13.5
PSC40	46	34.9	40	18	20	M14x1.5P	2.5	24	20	9	6	17.5
PSC50	59.3	44	50	21	24	M16x1.5P	3	30	20	10	7	22
PSC63	70.7	55.4	63	28	32	M20x2.0P	3	38	22	11	9	26
PSC80	86	70.7	80	32	38	M20x2.0P	3	48	30	20	0	34
PSC80X	110	88.3	10	32	38	M20x2.0P	3	48	32	20	0	34

1. 錐度精度 : < AT3
2. 硬度 : HRC 56°
3. 滲碳深度 > 0.8mm
4. 真圓度 : < 0.8μm
5. 表面粗糙度 : Ra < 0.25μm
6. 刀桿有預設標準動平衡 G6.3 · 可另外指定精密動平衡 G2.5
7. 本體規範 : ISO 26623-1








1. Taper tolerance < AT3.
2. Hardness > HRC 56°.
3. Carbon depth > 0.8mm.
4. Roundness < 0.8μm.
5. Surface roughness : Ra < 0.25μm.
6. The shank has pre-balance at G6.3, and can provide precision balance at G2.5, made by request.
7. Shank body standard : ISO 26623-1.



# PSC 編碼規範

















## PSC CODING STANDARDS






















ISO  
26623-1

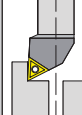
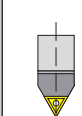
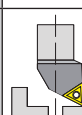
1 接口型式		2 壓板鎖固方式				5 離隙角		9 長度記號					
記號		記號	功能	記號	功能	記號	離隙角	記號	6.35	7.94	9.525	12.00	12.70
PSC32(C3)		A	Back Clamp System	M	螺銷上壓式	A	3°		06	08	09	-	12
PSC40(C4)		C	上壓式	P	側推式	B	5°		07	-	11	-	15
PSC50(C5)		D	Double Clamp System	S	壓孔式	C	7°		11	-	16	-	-
PSC63(C6)		E	Off-set pin System	T	Taper lock System	D	15°		-	-	-	12	-
PSC80(C8)		JS	Screw-on System	W	楔勾式	E	20°		11	13	16	-	22
PSC80X(C8X)		JT	Back Clamp System			F	25°		-	-	09	-	12
						G	30°		-	-	06	-	08
						N	0°						
						P	11°						

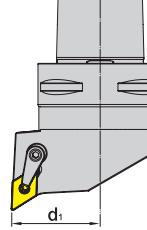
**PSC63 - M C L N R - 45 065 12**

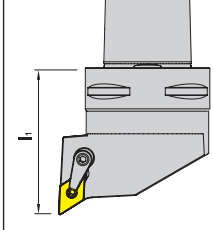
1 2 3 4 5 6 7 8 9

3 刀片形狀		
記號	角度	圖形
C	80°	
D	55°	
K		
R	-	
S	-	
T	-	
V	35°	
W	80°	
L	-	
H	120°	
A	85°	
B	82°	
E	75°	
M	86°	
O	135°	
P	108°	

4 進刀角度			
記號	圖形	記號	圖形
A		M	
B		N	
C		P	
D		R	
E		S	
F		T	
G		U	
H		V	
J		W	
K		Y	
L			

6 切削方向	
記號	圖形
L	
N	
R	

7 d1 尺寸
圖形


8 刀具有效長
圖形


PSC



Triangular polygon  
cone driver

三角錐系統

Through-Tool  
Coolant

出水孔

4 ATC Sockets

四等分夾持溝槽，  
利於ATC精準定位



Magazine and  
Spindle Socket

主軸定位槽

1:20 taper with  
dual-contact

採用1:20錐度  
雙面拘束的結構

Extension  
Alignment

搭配等徑  
異徑套筒時的對齊點

### 重複定位精度高

XYZ軸向的重複定位精度是 $\pm 2\mu\text{m}$ ，刀具延伸四倍長的偏擺精度是 $3\mu\text{m}$ 。

### 獨特的雙面拘束設計

連接結構是高精度的三角錐體，採用1:20錐度雙面拘束的夾緊結構，在車削加工中，因為沒有定位誤差，即不懼軸高位移，且切削扭矩呈現均勻分布，提高扭轉剛性。

### 增進生產效率

穩固的夾持、良好的穩定性與精度，可以有效降低磨耗並增加刀具壽命。廣泛的應用方式配上模組化的組合模式，讓加工者得以節省時間與空間。

### High Precision Coupling

The precision during repeated coupling in the XYZ direction is  $\pm 2\mu\text{m}$  and the run-out accuracy is  $3\mu\text{m}$ .

### Unique Dual Contact Design

The coupling structure is a high precision triangular form with a 1:20 taper for dual contact and tight clamping. Designed without drive keys evenly distributes torque without balance irregularities. There are no axial discrepancies during lathe turning due to consistent positioning.

### Increase Productivity

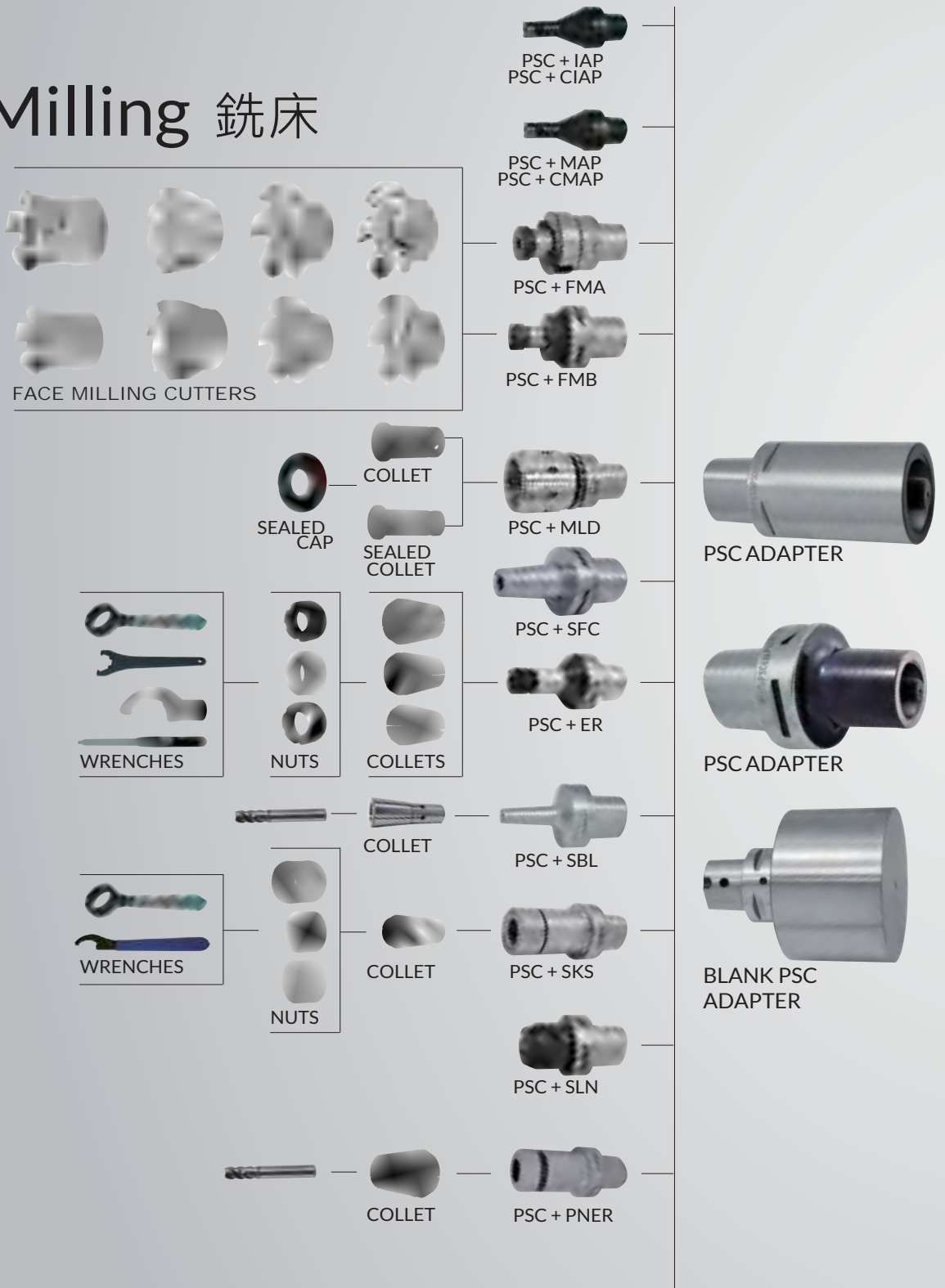
Rigid clamping for superior stability and precision, which produces minimal wear and a longer tool life. The universal applications and modular interface allow manufacturers to save time and space.





# PSC 模組化示意圖 Modular combination

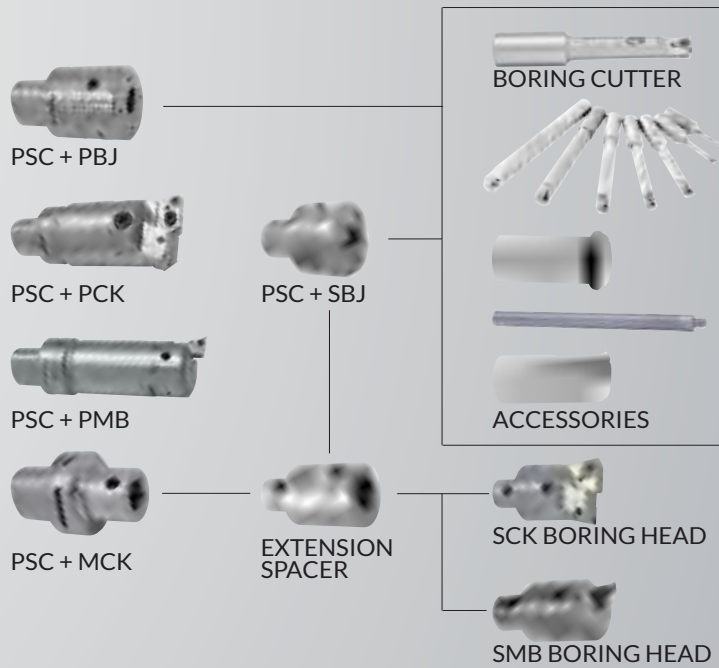
## Milling 銑床



# Turning 車床



# Boring 搪孔



BT + PSC ADAPTER



DAT + PSC ADAPTER



HSK + PSC ADAPTER



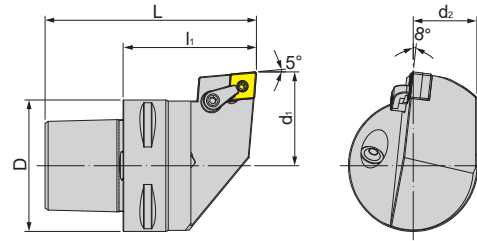
TEST BAR



## PSC/MCLN 外徑車刀

### PSC/MCLN EXTERNAL TURNING TOOL

ISO  
26623-1



規格 Spec.	L	l <sub>1</sub>	D	d <sub>1</sub>	d <sub>2</sub>	刀片 Insert	重量 (KGS) Weight
PSC32-MCLNR-22045-12	64	45	32	22	18.1	CN..1204	0.22
PSC32-MCLNL-22045-12	64	45	32	22	18.1	CN..1204	0.22
PSC40-MCLNR-27050-12	74	50	40	27	22.5	CN..1204	0.42
PSC40-MCLNL-27050-12	74	50	40	27	22.5	CN..1204	0.42
PSC50-MCLNR-35060-12	90	60	50	35	28.65	CN..1204	0.78
PSC50-MCLNL-35060-12	90	60	50	35	28.65	CN..1204	0.78
PSC63-MCLNR-45065-12	103	65	63	45	31	CN..1204	0.80
PSC63-MCLNL-45065-12	103	65	63	45	31	CN..1204	0.80

#### 配件表 Accessories

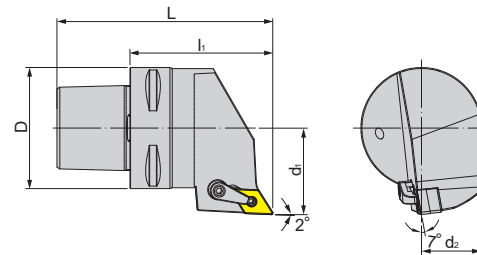
刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
CN..1204	CMS432	MLP46L-A	PL2.5	5.0	MC620	MS620	PL3	5.0

PSC



## PSC/MDJN 外徑車刀

### PSC/MDJN EXTERNAL TURNING TOOL



規格 Spec.	L	l <sub>1</sub>	D	d <sub>1</sub>	d <sub>2</sub>	刀片 Insert	重量 (KGS) Weight
PSC32-MDJNR-22045-15	64	45	32	22	18.1	DN..1504	0.22
PSC32-MDJNL-22045-15	64	45	32	22	18.1	DN..1504	0.22
PSC40-MDJNR-27050-15	74	50	40	27	22.5	DN..1504	0.42
PSC40-MDJNL-27050-15	74	50	40	27	22.5	DN..1504	0.42
PSC50-MDJNR-3506015	90	60	50	35	28.65	DN..1504	0.78
PSC50-MDJNL-35060-15	90	60	50	35	28.65	DN..1504	0.78
PSC63-MDJNR-45075-15	113	75	63	45	31	DN..1504	0.80
PSC63-MDJNL-45075-15	113	75	63	45	31	DN..1504	0.80

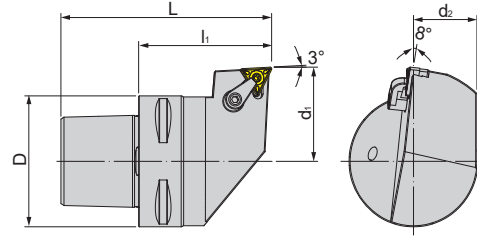
#### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
DN..1504	DMS442	MLP46L-A	PL2.5	5.0	MC622	MS630	PL3	5.0



## PSC/MTJN 外徑車刀 PSC/MTJN EXTERNAL TURNING TOOL

ISO  
26623-1



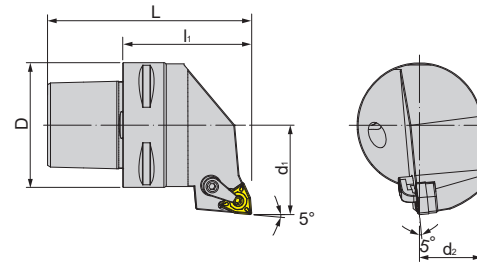
規格 Spec.	L	l <sub>1</sub>	D	d <sub>1</sub>	d <sub>2</sub>	刀片 Insert	重量 (KGS) Weight
PSC32-MTJNR-22045-16	64	45	32	22	18.1	TN..1604	0.22
PSC32-MTJNL-22045-16	64	45	32	22	18.1	TN..1604	0.22
PSC40-MTJNR-27050-16	74	50	40	27	22.5	TN..1604	0.42
PSC40-MTJNL-27050-16	74	50	40	27	22.5	TN..1604	0.42
PSC50-MTJNR-35060-16	90	60	50	35	28.65	TN..1604	0.78
PSC50-MTJNL-35060-16	90	60	50	35	28.65	TN..1604	0.78
PSC63-MTJNR-45065-16	103	65	63	45	31	TN..1604	0.80
PSC63-MTJNL-45065-16	103	65	63	45	31	TN..1604	0.80

### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
TN..1604	TMS322	MLP34L-A	PL2.5	3.0	MC620	MS630	PL3	5.0



## PSC/MWLN 外徑車刀 PSC/MWLN EXTERNAL TURNING TOOL



規格 Spec.	L	l <sub>1</sub>	D	d <sub>1</sub>	d <sub>2</sub>	刀片 Insert	重量 (KGS) Weight
PSC32-MWLN-22045-08	64	45	32	22	18.1	WN..0804	0.22
PSC32-MWLN-22045-08	64	45	32	22	18.1	WN..0804	0.22
PSC40-MWLN-27050-08	74	50	40	27	22.5	WN..0804	0.42
PSC40-MWLN-27050-08	74	50	40	27	22.5	WN..0804	0.42
PSC50-MWLN-35060-08	90	60	50	35	28.65	WN..0804	0.78
PSC50-MWLN-35060-08	90	60	50	35	28.65	WN..0804	0.78
PSC63-MWLN-45065-08	103	65	63	45	31	WN..0804	0.80
PSC63-MWLN-45065-08	103	65	63	45	31	WN..0804	0.80

### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
WN..0804	WMS432	MLP46L-A	PL2.5	5.0	MC620	MS630	PL3	5.0

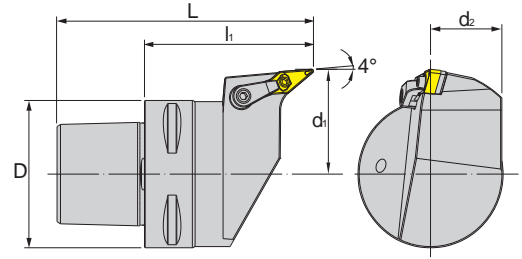
PSC



## PSC/MVLN 外徑車刀

### PSC/MVLN EXTERNAL TURNING TOOL

ISO  
26623-1



規格 Spec.	L	l <sub>1</sub>	D	d <sub>1</sub>	d <sub>2</sub>	刀片 Insert	重量 (KGS) Weight
PSC32-MVLNR-20050-16	69	50	32	20	18.1	VN..1604	0.22
PSC32-MVLNL-20050-16	69	50	32	20	18.1	VN..1604	0.22
PSC40-MVLNR-27055-16	79	55	40	27	22.5	VN..1604	0.42
PSC40-MVLNL-27055-16	79	55	40	27	22.5	VN..1604	0.42
PSC50-MVLNR-35060-16	90	60	50	35	28.65	VN..1604	0.78
PSC50-MVLNL-35060-16	90	60	50	35	28.65	VN..1604	0.78
PSC63-MVLNR-45075-16	113	75	63	45	31	VN..1604	0.80
PSC63-MVLNL-45075-16	113	75	63	45	31	VN..1604	0.80

#### 配件表 Accessories

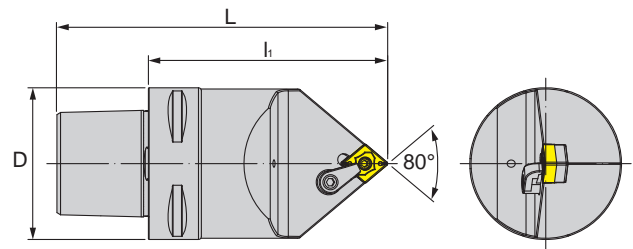
刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
VN..1604	VMS322	MLP34L-A	PL2	3.0	MC622	MS630	PL3	5.0

PSC



## PSC/MCMN 外徑車刀

### PSC/MCMN EXTERNAL TURNING TOOL



規格 Spec.	L	l <sub>1</sub>	D	刀片 Insert	重量 (KGS) Weight
PSC32-MCMNN-00050-12	69	50	32	CN..1204	0.24
PSC40-MCMNN-00060-12	84	60	40	CN..1204	0.44
PSC50-MCMNN-00070-12	100	70	50	CN..1204	0.76
PSC63-MCMNN-00100-12	138	100	63	CN..1204	0.86

#### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
CN..1204	CMS432	MLP46L-A	PL2.5	5.0	MC620	MS620	PL3	5.0

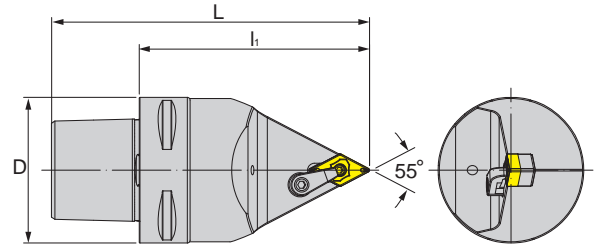




## PSC/MDNN 外徑車刀

### PSC/MDNN EXTERNAL TURNING TOOL

ISO  
26623-1



規格 Spec.	L	l <sub>1</sub>	D	刀片 Insert	重量 (KGS) Weight
PSC32-MDNNN-00050-15	69	50	32	DN..1504	0.22
PSC40-MDNNN-00060-15	84	60	40	DN..1504	0.40
PSC50-MDNNN-00070-15	100	70	50	DN..1504	0.70
PSC63-MDNNN-00100-15	138	100	63	DN..1504	0.80

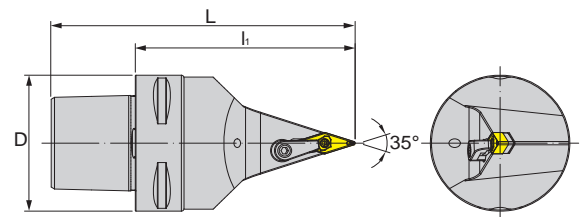
#### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
DN..1504	DMS442	MLP46L-A	PL2.5	5.0	MC622	MS625	PL3	5.0



## PSC/MVVN 外徑車刀

### PSC/MVVN EXTERNAL TURNING TOOL



規格 Spec.	L	l <sub>1</sub>	D	刀片 Insert	重量 (KGS) Weight
PSC32-MVVNN-00055-16	74	55	32	VN..1604	0.22
PSC40-MVVNN-00060-16	84	60	40	VN..1604	0.38
PSC50-MVVNN-00070-16	100	70	50	VN..1604	0.68
PSC63-MVVNN-00100-16	138	100	63	VN..1604	0.78

#### 配件表 Accessories

刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
VN..1604	VMS322	MLP34L-A	PL2	3.0	MC622	MS630	PL3	5.0

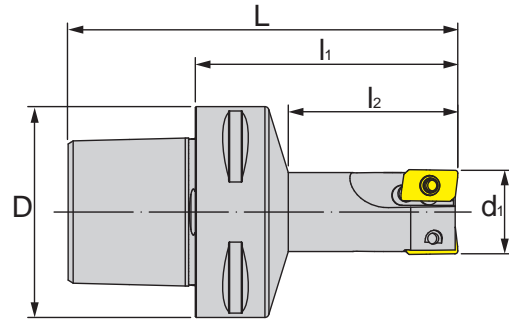
PSC



# PSC/IAP 直角高速銑刀

## PSC/IAP THROW-AWAY END MILL CUTTER

ISO  
26623-1



PSC

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	T	刀片 Insert	重量 (KGS) Weight
PSC32xIAP16-50-2T	69	50	25	32	16	2	AP.1003	0.20
PSC32xIAP20-50-2T	69	50	25	32	20	2	AP.1003	0.20
PSC32xIAP20-50-3T	69	50	25	32	20	3	AP.1003	0.30
PSC32xIAP25-50-2T	69	50	32	32	25	2	AP.1003	0.20
PSC32xIAP25-50-3T	69	50	32	32	25	3	AP.1003	0.30
PSC32xIAP32-50-3T	69	50	35	32	32	3	AP.1003	0.20
PSC40xIAP16-50-2T	74	50	25	40	16	2	AP.1003	0.50
PSC40xIAP20-50-2T	74	50	25	40	20	2	AP.1003	0.50
PSC40xIAP25-55-2T	79	55	32	40	25	2	AP.1003	0.50
PSC40xIAP25-55-3T	79	55	32	40	25	3	AP.1003	0.50
PSC40xIAP32-65-3T	89	65	40	40	32	3	AP.1003	0.60
PSC50xIAP20-95-3T	125	95	40	50	20	3	AP.1003	1.00
PSC50xIAP25-95-3T	125	95	45	50	25	3	AP.1003	1.10
PSC50xIAP32-65-3T	95	65	40	50	32	3	AP.1003	1.50
PSC50xIAP40-80-3T	110	80	40	50	40	3	AP.1604	1.10
PSC50xIAP50-60-5T	90	60	60	50	50	5	AP.1604	1.00
PSC50xIAP63-60-5T	90	60	60	50	63	5	AP.1604	1.40
PSC63xIAP20-110-3T	148	110	40	63	20	3	AP.1003	1.60
PSC63xIAP20-165-2T	203	165	60	63	20	2	AP.1003	1.60
PSC63xIAP25-110-3T	148	110	45	63	25	3	AP.1003	1.60
PSC63xIAP32-80-3T	118	80	40	63	32	3	AP.1003	1.50
PSC63xIAP32-110-3T	148	110	50	63	32	3	AP.1003	1.70
PSC63xIAP40-80-4T	118	80	40	63	40	4	AP.1003	1.60
PSC63xIAP40-80-5T	118	80	40	63	40	5	AP.1003	1.60
PSC63xIAP40-100-3T	138	100	50	63	40	3	AP.1604	1.80
PSC63xIAP50-80-4T	118	80	40	63	50	4	AP.1604	1.80
PSC63xIAP63-60-5T	98	60	38	63	63	5	AP.1604	2.20
PSC63xIAP66-60-5T	98	60	60	63	66	5	AP.1604	1.90
PSC63xIAP66-80-5T	118	80	80	63	66	5	AP.1604	2.30
PSC63xIAP80-60-6T	98	60	60	63	80	6	AP.1604	2.20

### 配件表 Accessories

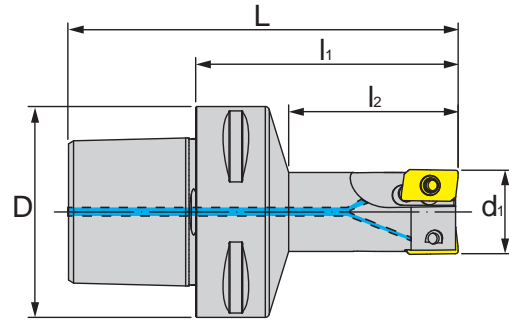
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP.1003	M2.5-6.45-3.7-60	T8	1.2
AP.1604	M4-10-5.7-60	T15	3.0



# PSC/CIAP 直角高速銑刀

## PSC/CIAP THROW-AWAY END MILL

ISO  
26623-1



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	T	刀片 Insert	重量 (KGS) Weight
PSC32xCIAP16-50-2T	69	50	25	32	16	2	AP.1003	0.20
PSC32xCIAP20-50-2T	69	50	25	32	20	2	AP.1003	0.20
PSC32xCIAP20-50-3T	69	50	25	32	20	3	AP.1003	0.30
PSC32xCIAP25-50-2T	69	50	32	32	25	2	AP.1003	0.20
PSC32xCIAP25-50-3T	69	50	32	32	25	3	AP.1003	0.30
PSC32xCIAP32-50-3T	69	50	35	32	32	3	AP.1003	0.20
PSC40xCIAP16-50-2T	74	50	25	40	16	2	AP.1003	0.50
PSC40xCIAP20-50-2T	74	50	25	40	20	2	AP.1003	0.50
PSC40xCIAP25-55-2T	79	55	32	40	25	2	AP.1003	0.50
PSC40xCIAP25-55-3T	79	55	32	40	25	3	AP.1003	0.50
PSC40xCIAP32-65-3T	89	65	40	40	32	3	AP.1003	0.60
PSC50xCIAP20-95-3T	125	95	40	50	20	3	AP.1003	1.00
PSC50xCIAP25-95-3T	125	95	45	50	25	3	AP.1003	1.10
PSC50xCIAP32-65-3T	95	65	40	50	32	3	AP.1003	1.50
PSC50xCIAP40-80-3T	110	80	40	50	40	3	AP.1604	1.10
PSC50xCIAP50-60-5T	90	60	60	50	50	5	AP.1604	1.00
PSC50xCIAP63-60-5T	90	60	60	50	63	5	AP.1604	1.40
PSC63xCIAP20-110-3T	148	110	40	63	20	3	AP.1003	1.60
PSC63xCIAP20-165-2T	203	165	60	63	20	2	AP.1003	1.60
PSC63xCIAP25-110-3T	148	110	45	63	25	3	AP.1003	1.60
PSC63xCIAP32-80-3T	118	80	40	63	32	3	AP.1003	1.50
PSC63xCIAP32-110-3T	148	110	50	63	32	3	AP.1003	1.70
PSC63xCIAP40-80-4T	118	80	40	63	40	4	AP.1003	1.60
PSC63xCIAP40-80-5T	118	80	40	63	40	5	AP.1003	1.60
PSC63xCIAP40-100-3T	138	100	50	63	40	3	AP.1604	1.80
PSC63xCIAP50-80-4T	118	80	40	63	50	4	AP.1604	1.80
PSC63xCIAP63-60-5T	98	60	38	63	63	5	AP.1604	2.20
PSC63xCIAP66-60-5T	98	60	60	63	66	5	AP.1604	1.90
PSC63xCIAP66-80-5T	118	80	80	63	66	5	AP.1604	2.30
PSC63xCIAP80-60-6T	98	60	60	63	80	6	AP.1604	2.20

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP.1003	M2.5-6.45-3.7-60	T8	1.2
AP.1604	M4-10-5.7-60	T15	3.0

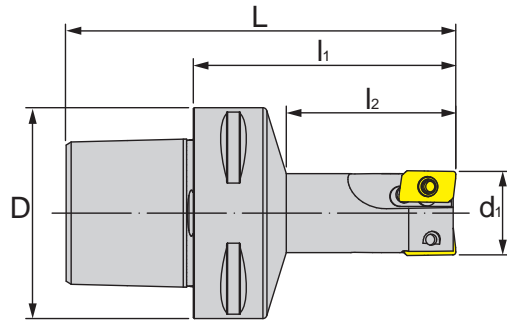
PSC



# PSC/MAP 直角高速銑刀

## PSC/MAP THROW-AWAY END MILL CUTTER

ISO  
26623-1



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	T	刀片 Insert	重量 (KGS) Weight
PSC32xMAP16-50-2T	69	50	25	32	16	2	AP.1135	0.20
PSC32xMAP20-50-2T	69	50	25	32	20	2	AP.1135	0.20
PSC32xMAP20-50-3T	69	50	25	32	20	3	AP.1135	0.30
PSC32xMAP25-50-2T	69	50	32	32	25	2	AP.1604	0.20
PSC32xMAP25-50-3T	69	50	32	32	25	3	AP.1135	0.30
PSC32xMAP32-50-2T	69	50	35	32	32	2	AP.1604	0.20
PSC40xMAP16-50-2T	74	50	25	40	16	2	AP.1135	0.50
PSC40xMAP20-50-2T	74	50	25	40	20	2	AP.1135	0.50
PSC40xMAP25-55-2T	79	55	32	40	25	2	AP.1604	0.50
PSC40xMAP25-55-3T	79	55	32	40	25	3	AP.1135	0.50
PSC40xMAP32-65-2T	89	65	40	40	32	2	AP.1604	0.60
PSC50xMAP20-95-3T	125	95	40	50	20	3	AP.1135	1.00
PSC50xMAP25-95-3T	125	95	45	50	25	3	AP.1135	1.10
PSC50xMAP32-65-2T	95	65	40	50	32	2	AP.1604	1.50
PSC50xMAP50-60-5T	90	60	60	50	50	5	AP.1604	1.00
PSC50xMAP63-60-5T	90	60	60	50	63	5	AP.1604	1.40
PSC63xMAP20-110-3T	148	110	40	63	20	3	AP.1135	1.60
PSC63xMAP20-165-2T	203	165	60	63	20	2	AP.1135	1.60
PSC63xMAP25-110-3T	148	110	45	63	25	3	AP.1135	1.60
PSC63xMAP32-80-3T	118	80	40	63	32	3	AP.1135	1.50
PSC63xMAP32-110-3T	148	110	50	63	32	3	AP.1135	1.70
PSC63xMAP40-80-4T	118	80	40	63	40	4	AP.1135	1.60
PSC63xMAP40-80-5T	118	80	40	63	40	5	AP.1135	1.60
PSC63xMAP40-100-3T	138	100	50	63	40	3	AP.1604	1.80
PSC63xMAP50-80-4T	118	80	40	63	50	4	AP.1604	1.80
PSC63xMAP63-60-5T	98	60	38	63	63	5	AP.1604	2.20
PSC63xMAP66-60-5T	98	60	60	63	66	5	AP.1604	1.90
PSC63xMAP66-80-5T	118	80	80	63	66	5	AP.1604	2.30
PSC63xMAP80-60-6T	98	60	60	63	80	6	AP.1604	2.20

### 配件表 Accessories

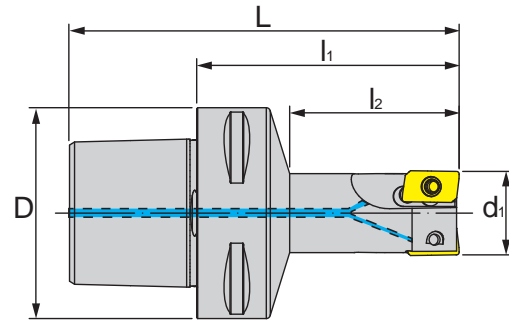
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP.1003	M2.5-6.45-3.7-60	T8	1.2
AP.1135	M2.5-6.0-3.5-60	T8	1.2
AP.1604	M4-10-5.7-60	T15	3.0



# PSC/CMAP 直角高速銑刀

## PSC/CMAP THROW-AWAY END MILL

ISO  
26623-1



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	T	刀片 Insert	重量 (KGS) Weight
PSC32xCMAP16-50-2T	69	50	25	32	16	2	AP.1135	0.20
PSC32xCMAP20-50-2T	69	50	25	32	20	2	AP.1135	0.20
PSC32xCMAP20-50-3T	69	50	25	32	20	3	AP.1135	0.30
PSC32xCMAP25-50-2T	69	50	32	32	25	2	AP.1604	0.20
PSC32xCMAP25-50-3T	69	50	32	32	25	3	AP.1135	0.30
PSC32xCMAP32-50-2T	69	50	35	32	32	2	AP.1604	0.20
PSC40xCMAP16-50-2T	74	50	25	40	16	2	AP.1135	0.50
PSC40xCMAP20-50-2T	74	50	25	40	20	2	AP.1135	0.50
PSC40xCMAP25-55-2T	79	55	32	40	25	2	AP.1604	0.50
PSC40xCMAP25-55-3T	79	55	32	40	25	3	AP.1135	0.50
PSC40xCMAP32-65-2T	89	65	40	40	32	2	AP.1604	0.60
PSC50xCMAP20-95-3T	125	95	40	50	20	3	AP.1135	1.00
PSC50xCMAP25-95-3T	125	95	45	50	25	3	AP.1135	1.10
PSC50xCMAP32-65-2T	95	65	40	50	32	2	AP.1604	1.50
PSC50xCMAP50-60-5T	90	60	60	50	50	5	AP.1604	1.00
PSC50xCMAP63-60-5T	90	60	60	50	63	5	AP.1604	1.40
PSC63xCMAP20-110-3T	148	110	40	63	20	3	AP.1135	1.60
PSC63xCMAP20-165-2T	203	165	60	63	20	2	AP.1135	1.60
PSC63xCMAP25-110-3T	148	110	45	63	25	3	AP.1135	1.60
PSC63xCMAP32-80-3T	118	80	40	63	32	3	AP.1135	1.50
PSC63xCMAP32-110-3T	148	110	50	63	32	3	AP.1135	1.70
PSC63xCMAP40-80-4T	118	80	40	63	40	4	AP.1135	1.60
PSC63xCMAP40-80-5T	118	80	40	63	40	5	AP.1135	1.60
PSC63xCMAP40-100-3T	138	100	50	63	40	3	AP.1604	1.80
PSC63xCMAP50-80-4T	118	80	40	63	50	4	AP.1604	1.80
PSC63xCMAP63-60-5T	98	60	38	63	63	5	AP.1604	2.20
PSC63xCMAP66-60-5T	98	60	60	63	66	5	AP.1604	1.90
PSC63xCMAP66-80-5T	118	80	80	63	66	5	AP.1604	2.30
PSC63xCMAP80-60-6T	98	60	60	63	80	6	AP.1604	2.20

PSC

### 配件表 Accessories

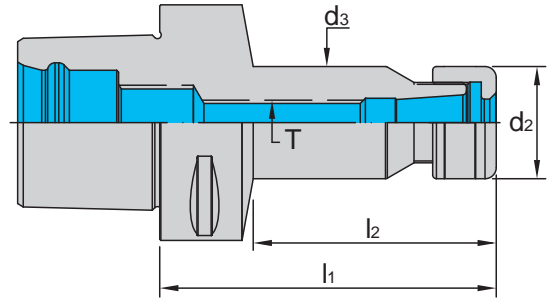
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP.1003	M2.5-6.45-3.7-60	T8	1.2
AP.1135	M2.5-6.0-3.5-60	T8	1.2
AP.1604	M4-10-5.7-60	T15	3.0



# PSC/SKS 高速機專用夾頭 (無風阻)

## PSC/SKS COLLET CHUCK (NO WIND RESISTANCE)

ISO  
26623-1



### 特點 Feature

- 標準動平衡 G2.5 25000rpm

- Dynamic balancing G2.5 at 25000rpm.

規格 Spec.	$l_1$	$l_2$	$d_2$	$d_3$	T	夾持範圍 Clamp Range	重量 (KGS) Weight
PSC32xSKS6-45-HS	45	28	18	18	M8 x 1.25P	Ø3~Ø6	0.20
PSC32xSKS10-45-HS	45	29	30	30	M12 x 1.75P	Ø2~Ø10	0.20
PSC40xSKS6-50-HS	50	28	18	18	M8 x 1.25P	Ø3~Ø6	0.50
PSC40xSKS10-50-HS	50	28	30	30	-	Ø2~Ø10	0.60
PSC40xSKS13-50-HS	50	29	35	33	-	Ø3~Ø13	0.70
PSC40xSKS16-50-HS	50	31.3	40	40	M18 x 1.5P	Ø3~Ø16	0.80
PSC50xSKS6-60-HS	60	35	18	18	M8 x 1.25P	Ø3~Ø6	0.50
PSC50xSKS10-60-HS	60	35	30	30	M12 x 1.75P	Ø2~Ø10	0.60
PSC50xSKS13-60-HS	60	35	35	33	-	Ø3~Ø13	0.70
PSC50xSKS16-60-HS	60	38	40	40	-	Ø3~Ø16	0.80
PSC63xSKS6-90-HS	90	46	18	18	M8 x 1.25P	Ø3~Ø6	1.00
PSC63xSKS10-90-HS	90	60	30	30	M12 x 1.75P	Ø2~Ø10	1.10
PSC63xSKS13-90-HS	90	63	35	33	-	Ø3~Ø13	1.20
PSC63xSKS16-100-HS	100	71	40	40	M18 x 1.5P	Ø3~Ø16	1.30
PSC63xSKS20-100-HS	100	75	48.5	48.5	M22 x 1.5P	Ø3~Ø20	1.40

PSC

### 選配表 Option

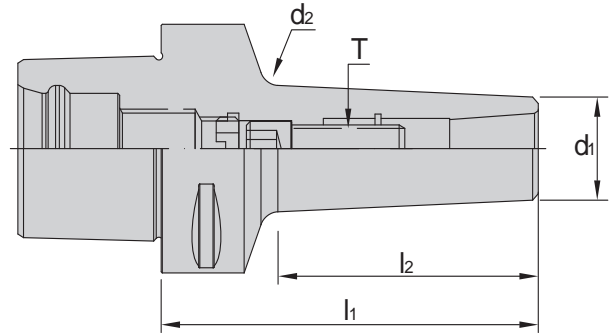
筒夾 Collet	螺帽 Nut	扳手 Spanner	鎖刀座 Lock Device
			
A272-A275	A286	A297	A301



# PSC/SBL 後拉式立銑刀夾頭

## PSC/SBL SLIM-FIT COLLET CHUCK

ISO  
26623-1



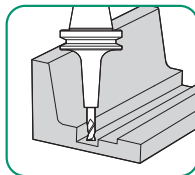
### 特點 Feature

- 標準動平衡 G2.5 25000rpm

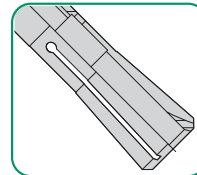
- Standard balance of G2.5 at 25000 rpm.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	T	夾持範圍 Clamp Range	重量 (KGS) Weight
PSC32xSBL6-75	75	58	14	20.1	M6 x 1.0P	Ø3~Ø6	0.50
PSC32xSBL12-90	90	74	26	31.2	M10 x 1.5P	Ø3~Ø12	0.70
PSC40xSBL6-75	75	43	14	18.5	M6 x 1.0P	Ø3~Ø6	0.60
PSC40xSBL12-90	90	68	26	31.9	M10 x 1.5P	Ø3~Ø12	0.70
PSC40xSBL20-105	105	57	35	40	M12 x 1.75P	Ø3~Ø20	0.80
PSC50xSBL6-80	80	45	14	18.8	M6 x 1.0P	Ø3~Ø6	0.60
PSC50xSBL12-105	105	80	26	33	M10 x 1.5P	Ø3~Ø12	0.70
PSC50xSBL20-115	115	94	35	43.2	M12 x 1.75P	Ø3~Ø20	0.80
PSC63xSBL6-80	80	43	14	18.5	M6 x 1.0P	Ø3~Ø6	1.00
PSC63xSBL12-100	100	69	26	32	M10 x 1.5P	Ø3~Ø12	1.20
PSC63xSBL20-120	120	91	35	42.9	M12 x 1.75P	Ø3~Ø20	1.40

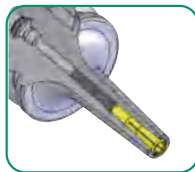
## 特點 Features



前端小徑設計，降低干涉的情形。  
The slim design reduces interference while machining.



內孔4°錐角設計，方便刀具鬆脫並加大夾持力，提高穩定性。  
Tapered design always leads to good clamping force right.



內藏式筒夾設計，無需使用螺帽，更適合高速加工。  
The built-in collet does not need a clamping nut and is perfect for high speed processing.



標準動平衡 G2.5 25000rpm，Standard balance of G2.5 at 25000 rpm.

### 選配表 Option

筒夾 Collet	鎖刀座 Lock Device
A276	A301

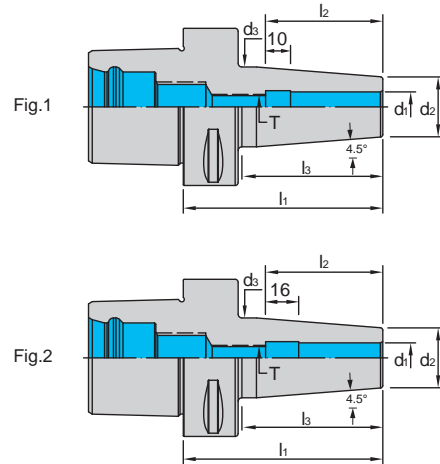
PSC



# PSC/SFC 熱膨脹刀桿

## PSC/SFC SHRINK FIT CHUCK

ISO  
26623-1



### 特點 Feature

- 標準動平衡 G2.5 25000rpm

- Standard balance of G2.5 at 25000 rpm.

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	T	Fig.	重量 (KGS) Weight
PSC40xSFC6-75	75	36	53	6	20	26	M5 x 0.8P	2	-
PSC40xSFC8-75	75	36	53	8	20	26	M6 x 1.0P	1	-
PSC40xSFC10-75	75	42	54	10	24	32	M8 x 1.25P	1	-
PSC40xSFC12-75	75	47	54	12	24	32	M10 x 1.5P	1	-
PSC40xSFC14-80	80	47	59	14	27	34	M10 x 1.5P	1	-
PSC40xSFC16-80	80	50	59	16	27	34	M12 x 1.75P	1	-
PSC40xSFC18-80	80	52	59	18	33	42	M12 x 1.75P	1	-
PSC40xSFC20-85	85	52	64	20	33	42	M16 x 2.0P	1	-
PSC50xSFC6-75	75	36	53	6	20	26	M5 x 0.8P	2	-
PSC50xSFC8-75	75	36	53	8	20	26	M6 x 1.0P	1	-
PSC50xSFC10-75	75	42	54	10	24	32	M8 x 1.25P	1	-
PSC50xSFC12-75	75	47	59	12	24	32	M10 x 1.5P	1	-
PSC50xSFC14-80	80	47	59	14	27	34	M10 x 1.5P	1	-
PSC50xSFC16-80	80	50	59	16	27	34	M12 x 1.75P	1	-
PSC50xSFC18-80	80	52	59	18	33	42	M12 x 1.75P	1	-
PSC50xSFC20-85	85	52	64	20	33	42	M16 x 2.0P	1	-
PSC50xSFC25-90	90	58	68	25	44	53	M20 x 2.0P	1	-
PSC63xSFC6-80	80	36	53	6	20	26	M5 x 0.8P	2	-
PSC63xSFC8-80	80	36	53	8	20	26	M6 x 1.0P	1	-
PSC63xSFC10-80	80	42	53	10	24	32	M8 x 1.25P	1	-
PSC63xSFC12-80	80	47	56	12	24	32	M10 x 1.5P	1	-
PSC63xSFC14-85	85	47	58	14	27	34	M10 x 1.5P	1	-
PSC63xSFC16-85	85	50	58	16	27	34	M12 x 1.75P	1	-
PSC63xSFC18-85	85	52	58	18	33	42	M12 x 1.75P	1	-
PSC63xSFC20-85	85	52	58	20	33	42	M16 x 2.0P	1	-
PSC63xSFC25-90	90	58	66	25	44	53	M20 x 2.0P	1	-
PSC63xSFC32-95	95	58	71	32	44	53	M20 x 2.0P	1	-

### 選配表 Option

加熱器 Hot-Air	鎖刀座 Lock Device
A044	A301

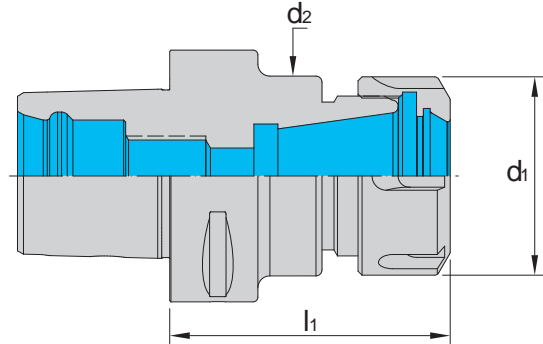




# PSC/ER 立銑刀夾頭

## PSC/ER COLLET CHUCK

ISO  
26623-1



規格 Spec.	$l_1$	$d_1$	$d_2$	夾持範圍 Clamp Range	重量 (KGS) Weight
PSC32xER16-45	45	28	28	Ø1-Ø10	0.20
PSC32xER20-45	45	34	34	Ø2-Ø13	0.30
PSC40xER16-70	70	28	28	Ø1-Ø10	0.40
PSC40xER20-52	52	34	34	Ø2-Ø13	0.30
PSC40xER25-52	52	42	42	Ø2-Ø16	0.40
PSC40xER32-54	54	50	50	Ø3-Ø20	0.50
PSC50xER16-100	100	28	28	Ø1-Ø10	0.90
PSC50xER20-55	55	34	34	Ø2-Ø13	0.50
PSC50xER20-100	100	34	34	Ø2-Ø13	0.80
PSC50xER25-55	55	42	42	Ø2-Ø16	0.50
PSC50xER32-57	57	50	50	Ø3-Ø20	0.60
PSC50xER32-100	100	50	50	Ø3-Ø20	0.90
PSC63xER16-100	100	28	28	Ø1-Ø10	1.30
PSC63xER20-60	60	34	34	Ø2-Ø13	0.80
PSC63xER25-60	60	42	42	Ø2-Ø16	-
PSC63xER25-100	100	42	42	Ø2-Ø16	1.30
PSC63xER32-70	70	50	50	Ø3-Ø20	0.80
PSC63xER32-100	100	50	50	Ø3-Ø20	1.50
PSC63xER40-65	65	63	63	Ø3-Ø26	1.10

PSC

### 選配表 Option

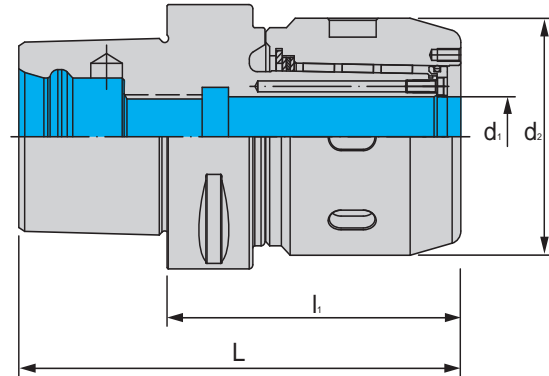
筒夾 Collet	螺帽 Nut	扳手 Spanner	鎖刀座 Lock Device
A258	A280	A296	A301



# PSC/MLD 直式筒夾銑床夾頭

## PSC/MLD MULTI-LOCK MILLING CHUCK

ISO  
26623-1



### 特點 Feature

- 內孔特殊溝槽設計，防止所夾持刀具脫刀滑落，可以割斷附著油膜，不會有脫刀現象產生，提高了使用的安全性
- 刀桿本體厚，可產生充分的夾持力。採用滾針軸承原理設計，滾動磨擦及脫落減到最小，裝置操作省力便捷
- 螺帽與刀桿端面鎖固後，緊貼牢靠，提高剛性並徹底的防塵
- 偏擺精度 :0.001~0.005 以內，真圓度 :0.02mm
- MLD20、MLD-3/4、MLK20 扳手共用
- MLD32、MLD-1-1/4、MLK32 扳手共用

- There is a special design for the slots of internal hole. It prevents the cutting tools from slipping and increases the clamping power.
- The body of the tool holder is thick, so it has good clamping power. It adopts the needle bearing design to prevent the slipping. The operation is convenient and easy.
- After locking the cutting tool (The tolerance of the cutting tool must be less than h6), it is more contacted with the flange while locking the clamping nut and tool holder. It can prevent the bearing cage from deformation easily. Also, rigidity and dust-proof function is improved.
- Run-out: Within 0.001~0.005mm. Concentricity: 0.02mm.
- MLD20 and MLD-3/4、MLK20 spanner can be used in common.
- MLD32 and MLD-1-1/4、MLK32 spanner can be used in common.

PSC

規格 Spec.	$l_1$	$d_1$	$d_2$	重量 (KGS) Weight
PSC50xMLD20-75	75	20	56.5	1.20
PSC50xMLD32-90	90	32	71	1.90
PSC63xMLD20-75	75	20	56.5	1.40
PSC63xMLD32-85	85	32	71	2.20

※ 英制規格，接單生產 INCH size made to order.

### 選配表 Option

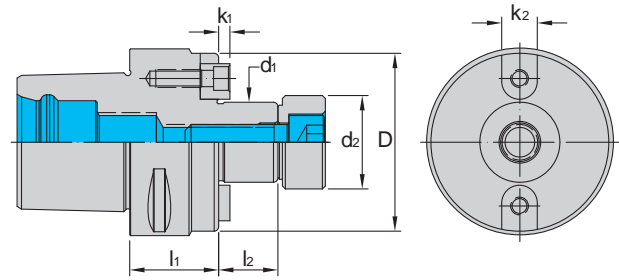
筒夾 Collet	扳手 Spanner	止水端蓋 Sealed Cap	鎖刀座 Lock Device
A277	A299	A288	A301



## PSC/FMA 平面銑刀柄

### PSC/FMA FACE MILL ARBOR

ISO  
26623-1

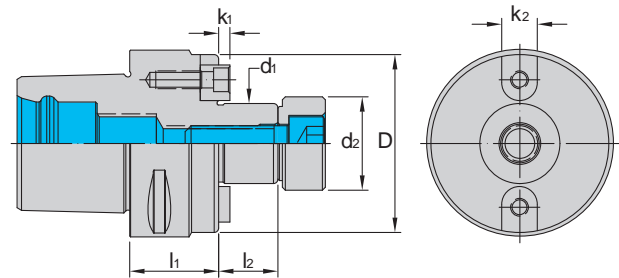


規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	D	$K_1$	$K_2$	重量 (KGS) Weight
PSC50xFMA25.4-40	40	17.449	25.4	31.496	55.626	4.775	9.525	-
PSC63xFMA25.4-50	50	17.449	25.4	31.496	55.626	4.775	9.525	-
PSC63xFMA31.75-50	50	17.449	31.75	40.995	69.85	6.35	12.7	-
PSC63xFMA38.1-50	50	23.825	38.1	44.5	96.774	8.864	15.875	-



## PSC/FMB 平面銑刀柄

### PSC/FMB FACE MILL ARBOR



PSC

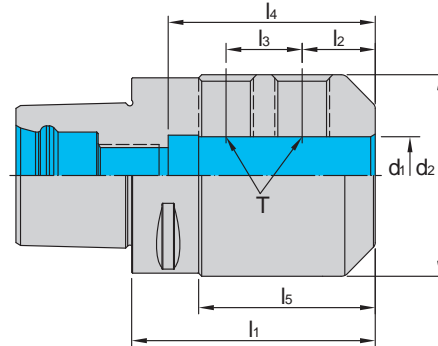
規格 Spec.	$l_1$	$l_2$	D	$d_1$	$d_2$	$K_1$	$K_2$	重量 (KGS) Weight
PSC32xFMB16-30	30	16	34	16	23.5	4	8	0.30
PSC40xFMB16-32	32	16	34	16	23.5	4	8	0.30
PSC40xFMB16-55	55	16	34	16	23.5	4	8	0.40
PSC40xFMB22-25	25	22	50	22	26	4.8	10	0.40
PSC40xFMB22-55	55	22	50	22	26	4.8	10	0.70
PSC50xFMB16-35	35	16	34	16	23.5	4	8	0.60
PSC50xFMB16-70	70	16	34	16	23.5	4	8	0.70
PSC50xFMB22-25	25	16	50	22	26	4.8	10	0.60
PSC50xFMB22-70	70	16	50	22	26	4.8	10	1.00
PSC50xFMB27-25	25	18	50	27	31.5	5.8	12	0.70
PSC50xFMB32-40	40	22	63	32	41	6.8	14	1.20
PSC63xFMB16-40	40	16	34	16	23.5	4	8	0.90
PSC63xFMB22-40	40	16	50	22	26	4.8	10	0.90
PSC63xFMB27-30	30	18	50	27	31.5	5.8	12	1.00
PSC63xFMB32-45	45	22	63	32	41	6.8	14	1.60
PSC63xFMB40-45	45	25	80	40	48	8.3	16	1.60



# PSC/SLN 側固式立銑刀柄

## PSC/SLN SIDE-LOCK END MILL HOLDER

ISO  
26623-1



規格 Spec.	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$d_1$	$d_2$	T	重量 (KGS) Weight
PSC32xSLN6-45	45	18	-	35	27.5	6	25	M6	0.30
PSC32xSLN8-45	45	18	-	35	29	8	28	M8	0.30
PSC32xSLN10-50	50	20	-	39	27.5	10	35	M10	0.40
PSC32xSLN12-55	55	22.5	-	44	36	12	42	M12	0.30
PSC40xSLN6-50	50	18	-	35	25.5	6	25	M6	0.40
PSC40xSLN8-50	50	18	-	35	26	8	28	M8	0.40
PSC40xSLN10-50	50	20	-	39	27.5	10	35	M10	0.50
PSC40xSLN12-55	55	22.5	-	44	36	12	42	M12	0.60
PSC40xSLN14-50	50	22.5	-	44	37	14	44	M12	0.60
PSC40xSLN16-55	55	24	-	47	39	16	48	M14	0.70
PSC50xSLN6-50	50	18	-	35	25.5	6	25	M6	0.60
PSC50xSLN8-50	50	18	-	35	26	8	28	M8	0.70
PSC50xSLN10-55	55	20	-	39	27.5	10	35	M10	0.70
PSC50xSLN12-60	60	22.5	-	44	36	12	42	M12	0.90
PSC50xSLN14-60	60	22.5	-	44	37	14	44	M12	0.80
PSC50xSLN16-60	60	24	-	47	39	16	48	M14	1.00
PSC50xSLN18-60	60	24	-	47	-	18	50	M14	1.00
PSC50xSLN20-60	60	25	-	49	40	20	52	M16	1.00
PSC50xSLN25-80	80	24	25	54	60	25	65	M18	1.80
PSC63xSLN6-55	55	18	-	35	25	6	25	M6	0.90
PSC63xSLN8-55	55	18	-	35	26	8	28	M8	0.90
PSC63xSLN10-60	60	20	-	39	30	10	35	M10	1.00
PSC63xSLN12-60	60	22.5	-	44	33	12	42	M12	1.10
PSC63xSLN14-60	60	22.5	-	44	33.5	14	44	M12	1.10
PSC63xSLN16-65	65	24	-	47	35.5	16	48	M14	1.20
PSC63xSLN18-65	65	24	-	47	39	18	50	M14	1.20
PSC63xSLN20-65	65	25	-	49	37.5	20	52	M16	1.50
PSC63xSLN25-80	80	24	25	54	58	25	65	M18	1.90
PSC63xSLN32-90	90	24	28	58	68	32	72	M20	2.40
PSC63xSLN40-100	100	30	32	68	77	40	90	M24	3.70

### 選配表 Option

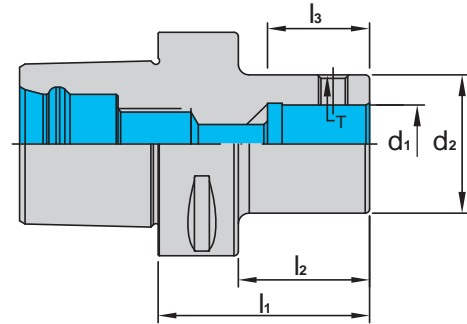




# PSC/MCK 搪孔刀柄

## PSC/MCK BORING HEAD SHANK

ISO  
26623-1



### 特點 Feature

- 內孔公差 H6
- 整支通孔 · 利於出水及抗震

- Internal tolerance is H6.
- The tool holder is through-one, which is better for water to get through and vibration resistance.

規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	T	重量 (KGS) Weight
PSC40xMCK2-45	45	19.5	18.5	14	24	M5X0.5P	0.40
PSC40xMCK3-40	40	17	24	18	31	M6X0.75P	0.50
PSC40xMCK4-33	33	12.5	28	22	39	M8X0.75P	0.50
PSC50xMCK2-85	85	60.5	18.5	14	24	M5X0.5P	0.60
PSC50xMCK3-55	55	30	24	18	31	M6X0.75P	0.60
PSC50xMCK3-80	80	55	24	18	31	M6X0.75P	0.70
PSC50xMCK4-48	48	23	28	22	39	M8X0.75P	0.60
PSC50xMCK4-73	73	48	28	22	39	M8X0.75P	0.70
PSC50xMCK5-50	50	30	35	28	50	M10X1.0P	0.60
PSC50xMCK5-83	83	63	35	28	50	M10X1.0P	1.30
PSC50xMCK6-50	50	30	42	36	63	M12X1.0P	1.00
PSC63xMCK2-90	90	53	18.5	14	24	M5X0.5P	1.30
PSC63xMCK3-65	65	38	24	18	31	M6X0.75P	1.30
PSC63xMCK3-100	100	73	24	18	31	M6X0.75P	1.50
PSC63xMCK4-58	58	31	28	22	39	M8X0.75P	1.30
PSC63xMCK4-93	93	66	28	22	39	M8X0.75P	1.70
PSC63xMCK5-48	48	22	35	28	50	M10X1.0P	1.30
PSC63xMCK5-83	83	57	35	28	50	M10X1.0P	1.70
PSC63xMCK6-59	59	37	42	36	63	M12X1.0P	1.60
PSC63xMCK6-94	94	72	42	36	63	M12X1.0P	2.30

PSC

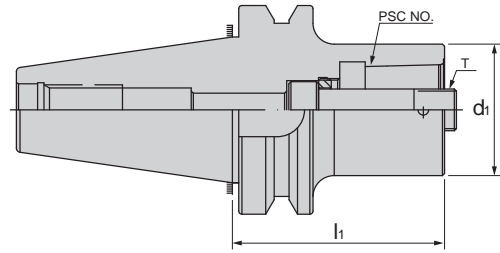
### 選配表 Option

延長桿 Extension Spacer	搪頭 Boring Head						鎖刀座 Lock Device
A345-346	A329	A337	A386	A356	A366	A369	A301



## SBT/PSC 套筒 SBT/PSC ADAPTER

ISO  
26623-1

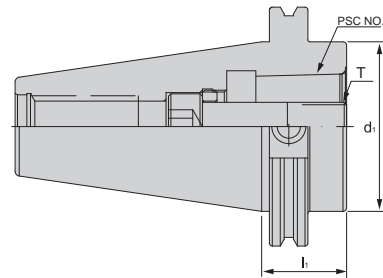


規格 Spec.	$l_1$	$d_1$	T	扳手 Wrench	重量 (KGS) Weight
SBT40xPSC32-30	30	32	M12x1.5P	T10-200	1.70
SBT40xPSC40-30	30	40	M14x1.5P	T12-200	1.70
SBT40xPSC50-30	30	50	M16x1.5P	T10-200	1.70
SBT40xPSC63-75	75	63	M20x2.0P	T12-200	1.90
SBT50xPSC32-40	40	32	M12x1.5P	T10-200	4.80
SBT50xPSC40-40	40	40	M14x1.5P	T12-200	4.80
SBT50xPSC50-40	40	50	M16x1.5P	T10-200	4.80
SBT50xPSC63-100	100	63	M20x2.0P	T12-200	4.68
SBT50xPSC63-150	150	63	M20x2.0P	T12-200	5.75
SBT50xPSC63-200	200	63	M20x2.0P	-	6.81
SBT50xPSC63-250	250	63	M20x2.0P	-	7.88
SBT50xPSC63-300	300	63	M20x2.0P	-	8.73

PSC



## DAT/PSC 套筒 DAT/PSC ADAPTER

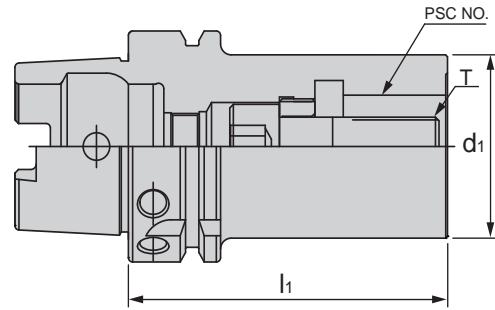


規格 Spec.	$l_1$	$d_1$	T	重量 (KGS) Weight
DAT40xPSC32-30	30	32	M12x1.5P	1.40
DAT40xPSC40-40	40	40	M14x1.5P	1.50
DAT40xPSC50-50	50	50	M16x1.5P	1.60
DAT40xPSC63-90	90	63	M20x2.0P	2.00
DAT50xPSC32-30	30	32	M12x1.5P	4.20
DAT50xPSC40-30	30	40	M14x1.5P	4.30
DAT50xPSC50-30	30	50	M16x1.5P	4.40
DAT50xPSC63-30	30	63	M20x2.0P	4.50
DAT50xPSC63-100	100	63	M20x2.0P	5.00
DAT50xPSC63-150	150	63	M20x2.0P	5.20
DAT50xPSC63-200	200	63	M20x2.0P	5.40
DAT50xPSC63-250	250	63	M20x2.0P	5.80
DAT50xPSC63-300	300	63	M20x2.0P	6.00



## HSK/PSC 套筒 HSK/PSC ADAPTER

ISO  
26623-1

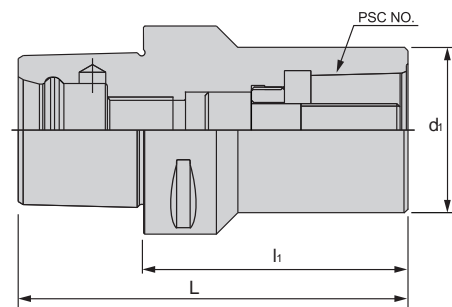


規格 Spec.	$l_1$	$d_1$	T	扳手 Wrench	重量 (KGS) Weight
HSK63AxPSC32-75	75	32	M12x1.5P	T6-200	0.92
HSK63AxPSC40-80	80	40	M14x1.5P	T6-200	1.06
HSK63AxPSC50-90	90	50	M16x1.5P	T6-200	1.39
HSK100AxPSC32-80	80	32	M12x1.5P	T10-200	2.25
HSK100AxPSC40-90	90	40	M14x1.5P	T10-200	2.43
HSK100AxPSC50-100	100	50	M16x1.5P	T6-200	2.80
HSK100AxPSC63-110	110	63	M20x2.0P	T10-200	3.41
HSK100AxPSC63-150	150	63	M20x2.0P	T10-200	4.18
HSK100AxPSC63-200	200	63	M20x2.0P	T10-200	5.14
HSK100AxPSC63-250	250	63	M20x2.0P	-	6.10
HSK100AxPSC63-300	300	63	M20x2.0P	-	7.07

PSC



## PSC 異徑套筒 PSC EXTENSION ADAPTER (FOR DIFFERENT DIAMETER)

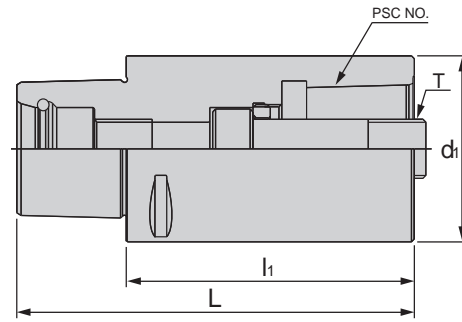


規格 Spec.	PSC NO.	L	$l_1$	$d_1$	T	重量 (KGS) Weight
PSC40xPSC32-55	PSC32	79	55	32	M12x1.5P	0.50
PSC40xPSC32-70	PSC32	94	70	32	M12x1.5P	0.60
PSC50xPSC32-60	PSC32	84	60	32	M12x1.5P	0.60
PSC50xPSC40-65	PSC40	89	65	40	M14x1.5P	0.80
PSC50xPSC40-85	PSC40	115	85	40	M14x1.5P	1.10
PSC63xPSC32-70	PSC32	108	70	32	M12x1.5P	1.10
PSC63xPSC40-80	PSC40	118	80	40	M14x1.5P	1.20
PSC63xPSC50-80	PSC50	118	80	50	M16x1.5P	1.50
PSC63xPSC50-110	PSC50	148	110	50	M16x1.5P	2.20



## PSC 等徑套筒 PSC EXTENSION ADAPTER (FOR SAME DIAMETER)

ISO  
26623-1

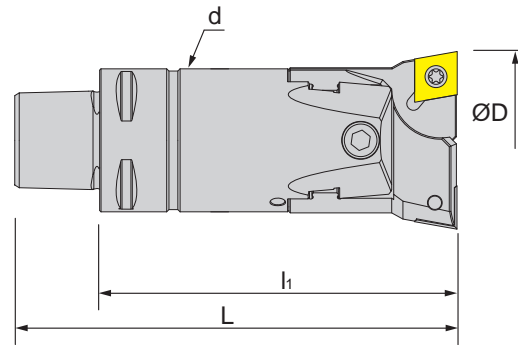


規格 Spec.	PSC NO.	L	l <sub>1</sub>	d <sub>1</sub>	T	重量 (KGS) Weight
PSC32xPSC32-60	PSC32	79	60	32	M12x1.5P	0.40
PSC32xPSC32-80	PSC32	99	80	32	M12x1.5P	0.50
PSC40xPSC40-60	PSC40	84	60	40	M14x1.5P	0.50
PSC40xPSC40-80	PSC40	104	80	40	M14x1.5P	0.70
PSC50xPSC50-80	PSC50	110	80	50	M16x1.5P	1.10
PSC50xPSC50-100	PSC50	130	100	50	M16x1.5P	1.40
PSC63xPSC63-80	PSC63	118	80	63	M20x2.0P	2.00
PSC63xPSC63-100	PSC63	138	100	63	M20x2.0P	2.20
PSC63xPSC63-140	PSC63	178	140	63	M20x2.0P	-
PSC63xPSC63-200	PSC63	238	200	63	M20x2.0P	-
PSC63xPSC63-300	PSC63	338	300	63	M20x2.0P	-

PSC



## PSC/PCK 可調式雙刃粗搪孔頭 (一體式) PSC/PCK ADJUSTABLE DOUBLE-EDGED BORING HEAD



規格 Spec.	øD 搪孔範圍 Boring Range		L	l <sub>1</sub>	d	刀片 Insert	重量 (KGS) Weight
	Min.	Max.					
PSC32 x PCK3950-80	39	50	99	80	32	CC..09T3	0.49
PSC40 x PCK4965-82	49	65	106	82	42	CC..1204	0.49
PSC50 x PCK6382-92	63	82	122	92	54	CC..1204	0.70
PSC63 x PCK80102-140	80	102	178	140	68	CC..1204	3.60

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CC..09T3	M4-10-5.7-60	T15	3.0
CC..1204	M5-11-7.5-60	T20	5.0

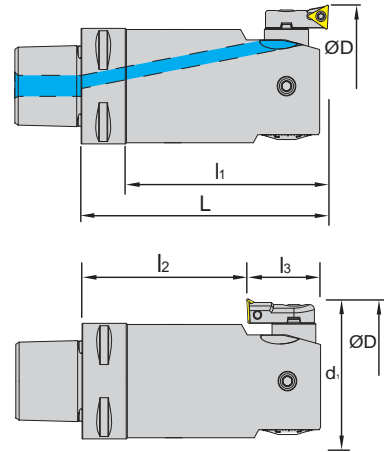




# PSC/PMB 超微米精搪頭 (一體式)

## PSC/PMB SUPER MICRON EXCHANGEABLE FINISH BORING HEAD

ISO  
26623-1



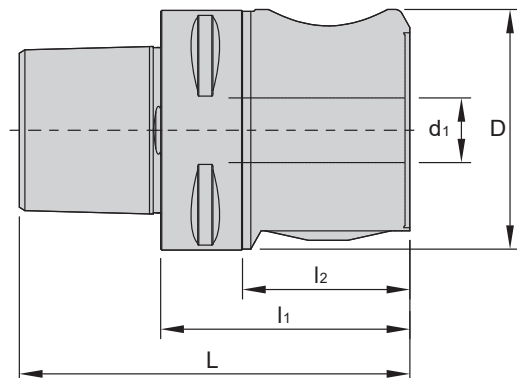
規格 Spec.	øD 搪孔範圍 Boring Range( 正搪 )					øD 搪孔範圍 Boring Range( 背搪 )					刀片座 Insert Seat	刀片 Insert	螺絲 Screw	重量 (KGS) Weight			
	Min.	Max.	L	l <sub>1</sub>	l <sub>2</sub>	Min.	Max.	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>							
PSC32xPMB32-85	32	42	104	85	69	-	-	-	-	-	SIB32-1/SIC32-1 SIB32-2/SIC32-2 SIB32-3/SIC32-3	TB..0601 TP..0802	M2-5.0-2.7-60	0.21			
	41	51				46	51	55	25	16							
	50	60				50	60										
PSC40xPMB41-102	41	54	126	102	81	-	-	-	-	-	SIB41-1/SIC41-1 SIB41-2/SIC41-2 SIB41-3/SIC41-3	TP..0902 TC..1102	M2.5-6.0-3.5-60	0.40			
	50	63				53	63	70	29	20							
	61	74				61	74										
PSC50xPMB53-112	53	70	142	112	91.5	62	70	74	34	25.5	SIB53-1/SIC53-1 SIB53-2/SIC53-2 SIB53-3/SIC53-3	TP..0902 TC..1102	M2.5-6.0-3.5-60	1.10			
	65	82				65	82								74	34	25.5
	78	95				78	95										
PSC63xPMB68-140	68	100	178	140	117.5	80	100	90.8	45.2	32.5	SIB68-1/SIC68-1 SIB68-2/SIC68-2 SIB68-3/SIC68-3	TP..0902 TC..1102	M2.5-6.0-3.5-60	1.74			
	94	126				94	126								90.8	45.2	32.5
	118	150				118	150										

※ 不含 SIB/SIC 刀片座 · 刀片座需另外購買 Not including SIB/SIC insert seat, insert seat need purchase separately.



# PSC/PBJ 高精密搪孔頭 (一體式)

## PSC/PBJ BORING HEAD



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	重量 (KGS) Weight
PSC40xPBJ10-48.5	72.5	48.5	28.5	39	10	0.49
PSC50xPBJ12-56	86	56	36	50	12	0.91
PSC63xPBJ16-67	105	67	45	63.5	16	1.76

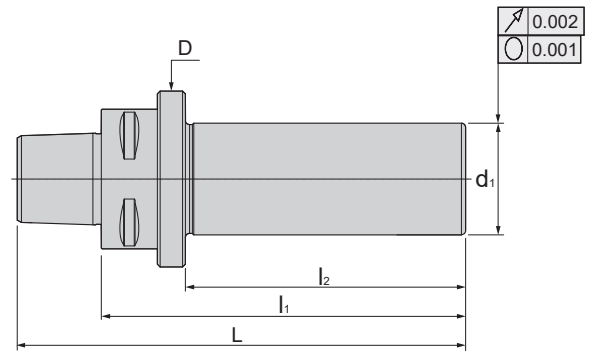
PSC



# PSC 主軸測試棒

## PSC TEST BAR

ISO  
26623-1



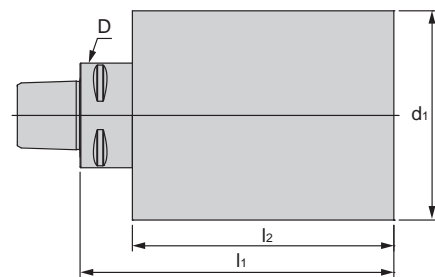
規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	重量 (KGS) Weight
PSC32x20-180	199	180	165	32	20	0.41
PSC40x32-180	204	180	160	40	32	1.08
PSC50x32-180	210	180	150	63	32	1.38
PSC50x32-245	275	245	215	63	32	1.70
PSC50x40-280	310	280	250	63	40	2.12
PSC63x40-182	220	182	150	75	40	1.93
PSC63x40-232	270	232	200	75	40	4.02
PSC63x40-352	390	352	320	75	40	2.93

PSC



# PSC 素材

## PSC BLANK



規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	D	重量 (KGS) Weight
PSC32xØ32-90	90	-	32	32	0.53
PSC32xØ60-90	90	75	60	32	1.65
PSC40xØ40-120	120	-	40	40	1.30
PSC40xØ80-120	120	100	80	40	4.12
PSC50xØ50-150	150	-	50	50	2.38
PSC50xØ95-150	150	130	95	50	7.60
PSC63xØ63-180	180	-	63	63	4.56
PSC63xØ120-180	180	158	120	63	14.5

# SAF

Runout Adjustable Holder Systems



# RUNOUT

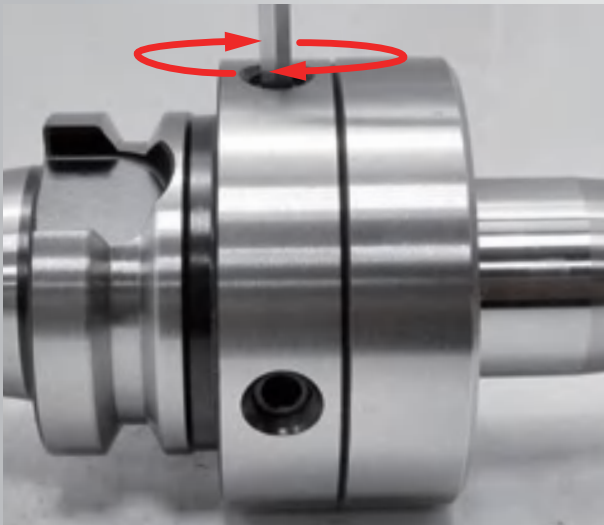
# SAF

## 可調式刀桿



- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 $5\mu\text{m}$ 內
- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within  $5\mu\text{m}$ .

# ADJUSTABLE



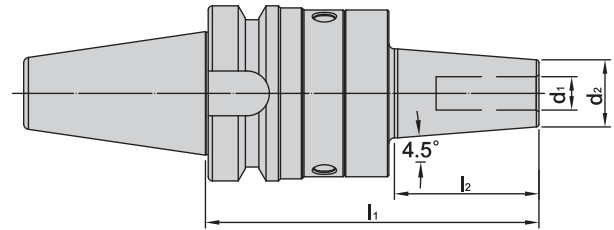


# BT/SAF 可調式刀桿

## BT/SAF RUNOUT ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : SFC

**NEW**



### 特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 5 $\mu$ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 5 $\mu$ m.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	組合 Combination		重量 (KGS) Weight
					本體 Body	法蘭盤 Flange Adapter	
BT30xSAFC6-110	110	52	6	21	BT30xSAFC25	SFC6-70	1.13
BT30xSAFC8-110	110	52	8	21	BT30xSAFC25	SFC8-70	1.12
BT30xSAFC10-110	110	52	10	24	BT30xSAFC25	SFC10-70	1.17
BT30xSAFC12-110	110	52	12	24	BT30xSAFC25	SFC12-70	1.15
BT30xSAFC16-115	115	57	16	27	BT30xSAFC25	SFC16-75	1.20
BT40xSAFC6-120	120	52	6	21	BT40xSAFC25	SFC6-70	1.86
BT40xSAFC8-120	120	52	8	21	BT40xSAFC25	SFC8-70	1.85
BT40xSAFC10-120	120	52	10	24	BT40xSAFC25	SFC10-70	1.90
BT40xSAFC12-120	120	52	12	24	BT40xSAFC25	SFC12-70	1.88
BT40xSAFC16-125	125	57	16	27	BT40xSAFC25	SFC16-75	1.93
BT40xSAFC20-130	130	60	20	33	BT40xSAFC40	SFC20-80	2.67
BT40xSAFC25-150	150	81	25	44	BT40xSAFC40	SFC25-100	3.20
BT40xSAFC32-150	150	81	32	44	BT40xSAFC40	SFC32-100	3.06
BT50xSAFC6-130	130	52	6	21	BT50xSAFC25	SFC6-70	4.34
BT50xSAFC8-130	130	52	8	21	BT50xSAFC25	SFC8-70	4.33
BT50xSAFC10-130	130	52	10	24	BT50xSAFC25	SFC10-70	4.38
BT50xSAFC12-130	130	52	12	24	BT50xSAFC25	SFC12-70	4.36
BT50xSAFC16-135	135	57	16	27	BT50xSAFC25	SFC16-75	4.41
BT50xSAFC20-140	140	60	20	33	BT50xSAFC40	SFC20-80	5.26
BT50xSAFC25-160	160	81	25	44	BT50xSAFC40	SFC25-100	5.79
BT50xSAFC32-160	160	81	32	44	BT50xSAFC40	SFC32-100	5.65

SAF

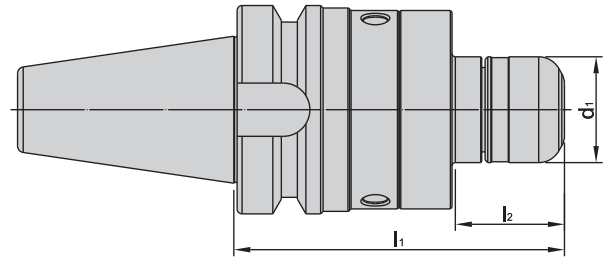


# BT/SAF 可調式刀桿

## BT/SAF RUNOUT ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : PNER

**NEW**



### 特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 5 $\mu$ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 5 $\mu$ m.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	組合 Combination		重量 (KGS) Weight
				本體 Body	法蘭盤 Flange Adapter	
BT30xSAFP16-90	90	32	30	BT30xSAFC25	PNER16-50	1.03
BT30xSAFP20-90	90	33	32	BT30xSAFC25	PNER20-50	1.04
BT40xSAFP16-100	100	32	30	BT40xSAFC25	PNER16-50	1.76
BT40xSAFP16-150	150	82	30	BT40xSAFC25	PNER16-100	2.00
BT40xSAFP20-100	100	33	32	BT40xSAFC25	PNER20-50	1.77
BT40xSAFP20-150	150	83	32	BT40xSAFC25	PNER20-100	2.03
BT40xSAFP25-100	100	28.9	40	BT40xSAFC40	PNER25-50	2.41
BT40xSAFP25-150	150	78.9	40	BT40xSAFC40	PNER25-100	2.83
BT40xSAFP32-110	110	40.9	50	BT40xSAFC40	PNER32-60	2.56
BT40xSAFP32-150	150	80.9	50	BT40xSAFC40	PNER32-100	3.11
BT50xSAFP16-110	110	32	30	BT50xSAFC25	PNER16-50	4.24
BT50xSAFP16-160	160	82	30	BT50xSAFC25	PNER16-100	4.48
BT50xSAFP20-110	110	33	32	BT50xSAFC25	PNER20-50	4.25
BT50xSAFP20-160	160	83	32	BT50xSAFC25	PNER20-100	4.51
BT50xSAFP25-110	110	28.9	40	BT50xSAFC40	PNER25-50	5.00
BT50xSAFP25-160	160	78.9	40	BT50xSAFC40	PNER25-100	5.42
BT50xSAFP32-120	120	40.9	50	BT50xSAFC40	PNER32-60	5.15
BT50xSAFP32-160	160	80.9	50	BT50xSAFC40	PNER32-100	5.70

SAF



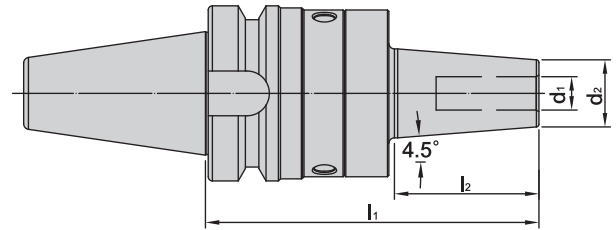
# SBT/SAF 可調式刀桿

## SBT/SAF RUNOUT ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : SFC

雙面拘束 DualDRIVE+

**NEW**



### 特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 5 $\mu$ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 5 $\mu$ m.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	組合 Combination		重量 (KGS) Weight
					本體 Body	法蘭盤 Flange Adapter	
SBT30xSAFC6-110	110	52	6	21	BT30xSAFC25	SFC6-70	1.13
SBT30xSAFC8-110	110	52	8	21	BT30xSAFC25	SFC8-70	1.12
SBT30xSAFC10-110	110	52	10	24	BT30xSAFC25	SFC10-70	1.17
SBT30xSAFC12-110	110	52	12	24	BT30xSAFC25	SFC12-70	1.15
SBT30xSAFC16-115	115	57	16	27	BT30xSAFC25	SFC16-75	1.20
SBT40xSAFC6-120	120	52	6	21	BT40xSAFC25	SFC6-70	1.87
SBT40xSAFC8-120	120	52	8	21	BT40xSAFC25	SFC8-70	1.86
SBT40xSAFC10-120	120	52	10	24	BT40xSAFC25	SFC10-70	1.91
SBT40xSAFC12-120	120	52	12	24	BT40xSAFC25	SFC12-70	1.89
SBT40xSAFC16-125	125	57	16	27	BT40xSAFC25	SFC16-75	1.94
SBT40xSAFC20-130	130	60	20	33	BT40xSAFC40	SFC20-80	2.68
SBT40xSAFC25-150	150	81	25	44	BT40xSAFC40	SFC25-100	3.21
SBT40xSAFC32-150	150	81	32	44	BT40xSAFC40	SFC32-100	3.07
SBT50xSAFC6-130	130	52	6	21	BT50xSAFC25	SFC6-70	4.38
SBT50xSAFC8-130	130	52	8	21	BT50xSAFC25	SFC8-70	4.37
SBT50xSAFC10-130	130	52	10	24	BT50xSAFC25	SFC10-70	4.42
SBT50xSAFC12-130	130	52	12	24	BT50xSAFC25	SFC12-70	4.40
SBT50xSAFC16-135	135	57	16	27	BT50xSAFC25	SFC16-75	4.45
SBT50xSAFC20-140	140	60	20	33	BT50xSAFC40	SFC20-80	5.30
SBT50xSAFC25-160	160	81	25	44	BT50xSAFC40	SFC25-100	5.83
SBT50xSAFC32-160	160	81	32	44	BT50xSAFC40	SFC32-100	5.69

SAF



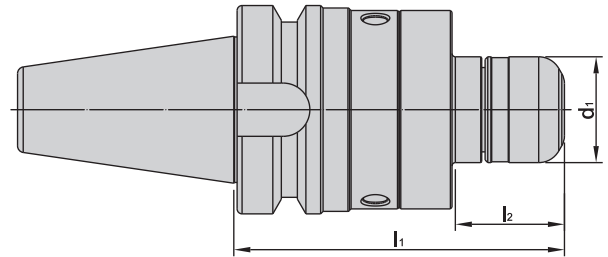
# SBT/SAF 可調式刀桿

## SBT/SAF RUNOUT ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : PNER

雙面拘束 DualDRIVE+

**NEW**



### 特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 5 $\mu$ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 5 $\mu$ m.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	組合 Combination		重量 (KGS) Weight
				本體 Body	法蘭盤 Flange Adapter	
BT30xSAFP16-90	90	32	30	BT30xSAFC25	PNER16-50	1.03
BT30xSAFP20-90	90	33	32	BT30xSAFC25	PNER20-50	1.04
BT40xSAFP16-100	100	32	30	BT40xSAFC25	PNER16-50	1.77
BT40xSAFP16-150	150	82	30	BT40xSAFC25	PNER16-100	2.01
BT40xSAFP20-100	100	33	32	BT40xSAFC25	PNER20-50	1.78
BT40xSAFP20-150	150	83	32	BT40xSAFC25	PNER20-100	2.04
BT40xSAFP25-100	100	28.9	40	BT40xSAFC40	PNER25-50	2.45
BT40xSAFP25-150	150	78.9	40	BT40xSAFC40	PNER25-100	2.84
BT40xSAFP32-110	110	40.9	50	BT40xSAFC40	PNER32-60	2.57
BT40xSAFP32-150	150	80.9	50	BT40xSAFC40	PNER32-100	3.12
BT50xSAFP16-110	110	32	30	BT50xSAFC25	PNER16-50	4.28
BT50xSAFP16-160	160	82	30	BT50xSAFC25	PNER16-100	4.52
BT50xSAFP20-110	110	33	32	BT50xSAFC25	PNER20-50	4.29
BT50xSAFP20-160	160	83	32	BT50xSAFC25	PNER20-100	4.55
BT50xSAFP25-110	110	28.9	40	BT50xSAFC40	PNER25-50	5.04
BT50xSAFP25-160	160	78.9	40	BT50xSAFC40	PNER25-100	5.46
BT50xSAFP32-120	120	40.9	50	BT50xSAFC40	PNER32-60	5.19
BT50xSAFP32-160	160	80.9	50	BT50xSAFC40	PNER32-100	5.74

SAF



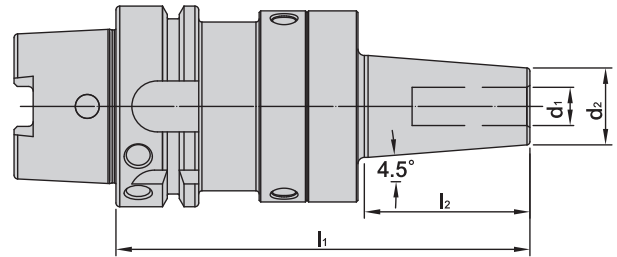


# HSK/SAF 可調式刀桿

## HSK/SAF RUNOUT ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : SFC

**NEW**



### 特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 5 $\mu$ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 5 $\mu$ m.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	組合 Combination		重量 (KGS) Weight
					本體 Body	法蘭盤 Flange Adapter	
HSK40AxSAFC6-130	130	52	6	21	HSK40AxSAF25	SFC6-70	1.22
HSK40AxSAFC8-130	130	52	8	21	HSK40AxSAF25	SFC8-70	1.21
HSK40AxSAFC10-130	130	52	10	24	HSK40AxSAF25	SFC10-70	1.26
HSK40AxSAFC12-130	130	52	12	24	HSK40AxSAF25	SFC12-70	1.24
HSK40AxSAFC16-135	135	57	16	27	HSK40AxSAF25	SFC16-75	1.29
HSK50AxSAFC6-130	130	52	6	21	HSK50AxSAF25	SFC6-70	1.34
HSK50AxSAFC8-130	130	52	8	21	HSK50AxSAF25	SFC8-70	1.33
HSK50AxSAFC10-130	130	52	10	24	HSK50AxSAF25	SFC10-70	1.38
HSK50AxSAFC12-130	130	52	12	24	HSK50AxSAF25	SFC12-70	1.36
HSK50AxSAFC16-135	135	57	16	27	HSK50AxSAF25	SFC16-75	1.41
HSK63AxSAFC6-130	130	52	6	21	HSK63AxSAF25	SFC6-70	1.68
HSK63AxSAFC8-130	130	52	8	21	HSK63AxSAF25	SFC8-70	1.67
HSK63AxSAFC10-130	130	52	10	24	HSK63AxSAF25	SFC10-70	1.72
HSK63AxSAFC12-130	130	52	12	24	HSK63AxSAF25	SFC12-70	1.70
HSK63AxSAFC16-135	135	57	16	27	HSK63AxSAF25	SFC16-75	1.75
HSK63AxSAFC20-140	140	60	20	33	HSK63AxSAF40	SFC20-80	2.55
HSK63AxSAFC25-160	160	81	25	44	HSK63AxSAF40	SFC25-100	3.08
HSK63AxSAFC32-160	160	81	32	44	HSK63AxSAF40	SFC32-100	2.94
HSK80AxSAFC6-120	120	52	6	21	HSK80AxSAF25	SFC6-70	1.99
HSK80AxSAFC8-120	120	52	8	21	HSK80AxSAF25	SFC8-70	1.98
HSK80AxSAFC10-120	120	52	10	24	HSK80AxSAF25	SFC10-70	2.03
HSK80AxSAFC12-120	120	52	12	24	HSK80AxSAF25	SFC12-70	2.01
HSK80AxSAFC16-125	125	57	16	27	HSK80AxSAF25	SFC16-75	2.06
HSK80AxSAFC20-140	140	60	20	33	HSK80AxSAF40	SFC20-80	3.14
HSK80AxSAFC25-160	160	81	25	44	HSK80AxSAF40	SFC25-100	3.67
HSK80AxSAFC32-160	160	81	32	44	HSK80AxSAF40	SFC32-100	3.53
HSK100AxSAFC6-125	125	52	6	21	HSK100AxSAF25	SFC6-70	2.93
HSK100AxSAFC8-125	125	52	8	21	HSK100AxSAF25	SFC8-70	2.92
HSK100AxSAFC10-125	125	52	10	24	HSK100AxSAF25	SFC10-70	2.97
HSK100AxSAFC12-125	125	52	12	24	HSK100AxSAF25	SFC12-70	2.95
HSK100AxSAFC16-130	130	57	16	27	HSK100AxSAF25	SFC16-75	3.00
HSK100AxSAFC20-135	135	60	20	33	HSK100AxSAF40	SFC20-80	3.92
HSK100AxSAFC25-155	155	81	25	44	HSK100AxSAF40	SFC25-100	4.45
HSK100AxSAFC32-155	155	81	32	44	HSK100AxSAF40	SFC32-100	4.31

SAF

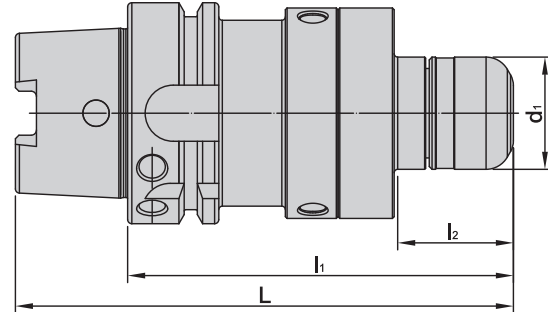


# HSK/SAF 可調式刀桿

## HSK/SAF RUNOUT ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : PNER

**NEW**



### 特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 5 $\mu$ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 5 $\mu$ m.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	組合 Combination		筒夾 Collet	重量 (KGS) Weight
				本體 Body	法蘭盤 Flange Adapter		
HSK40AxSAFP16-110	110	32	30	HSK63AxSAF25	PNER16-50	PNER16	1.12
HSK40AxSAFP16-160	160	82	30	HSK63AxSAF25	PNER16-100	PNER16	1.36
HSK40AxSAFP20-110	110	33	32	HSK63AxSAF25	PNER20-50	PNER20	1.13
HSK40AxSAFP20-160	160	83	32	HSK63AxSAF25	PNER20-100	PNER20	1.39
HSK50AxSAFP16-110	110	32	30	HSK63AxSAF25	PNER25-50	PNER25	1.24
HSK50AxSAFP16-160	160	82	30	HSK63AxSAF25	PNER25-100	PNER25	1.48
HSK50AxSAFP20-110	110	33	32	HSK63AxSAF25	PNER32-60	PNER32	1.25
HSK50AxSAFP20-160	160	83	32	HSK63AxSAF25	PNER32-100	PNER32	1.51
HSK63AxSAFP16-110	110	32	30	HSK63AxSAF25	PNER16-50	PNER16	1.58
HSK63AxSAFP16-160	160	82	30	HSK63AxSAF25	PNER16-100	PNER16	1.82
HSK63AxSAFP20-110	110	33	32	HSK63AxSAF25	PNER20-50	PNER20	1.59
HSK63AxSAFP20-160	160	83	32	HSK63AxSAF25	PNER20-100	PNER20	1.85
HSK63AxSAFP25-110	110	28.9	40	HSK63AxSAF40	PNER25-50	PNER25	2.29
HSK63AxSAFP25-160	160	78.9	40	HSK63AxSAF40	PNER25-100	PNER25	2.71
HSK63AxSAFP32-120	120	40.9	50	HSK63AxSAF40	PNER32-60	PNER32	2.44
HSK63AxSAFP32-160	160	80.9	50	HSK63AxSAF40	PNER32-100	PNER32	2.99
HSK80AxSAFP16-100	100	32	30	HSK80AxSAF25	PNER16-50	PNER16	1.89
HSK80AxSAFP16-150	150	82	30	HSK80AxSAF25	PNER16-100	PNER16	2.13
HSK80AxSAFP20-100	100	33	32	HSK80AxSAF25	PNER20-50	PNER20	1.90
HSK80AxSAFP20-150	150	83	32	HSK80AxSAF25	PNER20-100	PNER20	2.16
HSK80AxSAFP25-110	110	28.9	40	HSK80AxSAF40	PNER25-50	PNER25	2.88
HSK80AxSAFP25-160	160	78.9	40	HSK80AxSAF40	PNER25-100	PNER25	3.30
HSK80AxSAFP32-120	120	40.9	50	HSK80AxSAF40	PNER32-60	PNER32	3.03
HSK80AxSAFP32-160	160	80.9	50	HSK80AxSAF40	PNER32-100	PNER32	3.58
HSK100AxSAFP16-105	105	32	30	HSK100AxSAF25	PNER16-50	PNER16	2.83
HSK100AxSAFP16-155	155	82	30	HSK100AxSAF25	PNER16-100	PNER16	3.07
HSK100AxSAFP20-105	105	33	32	HSK100AxSAF25	PNER20-50	PNER20	2.84
HSK100AxSAFP20-155	155	83	32	HSK100AxSAF25	PNER20-100	PNER20	3.10
HSK100AxSAFP25-105	105	28.9	40	HSK100AxSAF40	PNER25-50	PNER25	3.66
HSK100AxSAFP25-155	155	78.9	40	HSK100AxSAF40	PNER25-100	PNER25	4.08
HSK100AxSAFP32-115	115	40.9	50	HSK100AxSAF40	PNER32-60	PNER32	3.81
HSK100AxSAFP32-155	155	80.9	50	HSK100AxSAF40	PNER32-100	PNER32	4.36

SAF

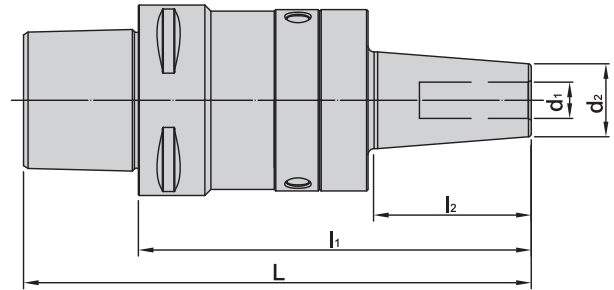


# PSC/SAF 可調式刀桿

## PSC/SAF RUNOUT ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : SFC

**NEW**



### 特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 5 $\mu$ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 5 $\mu$ m.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	組合 Combination		重量 (KGS) Weight
					本體 Body	法蘭盤 Flange Adapter	
PSC40xSAFC6-125	125	52	6	21	PSC40xSAF25	SFC6-70	1.28
PSC40xSAFC8-125	125	52	8	21	PSC40xSAF25	SFC8-70	1.27
PSC40xSAFC10-125	125	52	10	24	PSC40xSAF25	SFC10-70	1.32
PSC40xSAFC12-125	125	52	12	24	PSC40xSAF25	SFC12-70	1.30
PSC40xSAFC16-130	130	57	16	27	PSC40xSAF25	SFC16-75	1.35
PSC50xSAFC6-130	130	52	6	21	PSC50xSAF25	SFC6-70	1.62
PSC50xSAFC8-130	130	52	8	21	PSC50xSAF25	SFC8-70	1.61
PSC50xSAFC10-130	130	52	10	24	PSC50xSAF25	SFC10-70	1.66
PSC50xSAFC12-130	130	52	12	24	PSC50xSAF25	SFC12-70	1.64
PSC50xSAFC16-135	135	57	16	27	PSC50xSAF25	SFC16-75	1.69
PSC63xSAFC6-130	130	52	6	21	PSC63xSAF25	SFC6-70	1.97
PSC63xSAFC8-130	130	52	8	21	PSC63xSAF25	SFC8-70	1.96
PSC63xSAFC10-130	130	52	10	24	PSC63xSAF25	SFC10-70	2.01
PSC63xSAFC12-130	130	52	12	24	PSC63xSAF25	SFC12-70	1.99
PSC63xSAFC16-135	135	57	16	27	PSC63xSAF25	SFC16-75	2.04
PSC63xSAFC20-140	140	60	20	33	PSC63xSAF40	SFC20-80	3.01
PSC63xSAFC25-160	160	81	25	44	PSC63xSAF40	SFC25-100	3.54
PSC63xSAFC32-160	160	81	32	44	PSC63xSAF40	SFC32-100	3.40
PSC80xSAFC6-120	120	52	6	21	PSC80xSAF25	SFC6-70	2.55
PSC80xSAFC8-120	120	52	8	21	PSC80xSAF25	SFC8-70	2.57
PSC80xSAFC10-120	120	52	10	24	PSC80xSAF25	SFC10-70	2.59
PSC80xSAFC12-120	120	52	12	24	PSC80xSAF25	SFC12-70	2.57
PSC80xSAFC16-125	125	57	16	27	PSC80xSAF25	SFC16-75	2.62
PSC80xSAFC20-140	140	60	20	33	PSC80xSAF40	SFC20-80	3.81
PSC80xSAFC25-160	160	81	25	44	PSC80xSAF40	SFC25-100	4.32
PSC80xSAFC32-160	160	81	32	44	PSC80xSAF40	SFC32-100	4.20

SAF

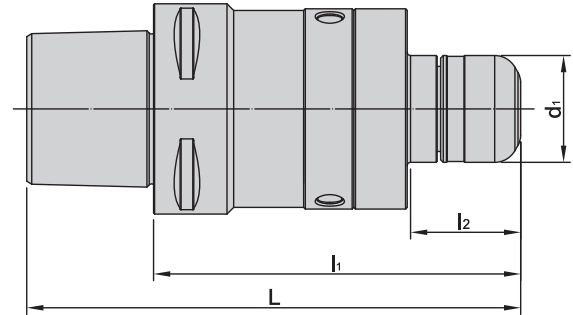


# PSC/SAF 可調式刀桿

## PSC/SAF RUNOUT ADJUSTABLE HOLDER

法蘭盤形式 Flange Adapter : PNER

**NEW**



### 特點 Feature

- 藉由調整徑向螺絲及軸向螺絲，刀緣偏擺精度可調整至 5 $\mu$ m 內

- Drive axial and radial set screws for precision adjustment and the runout accuracy of the tool edge can be adjusted within 5 $\mu$ m.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	組合 Combination		筒夾 Collet	重量 (KGS) Weight
				本體 Body	法蘭盤 Flange Adapter		
PSC40xSAFP16-105	105	32	30	PSC40xSAF25	PNER16-50	PNER16	1.18
PSC40xSAFP16-155	155	82	30	PSC40xSAF25	PNER16-100	PNER16	4.42
PSC40xSAFP20-105	105	33	32	PSC40xSAF25	PNER20-50	PNER20	1.19
PSC40xSAFP20-155	155	83	23	PSC40xSAF25	PNER20-100	PNER20	1.45
PSC50xSAFP16-110	110	32	30	PSC50xSAF25	PNER16-50	PNER16	1.52
PSC50xSAFP16-160	160	82	30	PSC50xSAF25	PNER16-100	PNER16	1.76
PSC50xSAFP20-110	110	33	32	PSC50xSAF25	PNER20-50	PNER20	1.53
PSC50xSAFP20-160	160	83	32	PSC50xSAF25	PNER20-100	PNER20	1.79
PSC63xSAFP16-110	110	32	30	PSC63xSAF25	PNER16-50	PNER16	1.87
PSC63xSAFP16-160	160	82	30	PSC63xSAF25	PNER16-100	PNER16	2.11
PSC63xSAFP20-110	110	33	32	PSC63xSAF25	PNER20-50	PNER20	1.88
PSC63xSAFP20-160	160	83	32	PSC63xSAF25	PNER20-100	PNER20	2.14
PSC63xSAFP25-110	110	28.9	40	PSC63xSAF40	PNER25-50	PNER25	2.75
PSC63xSAFP25-160	160	78.9	40	PSC63xSAF40	PNER25-100	PNER25	3.17
PSC63xSAFP32-120	120	40.9	50	PSC63xSAF40	PNER32-60	PNER32	2.90
PSC63xSAFP32-160	160	80.9	50	PSC63xSAF40	PNER32-100	PNER32	3.45
PSC80xSAFP16-100	100	32	30	PSC80xSAF25	PNER16-50	PNER16	2.45
PSC80xSAFP16-150	150	82	30	PSC80xSAF25	PNER16-100	PNER16	2.69
PSC80xSAFP20-100	100	33	32	PSC80xSAF25	PNER20-50	PNER20	2.46
PSC80xSAFP20-150	150	83	32	PSC80xSAF25	PNER20-100	PNER20	2.72
PSC80xSAFP25-110	110	28.9	40	PSC80xSAF40	PNER25-50	PNER25	3.55
PSC80xSAFP25-160	160	78.9	40	PSC80xSAF40	PNER25-100	PNER25	3.97
PSC80xSAFP32-120	120	40.9	50	PSC80xSAF40	PNER32-60	PNER32	3.70
PSC80xSAFP32-160	160	80.9	50	PSC80xSAF40	PNER32-100	PNER32	4.25

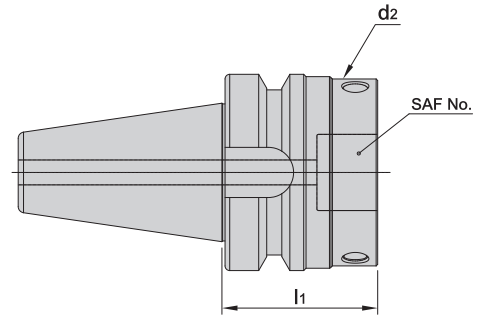
SAF



# SAF 可調式刀桿本體

## SAF RUNOUT ADJUSTABLE HOLDER BODY

**NEW**



規格 Spec.	$l_1$	$d_2$	SAF NO.	重量 (KGS) Weight
BT30xSAF25	40	60	1	0.61
BT40xSAF25	50	60	1	1.34
BT40xSAF40	50	80	2	1.48
BT50xSAF25	60	60	1	3.82
BT50xSAF40	60	80	2	4.07
SBT30xSAF25	40	60	1	0.61
SBT40xSAF25	50	60	1	1.35
SBT40xSAF40	50	80	2	1.49
SBT50xSAF25	60	60	1	3.86
SBT50xSAF40	60	80	2	4.11
HSK40AxSAF25	60	60	1	0.70
HSK50AxSAF25	60	60	1	0.82
HSK63AxSAF25	60	60	1	1.16
HSK63AxSAF40	60	80	2	1.36
HSK80AxSAF25	50	60	1	1.47
HSK80AxSAF40	60	80	2	1.95
HSK100AxSAF25	55	60	1	2.41
HSK100AxSAF40	55	80	2	2.73
PSC40xSAF25	55	60	1	0.76
PSC50xSAF25	60	60	1	1.10
PSC63xSAF25	60	60	1	1.45
PSC63xSAF40	60	80	2	1.82
PSC80xSAF25	50	60	1	2.03
PSC80xSAF40	60	80	2	2.62

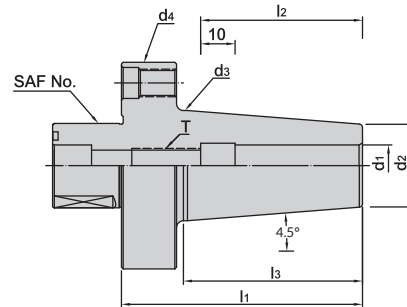
SAF



## SAF 可調式刀桿法蘭盤 - SFC

SHRINK FIT CHUCK FLANGE FOR SAF

**NEW**



規格 Spec.	$l_1$	$l_2$	$l_3$	$d_1$	$d_2$	$d_3$	$d_4$	T	SAF NO.	重量 (KGS) Weight
SFC6-70	70	36	52	6	21	27	60	M5x0.8P	1	0.52
SFC8-70	70	36	52	8	21	27	60	M6x1.0P	1	0.51
SFC10-70	70	42	52	10	24	32	60	M8x1.25P	1	0.56
SFC12-70	70	47	52	12	24	32	60	M10x1.5P	1	0.54
SFC16-75	75	50	57	16	27	34	60	M12x1.75P	1	0.59
SFC20-80	80	52	60	20	33	42	80	M16x2.0P	2	1.19
SFC25-100	100	58	81	25	44	52	80	M20x2.0P	2	1.72
SFC32-100	100	58	81	32	44	52	80	M20x2.0P	2	1.58

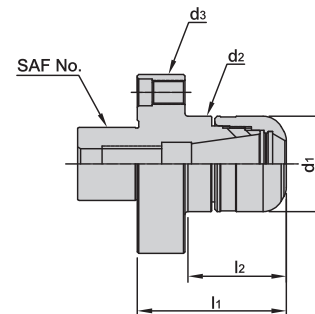


## SAF 可調式刀桿法蘭盤 - PNER

PNER COLLET CHUCK FLANGE FOR SAF

SAF

**NEW**



規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	SAF NO.	重量 (KGS) Weight
PNER16-50	50	32	30	30	60	1	0.42
PNER16-100	100	82	30	30	60	1	0.66
PNER20-50	50	33	32	32	60	1	0.43
PNER20-100	100	83	32	32	60	1	0.69
PNER25-50	50	28.94	40	40	80	2	0.93
PNER25-100	100	78.9	40	40	80	2	1.35
PNER32-60	60	40.94	50	50	80	2	1.08
PNER32-100	100	80.94	50	50	80	2	1.63

# TAPPING

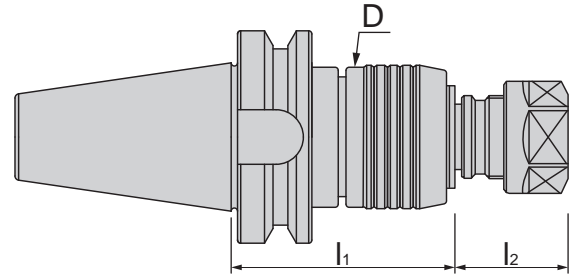
Holder Systems





# STH-CX 同步補償剛性攻牙器

## STH-CX SYNCHRO TAPPING HOLDER



### 特點 Feature

- 有效消除背隙與過大扭力
- 提升攻牙質量
- 延長絲錐壽命
- 無中心出水

- Effectively eliminate backlash and excessive torque.
- Tapping enhance the quality.
- Extend tap life.
- Without coolant hole.

### BT

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	D	攻牙能力 Capacity	伸縮長度 Length Comp		螺帽 Nut	重量 (KGS) Weight
					縮 (-) Comp	伸 (+) Tens		
BT30xSTH16E-CX	70	25	43.4	M3~M12	-	1	ER16	0.82
BT30xSTH20E-CX	70	25	43.4	M3~M17	-	1	ER20	-
BT40xSTH16E-CX	75	25	43.4	M3~M12	-	1	ER16	-
BT40xSTH20E-CX	75	35	43.4	M3~M17	-	1	ER20	1.52
BT40xSTH32E-CX	95	40	43.4	M10~M24	-	1	ER32	-
BT50xSTH16E-CX	90	25	43.4	M3~M12	-	1	ER16	-
BT50xSTH20E-CX	90	35	43.4	M3~M17	-	1	ER20	-
BT50xSTH32E-CX	105	40	60	M10~M24	-	1	ER32	4.90

TAP

### SBT

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	D	攻牙能力 Capacity	伸縮長度 Length Comp		螺帽 Nut	重量 (KGS) Weight
					縮 (-) Comp	伸 (+) Tens		
SBT30xSTH16E-CX	70	25	43.4	M3~M12	-	1	ER16	0.82
SBT30xSTH20E-CX	70	25	43.4	M3~M17	-	1	ER20	-
SBT40xSTH16E-CX	75	25	43.4	M3~M12	-	1	ER16	-
SBT40xSTH20E-CX	75	35	43.4	M3~M17	-	1	ER20	1.52
SBT40xSTH32E-CX	95	40	43.4	M10~M24	-	1	ER32	-
SBT50xSTH16E-CX	90	25	43.4	M3~M12	-	1	ER16	-
SBT50xSTH20E-CX	90	35	43.4	M3~M17	-	1	ER20	-
SBT50xSTH32E-CX	105	40	60	M10~M24	-	1	ER32	4.90

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A252	A280	A296

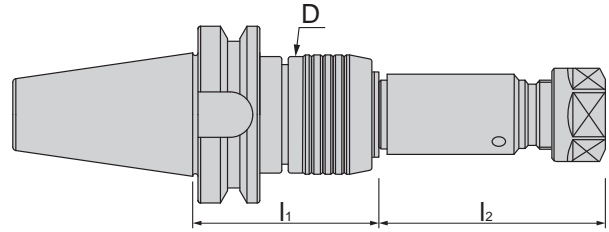






# STH-CX 同步補償剛性攻牙器 ( 加長型 )

## STH-CX SYNCHRO TAPPING HOLDER



### 特點 Feature

- 有效消除背隙與過大扭力
- 提升攻牙質量
- 延長絲錐壽命
- 無中心出水
- Effectively eliminate backlash and excessive torque.
- Tapping enhance the quality.
- Extend tap life.
- Without coolant hole.

### BT

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	D	攻牙能力 Capacity	伸縮長度 Length Comp		螺帽 Nut	重量 (KGS) Weight
					縮 (-) Comp	伸 (+) Tens		
BT30xSTH16E-70-CX	70	70	43.4	M3~M12	-	1	ER16	-
BT30xSTH20E-70-CX	70	70	43.4	M3~M17	-	1	ER20	-
BT40xSTH16E-70-CX	75	70	43.4	M3~M12	-	1	ER16	-
BT40xSTH20E-70-CX	75	70	43.4	M3~M17	-	1	ER20	-
BT40xSTH32E-70-CX	95	70	43.4	M10~M24	-	1	ER32	-
BT50xSTH16E-70-CX	90	70	43.4	M3~M12	-	1	ER16	-
BT50xSTH20E-70-CX	90	70	43.4	M3~M17	-	1	ER20	-
BT50xSTH32E-70-CX	105	70	60	M10~M24	-	1	ER32	-

### SBT

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	D	攻牙能力 Capacity	伸縮長度 Length Comp		螺帽 Nut	重量 (KGS) Weight
					縮 (-) Comp	伸 (+) Tens		
SBT30xSTH16E-70-CX	70	70	43.4	M3~M12	-	1	ER16	-
SBT30xSTH20E-70-CX	70	70	43.4	M3~M17	-	1	ER20	-
SBT40xSTH16E-70-CX	75	70	43.4	M3~M12	-	1	ER16	-
SBT40xSTH20E-70-CX	75	70	43.4	M3~M17	-	1	ER20	-
SBT40xSTH32E-70-CX	95	70	43.4	M10~M24	-	1	ER32	-
SBT50xSTH16E-70-CX	90	70	43.4	M3~M12	-	1	ER16	-
SBT50xSTH20E-70-CX	90	70	43.4	M3~M17	-	1	ER20	-
SBT50xSTH32E-70-CX	105	70	60	M10~M24	-	1	ER32	-

### 選配表 Option

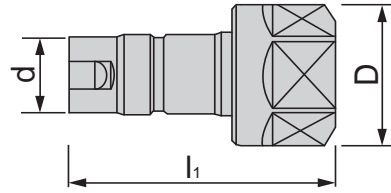
拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A252	A280	A296



TAP

# STH-ER 替換夾頭柄

## STH-ER EXCHANGE QUICK CHANGE COLLET



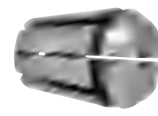
規格 Spec.	$l_1$	D	d	攻牙能力 Capacity	重量 (KGS) Weight
STH-ER16	47	28	20	M3~M12	0.10
STH-ER16-70	93	28	20	M3~M12	0.24
STH-ER20	57	34	20	M3~M17	0.14
STH-ER20-70	93	34	20	M3~M17	0.28
STH-ER32	78	50	32	M10~M24	0.44
STH-ER32-70	103	50	32	M10~M24	0.63



同步補償剛性攻牙器  
Synchro tapping holder



替換夾頭柄  
Quick change collet





剛性攻牙筒夾  
Rigid tap collet



絲攻  
Tap

TAP

### 範例 Example

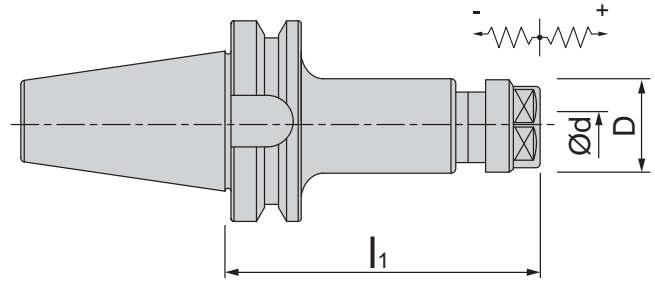
	我司  SBT-STH	它牌 Other Brand
絲攻 Tap	M3	M3
轉速 rpm(S)	1400rpm	1400rpm
進給量 mm/rev(f)	0.5mm/rev	0.5mm/rev
材質 Material	S45C	S45C
加工件數 Cutting Qty.	2000/PCS 	600/PCS





# BT-TPL 攻牙刀桿

## BT-TPL TAPPING HOLDER



規格 Spec.	l <sub>1</sub>	D	Ød 夾持範圍 Clamp Range	攻牙能力 Capacity	伸縮長度 Length Comp		筒夾 Collet	重量 (KGS) Weight
					縮 (-) Comp	伸 (+) Tens		
BT30xTPL16-80	80	28	Ø0.5~Ø10.0	M3~M12	3	8	ER16	-
BT30xTPL20-80	80	34	Ø1.0~Ø13.0	M3~M17	3	8	ER20	0.66
BT40xTPL16-80	80	28	Ø0.5~Ø10.0	M3~M12	3	8	ER16	-
BT40xTPL20-80	80	34	Ø1.0~Ø13.0	M3~M17	3	8	ER20	1.24
BT40xTPL32-100	100	50	Ø2.0~Ø20.0	M3~M27	3	10	ER32	-
BT50xTPL16-100	100	28	Ø0.5~Ø10.0	M3~M10	3	8	ER16	-
BT50xTPL20-100	100	34	Ø1.0~Ø13.0	M3~M12	3	8	ER20	-
BT50xTPL32-100	100	50	Ø2.0~Ø20.0	M3~M27	3	10	ER32	-

TAP

### 範例 Example



攻牙刀桿  
Tapping Holder



剛性攻牙筒夾  
Rigid Tap Collet



絲攻  
Tap

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A252	A280	A296

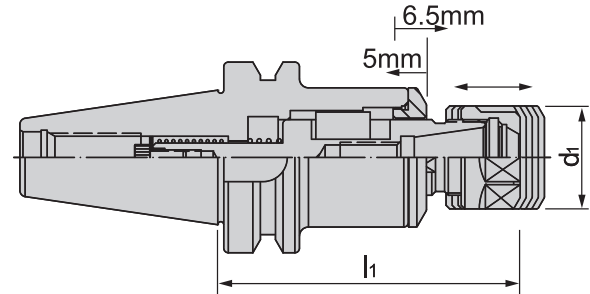


# BT/ETP 伸縮 ER 攻牙器

## BT/ETP EXPANSION ER TAPPER

PAT.NO: M298033  
 PAT.NO: M311791  
 PAT.NO: M3128766  
 PAT.NO: M3200356

PAT.NO: 20-0433603  
 PAT.NO: ZL2006201326610  
 PAT.NO: 696550  
 PAT.NO: TR 2007 02942 Y  
 PAT.NO: N.0000266731



### 特點 Feature

- 用伸長 6.5mm · 收縮 5mm
- 可搭配剛性攻牙套筒 · 搭配效果大增

- Elongates 6.5mm, contracts 5mm.
- Match the rigid tap, the effect greatly to increase.

規格 Spec.	$l_1$	$d_1$	使用筒夾 Collet	攻牙能力 絲攻柄尺寸	重量 (KGS) Weight
BT30 × ETP16A-75	75	28	ER16	M3-M10	0.55
BT30 × ETP16A-90	90	28	ER16	M3-M10	0.60
BT30 × ETP20A-75	75	34	ER20	M3-M17	0.58
BT30 × ETP20A-90	90	34	ER20	M3-M17	0.62
BT40 × ETP16A-120	120	28	ER16	M3-M10	1.65
BT40 × ETP16A-150	150	28	ER16	M3-M10	1.85
BT40 × ETP20A-100	100	34	ER20	M3-M17	1.65
BT40 × ETP20A-150	150	34	ER20	M3-M17	1.90
BT40 × ETP20M-200	200	28	ER20	M3-M17	2.15
BT40 × ETP32 -120	120	50	ER32	M3-M27	2.10
BT50 × ETP16A-120	120	28	ER16	M3-M10	4.30
BT50 × ETP16A-150	150	28	ER16	M3-M10	4.50
BT50 × ETP20A-100	100	34	ER20	M3-M17	4.30
BT50 × ETP20A-150	150	34	ER20	M3-M17	4.60
BT50 × ETP20M-200	200	28	ER20	M3-M17	4.70
BT50 × ETP32 -120	120	50	ER32	M3-M27	4.65

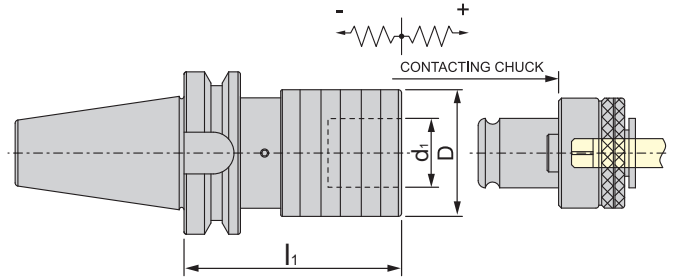
TAP

### 選配表 Option

拉頭 Pull Stud	筒夾 Collet	螺帽 Nut	扳手 Spanner
A290-A293	A252	A280	A296



# 快換式伸縮 / 扭力攻牙刀桿 QUICK CHANGE TAPPING CHUCK



規格 Spec.	攻牙能力 Capacity	絲攻夾頭形式 Tapper Collet Chuck Type	伸縮長度 Length Comp		D	d <sub>1</sub>	l <sub>1</sub>	重量 (KGS) Weight
			縮 (-) Comp	伸 (+) Tens				
BT30×312-68	M3~M14	TCS-1B	7.5	7.5	36	19	68	0.64
BT40×312-73	M3~M14	TCS-1B	7.5	7.5	36	19	73	1.25
BT40×312-135	M3~M14	TCS-1B	15	20	46	19	135	2.00
BT40×822-94	M8~M24	TCS-2B	12.5	12.5	53	31	94	1.74
BT40×822-165	M8~M24	TCS-2B	15	20	58	31	165	3.94
BT40×1638-157	M14~M36	TCS-3B	20	20	78	48	157	3.89
BT50×312-84	M3~M14	TCS-1B	7.5	7.5	36	19	84	4.00
BT50×312-135	M3~M14	TCS-1B	15	20	46	19	135	4.48
BT50×822-103	M8~M24	TCS-2B	12.5	12.5	53	31	103	4.50
BT50×822-165	M8~M24	TCS-2B	15	15	58	31	165	6.45
BT50×1638-142	M14~M36	TCS-3B	20	20	78	48	142	6.06
BT50×1638-200	M14~M36	TCS-3B	20	20	75	48	200	7.27

TAP

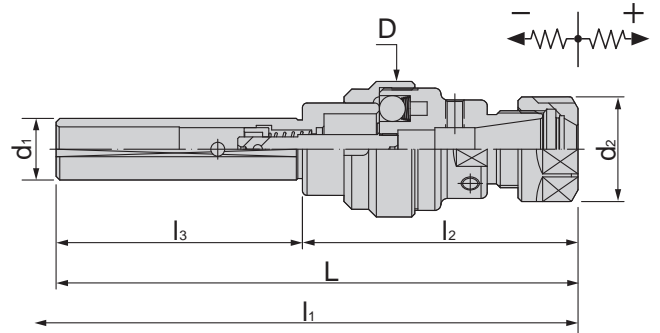
## 選配表 Option

拉頭 Pull Stud	筒夾 Collet
A290-A293	A252



# 直柄伸縮 ER 攻牙器 (CNC 車床專用)

## ER TAPPER STRAIGHT SHANK(FOR CNC LATHE)



### 特點 Feature

- 使用 ER 筒夾挾持螺絲攻，配合鋼性攻牙筒夾則效果倍增
- 可建議使用 HSP 螺帽，以增加夾持力
- TP 型內建浮動裝置使工作重複定位可自動修正偏差
- 用於刀具不旋轉的場合 (如：車床、專用機械等)
- 內附產品使用說明書

- Use ER collet hostage taps, with rigid tapping collets the multiplier effect.
- HSP may recommend the use of nuts, to increase the clamping force.
- TP type built so that duplication of work positioning a floating device can automatically correct the deviation.
- For the tool does not rotate occasions (such as: lathes, special machinery, etc.).
- Included product manual.

### 注釋 Note

- 在加工材料較硬，則 m/min 應同時變得較慢
- 在使用直柄伸縮 ER 攻牙器，請先決定車床主軸運轉速度，否則將會因速度太快或太慢而造成柄及攻牙器損壞或破碎
- $S=V/P$  S= 主軸轉速 V=m/min P=Pitch

- If the processing material is herder, the m/min should become slower relatively.
- Before using the Straight ER Tapper, please decide spindle running speed of Lathe Machine, otherwise it will make the Shank and Tapping break or split because of too fast or too slow speed.
- $S=V/P$  S=Spindle speed V=m/min P=Pitch

### 範例 Example

- 工件材質 :S45C,V=400~440
- 牙距 =1.5P
- $S=V/P=440/1.5=293\text{rpm}$

- Processing material:S45C,V=400~440.
- Pitch=1.5P
- $S=V/P=440/1.5=293\text{rpm}$

TAP

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d <sub>1</sub>	d <sub>2</sub>	筒夾 Collet	攻牙能力 Capacity	伸縮量 Stretch Size		重量 (KGS) Weight
										伸 (+) elongation	縮 (-) shorten	
TP-20	159	172	79	80	44	20	34	ER20	M3~M17	8mm	5mm	0.50
TP-32	174.5	190	94.5	80	56	32	50	ER32	M3~M27	10mm	5mm	1.60
TPM-320	165	178	79	86	44	MT3	34	ER20	M3~M17	-	-	1.40
TPM-420	165	178	79	86	44	MT4	34	ER20	M3~M17	-	-	1.60
TPM-432	203.5	216.5	94.5	109	56	MT4	50	ER32	M3~M27	-	-	1.80

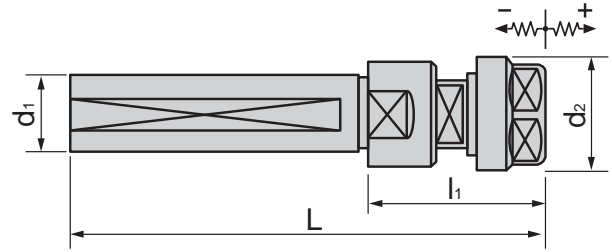
### 選配表 Option

筒夾 Collet	螺帽 Nut	扳手 Spanner
A252	A280	A296



# TPL 實用型直柄伸縮攻牙器

## TPL PRACTICAL STRAIGHT SHANK TAPPER



### 特點 Feature

- 穩定性高

- High stability.

規格 Spec.	L	l <sub>1</sub>	d <sub>1</sub>	d <sub>2</sub>	筒夾 Collet	攻牙能力 Capacity	伸縮量 Stretch Size		重量 (KGS) Weight
							伸 (+) elongation	縮 (-) shorten	
TPL-20	125	45	20	34	ER20	M3~M17	8mm	3mm	0.36
TPL-32	145	65	32	50	ER32	M3~M27	10mm	5mm	1.32

# TPL 止縮套環

## TPL RETREATING FREE RING



Fig.1

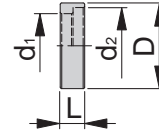
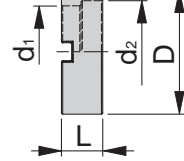


Fig.2



### 特點 Feature

- 防止 TPL 攻牙器往內縮

- Prevent TPL tapper from retreating back.

規格 Spec.	L	D	d <sub>1</sub>	d <sub>2</sub>	Fig.	重量 (KGS) Weight
TPL-20-R	8	28	21	25	1	0.01
TPL-32-R	16	49	36	40	2	0.01

### 範例 Example

TPL-20 實用型直柄伸縮攻牙器  
TPL-20 Practical Straight Shank tapper



TPL-20-R 止縮套環  
TPL-20-R Retreating Free Ring

TPL-32 實用型直柄伸縮攻牙器  
TPL-32 Practical Straight Shank tapper



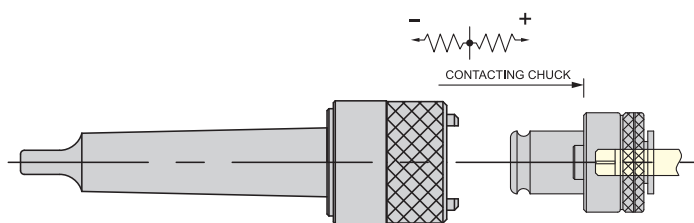
TPL-32-R 止縮套環  
TPL-32-R Retreating Free Ring

### 選配表 Option

筒夾 Collet	螺帽 Nut	扳手 Spanner
A252	A280	A296

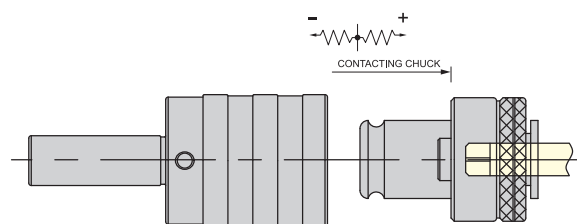
TAP

## 扭力攻牙器 QUICK CHANGE TAPPING CHUCK



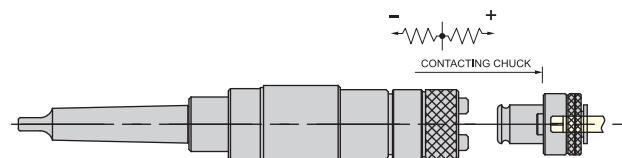
規格 Spec.	攻牙能力 Capacity	使用筒夾 Collet	重量 (KGS) Weight
TH1 × MT 2	M3 ~ M14	TCS - 1B	0.20
TH1 × JT 6	M3 ~ M14	TCS - 1B	0.29
TH2 × MT 3	M8 ~ M22	TCS - 2B	0.70

## 伸縮攻牙器 (鑽床專用) QUICK CHANGE TAPPING CHUCK



規格 Spec.	攻牙能力 Capacity	使用筒夾 Collet	重量 (KGS) Weight
ST20-WF12	M3~M12 U1/8~U7/16 P1/8~P1/4	TCS-1B	0.62

## 軸向伸縮攻牙器 QUICK CHANGE TAPPING CHUCK



規格 Spec.	攻牙能力 Capacity	使用筒夾 Collet	重量 (KGS) Weight
THL-140 × MT 2	M3 ~ M14	TCS - 1B	0.6
THL-140 × JT 6	M3 ~ M14	TCS - 1B	0.5
THL-240 × MT 3	M8 ~ M22	TCS - 2B	1.7

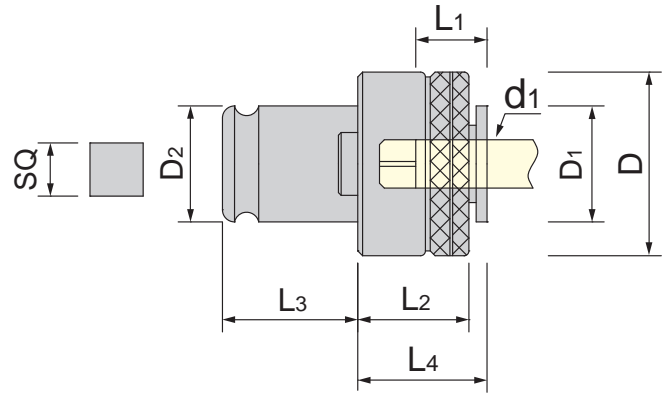




# TCS 扭力絲攻筒夾

## TCS QUICK CHANGE TAPPING COLLET

TSC-1B



※ 訂購前請先確認 d<sub>1</sub> 及 SQ 尺寸 Before ordering, please make sure the size of d<sub>1</sub> and SQ.

規格 Spec.	d <sub>1</sub>	SQ	適用規範 Standard		D	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	重量 (KGS) Weight	
TCS1B-2.5-2	2.5	2	M1.M2	ISO529	32	19	19	17	25	21.5	25	0.18	
TCS1B-3-2.5	3		M3.5	ISO529/2283									
TCS1B-3.15-2.5	3.15	M2	JIS										
		M3	ISO529										
TCS1B-3.5-2.7	3.5	M4	ISO529/2283										
		M3	DIN371										
		M4.5.M5	DIN376										
TCS1B-4-3.15	4	3.15	M4	ISO529									
TCS1B-4-3.2	3.2		M5	ISO529/2283									
TCS1B-4.5-3.4	4.5	3.4	M3	JIS									
			M4	DIN371									
			M6	DIN376									
TCS1B-4.5-3.55	3.55	M4.5	ISO529										
		M6	ISO529/2283										
TCS1B-5-4	5	4	M4.M4.5	JIS									
			M5	ISO529									
TCS1B-5.5-4.5	5.5	4.5	M5.M5.5	JIS									
TCS1B-6-4.5	6		M6										
TCS1B-6-4.9	6	4.9	M4.5.M5.M6	DIN371									
			M8	DIN376									
TCS1B-6.1-5	6.1	5	UNC5/16	JIS									
TCS1B-6.2-5	6.2		M8.M7										
TCS1B-6.3-5	6.3		M6										ISO529
			M8										ISO529/2283
TCS1B-7-5.5	7	5.5	M10.M9	JIS									
			UNC3/8										
			M10										DIN376
TCS1B-8-6	8	6	M11	JIS									
			UNC7/16										
			PT1/8										
TCS1B-8-6.2	6.2	6.3	M8	DIN371									
TCS1B-8-6.3	6.3		M8	ISO529									
			M10	ISO529/2283									
TCS1B-8.5-6.5	8.5	6.5	M12	JIS									
TCS1B-9-7	9	7	UNC1/2										
			M12	DIN376									
TCS1B-9-7.1	7.1	7.1	M9	ISO529									
			M12	ISO529/2283									
TCS1B-10-8	10	8	M10	DIN371									
				ISO529									
TCS1B-10.5-8	10.5	8	M14.M15	JIS									
			UNC9/16										
TCS1B-11-9	11	9	M14	DIN376									
			PT1/4										
TCS1B-11.2-9	11.2	9	M14	ISO529/2283									

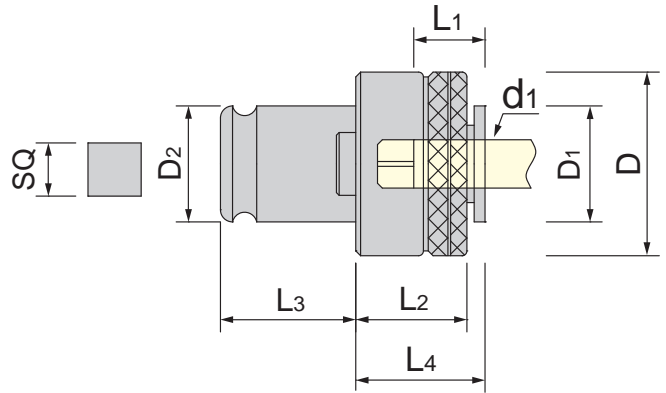
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# TCS 扭力絲攻筒夾

## TCS QUICK CHANGE TAPPING COLLET

TSC-2B



※ 訂購前請先確認 d<sub>1</sub> 及 SQ 尺寸 Before ordering, please make sure the size of d<sub>1</sub> and SQ.

規格 Spec.	d <sub>1</sub>	SQ	適用規範 Standard		D	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	重量 (KGS) Weight	
TCS2B-6-4.5	6	4.5	M6	JIS	50	30	31	30	31	35.5	33	0.55	
TCS2B-6-4.9			UNC1/4										
TCS2B-6-4.9	6.2	4.9	M4.5.M5.M6	DIN371									
TCS2B-6-2-5			M8	DIN376									
TCS2B-6-3-5	6.3	5	M8.M7	JIS									
TCS2B-6-3-5			M6	ISO529									
TCS2B-7-5.5	7	5.5	M8	ISO529/2283									
TCS2B-7-5.5			M10.M9	JIS									
TCS2B-7-5.5			UNC3/8	DIN376									
TCS2B-8-6	8	6	M10	JIS									
TCS2B-8-6			M11										
TCS2B-8-6.2			UNC7/16										
TCS2B-8-6.2			PT1/8										
TCS2B-8-6.3	6.3	6.3	M8	DIN371									
TCS2B-8-6.3			M8	ISO529									
TCS2B-8-5-6.5	8.5	6.5	M10	ISO529/2283									
TCS2B-8-5-6.5			M12	JIS									
TCS2B-9-7	9	7	UNC1/2	JIS									
TCS2B-9-7			M12										DIN376
TCS2B-9-7.1			M9										ISO529
TCS2B-9-7.1	7.1	7.1	M12	ISO529/2283									
TCS2B-10-8			M10	DIN371									
TCS2B-10-8	10	8	M10	ISO529									
TCS2B-10-5-8			M14.M15	JIS									
TCS2B-10-5-8			UNC9/16										
TCS2B-11-9	11	9	M14	DIN376									
TCS2B-11-9			PT1/4	JIS									
TCS2B-11.2-9	11.2	9	M14	ISO529/2283									
TCS2B-12-9			UNC5/8	JIS									
TCS2B-12-9	12	9	M14	DIN376									
TCS2B-12-9			UNC5/8	JIS									
TCS2B-12.5-10	12.5	10	M16	ISO529/2283									
TCS2B-12.5-10			M16	JIS									
TCS2B-14-11	14	11	M18	JIS									
TCS2B-14-11			UNC3/4										
TCS2B-14-11			PT3/8										
TCS2B-14-11.2	14	11.2	M18	DIN376									
TCS2B-14-11.2			M18.M20	ISO529/2283									
TCS2B-15-12	15	12	M20	JIS									
TCS2B-16-12			M20	DIN376									
TCS2B-16-12.5	16	12.5	M20	ISO529/2283									
TCS2B-16-12.5			M22	JIS									
TCS2B-17-13	17	13	M22	JIS									
TCS2B-17-13			UNC7/8										
TCS2B-18-14	18	14	M24	ISO529/2283									
TCS2B-18-14			PT1/2	JIS									
TCS2B-18-14.5	18	14.5	M22.M24	DIN376									
TCS2B-19-15			M24.M25	JIS									

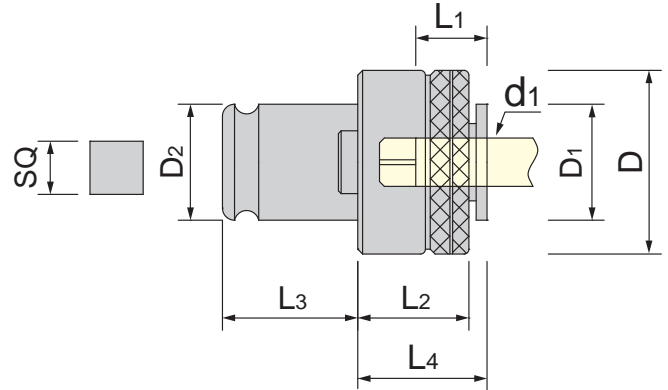
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# TCS 扭力絲攻筒夾

## TCS QUICK CHANGE TAPPING COLLET

TSC-3B



※ 訂購前請先確認  $d_1$  及 SQ 尺寸 Before ordering, please make sure the size of  $d_1$  and SQ.

規格 Spec.	$d_1$	SQ	適用規範 Standard		D	$D_1$	$D_2$	$L_1$	$L_2$	$L_3$	$L_4$	重量 (KGS) Weight	
TCS3B-10.5-8	10.5	8	M14.M15 UNC9/16	JIS	72	47	48	44	41	55.5	45	1.58	
TCS3B-11-9	11	9	M14	DIN376									
TCS3B-11.2-9	11.2		PT1/4	JIS									
TCS3B-12-9	12	10	M14	ISO529/2283									
TCS3B-12.5-10	12.5		UNC5/8	JIS									
TCS3B-14-11	14	11	M16	DIN376									
TCS3B-14-11.2			JIS										
TCS3B-15-12			ISO529/2283										
TCS3B-16-12	15	12	M18	JIS									
TCS3B-16-12.5	16		UNC3/4	DIN376									
TCS3B-17-13	17	13	PT3/8	ISO529/2283									
TCS3B-18-14	18		M18	JIS									
TCS3B-18-14.5	18	14	M20	DIN376									
TCS3B-19-15			19	M22									ISO529/2283
TCS3B-20-15	20	15	M22	JIS									
TCS3B-20-16			16	UNC7/8									ISO529/2283
TCS3B-21-17			17	M24									JIS
TCS3B-22-18	22	18	PT1/2	DIN376									
TCS3B-22.4-18	22.4		M22.M24	ISO529/2283									
TCS3B-23-17	23	17	M24.M25	JIS									
TCS3B-24-19	24		M27.M26	ISO529/2283									
TCS3B-25-19	25	20	UNC1	DIN376									
TCS3B-25-20			M27	ISO529/2283									
TCS3B-26-21	26	21	M27.M30	JIS									
TCS3B-28-21			18	M28									DIN376
TCS3B-28-22			22	M30									ISO529/2283
TCS3B-23-17	23	17	M30	JIS									
TCS3B-24-19			19	PT3/4									ISO529/2283
TCS3B-24-19	24	19	M32	JIS									
TCS3B-25-19			19	UNC1-1/4									DIN376
TCS3B-25-20	25	20	M33	ISO529/2283									
TCS3B-26-21			21	M33	JIS								
TCS3B-28-21	28	22	M36	DIN376									
TCS3B-28-22			22	M35.M34	ISO529/2283								
TCS3B-26-21	26	21	UNC1-3/8	JIS									
TCS3B-28-21			21	PT1	ISO529/2283								
TCS3B-28-21	28	22	M36	JIS									
TCS3B-28-22			22	M36	DIN376								

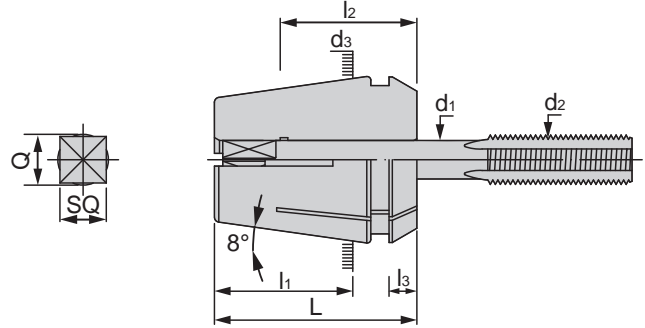
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# ER 鋼性攻牙筒夾

## ER RIDID TAP COLLET

PAT.NO: 181929  
 PAT.NO: 148435  
 PAT.NO: 693702



- 材質 :SUJ-2
- 斜度 :8°
- 硬度 :HRC46°
- 表面粗糙度 RZ2.5 以內

- Steel:SUJ - 2
- Taper:8°
- HRC46°
- Surface Roughness:RZ 2.5

### 特點 Feature

- 利用溝槽的差異，有效而穩固地夾住螺絲攻，決不打滑！專利在案
- 適合切削中心機的剛性攻牙加工，或是其他攻牙機械
- 當訂 JIS、DIN、ISO 或其他尺寸，訂購前請校對四角孔需核對 SQ，而圓孔則需對 d1
- 可降低使用攻牙器的成本

- Differences in the use of the trench, effectively and securely grip the screw attack, never slipping! Patents documented.
- Suitable for machining centers rigid tapping, tapping, or other mechanical.
- When set JIS, DIN, ISO or other sizes, please proofread before ordering to be together right corner Kong SQ, and holes need for d1.
- Tapping can reduce the cost of using.

TAP

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub> 範圍 Range	d <sub>3</sub>	攻牙能力 Capacity	重量 (KGS) Weight
ER16-TP	27.5	17.5	18	4.0	1~7	16	M3~M12	0.02
	27.5	17.5	22	4.0	8~10	16	M3~M12	0.02
ER20-TP	31.5	20.7	18	4.8	1~7	20	M3~M17	0.04
	31.5	20.7	22	4.8	8~10	20	M3~M17	0.04
	31.5	20.7	25	4.8	10.5~13	20	M3~M17	0.04
ER25-TP	34	23	18	5.0	1~7	25	M3~M22	0.06
	34	23	22	5.0	8~10	25	M3~M22	0.06
	34	23	25	5.0	10.5~16	25	M3~M22	0.06
ER32-TP	40	27.34	18	5.5	1~7	32	M3~M27	0.14
	40	27.34	22	5.5	8~10	32	M3~M27	0.14
	40	27.34	25	5.5	10.5~16	32	M3~M27	0.14
	40	27.34	28	5.5	17~20	32	M3~M27	0.14
ER40-TP	46	31.4	18	7	1~7	40	M3~M27	0.24
	46	31.4	22	7	8~10	40	M3~M27	0.24
	46	31.4	25	7	10.5~16	40	M3~M27	0.24
	46	31.4	28	7	17~20	40	M3~M27	0.24



# ER 鋼性攻牙筒夾 ER RIDID TAP COLLET

PAT.NO: 181929  
PAT.NO: 148435  
PAT.NO: 693702

## ER16

規格 Spec.	絲攻柄徑 Shank diameter of taper d <sub>1</sub>	使用絲攻範圍 Tapping range d <sub>2</sub>	
ER16-2.24TP	2.24	M3	ISO - 529
ER16-2.5TP	2.5	M3.5 M3.5	DIN - 376 ISO - 529
ER16-2.8TP	2.8	M4	DIN - 376
ER16-3.15TP	3.15	M3 M4	ISO - 529 ISO - 529
ER16-3.5TP	3.5	M3 M3 M5	DIN - 352 DIN - 371 DIN - 376
ER16-3.55TP	3.55	M3.5 M4.5	ISO - 529 ISO - 529
ER16-4TP	4	M3 M3.5 M3.5 M4 M5	JIS DIN - 352 DIN - 371 ISO - 529 ISO - 529
ER16-4.5TP	4.5	M4 M4 M6 M6	DIN - 362 DIN - 371 DIN - 376 ISO - 529
ER16-5TP	5	M4 M4.5 M5	JIS JIS ISO - 529
ER16-5.5TP	5.5	M5 M5.5	JIS JIS
ER16-6TP	6	M5 M5 M6 M6 M6 M8 M8	DIN - 352 DIN - 371 JIS DIN - 352 DIN - 371 DIN - 352 DIN - 376
ER16-6.2TP	6.2	M7 M8	JIS JIS
ER16-6.3TP	6.3	M6 M8	ISO - 529 ISO - 529
ER16-7TP	7	M9 M10 M10 M10	JIS JIS DIN - 352 DIN - 376
ER16-8TP	8	M8 M8 M10 M11	DIN - 371 ISO - 529 ISO - 529 JIS
ER16-8.5TP	8.5	M12	JIS
ER16-9TP	9	M12 M12 M12	DIN - 352 DIN - 376 ISO - 529
ER16-10TP	10	M10 M10	DIN - 371 ISO - 529

## ER20

規格 Spec.	絲攻柄徑 Shank diameter of taper d <sub>1</sub>	使用絲攻範圍 Tapping range d <sub>2</sub>	
ER20-2.24TP	2.24	M3	ISO - 529
ER20-2.5TP	2.5	M3.5 M3.5	DIN - 376 DIN - 529
ER20-2.8TP	2.8	M4	DIN - 376
ER20-3.15TP	3.15	M3 M4	ISO - 529 ISO - 529
ER20-3.5TP	3.5	M3 M3 M5	DIN - 352 DIN - 371 DIN - 376
ER20-3.55TP	3.55	M3.5 M4.5	ISO - 529 ISO - 529
ER20-4TP	4	M3 M3.5 M3.5 M4 M5	JIS DIN - 352 DIN - 371 ISO - 529 ISO - 529
ER20-4.5TP	4.5	M4 M4 M6 M6	DIN - 362 DIN - 371 DIN - 376 ISO - 529
ER20-5TP	5	M4 M4.5 M5	JIS JIS ISO - 529
ER20-5.5TP	5.5	M5 M5.5	JIS JIS
ER20-6TP	6	M5 M5 M6 M6 M6 M8 M8	DIN - 352 DIN - 371 JIS DIN - 352 DIN - 371 DIN - 352 DIN - 376
ER20-6.2TP	6.2	M7 M8	JIS JIS
ER20-6.3TP	6.3	M6 M8	ISO - 529 ISO - 529
ER20-7TP	7	M9 M10 M10 M10	JIS JIS DIN - 352 DIN - 376
ER20-8TP	8	M8 M8 M10 M11	DIN - 371 ISO - 529 ISO - 529 JIS
ER20-8.5TP	8.5	M12	JIS
ER20-9TP	9	M12 M12 M12	DIN - 352 DIN - 376 ISO - 529
ER20-10TP	10	M10 M10	DIN - 371 ISO - 529
ER20-10.5TP	10.5	M14 M15	JIS JIS
ER20-11TP	11	M14 M14	DIN - 352 DIN - 376
ER20-11.2TP	11.2	M14	ISO - 529
ER20-12TP	12	M16 M16	DIN - 352 DIN - 376
ER20-12.5TP	12.5	M16 M16	JIS ISO - 529
ER20-13TP	13	M17	JIS

TAP



# ER 鋼性攻牙筒夾 ER RIDID TAP COLLET

PAT.NO: 181929  
PAT.NO: 148435  
PAT.NO: 693702

## ER25

規格 Spec.	絲攻柄徑 Shank diameter of taper d <sub>1</sub>	使用絲攻範圍 Tapping range d <sub>2</sub>	
ER25-2.24TP	2.24	M3	ISO - 529
ER25-2.5TP	2.5	M3.5 M3.5	DIN - 376 ISO - 529
ER25-2.8TP	2.8	M4	DIN - 376
ER25-3.15TP	3.15	M3 M4	ISO - 529 ISO - 529
ER25-3.5TP	3.5	M3 M3 M5	DIN - 352 DIN - 371 DIN - 376
ER25-3.55TP	3.55	M3.5 M4.5	ISO - 529 ISO - 529
ER25-4TP	4	M3 M3.5 M3.5 M4 M5	JIS DIN - 352 DIN - 371 ISO - 529 ISO - 529
ER25-4.5TP	4.5	M4 M4 M6 M6	DIN - 362 DIN - 371 DIN - 376 ISO - 529
ER25-5TP	5	M4 M4.5 M5	JIS JIS ISO - 529
ER25-5.5TP	5.5	M5 M5.5	JIS JIS
ER25-6TP	6	M5 M5 M6 M6 M6 M8 M8	DIN - 352 DIN - 371 JIS DIN - 352 DIN - 371 DIN - 352 DIN - 376
ER25-6.2TP	6.2	M7 M8	JIS JIS
ER25-6.3TP	6.3	M6 M8	ISO - 529 ISO - 529
ER25-7TP	7	M9 M10 M10 M10	JIS JIS DIN - 352 DIN - 376
ER25-8TP	8	M8 M8 M10 M11	DIN - 371 ISO - 529 ISO - 529 JIS
ER25-8.5TP	8.5	M12	JIS
ER25-9TP	9	M12 M12 M12	DIN - 352 DIN - 376 ISO - 529
ER25-10TP	10	M10 M10	DIN - 371 ISO - 529
ER25-10.5TP	10.5	M14 M15	JIS JIS
ER25-11TP	11	M14 M14	DIN - 352 DIN - 376
ER25-11.2TP	11.2	M14	ISO - 529
ER25-12TP	12	M16 M16	DIN - 352 DIN - 376
ER25-12.5TP	12.5	M16	JIS

規格 Spec.	絲攻柄徑 Shank diameter of taper d <sub>1</sub>	使用絲攻範圍 Tapping range d <sub>2</sub>	
ER25-12.5TP	12.5	M16	ISO - 529
ER25-13TP	13	M17	JIS
ER25-14TP	14	M18 M18 M18 M18 M20	JIS DIN - 352 DIN - 376 ISO - 529 ISO - 529
ER25-15TP	15	M20	JIS
ER25-16TP	16	M20 M20 M22	DIN - 352 DIN - 376 ISO - 529

## ER32

規格 Spec.	絲攻柄徑 Shank diameter of taper d <sub>1</sub>	使用絲攻範圍 Tapping range d <sub>2</sub>	
ER32-2.24TP	2.24	M3	ISO - 529
ER32-2.5TP	2.5	M3.5 M3.5	DIN - 376 ISO - 529
ER32-2.8TP	2.8	M4	DIN - 376
ER32-3.15TP	3.15	M3 M4	ISO - 529 ISO - 529
ER32-3.5TP	3.5	M3 M3 M5	DIN - 352 DIN - 371 DIN - 376
ER32-3.55TP	3.55	M3.5 M4.5	ISO - 529 ISO - 529
ER32-4TP	4	M3 M3.5 M3.5 M4 M5	JIS DIN - 352 DIN - 371 ISO - 529 ISO - 529
ER32-4.5TP	4.5	M4 M4 M6 M6	DIN - 362 DIN - 371 DIN - 376 ISO - 529
ER32-5TP	5	M4 M4.5 M5	JIS JIS ISO - 529
ER32-5.5TP	5.5	M5 M5.5	JIS JIS
ER32-6TP	6	M5 M5 M6 M6 M6 M8 M8	DIN - 352 DIN - 371 JIS DIN - 352 DIN - 371 DIN - 352 DIN - 376
ER32-6.2TP	6.2	M7 M8	JIS JIS
ER32-6.3TP	6.3	M6 M8	ISO - 529 ISO - 529
ER32-7TP	7	M9 M10 M10 M10	JIS JIS DIN - 352 DIN - 376
ER32-8TP	8	M8 M8 M10 M11	DIN - 371 ISO - 529 ISO - 529 JIS
ER32-8.5TP	8.5	M12	JIS

TAP



# ER 鋼性攻牙筒夾 ER RIDID TAP COLLET

PAT.NO: 181929  
PAT.NO: 148435  
PAT.NO: 693702

## ER32

規格 Spec.	絲攻柄徑 Shank diameter of taper d <sub>1</sub>	使用絲攻範圍 Tapping range d <sub>2</sub>	
ER32-9TP	9	M12 M12 M12	DIN - 352 DIN - 376 ISO - 529
ER32-10TP	10	M10 M10	DIN - 371 ISO - 529
ER32-10.5TP	10.5	M14 M15	JIS JIS
ER32-11TP	11	M14 M14	DIN - 352 DIN - 376
ER32-11.2TP	11.2	M14	ISO - 529
ER32-12TP	12	M16 M16	DIN - 352 DIN - 376
ER32-12.5TP	12.5	M16 M16	JIS ISO - 529
ER32-13TP	13	M17	JIS
ER32-14TP	14	M18 M18 M18 M20	JIS DIN - 352 DIN - 376 ISO - 529 ISO - 529
ER32-15TP	15	M20	JIS
ER32-16TP	16	M20 M20 M22	DIN - 352 DIN - 376 ISO - 529
ER32-17TP	17	M22	JIS
ER32-18TP	18	M22 M22 M24 M24 M24	DIN - 352 DIN - 376 DIN - 352 DIN - 736 ISO - 529
ER32-19TP	19	M24 M25	JIS JIS
ER32-20TP	20	M26 M27	JIS JIS

## ER40

規格 Spec.	絲攻柄徑 Shank diameter of taper d <sub>1</sub>	使用絲攻範圍 Tapping range d <sub>2</sub>	
ER40-2.24TP	2.24	M3	ISO - 529
ER40-2.5TP	2.5	M3.5 M3.5	DIN - 376 ISO - 529
ER40-2.8TP	2.8	M4	DIN - 376
ER40-3.15TP	3.15	M3 M4	ISO - 529 ISO - 529
ER40-3.5TP	3.5	M3 M3 M5	DIN - 352 DIN - 371 DIN - 376
ER40-3.55TP	3.55	M3.5 M4.5	ISO - 529 ISO - 529
ER40-4TP	4	M3 M3.5 M3.5 M4 M5	JIS DIN - 352 DIN - 371 ISO - 529 ISO - 529
ER40-4.5TP	4.5	M4 M4 M6 M6	DIN - 352 DIN - 371 DIN - 376 ISO - 529
ER40-5TP	5	M4 M4.5 M5	JIS JIS ISO - 529

規格 Spec.	絲攻柄徑 Shank diameter of taper d <sub>1</sub>	使用絲攻範圍 Tapping range d <sub>2</sub>	
ER40-5.5TP	5.5	M5 M5.5	JIS JIS
ER40-6TP	6	M5 M5 M6 M6 M6 M8 M8	DIN - 352 DIN - 371 JIS DIN - 352 DIN - 371 DIN - 352 DIN - 376
ER40-6.2TP	6.2	M7 M8	JIS JIS
ER40-6.3TP	6.3	M6 M8	ISO - 529 ISO - 529
ER40-7TP	7	M9 M10 M10 M10 M10	JIS JIS DIN - 352 DIN - 352 DIN - 376
ER40-8TP	8	M8 M8 M10 M11	DIN - 371 ISO - 529 ISO - 529 JIS
ER40-8.5TP	8.5	M12	JIS
ER40-9TP	9	M12 M12 M12	DIN - 352 DIN - 376 ISO - 529
ER40-10TP	10	M10 M10 M10	DIN - 371 ISO - 529
ER40-10.5TP	10.5	M14 M15	JIS JIS
ER40-11TP	11	M14 M14	DIN - 352 DIN - 376
ER40-11.2TP	11.2	M14	ISO - 529
ER40-12TP	12	M16 M16	DIN - 352 DIN - 376
ER40-12.5TP	12.5	M16 M16	JIS ISO - 529
ER40-13TP	13	M17	JIS
ER40-14TP	14	M18 M18 M18 M18 M20	JIS DIN - 352 DIN - 376 ISO - 529 ISO - 529
ER40-15TP	15	M20	JIS
ER40-16TP	16	M20 M20 M22	DIN - 352 DIN - 376 ISO - 529
ER40-17TP	17	M22	JIS
ER40-18TP	18	M22 M22 M24 M24 M24	DIN - 352 DIN - 376 DIN - 352 DIN - 376 ISO - 529
ER40-19TP	19	M24 M25	JIS JIS
ER40-20TP	20	M26 M27	JIS JIS

TAP

# PAA

Precision Accessories and Add-ons







## ER A 級彈性筒夾套裝組 ER A GRADE COLLET SET

PAT.NO: 3108255  
PAT.NO: M266126  
DIN-6499  
DIN-ISO-15488



表面特殊處理

### 特點 Feature

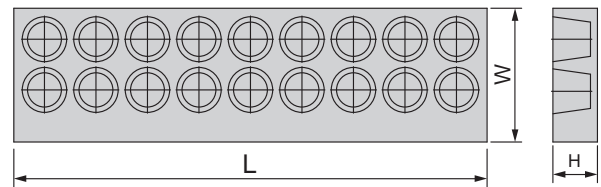
- 表面粗糙度 RA0.25 · 提升刀桿與螺帽貼合度 · 增強穩定性
- 表面特殊處理 · 具較佳防鏽功能 · 延長使用壽命
- 夾持精度 0.01mm 內
- 夾持力提升 15%

- Surface roughness Ra 0.25, improves the fitness between chuck and nut and increases the stabilities.
- Special surface treatment provides a better rust-proofing and extend the life cycle.
- Clamping accuracy is within 0.01mm.
- Clamping force improved up by 15%.

規格 Spec.	內容物 Contents		重量 (KGS) Weight
	筒夾 Collet Size	數量 Qty.	
ER16-A-6P-SET	1,2,4,6,8,10	1	-
ER20-A-6P-SET	2,4,6,8,10,12	1	-
ER16-A-10P-SET	1,2,3,4,5,6,7,8,9,10	1	-
ER20-A-12P-SET	2,3,4,5,6,7,8,9,10,11,12,13	1	-



## ER 筒夾木盤 ER COLLET WOODEN TRAYS



ACCESSORIES

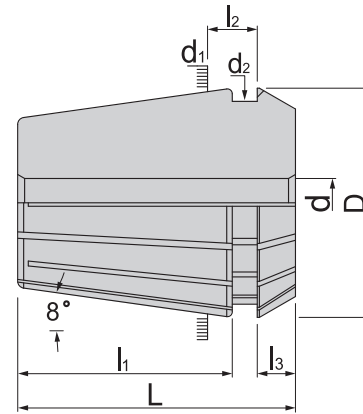
規格 Spec.	L	W	H	數量 (孔) Qty	重量 (KGS) Weight
ER8-MV	210	20	13	9	0.01
ER11-MV	210	20	13	13	0.01
ER16-MV	275	35	22	10	0.14
ER20-MV	275	35	22	12	0.12
ER25-MV	275	77	26	16	0.18
ER32-MV	340	90	30	18	0.48
ER40-MV	265	210	38	24	0.76
ER50-MV	235	210	37	12	0.64



# ER 彈性筒夾

## ER COLLET

PAT.NO: 3108255  
 PAT.NO: M266126  
 DIN-6499  
 DIN-ISO-15488



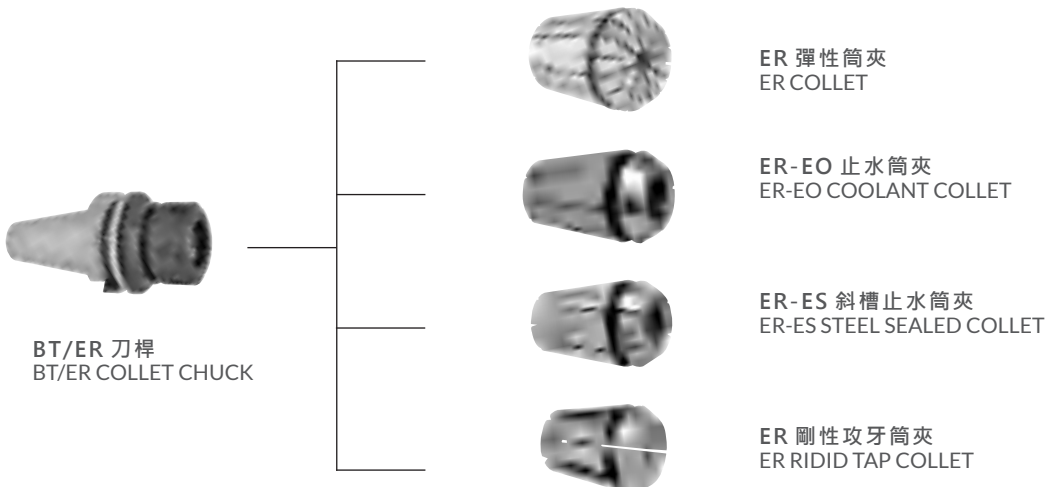
### 特點 Feature

- 材質 :SUJ2。(高碳軸承鋼：在熱處理後，具有堅韌的硬度與韌性，更好的耐磨耗性，且彈性佳使用壽命更長)
- 硬度 :HRC46°
- 表面粗糙度 RZ2.5 以內
- 同心度按 DIN 標準規範全數檢驗，共計有三種精度等級，普通級 0.02mm、A 級 0.01mm 及 UP 級 0.005mm
- UP 級建議配合 HSP 螺帽使用，其穩定性更好
- 用於夾持鑽頭、螺絲攻、銑刀、鉸刀等工具
- 具有彈性伸縮的功能、應用範圍廣、附變化性
- 訂購時請告知所需精度等級

- Steel:SUJ2(High-carbon bearing steel : After heat treatment, it has hardness and toughness, better grinding quality, good flexibility, and longer using life span.)
- HRC46°
- Surface roughness : within RZ2.5.
- The concentricity is totally examined according to DIN norm. There are three kinds of classes for precision : general class 0.02mm, A class 0.01mm, and UP class 0.005mm.
- UP class is recommended to be used with HSP clamping nut. It will have better stability.
- It is used for the cutting tools like drills, taps ,mills, and remers , etc.
- It has flexibility and can be applied widely and variably.
- Please inform the required precision when ordering.

規格 Spec.	尺寸範圍 Size Range	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d <sub>1</sub>	d <sub>2</sub>	重量 (KGS) Weight
ER8	1~5.0	13.5	10.8	2.98	1.5	8.5	8	6.5	0.01
ER11	1~7.0	18	13.5	3.8	2.5	11.5	11	9.5	0.01
ER16	1~10.0	27.5	20.8	6.26	4	17	16	13.8	0.03
ER20	1~13.0	31.5	23.9	6.36	4.8	21	20	17.4	0.04
ER25	2~16.0	34	25.9	6.66	5	26	25	22	0.06
ER32	2~20.0	40	30.9	7.16	5.5	33	32	29.2	0.10
ER40	3~26.0	46	34.9	7.66	7	41	40	36.2	0.25
ER50	6~34.0	60	46.0	13.4	8.5	52	50	46	0.45

ACCESSORIES



BT/ER 刀桿  
BT/ER COLLET CHUCK

ER 彈性筒夾  
ER COLLET

ER-EO 止水筒夾  
ER-EO COOLANT COLLET

ER-ES 斜槽止水筒夾  
ER-ES STEEL SEALED COLLET

ER 剛性攻牙筒夾  
ER RIDID TAP COLLET



# ER 彈性筒夾

## ER COLLET

PAT.NO: 3108255  
PAT.NO: M266126  
DIN-6499  
DIN-ISO-15488

精度 (普通級) Accuracy : 0.02mm

### ER8

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER8-1	1~0.5	0.02
ER8-1.5	1.5~1	0.02
ER8-2	2~1.5	0.02
ER8-2.5	2.5~2	0.02
ER8-3	3~2.5	0.02
ER8-3.5	3.5~3	0.02
ER8-4	4~3.5	0.02
ER8-4.5	4.5~4	0.02
ER8-5	5~4.5	0.02

### ER11

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER11-1	1~0.5	0.02
ER11-1.5	1.5~1	0.02
ER11-2	2~1.5	0.02
ER11-2.5	2.5~2	0.02
ER11-3	3~2.5	0.02
ER11-3.5	3.5~3	0.02
ER11-4	4~3.5	0.02
ER11-4.5	4.5~4	0.02
ER11-5	5~4.5	0.02
ER11-5.5	5.5~5	0.02
ER11-6	6~5.5	0.02
ER11-6.5	6.5~6	0.02
ER11-7	7~6.5	0.02

### ER16

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER16-1	1~0.5	0.02
ER16-1.5	1.5~1	0.02
ER16-2	2~1.5	0.02
ER16-2.5	2.5~2	0.02
ER16-3	3~2	0.02
ER16-3.5	3.5~2.5	0.02
ER16-4	4~3	0.02
ER16-4.5	4.5~3.5	0.02
ER16-5	5~4	0.02
ER16-5.5	5.5~4.5	0.02
ER16-6	6~5	0.02
ER16-6.5	6.5~5.5	0.02

### ER16

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER16-7	7~6	0.02
ER16-7.5	7.5~6.5	0.02
ER16-8	8~7	0.02
ER16-8.5	8.5~7.5	0.02
ER16-9	9~8	0.02
ER16-9.5	9.5~8.5	0.02
ER16-10	10~9	0.02

### ER20

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER20-1	1~0.5	0.02
ER20-1.5	1.5~1	0.02
ER20-2	2~1.5	0.02
ER20-2.5	2.5~2	0.02
ER20-3	3~2	0.02
ER20-3.5	3.5~2.5	0.02
ER20-4	4~3	0.02
ER20-4.5	4.5~3.5	0.02
ER20-5	5~4	0.02
ER20-5.5	5.5~4.5	0.02
ER20-6	6~5	0.02
ER20-6.5	6.5~5.5	0.02
ER20-7	7~6	0.02
ER20-7.5	7.5~6.5	0.02
ER20-8	8~7	0.02
ER20-8.5	8.5~7.5	0.02
ER20-9	9~8	0.02
ER20-9.5	9.5~8.5	0.02
ER20-10	10~9	0.02
ER20-10.5	10.5~9.5	0.02
ER20-11	11~10	0.02
ER20-11.5	11.5~10.5	0.02
ER20-12	12~11	0.02
ER20-12.5	12.5~11.5	0.02
ER20-13	13~12	0.02

### ER25

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER25-1	1~0.5	0.02
ER25-1.5	1.5~1	0.02

### ER25

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER25-2	2~1.5	0.02
ER25-2.5	2.5~2	0.02
ER25-3	3~2	0.02
ER25-3.5	3.5~2.5	0.02
ER25-4	4~3	0.02
ER25-4.5	4.5~3.5	0.02
ER25-5	5~4	0.02
ER25-5.5	5.5~4.5	0.02
ER25-6	6~5	0.02
ER25-6.5	6.5~5.5	0.02
ER25-7	7~6	0.02
ER25-7.5	7.5~6.5	0.02
ER25-8	8~7	0.02
ER25-8.5	8.5~7.5	0.02
ER25-9	9~8	0.02
ER25-9.5	9.5~8.5	0.02
ER25-10	10~9	0.02
ER25-10.5	10.5~9.5	0.02
ER25-11	11~10	0.02
ER25-11.5	11.5~10.5	0.02
ER25-12	12~11	0.02
ER25-12.5	12.5~11.5	0.02
ER25-13	13~12	0.02
ER25-13.5	13.5~12.5	0.02
ER25-14	14~13	0.02
ER25-14.5	14.5~13.5	0.02
ER25-15	15~14	0.02
ER25-15.5	15.5~14.5	0.02
ER25-16	16~15	0.02

### ER32

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER32-2	2~1.5	0.02
ER32-2.5	2.5~2	0.02
ER32-3	3~2	0.02
ER32-3.5	3.5~2.5	0.02
ER32-4	4~3	0.02
ER32-4.5	4.5~3.5	0.02
ER32-5	5~4	0.02
ER32-5.5	5.5~4.5	0.02
ER32-6	6~5	0.02

ACCESSORIES



# ER 彈性筒夾 ER COLLET

PAT.NO: 3108255  
PAT.NO: M266126  
DIN-6499  
DIN-ISO-15488

精度 (普通級) Accuracy : 0.02mm

## ER32

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER32-6.5	6.5~5.5	0.02
ER32-7	7~6	0.02
ER32-7.5	7.5~6.5	0.02
ER32-8	8~7	0.02
ER32-8.5	8.5~7.5	0.02
ER32-9	9~8	0.02
ER32-9.5	9.5~8.5	0.02
ER32-10	10~9	0.02
ER32-10.5	10.5~9.5	0.02
ER32-11	11~10	0.02
ER32-11.5	11.5~10.5	0.02
ER32-12	12~11	0.02
ER32-12.5	12.5~11.5	0.02
ER32-13	13~12	0.02
ER32-13.5	13.5~12.5	0.02
ER32-14	14~13	0.02
ER32-14.5	14.5~13.5	0.02
ER32-15	15~14	0.02
ER32-15.5	15.5~14.5	0.02
ER32-16	16~15	0.02
ER32-16.5	16.5~15.5	0.02
ER32-17	17~16	0.02
ER32-17.5	17.5~16.5	0.02
ER32-18	18~17	0.02
ER32-18.5	18.5~17.5	0.02
ER32-19	19~18	0.02
ER32-19.5	19.5~18.5	0.02
ER32-20	20~19	0.02

## ER40

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER40-3	3~2	0.02
ER40-3.5	3.5~2.5	0.02
ER40-4	4~3	0.02
ER40-4.5	4.5~3.5	0.02
ER40-5	5~4	0.02
ER40-5.5	5.5~4.5	0.02
ER40-6	6~5	0.02
ER40-6.5	6.5~5.5	0.02
ER40-7	7~6	0.02
ER40-7.5	7.5~6.5	0.02

## ER40

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER40-8	8~7	0.02
ER40-8.5	8.5~7.5	0.02
ER40-9	9~8	0.02
ER40-9.5	9.5~8.5	0.02
ER40-10	10~9	0.02
ER40-10.5	10.5~9.5	0.02
ER40-11	11~10	0.02
ER40-11.5	11.5~10.5	0.02
ER40-12	12~11	0.02
ER40-12.5	12.5~11.5	0.02
ER40-13	13~12	0.02
ER40-13.5	13.5~12.5	0.02
ER40-14	14~13	0.02
ER40-14.5	14.5~13.5	0.02
ER40-15	15~14	0.02
ER40-15.5	15.5~14.5	0.02
ER40-16	16~15	0.02
ER40-16.5	16.5~15.5	0.02
ER40-17	17~16	0.02
ER40-17.5	17.5~16.5	0.02
ER40-18	18~17	0.02
ER40-18.5	18.5~17.5	0.02
ER40-19	19~18	0.02
ER40-19.5	19.5~18.5	0.02
ER40-20	20~19	0.02
ER40-20.5	20.5~19.5	0.02
ER40-21	21~20	0.02
ER40-21.5	21.5~20.5	0.02
ER40-22	22~21	0.02
ER40-22.5	22.5~21.5	0.02
ER40-23	23~22	0.02
ER40-23.5	23.5~22.5	0.02
ER40-24	24~23	0.02
ER40-24.5	24.5~23.5	0.02
ER40-25	25~24	0.02
ER40-25.5	25.5~24.5	0.02
ER40-26	26~25	0.02

## ER50

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER50-6	6~5	0.02
ER50-7	7~6	0.02
ER50-8	8~7	0.02
ER50-9	9~8	0.02
ER50-10	10~9	0.02
ER50-11	11~9	0.02
ER50-12	12~10	0.02
ER50-13	13~11	0.02
ER50-14	14~12	0.02
ER50-15	15~13	0.02
ER50-16	16~14	0.02
ER50-17	17~15	0.02
ER50-18	18~16	0.02
ER50-19	19~17	0.02
ER50-20	20~18	0.02
ER50-21	21~19	0.02
ER50-22	22~20	0.02
ER50-23	23~21	0.02
ER50-24	24~22	0.02
ER50-25	25~23	0.02
ER50-26	26~24	0.02
ER50-27	27~25	0.02
ER50-28	28~26	0.02
ER50-29	29~27	0.02
ER50-30	30~28	0.02
ER50-31	31~29	0.02
ER50-32	32~30	0.02
ER50-33	33~31	0.02
ER50-34	34~32	0.02



# ER 彈性筒夾 ER COLLET

PAT.NO: 3108255  
PAT.NO: M266126  
DIN-6499  
DIN-ISO-15488

精度 (A 級) Accuracy : 0.01mm

## ER8-A

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER8-1-A	1~0.5	0.01
ER8-1.5-A	1.5~1	0.01
ER8-2-A	2~1.5	0.01
ER8-2.5-A	2.5~2	0.01
ER8-3-A	3~2.5	0.01
ER8-3.5-A	3.5~3	0.01
ER8-4-A	4~3.5	0.01
ER8-4.5-A	4.5~4	0.01
ER8-5-A	5~4.5	0.01

## ER11-A

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER11-1-A	1~0.5	0.01
ER11-1.5-A	1.5~1	0.01
ER11-2-A	2~1.5	0.01
ER11-2.5-A	2.5~2	0.01
ER11-3-A	3~2.5	0.01
ER11-3.5-A	3.5~3	0.01
ER11-4-A	4~3.5	0.01
ER11-4.5-A	4.5~4	0.01
ER11-5-A	5~4.5	0.01
ER11-5.5-A	5.5~4.5	0.01
ER11-6-A	6~5.5	0.01
ER11-6.5-A	6.5~6	0.01
ER11-7-A	7~6.5	0.01

## ER16-A

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER16-1-A	1~0.5	0.01
ER16-1.5-A	1.5~1	0.01
ER16-2-A	2~1.5	0.01
ER16-2.5-A	2.5~2	0.01
ER16-3-A	3~2	0.01
ER16-3.5-A	3.5~2.5	0.01
ER16-4-A	4~3	0.01
ER16-4.5-A	4.5~3.5	0.01
ER16-5-A	5~4	0.01
ER16-5.5-A	5.5~4.5	0.01
ER16-6-A	6~5	0.01
ER16-6.5-A	6.5~5.5	0.01

## ER16-A

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER16-7-A	7~6	0.01
ER16-7.5-A	7.5~6.5	0.01
ER16-8-A	8~7	0.01
ER16-8.5-A	8.5~7.5	0.01
ER16-9-A	9~8	0.01
ER16-9.5-A	9.5~8.5	0.01
ER16-10-A	10~9	0.01

## ER20-A

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER20-1-A	1~0.5	0.01
ER20-1.5-A	1.5~1	0.01
ER20-2-A	2~1.5	0.01
ER20-2.5-A	2.5~2	0.01
ER20-3-A	3~2	0.01
ER20-3.5-A	3.5~2.5	0.01
ER20-4-A	4~3	0.01
ER20-4.5-A	4.5~3.5	0.01
ER20-5-A	5~4	0.01
ER20-5.5-A	5.5~4.5	0.01
ER20-6-A	6~5	0.01
ER20-6.5-A	6.5~5.5	0.01
ER20-7-A	7~6	0.01
ER20-7.5-A	7.5~6.5	0.01
ER20-8-A	8~7	0.01
ER20-8.5-A	8.5~7.5	0.01
ER20-9-A	9~8	0.01
ER20-9.5-A	9.5~8.5	0.01
ER20-10-A	10~9	0.01
ER20-10.5-A	10.5~9.5	0.01
ER20-11-A	11~10	0.01
ER20-11.5-A	11.5~10.5	0.01
ER20-12-A	12~11	0.01
ER20-12.5-A	12.5~11.5	0.01
ER20-13-A	13~12	0.01

## ER25-A

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER25-1-A	1~0.5	0.01
ER25-1.5-A	1.5~1	0.01

## ER25-A

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER25-2-A	2~1.5	0.01
ER25-2.5-A	2.5~2	0.01
ER25-3-A	3~2	0.01
ER25-3.5-A	3.5~2.5	0.01
ER25-4-A	4~3	0.01
ER25-4.5-A	4.5~3.5	0.01
ER25-5-A	5~4	0.01
ER25-5.5-A	5.5~4.5	0.01
ER25-6-A	6~5	0.01
ER25-6.5-A	6.5~5.5	0.01
ER25-7-A	7~6	0.01
ER25-7.5-A	7.5~6.5	0.01
ER25-8-A	8~7	0.01
ER25-8.5-A	8.5~7.5	0.01
ER25-9-A	9~8	0.01
ER25-9.5-A	9.5~8.5	0.01
ER25-10-A	10~9	0.01
ER25-10.5-A	10.5~9.5	0.01
ER25-11-A	11~10	0.01
ER25-11.5-A	11.5~10.5	0.01
ER25-12-A	12~11	0.01
ER25-12.5-A	12.5~11.5	0.01
ER25-13-A	13~12	0.01
ER25-13.5-A	13.5~12.5	0.01
ER25-14-A	14~13	0.01
ER25-14.5-A	14.5~13.5	0.01
ER25-15-A	15~14	0.01
ER25-15.5-A	15.5~14.5	0.01
ER25-16-A	16~15	0.01

## ER32-A

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER32-2-A	2~1.5	0.01
ER32-2.5-A	2.5~2	0.01
ER32-3-A	3~2	0.01
ER32-3.5-A	3.5~2.5	0.01
ER32-4-A	4~3	0.01
ER32-4.5-A	4.5~3.5	0.01
ER32-5-A	5~4	0.01
ER32-5.5-A	5.5~4.5	0.01
ER32-6-A	6~5	0.01

ACCESSORIES



# ER 彈性筒夾 ER COLLET

PAT.NO: 3108255  
PAT.NO: M266126  
DIN-6499  
DIN-ISO-15488

精度 (A 級) Accuracy : 0.01mm

## ER32-A

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER32-6.5-A	6.5~5.5	0.01
ER32-7-A	7~6	0.01
ER32-7.5-A	7.5~6.5	0.01
ER32-8-A	8~7	0.01
ER32-8.5-A	8.5~7.5	0.01
ER32-9-A	9~8	0.01
ER32-9.5-A	9.5~8.5	0.01
ER32-10-A	10~9	0.01
ER32-10.5-A	10.5~9.5	0.01
ER32-11-A	11~10	0.01
ER32-11.5-A	11.5~10.5	0.01
ER32-12-A	12~11	0.01
ER32-12.5-A	12.5~11.5	0.01
ER32-13-A	13~12	0.01
ER32-13.5-A	13.5~12.5	0.01
ER32-14-A	14~13	0.01
ER32-14.5-A	14.5~13.5	0.01
ER32-15-A	15~14	0.01
ER32-15.5-A	15.5~14.5	0.01
ER32-16-A	16~15	0.01
ER32-16.5-A	16.5~15.5	0.01
ER32-17-A	17~16	0.01
ER32-17.5-A	17.5~16.5	0.01
ER32-18-A	18~17	0.01
ER32-18.5-A	18.5~17.5	0.01
ER32-19-A	19~18	0.01
ER32-19.5-A	19.5~18.5	0.01
ER32-20-A	20~19	0.01

## ER40-A

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER40-8-A	8~7	0.01
ER40-8.5-A	8.5~7.5	0.01
ER40-9-A	9~8	0.01
ER40-9.5-A	9.5~8.5	0.01
ER40-10-A	10~9	0.01
ER40-10.5-A	10.5~9.5	0.01
ER40-11-A	11~10	0.01
ER40-11.5-A	11.5~10.5	0.01
ER40-12-A	12~11	0.01
ER40-12.5-A	12.5~11.5	0.01
ER40-13-A	13~12	0.01
ER40-13.5-A	13.5~12.5	0.01
ER40-14-A	14~13	0.01
ER40-14.5-A	14.5~13.5	0.01
ER40-15-A	15~14	0.01
ER40-15.5-A	15.5~14.5	0.01
ER40-16-A	16~15	0.01
ER40-16.5-A	16.5~15.5	0.01
ER40-17-A	17~16	0.01
ER40-17.5-A	17.5~16.5	0.01
ER40-18-A	18~17	0.01
ER40-18.5-A	18.5~17.5	0.01
ER40-19-A	19~18	0.01
ER40-19.5-A	19.5~18.5	0.01
ER40-20-A	20~19	0.01
ER40-20.5-A	20.5~19.5	0.01
ER40-21-A	21~20	0.01
ER40-21.5-A	21.5~20.5	0.01
ER40-22-A	22~21	0.01
ER40-22.5-A	22.5~21.5	0.01
ER40-23-A	23~22	0.01
ER40-23.5-A	23.5~22.5	0.01
ER40-24-A	24~23	0.01
ER40-24.5-A	24.5~23.5	0.01
ER40-25-A	25~24	0.01
ER40-25.5-A	25.5~24.5	0.01
ER40-26-A	26~25	0.01

## ER50-A

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER50-6-A	6~5	0.01
ER50-7-A	7~6	0.01
ER50-8-A	8~7	0.01
ER50-9-A	9~8	0.01
ER50-10-A	10~9	0.01
ER50-11-A	11~9	0.01
ER50-12-A	12~10	0.01
ER50-13-A	13~11	0.01
ER50-14-A	14~12	0.01
ER50-15-A	15~13	0.01
ER50-16-A	16~14	0.01
ER50-17-A	17~15	0.01
ER50-18-A	18~16	0.01
ER50-19-A	19~17	0.01
ER50-20-A	20~18	0.01
ER50-21-A	21~19	0.01
ER50-22-A	22~20	0.01
ER50-23-A	23~21	0.01
ER50-24-A	24~22	0.01
ER50-25-A	25~23	0.01
ER50-26-A	26~24	0.01
ER50-27-A	27~25	0.01
ER50-28-A	28~26	0.01
ER50-29-A	29~27	0.01
ER50-30-A	30~28	0.01
ER50-31-A	31~29	0.01
ER50-32-A	32~30	0.01
ER50-33-A	33~31	0.01
ER50-34-A	34~32	0.01

## ER40-A

規格 Spec.	夾持範圍 Range	精度等級 Precision
ER40-3-A	3~2	0.01
ER40-3.5-A	3.5~2.5	0.01
ER40-4-A	4~3	0.01
ER40-4.5-A	4.5~3.5	0.01
ER40-5-A	5~4	0.01
ER40-5.5-A	5.5~4.5	0.01
ER40-6-A	6~5	0.01
ER40-6.5-A	6.5~5.5	0.01
ER40-7-A	7~6	0.01
ER40-7.5-A	7.5~6.5	0.01



# ER 彈性筒夾 ER COLLET

PAT.NO: 3108255  
PAT.NO: M266126  
DIN-6499  
DIN-ISO-15488

精度 (UP 級) Accuracy : 0.005mm

## ER8-UP

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER8-1-UP	1~0.5	0.005
ER8-1.5-UP	1.5~1	0.005
ER8-2-UP	2~1.5	0.005
ER8-2.5-UP	2.5~2	0.005
ER8-3-UP	3~2.5	0.005
ER8-3.5-UP	3.5~3	0.005
ER8-4-UP	4~3.5	0.005
ER8-4.5-UP	4.5~4	0.005
ER8-5-UP	5~4.5	0.005

## ER11-UP

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER11-1-UP	1~0.5	0.005
ER11-1.5-UP	1.5~1	0.005
ER11-2-UP	2~1.5	0.005
ER11-2.5-UP	2.5~2	0.005
ER11-3-UP	3~2.5	0.005
ER11-3.5-UP	3.5~3	0.005
ER11-4-UP	4~3.5	0.005
ER11-4.5-UP	4.5~4	0.005
ER11-5-UP	5~4.5	0.005
ER11-5.5-UP	5.5~5	0.005
ER11-6-UP	6~5.5	0.005
ER11-6.5-UP	6.5~6	0.005
ER11-7-UP	7~6.5	0.005

## ER16-UP

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER16-1-UP	1~0.5	0.005
ER16-1.5-UP	1.5~1	0.005
ER16-2-UP	2~1.5	0.005
ER16-2.5-UP	2.5~2	0.005
ER16-3-UP	3~2	0.005
ER16-3.5-UP	3.5~2.5	0.005
ER16-4-UP	4~3	0.005
ER16-4.5-UP	4.5~3.5	0.005
ER16-5-UP	5~4	0.005
ER16-5.5-UP	5.5~4.5	0.005
ER16-6-UP	6~5	0.005
ER16-6.5-UP	6.5~5.5	0.005

## ER16-UP

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER16-7-UP	7~6	0.005
ER16-7.5-UP	7.5~6.5	0.005
ER16-8-UP	8~7	0.005
ER16-8.5-UP	8.5~7.5	0.005
ER16-9-UP	9~8	0.005
ER16-9.5-UP	9.5~8.5	0.005
ER16-10-UP	10~9	0.005

## ER20-UP

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER20-1-UP	1~0.5	0.005
ER20-1.5-UP	1.5~1	0.005
ER20-2-UP	2~1.5	0.005
ER20-2.5-UP	2.5~2	0.005
ER20-3-UP	3~2	0.005
ER20-3.5-UP	3.5~2.5	0.005
ER20-4-UP	4~3	0.005
ER20-4.5-UP	4.5~3.5	0.005
ER20-5-UP	5~4	0.005
ER20-5.5-UP	5.5~4.5	0.005
ER20-6-UP	6~5	0.005
ER20-6.5-UP	6.5~5.5	0.005
ER20-7-UP	7~6	0.005
ER20-7.5-UP	7.5~6.5	0.005
ER20-8-UP	8~7	0.005
ER20-8.5-UP	8.5~7.5	0.005
ER20-9-UP	9~8	0.005
ER20-9.5-UP	9.5~8.5	0.005
ER20-10-UP	10~9	0.005
ER20-10.5-UP	10.5~9.5	0.005
ER20-11-UP	11~10	0.005
ER20-11.5-UP	11.5~10.5	0.005
ER20-12-UP	12~11	0.005
ER20-12.5-UP	12.5~11.5	0.005
ER20-13-UP	13~12	0.005

## ER25-UP

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER25-2-UP	2~1.5	0.005
ER25-2.5-UP	2.5~2	0.005
ER25-3-UP	3~2	0.005
ER25-3.5-UP	3.5~2.5	0.005
ER25-4-UP	4~3	0.005
ER25-4.5-UP	4.5~3.5	0.005
ER25-5-UP	5~4	0.005
ER25-5.5-UP	5.5~4.5	0.005
ER25-6-UP	6~5	0.005
ER25-6.5-UP	6.5~5.5	0.005
ER25-7-UP	7~6	0.005
ER25-7.5-UP	7.5~6.5	0.005
ER25-8-UP	8~7	0.005
ER25-8.5-UP	8.5~7.5	0.005
ER25-9-UP	9~8	0.005
ER25-9.5-UP	9.5~8.5	0.005
ER25-10-UP	10~9	0.005
ER25-10.5-UP	10.5~9.5	0.005
ER25-11-UP	11~10	0.005
ER25-11.5-UP	11.5~10.5	0.005
ER25-12-UP	12~11	0.005
ER25-12.5-UP	12.5~11.5	0.005
ER25-13-UP	13~12	0.005
ER25-13.5-UP	13.5~12.5	0.005
ER25-14-UP	14~13	0.005
ER25-14.5-UP	14.5~13.5	0.005
ER25-15-UP	15~14	0.005
ER25-15.5-UP	15.5~14.5	0.005
ER25-16-UP	16~15	0.005

## ER32-UP

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER32-2-UP	2~1.5	0.005
ER32-2.5-UP	2.5~2	0.005
ER32-3-UP	3~2	0.005
ER32-3.5-UP	3.5~2.5	0.005
ER32-4-UP	4~3	0.005
ER32-4.5-UP	4.5~3.5	0.005
ER32-5-UP	5~4	0.005
ER32-5.5-UP	5.5~4.5	0.005
ER32-6-UP	6~5	0.005

ACCESSORIES



# ER 彈性筒夾 ER COLLET

PAT.NO: 3108255  
PAT.NO: M266126  
DIN-6499  
DIN-ISO-15488

精度 (UP 級) Accuracy : 0.005mm

## ER32-UP

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER32-6.5-UP	6.5~5.5	0.005
ER32-7-UP	7~6	0.005
ER32-7.5-UP	7.5~6.5	0.005
ER32-8-UP	8~7	0.005
ER32-8.5-UP	8.5~7.5	0.005
ER32-9-UP	9~8	0.005
ER32-9.5-UP	9.5~8.5	0.005
ER32-10-UP	10~9	0.005
ER32-10.5-UP	10.5~9.5	0.005
ER32-11-UP	11~10	0.005
ER32-11.5-UP	11.5~10.5	0.005
ER32-12-UP	12~11	0.005
ER32-12.5-UP	12.5~11.5	0.005
ER32-13-UP	13~12	0.005
ER32-13.5-UP	13.5~12.5	0.005
ER32-14-UP	14~13	0.005
ER32-14.5-UP	14.5~13.5	0.005
ER32-15-UP	15~14	0.005
ER32-15.5-UP	15.5~14.5	0.005
ER32-16-UP	16~15	0.005
ER32-16.5-UP	16.5~15.5	0.005
ER32-17-UP	17~16	0.005
ER32-17.5-UP	17.5~16.5	0.005
ER32-18-UP	18~17	0.005
ER32-18.5-UP	18.5~17.5	0.005
ER32-19-UP	19~18	0.005
ER32-19.5-UP	19.5~18.5	0.005
ER32-20-UP	20~19	0.005

## ER40-UP

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER40-8-UP	8~7	0.005
ER40-8.5-UP	8.5~7.5	0.005
ER40-9-UP	9~8	0.005
ER40-9.5-UP	9.5~8.5	0.005
ER40-10-UP	10~9	0.005
ER40-10.5-UP	10.5~9.5	0.005
ER40-11-UP	11~10	0.005
ER40-11.5-UP	11.5~10.5	0.005
ER40-12-UP	12~11	0.005
ER40-12.5-UP	12.5~11.5	0.005
ER40-13-UP	13~12	0.005
ER40-13.5-UP	13.5~12.5	0.005
ER40-14-UP	14~13	0.005
ER40-14.5-UP	14.5~13.5	0.005
ER40-15-UP	15~14	0.005
ER40-15.5-UP	15.5~14.5	0.005
ER40-16-UP	16~15	0.005
ER40-16.5-UP	16.5~15.5	0.005
ER40-17-UP	17~16	0.005
ER40-17.5-UP	17.5~16.5	0.005
ER40-18-UP	18~17	0.005
ER40-18.5-UP	18.5~17.5	0.005
ER40-19-UP	19~18	0.005
ER40-19.5-UP	19.5~18.5	0.005
ER40-20-UP	20~19	0.005
ER40-20.5-UP	20.5~19.5	0.005
ER40-21-UP	21~20	0.005
ER40-21.5-UP	21.5~20.5	0.005
ER40-22-UP	22~21	0.005
ER40-22.5-UP	22.5~21.5	0.005
ER40-23-UP	23~22	0.005
ER40-23.5-UP	23.5~22.5	0.005
ER40-24-UP	24~23	0.005
ER40-24.5-UP	24.5~23.5	0.005
ER40-25-UP	25~24	0.005
ER40-25.5-UP	25.5~24.5	0.005
ER40-26-UP	26~25	0.005

## ER50-UP

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER50-6-UP	6~5	0.005
ER50-7-UP	7~6	0.005
ER50-8-UP	8~7	0.005
ER50-9-UP	9~8	0.005
ER50-10-UP	10~9	0.005
ER50-11-UP	11~9	0.005
ER50-12-UP	12~10	0.005
ER50-13-UP	13~11	0.005
ER50-14-UP	14~12	0.005
ER50-15-UP	15~13	0.005
ER50-16-UP	16~14	0.005
ER50-17-UP	17~15	0.005
ER50-18-UP	18~16	0.005
ER50-19-UP	19~17	0.005
ER50-20-UP	20~18	0.005
ER50-21-UP	21~19	0.005
ER50-22-UP	22~20	0.005
ER50-23-UP	23~21	0.005
ER50-24-UP	24~22	0.005
ER50-25-UP	25~23	0.005
ER50-26-UP	26~24	0.005
ER50-27-UP	27~25	0.005
ER50-28-UP	28~26	0.005
ER50-29-UP	29~27	0.005
ER50-30-UP	30~28	0.005
ER50-31-UP	31~29	0.005
ER50-32-UP	32~30	0.005
ER50-33-UP	33~31	0.005
ER50-34-UP	34~32	0.005

## ER40-UP

規格 Spec.	夾持範圍 Clamp Range	精度等級 Precision
ER40-3-UP	3~2	0.005
ER40-3.5-UP	3.5~2.5	0.005
ER40-4-UP	4~3	0.005
ER40-4.5-UP	4.5~3.5	0.005
ER40-5-UP	5~4	0.005
ER40-5.5-UP	5.5~4.5	0.005
ER40-6-UP	6~5	0.005
ER40-6.5-UP	6.5~5.5	0.005
ER40-7-UP	7~6	0.005
ER40-7.5-UP	7.5~6.5	0.005





# ER 彈性筒夾

## ER COLLET INCH SIZE

PAT.NO: 3108255  
PAT.NO: M266126  
DIN-6499  
DIN-ISO-15488

### ER8

規格 Spec.	夾持範圍 Clamp Range
ER8-1/16	0.043"~0.062"
ER8-1/8	0.086"~0.125"
ER8-3/16	0.148"~0.187"

### ER11

規格 Spec.	夾持範圍 Clamp Range
ER11-1/16	0.043"~0.062"
ER11-3/32	0.054"~0.093"
ER11-1/8	0.086"~0.125"
ER11-5/32	0.117"~0.156"
ER11-3/16	0.148"~0.187"
ER11-7/32	0.179"~0.218"
ER11-1/4	0.211"~0.250"

### ER16

規格 Spec.	夾持範圍 Clamp Range
ER16-1/16	0.043"~0.062"
ER16-3/32	0.054"~0.093"
ER16-1/8	0.086"~0.125"
ER16-5/32	0.117"~0.156"
ER16-3/16	0.148"~0.187"
ER16-7/32	0.179"~0.218"
ER16-1/4	0.211"~0.250"
ER16-9/32	0.242"~0.281"
ER16-5/16	0.283"~0.312"
ER16-11/32	0.304"~0.343"
ER16-3/8	0.336"~0.375"
ER16-13/32	0.367"~0.406"

### ER20

規格 Spec.	夾持範圍 Clamp Range
ER20-1/16	0.043"~0.062"
ER20-3/32	0.054"~0.093"
ER20-1/8	0.086"~0.125"
ER20-5/32	0.117"~0.156"
ER20-3/16	0.148"~0.187"
ER20-7/32	0.179"~0.218"
ER20-1/4	0.211"~0.250"
ER20-9/32	0.242"~0.281"
ER20-5/16	0.283"~0.312"
ER20-11/32	0.304"~0.343"
ER20-3/8	0.336"~0.375"
ER20-13/32	0.367"~0.406"
ER20-7/16	0.398"~0.437"
ER20-15/32	0.429"~0.468"
ER20-1/2	0.461"~0.500"

### ER25

規格 Spec.	夾持範圍 Clamp Range
ER25-3/32	0.054"~0.093"
ER25-1/8	0.086"~0.125"
ER25-5/32	0.117"~0.156"
ER25-3/16	0.148"~0.187"
ER25-7/32	0.179"~0.218"
ER25-1/4	0.211"~0.250"
ER25-9/32	0.242"~0.281"
ER25-5/16	0.283"~0.312"
ER25-11/32	0.304"~0.343"
ER25-3/8	0.336"~0.375"
ER25-13/32	0.367"~0.406"
ER25-7/16	0.398"~0.437"
ER25-15/32	0.429"~0.468"
ER25-1/2	0.461"~0.500"
ER25-17/32	0.492"~0.531"
ER25-9/16	0.523"~0.562"
ER25-19/32	0.554"~0.593"
ER25-5/8	0.586"~0.625"

### ER32

規格 Spec.	夾持範圍 Clamp Range
ER32-1/16	0.043"~0.062"
ER32-3/32	0.054"~0.093"
ER32-1/8	0.086"~0.125"
ER32-5/32	0.117"~0.156"
ER32-3/16	0.148"~0.187"
ER32-7/32	0.179"~0.218"
ER32-1/4	0.211"~0.250"
ER32-9/32	0.242"~0.281"
ER32-5/16	0.283"~0.312"
ER32-11/32	0.304"~0.343"
ER32-3/8	0.336"~0.375"
ER32-13/32	0.367"~0.406"
ER32-7/16	0.398"~0.437"
ER32-15/32	0.429"~0.468"
ER32-1/2	0.461"~0.500"
ER32-17/32	0.492"~0.531"
ER32-9/16	0.523"~0.562"
ER32-19/32	0.554"~0.593"
ER32-5/8	0.586"~0.625"
ER32-21/32	0.617"~0.656"
ER32-11/16	0.648"~0.687"
ER32-23/32	0.679"~0.718"
ER32-3/4	0.711"~0.750"

### ER40

規格 Spec.	夾持範圍 Clamp Range
ER40-1/8	0.086"~0.125"
ER40-5/32	0.117"~0.156"
ER40-3/16	0.148"~0.187"
ER40-7/32	0.179"~0.218"
ER40-1/4	0.211"~0.250"
ER40-9/32	0.242"~0.281"
ER40-5/16	0.283"~0.312"
ER40-11/32	0.304"~0.343"
ER40-3/8	0.336"~0.375"
ER40-13/32	0.367"~0.406"
ER40-7/16	0.398"~0.437"
ER40-15/32	0.429"~0.468"
ER40-1/2	0.461"~0.500"
ER40-17/32	0.492"~0.531"
ER40-9/16	0.523"~0.562"
ER40-19/32	0.554"~0.593"
ER40-5/8	0.586"~0.625"
ER40-21/32	0.617"~0.656"
ER40-11/16	0.648"~0.687"
ER40-23/32	0.679"~0.718"
ER40-3/4	0.711"~0.750"
ER40-7/8	0.836"~0.875"
ER40-1	0.961"~1.00"

### ER50

規格 Spec.	夾持範圍 Clamp Range
ER50-7/23	0.179"~0.219"
ER50-1/4	0.211"~0.250"
ER50-5/16	0.273"~0.313"
ER50-11/32	0.304"~0.344"
ER50-3/8	0.336"~0.375"
ER50-7/16	0.359"~0.438"
ER50-17/32	0.453"~0.531"
ER50-5/8	0.546"~0.625"
ER50-11/16	0.609"~0.688"
ER50-25/32	0.703"~0.781"
ER50-27/32	0.765"~0.844"
ER50-15/16	0.859"~0.938"
ER50-1	0.921"~1.000"
ER50-1-3/32	1.015"~1.094"
ER50-1-3/16	1.109"~1.188"
ER50-1-1/4	1.171"~1.250"
ER50-1-5/16	1.234"~1.313"

- 以上規格皆有普通級 0.02mm、A 級 0.01mm 及 UP 級 0.005mm 三種精度等級可選購，訂購時請告知所需精度等級。

- The above specifications individually ordinary grade 0.02mm, A grade 0.01mm and 0.005mm UP grade. Three kinds of precision grade optional, please advise when ordering the required accuracy grade.



# ER-FID 出水筒夾

## ER-FID COOLANT COLLET

**NEW**



### ER16-FID

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
FID-ER16-3	3	0.03
FID-ER16-4	4	0.03
FID-ER16-5	5	0.03
FID-ER16-6	6	0.03
FID-ER16-7	7	0.03

### ER20-FID

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
FID-ER20-3	3	0.04
FID-ER20-4	4	0.04
FID-ER20-5	5	0.04
FID-ER20-6	6	0.04
FID-ER20-7	7	0.04
FID-ER20-8	8	0.04
FID-ER20-9	9	0.04

### ER25-FID

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
FID-ER25-3	3	0.06
FID-ER25-4	4	0.06
FID-ER25-5	5	0.06
FID-ER25-6	6	0.06
FID-ER25-7	7	0.06
FID-ER25-8	8	0.06
FID-ER25-9	9	0.06
FID-ER25-10	10	0.06
FID-ER25-11	11	0.06
FID-ER25-12	12	0.06
FID-ER25-13	13	0.06
FID-ER25-14	14	0.06

### ER32-FID

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
FID-ER32-3	3	0.10
FID-ER32-4	4	0.10
FID-ER32-5	5	0.10
FID-ER32-6	6	0.10
FID-ER32-7	7	0.10
FID-ER32-8	8	0.10
FID-ER32-9	9	0.10
FID-ER32-10	10	0.10
FID-ER32-11	11	0.10
FID-ER32-12	12	0.10
FID-ER32-13	13	0.10
FID-ER32-14	14	0.10
FID-ER32-15	15	0.10
FID-ER32-16	16	0.10
FID-ER32-17	17	0.10
FID-ER32-18	18	0.10
FID-ER32-19	19	0.10
FID-ER32-20	20	0.10

### ER40-FID

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
FID-ER40-4	4	0.25
FID-ER40-5	5	0.25
FID-ER40-6	6	0.25
FID-ER40-7	7	0.25
FID-ER40-8	8	0.25
FID-ER40-9	9	0.25
FID-ER40-10	10	0.25
FID-ER40-11	11	0.25
FID-ER40-12	12	0.25
FID-ER40-13	13	0.25
FID-ER40-14	14	0.25
FID-ER40-15	15	0.25
FID-ER40-16	16	0.25
FID-ER40-17	17	0.25
FID-ER40-18	18	0.25
FID-ER40-19	19	0.25
FID-ER40-20	20	0.25
FID-ER40-21	21	0.25
FID-ER40-22	22	0.25
FID-ER40-23	23	0.25
FID-ER40-24	24	0.25
FID-ER40-25	25	0.25
FID-ER40-26	26	0.25

ACCESSORIES



# ER-FOD 出水筒夾

## ER-FOD COOLANT COLLET

**NEW**



### ER16-FOD

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
FOD-ER16-3	3	0.03
FOD-ER16-4	4	0.03
FOD-ER16-5	5	0.03
FOD-ER16-6	6	0.03
FOD-ER16-7	7	0.03

### ER20-FOD

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
FOD-ER20-3	3	0.04
FOD-ER20-4	4	0.04
FOD-ER20-5	5	0.04
FOD-ER20-6	6	0.04
FOD-ER20-7	7	0.04
FOD-ER20-8	8	0.04
FOD-ER20-9	9	0.04

### ER25-FOD

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
FOD-ER25-3	3	0.06
FOD-ER25-4	4	0.06
FOD-ER25-5	5	0.06
FOD-ER25-6	6	0.06
FOD-ER25-7	7	0.06
FOD-ER25-8	8	0.06
FOD-ER25-9	9	0.06
FOD-ER25-10	10	0.06
FOD-ER25-11	11	0.06
FOD-ER25-12	12	0.06
FOD-ER25-13	13	0.06
FOD-ER25-14	14	0.06

### ER32-FOD

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
FOD-ER32-3	3	0.10
FOD-ER32-4	4	0.10
FOD-ER32-5	5	0.10
FOD-ER32-6	6	0.10
FOD-ER32-7	7	0.10
FOD-ER32-8	8	0.10
FOD-ER32-9	9	0.10
FOD-ER32-10	10	0.10
FOD-ER32-11	11	0.10
FOD-ER32-12	12	0.10
FOD-ER32-13	13	0.10
FOD-ER32-14	14	0.10
FOD-ER32-15	15	0.10
FOD-ER32-16	16	0.10
FOD-ER32-17	17	0.10
FOD-ER32-18	18	0.10
FOD-ER32-19	19	0.10
FOD-ER32-20	20	0.10

### ER50-FOD

規格 Spec.	夾持範圍 Size Range	重量 (KGS) Weight
FOD-ER50-6	6	0.45
FOD-ER50-7	7	0.45
FOD-ER50-8	8	0.45
FOD-ER50-9	9	0.45
FOD-ER50-10	10	0.45
FOD-ER50-11	11	0.45
FOD-ER50-12	12	0.45
FOD-ER50-13	13	0.45
FOD-ER50-14	14	0.45
FOD-ER50-15	15	0.45
FOD-ER50-16	16	0.45
FOD-ER50-17	17	0.45
FOD-ER50-18	18	0.45
FOD-ER50-19	19	0.45
FOD-ER50-20	20	0.45

### ER40-FOD

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
FOD-ER40-4	4	0.25
FOD-ER40-5	5	0.25
FOD-ER40-6	6	0.25
FOD-ER40-7	7	0.25
FOD-ER40-8	8	0.25
FOD-ER40-9	9	0.25
FOD-ER40-10	10	0.25
FOD-ER40-11	11	0.25
FOD-ER40-12	12	0.25
FOD-ER40-13	13	0.25
FOD-ER40-14	14	0.25
FOD-ER40-15	15	0.25
FOD-ER40-16	16	0.25
FOD-ER40-17	17	0.25
FOD-ER40-18	18	0.25
FOD-ER40-19	19	0.25
FOD-ER40-20	20	0.25
FOD-ER40-21	21	0.25
FOD-ER40-22	22	0.25
FOD-ER40-23	23	0.25
FOD-ER40-24	24	0.25
FOD-ER40-25	25	0.25
FOD-ER40-26	26	0.25

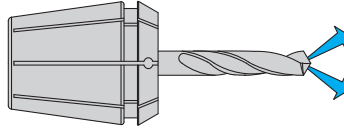
ACCESSORIES



# ER-EO 止水筒夾

## ER-EO SEALED COLLET

PAT.NO: M285418  
PAT.NO: 67748



夾持附水孔刀具專用

- 材質 :SUI-2
- 斜度 :8°
- 硬度 :HRC46°
- 表面粗糙度 RZ2.5 以內
- 偏擺精度 <0.02mm

- Steel:SUI-2
- Taper:8°
- HRC46°
- Surface Roughness:RZ 2.5
- Precision : within<0.02mm.

### 特點 Feature

- 利用溝槽的差異，以及墊圈 (Sealed ring 封環) 的應用，達到周圍止水，僅中心出水的功用
- 適合於夾持出水孔的刀具
- 可承受水壓達 21kgf/cm<sup>2</sup>
- 無彈性 (沒有彈性夾持範圍，需看最大夾持範圍)
- 非標準孔徑如英制尺寸或是點數規格可接受訂製
- 專利在案
- Take use of the difference of flute and the use of sealed ring to attain surrounding coolant and provide center as water outlet.
- Useful to chuck cutting tools with water outlet.
- Can bear the water pressure up to 21kgf/cm<sup>2</sup>.
- No flexibility (NO flexible chucking range. It depends on the biggest chucking range).
- Non-standard type, such as inch type or decimal type, are welcomed to order.
- Has a patent.

### ER16EO

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
ER16EO-03	3	0.03
ER16EO-04	4	0.03
ER16EO-05	5	0.03
ER16EO-06	6	0.03
ER16EO-07	7	0.03
ER16EO-08	8	0.03
ER16EO-09	9	0.03
ER16EO-10	10	0.03

### ER20EO

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
ER20EO-03	3	0.04
ER20EO-04	4	0.04
ER20EO-05	5	0.04
ER20EO-06	6	0.04
ER20EO-07	7	0.04
ER20EO-08	8	0.04
ER20EO-09	9	0.04
ER20EO-10	10	0.04
ER20EO-11	11	0.04
ER20EO-12	12	0.04
ER20EO-13	13	0.04

### ER32EO

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
ER32EO-03	3	0.06
ER32EO-04	4	0.06
ER32EO-05	5	0.06
ER32EO-06	6	0.06
ER32EO-07	7	0.06
ER32EO-08	8	0.06
ER32EO-09	9	0.06
ER32EO-10	10	0.06
ER32EO-11	11	0.06
ER32EO-12	12	0.06
ER32EO-13	13	0.06
ER32EO-14	14	0.06
ER32EO-15	15	0.06
ER32EO-16	16	0.06
ER32EO-17	17	0.06
ER32EO-18	18	0.06
ER32EO-19	19	0.06
ER32EO-20	20	0.06

### ER25EO

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
ER25EO-03	3	0.10
ER25EO-04	4	0.10
ER25EO-05	5	0.10
ER25EO-06	6	0.10
ER25EO-07	7	0.10
ER25EO-08	8	0.10
ER25EO-09	9	0.10
ER25EO-10	10	0.10
ER25EO-11	11	0.10
ER25EO-12	12	0.10
ER25EO-13	13	0.10
ER25EO-14	14	0.10
ER25EO-15	15	0.10
ER25EO-16	16	0.10

### ER40EO

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
ER40EO-03	3	0.25
ER40EO-04	4	0.25
ER40EO-05	5	0.25
ER40EO-06	6	0.25
ER40EO-07	7	0.25
ER40EO-08	8	0.25
ER40EO-09	9	0.25
ER40EO-10	10	0.25
ER40EO-11	11	0.25
ER40EO-12	12	0.25
ER40EO-13	13	0.25
ER40EO-14	14	0.25
ER40EO-15	15	0.25
ER40EO-16	16	0.25
ER40EO-17	17	0.25
ER40EO-18	18	0.25
ER40EO-19	19	0.25
ER40EO-20	20	0.25
ER40EO-21	21	0.25
ER40EO-22	22	0.25
ER40EO-23	23	0.25
ER40EO-24	24	0.25
ER40EO-25	25	0.25
ER40EO-26	26	0.25

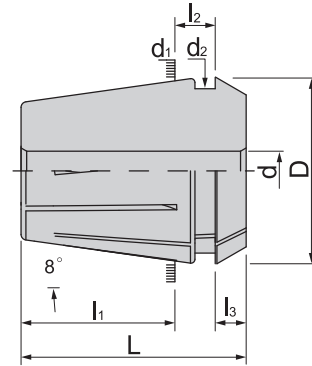
ACCESSORIES



# ER-ES 斜槽止水筒夾

## ER-ES STEEL SEALED COLLET

PAT.NO: M285418  
 PAT.NO: M311516  
 PAT.NO: 3124650  
 PAT.NO: 696264



### ER16ES

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
ER16ES-03	3	0.03
ER16ES-04	4	0.03
ER16ES-05	5	0.03
ER16ES-06	6	0.03
ER16ES-07	7	0.03
ER16ES-08	8	0.03
ER16ES-09	9	0.03
ER16ES-10	10	0.03

### ER25ES

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
ER25ES-09	9	0.06
ER25ES-10	10	0.06
ER25ES-11	11	0.06
ER25ES-12	12	0.06
ER25ES-13	13	0.06
ER25ES-14	14	0.06
ER25ES-15	15	0.06
ER25ES-16	16	0.06

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	d <sub>1</sub>
ER16ES	27.5	20.8	6.25	4	16.6	0.5~10.0	16
ER20ES	31.5	23.9	6.36	4.8	20.6	1.0~13.0	20
ER25ES	34	25.9	6.66	5	25.6	1.0~16.0	25
ER32ES	40	30.9	7.16	5.5	32.6	2.0~20.0	32
ER40ES	46	34.9	7.66	7	40.6	3.0~26.0	40

### ER20ES

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
ER20ES-03	3	0.04
ER20ES-04	4	0.04
ER20ES-05	5	0.04
ER20ES-06	6	0.04
ER20ES-07	7	0.04
ER20ES-08	8	0.04
ER20ES-09	9	0.04
ER20ES-10	10	0.04
ER20ES-11	11	0.04
ER20ES-12	12	0.04
ER20ES-13	13	0.04

### ER32ES

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
ER32ES-03	3	0.10
ER32ES-04	4	0.10
ER32ES-05	5	0.10
ER32ES-06	6	0.10
ER32ES-07	7	0.10
ER32ES-08	8	0.10
ER32ES-09	9	0.10
ER32ES-10	10	0.10
ER32ES-11	11	0.10
ER32ES-12	12	0.10
ER32ES-13	13	0.10
ER32ES-14	14	0.10
ER32ES-15	15	0.10
ER32ES-16	16	0.10
ER32ES-17	17	0.10
ER32ES-18	18	0.10
ER32ES-19	19	0.10
ER32ES-20	20	0.10

### ER40ES

規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
ER40ES-03	3	0.25
ER40ES-04	4	0.25
ER40ES-05	5	0.25
ER40ES-06	6	0.25
ER40ES-07	7	0.25
ER40ES-08	8	0.25
ER40ES-09	9	0.25
ER40ES-10	10	0.25
ER40ES-11	11	0.25
ER40ES-12	12	0.25
ER40ES-13	13	0.25
ER40ES-14	14	0.25
ER40ES-15	15	0.25
ER40ES-16	16	0.25
ER40ES-17	17	0.25
ER40ES-18	18	0.25
ER40ES-19	19	0.25
ER40ES-20	20	0.25
ER40ES-21	21	0.25
ER40ES-22	22	0.25
ER40ES-23	23	0.25
ER40ES-24	24	0.25
ER40ES-25	25	0.25
ER40ES-26	26	0.25

### ER25ES

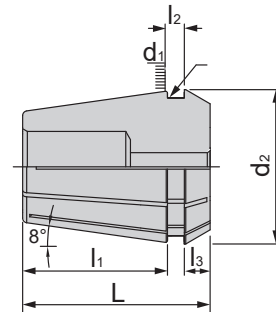
規格 Spec.	夾持範圍 Clamp Range	重量 (KGS) Weight
ER25ES-03	3	0.06
ER25ES-04	4	0.06
ER25ES-05	5	0.06
ER25ES-06	6	0.06
ER25ES-07	7	0.06
ER25ES-08	8	0.06

ACCESSORIES



# PN 筒夾 PN COLLET

精度 Accuracy : <math><3\mu\text{m}</math>



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>	d <sub>2</sub>	夾持範圍 Size Range	重量 (KGS) Weight
PN16	27.5	20.8	3.4	4	16	16.8	3.0~10	0.03
PN20	31.5	23.9	3.4	4.8	20	20.8	3.0~13	0.04
PN25	34	25.9	3.6	5	25	25.8	3.0~16	0.06
PN32	40	30.9	4.1	5.5	32	32.7	3.0~20	0.10
PN40	46	34.5	4.5	7	40	40.85	6.0~26	0.25

## PN16

規格 Spec.	夾持範圍 Size Range
PN16-03	3
PN16-04	4
PN16-05	5
PN16-06	6
PN16-07	7
PN16-08	8
PN16-09	9
PN16-10	10

## PN20

規格 Spec.	夾持範圍 Size Range
PN20-03	3
PN20-04	4
PN20-05	5
PN20-06	6
PN20-07	7
PN20-08	8
PN20-09	9
PN20-10	10
PN20-11	11
PN20-12	12
PN20-13	13

## PN25

規格 Spec.	夾持範圍 Size Range
PN25-03	3
PN25-04	4
PN25-05	5
PN25-06	6
PN25-07	7
PN25-08	8
PN25-09	9
PN25-10	10
PN25-11	11
PN25-12	12
PN25-13	13
PN25-14	14
PN25-15	15
PN25-16	16

## PN32

規格 Spec.	夾持範圍 Size Range
PN32-03	3
PN32-04	4
PN32-05	5
PN32-06	6
PN32-07	7
PN32-08	8
PN32-09	9
PN32-10	10
PN32-11	11
PN32-12	12
PN32-13	13
PN32-14	14
PN32-15	15
PN32-16	16
PN32-17	17
PN32-18	18
PN32-19	19
PN32-20	20

## PN40

規格 Spec.	夾持範圍 Size Range	規格 Spec.	夾持範圍 Size Range
PN40-06	6	PN40-21	21
PN40-07	7	PN40-22	22
PN40-08	8	PN40-23	23
PN40-09	9	PN40-24	24
PN40-10	10	PN40-25	25
PN40-11	11	PN40-26	26
PN40-12	12		
PN40-13	13		
PN40-14	14		
PN40-15	15		
PN40-16	16		
PN40-17	17		
PN40-18	18		
PN40-19	19		
PN40-20	20		

- 另有英制規格可選購 Another Inch specifications purchase.

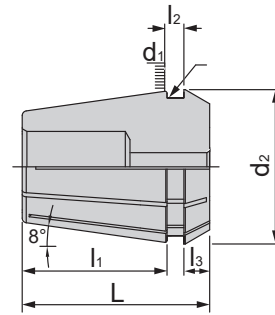
ACCESSORIES



# PN-ES 斜槽止水筒夾

## PN-ES STEEL SEALED COLLET

精度 Accuracy: <math><3\mu\text{m}</math>



**NEW**

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>	d <sub>2</sub>	夾持範圍 Size Range	重量 (KGS) Weight
PN16ES	27.5	20.8	3.4	4	16	16.8	3.0~10	0.03
PN20ES	31.5	23.9	3.4	4.8	20	20.8	3.0~13	0.04
PN25ES	34	25.9	3.6	5	25	25.8	3.0~16	0.06
PN32ES	40	30.9	4.1	5.5	32	32.7	3.0~20	0.10
PN40ES	46	34.5	4.5	7	40	40.85	6.0~26	0.25

### PN16ES

規格 Spec.	夾持範圍 Size Range
PN16ES-03	3
PN16ES-04	4
PN16ES-05	5
PN16ES-06	6
PN16ES-07	7
PN16ES-08	8
PN16ES-09	9
PN16ES-10	10

### PN20ES

規格 Spec.	夾持範圍 Size Range
PN20ES-03	3
PN20ES-04	4
PN20ES-05	5
PN20ES-06	6
PN20ES-07	7
PN20ES-08	8
PN20ES-09	9
PN20ES-10	10
PN20ES-11	11
PN20ES-12	12
PN20ES-13	13

### PN25ES

規格 Spec.	夾持範圍 Size Range
PN25ES-03	3
PN25ES-04	4
PN25ES-05	5
PN25ES-06	6
PN25ES-07	7
PN25ES-08	8
PN25ES-09	9
PN25ES-10	10
PN25ES-11	11
PN25ES-12	12
PN25ES-13	13
PN25ES-14	14
PN25ES-15	15
PN25ES-16	16

### PN32ES

規格 Spec.	夾持範圍 Size Range
PN32ES-03	3
PN32ES-04	4
PN32ES-05	5
PN32ES-06	6
PN32ES-07	7
PN32ES-08	8
PN32ES-09	9
PN32ES-10	10
PN32ES-11	11
PN32ES-12	12
PN32ES-13	13
PN32ES-14	14
PN32ES-15	15
PN32ES-16	16
PN32ES-17	17
PN32ES-18	18
PN32ES-19	19
PN32ES-20	20

### PN40ES

規格 Spec.	夾持範圍 Size Range	規格 Spec.	夾持範圍 Size Range
PN40ES-06	6	PN40ES-21	21
PN40ES-07	7	PN40ES-22	22
PN40ES-08	8	PN40ES-23	23
PN40ES-09	9	PN40ES-24	24
PN40ES-10	10	PN40ES-25	25
PN40ES-11	11	PN40ES-26	26
PN40ES-12	12		
PN40ES-13	13		
PN40ES-14	14		
PN40ES-15	15		
PN40ES-16	16		
PN40ES-17	17		
PN40ES-18	18		
PN40ES-19	19		
PN40ES-20	20		

- 另有英制規格可選購 Another Inch specifications purchase.

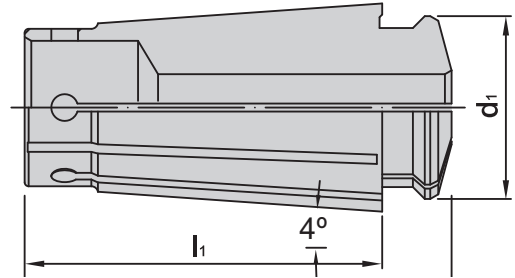
ACCESSORIES



# SKS 高速機專用筒夾

## SKS COLLET

精度 Accuracy : 5 $\mu$ m



### 特點 Feature

- 偏擺精度 :5 $\mu$  以下 (延伸 4D 長度處)
- 可夾持鑽頭、銑刀、鉸刀
- 所挾持刀具柄徑公差限定 h7 以內
- 孔徑 3mm 以下彈性收縮 0.25mm
- 孔徑 3mm 以上彈性收縮 0.5mm

- Precision:5 $\mu$  (4D length)
- Used for clamping drills, mills, and reamers.
- Holds tool with a diameter difference under h7.
- When the inner diameter is under 3mm, the clamping capacity is 0.25mm.
- When the inner diameter is more 3mm, the clamping capacity is 0.5mm.

規格 Spec.	L	l <sub>1</sub>	d <sub>1</sub>	重量 (KGS) Weight
SKS-6	25.7	21.4	9.26	0.03
SKS-13	39.1	33.6	17	0.04
SKS-16	46	40	21	0.06
SKS-20	54.3	49	24.9	0.14
SKS-25	58.2	51.5	31	1.00

### SKS6-UP

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKS6-3-UP	2.75~3.0	0.01
SKS6-3.5-UP	3.0~3.5	0.01
SKS6-4-UP	3.5~4.0	0.01
SKS6-4.5-UP	4.0~4.5	0.01
SKS6-5-UP	4.5~5.0	0.01
SKS6-5.5-UP	5.0~5.5	0.01
SKS6-6-UP	5.5~6.0	0.01

### SKS13-UP

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKS13-3-UP	2.75~3.0	0.05
SKS13-3.5-UP	3.0~3.5	0.05
SKS13-4-UP	3.5~4.0	0.05
SKS13-4.5-UP	4.0~4.5	0.05
SKS13-5-UP	4.5~5.0	0.05
SKS13-5.5-UP	5.0~5.5	0.05
SKS13-6-UP	5.5~6.0	0.05
SKS13-6.5-UP	6.0~6.5	0.05

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKS13-7-UP	6.5~7.0	0.05
SKS13-7.5-UP	7.0~7.5	0.05
SKS13-8-UP	7.5~8.0	0.05
SKS13-8.5-UP	8.0~8.5	0.05
SKS13-9-UP	8.5~9.0	0.04
SKS13-9.5-UP	9.0~9.5	0.04
SKS13-10-UP	9.5~10.0	0.04
SKS13-10.5-UP	10.0~10.5	0.04
SKS13-11-UP	10.5~11.0	0.04
SKS13-11.5-UP	11.0~11.5	0.04
SKS13-12-UP	11.5~12.0	0.03
SKS13-12.5-UP	12.0~12.5	0.03
SKS13-13-UP	12.5~13.0	0.03

ACCESSORIES

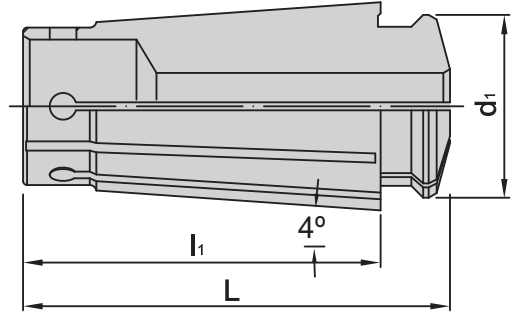






# SKS 高速機專用筒夾 SKS COLLET

精度 Accuracy : 5 $\mu$ m



## 特點 Feature

- 偏擺精度 :5 $\mu$  以下 ( 延伸 4D 長度處 )
- 可夾持鑽頭、銑刀、銼刀
- 所夾持刀具柄徑公差限定 h7 以內
- 孔徑 3mm 以下彈性收縮 0.25mm
- 孔徑 3mm 以上彈性收縮 0.5mm

- Precision:5 $\mu$  (4D length)
- Used for clamping drills, mills, and reamers.
- Holds tool with a diameter difference under h7.
- When the inner diameter is under 3mm, the clamping capacity is 0.25mm.
- When the inner diameter is more 3mm, the clamping capacity is 0.5mm.

## SKS16-UP

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKS16-3-UP	2.75~3.0	0.09
SKS16-3.5-UP	3.0~3.5	0.08
SKS16-4-UP	3.5~4.0	0.09
SKS16-4.5-UP	4.0~4.5	0.09
SKS16-5-UP	4.5~5.0	0.09
SKS16-5.5-UP	5.0~5.5	0.09
SKS16-6-UP	5.5~6.0	0.09
SKS16-6.5-UP	6.0~6.5	0.09
SKS16-7-UP	6.5~7.0	0.09
SKS16-7.5-UP	7.0~7.5	0.09
SKS16-8-UP	7.5~8.0	0.09
SKS16-8.5-UP	8.0~8.5	0.09
SKS16-9-UP	8.5~9.0	0.09
SKS16-9.5-UP	9.0~9.5	0.08
SKS16-10-UP	9.5~10.0	0.09
SKS16-10.5-UP	10.0~10.5	0.08
SKS16-11-UP	10.5~11.0	0.08
SKS16-11.5-UP	11.0~11.5	0.08
SKS16-12-UP	11.5~12.0	0.08
SKS16-12.5-UP	12.0~12.5	0.07
SKS16-13-UP	12.5~13.0	0.07
SKS16-13.5-UP	13.0~13.5	0.07
SKS16-14-UP	13.5~14.0	0.07
SKS16-14.5-UP	14.0~14.5	0.06
SKS16-15-UP	14.5~15.0	0.06
SKS16-15.5-UP	15.0~15.5	0.06
SKS16-16-UP	15.5~16.0	0.06

## SKS20-UP

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKS20-3-UP	3.0~2.75	0.14
SKS20-3.5-UP	3.5~3.0	0.14
SKS20-4-UP	3.5~4.0	0.14
SKS20-4.5-UP	4.0~4.5	0.14
SKS20-5-UP	4.5~5.0	0.14
SKS20-5.5-UP	5.0~5.5	0.14
SKS20-6-UP	5.5~6.0	0.15
SKS20-6.5-UP	6.0~6.5	0.15
SKS20-7-UP	6.5~7.0	0.14
SKS20-7.5-UP	7.0~7.5	0.14
SKS20-8-UP	7.5~8.0	0.15
SKS20-8.5-UP	8.0~8.5	0.15
SKS20-9-UP	8.5~9.0	0.15
SKS20-9.5-UP	9.0~9.5	0.14
SKS20-10-UP	9.5~10.0	0.15
SKS20-10.5-UP	10.0~10.5	0.14
SKS20-11-UP	10.5~11.0	0.14
SKS20-11.5-UP	11.0~11.5	0.14
SKS20-12-UP	11.5~12.0	0.14
SKS20-12.5-UP	12.0~12.5	0.14
SKS20-13-UP	12.5~13.0	0.14
SKS20-13.5-UP	13.0~13.5	0.13
SKS20-14-UP	13.5~14.0	0.13
SKS20-14.5-UP	14.0~14.5	0.13
SKS20-15-UP	14.5~15.0	0.13
SKS20-15.5-UP	15.0~15.5	0.12
SKS20-16-UP	15.5~16.0	0.13
SKS20-16.5-UP	16.0~16.5	0.11
SKS20-17-UP	16.5~17.0	0.11
SKS20-17.5-UP	17.0~17.5	0.11
SKS20-18-UP	17.5~18.0	0.10
SKS20-18.5-UP	18.0~18.5	0.10
SKS20-19-UP	18.5~19.0	0.09
SKS20-19.5-UP	19.0~19.5	0.09
SKS20-20-UP	19.5~20.0	0.08

## SKS25-UP

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKS25-3-UP	2.75~3	0.25
SKS25-4-UP	3.5~4	0.25
SKS25-6-UP	5.5~6	0.25
SKS25-8-UP	7.5~8	0.25
SKS25-10-UP	9.5~10	0.24
SKS25-12-UP	11.5~12	0.24
SKS25-16-UP	15.5~16	0.22
SKS25-16.5-UP	16~16.5	0.22
SKS25-17-UP	16.5~17	0.21
SKS25-17.5-UP	17~17.5	0.20
SKS25-18-UP	17.5~18	0.20
SKS25-18.5-UP	18~18.5	0.20
SKS25-19-UP	18.5~19	0.19
SKS25-19.5-UP	19~19.5	0.19
SKS25-20-UP	19.5~20	0.19
SKS25-20.5-UP	20~20.5	0.18
SKS25-21-UP	20.5~21	0.17
SKS25-21.5-UP	21~21.5	0.17
SKS25-22-UP	21.5~22	0.17
SKS25-22.5-UP	22~22.5	0.16
SKS25-23-UP	22.5~23	0.15
SKS25-23.5-UP	23~23.5	0.20
SKS25-24-UP	23.5~24	0.14
SKS25-24.5-UP	24~24.5	0.14
SKS25-25-UP	24.5~25	0.13
SKS25-25.4-UP	25~25.4	0.13

ACCESSORIES

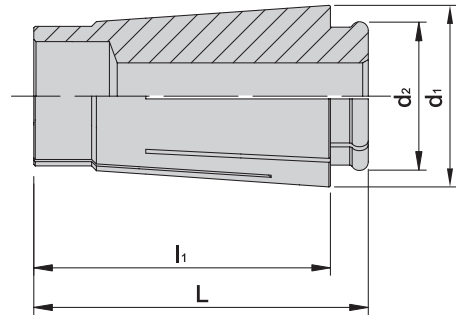




# SKX 高速機專用筒夾

## SKX COLLET

精度 Accuracy : 5 $\mu$ m



### 特點 Feature

- 偏擺精度 :5 $\mu$  以下 (延伸 4D 長度處)
- 夾持同柄徑刀具專用

- Precision:5 $\mu$  (4D length)
- Used for clamping tools of the same diameter.

規格 Spec.	L	l <sub>1</sub>	d <sub>1</sub>	d <sub>2</sub>	重量 (KGS) Weight
SKX-6	25	21.4	10.2	8.8	0.04
SKX-10	30.5	26.3	15.5	13.2	0.05
SKX-16	45.1	40	24.5	20.05	0.06
SKX-20	54.2	48.95	29	24.85	0.07
SKX-25	57.1	51.5	35.5	30	0.08

### SKX-6

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKX6-3	3	0.01
SKX6-4	4	0.01
SKX6-5	5	0.01
SKX6-6	6	0.01

### SKX-10

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKX10-3	3	0.02
SKX10-4	4	0.02
SKX10-5	5	0.02
SKX10-6	6	0.02
SKX10-7	7	0.02
SKX10-8	8	0.02
SKX10-9	9	0.02
SKX10-10	10	0.01

### SKX-16

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKX16-3	3	0.01
SKX16-4	4	0.01
SKX16-5	5	0.01
SKX16-6	6	0.09
SKX16-7	7	0.09
SKX16-8	8	0.09
SKX16-9	9	0.09
SKX16-10	10	0.09
SKX16-11	11	0.09
SKX16-12	12	0.08
SKX16-13	13	0.08
SKX16-14	14	0.08
SKX16-15	15	0.08
SKX16-16	16	0.06

ACCESSORIES

### SKX-20

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight	規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKX20-3	3	0.15	SKX20-12	12	0.15
SKX20-4	4	0.14	SKX20-13	13	0.14
SKX20-5	5	0.14	SKX20-14	14	0.14
SKX20-6	6	0.14	SKX20-15	15	0.12
SKX20-7	7	0.15	SKX20-16	16	0.12
SKX20-8	8	0.15	SKX20-17	17	0.12
SKX20-9	9	0.15	SKX20-18	18	0.10
SKX20-10	10	0.15	SKX20-19	19	0.10
SKX20-11	11	0.15	SKX20-20	20	0.10

### SKX-25

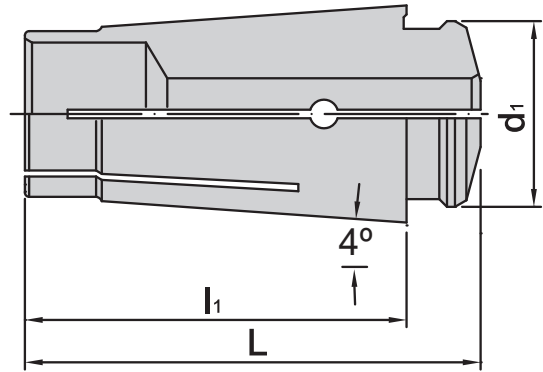
規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight	規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKX25-3	3	0.15	SKX25-15	15	0.12
SKX25-4	4	0.14	SKX25-16	16	0.12
SKX25-5	5	0.14	SKX25-17	17	0.12
SKX25-6	6	0.14	SKX25-18	18	0.10
SKX25-7	7	0.15	SKX25-19	19	0.10
SKX25-8	8	0.15	SKX25-20	20	0.10
SKX25-9	9	0.15	SKX25-21	21	0.10
SKX25-10	10	0.15	SKX25-22	22	0.10
SKX25-11	11	0.15	SKX25-23	23	0.10
SKX25-12	12	0.15	SKX25-24	24	0.10
SKX25-13	13	0.14	SKX25-25	25	0.10
SKX25-14	14	0.14			



# SKS 止水筒夾

## SKS SEALED COLLET

精度 Accuracy : 5μm



### 特點 Feature

- 偏擺精度 : 5μm
- 可承受水壓 : 21kgf/cm<sup>2</sup>
- 具有更好的夾持力和剛性

- Precision: Within 5μm.
- Water pressure: 21kgf/cm<sup>2</sup>
- better clamping power and good rigidity.

規格 Spec.	L	l <sub>1</sub>	d <sub>1</sub>	重量 (KGS) Weight
SKS10-C	32	26.8	12.8	0.04
SKS13-C	39.1	33.6	16.5	0.05
SKS16-C	46	40	20.2	0.06
SKS20-C	54.3	49	24.4	0.07
SKS25-C	58.2	51.5	30	0.08

### SKS10-C

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKS10C-3	3	0.02
SKS10C-1/8	1/8	0.02
SKS10C-4	4	0.02
SKS10C-5	5	0.02
SKS10C-6	6	0.02
SKS10C-8	8	0.03
SKS10C-10	10	0.01

### SKS13-C

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKS13C-3	3	0.05
SKS13C-4	4	0.05
SKS13C-5	5	0.05
SKS13C-6	6	0.05
SKS13C-8	8	0.05
SKS13C-10	10	0.04
SKS13C-12	12	0.03
SKS13C-13	13	0.04

### SKS16-C

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKS16C-3	3	0.10
SKS16C-1/8	1/8	0.10
SKS16C-4	4	0.09
SKS16C-5	5	0.09
SKS16C-6	6	0.09
SKS16C-8	8	0.09
SKS16C-10	10	0.08
SKS16C-12	12	0.10
SKS16C-16	16	0.06

### SKS20-C

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKS20C-3	3	0.15
SKS20C-4	4	0.14
SKS20C-5	5	0.13
SKS20C-6	6	0.14
SKS20C-8	8	0.14
SKS20C-10	10	0.15
SKS20C-12	12	0.15
SKS20C-16	16	0.11
SKS20C-20	20	0.08

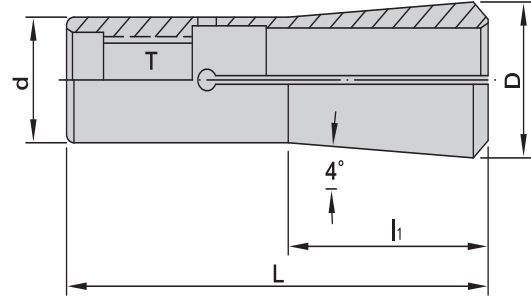
### SKS25-C

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SKS25C-6	6	0.23
SKS25C-8	8	0.25
SKS25C-10	10	0.25
SKS25C-12	12	0.26
SKS25C-16	16	0.21
SKS25C-20	20	0.20
SKS25C-25	25	0.13
SKS25C-25.4	25.4	0.14



# SLC 專用筒夾

## SLC COLLET



規格 Spec.	L	l <sub>1</sub>	d	重量 (KGS) Weight
SLC-6	36	24	8	0.02
SLC-12	57	25.45	14.5	0.04
SLC-20	70	35	21	0.12

### SLC-6

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SLC-6-2	2.0	0.02
SLC-6-2.25	2.25	0.02
SLC-6-2.5	2.5	0.02
SLC-6-2.75	2.75	0.02
SLC-6-3	3.0	0.02
SLC-6-3.25	3.25	0.02
SLC-6-3.5	3.5	0.02
SLC-6-3.75	3.75	0.02
SLC-6-4	4.0	0.01
SLC-6-4.25	4.25	0.02
SLC-6-4.5	4.5	0.02
SLC-6-4.75	4.75	0.02
SLC-6-5	5.0	0.02
SLC-6-5.25	5.25	0.01
SLC-6-5.5	5.5	0.02
SLC-6-5.75	5.75	0.02
SLC-6-6	6.0	0.02

### SLC-12

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SLC-12-3	3.0	0.06
SLC-12-4	4.0	0.18
SLC-12-5	5.0	0.18
SLC-12-6	6.0	0.18
SLC-12-8	8.0	0.06
SLC-12-10	10.0	0.06
SLC-12-12	12.0	0.18
SLC-12-3	3.0	0.06
SLC-12-4	4.0	0.18
SLC-12-5	5.0	0.18
SLC-12-6	6.0	0.18
SLC-12-8	8.0	0.06
SLC-12-10	10.0	0.06
SLC-12-12	12.0	0.18

### SLC-20

規格 Spec.	夾持範圍 Range d <sub>1</sub>	重量 (KGS) Weight
SLC-20-3	3.0	0.20
SLC-20-4	4.0	0.20
SLC-20-5	5.0	0.20
SLC-20-6	6.0	0.20
SLC-20-8	8.0	0.20
SLC-20-10	10.0	0.18
SLC-20-12	12.0	0.16
SLC-20-16	16.0	0.14
SLC-20-20	20	0.20

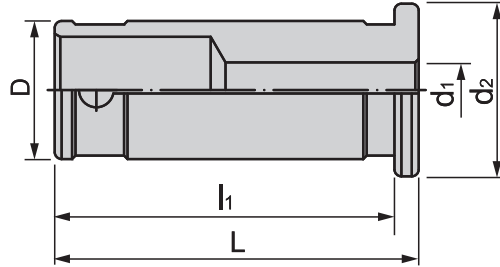
ACCESSORIES





## 直式彈性筒夾 STRAIGHT SHANK COLLET

精度 Accuracy : <0.02mm



### 特點 Feature

- 偏擺精度小於 0.02mm
- 限定夾持與孔徑相同之刀具柄徑
- 筒夾不具備彈性收縮範圍，強調夾持力
- 刀具置入筒夾必須超過內孔有效夾持長度，以達到有效夾持

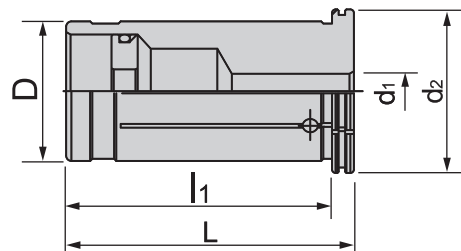
- Precision : within 0.02mm.
- Definition clamp and aperture same shank of tool diameter.
- The collet doesn't have the contraction scope, the emphasis chucking power.
- In the cutting tool posts the collet to surpass the hole effective clamp length, achieves the effective clamp.

規格 Spec.	D	筒夾孔徑 d <sub>1</sub>	d <sub>2</sub>	L	l <sub>1</sub>	重量 (KGS) Weight
SSC12	12	3, 4, 5, 6, 8	19	44.5	42.5	0.10
SSC16	16	3, 4, 5, 6, 8, 10, 12	19	50	46	0.10
SSC20	20	3, 4, 5, 6, 8, 10, 12, 16	25	52.5	49	0.10
SSC25	25	3, 4, 5, 6, 8, 10, 12, 16, 20	31	60	55	0.18
SSC32	32	3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 20, 24, 25	37.5	64.6	59.6	0.30
SSC32	32	1/8, 1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 1"	37.5	64.6	59.6	0.30
SSC42	42	3, 4, 5, 6, 8, 10, 12, 16, 20, 25, 32	48	75	69	0.60
SSC42	42	1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 1"	48	75	69	0.60



## 直式止水筒夾 STRAIGHT SEALED COLLET

JIS  
MAS 403  
B6339



ACCESSORIES

### 特點 Feature

- 可承受 21 kgf/cm<sup>2</sup> 水壓

- Water pressure up to 21 kgf/cm<sup>2</sup>

規格 Spec.	D	筒夾孔徑 d <sub>1</sub>	d <sub>2</sub>	L	l <sub>1</sub>	重量 (KGS) Weight
SSC12-C	12	3, 4, 5, 6, 8	16	40	38	0.10
SSC20-C	20	3, 4, 5, 6, 8, 10, 12, 16	25	52.9	49.4	0.10
SSC25-C	25	3, 4, 5, 6, 8, 10, 12, 16, 20	30.5	52.5	50.5	0.18
SSC32-C	32	3, 4, 5, 6, 8, 10, 12, 16, 20, 25	37.5	66	61	0.30
SSC42-C	42	3, 4, 5, 6, 8, 10, 12, 16, 20, 25, 32	48	75	69	0.60

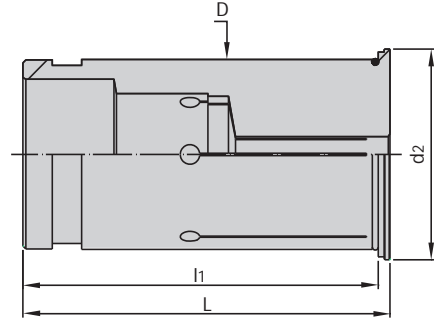


# HYC 液壓套筒

## HYC Hydraulic COLLET

精度 Accuracy : 5μm

**NEW**



### 特點 Feature

- 筒夾具有深冷處理

- Collet have sub-zero treatment.

規格 Spec.	L	l <sub>1</sub>	D	d <sub>2</sub>	重量 (KGS) Weight
HYC12	47	45	12	16.5	-
HYC20	52.5	50.5	20	24	-
HYC32	62.5	60.5	32	35.5	-

### HYC12

規格 Spec.	夾持範圍 Range
HYC12-03	3
HYC12-04	4
HYC12-05	5
HYC12-06	6
HYC12-08	8

### HYC20

規格 Spec.	夾持範圍 Range
HYC20-03	3
HYC20-04	4
HYC20-05	5
HYC20-06	6
HYC20-07	7
HYC20-08	8
HYC20-09	9
HYC20-10	10
HYC20-11	11
HYC20-12	12
HYC20-13	13
HYC20-14	14
HYC20-15	15
HYC20-16	16

### HYC32

規格 Spec.	夾持範圍 Range
HYC32-06	6
HYC32-08	8
HYC32-10	10
HYC32-12	12
HYC32-14	14
HYC32-16	16
HYC32-18	18
HYC32-20	20
HYC32-25	25

ACCESSORIES

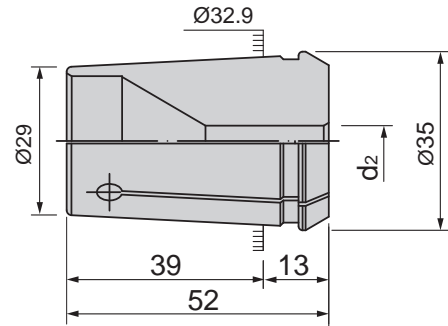


# SYOZ 型彈性筒夾

## SYOZ COLLET

DIN-6388  
DIN-ISO-10897

精度 Accuracy <0.02mm



- 偏擺精度 <0.02mm
- 限定夾持與孔徑相同之刀具柄徑
- 筒夾不具備彈性收縮範圍·強調夾持力

- Precision:<0.02mm.
- The same with the aperture defining gripping tool shank diameter.
- Collet does not have the flexibility contraction range, emphasizing the clamping force.

規格 Spec.	內附規格 d <sub>2</sub> Size	重量 (KGS) Weight
SYOZ-25-M	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 18, 20, 25mm	0.24

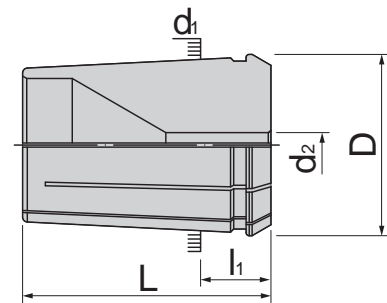


# EOC B 型彈性筒夾

## EOC COLLET (TYPE B)

DIN-6388  
DIN-ISO-10897

精度 Accuracy <0.02mm



- 材質 :SUI2 - HRC46°
- 收縮彈性為 0.5mm
- 前端及後端均有 6 溝
- 偏擺精度 <0.02mm
- ※ 可訂購尺寸間隔 0.5mm 或英制規格

- Steel:SUI2 - HRC46°
- Increment by 0.5mm.
- With 6 slots in front and back.
- Precision:<0.02mm.
- ※Can order size Increment by steps 0.5mm or imperial size as desired.

規格 Spec.	L	l <sub>1</sub>	D	d <sub>1</sub>	內附筒夾 d <sub>2</sub> Size	重量 (KGS) Weight
EOC32-B	60	17	43.7	41.3	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32mm	0.5

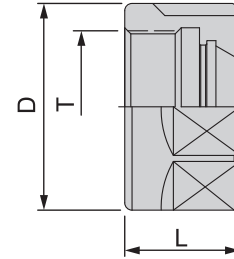
ACCESSORIES



## ER 包固得螺帽 POWER GOOD ER CLAMPING NUT

PAT.NO: 185237  
PAT.NO: 185237  
DIN 6499

PAT.NO: 3102050  
PAT.NO: 185237  
DIN-ISO-15488



- 材質 : SNCM-415
- 硬度 HRC52°
- 螺紋及 30°斜度一次成型加工，確保精度、螺紋公差為一級牙 4H
- 使用時，應先將筒夾置入螺帽，再一併置入本體

- Steel:SNCM-415
- HRC52°
- The thread and 30° taper are finished processing one time. The precision and the tolerance of thread 4H.
- When using, please put the collet into the nut and then put the them into the body together.

### 特點 Feature

- 已預設平衡、適於 R.P.M10000 使用，專利在案
- 拴緊作業請使用 ER-A 扳手，不可任意改變扳手長度，以免造成人為因素損壞

- Pre-balances. Suitable for 10000rpm.Has a patent.
- Fasten jobs please use ER-A wrench, can not be arbitrarily changed Variable length wrench to avoid damage to human factors.

規格 Spec.	L	D	T	重量 (KGS) Weight
ER11-A	11.3	19	M14×0.75P	0.02
ER16-A	18.5	28	M22×1.5P	0.05
ER20-A	20	34	M25×1.5P	0.10

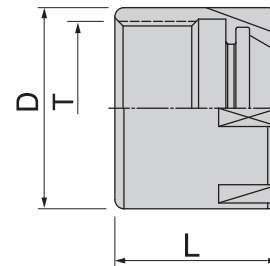
- 螺帽採標準平衡 G6.3 Nut balanced G6.3 standards adopted.



## ER 包固得螺帽 POWER GOOD ER CLAMPING NUT

PAT.NO: 185237  
PAT.NO: 185237  
DIN 6499

PAT.NO: 3102050  
PAT.NO: 185237  
DIN-ISO-15488



- 材質 : SNCM-220
- 硬度 HRC52°
- 螺紋及 30°斜度一次成型加工，確保精度、螺紋公差為一級牙 4H
- 使用時，應先將筒夾置入螺帽，再一併置入本體

- Steel:SNCM-220
- HRC52°
- The thread and 30° taper are finished processing one time. The precision and the tolerance of thread 4H.
- When using, please put the collet into the nut and then put the them into the body together.

### 特點 Feature

- 外徑較標準螺紋小，適於閃避或是避免干涉的場合不使用
- M 型螺帽的螺紋和 A 型不一樣，本體不能共用
- 已預設平衡、適於 R.P.M10000 使用，專利在案

- Many machines' spindles are manufactured by ER-M's size.
- ER-M clamping nut is specially processed for small bore.It's external diammer and thread are smaller than ER-A
- Pre-balances. Suitable for 10000rpm.Has a patent.

規格 Spec.	L	D	T	重量 (KGS) Weight
ER8-M	10.8	12	M10×0.75P	0.005
ER11-M	11.3	16	M13×0.75P	0.01
ER16-M	18	22	M19×1.0P	0.05
ER20-M	19	28	M24×1.0P	0.05
ER25-M	20	35	M30×1.0P	0.08

- 螺帽採標準平衡 G6.3 Nut balanced G6.3 standards adopted.

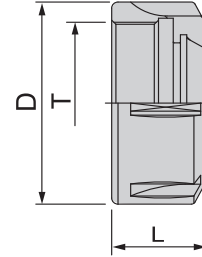




## ER 包固得螺帽 POWER GOOD ER CLAMPING NUT

PAT.NO: 185237  
PAT.NO: 185237  
DIN 6499

PAT.NO: 3102050  
PAT.NO: 185237  
DIN-ISO-15488



- 材質 : SNCM-415
- 硬度 HRC52°
- 螺紋及 30°斜度一次成型加工，確保精度、螺紋公差為一級牙 4H
- 使用時，應先將筒夾置入螺帽，再一併置入本體

- Steel:SNCM-415
- HRC52°
- The thread and 30° taper are finished processing one time. The precision and the tolerance of thread 4H.
- When using, please put the collet into the nut and then put the them into the body together.

### 特點 Feature

- 已預設平衡、適於 R.P.M10000 使用，專利在案

- Pre-balances. Suitable for 10000rpm.Has a patent.

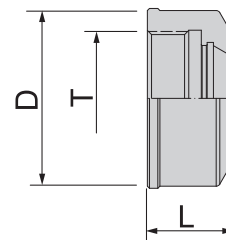
規格 Spec.	L	D	T	重量 (KGS) Weight
ER16-UM-RD	18	31.7	M22×1.5P	0.05
ER20-UM-RD	19.5	35	M25×1.5P	0.10
ER25-UM-RD	21	42	M32×1.5P	0.11
ER32-UM-RD	23.5	50	M40×1.5P	0.20
ER40-UM-RD	26.5	63	M50×1.5P	0.27
ER50-UM-RD	35.3	78	M64×2.0P	0.50

- 螺帽採標準平衡 G6.3 Nut balanced G6.3 standards adopted.



## 無風阻螺帽 NON WIND RESISTANCE NUT

DIN-6499  
DIN-ISO-15488



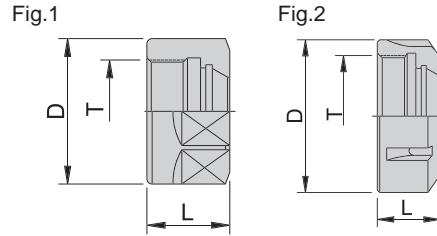
規格 Spec.	L	D	T	重量 (KGS) Weight
ER16	17.5	30	M22×1.5P	0.05
ER20	19	34	M25×1.5P	0.10
ER25	20	42	M32×1.5P	0.14
ER32	22.5	50	M40×1.5P	0.23



# ER 高速型包固得螺帽

## ER HIGH SPEED POWER GOOD NUT

PAT.NO: 185237  
ZL01275310.6  
DIN 6499  
DIN-ISO-15488



- 材質 : SNCM-220
- 硬度 HRC52°
- 螺紋及 30°斜度一次成型加工，確保精度、螺紋公差為一級牙 4H
- 使用時，應先將筒夾置入螺帽，再一併置入本體

### 特點 Feature

- 使用 ER 標準扳手
- 無偏心軸設計，彈性收縮範圍 0.3mm 以內
- 外徑經過精密研磨，達到平衡
- 根據 ISO 1941-1 標準，並經過平衡檢驗機測試
- 可供 G2.5 15,000rpm 機器使用 - 專利在案

- Steel:SNCM-220
- HRC52°
- The thread and 30° taper are finished processing one time. The precision and the tolerance of thread 4H.
- When using, please put the collet into the nut and then put the them into the body together.
- Use the ER standard spanner.
- The external diameter is treated with precise ground Reaches balancing.
- According to ISO1941-1 standard. Checked by balancing machine.
- The balancing is under G2.5. Can be used on the machine of G2.5 15000rpm. - Has a patent.

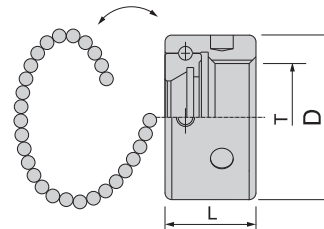
規格 Spec.	L	D	T	Fig	重量 (KGS) Weight
ER11A-HS	11.3	19	M14×0.75P	1	0.02
ER16A-HS	18	28	M22×1.5P	1	0.05
ER20A-HS	19	30	M25×1.5P	1	0.10
ER25-HS	20.5	42	M32×1.5P	2	0.14
ER32-HS	23	50	M40×1.5P	2	0.20
ER40-HS	26	63	M50×1.5P	2	0.30



# ER 強力精密高速型螺帽

## ER HIGH SPEED PRECISION NUT BALL BEARING TYPE

PAT.NO: 186381  
DIN 6499  
DIN-ISO-15488



- ER 高速型螺帽
- 材質 :SNCM-220
- 硬度 HRC52°
- 螺紋公差為一級牙 4H
- 使用時，應先將筒夾置入螺帽，再一併置入本體

### 特點 Feature

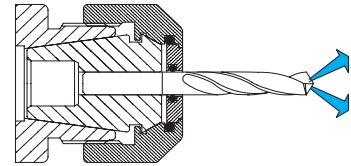
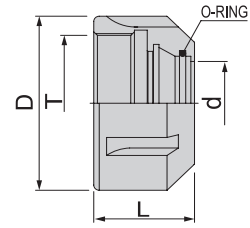
- 使用 ER 標準扳手
- 環型彈簧無偏心設計，收縮夾持量不可大於 0.3mm
- 外徑經過精密研磨，減少不少平衡量
- 根據 ISO 1941-1 標準，並經過平衡檢驗機測試
- 可供 G2.5 15,000 rpm 機器使用
- 配合 UP 級筒夾、精度以及穩定性大增 - 專利在案

- Steel:SNCM-220
- HRC52°
- The thread and 30° taper are finished processing one time. The precision and the tolerance of thread 4H.
- When using, please put the collet into the nut and then put the them into the body together.
- Use the ER standard spanner.
- The external diameter is treated with precise ground Reaches balancing.
- According to ISO1941-1 standard. Checked by balancing machine.
- The balancing is under G2.5. Can be used on the machine of G2.5 15000rpm.
- Has a patent.

規格 Spec.	L	D	T	重量 (KGS) Weight
ER16-HSP	18	32	M22×1.5P	0.008
ER20-HSP	20	36	M25×1.5P	0.10
ER25-HSP	22.5	42	M32×1.5P	0.10
ER32-HSP	25	50	M40×1.5P	0.15
ER40-HSP	27.5	63	M50×1.5P	0.27



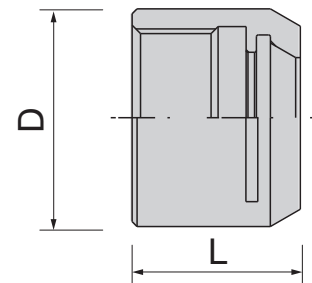
## ER 止水螺帽 ER SEALED NUT



規格 Spec.	L	D	d	T	重量 (KGS) Weight
BT-OHER16	22.5	28	11	M22x1.5P	-
BT-OHER20	24	34	14	M25x1.5P	-
BT-OHER25	25	42	19	M32x1.5P	-
BT-OHER32	27.5	50	24	M40x1.5P	-
BT-OHER40	30.5	63	30	M50x1.5P	-



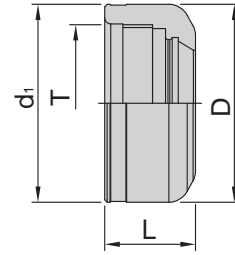
## ISO/ER 高速刀把專用螺帽 ISO/ER COLLET CHUCK NUT



規格 Spec.	L	D	重量 (KGS) Weight
ER16-MHG	17	22	-
ER20-MHG	19	28	0.04
ER25-MHG	23	35	-



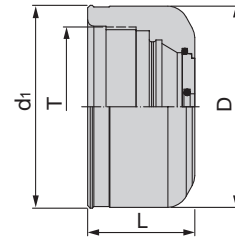
## PNER 螺帽 PNER CAMPING NUT



規格 Spec.	L	D	d <sub>1</sub>	T	扭力值 Torque		重量 (KGS) Weight
					N.m	ft-lbs	
PNER16-NUT	23	30	30.5	M22x1.5P	40	30	0.03
PNER20-NUT	24	32	32.5	M25x1.5P	60	44	0.04
PNER25-NUT	24	40	40.5	M32x1.5P	80	59	0.06
PNER32-NUT	27	50	50.5	M40x1.5P	110	81	0.10
PNER40-NUT	30	63	63.5	M50x1.5P	130	95	0.25



## PNER 止水螺帽 PNER SEALED NUT



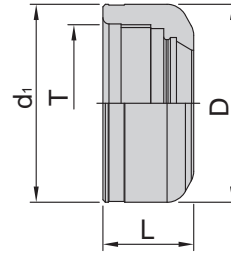
規格 Spec.	L	D	d <sub>1</sub>	T	止水環 Sealed Ring	扭力值 Torque		重量 (KGS) Weight
						N.m	ft-lbs	
PNER16-CO	27	30	30.5	M22x1.5P	SR16	40	30	0.08
PNER20-CO	29	32	32.5	M25x1.5P	SR20	60	44	0.08
PNER25-CO	29	40	40.5	M32x1.5P	SR25	80	59	0.14
PNER32-CO	32	50	50.5	M40x1.5P	SR32	110	81	0.22
PNER40-CO	35	63	63.5	M50x1.5P	SR40	130	95	0.40

※ 需搭配止水環使用 Should be used with Coolant rings.



## PNER 偏心螺帽

### PNER ECCENTRIC NUT



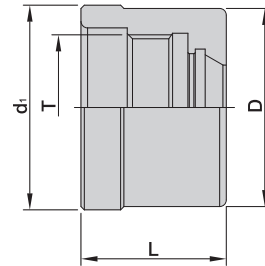
**NEW**

規格 Spec.	L	D	d <sub>1</sub>	T	扭力值 Torque		重量 (KGS) Weight
					N.m	ft-lbs	
PNER16-A	22	30	30.5	M22x1.5P	40	30	0.03
PNER20-A	24	32	32.5	M25x1.5P	60	44	0.04
PNER25-A	24	40	40.5	M32x1.5P	80	59	0.06
PNER32-A	27	50	50.5	M40x1.5P	110	81	0.10
PNER40-A	30	63	63.5	M50x1.5P	130	95	0.25



## UTER 螺帽

### UTER CAMPING NUT



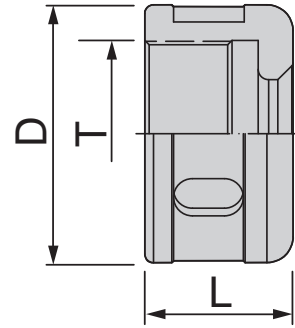
ACCESSORIES

規格 Spec.	L	D	d <sub>1</sub>	T	扭力值 Torque		重量 (KGS) Weight
					N.m	ft-lbs	
UTER16	22	30	31	M22 x 1.0P	50	36	0.07
UTER20	27.5	35	36	M27 x 1.0P	60	44	0.10
UTER25	28.5	42	43	M32 x 1.0P	85	62	0.15
UTER32	31	48	49	M40 x 1.0P	120	88	0.17



## SKS 高速機專用螺帽 SKS CLAMPING NUT

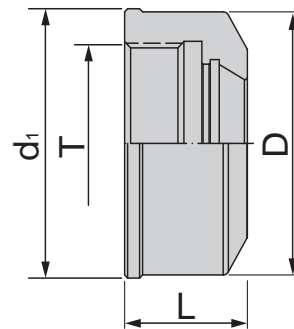
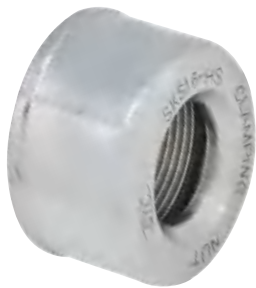
PAT.NO: M270871



規格 Spec.	L	D	T	扭力值 Torque		重量 (KGS) Weight
				N.m	ft-lbs	
SKS6-NUT	15	18	M14x1.0P	25	18	0.06
SKS10-NUT	17	30	M21.5x1.0P	45	33	0.04
SKS13-NUT	21	33	M27x1.0P	50	36	0.06
SKS16-NUT	24.5	40	M32x1.5P	70	51	0.12
SKS20-NUT	24	48.5	M40x1.0P	70	51	0.14
SKS25-NUT	30.5	55	M45x1.5P	100	73	1.00



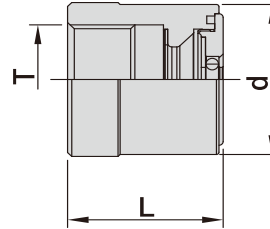
## SKS 無風阻螺帽 SKS NON WIND RESISTANCE NUT



規格 Spec.	L	D	d <sub>1</sub>	T	扭力值 Torque		重量 (KGS) Weight
					N.m	ft-lbs	
SKS-6	15	18	19	M14x1.0P	25	18	0.02
SKS-10	17	30	31	M21.5x1.0P	45	33	0.06
SKS-13	21	34	35	M27x1.0P	50	36	0.07
SKS-16	24.5	40	41	M32x1.5P	70	51	0.12
SKS-20	24	48	48.5	M40x1.0P	70	51	0.14
SKS-25	30.5	55	56	M45x1.0P	100	73	0.23



## SKX 止水螺帽 SKX SEALED NUT



**NEW**

規格 Spec.	L	d	T	扭力值 Torque		重量 (KGS) Weight
				N.m	ft-lbs	
SKX6-CO-NUT	19.5	19.5	M14x1.0P	25	18	0.04
SKX10-CO-NUT	21	30	M21.5x1.0P	45	33	0.08
SKX16-CO-NUT	28	40	M32x1.0P	70	51	0.15
SKX20-CO-NUT	28	48	M40x1.0P	70	51	0.19
SKX25-CO-NUT	30	55	M45x1.0P	100	73	0.27



## SKX 止水墊片 SKX SEALED CAP



**NEW**

### SKX6-CO

規格 Spec.	夾持範圍 Range
SKX6-03-CO	3
SKX6-04-CO	4
SKX6-05-CO	5
SKX6-06-CO	6

### SKX10-CO

規格 Spec.	夾持範圍 Range
SKX10-03-CO	3
SKX10-04-CO	4
SKX10-05-CO	5
SKX10-06-CO	6
SKX10-07-CO	7
SKX10-08-CO	8
SKX10-09-CO	9
SKX10-10-CO	10

### SKX16-CO

規格 Spec.	夾持範圍 Range	規格 Spec.	夾持範圍 Range
SKX16-03-CO	3	SKX16-10-CO	10
SKX16-04-CO	4	SKX16-11-CO	11
SKX16-05-CO	5	SKX16-12-CO	12
SKX16-06-CO	6	SKX16-13-CO	13
SKX16-07-CO	7	SKX16-14-CO	14
SKX16-08-CO	8	SKX16-15-CO	15
SKX16-09-CO	9	SKX16-16-CO	16

### SKX20-CO

規格 Spec.	夾持範圍 Range	規格 Spec.	夾持範圍 Range
SKX20-03-CO	3	SKX20-12-CO	12
SKX20-04-CO	4	SKX20-13-CO	13
SKX20-05-CO	5	SKX20-14-CO	14
SKX20-06-CO	6	SKX20-15-CO	15
SKX20-07-CO	7	SKX20-16-CO	16
SKX20-08-CO	8	SKX20-17-CO	17
SKX20-09-CO	9	SKX20-18-CO	18
SKX20-10-CO	10	SKX20-19-CO	19
SKX20-11-CO	11	SKX20-20-CO	20

### SKX25-CO

規格 Spec.	夾持範圍 Range	規格 Spec.	夾持範圍 Range
SKX25-03-CO	3	SKX25-15-CO	15
SKX25-04-CO	4	SKX25-16-CO	16
SKX25-05-CO	5	SKX25-17-CO	17
SKX25-06-CO	6	SKX25-18-CO	18
SKX25-07-CO	7	SKX25-19-CO	19
SKX25-08-CO	8	SKX25-20-CO	20
SKX25-09-CO	9	SKX25-21-CO	21
SKX25-10-CO	10	SKX25-22-CO	22
SKX25-11-CO	11	SKX25-23-CO	23
SKX25-12-CO	12	SKX25-24-CO	24
SKX25-13-CO	13	SKX25-25-CO	25
SKX25-14-CO	14		

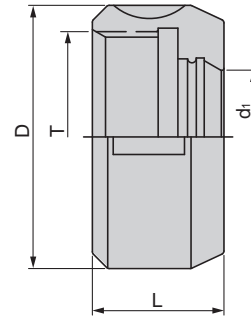
ACCESSORIES



# EOC 包固得栓緊螺帽

## POWER GOOD EOC CLAMPING NUT

DIN 6388  
DIN-ISO-10897  
PAT NO.M298033  
PAT NO.M311791  
PAT NO.ZL200620132661.0



規格 Spec.	L	D	d <sub>1</sub>	T	扭力值 Torque		重量 (KGS) Weight
					N.m	ft-lbs	
EOC25-P	30.0	60	29.7	M48×2.0P	200	147	0.30
EOC32-P	33.5	72	38.5	M60×2.5P	220	220	0.45



# MLD 止水端蓋

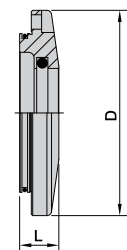
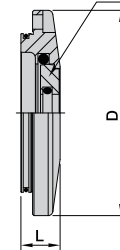
## MLD SEALED CAP



Fig.1

Fig.2

ER COOLANT RINGS



### 特點 Feature

- 適合用於有中心出水的刀具
- 使用 MLD 止水環可使冷卻液從刀具排出，利於散熱及有效排屑

- Used for cutting tools with a coolant hole.
- Coolant fluid Exhausting from the cutting tool if used with MLD sealed cap.It's good for heat dissipation and discharges the metal chips effectively.

規格 Spec.	夾持範圍 Size Range	L	D	Fig.	重量 (KGS) Weight
MLD12-C	Ø3~Ø8	8.9	38.2	1	0.04
	Ø12	8.9	38.2	2	
MLD16-C	Ø3~Ø12	8.9	42.2	1	0.04
	Ø16	8.9	42.2	2	
MLD20-C	Ø3~Ø16	8.9	44	1	0.06
	Ø20	8.9	44	2	
MLD25-C	Ø3~Ø20	10.4	51	1	0.90
	Ø25	10.4	51	2	
MLD32-C	Ø3~Ø25	11.05	60	1	0.12
	Ø32	11.05	60	2	
MLD42-C	Ø3~Ø25	12.02	70	1	0.20
	Ø42	12.02	70	2	



# SR 止水環

## SR COOLANT RINGS



### 特點 Feature

- 無彈性 (沒有彈性夾持範圍 · 需看最大夾持範圍)
- 可承受水壓達 21kgf/cm<sup>2</sup>
- 兼具阻隔切屑飛入的功用
- 止水環搭配止水螺帽使用 · 等同止水筒夾
- No Flexibility (No flexible chucking range).
- Can bear the water pressure up to 21kgf/cm<sup>2</sup>.
- Can avoid the chips.
- When the coolant ring is matched with the coolant nut, the function is the same as coolant collet.

### SR16

規格 Spec.	夾持範圍 Range	規格 Spec.	夾持範圍 Range	重量 (KGS) Weight
SR16-03.5	3.5	SR16-07.0	7.0	0.05
SR16-04.0	4.0	SR16-07.5	7.5	0.05
SR16-04.5	4.5	SR16-08.0	8.0	0.05
SR16-05.0	5.0	SR16-08.5	8.5	0.05
SR16-05.5	5.5	SR16-09.0	9.0	0.05
SR16-06.0	6.0	SR16-09.5	9.5	0.05
SR16-06.5	6.5	SR16-10.0	10.0	0.05

### SR20

規格 Spec.	夾持範圍 Range	規格 Spec.	夾持範圍 Range	重量 (KGS) Weight
SR20-03.5	3.5	SR20-08.5	8.5	0.07
SR20-04.0	4.0	SR20-09.0	9.0	0.07
SR20-04.5	4.5	SR20-09.5	9.5	0.07
SR20-05.0	5.0	SR20-10.0	10.0	0.07
SR20-05.5	5.5	SR20-10.5	10.5	0.07
SR20-06.0	6.0	SR20-11.0	11.0	0.07
SR20-06.5	6.5	SR20-11.5	11.5	0.07
SR20-07.0	7.0	SR20-12.0	12.0	0.07
SR20-07.5	7.5	SR20-12.5	12.5	0.07
SR20-08.0	8.0	SR20-13.0	13.0	0.07

### SR25

規格 Spec.	夾持範圍 Range	規格 Spec.	夾持範圍 Range	重量 (KGS) Weight
SR25-03.5	3.5	SR25-10.0	10.0	0.10
SR25-04.0	4.0	SR25-10.5	10.5	0.10
SR25-04.5	4.5	SR25-11.0	11.0	0.10
SR25-05.0	5.0	SR25-11.5	11.5	0.10
SR25-05.5	5.5	SR25-12.0	12.0	0.10
SR25-06.0	6.0	SR25-12.5	12.5	0.10
SR25-06.5	6.5	SR25-13.0	13.0	0.10
SR25-07.0	7.0	SR25-13.5	13.5	0.10
SR25-07.5	7.5	SR25-14.0	14.0	0.10
SR25-08.0	8.0	SR25-14.5	14.5	0.10
SR25-08.5	8.5	SR25-15.0	15.0	0.10
SR25-09.0	9.0	SR25-15.5	15.5	0.10
SR25-09.5	9.5	SR25-16.0	16.0	0.10

### SR32

規格 Spec.	夾持範圍 Range	規格 Spec.	夾持範圍 Range	重量 (KGS) Weight
SR32-03.5	3.5	SR32-12.0	12.0	0.15
SR32-04.0	4.0	SR32-12.5	12.5	0.15
SR32-04.5	4.5	SR32-13.0	13.0	0.15
SR32-05.0	5.0	SR32-13.5	13.5	0.15
SR32-05.5	5.5	SR32-14.0	14.0	0.15
SR32-06.0	6.0	SR32-14.5	14.5	0.15
SR32-06.5	6.5	SR32-15.0	15.0	0.15
SR32-07.0	7.0	SR32-15.5	15.5	0.15
SR32-07.5	7.5	SR32-16.0	16.0	0.15
SR32-08.0	8.0	SR32-16.5	16.5	0.15
SR32-08.5	8.5	SR32-17.0	17.0	0.15
SR32-09.0	9.0	SR32-17.5	17.5	0.15
SR32-09.5	9.5	SR32-18.0	18.0	0.15
SR32-10.0	10.0	SR32-18.5	18.5	0.15
SR32-10.5	10.5	SR32-19.0	19.0	0.15
SR32-11.0	11.0	SR32-19.5	19.5	0.15
SR32-11.5	11.5	SR32-20.0	20.0	0.15

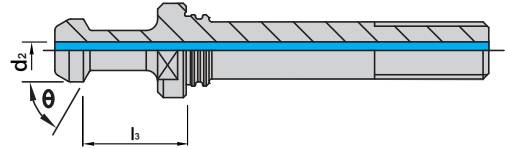
### SR32

規格 Spec.	夾持範圍 Range	規格 Spec.	夾持範圍 Range	規格 Spec.	夾持範圍 Range	規格 Spec.	夾持範圍 Range	重量 (KGS) Weight
SR40-03.5	3.5	SR40-09.5	9.5	SR40-15.5	15.5	SR40-21.5	21.5	0.27
SR40-04.0	4.0	SR40-10.0	10.0	SR40-16.0	16.0	SR40-22.0	22.0	0.27
SR40-04.5	4.5	SR40-10.5	10.5	SR40-16.5	16.5	SR40-22.5	22.5	0.27
SR40-05.0	5.0	SR40-11.0	11.0	SR40-17.0	17.0	SR40-23.0	23.0	0.27
SR40-05.5	5.5	SR40-11.5	11.5	SR40-17.5	17.5	SR40-23.5	23.5	0.27
SR40-06.0	6.0	SR40-12.0	12.0	SR40-18.0	18.0	SR40-24.0	24.0	0.27
SR40-06.5	6.5	SR40-12.5	12.5	SR40-18.5	18.5	SR40-24.5	24.5	0.27
SR40-07.0	7.0	SR40-13.0	13.0	SR40-19.0	19.0	SR40-25.0	25.0	0.27
SR40-07.5	7.5	SR40-13.5	13.5	SR40-19.5	19.5	SR40-25.5	25.5	0.27
SR40-08.0	8.0	SR40-14.0	14.0	SR40-20.0	20.0	SR40-26.0	26.0	0.27
SR40-08.5	8.5	SR40-14.5	14.5	SR40-20.5	20.5			
SR40-09.0	9.0	SR40-15.0	15.0	SR40-21.0	21.0			



## BT30/SFS 螺栓拉頭 BT30/SFS PULL STUDS

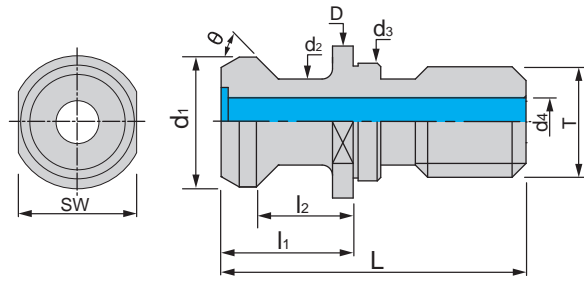
NEW



規格 Spec.	$l_3$	$d_2$	$\theta$	重量 (KGS) Weight
BT30 - 45° - MAS	18	3	45°	0.10
BT30 - 60° - MAS	18	3	60°	0.30



## MAZAK/BT 螺栓拉頭 MAZAK/BT PULL STUDS



### 特點 Feature

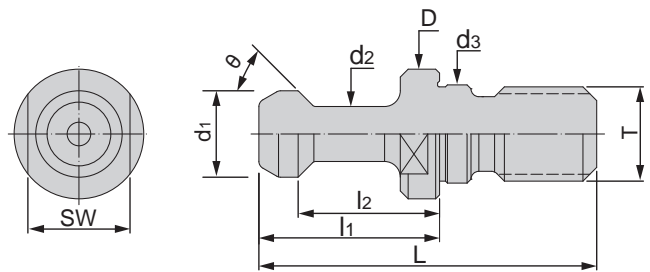
- 通孔 · 利於出水

- Through-hole and better for water to get throughtn.

規格 Spec.	L	$l_1$	$l_2$	D	$d_1$	$d_2$	$d_3$	$d_4$	SW	T	$\theta$	重量 (KGS) Weight
MAZAK-BT40	44.1	19.1	14.02	22	18.79	12.44	17	7	19	M16	45°	0.10
MAZAK-BT50	65.4	25.4	17.78	35.5	28.95	20.8	25	10	30	M24	45°	0.30



## BT 螺栓拉頭 BT PULL STUDS



### 特點 Feature

- 特殊規格亦可訂做

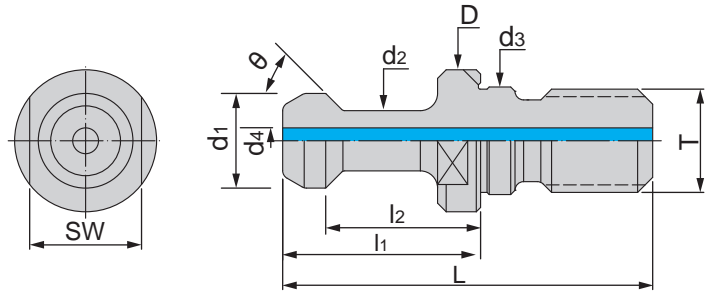
- The special specification may make to order.

規格 Spec.	L	$l_1$	$l_2$	D	$d_1$	$d_2$	$d_3$	SW	T	$\theta$	重量 (KGS) Weight
BT30 - 45°	43	23	18	16.5	11	7	12.5	13	M12	45°	0.04
BT40 - 45°	60	35	28	23	15	10	17	19	M16	45°	0.10
BT50 - 45°	85	45	35	38	23	17	25	30	M24	45°	0.30
BT30 - 60°	43	23	18	16.5	11	7	12.5	13	M12	60°	0.04
BT40 - 60°	60	35	28	23	15	10	17	19	M16	60°	0.10
BT50 - 60°	85	45	35	38	23	17	25	30	M24	60°	0.30
BT30 - 90°	43	23	18	16.5	11	7	12.5	13	M12	90°	0.04
BT40 - 90°	60	35	28	23	15	10	17	19	M16	90°	0.10
BT50 - 90°	85	45	35	38	23	17	25	30	M24	90°	0.30



# BT 給水型螺栓拉頭 BT PULL STUDS COOLANT TYPE

DIN 228-2  
DIN 6383

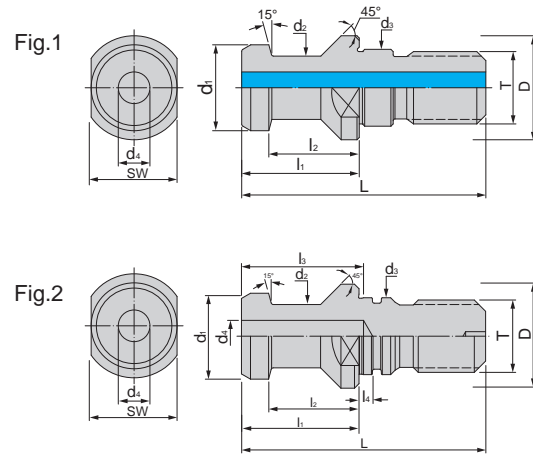


規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	SW	T	θ	重量 (KGS) Weight
BT40 - 45°W	60	35	28	23	15	10	17	4	19	M16	45°	0.10
BT40 - 60°W	60	35	28	23	15	10	17	4	19	M16	60°	0.10
BT40 - 90°W	60	35	28	23	15	10	17	4	19	M16	90°	0.10
BT50 - 45°W	85	45	35	38	23	17	25	5	30	M24	45°	0.30
BT50 - 60°W	85	45	35	38	23	17	25	5	30	M24	60°	0.30
BT50 - 90°W	85	45	35	38	23	17	25	5	30	M24	90°	0.30



# DAT 螺栓拉頭 DAT PULL STUDS

DIN 69872-A



- Pull studs also can use for DAT shank(DIN 69872- A)
- DBT shank(DIN 69872- A)
- DCT shank(DIN 69873)

### 特點 Feature

- A 為通孔 · 利於出水
- DAT30-A 為無通孔

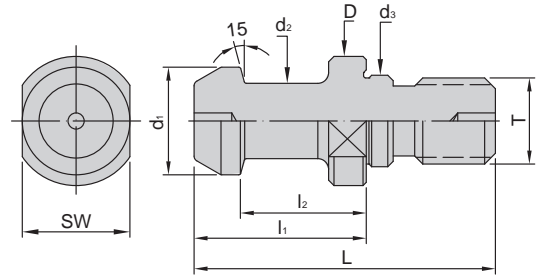
- A is through-hole and better for water to get through.
- DAT30-A doesn't have the through hole.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	D	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	SW	T	Fig.	重量 (KGS) Weight
DAT30 - A	44	24	19	-	-	17	13	9	13	-	14	M12	2	0.03
DAT40 - A	54	26	20	-	-	23	19	14	17	7	19	M16	1	0.09
DAT50 - A	74	34	25	-	-	36	28	21	25	11.5	30	M24	1	0.25
DAT30 - B	44	24	19	-	2.3	17	13	9	13	-	14	M12	2	0.03
DAT40 - B	54	26	20	27	3.0	23	19	14	17	7	19	M16	2	0.09
DAT50 - B	74	34	25	37	4.5	36	28	21	23	11.5	30	M24	2	0.25

ACCESSORIES



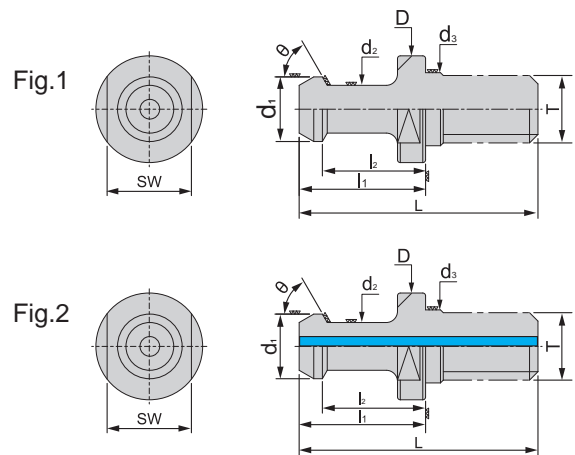
## ISO 螺栓拉頭 ISO PULL STUDS



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	SW	T	重量 (KGS) Weight
ISO20- 15°	26	12	9	12	9	6	8.5	10	M8	0.10
ISO25- 15°	28	16	11.7	12	10	7	8.5	10	M8	0.10
ISO25- 45°	31	18	13.5	12	10	7	9	10	M8	0.10
ISO30	45	24	19	17	12.8	9	13	14	M12	0.30



## BT-HS 研磨螺栓拉頭 BT-HS PULL STUDS FOR POLISH



### 特點 Feature

- HS 系列硬度可達到 HRC60°
- 外徑研磨加工以兩頂心孔做研磨牙級的中心點，減少累計公差，減少偏擺

- HS series degree of hardness may achieve HEC60°.
- The outer diameter abrasive machining does by two intelligences grinds does a lot of talking the level central poin, reduces the accumulation common difference, reduction beats.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	SW	T	θ	Fig.	重量 (KGS) Weight
BT30- 45° -HS	43	23	18	16.5	11	7	12.5	13	M12×1.75P	45°	1	0.03
BT30- 60° -HS	43	23	18	16.5	11	7	12.5	13	M12×1.75P	60°	1	0.03
BT40- 45° -HS	60	35	28	23	15	10	17	19	M16×2.0P	45°	1	0.08
BT40- 45° -HS-W	60	35	28	23	15	10	17	19	M16×2.0P	45°	2	0.08



# BT 研磨螺栓拉頭

## BT PULL STUDS FOR POLISH



Fig.1

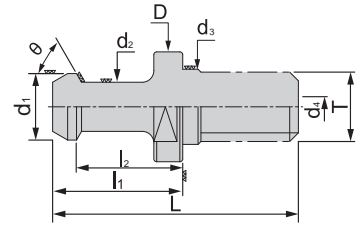
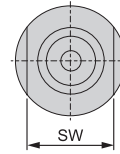
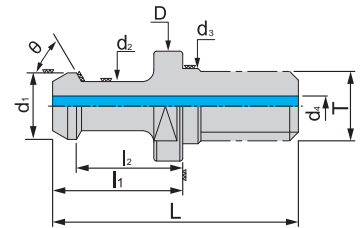
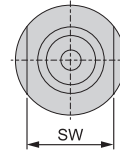


Fig.2



### 特點 Feature

- 外徑研磨加工以兩頂心孔做研磨牙級的中心點，減少累計公差，減少偏擺

- The outer diameter abrasive machining does by two intelligences grinds does a lot of talking the level central poin, reduces the accumulation common difference, reduction beats.

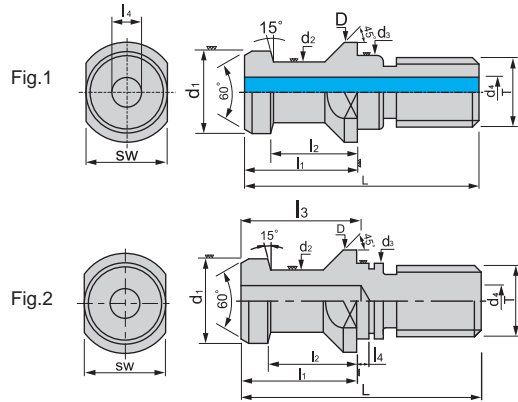
規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	SW	T	Fig.	θ	重量 (KGS) Weight
BT30-45°-G	43	23	18	16.5	11	7	12.5	-	13	M12×1.75P	1	45°	0.05
BT30-60°-G	43	23	18	16.5	11	7	12.5	-	13	M12×1.75P	1	60°	0.05
BT30-90°-G	43	23	18	16.5	11	7	12.5	-	13	M12×1.75P	1	90°	0.05
BT40-45°-G	60	35	28	23	15	10	17	-	19	M16×2.0P	1	45°	0.10
BT40-60°-G	60	35	28	23	15	10	17	-	19	M16×2.0P	1	60°	0.10
BT40-90°-G	60	35	28	23	15	10	17	-	19	M16×2.0P	1	90°	0.10
BT50-45°-G	85	45	35	38	23	17	25	-	30	M24×3.0P	1	45°	0.28
BT50-60°-G	85	45	35	38	23	17	25	-	30	M24×3.0P	1	60°	0.28
BT50-90°-G	85	45	35	38	23	17	25	-	30	M24×3.0P	1	90°	0.27
BT30-45°-HG (2×3)	43	23	18	16.5	11	7	12.5	2×3	13	M12×1.75P	2	45°	0.03
BT30-60°-HG (2×3)	43	23	18	16.5	11	7	12.5	2×3	13	M12×1.75P	2	60°	0.03
BT40-45°-HG (4)	60	35	28	23	15	10	17	4	19	M16×2.0P	2	45°	0.07
BT40-60°-HG (4)	60	35	28	23	15	10	17	4	19	M16×2.0P	2	60°	0.07
BT40-90°-HG (4)	60	35	28	23	15	10	17	4	19	M16×2.0P	2	90°	0.07
BT40-45°-HG (5)	60	35	28	23	15	10	17	5	19	M16×2.0P	2	45°	0.07
BT40-60°-HG (5)	60	35	28	23	15	10	17	5	19	M16×2.0P	2	60°	0.07
BT50-45°-HG (7)	85	45	35	38	23	17	25	7	30	M24×3.0P	2	45°	0.25
BT50-60°-HG (7)	85	45	35	38	23	17	25	7	30	M24×3.0P	2	60°	0.25
BT50-90°-HG (7)	85	45	35	38	23	17	25	7	30	M24×3.0P	2	90°	0.25

★ 中心給水規格 (4)&(7) 可以通過 3mm&6mm 六角扳手

★ Center coolant specification (4) & (7) can use with the hex wrench 3mm & 6mm



## DAT 研磨螺栓拉頭 DAT PULL STUDS FOR POLISH



### 特點 Feature

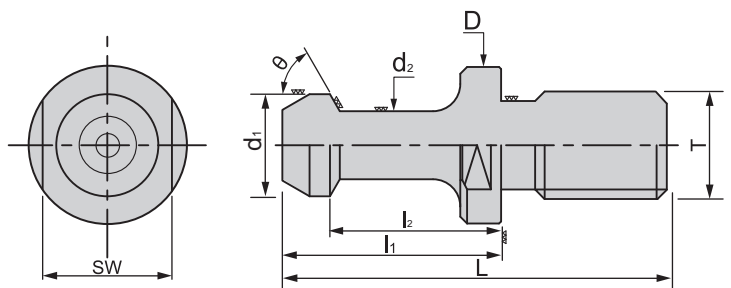
- 外徑研磨加工以兩頂心孔做研磨牙級的中心點，減少累計公差，減少偏擺

- The outer diameter abrasive machining does by two intelligences grinds does a lot of talking the level central poin, reduces the accumulation common difference, reduction beats.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	D	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	SW	T	Fig.	重量 (KGS) Weight
DAT30-A-G	44	24	19	-	-	17	13	9	13	-	14	M12×1.75P	1	0.04
DAT30-B-G	44	24	19	-	-	17	13	9	13	-	14	M12×1.75P	2	0.04
DAT40-A-G	54	26	20	-	-	23	19	14	17	7	19	M16×2.0P	1	0.07
DAT40-A-L-G	54	29	23	-	-	23	19	14	17	7	19	M16×2.0P	1	0.07
DAT40-B-G	54	26	20	27	3	23	19	14	17	7	19	M16×2.0P	2	0.08
DAT40-B-L-G	54	29	23	-	-	23	19	14	17	7	19	M16×2.0P	2	0.08



## CAT 研磨螺栓拉頭 CAT PULL STUDS FOR POLISH



### 特點 Feature

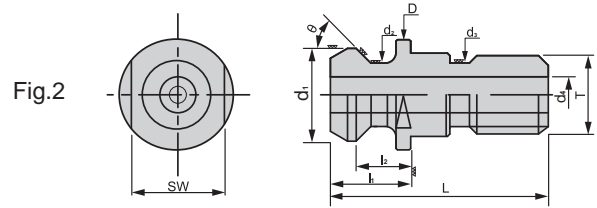
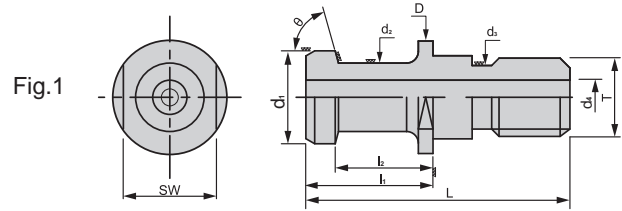
- 外徑研磨加工以兩頂心孔做研磨牙級的中心點，減少累計公差，減少偏擺

- The outer diameter abrasive machining does by two intelligences grinds does a lot of talking the level central poin, reduces the accumulation common difference, reduction beats.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>2</sub>	SW	T	θ	重量 (KGS) Weight
CAT40-45°-G	57.15	32.15	25.15	23	15	10	19	5/8"W11	45°	0.07
CAT40-60°-G	57.15	32.15	25.15	23	15	10	19	5/8"W11	60°	0.07
CAT40-90°-G	57.15	32.15	25.15	23	15	10	19	5/8"W11	90°	0.07



## ISO 研磨螺栓拉頭 ISO PULL STUDS FOR POLISH



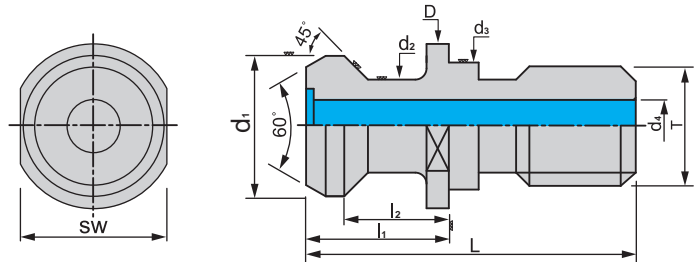
### 特點 Feature

- 外徑研磨加工以兩頂心孔做研磨牙級的中心點，減少累計公差，減少偏擺
- The outer diameter abrasive machining does by two intelligences grinds does a lot of talking the level central poin, reduces the accumulation common difference, reduction beats.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	SW	T	Fig.	重量 (KGS) Weight
ISO40-A-G	54	26	20	23	19	14	17	7	19	M16×2.0P	1	0.07
ISO40-B-G	44.5	16.4	11.15	22.5	18.95	12.95	17	7.35	19	M16×2.0P	2	0.05
ISO50-A-G	74	34	25	36	28	21	25	11.5	30	M24×3.0P	1	0.20
ISO50-B-G	65.5	25.5	17.95	37	29.1	19.6	25	11.55	30	M24×3.0P	2	0.08



## MAZAK 研磨螺栓拉頭 MAZAK PULL STUDS FOR POLISH



### 特點 Feature

- 外徑研磨加工以兩頂心孔做研磨牙級的中心點，減少累計公差，減少偏擺
- The outer diameter abrasive machining does by two intelligences grinds does a lot of talking the level central poin, reduces the accumulation common difference, reduction beats.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	SW	T	重量 (KGS) Weight
MAZAK-BT40-G	44.1	19.1	14	22	18.8	12.45	17	7	19	M16×2.0P	0.05
MAZAK-BT50-G	65.2	25.2	17.58	37	28.95	20.83	25	10	30	M24×3.0P	0.19
MAZAK-CAT40-G	41.1	16.1	11	22	18.8	12.45	17	7	19	M16×2.0P	0.05

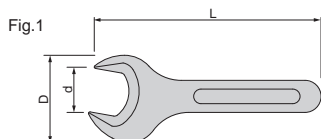
ACCESSORIES



# ER 扳手 ER SPANNER

DIN-6499  
DIN-ISO-15488

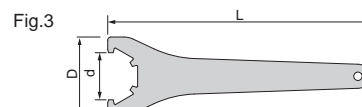
## A 型



## M 型



## UM/RD 及 KM/RD



### 特點 Feature

- 材質 SCM-4 鉗口經過熱處理

- Steel:SCM-4

規格 Spec.	螺帽外徑 Nut Dia	L	D	d	重量 (KGS) Weight
ER11-A	19	120	40	17	0.10
ER16-A	28	140	53	25	0.15
ER20-A	34	160	60	30	0.20
ER8-M	12	75	13	8	0.05
ER11-M	16	95	17	11.5	0.04
ER16-M	22	117	22.5	15	0.06
ER20-M	28	129	28.5	19.5	0.07
ER25-M	35	143	36	25	0.09
ER25UM/RD	42	206	65	37	0.22
ER32UM/RD	50	253	75	46.5	0.30
ER40UM/RD	63	289	90	58	0.50
ER50UM/RD	78	351	110	74	0.90

ACCESSORIES

## 單向型強力扳手 (ER-M 無風阻螺帽專用)

TORQUE STRONG WRENCH (APPLICABLE ER-M NON WIND RESISTANCE NUT)

DIN-6499  
DIN-ISO-15488



### 特點 Feature

- 適用於 ER-M 無風阻螺帽
- 螺帽鎖緊及開起可達百分之百輕鬆及不易脫落

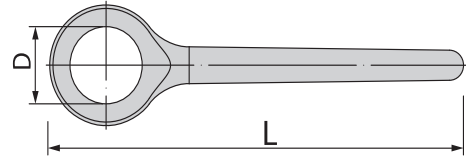
- Applicable ER-M non wind resistance nut.
- Locking nut and opened up to one hundred percent comfortable and easy to fall off.

規格 Spec.	重量 (KGS) Weight
SP-ER8M	0.12
SP-ER11M	0.12





## 軸承扳手 SPANNER



規格 Spec.	適用規格 Applicable Spec.	L	D	重量 (KGS) Weight
ER11W-RDQ	SKS6W-RDQ	120	18	0.52
ER16W-RDQ	SKS10W-RDQ、PNER16、UTER16	170	30	0.52
ER20W-RDQ	SKS13W-RDQ	172	34	0.50
ER25W-RDQ	UTER25	175	42	0.47
ER32W-RDQ	PNER32、UTER32	180	50	0.50
SKS16W-RDQ	PNER25、SK316	175	40	0.43
SKS20W-RDQ	SKS20W-RDQ	198	48	0.72
SKS25W-RDQ	SKS25W-RDQ	255	55	0.61
PNER20-RDQ	PNER20	195	32	0.44
PNER40-RDQ	PNER25、SKS16、SK316、SKX16-CO	175	40	0.66



## SKS 扳手 SKS SPANNER



Fig.1

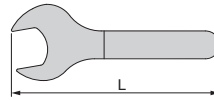
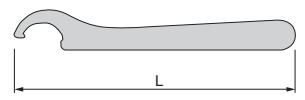


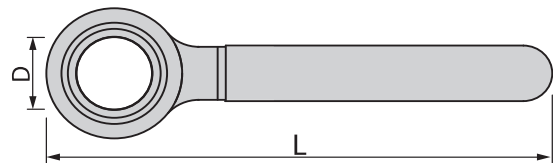
Fig.2



規格 Spec.	適用規格 Applicable Spec.	L	Fig.	重量 (KGS) Weight
SKS6	-	120	1	0.09
SKS10	ER16-HSP-W	200	2	0.08
SKS13	-	220	2	0.16
SKS16	ER25-HSP-W、MLD-12	220	2	0.20
SKS20	MLD16-W	220	2	0.18
SKS25	-	235	2	0.21



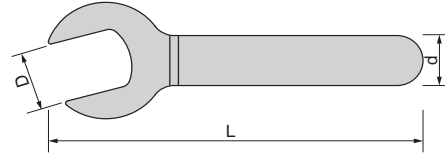
## SKS/WH 軸承扳手 (無風阻) SKS/WH SPANNER(NON WIND RESISTANCE)



規格 Spec.	L	D	重量 (KGS) Weight
SKS6-WH	125	18	0.14
SKS10-WH	160	30	0.23
SKS16-WH	200	40	0.37
SKS25-WH	216	55	0.39



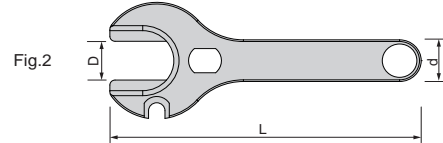
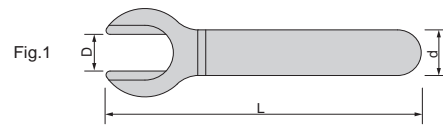
## ISO 刀桿固定專用扳手 ISO COLLET CHUCK SPANNER FOR FIXED



規格 Spec.	L	D	d	重量 (KGS) Weight
ISO20-W	140	24.4	17	-
ISO25-W	160	26	22	0.08
ISO30-W	205	31	35	-



## ER-MHG 螺帽專用扳手 ER-MHG NUT SPANNER



規格 Spec.	L	D	d	Fig.	重量 (KGS) Weight
ER16-MHG-W	127	15	17.8	1	-
ER20-MHG-W	160	19	23.5	1	0.14
ER25-MHG-W	180	24	25	2	-

ACCESSORIES

### 範例 Example

ISO25-W 刀桿固定專用扳手  
ISO25-W Collet Chuck Spanner For Fixed



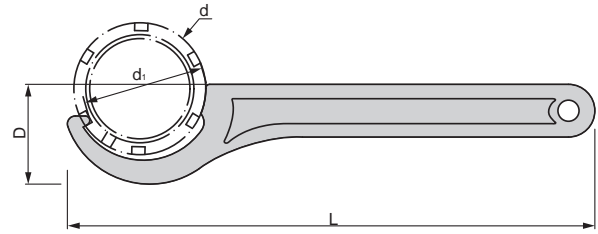
ER20-MHG-W 螺帽專用扳手  
ER20-MHG-W Nut Spanner

ISO25 x ER20M-36HG 高速刀把  
ISO25 x ER20M-36HG HIGH SPEED COLLET CHUCK



# 扳手 SPANNER

DIN-6388  
DIN-ISO-10897



- EOC25 扳手與 MLD25 扳手、MLK25 扳手共用
- EOC32 扳手與 MLD32 扳手、MLK32 扳手共用

- EOC25 and MLD25、MLK25 spanner can be used in common.
- EOC32 and MLD32、MLK32 spanner can be used in common.

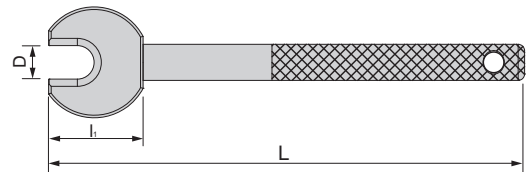
規格 Spec.	使用範圍 Range	L	D	d	d <sub>1</sub>	重量 (KGS) Weight
EOC-25	55~60	260	46	60	52	0.30
EOC-32	71~75	272	64	80~90	67	0.45



# 拉頭專用扳手 SPANNER FOR PULL STUD



## 範例 Example

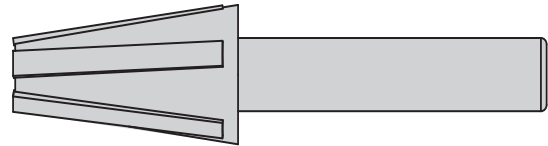


規格 Spec.	L	l <sub>1</sub>	D	重量 (KGS) Weight
PS-BT30	140	25	7.5	0.20
PS-BT40	162	35	11	0.36
PS-BT50	190	40	18	0.48
PS-MAZAK-BT40	185	36	13	0.36
PS-MAZAK-BT50	195	41	20.9	0.44

ACCESSORIES



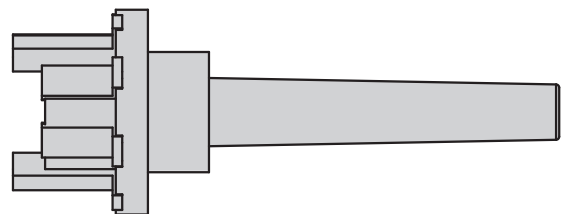
## 主軸清潔棒 SPINDLE TAPER WIPERS



規格 Spec.	斜度 Taper	材質 Material	重量 (KGS) Weight
W30	#30	棉質 Cotton	0.07
W40	#40	棉質 Cotton	0.08
W50	#50	棉質 Cotton	0.19
W30S	#30	羊皮毛 Fleecy	0.07
W40S	#40	羊皮毛 Fleecy	0.08
W50S	#50	羊皮毛 Fleecy	0.19



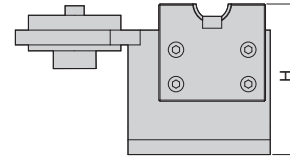
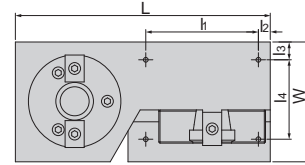
## HSK 主軸清潔棒 HSK SPANNER FOR SPINDLE



規格 Spec.	斜度 Rake	重量 (KGS) Weight
HSK40E	HSK40	0.08
HSK50A	HSK50	0.08
HSK63A	HSK63	0.10
HSK100A	HSK100	0.50



## BT/CAT/DAT 鎖刀座 BT/CAT/DAT TOOL HOLDER LOCKING DEVICE



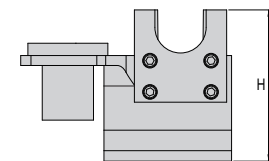
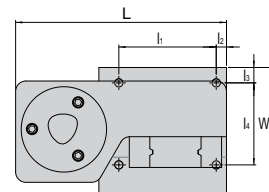
- 不可敲擊 - Don't use hammer.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	H	W	重量 (KGS) Weight
LD-BT30	210	95	10	15	67	130	100	4.47
LD-BT40	210	95	10	15	67	130	100	3.94
LD-BT50	275	113	20	24	105	200	150	7.06
LD-SBT30	210	95	10	15	67	130	100	4.47
LD-SBT40	210	95	10	15	67	130	100	3.94
LD-SBT50	275	113	20	24	105	200	150	7.06
LD-DAT40	210	95	10	15	67	130	100	3.94
LD-DAT50	275	113	20	24	105	200	150	10.62
LD-CAT40	210	95	10	15	67	130	100	3.80
LD-CAT50	275	113	20	24	105	200	150	11.4

- 本體為鑄鐵 - The body is Cast Steel.



## PSC 鎖刀座 PSC TOOL HOLDER LOCKING DEVICE



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	H	W	重量 (KGS) Weight
LD-PSC32	210	95	10	15	67	143	100	-
LD-PSC40	210	95	10	15	67	143	100	-
LD-PSC50	210	95	10	15	67	148	100	-
LD-PSC63	210	95	10	15	67	148	100	-



# HSK 鎖刀座 (HSK 有鍵槽刀桿)

## HSK TOOL HOLDER LOCKING DEVICE



Fig.1

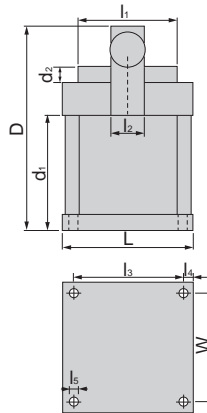
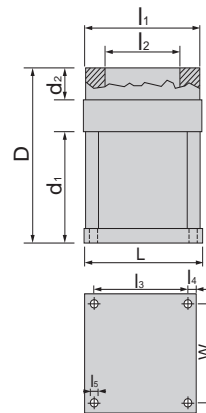


Fig.2



- 不可敲擊 - Don't use hammer.

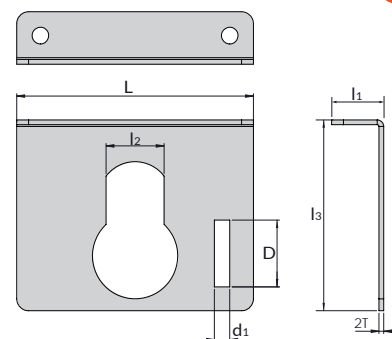
規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	D	d <sub>1</sub>	d <sub>2</sub>	W	Fig.	重量 (KGS) Weight
HD-HSK63A	100	76.5	25	84	8	7	157	89	12	84	1	3.00
HD-HSK100A	125	115	25	101	12	9	208	115	12	101	1	7.00
HD-HSK32I	100	80	32	84	8	7	141	89	27	84	2	2.95
HD-HSK40I	100	80	40	84	8	7	141	89	27	84	2	2.80
HD-HSK50I	100	95	50	84	8	7	147	89	33	84	2	3.00
HD-HSK63I	100	96.5	63	84	8	7	139	89	25	84	2	2.90
HD-BT30I	100	95	46	84	8	7	142	89	28	84	2	3.00
HD-DIN30I	100	95	50	84	8	7	137	89	23	84	2	3.10



# ISO 鎖刀座

## ISO TOOL HOLDER LOCKING DEVICE

**NEW**



範例 Example



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d <sub>1</sub>	重量 (KGS) Weight
LD-ISO20	100	22	24.5	80	28	6.5	-



# Z 軸設定器 (有磁性 內藏量錶式)

## Z AXIAL PRESET GAUGE(MAGNETIC)

PAT.NO: M250749



高度 50  
height

高度 100  
height

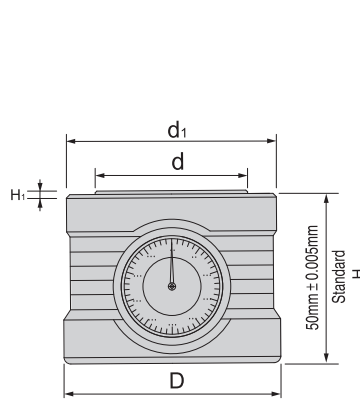


Fig.1

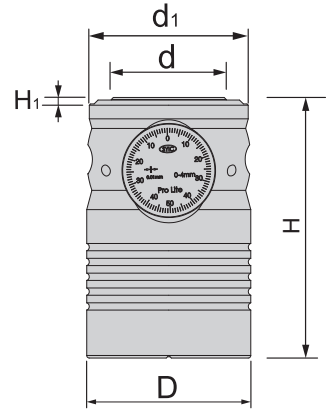


Fig.2

### 特點 Feature

- 高精密度、高準確度、高便利性
- 測量接觸面積大，以利測量作業

- High precision, high accuracy, high convenience.
- The survey contacted area is big, in order to help survey work.

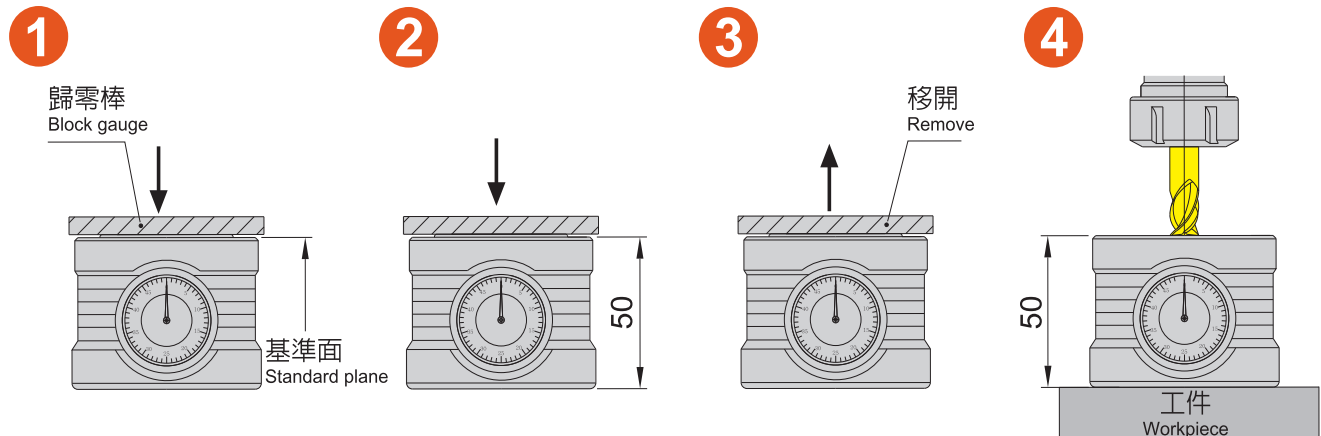
規格 Spec.	D	d	d <sub>1</sub>	H ±0.005	H <sub>1</sub> 有效行程 Stroke	歸零棒 Block gauge	Fig.	重量 (KGS) Weight
ZDS-50J	64	44.7	62	50	2	Ø16	1	1.35
ZDS-50J-N	64	44.7	62	50	2	Ø16	1	1.35
ZSW-100	64	44.7	62	100	2	Ø16	2	-

- ZDS-50J-N 為無磁性 - ZDS-50J-N is non-magnetic.

### 範例 Example

- 請使用歸零棒，下壓至基準面
- 轉開百分錶使錶針歸零
- 移開歸零棒
- 置於工件上，刀具接觸探測面，請慢速進刀至錶針指在 "0"  
· 則刀具與工件的距離是 50

- Please use the block gauge to press standard plane.
- Turn the indicator and adjust the needle to '0'.
- Remove the block gauge.
- Put the whole unit on the workpiece, when cutter touched the probe face please feed slowly to move the needle to "0".  
The cutter distance is now 50mm above the workpiece.

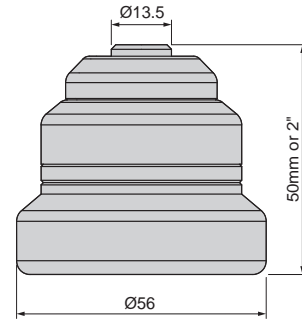


ACCESSORIES



## ZOP-50 光電式 Z 軸設定器

### ZOP-50 Z AXIAL PRESET GAUGE(OPTICAL TYPE)



#### 特點 Feature

- 精度 0.005mm
- 磁性底座設計，可供側面吸附工件探測
- 紅燈亮時，四週都可看見，沒有死角

- Accuracy 0.005mm.
- With magnetic base, available for adsorption side workpiece probe.
- The red lamp will be on when being touched.

#### 注意事項 Notice

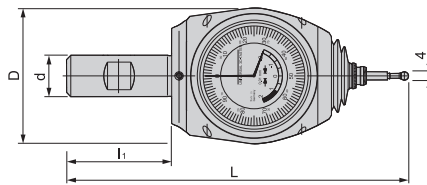
- 使用 AG13 水銀電池 2 枚
- 磁性底座請勿接近 100°C 以上熱氣或火氣，以防消磁
- 探測面下方有微調機構，調整高度請用平行塊規比測
- 高精度產品，不適用游標尺檢測精度
- 快速進刀至燈亮時，請輕微後退至燈熄，再慢速前進至燈亮，以利確實掌握精度
- 側面探測時，請用刀刃之最高點拉觸探測面

- Uses AG13 clark cell 2.
- Magnetic base close to 100 ° C or more Do not heat or anger, to prevent demagnetization
- There's micro-adjustment under probeface, please use parallel block for adjusting height.
- High precision products, not suitable for vernier scale to test precision.
- When then light is on due to fast feed cutter, please draw bak slightly, until thelight is off, then go forward slowly until the light is on, for controlling precision.
- Inside probe, please use the cutter's highest point to touch probe face.

規格 Spec.	型式 NO.	總高度 H	伸縮距離	重量 (KGS) Weight
ZOP - 50	光電式	50	3	0.5

## 三次元探測器

### 3D MASTER



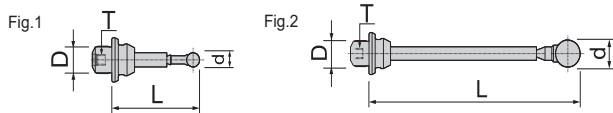
規格 Spec.	L	l <sub>1</sub>	D	d	重量 (KGS) Weight
3D-D	163	50	65	20	0.94

ACCESSORIES



## 台製探針

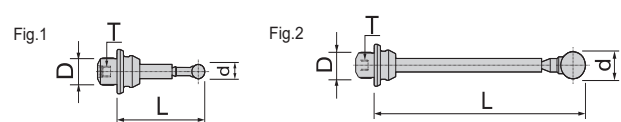
### PROBE



規格 Spec.	L	D	d	T	Fig.	重量 (KGS) Weight
SYIC-TB-427(短針)	25	7.5	4	M3	1	0.02
SYIC-TB-869(長針)	65	7.5	8	M3	2	0.02

## 進口探針

### PROBE



規格 Spec.	L	D	d	T	Fig.	重量 (KGS) Weight
3D-S(短針)	25	7.5	4	M3	1	0.02
3D-L(長針)	65	7.5	8	M3	2	0.02

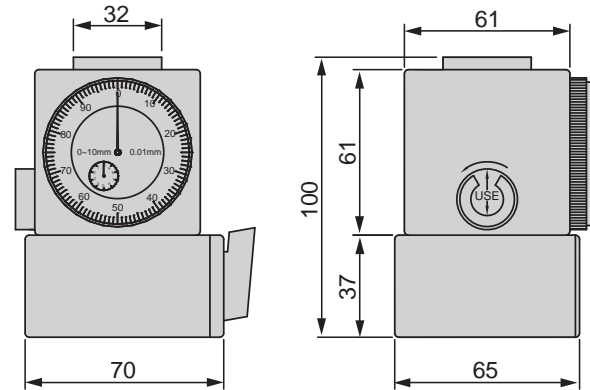




# ZDI-100 量錶式 Z 軸設定器

## ZDI-100 Z AXIAL PRESET GAUGE INDICATOR TYPE

PAT.NO: 098189



### 特點 Feature

- 高度 100mm · 計算容易
- 探測面橢圓形 · 加大使用面積
- 0.01mm 大錶設計 · 視覺輕鬆
- 底座含磁性 · 有調整 ON-OFF 開關設計
- 到達定位點時 · 大錶、小錶同時顯示 "0"
- 可利用歸零桿 · 進行高度調整

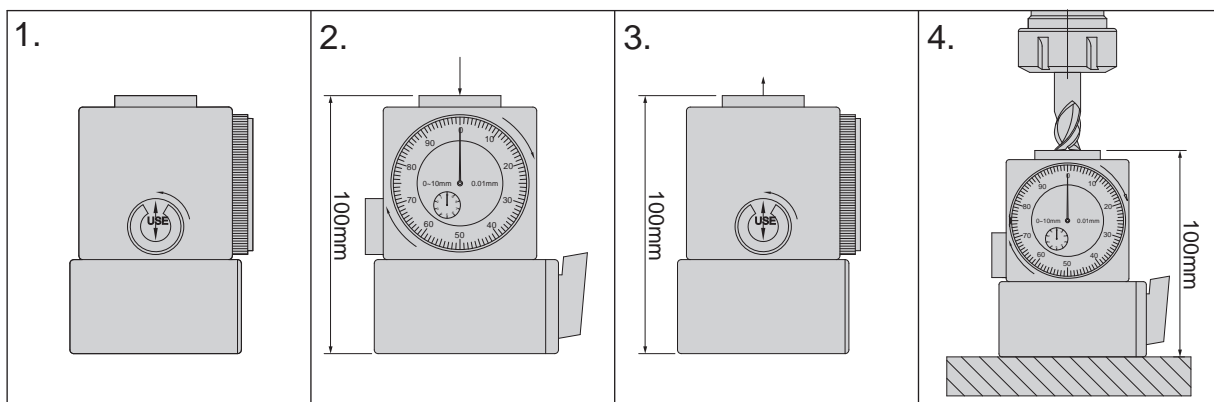
- Height 100mm.
- Oval face detection, increased and more stable
- Indicator of 0.01mm dial gauge.
- With magnetic base with ON-OFF switch is designed to adjust.
- The design in a direct way returns to zero.
- Available Zero lever, a high degree of correction.

### 注意事項 Notice

- 將歸零桿轉至 TEST
- 用手下壓至盡頭 · 小錶會顯示 "0" · 請將大錶 "0" 旋轉至對準大指針
- 使用前請將歸零桿旋轉至 "USE"
- 置於工件上 · 將磁性座旋轉至 "ON" · 刀具接觸探測面 · 請慢速進刀至大錶 · 小錶指針同時到 "0" 時 · 則刀具與工件的距離是 100mm

- Turn the Wheel on the side of the unit for the setting-zero point form "USE" to "TEST".
- Press down at the top of the gauge until small indicator needle shows zero.Keep pressure against it and then adjust the large indicator needle to zero.
- Turn the button at the side of the unit back to use.
- Introduce the tool to the top of the unit until both dial indicator gauges read zero, the cutter distance is now 100mm above the workpiece.

規格 Spec.	型式 NO.	總高度 H	伸縮距離 Telescopic distance	重量 (KGS) Weight
ZDI-100	量錶式	100	3	2.24



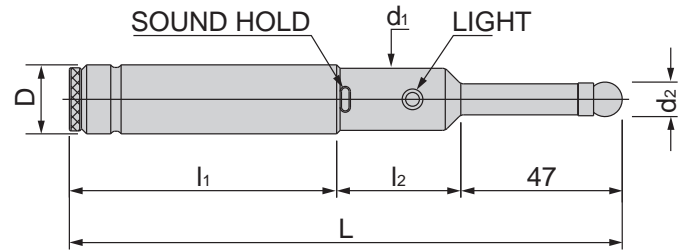
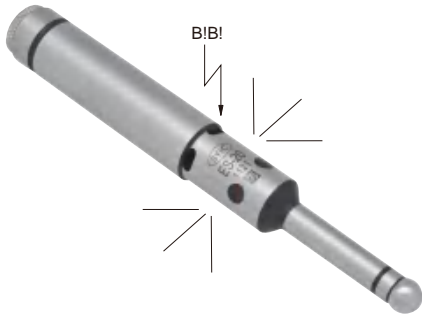
ACCESSORIES



## 警示鳴音光電尋邊器 E.S. OPTICAL EDGE FINDER

PAT.NO: 93911

精度 Accuracy : 0.005mm



### 特點 Feature

- 每支產品都附有精度檢驗報告書
- 紅燈亮起同時發出電子音嗶！嗶！聲響
- 無法目視之探孔深測，可由聲響得知探測結果

- Each product comes with a precision inspection report
- It will beep at the same time when the red lamp is lit up.
- When probe is in a deep hole you can't see the red light, but you can hear the sound.

### 注意事項 Notice

- 附 2 枚 UM5#1.5V · 鹼性乾性電池

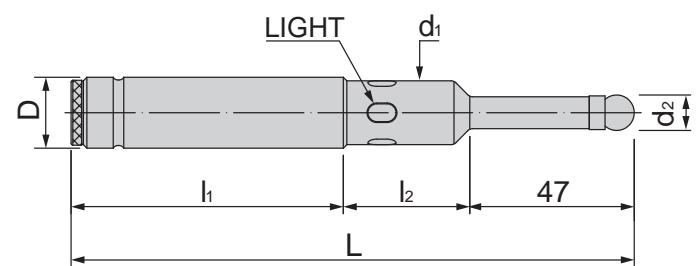
- With two UM5 # 1.5V, alkaline dry batteries.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>2</sub>	重量 (KGS) Weight
ES-20	160	79	41	20	18	10	0.35
ES-32	160	79	41	32	18	10	0.60



## 光電式尋邊器 OPTICAL EDGE FINDER(TOUCH POINT SENSOR)

精度 Accuracy : 0.005mm



### 特點 Feature

- 接觸時紅光閃耀，降低視覺誤差
- 附精度檢驗表及使用說明

- Contact red light shine, reduce visual error.
- With accuracy test sheet and instructions for use.

### 注意事項 Notice

- 不可迴轉量測
- 附 2 枚 UM5#1.5V · 鹼性乾性電池

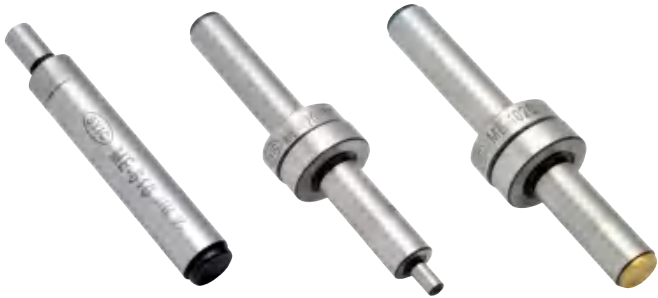
- Non-rotating measurement.
- With two UM5 # 1.5V, alkaline dry batteries.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>2</sub>	重量 (KGS) Weight
OP-20	160	79	34	20	18	10	0.30
OP-32	160	79	34	32	18	10	0.60



## 偏心式尋邊器 MECHANICAL ENGE FINDER

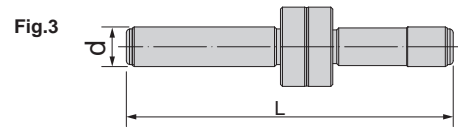
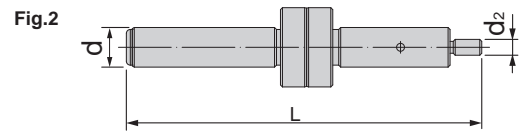
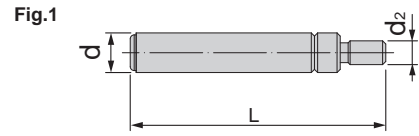
精度 Accuracy : 0.002mm



ME-610

ME-420

ME-1020



### 特點 Feature

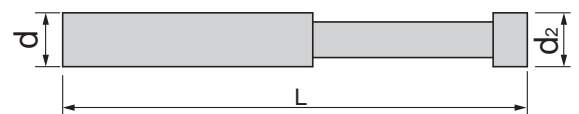
- ME420 特別設計 4mm 測頭 · 提供小孔徑及偏窄溝槽測量使用
- 配合轉速 400~600rpm.
- MIN.(4mm) can be tested mini hole for your workpiece.
- Within 400-600rpm.

規格 Spec.	L	d	d <sub>2</sub>	Fig.	重量 (KGS) Weight
ME - 610	65	10	Ø6	1	0.03
ME - 420	90	10	Ø4	2	0.06
ME - 1020	82.8	10	Ø10	3	0.06



## CME 偏心式尋邊器 CME MECHANICAL ENGE FINDER

精度 Accuracy : 0.002mm



### 特點 Feature

- 配合轉速 400~600rpm
- 陶瓷測頭不導磁
- Within 400-600rpm.
- Non-magnetic ceramic side head.

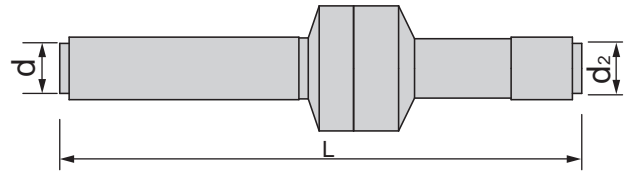
規格 Spec.	L	d	d <sub>2</sub>	重量 (KGS) Weight
CME - 1010	86	10	Ø10	0.04



# CME 偏心式尋邊器

## CME MECHANICAL ENGE FINDER

精度 Accuracy : 0.002mm



### 特點 Feature

- 配合轉速 400~600rpm
- 陶瓷測頭不導磁

- Within 400-600 rpm.
- Non-magnetic ceramic side head.

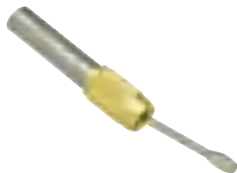
規格 Spec.	L	d	d <sub>2</sub>	重量 (KGS) Weight
CME - 1020	90	10	Ø10	0.08



# SR 迴轉式尋邊器 (精密型)

## SR TOUCH POINT SENSOR

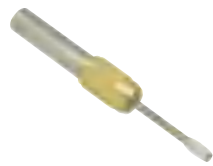
精度 Accuracy : 0.005mm



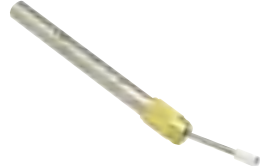
SR-10S



SR-10L



CSR-10S



CSR-10L

Fig.1

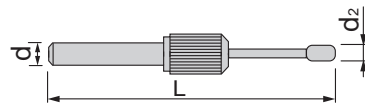
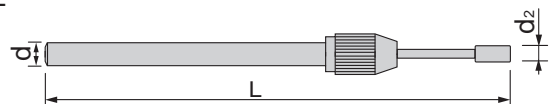


Fig.2



### 特點 Feature

- 配合轉速 800~1000rpm
- 陶瓷測頭不導磁

- Within 800-1000rpm.
- Non-magnetic ceramic side head.

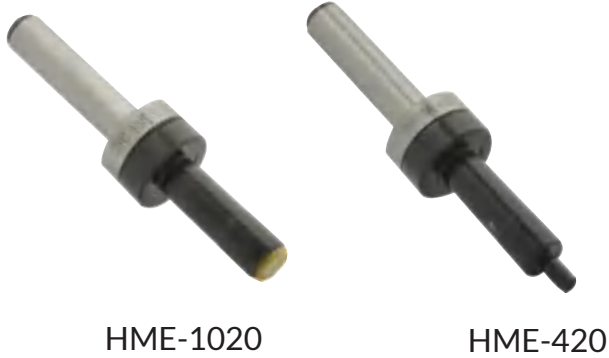
規格 Spec.	L	d	d <sub>2</sub>	Fig.	重量 (KGS) Weight
SR-10S (單支)	95	Ø10	Ø5	1	0.06
SR-10L (單支)	145			2	0.09
SR-10T	整組 (2支裝) A set (two pieces)				0.27
CSR-10S (單支)	95	Ø10	Ø5	1	0.04
CSR-10L (單支)	145			2	0.08
CSR-10T	整組 (2支裝) A set (two pieces)				0.26



# HME 超硬膜偏心式尋邊器

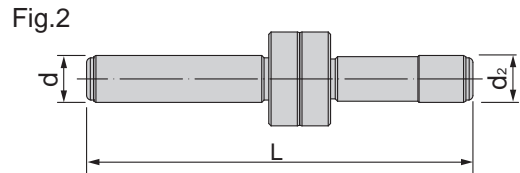
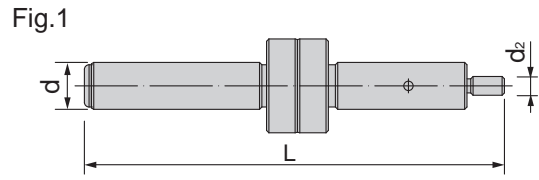
## HME MECHANICAL ENGE FINDER

精度 Accuracy : 0.002mm



HME-1020

HME-420



### 特點 Feature

- 絕不產生磁性
- 探測端硬度 >HRC60°
- 配合轉速 400~600rpm

- Doesn't have magnetism.
- Survey end degree of hardness>HRC60°
- Within 400-600rpm.

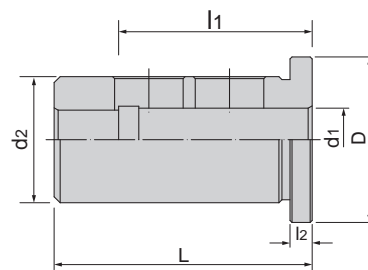
規格 Spec.	L	d	d <sub>2</sub>	Fig.	重量 (KGS) Weight
HME-420	90	10	Ø4	1	0.04
HME-1020	82.5	10	Ø10	2	0.04



# BT/OSL 側固式油路刀把套筒

## BT/OSL STRAIGHT SLEEVE(FOR OIL HOLE HOLDER)

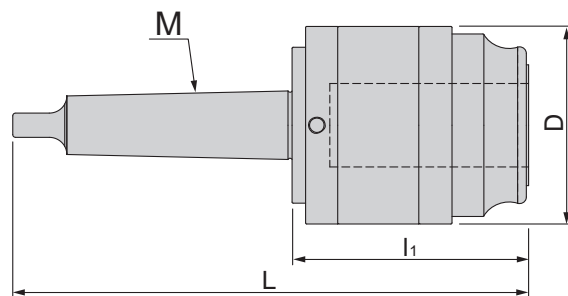
TYPE BC



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>2</sub>	重量 (KGS) Weight
OSL-20-16	54	48	5.5	30	16	20	0.07
OSL-25-16	60	48	5.5	35	16	25	0.19
OSL-25-20	60	56	5.5	35	20	25	0.15
OSL-32-16	64	48	5.5	42	16	32	0.35
OSL-32-20	64	56	5.5	42	20	32	0.32
OSL-32-25	64	56	5.5	42	25	32	0.22
OSL-40-16	74	48	5.5	50	16	40	0.57
OSL-40-20	74	60	5.5	50	20	40	0.54
OSL-40-25	74	60	5.5	50	25	40	0.45
OSL-40-32	74	60	5.5	50	32	40	0.30

ACCESSORIES

## TP/DT33 鑽床攻牙器 TP/DT33 DRILL TAPPER



### 特點 Feature

- 攻牙本體有調整扭力之功能，可依客戶攻牙需求作扭力強 (H) 和弱 (L) 之調整操作
- 攻牙能力 :M5~M36

- Attacks the tooth main body to have function of the adjustment torsion, may depend on the customer to attack the tooth demand to make adjustment of operation torsion strong (H) and the weak (L).
- Attacks the tooth ability: The M5~M36.

規格 Spec.	L	l <sub>1</sub>	D	M	重量 (KGS) Weight
DT33-MT3	200	104	90	MT3	3.15
DT33-MT4	228	104	90	MT4	3.48
DT33-MT5	254	104	90	MT5	4.38

## 鑽床攻牙器套裝組 DRILL TAPPER SET

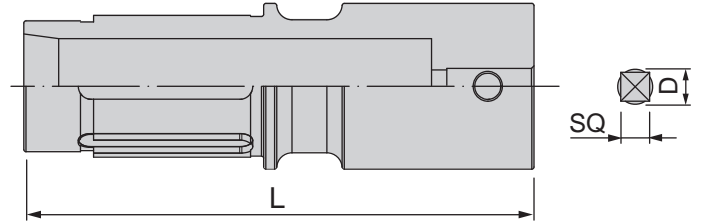


ACCESSORIES

規格 Spec.	內容物 Contents				重量 (KGS) Weight
	本體 Tapper Holder	絲攻筒夾 Tapping Collet	斜柄筒夾 Tapping Collet	鑽夾頭筒夾 Drill chuck Collet	
DT33-MT3-9P-SET	TP-MT3T	M6~M36 W1/4~W1-1/8 PT1/8~PT1-1/8 (可選配六只)	DT33-TPC-MT1 DT33-TPC-MT2 DT33-TPC-MT3 DT33-TPC-MT4 (可選配二只)	DT33-TPC-JT6	-
DT33-MT4-9P-SET	TP-MT4T				-
DT33-MT5-9P-SET	TP-MT5T				-

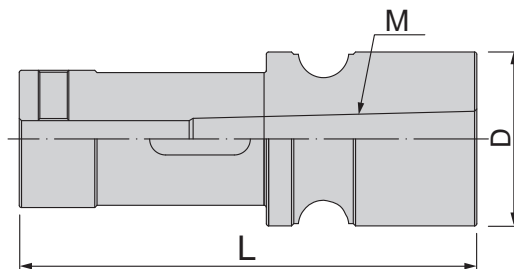
# DT33 絲攻筒夾

## DT33 TAPPING COLLET



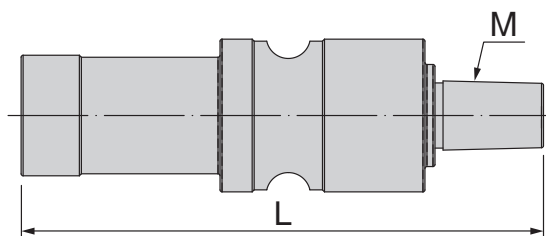
規格 Spec.	公制 (mm)	英制 (inch)	英制 (inch)	PT	PS	PF	L	直徑 Ø D	四角柄 SQ	重量 (KGS) Weight
DT33-TPC-M5.M5.5	M5 M5.5	-	-	-	-	-	117	5.5	4.5	0.57
DT33-TPC-M6.U1/4.W1/4	M6	U1/4	W1/4	-	-	-	117	6	4.5	0.57
DT33-TPC-U5/16.W5/16	-	U5/16	W5/16	-	-	-	117	6.1	5	0.57
DT33-TPC-M8.M7	M8 M7	-	-	-	-	-	117	6.2	5	0.57
DT33-TPC-M9.M10.U3/8.W3/8	M9 M10	U3/8	W3/8	-	-	-	117	7	5.5	0.57
DT33-TPC-M11.U7/16.W7/16. PT7/8.PT1/8	M11	U7/16	W7/16	1/8	1/8	1/8	117	8	6	0.57
PT7/8.PT1/8	M11	U7/16	W7/16	1/8	1/8	1/8	117	8	6	0.57
DT33-TPC-M12	M12	-	-	-	-	-	117	8.5	6.5	0.57
DT33-TPC-U1/2.W1/2	-	U1/2	W1/2	-	-	-	117	9	7	0.57
DT33-TPC-M14.M15.U9/16.W9/16	M14 M15	U9/16	W9/16	-	-	-	117	10.5	8	0.57
DT33-TPC-PT1/4.PS1/4.PF1/4	-	-	-	1/4	1/4	1/4	117	11	9	0.57
DT33-TPC-U5/8.W5/8	-	U5/8	W5/8	-	-	-	117	12	9	0.57
DT33-TPC-M16	M16	-	-	-	-	-	117	12.5	10	0.57
DT33-TPC-M18.U3/4.W3/4.PT3/8	M18	U3/4	W3/4	3/8	3/8	3/8	117	14	11	0.57
DT33-TPC-M20	M20	-	-	-	-	-	117	15	12	0.57
DT33-TPC-M22.U7/8.W7/8	M22	U7/8	W7/8	-	-	-	117	17	13	0.57
DT33-TPC-PT1/2.PS1/2.PF1/2	-	-	-	1/2	1/2	1/2	117	18	14	0.57
DT33-TPC-M24.M25.PT5/8	M24 M25	-	-	-	-	5/8	117	19	15	0.57
DT33-TPC-M26.M27.U1.W1	M26 M27	U1	W1	-	-	-	117	20	15	0.57
DT33-TPC-M28	M28	-	-	-	-	-	117	21	17	0.57
DT33-TPC-M29.W1-1/8	-	U1-1/8	W1-1/8				117	22	17	0.57
DT33-TPC-M30.PT3/4	M30	-	-	3/4	3/4	3/4	117	23	17	0.57
DT33-TPC-M32.U11/4	M32	U1-1/4	W1-1/4	-	-	7/8	117	24	19	0.57
DT33-TPC-M33	M33	-	-	-	-	-	117	25	19	0.57
DT33-TPC-M34.M35.U13/8.PT1	M34 M35	U1-3/8	W1-3/8	1	1	1	117	26	21	0.57
DT33-TPC-M36.M38.PT1-1/8	M36 M38	-	-	-	1-1/8	1-1/8	117	28	21	0.57

## DT33 斜柄筒夾 MORSE TAPER COLLET



規格 Spec.	L	D	M	重量 (KGS) Weight
DT33-TPC-MT1	100	38	MT1	0.62
DT33-TPC-MT2	110	38	MT2	0.62
DT33-TPC-MT3	122	38	MT3	0.60
DT33-TPC-MT4	170	38	MT4	0.66

## DT33 鑽夾頭筒夾 DT33 DRILL CHUCK COLLET



規格 Spec.	L	M	重量 (KGS) Weight
DT33-TPC-JT6	130	JT6	0.74

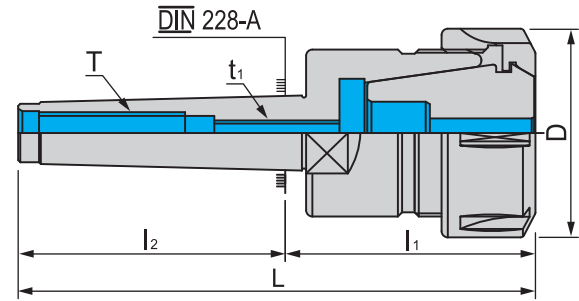




# MTB/ER 銑床夾頭柄

## MTB/ER COLLET HOLDER

DIN-6499  
DIN-ISO-15488



### 特點 Feature

MTB=MK

- MTB 加棒舌即為 MTA

- 訂購前請確認本體拉桿牙數為公制或英制

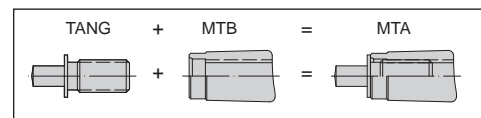
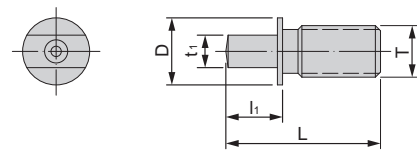
MTB=MK

- MTB + TANG = MTA

- Please inform DRAW BAR'S size when purchasing holder.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	t <sub>1</sub>	T	重量 (KGS) Weight
MTB2×ER20A-52	116	52	64	35	M10×1.5P	M10×1.5P, 3/8"W16	0.45
MTB2×ER25-55	119	55	64	42	M10×1.5P	M10×1.5P, 3/8"W16	0.50
MTB3×ER25-55	136	55	81	42	M12×1.75P	M12×1.75P, 1/2"W12	0.60
MTB3×ER32-60	141	60	81	50	M12×1.75P	M12×1.75P, 1/2"W12	0.80
MTB3×ER40-70	151	70	81	63	M12×1.75P	M12×1.75P, 1/2"W12	1.30
MTB4×ER32-60	162.5	60	102.5	50	M16×2.0P	M16×2.0P, 5/8"W11	0.95
MTB4×ER40-70	172.5	70	102.5	63	M16×2.0P	M16×2.0P, 5/8"W11	1.50

## 棒舌 TANG



規格 Spec.	L	l <sub>1</sub>	D	T	t <sub>1</sub>	重量 (KGS) Weight
MT2×3/8"W16	30	7	13	3/8"W16	6.3	0.02
MT2×M10×1.5P	30	7	13	M10×1.5P	6.3	0.02
MT3×1/2"W12	40	12	18	1/2"W12	7.8	0.04
MT3×M12×1.75P	40	12	18	M12×1.75P	7.8	0.04

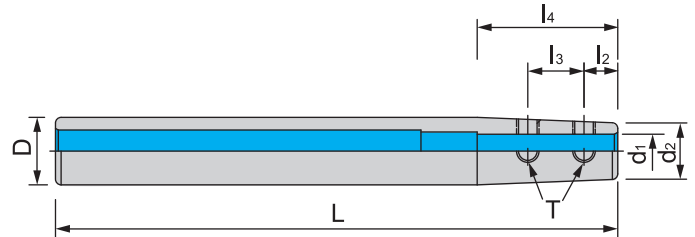
規格 Spec.	L	l <sub>1</sub>	D	T	t <sub>1</sub>	重量 (KGS) Weight
MT4×5/8"W11	46	13	25	5/8"W11	11.9	-
MT4×M16×2.0P	46	13	25	M16×2.0P	11.9	-
MT5×1"W8	47	14	35	1"W8	15.9	-
MT5×M24×3.0P	47	14	35	M24×3.0P	15.9	-

ACCESSORIES



# C/SL 直柄側固式延長小徑刀柄

## C/SL STRAIGHT EXTENSION SIDE LOCK HOLDER



### 特點 Feature

- 材質採用抗震性優越的鎳鉻鉬合金鋼
- 孔徑差 H5

-Steel : SNCM-220  
- d1 is H5.

規格 Spec.	L	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	D	d <sub>1</sub>	d <sub>2</sub>	T	重量 (KGS) Weight
C8-SL03-110	110	6	10	25	8	3	7.5	M3x0.5P-3L	0.08
C8-SL04-110	110	6	10	25	8	4	8	M3x0.5P-3L	0.08
C10-SL03-150	150	6	10	25	10	3	9	M3x0.5P-3L	0.11
C10-SL04-150	150	6	10	25	10	4	9	M4x0.7P-3L	0.08
C10-SL06-150	150	6	10	25	10	6	-	M4x0.7P-3L	0.10
C12-SL04-150	150	6	10	25	12	4	9	M4x0.7P-3L	0.13
C12-SL06-150	150	6	10	25	12	6	10	M4x0.7P-3L	0.12
C16-SL04-150	150	6	10	25	16	4	10	M4x0.7P-4L	0.22
C16-SL04-200	200	6	10	25	16	4	10	M4x0.7P-4L	0.18
C16-SL06-150	150	6	10	25	16	6	13	M4x0.7P-3L	0.20
C16-SL06-200	200	6	10	25	16	6	13	M4x0.7P-4L	0.25
C16-SL08-150	150	6	10	25	16	8	15	M4x0.7P-3L	0.15
C16-SL08-200	200	6	10	25	16	8	15	M4x0.7P-4L	0.21
C20-SL06-150	150	6	10	25	20	6	13	M4x0.7P-4L	0.29
C20-SL06-200	200	6	10	25	20	6	13	M4x0.7P-4L	0.38
C20-SL08-150	150	6	10	25	20	8	15	M6x1.0P-4L	0.29
C20-SL08-200	200	6	10	25	20	8	15	M6x1.0P-6L	0.38
C20-SL10-150	150	6	10	25	20	10	17	M6x1.0P-6L	0.27
C20-SL10-200	200	6	10	25	20	10	17	M6x1.0P-4L	0.34
C20-SL12-150	150	6	10	25	20	12	19	M6x1.0P-4L	0.18
C20-SL12-200	200	6	10	25	20	12	19	M6x1.0P-6L	0.28
C32-SL06-150	150	6	10	25	32	6	13	M6x1.0P-8L	0.21
C32-SL08-150	150	6	10	25	32	8	15	M6x1.0P-6L	0.21
C32-SL10-150	150	6	10	25	32	10	17	M6x1.0P-8L	0.22
C32-SL12-150	150	6	10	25	32	12	19	M6x1.0P-5L	0.22



# 小徑 / 直柄 ER 夾頭柄

STRAIGHT SHANK COLLET CHUCK AND EXTENSION TYPE

DIN-6499  
DIN-ISO-15488



Fig.1

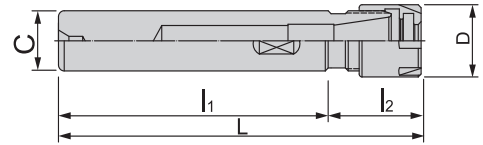
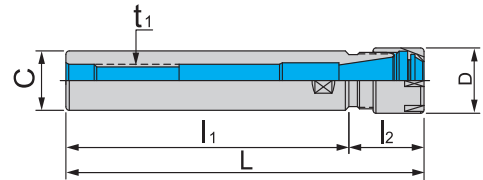


Fig.2



## 特點 Feature

- 本體材質使用抗震能力優越的鎳鉻鉬合金鋼

- Body material using seismic capacity superior nickel-chromium-molybdenum alloy steel.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	C	D	t <sub>1</sub>	Fig.	重量 (KGS) Weight
C8×ER8M-55	78.2	55	23.2	8	12	-	1	0.05
C10×ER8M-100	116.2	100	16.2	10	12	-	1	0.08
C10×ER8M-150	166.2	150	16.2	10	12	-	1	0.12
C10×ER8M-180	196.2	180	16.2	10	12	-	1	0.14
C12×ER8M-55	71.2	55	16.2	12	12	-	1	0.06
C12×ER8M-120	136.2	120	16.2	12	12	-	1	0.13
C12×ER8M-180	197	180	26.5	12	12	-	1	0.19
C12×ER11M-80	96.6	80	16.6	12	16	M5 × 0.8P	2	0.08
C16×ER11M-50	66.6	50	16.6	16	16	M5 × 0.8P	2	0.08
C16×ER11M-100	116.6	100	16.6	16	16	M5 × 0.8P	2	0.15
C16×ER11M-140	156.6	140	16.6	16	16	M5 × 0.8P	2	0.22
C16×ER16M-80	117	80	36.6	16	22	M10 × 1.5P	2	0.12
C20×ER16M-100	126.6	100	26.6	20	22	M10 × 1.5P	2	0.42
C20×ER16M-140	166.6	140	26.6	20	22	M10 × 1.5P	2	0.31
C20×ER16M-160	186.6	160	26.6	20	22	M10 × 1.5P	2	0.34
C20×ER20M-60	100	60	40	20	28	M12 × 1.75P	2	0.18
C20×ER20M-100	140	100	40	20	28	M12 × 1.75P	2	0.24
C20×ER20M-120	160	120	40	20	28	M12 × 1.75P	2	0.28
C20×ER20M-150	190	150	40	20	28	M12 × 1.75P	2	0.34
C20×ER20M-180	220	180	40	20	28	M12 × 1.75P	2	0.40
C25×ER20M-140	168	140	28	25	28	M12 × 1.75P	2	0.47
C20×ER25M-100	150	100	50	20	35	M12 × 1.75P	2	0.35

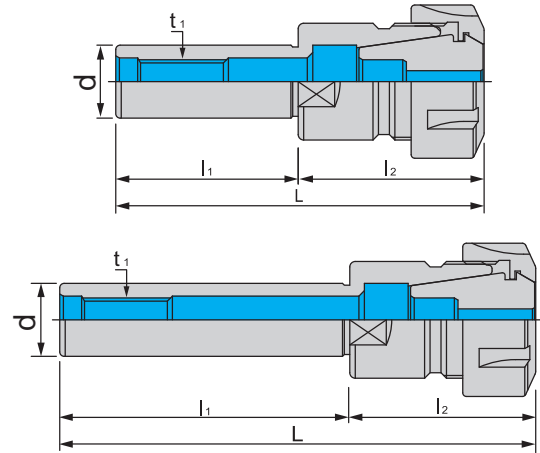
ACCESSORIES



# 直柄 ER 夾頭柄

STRAIGHT SHANK COLLET CHUCK AND EXTENSION TYPE

DIN-6499  
DIN-ISO-15488



## 特點 Feature

- 本體採用 SNCM-220 鋼料製成 · 抗震性極佳

- Body Steel:SNCM-220

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	d	t <sub>1</sub>	重量 (KGS) Weight
C16×ER11A-140	156.5	140	16.6	16	M6 × 1.0P	0.23
C16×ER16A-50	90	50	40	16	M10 × 1.5P	0.15
C16×ER16A-100	140	100	40	16	M10 × 1.5P	0.20
C16×ER16A-150	190	150	40	16	M10 × 1.5P	0.28
C20×ER16A-50	90	50	40	20	M12 × 1.75P	0.25
C20×ER16A-100	140	100	40	20	M12 × 1.75P	0.35
C20×ER16A-150	190	150	40	20	M12 × 1.75P	0.40
C20×ER20A-60	100.5	60	40.5	20	M12 × 1.75P	0.22
C20×ER20A-120	160.5	120	40.5	20	M12 × 1.75P	0.40
C20×ER20A-180	220.5	180	40.5	20	M12 × 1.75P	0.43
C20×ER20A-140	180.5	140	40.5	20	M12 × 1.75P	0.34
C20×ER25-50	101	50	51	20	M12 × 1.75P	0.40
C20×ER25-100	151	100	51	20	M12 × 1.75P	0.41
C20×ER32-50	101.5	50	51.5	20	M10 × 1.5P	0.45
C20×ER32-100	151.5	100	51.5	20	M10 × 1.5P	0.52
C25×ER16A-150	176.6	150	26.6	25	M10 × 1.5P	0.55
C25×ER20A-140	175.1	140	40.5	25	M12 × 1.75P	0.55
C25×ER25-50	101	50	51	25	M16 × 2.0P	0.40
C25×ER25-100	151	100	51	25	M16 × 2.0P	0.50
C25×ER32-50	101.5	50	51.5	25	M16 × 2.0P	0.48
C25×ER40-50	115	50	65	25	M16 × 2.0P	0.85
C32×ER32-60	111.5	60	51.5	32	M16 × 2.0P	0.65
C32×ER32-100	151.5	100	51.5	32	M16 × 2.0P	0.80
C32×ER40-50	115	50	65	32	M16 × 2.0P	2.23

ACCESSORIES

## 選配表 Option

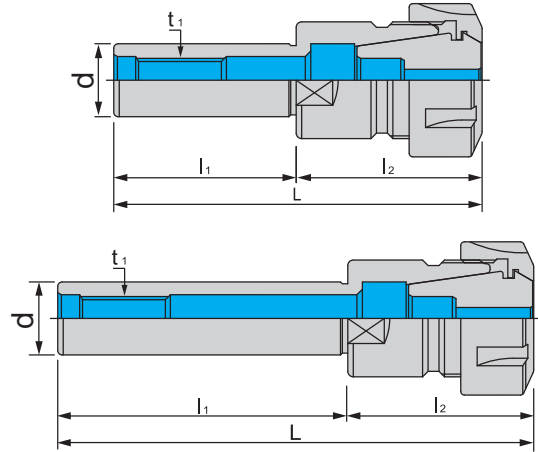
筒夾 Collet	螺帽 Nut	扳手 Spanner
A258	A280	A296



# 直柄 ER 夾頭柄 ( 削平 )

STRAIGHT SHANK COLLET CHUCK AND EXTENSION TYPE

DIN-6499  
DIN-ISO-15488



## 特點 Feature

- 本體採用 SNCM-220 鋼料製成 · 抗震性極佳

- Body Steel:SNCM-220

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	d	t <sub>1</sub>	重量 (KGS) Weight
C16×ER11A-140T	156.5	140	16.6	16	M6 × 1.0P	0.23
C16×ER16A-50T	90	50	40	16	M10 × 1.5P	0.15
C16×ER16A-100T	140	100	40	16	M10 × 1.5P	0.20
C16×ER16A-150T	190	150	40	16	M10 × 1.5P	0.28
C20×ER16A-50T	90	50	40	20	M12 × 1.75P	0.25
C20×ER16A-100T	140	100	40	20	M12 × 1.75P	0.35
C20×ER16A-150T	190	150	40	20	M12 × 1.75P	0.40
C20×ER20A-60T	100.5	60	40.5	20	M12 × 1.75P	0.22
C20×ER20A-120T	160.5	120	40.5	20	M12 × 1.75P	0.40
C20×ER20A-180T	220.5	180	40.5	20	M12 × 1.75P	0.43
C20×ER20A-140T	175.1	140	40.5	20	M12 × 1.75P	0.34
C20×ER25-50T	101	50	51	20	M12 × 1.75P	0.40
C20×ER25-100T	151	100	51	20	M12 × 1.75P	0.41
C20×ER32-50T	101.5	50	51.5	20	M10 × 1.5P	0.45
C20×ER32-100T	151.5	100	51.5	20	M10 × 1.5P	0.52
C25×ER16A-150T	176.6	150	26.6	25	M10 × 1.5P	0.55
C25×ER20A-140T	175.1	140	40.5	25	M12 × 1.75P	0.55
C25×ER25-50T	101	50	51	25	M16 × 2.0P	0.40
C25×ER25-100T	151	100	51	25	M16 × 2.0P	0.50
C25×ER32-50T	101.5	50	51.5	25	M16 × 2.0P	0.48
C25×ER40-50T	115		65	25	M16 × 2.0P	0.85
C32×ER32-60T	111.5	60	51.5	32	M16 × 2.0P	0.65
C32×ER32-100T	151.5	100	51.5	32	M16 × 2.0P	0.80
C32×ER40-50T	115	50	65	32	M16 × 2.0P	2.23

## 選配表 Option

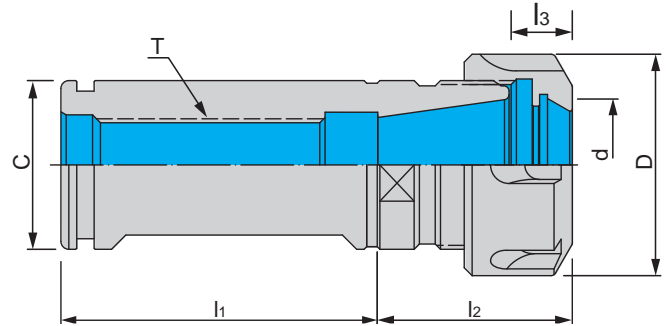
筒夾 Collet	螺帽 Nut	扳手 Spanner
A258	A280	A296

ACCESSORIES



# NC/ER 夾頭柄 NC/ER COLLET CHUCK

DIN-6499  
DIN-ISO-15488  
PAT.NO: M298003  
PAT.NO: M311791  
PAT.NO: M186381  
PAT.NO: ZL200620132661.0



## 特點 Feature

- CNC 車床專用夾頭柄
- 搭配止水筒夾或止水螺帽加止水環，用於夾持附水孔刀具

- This is specially fit for CNC Machines.
- With seal or seal collet nut plus sealing ring for holding water hole cutter attachment.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	C	T	重量 (KGS) Weight
C32 × NC/ER25-60	97	60	37	12	42	25	32	M18×1.5P	0.70
C32 × NC/ER32-60	103	60	43	13	50	32	32	M22×1.5P	0.75
C40 × NC/ER32-80	118	80	38	13	50	32	40	M22×1.5P	1.25
C40 × NC/ER40-75	135	75	60	15	63	40	40	M28×1.5P	1.30
C45 × NC/ER32-120	178	120	58	13	50	32	45	M22×1.5P	1.60
C45 × NC/ER40-120	180	120	60	15	63	40	45	M28×1.5P	1.65
1-1/4" × NC/ER25-60	97	60	37	12	42	25	1-1/4"	M18×1.5P	0.70
1-1/4" × NC/ER32-60	103	60	43	13	50	32	1-1/4"	M22×1.5P	0.75
1-1/4" × NC/ER40-60	120	60	60	15	63	40	1-1/4"	M22×1.5P	0.84
1-1/2" × NC/ER32-80	118	80	38	13	50	32	1-1/2"	M22×1.5P	1.25
1-1/2" × NC/ER40-75	135	75	60	15	63	40	1-1/2"	M28×1.5P	1.30

ACCESSORIES

## 選配表 Option

筒夾 Collet	螺帽 Nut	扳手 Spanner
A258	A280	A296



# 直柄 ER 夾頭組 ER COLLET CHUCK SET(STRAIGHT SHANK)



## 特點 Feature

- 本體可指定削平·適用於側邊鎖固。(另外加價)
- 價格=(筒夾×數)+本體+扳手+包裝盒
- 本價格以塑膠盒計算·指定木盒差額請外加
- 套裝小孔徑筒夾不另加價。

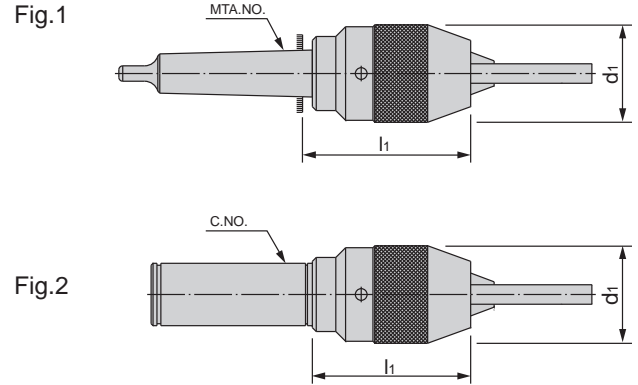
- Flatten the body can be specified for the side locking. (Another increase).
- Whole set=(ER collet × Q'ty) + body + spanner + box.
- The prices calculated in plastic boxes, wooden balance please specify plus.
- Collets of small sizes in the whole set are not added price.

規格 Spec.	內容物 Contents		重量 (KGS) Weight
	內附筒夾 夾持能力 Collet		
C16 × ER16-50 × 9PCS	2-10 × 9 只	Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10	1.30
C16 × ER16-100 × 9PCS	2-10 × 9 只	Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10	1.40
C16 × ER16-150 × 9PCS	2-10 × 9 只	Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10	1.50
C20 × ER16-50 × 9PCS	2-10 × 9 只	Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10	1.40
C20 × ER16-100 × 9PCS	2-10 × 9 只	Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10	1.60
C20 × ER16-150 × 9PCS	2-10 × 9 只	Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10	1.60
C20 × ER20-60 × 12PCS	2-13 × 12 只	Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10, Ø11, Ø12, Ø13	1.72
C20 × ER20-120 × 12PCS	2-13 × 12 只	Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10, Ø11, Ø12, Ø13	1.76
C20 × ER20-180 × 12PCS	2-13 × 12 只	Ø2, Ø3, Ø4, Ø5, Ø6, Ø7, Ø8, Ø9, Ø10, Ø11, Ø12, Ø13	1.88
C20 × ER25-50 × 15PCS	2-16 × 15 只	Ø2-Ø16	1.20
C20 × ER25-100 × 15PCS	2-16 × 15 只	Ø2-Ø16	2.50
C20 × ER32-50 × 6PCS	6-20 × 6 只	Ø6, Ø8, Ø10, Ø12, Ø16, Ø20	1.20
C20 × ER32-100 × 6PCS	6-20 × 6 只	Ø6, Ø8, Ø10, Ø12, Ø16, Ø20	1.20
C20 × ER32-50 × 18PCS	3-20 × 18 只	Ø3-Ø20	1.67
C20 × ER32-100 × 18PCS	3-20 × 18 只	Ø3-Ø20	1.77
C25 × ER25-50 × 15PCS	2-16 × 15 只	Ø2-Ø16	1.80
C25 × ER25-100 × 15PCS	2-16 × 15 只	Ø2-Ø16	2.00
C25 × ER32-50 × 6PCS	6-20 × 6 只	Ø6, Ø8, Ø10, Ø12, Ø16, Ø20	1.50
C25 × ER32-50 × 18PCS	3-20 × 18 只	Ø3-Ø20	2.00
C25 × ER40-50 × 7PCS	6-25 × 7 只	Ø6, Ø8, Ø10, Ø12, Ø16, Ø20, Ø25	1.80
C25 × ER40-50 × 23PCS	4-26 × 23 只	Ø4-Ø26	2.70
C32 × ER32-60 × 6PCS	6-20 × 6 只	Ø6, Ø8, Ø10, Ø12, Ø16, Ø20	2.05
C32 × ER32-60 × 18PCS	3-20 × 18 只	Ø3-Ø20	3.50
C32 × ER40-50 × 7PCS	6-25 × 7 只	Ø6, Ø8, Ø10, Ø12, Ø16, Ø20, Ø25	3.80
C32 × ER40-50 × 23PCS	4-26 × 23 只	Ø4-Ø26	7.88



# SPU 鑽夾頭

## SPU DRILL CHUCK INTEGRATED TYPE



### 特點 Feature

- 一體式設計，可避免鑽頭夾具脫落的危險
- 適合使用夾持鑽頭加工
- 操作方便，使用勾扳手可直接鎖緊
- The integration design, may avoid the danger which the drilling attachment falls off.
- Suits the use clamp drill bit processing.
- The ease of operation, the use cancels the spanner to be possible to lock directly.

規格 Spec.	NO.	l <sub>1</sub>	d <sub>1</sub>	夾持範圍 Clamp Range		扳手 Wrench	Fig.	重量 (KGS) Weight
				mm	inch			
MTA3xSPU13-80	MTA3	80	50	0.5~13	1/50~1/2	H-130	1	1.30
MTA4xSPU13-80	MTA4	80	50	0.5~13	1/50~1/2	H-130	1	1.65
C20xSPU13-80	C20	80	50	0.5~13	1/50~1/2	H-130	2	1.20
C25xSPU13-80	C25	80	50	0.5~13	1/50~1/2	H-130	2	1.30
C32xSPU13-80	C32	80	50	0.5~13	1/50~1/2	H-130	2	1.50

- 附扳手 Attaches the spanner.

### 注意事項 Notice

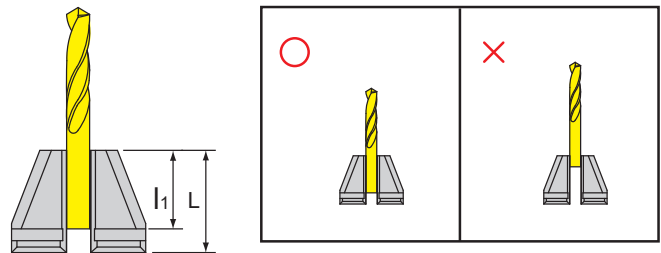
本產品之最大優點為簡單容易操作、快速方便、安全性極高。當使用本產品時，為了減少意外事故發生，延長產品壽命，必須遵守以下列舉的基本事項：夾持長度 (l<sub>1</sub>) 應將鑽頭柄插入到底或至少爪長 (L) 的 2/3

The most advantage for this product is easy to operate, item saving and high safety. Please abide by following to avoid the accidents & extend the product life when in use. The shank of drill (clamping length l<sub>1</sub>) should be inserted into the bottom fully. Or at least 2/3 length of L.

\* 以下為各種規格夾爪長度及夾持量

規格 Spec.	夾爪長度 L(mm)	夾持量 l <sub>1</sub> (mm) 至少
3mm (1/8")	14	9
6.5mm (1/4")	20	13
8mm (5/16")	26	17
10mm (3/8")	26	17
13mm (1/2")	28	19
16mm (5/8")	30	20

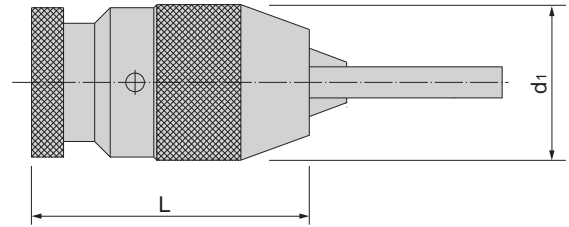
### 範例 Example







## KLS 自動鑽夾頭 KLS KEYLESS DRILL CHUCK HEAVY DUTY



### 特點 Feature

- 適合使用夾持鑽頭加工
- 操作方便，使用勾扳手可直接鎖緊

- Suits the use clamp drill bit processing.
- The ease of operation, the use cancels the spanner to be possible to lock directly.

規格 Spec.	斜度 Taper	L	d <sub>1</sub>	夾持範圍 Clamping Range		重量 (KGS) Weight
				mm	inch	
KLS-3/8	JT2	80	43	1~10	1/24~3/8	0.61
KLS-1/2	JT6	90	49	1~13	1/24~1/2	0.92
KLS-5/8	JT6	97	55	3~16	1/8~5/8	1.20

- 附扳手 Attaches the spanner.

### 注意事項 Notice

本產品之最大優點為簡單容易操作、快速方便、安全性極高，當使用本產品時，為了減少意外事故發生，延長產品壽命，必須遵守以下列舉的基本事項：夾持長度 (l<sub>1</sub>) 應將鑽頭柄插入到底或至少爪長 (L) 的 2/3。

The most advantage for this product is easy to operate, item saving and high safety. Please abide by following to avoid the accidents & extend the product life when in use.

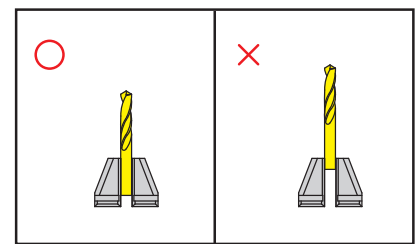
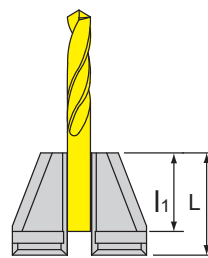
The shank of drill (clamping length l<sub>1</sub>) should be inserted into the bottom fully.

Or at least 2/3 length of L

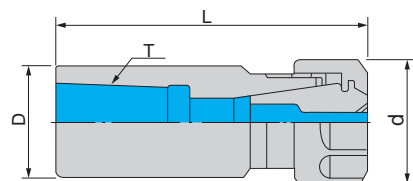
以下為各種規格夾爪長度及夾持量：

Following table is the specification for clamping length & volume

規格 Spec.	夾爪長度 L(mm)	夾持量 l <sub>1</sub> (mm) 至少
3mm (1/8")	14	9
6.5mm (1/4")	20	13
8mm (5/16")	26	17
10mm (3/8")	26	17
13mm (1/2")	28	19
16mm (5/8")	30	20

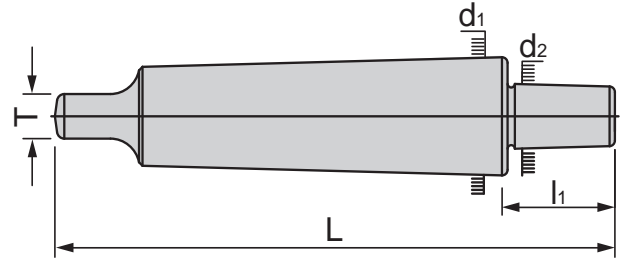


## JT/ER 夾頭柄 JT/ER COLLET CHUCK



規格 Spec.	L	D	d	T	重量 (KGS) Weight
JT6-ER16-70	70	28	28	JT6	0.28
JT6-ER20-70	70	34	34	JT6	0.32

## 精密鑽頭柄 DRILL CHUCKS ARBOR



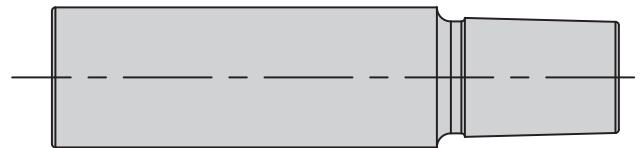
### 特點 Feature

- 全支熱處理研磨

- Grinding heat treatment all support.

規格 Spec.	適用夾頭 Applicable Chuck	L	l <sub>1</sub>	d <sub>1</sub>	d <sub>2</sub>	T	重量 (KGS) Weight
CA-MT2 x JT6	1/2"	109.4	29.4	17.78	17.17	6.3	0.19
CA-MT3 x JT6	1/2"	128.4	29.4	23.825	17.17	7.9	0.30
CA-MT4 x JT6	1/2"	153.4	29.4	31.267	17.17	11.9	0.70
CA-MT5 x JT6	1/2"	187.4	29.4	44.8	17.17	16.5	1.56

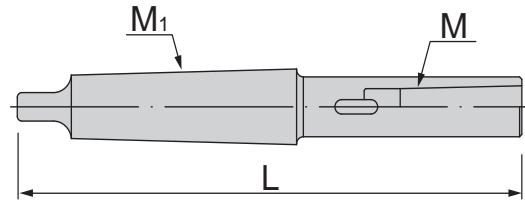
## C/JT6 直柄鑽頭柄 C/JT6 DRILL CHUCK ARBOR



ACCESSORIES

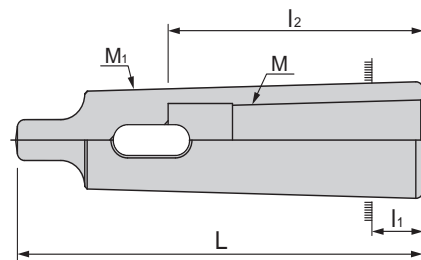
規格 Spec.	斜度 Taper	重量 (KGS) Weight
C20 x JT6	JT6	0.19
C25 x JT6	JT6	0.33
C32 x JT6	JT6	0.50
C42 x JT6	JT6	0.84

## 精密延長套筒 PRECISION EXTENSION DRILL SLEEVE



規格 Spec. (內徑 X 外徑)	L	M	M <sub>1</sub>	重量 (KGS) Weight
ES-MT1 × MT2	160	MT1	MT2	0.25
ES-MT2 × MT2	175	MT2	MT2	0.34
ES-MT3 × MT2	196	MT3	MT2	0.57
ES-MT2 × MT3	194	MT2	MT3	0.49
ES-MT3 × MT3	215	MT3	MT3	0.71
ES-MT4 × MT3	240	MT4	MT3	1.38
ES-MT2 × MT4	215	MT2	MT4	0.83
ES-MT3 × MT4	240	MT3	MT4	1.05
ES-MT4 × MT4	265	MT4	MT4	1.72
ES-MT5 × MT4	300	MT5	MT4	2.97
ES-MT3 × MT5	268	MT3	MT5	2.03
ES-MT4 × MT5	300	MT4	MT5	2.66
ES-MT5 × MT5	335	MT5	MT5	4.18

## 精密套筒 DRILL SLEEVE



ACCESSORIES

### 特點 Feature

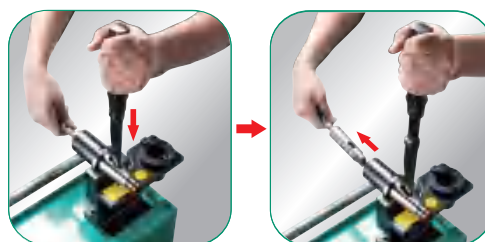
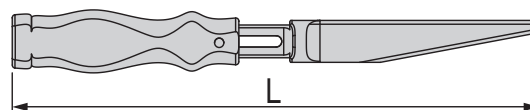
- 全支熱處理研磨

- Grinding heat treatment all support.

規格 Spec. (內徑 X 外徑)	L	l <sub>1</sub>	l <sub>2</sub>	M	M <sub>1</sub>	重量 (KGS) Weight
DS-MT1xMT2	92	17	56	MT1	MT2	0.10
DS-MT2xMT3	112	18	67	MT2	MT3	0.19
DS-MT2xMT4	124	6.5	67	MT2	MT4	0.45
DS-MT3xMT4	140	22.5	84	MT3	MT4	0.40
DS-MT4xMT5	171	21.5	107	MT4	MT5	0.96
DS-MT5xMT6	218	8	135	MT5	MT6	2.80

## 快速退鑽器

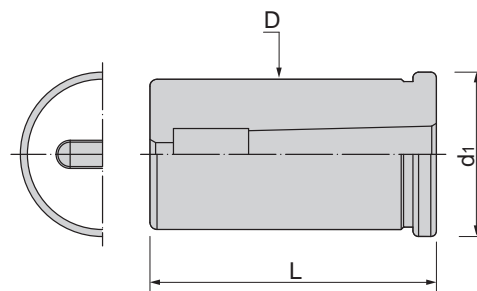
HAND DRIFT



規格 Spec.	適用主軸斜度 Taper	L	重量 (KGS) Weight
KP-1	#2, #3, #4, #5	380	1.23

## 直柄鑽頭套筒

MORSE TAPER SLEEVE



規格 Spec.	內孔斜度 Taper	L	D	d <sub>1</sub>	重量 (KGS) Weight
C20-MT1	MT1	60	20	27	0.13
C20-MT2	MT2	70	20	27	0.12
C25-MT1	MT1	60	25	33	0.23
C25-MT2	MT2	70	25	33	0.20
C25-MT3	MT3	90	25	33	0.18
C32-MT1	MT1	60	32	37	0.36
C32-MT2	MT2	70	32	37	0.37
C32-MT3	MT3	90	32	37	0.36
C32-MT4	MT4	110	32	37	0.27
C42-MT2	MT2	70	42	47	0.82
C42-MT3	MT3	90	42	47	0.82
C42-MT4	MT4	110	42	47	0.77

# MCK.CK

Boing Head Systems

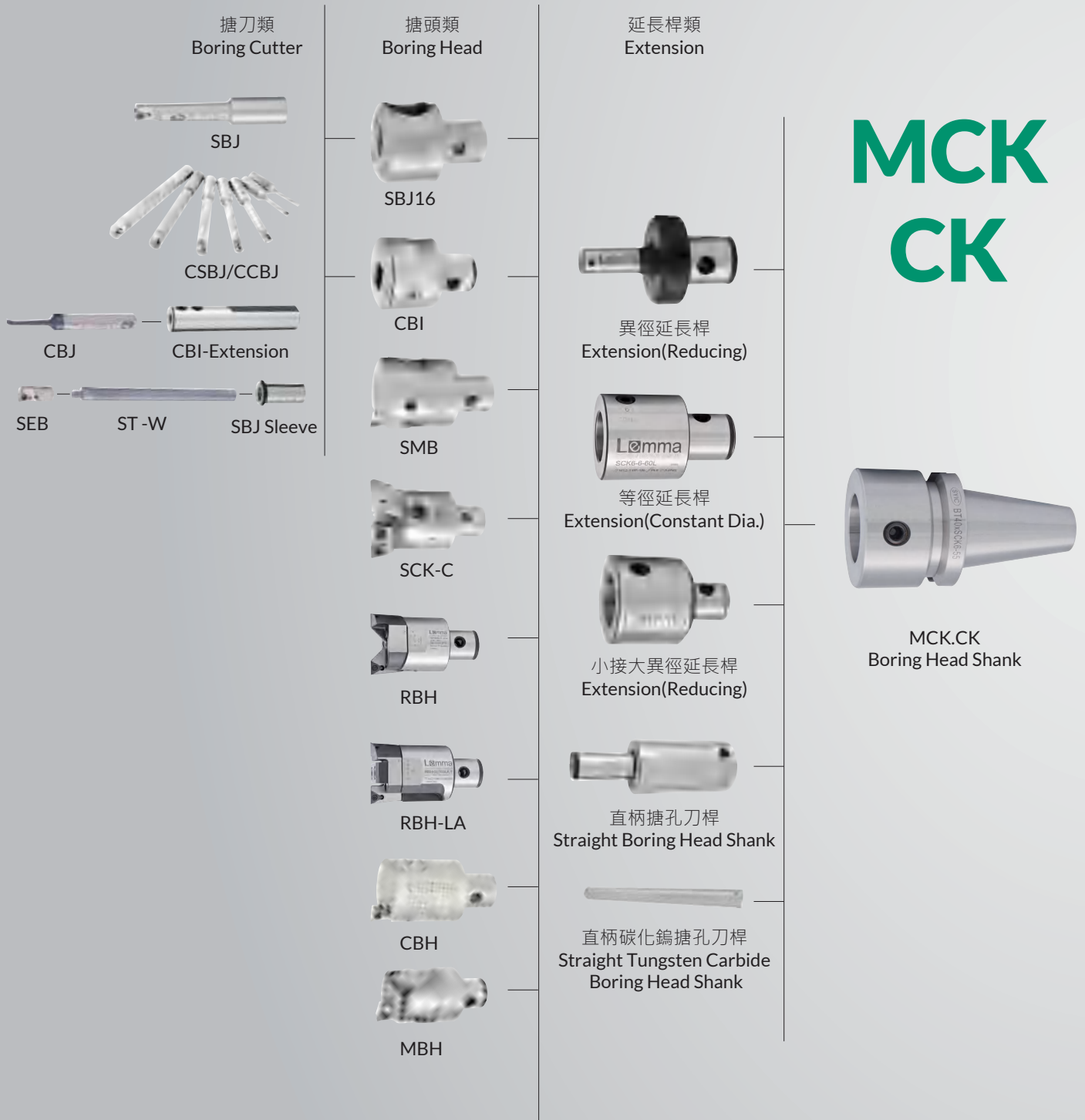




# Boring



## 搪孔模組化示意圖 Modular combination



搪頭類  
Boring Head

# BST



BST  
Boring Head Shank



SMB大孔徑(精搪)  
Large Dia. Finish Boring Head



SRW大孔徑(粗搪)  
Large Dia. Roughing Boring Head



CBH大孔徑(精搪)  
Large Dia. Finish Boring Head



RBH-LA大孔徑(粗搪)  
Large Dia. Roughing Boring Head



RBH120.160大孔徑(粗搪)  
Large Dia. Roughing Boring Head



RBH200以上大孔徑(粗搪)  
Large Dia. Roughing Boring Head

# Boring Head

## SMB特點

搭配MCK系列刀桿並可與CK系統刀桿相容，另有PSC三角錐結構可與BT-PSC刀桿結合，並採模組化設計，連結不同長度之延長桿，解決加工需求並有更多的搭配性。

微調單位:每刻度移動量為0.01mm。

替換式刀座設計，可模組化組合使用。

Suitable for combining with MCK series of tool holders as well as CK series of tool holders. Another PSC structure can be combined with BT-PSC arbor, The modular design connects the extension rods of different lengths to solve the processing needs and has more matching. Micro-adjustment unit: each unit is 0.01mm. The insert seat has an exchangeable design and can be used after combination.



SIC-1



SIC-2



SIC-3

SIC刀座，可完全包覆住心軸，提升穩固性。三種尺寸刀座，可加大搪孔範圍，搪孔範圍 $\varnothing 25 \sim \varnothing 203\text{mm}$ 。2號及3號刀座，皆能做背搪加工，1號刀座僅SMB53、SMB68、SMB100，才能做背搪加工。

SIC insert holder can be completely coated to live spindle and enhance stability. Three type insert holder can increase the range of Boring, boring range  $\varnothing 25$  to  $\varnothing 203\text{mm}$ . SIC-2 and SIC-3 insert holder can do back boring processing, SIC-1 insert holder can do back boring processing only SMB53、SMB68、SMB100.

# Feature

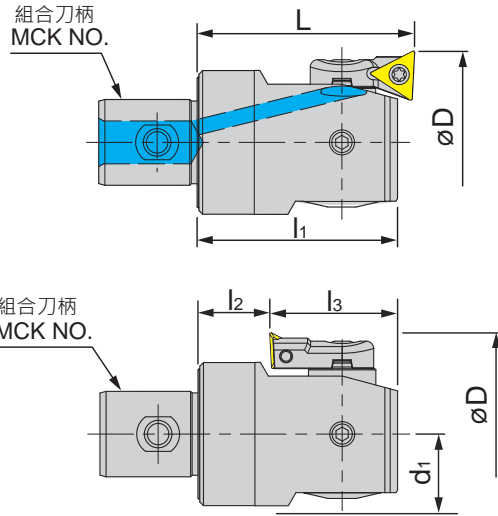




# SMB 超微米精搪頭

SMB SUPER MICRON EXCHANGEABLE FINISH BORING HEAD

PAT.NO: M340139  
 PAT.NO: M363355  
 PAT.NO: 3154595  
 PAT.NO: ZL200820102784.9  
 PAT.NO: Nr202009009848.6



<b>搪孔範圍</b> ø25~203 Boring Range	<b>精度</b> 0.01mm Accuracy	<b>最高轉速</b> 8000 Max. rpm
--	---------------------------------	---------------------------------

## 特點 Feature

- 精搪孔專用
- 微調單位：每刻度移動量為  $\phi 0.01\text{mm}$
- 搪頭內藏式出水孔，可以有效沖刷屑片，提高加工效果
- 替換式刀座設計，可模組化組合使用
- 組合搭配 MCK 系列刀桿或是相容於 CK 系列刀桿
- For finish boring.
- Micro-adjustment unit: each unit is 0.01 mm.
- The insert seat is designed to have a coolant holes at sides, which can remove the metal chips effectively and raise the manufacturing effect.
- The insert seat has an exchangeable design and can be used after combination.
- Suitable for combining with MCK series of tool holders as CK series of tool holders.

規格 Spec.	øD 搪孔範圍 Boring Range( 正搪 )				øD 搪孔範圍 Boring Range( 背搪 )					組合刀柄 Mck No.	刀片座 Insert Holder	刀片 Insert	重量 (KGS) Weight
	Min.	Max.	L	l <sub>1</sub>	Min.	Max.	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>				
SMB 20	20	26	32.5	29.5	-	-	10.5	19.5	10	CK 1	SIB20-1/SIC20-1	TB..0601 TP..0802	0.07
	25	31	32.5	29.5	30	31	10.5	19.5	10	CK 1	SIB20-2/SIC20-2		0.07
	30	36	32.5	29.5	30	36	10.5	19.5	10	CK 1	SIB20-3/SIC20-3		0.07
SMB 25	25	33	35.5	32.5	-	-	11.5	21	12.5	CK 2	SIB25-1/SIC25-1	TB..0601 TP..0802	0.12
	32	40	35.5	32.5	36	40	11.5	21	12.5	CK 2	SIB25-2/SIC25-2		0.12
	39	47	35.5	32.5	39	47	11.5	21	12.5	CK 2	SIB25-3/SIC25-3		0.12
SMB 32	32	42	40	35	-	-	10	25	16	CK 3	SIB32-1/SIC32-1	TB..0601 TP..0802	0.21
	41	51	40	35	46	51	10	25	16	CK 3	SIB32-2/SIC32-2		0.21
	50	60	40	35	50	60	10	25	16	CK 3	SIB32-3/SIC32-3		0.21
SMB 41	41	54	47	43	-	-	14	29	20	CK 4	SIB41-1/SIC41-1	TP..0902 TC..1102	0.40
	50	63	47	43	53	63	14	29	20	CK 4	SIB41-2/SIC41-2		0.40
	61	74	47	43	61	74	14	29	20	CK 4	SIB41-3/SIC41-3		0.40
SMB 53	53	70	57	53	62	70	19	34	25.5	CK 5	SIB53-1/SIC53-1	TP..0902 TC..1102	1.10
	65	82	57	53	65	82	19	34	25.5	CK 5	SIB53-2/SIC53-2		1.10
	78	95	57	53	78	95	19	34	25.5	CK 5	SIB53-3/SIC53-3		1.10
SMB 68	68	100	71	67.2	80	100	22	45.2	32.5	CK 6	SIB68-1/SIC68-1	TP..0902 TC..1102	1.74
	94	126	71	67.2	94	126	22	45.2	32.5	CK 6	SIB68-2/SIC68-2		1.74
	118	150	71	67.2	118	150	22	45.2	32.5	CK 6	SIB68-3/SIC68-3		1.74
SMB100	100	153	71	67.2	112	153	22	45.2	45.5	CK 6	SIB68-1/SIC68-1	TP..0902 TC..1102	2.46
	126	179	71	67.2	126	179	22	45.2	45.5	CK 6	SIB68-2/SIC68-2		2.46
	150	203	71	67.2	150	203	22	45.2	45.5	CK 6	SIB68-3/SIC68-3		2.46

- 標準配備附為 SIB □□ -1 刀片座，SIB/C □□ -2、SIB/C □□ -3 需另購  
 -Standard marting part SIB □□ -1, SIB/C □□ -2, SIB/C □□ -3 is ordered separately

BORING

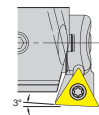
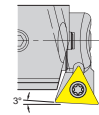


# SMB 超微米精搪頭刀片座

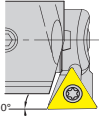
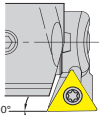
## SMB SUPER MICRON EXCHANGEABLE FINISH BORING HEAD INSERT SEAT



3°

規格 Spec.	刀座形狀 Insert Holder	組合搪頭	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SIB20-1	 使用刀片 TB..0601 TP..0802	SMB 20	M2-5.0-2.7-60	T6	0.6	-
SIB20-2		-				
SIB20-3		-				
SIB25-1		-				
SIB25-2		-				
SIB25-3		-				
SIB32-1		-				
SIB32-2		-				
SIB32-3		-				
SIB41-1	 使用刀片 TP..0902 TC..1102	SMB 41	M2.5-6.0-3.5-60	T8	1.2	-
SIB41-2		-				
SIB41-3		-				
SIB53-1		-				
SIB53-2		-				
SIB53-3		-				
SIB68-1		-				
SIB68-2		-				
SIB68-3		-				

0°

規格 Spec.	刀座形狀 Insert Holder	組合搪頭	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SIB20-1E	 使用刀片 TB..0601 TP..0802	SMB 20	M2-5.0-2.7-60	T6	0.6	-
SIB20-2E		-				
SIB20-3E		-				
SIB25-1E		-				
SIB25-2E		-				
SIB25-3E		-				
SIB32-1E		-				
SIB32-2E		-				
SIB32-3E		-				
SIB41-1E	 使用刀片 TP..0902 TC..1102	SMB 41	M2.5-6.0-3.5-60	T8	1.2	0.03
SIB41-2E		-				
SIB41-3E		-				
SIB53-1E		-				
SIB53-2E		-				
SIB53-3E		-				
SIB68-1E		-				
SIB68-2E		-				
SIB68-3E		-				

BORING

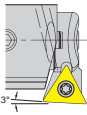
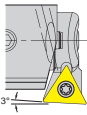


# SMB 超微米精搪頭刀片座

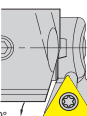
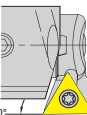
## SMB SUPER MICRON EXCHANGEABLE FINISH BORING HEAD INSERT SEAT



3°

規格 Spec.	刀座形狀 Insert Holder	組合搪頭	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SIC20-1	 使用刀片 TB..0601 TP..0802	SMB 20	M2-5.0-2.7-60	T6	0.6	-
SIC20-2		-				
SIC20-3		-				
SIC25-1		0.02				
SIC25-2		0.02				
SIC25-3		0.02				
SIC32-1		0.02				
SIC32-2		0.02				
SIC32-3		0.02				
SIC41-1	 使用刀片 TP..0902 TC..1102	SMB 41	M2.5-6.0-3.5-60	T8	1.2	0.03
SIC41-2		0.03				
SIC41-3		0.03				
SIC53-1		0.04				
SIC53-2		0.04				
SIC53-3		0.04				
SIC68-1		0.06				
SIC68-2		0.06				
SIC68-3		0.06				

0°

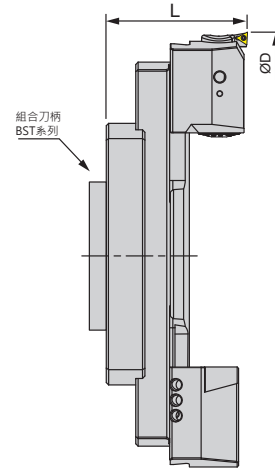
規格 Spec.	刀座形狀 Insert Holders	組合搪頭	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SIC20-1E	 使用刀片 TB..0601 TP..0802	SMB 20	M2-5.0-2.7-60	T6	0.6	-
SIC20-2E		-				
SIC20-3E		-				
SIC25-1E		-				
SIC25-2E		-				
SIC25-3E		-				
SIC32-1E		-				
SIC32-2E		-				
SIC32-3E		-				
SIC41-1E	 使用刀片 TP..0902 TC..1102	SMB 41	M2.5-6.0-3.5-60	T8	1.2	-
SIC41-2E		-				
SIC41-3E		-				
SIC53-1E		-				
SIC53-2E		-				
SIC53-3E		-				
SIC68-1E		-				
SIC68-2E		-				
SIC68-3E		-				

BORING



# SMB 大孔徑精搪頭

SMB SUPER MICRON EXCHANGEABLE FINISH BORING HEAD



搪孔範圍  
ø150~880  
Boring Range

精度  
0.01mm  
Accuracy

規格 Spec.	ØD 搪孔範圍 Boring Range		L	組合型式 Combination type						
	Min.	Max.		組合刀柄 Mck No.	刀片座 Insert Seat	連接盤 Flange	橫向滑板 Horizontal Slide	微調滑塊 Boring Seat	平衡滑塊 Balance Block	重量 (KGS) Weight
SMB150	150	200	117	BST	SIC68-1	SBFL135	SSL150~200	SMB150L	SWB150~200	10.6
	176	226			SIC68-2					
	200	250			SIC68-3					
SMB200	200	270			SIC68-1		SSL200~270			11.6
	226	296			SIC68-2					
	250	320			SIC68-3					
SMB270	270	340			SIC68-1		SSL270~340		13.0	
	296	366			SIC68-2					
	320	390			SIC68-3					
SMB340	340	410			SIC68-1		SSL340~410		14.4	
	366	436			SIC68-2					
	390	460			SIC68-3					
SMB410	410	480			SIC68-1		SSL410~480		15.8	
	436	506			SIC68-2					
	460	530			SIC68-3					
SMB480	480	550			SIC68-1		SSL480~550		17.2	
	506	576			SIC68-2					
	530	600			SIC68-3					
SMB550	550	620	SIC68-1	SSL550~620	20.0					
	576	646	SIC68-2							
	600	670	SIC68-3							
SMB620	620	690	SIC68-1	SSL620~690	21.4					
	646	716	SIC68-2							
	670	740	SIC68-3							
SMB690	690	760	SIC68-1	SSL690~760	22.9					
	716	786	SIC68-2							
	740	810	SIC68-3							
SMB760	760	830	SIC68-1	SSL760~830	24.3					
	786	856	SIC68-2							
	810	880	SIC68-3							

BORING

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
TP.0902	M2.5-6.0-3.5-60	T8	1.2
TC..1102	M2.5-6.0-3.5-60	T8	1.2



# SMB 搪孔刀片切削數據表

## SMB BORING HEAD INSERT CUTTING CONDITIONS

規格 Spec.	Mck No.	工件材質	刀片		切削速度 (m/min)	切削量 (mm/Ø)	進給量 (mm/rev)	
			刀片 R 角	刀片材質			推薦值	Max.
SMB20	MCK1 CK1	碳鋼、合金鋼	0.2/0.4	RM4030	180	0.15	0.06	0.15
		不鏽鋼		RM1205	120	0.15	0.06	0.15
		鑄鐵		CBN250	60	0.10	0.06	0.10
		球墨鑄鐵		CBN500	180	0.15	0.06	0.10
		鋁合金		RM5005 PCD	200 400	0.20 0.20	0.10 0.06	0.15 0.15
SMB25	MCK2 CK2	碳鋼、合金鋼	0.2/0.4	RM4030	180	0.15	0.06	0.15
		不鏽鋼		RM1205	120	0.15	0.06	0.15
		鑄鐵		CBN250	60	0.10	0.06	0.10
		球墨鑄鐵		CBN500	180	0.15	0.06	0.10
		鋁合金		RM5005 PCD	200 400	0.20 0.20	0.10 0.06	0.15 0.15
SMB32	MCK3 CK3	碳鋼、合金鋼	0.2/0.4	RM4030	180	0.20	0.06	0.15
		不鏽鋼		RM1205	150	0.20	0.06	0.15
		鑄鐵		CBN250	80	0.10	0.06	0.10
		球墨鑄鐵		CBN500	200	0.15	0.06	0.10
		鋁合金		RM5005 PCD	300 800	0.25 0.25	0.10 0.10	0.15 0.15
SMB41	MCK4 CK4	碳鋼、合金鋼	0.2/0.4	RM4030	180	0.25	0.06	0.15
		不鏽鋼		RM1205	150	0.25	0.06	0.15
		鑄鐵		CBN250	80	0.10	0.08	0.10
		球墨鑄鐵		CBN500	200	0.20	0.10	0.10
		鋁合金		RM5005 PCD	300 800	0.30 0.30	0.12 0.12	0.15 0.15
SMB53	MCK5 CK5	碳鋼、合金鋼	0.2/0.4	RM4030	180	0.25	0.10	0.15
		不鏽鋼		RM1205	150	0.25	0.10	0.15
		鑄鐵		CBN250	80	0.10	0.10	0.10
		球墨鑄鐵		CBN500	200	0.20	0.10	0.10
		鋁合金		RM5005 PCD	300 800	0.30 0.30	0.16 0.12	0.28 0.15
SMB68 SMB100	MCK6 CK6	碳鋼、合金鋼	0.2/0.4	RM4030	180	0.25	0.10	0.15
		不鏽鋼		RM1205	150	0.25	0.10	0.15
		鑄鐵		CBN250	80	0.10	0.10	0.10
		球墨鑄鐵		CBN500	200	0.20	0.10	0.10
		鋁合金		RM5005 PCD	300 800	0.30 0.30	0.16 0.12	0.28 0.15

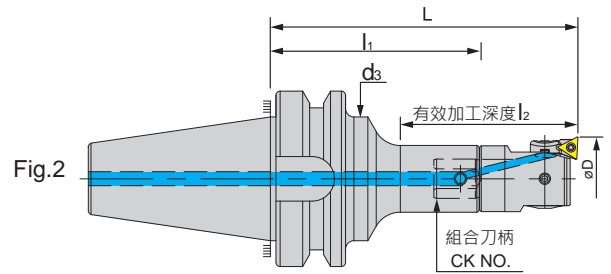
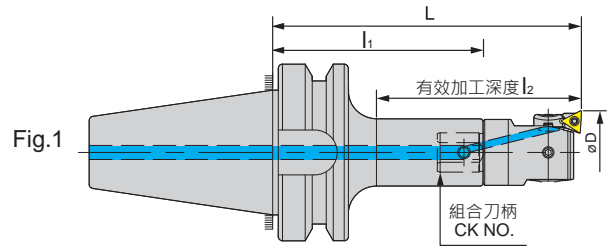
- 本表是切削數據的設定基準，請視當時的機床、工件材質、鐵屑的排出情況做適當的調整。

- The cutting data table is set benchmarks and make the appropriate adjustments, depending on the time machine tools, the workpiece material, iron filings discharge.



# BT/SMB 微調精搪孔頭刀桿

## BT/SMB BORING HEAD SHANK



<b>搪孔範圍</b> ø25~203 Boring Range	<b>精度</b> 0.01mm Accuracy	<b>最高轉速</b> 8000 Max. rpm
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規格 Spec.	øD 搪孔範圍 Boring Range		搪孔組合 Combination		組合刀柄 ck No.	L	l <sub>1</sub>	有效加工深度 l <sub>2</sub>	Fig.	重量 (KGS) Weight
	Min.	Max.	刀桿 Shank	搪頭 Boring Head						
BT30 - SMB25 - 115	25	47	BT30-CK2-80	SMB25	CK2	115.5	80	85.5	1	0.92
BT30 - SMB32 - 120	32	60	BT30-CK3-80	SMB32	CK3	120	80	96	1	1.11
BT30 - SMB41 - 117	41	74	BT30-CK4-70	SMB41	CK4	117	70	87	1	1.40
BT30 - SMB53 - 117	53	95	BT30-CK5-60	SMB53	CK5	117	60	87	1	2.20
BT30 - SMB68 - 131	68	150	BT30-CK6-60	SMB68	CK6	131	60	101	1	1.94
BT30 - SMB100 - 131	100	203	BT30-CK6-60	SMB100	CK6	131	60	101	1	-
BT40 - SMB25 - 120	25	47	BT40-CK2-85	SMB25	CK2	120.5	85	85.5	2	1.32
BT40 - SMB32 - 135	32	60	BT40-CK3-95	SMB32	CK3	135	95	100	1	1.51
BT40 - SMB41 - 132	41	74	BT40-CK4-85	SMB41	CK4	132	85	97	1	1.85
BT40 - SMB41 - 177	41	74	BT40-CK4-130	SMB41	CK4	177	130	142	1	1.90
BT40 - SMB53 - 132	53	95	BT40-CK5-75	SMB53	CK5	132	75	97	1	2.80
BT40 - SMB53 - 182	53	95	BT40-CK5-125	SMB53	CK5	182	125	147	1	3.05
BT40 - SMB68 - 136	68	150	BT40-CK6-65	SMB68	CK6	136	65	101	1	3.89
BT40 - SMB100 - 136	100	203	BT40-CK6-65	SMB100	CK6	136	65	101	1	-

- 標準配備附為 SIB □□ -1 刀片座，SIB □□ -2，SIB □□ -3 需另購。
- 訂購時請說明使用刀座型號。
- SIB、SIC 刀片的相關資料請參照 A290-A291。
- 刀片座有三種型式可交換使用，增大加工範圍。
- < 例 > BT50-SMB25-140 不同刀片座的加工範圍。

- Standard marting part SIB □□ -1, SIB/C □□ -2, SIB/C □□ -3 is ordered separately.
- Please detail the spec / model no for insert holder when order.
- For information on SIB、SIC inserts, please refer to A290-A291.
- There are three kinds of insert holders for selection for the different cut range.
- for example: BT50-SMB25-140 has different cut range for different insert holder.

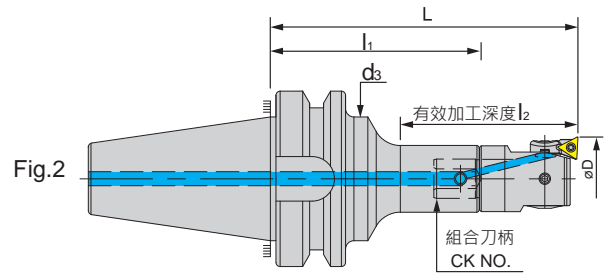
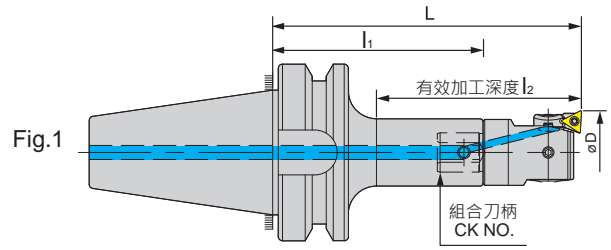
標準型刀片座 Standard insert holder	另購型刀片座 In additional purchased insert holder	
SIB25-1	SIB25-2	SIB25-3
Ø25~Ø33	Ø32~Ø40	Ø39~Ø47

BORING



# BT/SMB 微調精搪孔頭刀桿

## BT/SMB BORING HEAD SHANK



<b>搪孔範圍</b> ø25~203 Boring Range	<b>精度</b> 0.01mm Accuracy	<b>最高轉速</b> 8000 Max. rpm
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規格 Spec.	øD 搪孔範圍 Boring Range		搪孔組合 Combination		組合刀柄 ck No.	L	l <sub>1</sub>	有效加工深度 l <sub>2</sub>	Fig.	重量 (KGS) Weight
	Min.	Max.	刀桿 Shank	搪頭 Boring Head						
BT50 - SMB25 - 145	25	47	BT50-CK2-110	SMB25	CK2	145	110	100.5	2	4.12
BT50 - SMB25 - 175	25	47	BT50-CK2-140	SMB25	CK2	175	140	130.5	2	4.22
BT50 - SMB32 - 165	32	60	BT50-CK3-125	SMB32	CK3	165	125	120	1	4.61
BT50 - SMB32 - 195	32	60	BT50-CK3-155	SMB32	CK3	195	155	150	1	4.81
BT50 - SMB41 - 162	41	74	BT50-CK4-115	SMB41	CK4	162	115	117	1	5.20
BT50 - SMB41 - 192	41	74	BT50-CK4-145	SMB41	CK4	192	145	147	1	5.60
BT50 - SMB53 - 162	53	95	BT50-CK5-105	SMB53	CK5	162	105	117	1	6.50
BT50 - SMB53 - 237	53	95	BT50-CK5-180	SMB53	CK5	237	180	192	1	7.30
BT50 - SMB53 - 297	53	95	BT50-CK5-240	SMB53	CK5	297	240	252	1	7.50
BT50 - SMB68 - 166	68	150	BT50-CK6-95	SMB68	CK6	166	95	121	1	7.65
BT50 - SMB68 - 241	68	150	BT50-CK6-170	SMB68	CK6	241	170	196	1	8.25
BT50 - SMB68 - 301	68	150	BT50-CK6-230	SMB68	CK6	301	230	256	1	8.65
BT50 - SMB68 - 361	68	150	BT50-CK6-290	SMB68	CK6	361	290	316	1	-
BT50 - SMB68 - 421	68	150	BT50-CK6-350	SMB68	CK6	421	350	371	1	-
BT50 - SMB100 - 166	100	203	BT50-CK6-95	SMB100	CK6	166	95	121	1	-
BT50 - SMB100 - 241	100	203	BT50-CK6-170	SMB100	CK6	241	170	196	1	-
BT50 - SMB100 - 301	100	203	BT50-CK6-230	SMB100	CK6	301	230	256	1	-
BT50 - SMB100 - 361	100	203	BT50-CK6-290	SMB100	CK6	361	290	316	1	-
BT50 - SMB100 - 421	100	203	BT50-CK6-350	SMB100	CK6	421	350	371	1	-

- 標準配備附為 SIB □□ -1 刀片座，SIB □□ -2，SIB □□ -3 需另購。
- 訂購時請說明使用刀座型號。
- SIB、SIC 刀片的相關資料請參照 A290-A291。
- 刀片座有三種型式可交換使用，增大加工範圍。
- < 例 > BT50-SMB25-140 不同刀片座的加工範圍。

- Standard marting part SIB □□ -1. SIB/C □□ -2, SIB/C □□ -3 is ordered separately.
- Please detail the spec / model no for insert holder when order.
- For information on SIB、SIC inserts, please refer to A290-A291.
- There are three kinds of insert holders for selection for the different cut range.
- for example: BT50-SMB25-140 has different cut range for different insert holder.

標準型刀片座 Standard insert holder	另購型刀片座 In additional purchased insert holder	
SIB25-1	SIB25-2	SIB25-3
Ø25~Ø33	Ø32~Ø40	Ø39~Ø47

BORING

# Feature

## SCK特點

使用CCMT刀片，適合重切削及斷續切削，SCK80102-C採用替換式刀座設計，增加搪孔範圍，並可降低維修成本

Use CCMT inserts are suitable for rough boring, heavy and interrupted cutting. The insert seat of SCK80102-C type has an exchangeable design, increase the range of boring and reduces maintenance costs.

微調螺絲，轉動時雙刀可同時移動

Fine-tuning screw, two insert seats at the same time move.

微調單位：每一刻度移動量1mm，直徑為 $\varnothing 2\text{mm}$ ，搪孔範圍 $\varnothing 24 \sim \varnothing 220\text{mm}$

Micro-adjustment unit: 1mm of each, diameter  $\varnothing 2\text{mm}$ , boring range  $\varnothing 24 \sim \varnothing 220\text{mm}$ .



採一體式本體，加強包覆刀座力量

Adopt one body, Strengthen the inserts seat strength.

# Boring Head





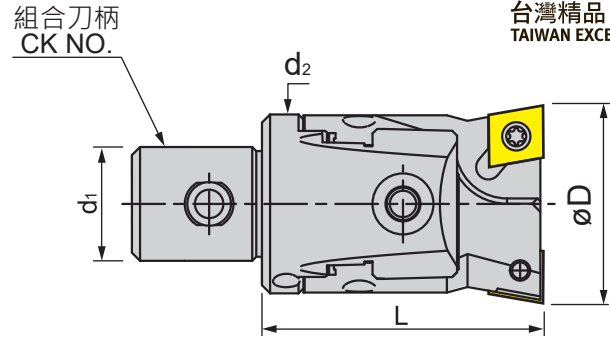
# SCK 可調式雙刃粗搪孔頭

## SCK ROUGHING TWIN ADJUSTMENT BORING HEAD

PAT.NO: M280258



台灣精品 2008  
TAIWAN EXCELLENCE



搪孔範圍  
ø24~220  
Boring Range

精度  
0.2mm  
Accuracy

### 特點 Feature

- 雙刃微調同時移動 · 適用於大進給 (F) 切削

- Both inserts with a fine adjustment and simultaneous movement, suited to big feeding (F) cutting.

規格 Spec.	øD 搪孔範圍 Boring Range		組合刀柄 Mck No.	L	d <sub>1</sub>	d <sub>2</sub>	鎖固螺絲 Screw	鎖固扳手 Wrench	扭力值 (N.m) Torque	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
	Min.	Max.												
SCK2430-C	24	30	CK2	34	14	22	M4	PL3	3.0	CC..0602	M2.5-6.45-3.7-43	T8	1.4	0.19
SCK2940-C	29	40	CK2	42	14	27	M5	PL4	4.0	CC..09T3	M4-10-5.7-60	T15	3.0	0.19
SCK3950-C	39	50	CK3	45	18	32	M5	PL4	5.0	CC..09T3	M4-10-5.7-60	T15	3.0	0.19
SCK4965-C	49	65	CK4	56	22	42	M6	PL5	6.0	CC..1204	M5-11-7.5-60	T20	5.0	0.10
SCK6382-C	63	82	CK5	66	28	54	M8	PL6	10.0	CC..1204	M5-11-7.5-60	T20	5.0	0.20
SCK80102-C	80	102	CK6	86	36	68	M10	PL8	12.0	CC..1204	M5-11-7.5-60	T20	5.0	2.30
SCK100125-C	100	125	MCK7	100	46	85	M10	PL8	12.0	CC..1204	M5-11-7.5-60	T20	5.0	4.00
SCK125160-C	125	160	MCK7	100	46	110	M10	PL8	12.0	CC..1204	M5-11-7.5-60	T20	5.0	6.16
SCK160220-C	160	220	MCK7	100	46	145	M10	PL8	12.0	CC..1204	M5-11-7.5-60	T20	5.0	8.10



CCMT 刀片適用粗搪、重及斷續切削。

CCMT inserts are suitable for rough boring, heavy and interrupted cutting.

BORING



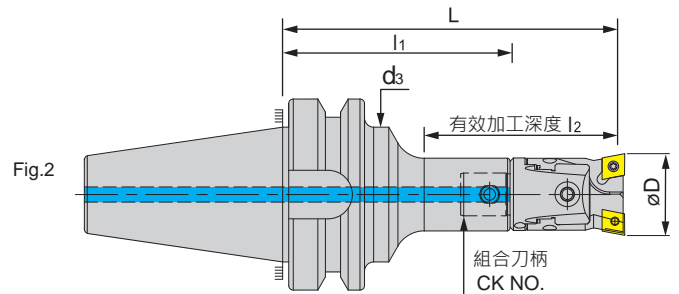
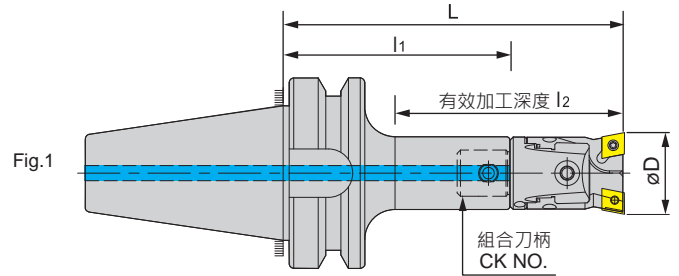
# BT/SCK 搪孔頭刀桿

## BT/SCK BORING HEAD SHANK



搪孔範圍  
ø24~220  
Boring Range

精度  
0.2mm  
Accuracy



規格 Spec.	øD 搪孔範圍 Boring Range		搪孔組合 Combination		組合刀柄 ck No.	L	l <sub>1</sub>	有效加工深度 l <sub>2</sub>	Fig.	重量 (KGS) Weight
	Min.	Max.	刀桿 Shank	搪頭 Boring Head						
BT30-SCK2430C-114	24	30	BT30-CK2-80	SCK2430-C	CK2	114	80	84	1	1.17
BT30-SCK2940C-122	30	40	BT30-CK2-80	SCK2940-C	CK2	122	80	92	1	1.21
BT30-SCK3950C-125	39	50	BT30-CK3-80	SCK3950-C	CK3	125	80	95	1	1.31
BT30-SCK4965C-126	49	65	BT30-CK4-70	SCK4965-C	CK4	126	70	96	1	1.59
BT30-SCK6382C-126	63	82	BT30-CK5-60	SCK6382-C	CK5	126	60	96	1	1.75
BT30-SCK80102C-146	80	102	BT30-CK6-60	SCK80102-C	CK6	146	60	116	1	2.25
BT40-SCK2430C-119	24	30	BT40-CK2-85	SCK2430-C	CK2	119	85	84	2	1.57
BT40-SCK2940C-127	30	40	BT40-CK2-85	SCK2940-C	CK2	127	85	92	2	1.61
BT40-SCK3950C-140	39	50	BT40-CK3-95	SCK3950-C	CK3	140	95	105	1	1.71
BT40-SCK4965C-141	49	65	BT40-CK4-85	SCK4965-C	CK4	141	85	106	1	2.04
BT40-SCK4965C-186	49	65	BT40-CK4-130	SCK4965-C	CK4	186	130	151	1	2.09
BT40-SCK6382C-141	63	82	BT40-CK5-75	SCK6382-C	CK5	141	75	106	1	2.35
BT40-SCK6382C-191	63	82	BT40-CK5-125	SCK6382-C	CK5	191	125	156	1	2.60
BT40-SCK80102C-151	80	102	BT40-CK6-65	SCK80102-C	CK6	151	65	116	1	3.20

BORING

### 選配表 Option

拉頭 Pull Stud



A290-A293



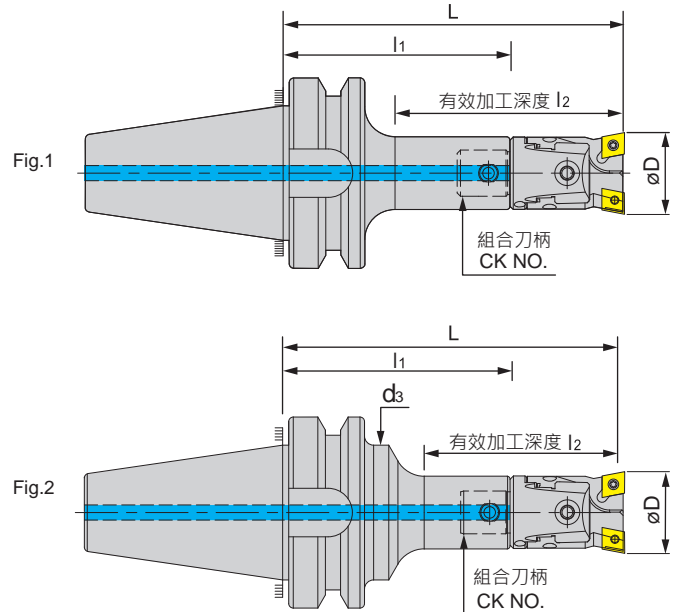
# BT/SCK 搪孔頭刀桿

## BT/SCK BORING HEAD SHANK



搪孔範圍  
ø24~220  
Boring Range

精度  
0.2mm  
Accuracy



規格 Spec.	øD 搪孔範圍 Boring Range		搪孔組合 Combination		組合刀柄 ck No.	L	l <sub>1</sub>	有效加工深度 l <sub>2</sub>	Fig.	重量 (KGS) Weight
	Min.	Max.	刀桿 Shank	搪頭 Boring Head						
BT50-SCK2430C-144	24	30	BT50-CK2-110	SCK2430-C	CK2	144	110	99	2	4.37
BT50-SCK2430C-174	24	30	BT50-CK2-140	SCK2430-C	CK2	174	140	129	2	4.47
BT50-SCK2940C-152	30	40	BT50-CK2-110	SCK2940-C	CK2	152	110	107	2	4.41
BT50-SCK2940C-182	30	40	BT50-CK2-140	SCK2940-C	CK2	182	140	137	2	4.51
BT50-SCK3950C-170	39	50	BT50-CK3-125	SCK3950-C	CK3	170	125	125	1	4.81
BT50-SCK3950C-200	39	50	BT50-CK3-155	SCK3950-C	CK3	200	155	155	1	5.01
BT50-SCK4965C-171	49	65	BT50-CK4-115	SCK4965-C	CK4	171	115	126	1	5.39
BT50-SCK4965C-201	49	65	BT50-CK4-145	SCK4965-C	CK4	201	145	156	1	5.79
BT50-SCK6382C-171	63	82	BT50-CK5-105	SCK6382-C	CK5	171	105	126	1	6.05
BT50-SCK6382C-246	63	82	BT50-CK5-180	SCK6382-C	CK5	246	180	201	1	6.85
BT50-SCK6382C-306	63	82	BT50-CK5-240	SCK6382-C	CK5	306	240	261	1	7.05
BT50-SCK80102C-181	80	102	BT50-CK6-95	SCK80102-C	CK6	181	95	136	1	6.95
BT50-SCK80102C-256	80	102	BT50-CK6-170	SCK80102-C	CK6	256	170	211	1	7.55
BT50-SCK80102C-316	80	102	BT50-CK6-230	SCK80102-C	CK6	316	230	271	1	7.95
BT50-SCK80102C-376	80	102	BT50-CK6-290	SCK80102-C	CK6	376	290	331	1	-
BT50-SCK80102C-436	80	102	BT50-CK6-350	SCK80102-C	CK6	436	350	386	1	-

BORING

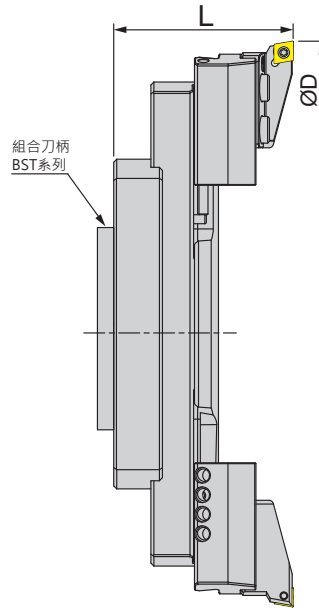
### 選配表 Option





# SRW 大孔徑粗搪頭

## SRW ROUGHING BORING HEAD



搪孔範圍  
ø24~220  
Boring Range

精度  
0.2mm  
Accuracy

規格 Spec.	ØD 搪孔範圍 Boring Range		L	組合型式 Combination type					
	Min.	Max.		組合刀柄 Mck No.	刀片座 Insert Seat	連接盤 Flange	橫向滑板 Horizontal Slide	滑塊 Horizontal Slide	重量 (KGS) Weight
SRW150A	150	200	117	BST	SRW150A	SFL135	SSL150-200	SCB150-200	13.8
SRW200A	200	270	117	BST	SRW150A	SFL135	SSL200-270	SCB220-550	15.3
SRW270A	270	340	117	BST	SRW150A	SFL135	SSL270-340	SCB220-550	16.7
SRW340A	340	410	117	BST	SRW150A	SFL135	SSL340-410	SCB220-550	18.1
SRW410A	410	480	117	BST	SRW150A	SFL135	SSL410-480	SCB220-550	19.5
SRW480A	480	550	117	BST	SRW150A	SFL135	SSL480-550	SCB220-550	20.9
SRW550A	550	620	117	BST	SRW150A	SFL220	SSL550-620	SCB220-550	23.6
SRW620A	620	690	117	BST	SRW150A	SFL220	SSL620-690	SCB220-550	25.0
SRW690A	690	760	117	BST	SRW150A	SFL220	SSL690-760	SCB220-550	26.5
SRW760A	760	830	117	BST	SRW150A	SFL220	SSL760-830	SCB220-550	27.9

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CC..1204	M5-11-7.5-60	T20	5.0

### 選配表 Option



# 搪孔刀片切削數據表

## BORING HEAD INSERT CUTTING CONDITIONS

規格	Mck No.	工件材質	刀片		切削速度 (m/min)	切削量 (mm/Ø)		進給量 (mm/rev)	
			刀片 R 角	刀片材質		推薦值	Max.	推薦值	Max.
SCK2430-C	MCK2 CK2	碳鋼、合金鋼	0.4/0.8	RM425	120	2.5	3.5	0.30	0.35
		不鏽鋼		OM4010	140	2.0	3.0	0.25	0.35
		鑄鐵		RM315	120	2.5	3.5	0.30	0.35
		鋁合金		RM5005	160	3.5	4.5	0.35	0.40
SCK2940-C	MCK2 CK2	碳鋼、合金鋼	0.4/0.8	RM425	120	3.5	4.0	0.35	0.40
		不鏽鋼		OM4010	140	3.0	4.0	0.30	0.35
		鑄鐵		RM315	120	3.5	4.0	0.35	0.40
		鋁合金		RM5005	160	4.0	5.0	0.40	0.45
SCK3950-C	MCK3 CK3	碳鋼、合金鋼	0.4/0.8	RM425	120	4.5	5.5	0.40	0.45
		不鏽鋼		OM4010	140	4.0	5.5	0.35	0.45
		鑄鐵		RM315	120	4.5	5.5	0.40	0.45
		鋁合金		RM5005	160	6.0	8.0	0.45	0.50
SCK4965-C	MCK4 CK4	碳鋼、合金鋼	0.4/0.8	RM425	120	6.0	8.0	0.45	0.50
		不鏽鋼		OM4010	140	6.0	8.0	0.40	0.45
		鑄鐵		RM315	120	6.0	8.0	0.45	0.50
		鋁合金		RM5005	160	8.0	10.0	0.45	0.55
SCK6382-C	MCK5 CK5	碳鋼、合金鋼	0.4/0.8	RM425	120	6.0	8.0	0.45	0.50
		不鏽鋼		OM4010	140	6.0	8.0	0.40	0.45
		鑄鐵		RM315	120	6.0	8.0	0.45	0.50
		鋁合金		RM5005	160	8.0	10.0	0.45	0.55
SCK80102-C	MCK6 CK6	碳鋼、合金鋼	0.4/0.8	RM425	120	6.0	8.0	0.45	0.50
		不鏽鋼		OM4010	140	6.0	8.0	0.40	0.45
		鑄鐵		RM315	120	6.0	8.0	0.45	0.50
		鋁合金		RM5005	160	8.0	10.0	0.45	0.55
SCK100125-C SCK125160-C SCK160220-C	MCK7	碳鋼、合金鋼	0.4/0.8	RM425	120	6.0	8.0	0.45	0.50
		不鏽鋼		OM4010	140	6.0	8.0	0.40	0.45
		鑄鐵		RM315	120	6.0	8.0	0.45	0.50
		鋁合金		RM5005	160	8.0	10.0	0.45	0.55

- 本表是切削數據的設定基準，請視當時的機床、工件材質、鐵屑的排出情況做適當的調整

- The cutting data table is set benchmarks and make the appropriate adjustments, depending on the time machine tools, the workpiece material, iron filings discharge.



# CK 搪孔頭刀桿

## CK BORING HEAD SHANK

細牙  
Fine Teeth



Fig.1

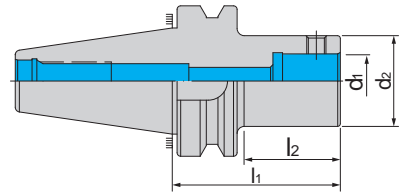
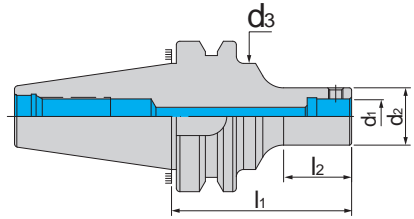


Fig.2



### 特點 Feature

- 內孔公差 H6
- 整支通孔，利於出水及抗震
- 可共用並互容於大多數 "CK" 系列
- 側邊鎖固螺絲與鍵槽呈 90 度，確保搪孔切削完畢時的相對位置
- 鎖固時請使用螺絲防卡油防止因搪孔加工扭力過大，導致螺絲卡死難以拆卸組裝

- Internal tolerance is H6.
- The tool holder is through-one, which is better for water to get through and vibration resistance.
- Sharing and mutual tolerance in most of the "CK" series.
- Side of the locking screw and keyway was 90 degrees, to ensure that the relative position of the conclusion of the boring cutting.
- Locking screw preventing oil to prevent excessive torque due to boring processing, resulting in death is difficult to remove the assembly screws card."

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	側邊螺絲 Screw	Fig.	重量 (KGS) Weight
BT30-CK1-70L	70	40	11	19	-	M4-0.5P-5L	1	0.50
BT30-CK2-80L	80	50	14	24	-	M5-0.5P-6.5L	1	0.60
BT30-CK3-80L	80	50	18	31	-	M6-0.75P-8L	1	0.70
BT30-CK4-70L	70	40	22	39	-	M8-0.75P-11L	1	0.80
BT30-CK5-60L	60	30	28	50	-	M10-1.0P-14L	1	0.80
BT30-CK6-60L	60	30	36	64	-	M12-1.0P-18L	1	1.00
BT40-CK1-75L	75	40	11	19	-	M4-0.5P-5L	1	1.00
BT40-CK1-105L	105	70	11	19	-	M4-0.5P-5L	1	1.20
BT40-CK2-85L	85	50	14	24	-	M5-0.5P-6.5L	1	1.10
BT40-CK2-115L	115	80	14	24	-	M5-0.5P-6.5L	1	1.40
BT40-CK3-95L	95	60	18	31	-	M6-0.75P-8L	1	1.20
BT40-CK3-125L	125	90	18	31	-	M6-0.75P-8L	1	1.50
BT40-CK3-155L	155	120	18	31	-	M6-0.75P-8L	1	1.70
BT40-CK4-85L	85	50	22	39	-	M8-0.75P-11L	1	1.30
BT40-CK4-130L	130	95	22	39	-	M8-0.75P-11L	1	1.90
BT40-CK4-175L	175	140	22	39	-	M8-0.75P-11L	1	2.20
BT40-CK5-75L	75	40	28	50	-	M10-1.0P-14L	1	1.30
BT40-CK5-125L	125	90	28	50	-	M10-1.0P-14L	1	2.30
BT40-CK5-175L	175	140	28	50	-	M10-1.0P-14L	1	3.00
BT40-CK6-65L	65	30	36	64	-	M12-1.0P-18L	1	1.30
BT40-CK6-115L	115	80	36	64	-	M12-1.0P-18L	1	2.70
BT40-CK6-165L	165	130	36	64	-	M12-1.0P-18L	1	3.90

### 選配表 Option

拉頭 Pull Stud	延長桿 Extension Spacer	搪頭 Boring Head					
A290-A293	A345-346	A329	A337	A386	A356	A366	A369

BORING



# CK 搪孔頭刀桿

## CK BORING HEAD SHANK

細牙  
Fine Teeth



Fig.1

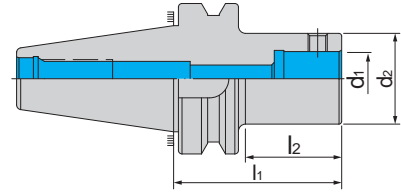
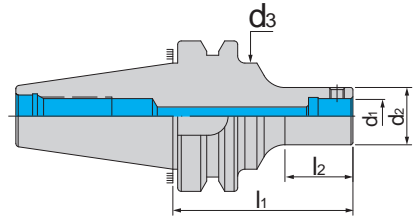


Fig.2



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- 鎖固時請使用螺絲防卡油防止因搪孔加工扭力過大，導致螺絲卡死難以拆卸組裝

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- Locking screw preventing oil to prevent excessive torque due to boring processing, resulting in death is difficult to remove the assembly screws card."

規格 Spec.	$l_1$	$l_2$	$d_1$	$d_2$	$d_3$	側邊螺絲 Screw	Fig.	重量 (KGS) Weight
BT50-CK1-115L	115	40	11	19	31	M4-0.5P-5L	2	4.00
BT50-CK1-145L	145	70	11	19	31	M4-0.5P-5L	2	4.10
BT50-CK2-110L	110	65	14	24	-	M5-0.5P-6.5L	1	3.90
BT50-CK2-140L	140	95	14	24	-	M5-0.5P-6.5L	1	4.00
BT50-CK3-125L	125	80	18	31	-	M6-0.75P-8L	1	4.10
BT50-CK3-155L	155	110	18	31	-	M6-0.75P-8L	1	4.20
BT50-CK4-115L	115	70	22	39	-	M8-0.75P-11L	1	4.30
BT50-CK4-145L	145	100	22	39	-	M8-0.75P-11L	1	4.40
BT50-CK4-175L	175	130	22	39	-	M8-0.75P-11L	1	4.80
BT50-CK4-205L	205	160	22	39	-	M8-0.75P-11L	1	4.90
BT50-CK5-105L	105	60	28	50	-	M10-1.0P-14L	1	4.50
BT50-CK5-180L	180	135	28	50	-	M10-1.0P-14L	1	5.50
BT50-CK5-240L	240	195	28	50	-	M10-1.0P-14L	1	6.20
BT50-CK5-300L	300	195	28	50	64	M10-1.0P-14L	2	7.60
BT50-CK6-95L	95	50	36	64	-	M12-1.0P-18L	1	4.50
BT50-CK6-170L	170	125	36	64	-	M12-1.0P-18L	1	6.30
BT50-CK6-230L	230	185	36	64	-	M12-1.0P-18L	1	7.60
BT50-CK6-290L	290	245	36	64	-	M12-1.0P-18L	1	9.00
BT50-CK6-350L	350	300	36	64	90	M12-1.0P-18L	2	13.5

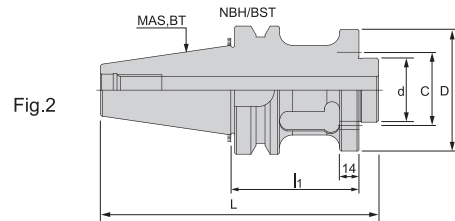
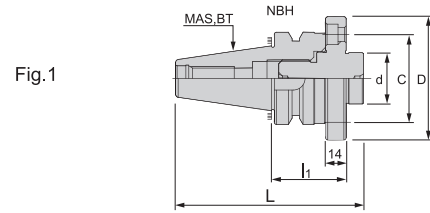
### 選配表 Option

拉頭 Pull Stud	延長桿 Extension Spacer	搪頭 Boring Head					
A229-A232	A345-346	A329	A337	A386	A356	A366	A369

BORING



# 搪孔刀柄 (RBH、NBH、BST) BORING HEAD SHANK(RBH、NBH、BST)



規格 Spec.	L	l <sub>1</sub>	D	d h7	C	Fig.	重量 (KGS) Weight
BT40×NBH2084A	155.4	51	84	35	PCD.Ø60 4-M8×1.25P	1	1.70
BT50×NBH2084A	170.8	57	84	35		1	3.50
NT50×NBH2084A	168	41.2	84	35		1	6.30
FR60×NBH2084	58.5	14	84	35	PCD.Ø60	-	-
BT40×NBH2084B-100	204.4	100	84	35	PCD.Ø60 4-M8×1.25P	2	2.00
BT50×NBH2084B-100	213.8	100	84	35		2	4.00
BT50×NBH2084B-165	278.8	165	84	35		2	4.50
BT50×NBH2084B-200	313.8	200	84	35		2	-
BT50×NBH2084B-250	363.8	250	84	35		2	8.50
BT50×NBH2084B-300	413.8	300	84	35		2	9.67
NT50×NBH2084B-50	188.8	50	84	35		2	-
NT50×NBH2084B-100	238.8	100	84	35		2	5.30
NT50×NBH2084B-150	288.8	150	84	35		2	-
NT30×NBH2084	109	14	84	35	PCD.Ø60 4-M8×1.25P	2	3.60
NT40×NBH2084	136	14	84	35		2	4.00
NT50×NBH2084	168	14	84	35		2	6.30
BT40×BST-70	131	70	95	50	PCD.Ø72 4-Ø13	2	2.50
BT50×BST-100	208.8	100	95	50		2	5.65
BT50×BST-150	258.8	150	95	50		2	4.00
BT50×BST-200	308.8	200	95	50		2	8.75
BT50×BST-250	358.8	250	95	50		2	9.76
BT50×BST-300	408.8	300	95	50		2	11.5
BT50×BST-350	458.8	350	95	50		2	12.8
BT50×BST-400	508.8	400	95	50		2	14.1
NT50×BST-80	213.8	80	95	50		2	-
NT50×BST-120	253.8	120	95	50		2	-
NT50×BST-150	283.8	150	95	50		2	-
NT50×BST-200	333.8	200	95	50		2	-
NT50×BST-250	383.8	250	95	50		2	-
NT50×BST-300	433.8	300	95	50		2	-

## 選配表 Option

拉頭 Pull Stud	搪頭 Boring Head
A290-A293	A393

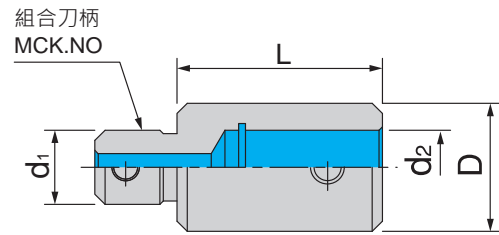
BORING





## SCK 等徑延長桿

### SCK EXTENSION CONSTANT DIAMETER

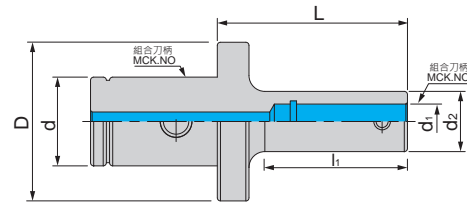


規格 Spec.	L	D	d <sub>1</sub>	d <sub>2</sub>	側邊螺絲 Screw	重量 (KGS) Weight
SCK1-1-30L	30	19	11	11	M4-0.5P-5L	0.07
SCK2-2-30L	30	24	14	14	M5-0.5P-6.5L	0.10
SCK3-3-30L	30	31	18	18	M6-0.75P-8L	0.15
SCK4-4-45L	45	39	22	22	M8-0.75P-11L	0.40
SCK5-5-60L	60	50	28	28	M10-1.0P-14L	0.80
SCK6-6-60L	60	64	36	36	M12-1.0P-18L	1.40



## SCK 異徑延長桿

### SCK EXTENSION REDUCING



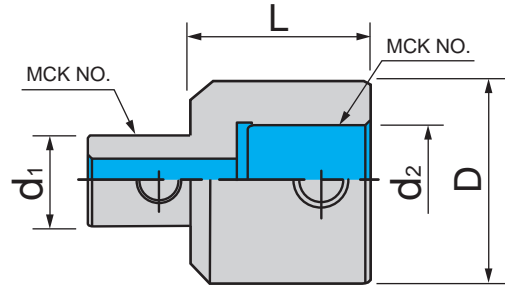
規格 Spec.	L	l <sub>1</sub>	D	d	d <sub>1</sub>	d <sub>2</sub>	側邊螺絲 Screw	重量 (KGS) Weight
SCK2-1-36L	36	30	24	14	11	19	M4-0.5P-5L	0.10
SCK3-1-41L	41	30	31	18	11	19	M4-0.5P-5L	0.15
SCK3-2-37L	37	25	31	18	14	24	M5-0.5P-6.5L	0.15
SCK4-1-58L	58	40	39	22	11	19	M4-0.5P-5L	0.30
SCK4-2-50L	50	36	39	22	14	24	M5-0.5P-6.5L	0.30
SCK4-3-50L	50	37	39	22	18	31	M6-0.75P-8L	0.35
SCK5-1-60L	60	40	50	28	11	19	M4-0.5P-5L	0.48
SCK5-2-54L	54	35	50	28	14	24	M5-0.5P-6.5L	0.45
SCK5-2-74L	74	55	50	28	14	24	M5-0.5P-6.5L	0.60
SCK5-3-47L	47	29	50	28	18	31	M6-0.75P-8L	0.52
SCK5-3-72L	72	54	50	28	18	31	M6-0.75P-8L	0.68
SCK5-4-42L	42	25	50	28	22	39	M8-0.75P-11L	0.50
SCK5-4-67L	67	50	50	28	22	39	M8-0.75P-11L	0.80
SCK6-1-70L	70	40	64	36	11	19	M4-0.5P-5L	0.95
SCK6-2-63L	63	45	64	36	14	24	M5-0.5P-6.5L	0.78
SCK6-2-93L	93	75	64	36	14	24	M5-0.5P-6.5L	0.80
SCK6-3-56L	56	39	64	36	18	31	M6-0.75P-8L	0.82
SCK6-3-96L	96	79	64	36	18	31	M6-0.75P-8L	1.07
SCK6-4-51L	51	35	64	36	22	39	M8-0.75P-11L	0.92
SCK6-4-101L	101	85	64	36	22	39	M8-0.75P-11L	1.30
SCK6-5-41L	41	25	64	36	28	52	M10-1.0P-14L	0.94
SCK6-5-91L	91	75	64	36	28	52	M10-1.0P-14L	1.60
BST-SCK6	100	60	95	50	36	64	-	3.32

BORING



## 碳化鎢刀桿專用 SCK 延長桿 (小接大)

TUNGSTEN CARBIDE ARBOR SCK EXTENSION WAGNIFYING DIAMETER



規格 Spec.	L	D	d <sub>1</sub>	d <sub>2</sub>	適用搪孔頭 Applicable Boring Head	重量 (KGS) Weight
SCK3-4-35L	35	39	18	22	CBH40	0.28
SCK4-5-45L	45	50	22	28	CBH52	0.58

- SCK3-4-35L 與 SCK4-5-45L 為小變大異徑延長桿

- SCK3-4-35L and SCK4-5-45L are the extension bar, diameter ranged from small to big.

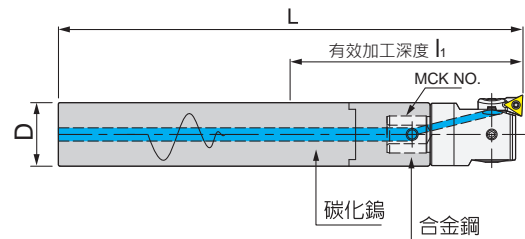


## SCK 直柄碳化鎢製搪孔頭刀桿

SCK STRAIGHT TUNGSTEN CARBIDE BORING HAND SHANK



範例 Example



規格 Spec.	L	l <sub>1</sub>	D	適用搪孔頭 Applicable Boring Head	重量 (KGS) Weight
SC19 - SCK1-130L	180	130	19	CBH20	0.54
SC19 - SCK1-150L	225	150	19	CBH20	0.72
SC19 - SCK1-200L	275	200	19	CBH20	0.92
SC24 - SCK2-140L	200	140	24	SMB25	0.88
SC24 - SCK2-180L	260	180	24	SMB25	1.24
SC24 - SCK2-240L	320	240	24	SMB25	1.60
SC32 - SCK3-160L	240	160	32	SMB32	2.00
SC32 - SCK3-240L	320	240	32	SMB32	2.88
SC32 - SCK3-310L	390	310	32	SMB32	3.62

BORING

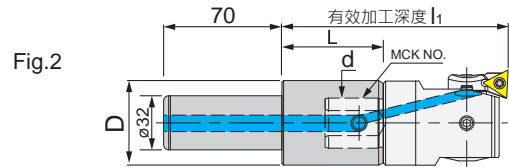
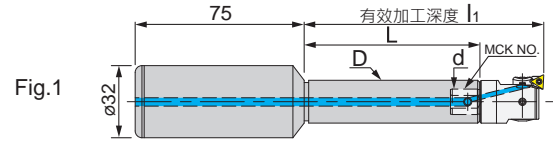
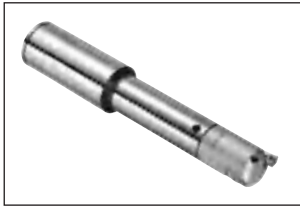


# SCK 直柄搪孔頭刀桿

## SCK STRAIGHT BORING HEAD SHANK



### 範例 Example

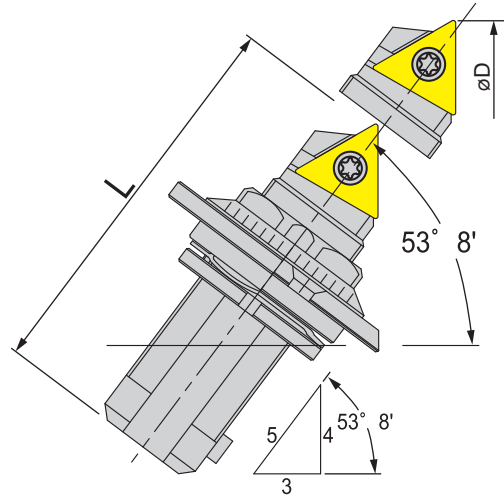


規格 Spec.	L	有效加工深度 $l_1$	D	d	適用搪孔頭 Applicable Boring Head	Fig.	重量 (KGS) Weight
C32 - SCK1-75L	75	110	19	11	CBH20	1	0.62
C32 - SCK2-70L	70	110	24	14	RBH25/RBH25LA/CBH25	1	0.67
C32 - SCK2-120L	120	160	24	14	RBH25/RBH25LA/CBH25	1	0.82
C32 - SCK3-70L	70	110	31	18	RBH32/RBH32LA/CBH32	1	0.77
C32 - SCK3-120L	120	160	31	18	RBH32/RBH32LA/CBH32	1	1.03
C32 - SCK4-60L	60	110	39	22	RBH40/RBH40LA/CBH40/CBI4	2	0.93
C32 - SCK4-110L	110	160	39	22	RBH40/RBH40LA/CBH40/CBI4	2	1.37
C32 - SCK5-60L	60	120	50	28	RBH52/RBH52LA/CBH52/CBI5	2	1.22
C32 - SCK5-120L	120	180	50	28	RBH52/RBH52LA/CBH52/CBI5	2	2.00
C32 - SCK6-60L	60	130	64	36	RBH68,90/RBH68LA,90LA /CBH68,100,150/CBI6	2	1.55
C32 - SCK6-120L	120	190	64	36	RBH68,90/RBH68LA,90LA /CBH68,100,150/CBI6	2	2.93



# BYB 微切削搪孔頭

## BYB MICROMETER ADJUSTABLE BORING HEAD



搪孔範圍 ø19~90 Boring Range	精度 0.02mm Accuracy
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### 特點 Feature

- 刀片另外購買
- 微調單位直徑 0.02mm
- Inserts excluded, separate order.
- Graduation dial can make micro-adjustment of 0.02mm.

規格 Spec.	øD 搪孔範圍 Boring Range		L	A01	B02	C03	D04	E05	F06	G07
	Min.	Max.		本體 Shank	刀片 Insert	刀片螺絲 Insert Screw	定位鍵 Key	六角調整螺帽 Hexagon Adjust Nut	刻度表 Indicator Dish	平面彈簧 Plane Spring
M2-19	19	22.5	20.7	M2-19 A	TB..0601	M2-3.8-2.68-43	D04-1	E05-1	F06-1	G07-1
M2-22	22	29.5	23.5	M2-22 A	TB..0601	M2-3.8-2.68-43	D04-1	E05-1	F06-1	G07-1
M3-29	29	41	31	M3-29 A	TB..0601	M2-5.0-2.7-60	D04-2	E05-2	F06-2	G07-2
M5-38	38	50	40	M5-38 A	TP..1103	M2.5-7.5-4.3-60	D04-3	E05-3	F06-3	G07-3
M5-48	48	65	47.7	M5-48 A	TP..1103	M2.5-7.5-4.3-60	D04-4	E05-3	F06-3	G07-3
M7-62	62	90	63.5	M7-62 A	TP..16T3	M4-10-5.0-43	D04-5	E05-4	F06-4	G07-4

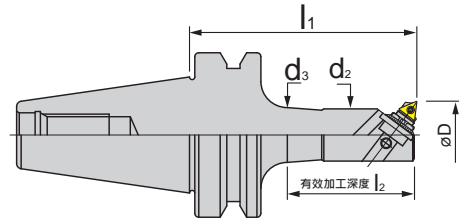
BORING

規格 Spec.	øD 搪孔範圍 Boring Range		H08	I09	J10	K11	L12	M13	N14
	Min.	Max.	螺帽 Nut	扳手 Wrench	固定螺絲 Set Screw	六角螺絲 Hexagon Screw	六角扳手 Hexagon Wrench	六角扳手 Hexagon Wrench	刀片扳手 Insert Wrench
M2-19	19	22.5	H08-1	I09-1	M2.3×0.4P	-	PL1.5	-	T6
M2-22	22	29.5	H08-1	I09-1	M2.3×0.4P	-	PL1.5	-	T6
M3-29	29	41	H08-2	I09-2	M2.6×0.45P	-	PL2	-	T6
M5-38	38	50	H08-3	I09-3	M3×0.5P	-	PL2.5	-	T8
M5-48	48	65	H08-3	I09-3	-	M3×0.5P	PL2	PL2	T8
M7-62	62	90	H08-4	I09-4	M3×0.5P	M4×0.7P	PL2.5	PL2.5	T15



## BT/BYB 微切削搪孔刀柄

BT/BYB MICROMETER ADJUSTABLE BORING HEAD SHANK



搪孔範圍  
ø19~90  
Boring Range

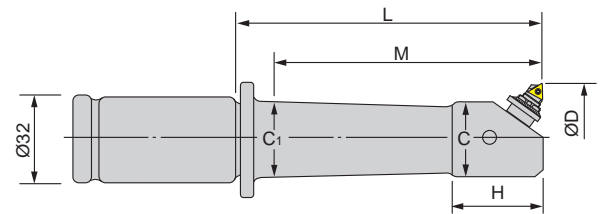
精度  
0.02mm  
Accuracy

規格 Spec.	øD 搪孔範圍 Boring Range		l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	d <sub>3</sub>	重量 (KGS) Weight
	Min.	Max.					
BT40 × BYB19-120	19	22.5	120	83	18	18	1.50
BT40 × BYB22-135	22	29.5	135	98	20	21	1.50
BT40 × BYB29-150	29	41	150	116	25	27	1.50
BT40 × BYB29-180	29	41	180	146	25	27	2.00
BT40 × BYB38-150	38	50	150	113	35	36	1.80
BT40 × BYB38-210	38	50	210	173	35	36	2.20
BT40 × BYB48-150	48	65	150	113	41	46	2.10
BT40 × BYB48-210	48	65	210	173	41	46	2.30
BT40 × BYB62-150	62	90	150	123	54	60	2.90
BT40 × BYB62-210	62	90	210	183	54	60	3.60
BT50 × BYB19-135	19	22.5	135	85	18	18	3.80
BT50 × BYB22-150	22	29.5	150	100	20	21	3.90
BT50 × BYB29-150	29	41	150	100	25	27	4.50
BT50 × BYB29-180	29	41	180	130	25	27	4.60
BT50 × BYB38-165	38	50	165	115	35	36	4.50
BT50 × BYB38-225	38	50	225	175	35	36	5.00
BT50 × BYB48-165	48	65	165	122	41	40	5.20
BT50 × BYB48-210	48	65	210	160	41	46	5.50
BT50 × BYB48-255	48	65	255	205	41	46	5.70
BT50 × BYB62-180	62	90	180	130	54	53	7.00
BT50 × BYB62-240	62	90	240	185	54	60	7.60
BT50 × BYB62-330	62	90	330	280	54	60	9.50



## C/BYB 直柄微調搪孔器

C/BYB BORING SYSTEM



搪孔範圍  
ø19~65  
Boring Range

精度  
0.02mm  
Accuracy

規格 Spec.	øD 搪孔範圍 Boring Range		L	D	M	H	C	C <sub>1</sub>	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
	Min.	Max.											
C32-BYB19-95	19	22.5	95	19	80	35	18	18	TB..0601	M2-5.0-2.7-60	T6	0.6	0.70
C32-BYB22-95	22	29.5	95	22	80	35	20	21	TB..0601	M2-5.0-2.7-60	T6	0.6	0.75
C32-BYB29-95	29	41	95	29	85	45	25	27	TB..0601	M2-5.0-2.7-60	T6	0.6	0.89
C32-BYB29-150	29	41	150	29	140	45	25	27	TB..0601	M2-5.0-2.7-60	T6	0.6	1.20
C32-BYB38-110	38	50	110	38	102	50	35	37	TP..1103	M2.5-7.5-4.3-60	T8	1.2	1.31
C32-BYB48-150	48	65	150	48	145	50	41	37	TP..1103	M2.5-7.5-4.3-60	T8	1.2	2.19

BORING

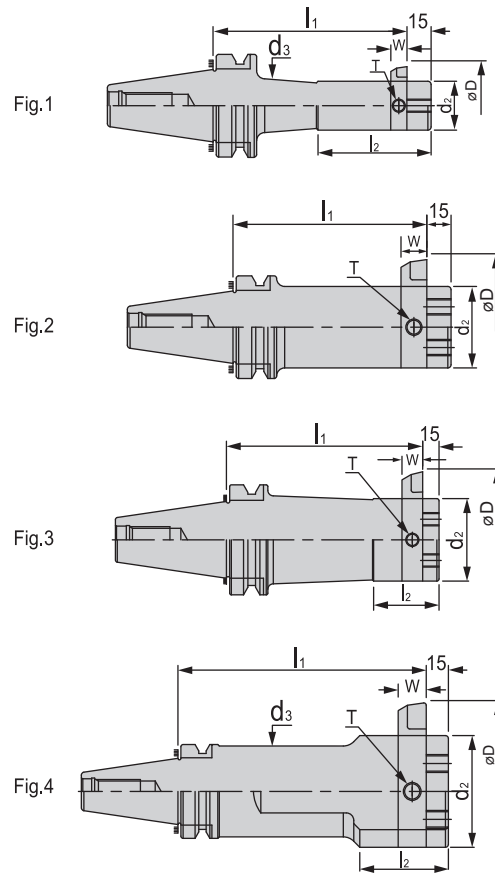


# 90° 粗搪孔刀柄

## BT SQUARE CUTTER BORING BAR (TYPE: 90°)



搪孔範圍  
 $\phi 25 \sim 260$   
 Boring Range



### 特點 Feature

- 適用於孔徑凹凸不平・毛胚粗糙之加工物
- 可選用四角形焊刃刀具或捨棄式刀具
- 搪通孔專用

- Use on the uneven hole & raw parts with rough surface.
- Selects the foursquare brazed or supplemental cutting tool.
- Boring blind hole.

規格 Spec.	øD 搪孔範圍 Boring Range		l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	d <sub>3</sub>	W	T	Fig.	重量 (KGS) Weight
	Min.	Max.								
BT40 × BSB25-120	25	52	120	50	20	22	8	M6	1	1.97
BT40 × BSB38-150	38	70	150	70	30	33	10	M8	1	1.70
BT40 × BSB50-165	50	90	165	85	40	44	13	M10	1	2.50
BT40 × BSB62-180	62	115	180	95	50	56	16	M10	3	3.66
BT40 × BSB90-180	90	150	180	60	75	61	19	M12	4	5.90
BT50 × BSB25-135	25	52	135	50	20	22	8	M6	1	4.30
BT50 × BSB38-180	38	70	180	50	30	33	10	M8	1	4.94
BT50 × BSB50-180	50	90	180	85	40	44	13	M10	1	5.50
BT50 × BSB50-240	50	90	240	85	40	44	13	M10	1	6.35
BT50 × BSB62-195	62	115	195	-	50	-	16	M10	2	6.40
BT50 × BSB62-270	62	115	270	-	50	-	16	M10	2	7.82
BT50 × BSB72-195	72	135	195	95	60	66	19	M12	3	7.84
BT50 × BSB72-285	72	135	285	95	60	66	19	M12	3	9.97
BT50 × BSB90-210	90	150	210	60	75	80	19	M12	3	10.7
BT50 × BSB90-300	90	150	300	60	75	80	19	M12	3	12.8
BT50 × BSB105-195	105	190	195	-	90	-	25	M12	2	12.3
BT50 × BSB105-285	105	190	285	-	90	-	25	M12	2	16.9
BT50 × BSB130-255	130	260	255	75	110	98	25	M12	4	18.1

### 選配表 Option

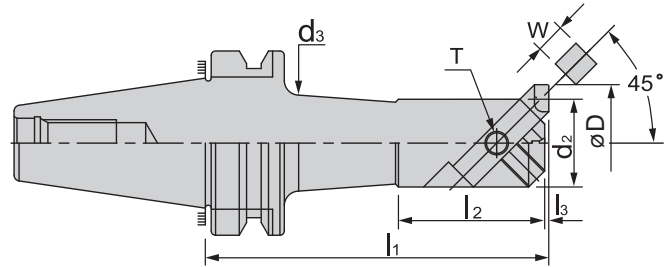
搪刀 Boring Cutter		
A353	A354	A354

BORING



# 45° 粗搪孔刀柄

## BT SQUARE CUTTER BORING BAR (TYPE: 45°)



搪孔範圍  
ø25~190  
Boring Range

### 特點 Feature

- 可選用四角形熔焊刀具或捨棄式刀具
- 搪盲孔專用
- Selects the foursquare brazed or supplemental cutting tool.
- Boring blind hole.

規格 Spec.	øD 搪孔範圍 Boring Range		l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	W	T	重量 (KGS) Weight
	Min.	Max.								
BT40 × BSA25-120	25	38	120	35	1	20	22	8	M6	1.20
BT40 × BSA30-150	30	42	150	40	1.6	24	26	8	M6	1.40
BT40 × BSA38-165	38	52	165	50	2.6	30	33	10	M8	1.70
BT40 × BSA42-165	42	56	165	50	2.6	34	37	10	M8	2.00
BT40 × BSA50-165	50	65	165	65	3	40	44	13	M8	2.30
BT40 × BSA62-180	62	90	180	80	2	50	56	16	M10	3.40
BT40 × BSA72-180	72	110	180	149	2.4	60	-	19	M10	3.90
BT40 × BSA90-180	90	125	180	60	4	75	-	19	M10	5.20
BT50 × BSA25-135	25	38	135	35	1	20	22	8	M6	4.20
BT50 × BSA30-165	30	42	165	40	1.6	24	26	8	M6	4.40
BT50 × BSA38-180	38	52	180	50	2.6	30	33	10	M8	4.80
BT50 × BSA42-210	42	56	210	50	2.6	34	37	10	M8	5.00
BT50 × BSA50-180	50	65	180	65	3	40	44	13	M10	5.40
BT50 × BSA50-240	50	65	240	65	3	40	44	13	M10	5.70
BT50 × BSA62-195	62	90	195	80	2	50	56	16	M10	6.20
BT50 × BSA62-270	62	90	270	80	2	50	56	16	M10	7.60
BT50 × BSA72-195	72	110	195	95	2.4	60	66	19	M10	7.00
BT50 × BSA72-285	72	110	285	95	2.4	60	66	19	M10	9.30
BT50 × BSA90-210	90	125	210	110	4	75	80	19	M12	9.20
BT50 × BSA90-300	90	125	300	110	4	75	80	19	M12	12.3
BT50 × BSA105-195	105	160	195	153	3	90	-	25	M12	10.7
BT50 × BSA105-285	105	160	285	130	3	90	94	25	M12	15.0
BT50 × BSA130-255	130	190	255	120	3	110	-	25	M12	14.5

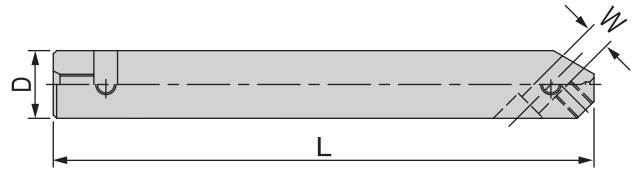
### 選配表 Option

搪刀 Boring Cutter	
	
A353	A354

BORING



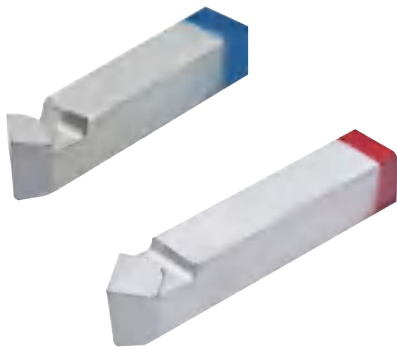
## 直柄搪孔頭刀柄 STRAIGHT BORING HOLDER



搪孔範圍  
ø18~75  
Boring Range

規格 Spec.	搪孔角度 Boring Angle	øD 搪孔範圍 Boring Range		L	D	側邊固定螺絲 Screw	W	重量 (KGS) Weight
		Min.	Max.					
C16-BS150	90°	18	28	150	16	M5×0.8P-5L	6	0.24
	30°							
C18-BS180	90°	20	32	180	18	M6×1.0P-6L	8	0.38
	30°							
C20-BS200	90°	22	36	200	20	M6×1.0P-6L	8	0.50
	30°							
C25-BS250	90°	28	45	250	25	M8×1.25P-10L	10	1.00
	30°							
C32-BS300	90°	36	58	300	32	M8×1.25P-10L	10	1.88
	30°							
C42-BS300	90°	48	75	300	42	M10×1.5P-10L	13	3.18
	30°							

## 焊刃式搪孔刀 BRAZED BORING CUTTER



BORING

規格 Spec.	規格 Spec.	柄徑	全長	角度	重量 (KGS) Weight
BS-306P	BS-306K	6	30	30°	0.01
BS-308P	BS-308K	8	40		0.02
BS-310P	BS-310K	10	50		0.04
BS-313P	BS-313K	13	65		0.10
BS-316P	BS-316K	16	75		0.22
BS-406P	BS-406K	6	30	45°	0.01
BS-408P	BS-408K	8	40		0.03
BS-410P	BS-410K	10	50		0.04
BS-413P	BS-413K	13	65		0.09
BS-416P	BS-416K	16	75		0.22
BS-906P	BS-906K	6	30	90°	0.01
BS-908P	BS-908K	8	40		0.03
BS-910P	BS-910K	10	50		0.05
BS-913P	BS-913K	13	65		0.09
BS-916P	BS-916K	16	75		0.18

- K 加工鑄鐵、鋁合金
- P 加工合金鋼
- 訂購前註明 K 或 P

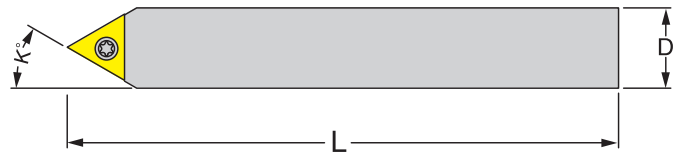
- K Cast Steel
- P Alloy Steel
- Before the purchase please indicate K or P.





# SBS 替換式搪孔刀柄

## SBS INTERCHANGEABLE BORING CUTTER



### 特點 Feature

- 適用於 BSA、BSB 粗搪刀桿
- SBS 適合精加工及中切削加工

- Fit BSA BSB rough boring cutter.
- SBS is fit for fine processing and medium cutting processing.

規格 Spec.	L	D	K	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SBS-308	55	8	30°	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.04
SBS-310	65	10	30°	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.06
SBS-313	80	13	30°	TP.1103	M3-8.0-4.0-43	T9	1.4	0.11
SBS-316	120	16	30°	TP.1103	M3-8.0-4.0-43	T9	1.4	0.24
SBS-319	140	19	30°	TP.1603	M4-10-5.0-43	T15	3.0	0.40
SBS-325	150	25	30°	TP.1603	M4-10-5.0-43	T15	3.0	0.74
SBS-408	55	8	45°	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.04
SBS-410	65	10	45°	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.06
SBS-413	80	13	45°	TP.1103	M3-8.0-4.0-43	T9	1.4	0.11
SBS-416	120	16	45°	TP.1103	M3-8.0-4.0-43	T9	1.4	0.26
SBS-419	140	19	45°	TP.1603	M4-10-5.0-43	T15	3.0	0.41
SBS-425	150	25	45°	TP.1603	M4-10-5.0-43	T15	3.0	0.74
SBS-908	55	8	90°	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.04
SBS-910	65	10	90°	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.06
SBS-913	80	13	90°	TP.1103	M3-8.0-4.0-43	T9	1.4	0.11
SBS-916	120	16	90°	TP.1103	M3-8.0-4.0-43	T9	1.4	0.25
SBS-919	140	19	90°	TP.1603	M4-10-5.0-43	T15	3.0	0.41
SBS-925	150	25	90°	TP.1603	M4-10-5.0-43	T15	3.0	0.75

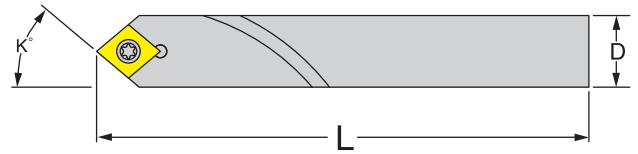
BORING

### 選配表 Option





## CBS 替換式搪孔刀柄 CBS INTERCHANGEABLE BORING CUTTER



### 特點 Feature

- 適用於 BSA、BSB 粗搪刀桿
- CBS 適合重切削加工

- Application BSA BSB rough boring cutter.
- CBS is fit heavy cutting processing.

規格 Spec.	D	L	K	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
CBS-308	8	55	30°	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.04
CBS-310	10	65	30°	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.06
CBS-313	13	80	30°	CC..09T3	M4-10-5.7-60	T15	2.0	0.12
CBS-316	16	120	30°	CC..09T3	M4-10-5.7-60	T15	2.0	0.27
CBS-319	19	140	30°	CC..1204	M5-11-7.5-60	T20	3.0	0.41
CBS-408	8	55	45°	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.04
CBS-410	10	65	45°	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.06
CBS-413	13	80	45°	CC..09T3	M4-10-5.7-60	T15	2.0	0.12
CBS-416	16	120	45°	CC..09T3	M4-10-5.7-60	T15	2.0	0.26
CBS-419	19	140	45°	CC..1204	M5-11-7.5-60	T20	3.0	0.40
CBS-908	8	55	90°	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.04
CBS-910	10	65	90°	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.06
CBS-913	13	80	90°	CC..09T3	M4-10-5.7-60	T15	2.0	0.14
CBS-916	16	120	90°	CC..09T3	M4-10-5.7-60	T15	2.0	0.27
CBS-919	19	140	90°	CC..1204	M5-11-7.5-60	T20	3.0	0.42



## CBS 替換式搪孔刀柄 (左撇) CBS INTERCHANGEABLE BORING CUTTER (LEFT-HANDED)



### 特點 Feature

- 適用於 BSA、BSB 粗搪刀桿
- CBS 適合重切削加工

- Application BSA BSB rough boring cutter.
- CBS is fit heavy cutting processing.

規格 Spec.	D	L	K	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
CBS-908L	8	55	90°	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.04
CBS-910L	10	65	90°	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.06
CBS-913L	13	80	90°	CC..09T3	M4-10-5.7-60	T15	2.0	0.12
CBS-916L	16	120	90°	CC..09T3	M4-10-5.7-60	T15	2.0	0.27
CBS-919L	19	140	90°	CC..1204	M5-11-7.5-60	T20	3.0	0.42

※ 背搪專用 For reverse boring

### 選配表 Option



# Feature

## RBH-LA特點

微調單位：每一刻度移動量1mm，直徑為  
Ø2mm，搪孔範圍Ø25~Ø2000mm。  
連接壓板使刀頭與刀座一體，增加切削剛性。  
CC及TC刀片座，供客戶選擇，獨特高低段差  
設計，平刃或高低刃均可採用。  
排屑槽設計，增加深孔排屑功能。

Micro-adjustment unit: 1mm of each, diame-  
ter Ø2mm, boring range Ø25~Ø2000mm.  
Clamp plate solidifies cartridges and head,  
upgrading cutting rigidity.  
CC and TC insert seats are suitable for custom-  
ers to choose, Patented step boring design;  
suitable for both level boring and step boring.  
Completed with chip pocket,  
improving chip flow of deep boring.



A-A / B-B刀片座  
A-A / B-B Insert seat



A-B / B-A刀片座  
A-B / B-A Insert seat



A-A及B-B為平刃設計，刀片座為等高狀態，  
可用於一般搪孔加工A-B及B-A為高低刃設計  
，刀座獨特高低段差設計，可實現不等徑、不  
等高的搪孔加工。

A-A and B-B flat blade design, the insert  
seat contours state, can be used for  
general Boring processing.

A-B and B-A for the high and low edge  
design, knife blocks unique level of  
segment Poor design can achieve unequal  
diameter, height Boring processing.

# Boring Head



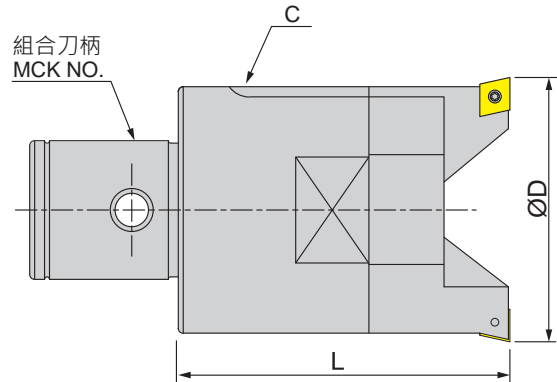
# RBH 可調式雙刃粗搪孔頭

## RBH INDEXABLE TWIN-BIT ROUGH BORING HEAD

PAT.NO : 188042  
 PAT.NO : 164277  
 PAT.NO : 180593  
 PAT.NO : ZL02208906.3  
 PAT.NO : ZL01232355.1



搪孔範圍  
 ø25~500  
 Boring Range



### 特點 Feature

- 適用單刃搪孔、雙刃搪孔及高低階搪孔。搪孔範圍 Ø25~500mm
- 新型刀刃滑座設計，刀背補強。加工時，滑座承受的兩個作用力相互抵消，產生最大剛性和切削力。適合各形態的搪孔作業
- 可依照不同加工需求，輕易調整搪刀，作少量多樣的加工。加工深度可配合延長桿延伸至所需長度
- 清晰的側邊刻度，協助使用者輕易調整到所需的範圍，無須在刀具設定儀上預設
- 最適合在各型切削中心機或搪床上配合使用，並可搭配各種廠牌相同規格的指定刀片，節省刀具研磨時間並大幅增加搪孔效率
- 專利高低段差設計，平刃或高低刃均可採用
- 直徑 Ø200 以上大孔徑搪刀，使用直接組件，結構簡單剛性強，調整範圍為直徑 100mm

- The head is suitable for single bit boring, twin-bit boring and step boring with working diameter from Ø25mm to Ø500mm on diameter.
- New cartridges style with built-up rib. The pressure imposed on both cartridges counteracts producing highest rigidity and cutting efficiency, most suitable for a variety of borings.
- Boring head can be easily adjusted to different boring needs for machining on demand. Boring depth can be extended by tool connection.
- Clear side division provides a convenient adjustment without using a tool Presetter.
- Most suitable for boring on various machine centers or boring mills.
- Universal design accepts inserts of any brands, which will reduce tool grinding and greatly improve boring performance.
- Patented step boring design; suitable for both level boring and step boring.

規格 Spec.	øD 搪孔範圍 Boring Range		C	L	組合刀柄 Mck No.	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
	Min.	Max.								
RBH25 - 33 - C	25	33	24	45	CK2/MCK2	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.23
RBH32 - 42 - T	32	42	31	55	CK3/MCK3	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.23
RBH32 - 42 - C	32	42	31	55	CK3/MCK3	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.23
RBH40 - 55 - T	40	55	39	65	CK4/MCK4	TC..16T3	M4-10-5.0-43	T15	3.0	0.66
RBH40 - 55 - C	40	55	39	65	CK4/MCK4	CC..09T3	M4-10-5.7-60	T15	3.0	0.66
RBH52 - 70 - T	52	70	50	75	CK5/MCK5	TC..16T3	M4-10-5.0-43	T15	3.0	0.40
RBH52 - 70 - C	52	70	50	75	CK5/MCK5	CC..09T3	M4-10-5.7-60	T15	3.0	0.40
RBH68 - 92 - T	68	92	64	85	CK6/MCK6	TC..16T3	M4-10-5.0-43	T15	3.0	2.00
RBH68 - 92 - C	68	92	64	85	CK6/MCK6	CC..1204	M5-11-7.0-55	T20	5.0	2.10
RBH90 - 122 - T	90	122	80	100	CK6/MCK6	TC..2204	M5-11-7.0-55	T20	5.0	3.03
RBH90 - 122 - C	90	122	80	100	CK6/MCK6	CC..1204	M5-11-7.0-55	T20	5.0	3.18
RBH200 - 300 - T	200	300	-	95	BST	TC..2204	M5-11-7.0-55	T20	5.0	7.00
RBH200 - 300 - C	200	300	-	95	BST	CC..1204	M5-11-7.0-55	T20	5.0	7.00
RBH300 - 400 - T	300	400	-	95	BST	TC..2204	M5-11-7.0-55	T20	5.0	10.70
RBH300 - 400 - C	300	400	-	95	BST	CC..1204	M5-11-7.0-55	T20	5.0	10.70
RBH400 - 500 - T	400	500	-	95	BST	TC..2204	M5-11-7.0-55	T20	5.0	14.00
RBH400 - 500 - C	400	500	-	95	BST	CC..1204	M5-11-7.0-55	T20	5.0	14.00

### 選配表 Option

刀桿 Shank	
A127/A342	A344



# RBH-LA 新型可調整式雙刃粗搪孔頭

## RBH-LA INDEXABLE TWIN-BIT ROUGH BORING HEAD

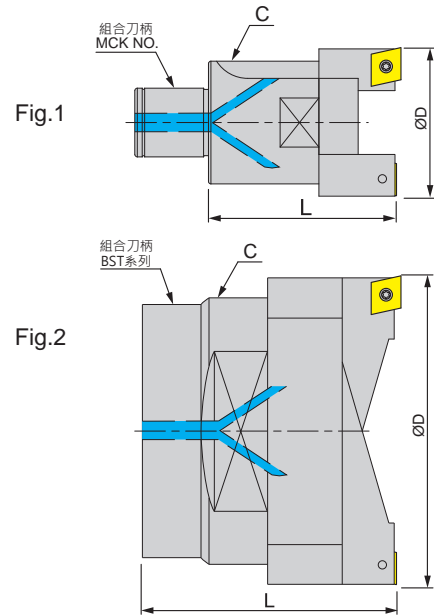
PAT.NO : 188042  
 PAT.NO : 180593  
 PAT.NO : ZL02208906.3  
 PAT.NO : ZL01232355.1



搪孔範圍  
 ø25~204  
 Boring Range

### 特點 Feature

- 新型第二代 LA 搪孔頭增加如下功能：
- 刀片支持座厚度增加，剛性增強
- RBH-25LA~RBH-160LA 為內藏式水孔，直接冷卻，增加刀片的壽命
- 排屑槽設計，增加深孔排屑功能
- 連接壓板使刀頭與刀座一體，增加切削剛性
- 獨特高低段差設計，平刃或高低刃均可採用
- 調整範圍增大，增加穩定性



- Thickened cartridge with higher rigidity.
- RBH-25LA~RBH-160LA Coolant nozzle easily cools the insert elongating its working life.
- Completed with chip pocket, improving chip flow of deep boring.
- Clamp plate solidifies cartridges and head, upgrading cutting rigidity.
- Patented step boring design; suitable for both level boring and step boring.

規格 Spec.	øD 搪孔範圍 Boring Range		C	L	組合刀柄 Mck No.	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	Fig	重量 (KGS) Weight
	Min.	Max.									
RBH - 25-35LA - C	25	35	24	50	CK2/MCK2	CC..0602	M2.5-6.0-3.5-60	T8	1.2	1	0.18
RBH - 32-45LA - C	32	45	31	60	CK3/MCK3	CC..0602	M2.5-6.0-3.5-60	T8	1.2	1	0.34
RBH - 32-45LA - T	32	45	31	60	CK3/MCK3	TC..1102	M2.5-6.0-3.5-60	T8	1.2	1	0.35
RBH - 40-55LA - C	40	55	39	74	CK4/MCK4	CC..09T3	M4-10-5.7-60	T15	3.0	1	0.62
RBH - 40-55LA - T	40	55	39	74	CK4/MCK4	TC..16T3	M4-10-5.0-43	T15	3.0	1	0.61
RBH - 52-75LA - C	52	75	50	80	CK5/MCK5	CC..09T3	M4-10-5.7-60	T15	3.0	1	1.13
RBH - 52-75LA - T	52	75	50	80	CK5/MCK5	TC..16T3	M4-10-5.0-43	T15	3.0	1	1.11
RBH - 68-100LA - C	68	100	66	90	CK6/MCK6	CC..1204	M5-11-7.0-55	T20	5.0	1	2.20
RBH - 68-100LA - T	68	100	66	90	CK6/MCK6	TC..16T3	M4-10-5.0-43	T15	3.0	1	2.21
RBH - 90-130LA - C	90	130	88	100	CK6/MCK6	CC..1204	M5-11-7.0-55	T20	5.0	1	3.10
RBH - 90-130LA - T	90	130	88	100	CK6/MCK6	TC..16T3	M4-10-5.0-43	T15	3.0	1	2.99
RBH - 120-164LA - C	120	164	100	95	BST	CC..1204	M5-11-7.0-55	T20	5.0	2	3.80
RBH - 120-164LA - T	120	164	100	95	BST	TC..2204	M5-11-7.0-55	T20	5.0	2	3.80
RBH - 160-204LA - C	160	204	130	95	BST	CC..1204	M5-11-7.0-55	T20	5.0	2	4.80
RBH - 160-204LA - T	160	204	130	95	BST	TC..2204	M5-11-7.0-55	T20	5.0	2	4.80

### 選配表 Option

刀桿 Shank	
A127/A342	A344

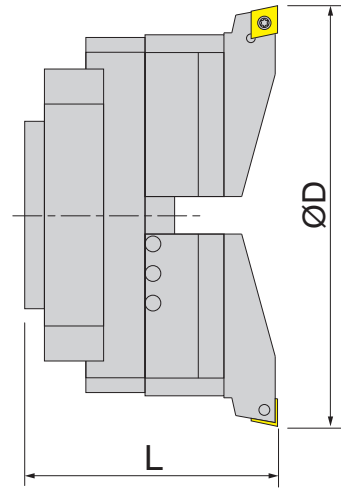
BORING



# RBH-LA 新型大孔徑雙刃粗搪孔頭

## RBH-LA LARGE DIAMETER ROUGH BORING HEAD

PAT.NO : 188042  
 PAT.NO : 180593  
 PAT.NO : ZL02208906.3  
 PAT.NO : ZL01232355.1



搪孔範圍  
 Ø200~2000  
 Boring Range

### 特點 Feature

- RBH600LA 以下加工調整範圍為直徑 110mm · RBH600LA~RBH900LA 調整範圍為 300mm · RBH1200LA 以上調整範圍為 400mm

- Processing adjustment range RBH600LA below 110mm diameter RBH600LA of ~RBH900LA adjustment range is 300mm, RBH1200LA more adjustment range of 400mm.

規格 Spec.	ØD 搪孔範圍 Boring Range		L	組合型式 Combination type						
	Min.	Max.		組合刀柄 Mck No.	連接盤 Flange	橫向滑板 Extension Slide	滑塊 Horizontal Slide	刀片座墊片 Insert Seat Shim	刀片座 Insert Seat	重量 (KGS) Weight
RBH200LA	200	310	130	BST	合金鋼 BR200	合金鋼	RS200	RS201	RB200C12 RB200T16 RB200T22 RB200S12 (四選一)	9.52
RBH300LA	300	410								11.52
RBH400LA	400	510								13.52
RBH500LA	500	610								15.52
RBH600LA	600	900	150	FMA 47.625	鋁合金	合金鋼	RS200	RS201	RB200C12 RB200T16 RB200T22 RB200S12 (四選一)	23.02
RBH900LA	900	1200								31.72
RBH1200LA	1200	1600								46.62
RBH1600LA	1600	2000	180							51.82

### 配件表 Accessories

刀片座 Insert Seat	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
RB200C12	CC..1204	M5-11-7.0-55	T20	5.0	0.68
RB200T16	TC..16T3	M4-10-5.0-43	T15	3.0	0.68
RB200T22	TC..2204	M5-11-7.0-55	T20	5.0	0.68
RB200S12	SC..1204	M5	T20	5.0	0.68

### 選配表 Option

刀桿 Shank
A344

BORING

# 搪孔刀片切削數據表

## BORING HEAD INSERT CUTTING CONDITIONS

規格	Mck No.	工件材質	刀片		切削速度 (m/min)	切削量 (mm/Ø)		進給量 (mm/rev)	
			刀片 R 角	刀片材質		推薦值	Max.	推薦值	Max.
RBH-25-35LA - C	MCK2 CK2	碳鋼、合金鋼	0.4/0.8	RM425	120	2.5	3.5	0.30	0.35
		不鏽鋼		OM4010	140	2.0	3.0	0.25	0.35
		鑄鐵		RM315	120	2.5	3.5	0.30	0.35
		鋁合金		RM5005	160	3.5	4.5	0.35	0.40
RBH-32-45LA - C RBH-32-45LA - T	MCK3 CK3	碳鋼、合金鋼	0.4/0.8	RM425	120	4.5	5.5	0.40	0.45
		不鏽鋼		OM4010	140	4.0	5.5	0.35	0.45
		鑄鐵		RM315	120	4.5	5.5	0.40	0.45
		鋁合金		RM5005	160	6.0	8.0	0.45	0.50
RBH-40-55LA - C RBH-40-55LA - T	MCK4 CK4	碳鋼、合金鋼	0.4/0.8	RM425	120	6.0	8.0	0.45	0.50
		不鏽鋼		OM4010	140	6.0	8.0	0.40	0.45
		鑄鐵		RM315	120	6.0	8.0	0.45	0.50
		鋁合金		RM5005	160	8.0	10.0	0.45	0.55
RBH-52-75LA - C RBH-52-75LA - T RBH-68-100LA - C RBH-68-100LA - T RBH-90-130LA - C RBH-90-130LA - T	MCK5 CK5	碳鋼、合金鋼	0.4/0.8	RM425	120	6.0	8.0	0.45	0.50
		不鏽鋼		OM4010	140	6.0	8.0	0.40	0.45
		鑄鐵		RM315	120	6.0	8.0	0.45	0.50
		鋁合金		RM5005	160	8.0	10.0	0.45	0.55
	MCK6 CK6	碳鋼、合金鋼	0.4/0.8	RM425	120	6.0	8.0	0.45	0.50
		不鏽鋼		OM4010	140	6.0	8.0	0.40	0.45
		鑄鐵		RM315	120	6.0	8.0	0.45	0.50
		鋁合金		RM5005	160	8.0	10.0	0.45	0.55
RBH-120-164LA - C RBH-120-164LA - T RBH-160-204LA - C RBH-160-204LA - T RBH200LA RBH300LA RBH400LA RBH500LA RBH600LA RBH900LA RBH1200LA RBH1600LA	BST FMA47.625	碳鋼、合金鋼	0.4/0.8	RM425	120	6.0	8.0	0.45	0.50
		不鏽鋼		OM4010	140	6.0	8.0	0.40	0.45
		鑄鐵		RM315	120	6.0	8.0	0.45	0.50
		鋁合金		RM5005	160	8.0	10.0	0.45	0.55

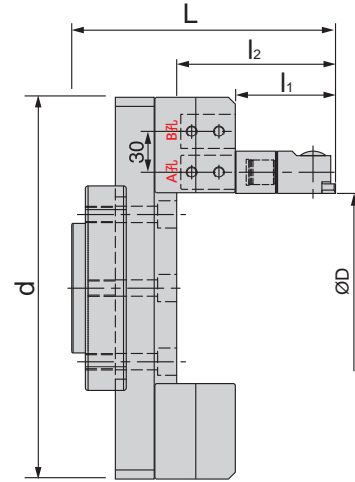
- 本表是切削數據的設定基準，請視當時的機床、工件材質、鐵屑的排出情況做適當的調整。

The cutting data table is set benchmarks and make the appropriate adjustments, depending on the time machine tools、the workpiece material、iron filings discharge.



# CBR 組合式外圓微調精搪刀系列

## CBR MODULAR EXTERNAL FINISH BORING HEAD



搪孔範圍  
ø10~850  
Boring Range

規格 Spec.	ØD 搪孔範圍 Boring Range				L	l <sub>1</sub>	l <sub>2</sub>	d	重量 (KGS) Weight
	A 孔 A Hole		B 孔 B Hole						
	Min.	Max.	Min.	Max.					
CBR200	10	90	70	150	190/220	70/100	115/145	180	9.70
CBR300	10	190	70	250	190/220	70/100	115/145	280	11.7
CBR400	10	290	70	350	190/220	70/100	115/145	380	13.7
CBR500	10	390	70	450	190/220	70/100	115/145	480	15.7
CBR600	200	490	400	850	210/240	70/100	115/145	580	19.6
CBR900	200	790	500	1150	210/240	70/100	115/145	880	30.8

規格 Spec.	組合型式 Combination type							組合搪頭 Applicable Boring Head
	組合刀柄 Mck No.	連接盤 Flange	橫向滑板 Extension Slide	平衡滑板 Balance Slide	外圍滑塊 Clamp Base	外圍用接桿 Adapter For External Boring		
CBR200	BST	合金鋼 BR200 (2.7KG)	鋁合金 A-RST200 (1.1KG)	RBN200 (1.6KG)	HBR200 (1.3KG)	C25-SCK3-30 (0.3KG) C25-SCK3-60 (0.5KG) (二選一)	CBH32	
CBR300	BST							A-RST300 (1.9KG)
CBR400	BST							A-RST400 (2.7KG)
CBR500	BST							A-RST500 (3.5KG)
CBR600	FMA 47.625	鋁合金 BR600 (8.8KG)	A-RST300X2 只 (3.8KG)					
CBR900	FMA 47.625	鋁合金 BR900 (13.5KG)	A-RST400X2 只 (5.4KG)					

※ 在主軸逆轉下使用 Spindle reversal using.

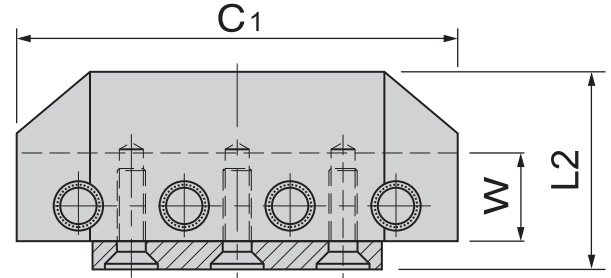
### 選配表 Option







## WBST 四方柄徑擴孔刀架 WBST TOOL REST



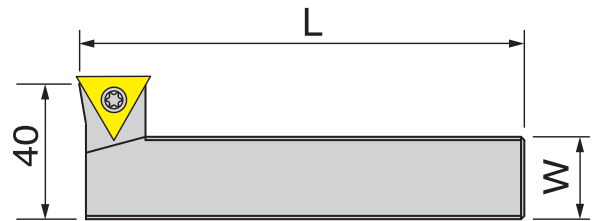
擴孔範圍  
ø150~500  
Boring Range

規格 Spec.	øD 擴孔範圍 Boring Range		組合刀柄 No.	L <sub>2</sub>	C <sub>1</sub>	W	重量 (KGS) Weight
	Min.	Max.					
A-WBST150	150	250	BST	55	125	25	1.03
S-WBST150	150	250	BST	55	125	25	2.50
A-WBST200	200	300	BST	55	175	25	1.50
S-WBST200	200	300	BST	55	175	25	3.60
A-WBST300	300	400	BST	55	275	25	2.34
S-WBST300	300	400	BST	55	275	25	6.00
A-WBST400	400	500	BST	55	375	25	3.17
S-WBST400	400	500	BST	55	375	25	8.30

※ 規格 A- 材質為鋁合金 · 規格 S- 為合金鋼 Spec. A-made of aluminum alloy, Spec. S-alloy steel.



## WBST 刀盤專用四方柄擴孔刀 WBST SQUARE SHANK BORING TOOL HOLDER FOR WBST TOOL REST



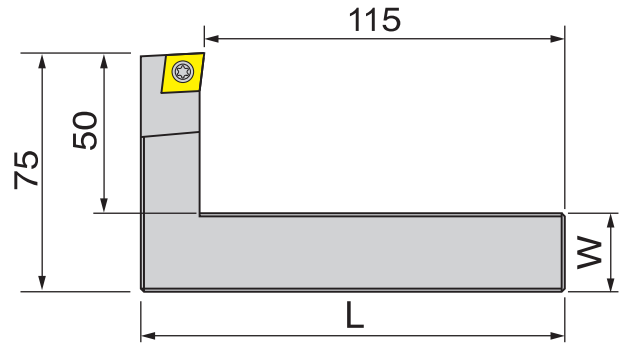
BORING

規格 Spec.	L	W	使用刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
BSB25-T16-135	135	25	TC..16T3	M4-10-5.0-43	T15	3.0	0.67
BSB25-T22-135	135	25	TC..2204	M5-11-7.0-55	T20	5.0	0.67
BSB25-C12-135	135	25	CC..1204	M5-11-7.0-55	T20	5.0	0.67
BSB25-S12-135	135	25	SC..1204	M5-11-7.0-55	T20	5.0	0.67



## WBST 刀盤專用四方柄外圓搪刀

WBST SQUARE SHANK EXTERNAL BORING TOOL HOLDER FOR WBST TOOL REST

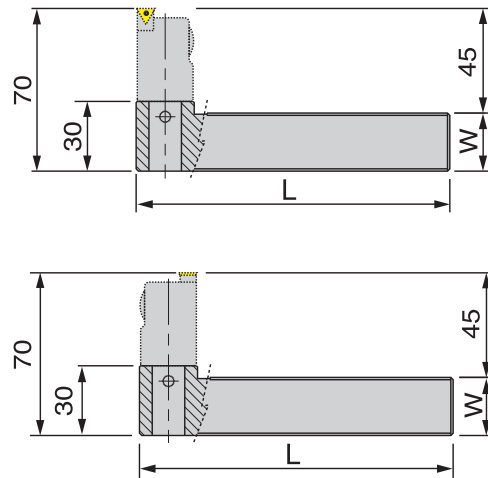


規格 Spec.	L	W	有效加工深度	使用刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
EBSB25-T16-135-50	135	25	40	TC..16T3	M4-10-5.0-43	T15	3.0	0.8
EBSB25-C12-135-50	135	25	40	CC..1204	M5-11-7.0-55	T20	5.0	0.8



## WBST 刀盤專用四方柄內外圓精搪孔刀架

INTERNAL & EXTERNAL SQUARE SHANK FINISH BORING TOOL HOLDER FOR WBST TOOL REST



規格 Spec.	L	W	加工深度	搪頭 Boring Head	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
BSB25-SCK2-135	135	25	36	CBH25	TP.0802	M2-5.0-3.1-60	T6	0.6	0.63

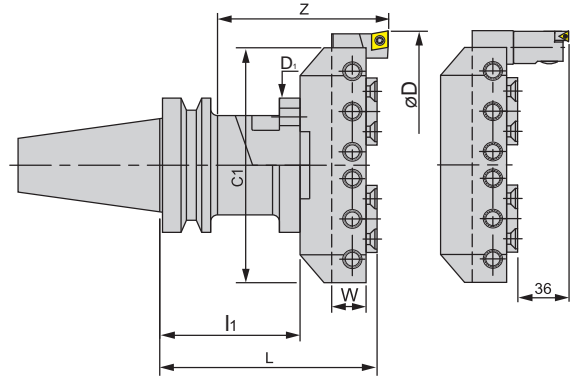
※ 此規格不含搪刀頭 Boring head is not included.

BORING



# WBST 四方柄大徑搪刀 + BST 刀桿

SQUARE SHANK LARGE HOLE BORING HEAD FITTED WITH WBST TOOL REST + BST SHANK



搪孔範圍  
ø150~510  
Boring Range

精度  
0.01mm  
Accuracy

最高轉速  
8000  
Max. rpm

## WBST 四方柄搪孔刀架 + BST 刀桿 + BSB25 四方柄搪刀

規格 Spec.	øD 搪孔範圍 Boring Range		Z	組合內容 Tool Connection		組合刀柄 No.	L	l <sub>1</sub>	D <sub>1</sub>	重量 (KGS) Weight
	Min.	Max.		BST 刀桿 BST Shank	WBST 刀桿 WBST Tool Rest					
BT40-WBST150-125	150	260	90	BT40-BST-70	WBST150	BST	150	70	95	5.70
BT40-WBST200-125	200	310	90	BT40-BST-70	WBST200	BST	150	70	95	6.80
BT50-WBST150-155	150	260	110	BT50-BST-100	WBST150	BST	155	100	95	7.60
BT50-WBST150-205	150	260	160	BT50-BST-150	WBST150	BST	205	150	95	9.30
BT50-WBST150-255	150	260	210	BT50-BST-200	WBST150	BST	255	200	95	12.1
BT50-WBST150-305	150	260	260	BT50-BST-250	WBST150	BST	305	250	95	14.0
BT50-WBST150-355	150	260	310	BT50-BST-300	WBST150	BST	355	300	95	16.0
BT50-WBST150-405	150	260	360	BT50-BST-350	WBST150	BST	405	350	95	18.6
BT50-WBST150-455	150	260	410	BT50-BST-400	WBST150	BST	455	400	95	21.8
BT50-WBST200-155	200	310	110	BT50-BST-100	WBST200	BST	155	100	95	8.70
BT50-WBST200-205	200	310	160	BT50-BST-150	WBST200	BST	205	150	95	10.4
BT50-WBST200-255	200	310	210	BT50-BST-200	WBST200	BST	255	200	95	13.2
BT50-WBST200-305	200	310	260	BT50-BST-250	WBST200	BST	305	250	95	15.1
BT50-WBST200-355	200	310	310	BT50-BST-300	WBST200	BST	355	300	95	17.1
BT50-WBST200-405	200	310	360	BT50-BST-350	WBST200	BST	405	350	95	19.7
BT50-WBST200-455	200	310	410	BT50-BST-400	WBST200	BST	455	400	95	22.9
BT50-WBST300-155	300	410	110	BT50-BST-100	WBST300	BST	155	100	95	11.1
BT50-WBST300-205	300	410	160	BT50-BST-150	WBST300	BST	205	150	95	12.8
BT50-WBST300-255	300	410	210	BT50-BST-200	WBST300	BST	255	200	95	15.6
BT50-WBST300-305	300	410	260	BT50-BST-250	WBST300	BST	305	250	95	17.5
BT50-WBST300-355	300	410	310	BT50-BST-300	WBST300	BST	355	300	95	19.5
BT50-WBST300-405	300	410	360	BT50-BST-350	WBST300	BST	405	350	95	22.1
BT50-WBST300-455	300	410	410	BT50-BST-400	WBST300	BST	455	400	95	25.3
BT50-WBST400-155	400	510	110	BT50-BST-100	WBST400	BST	155	100	95	13.4
BT50-WBST400-205	400	510	160	BT50-BST-150	WBST400	BST	205	150	95	15.1
BT50-WBST400-255	400	510	210	BT50-BST-200	WBST400	BST	255	200	95	17.9
BT50-WBST400-305	400	510	260	BT50-BST-250	WBST400	BST	305	250	95	19.8
BT50-WBST400-355	400	510	310	BT50-BST-300	WBST400	BST	355	300	95	21.8
BT50-WBST400-405	400	510	360	BT50-BST-350	WBST400	BST	405	350	95	24.4
BT50-WBST400-455	400	510	410	BT50-BST-400	WBST400	BST	455	400	95	27.6

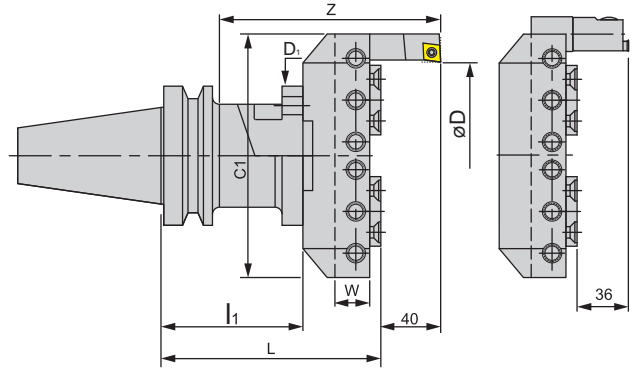
※ 此規格不含 BSB25 四方柄搪刀 This specification is not included BSB25 Quartet Shank Boring Tool.

BORING



# WBST 四方柄大徑搪刀 + BST 刀桿外圓加工用

SQUARE SHANK LARGE HOLE BORING HEAD FITTED WITH WBST TOOL REST + BST SHANK FOR EXTERNAL BORING



搪孔範圍  
ø80~450  
Boring Range

## WBST 四方柄搪孔刀架 + BST 刀桿 + BSB25 四方柄外圓搪刀

規格 Spec.	øD 搪孔範圍 Boring Range		Z	加工深度	組合內容 Tool Connection		組合刀柄 No.	L	l <sub>1</sub>	D <sub>1</sub>	重量 (KGS) Weight
	Min.	Max.			BST 刀桿 BST Shank	WBST 刀桿 WBST Tool Rest					
BT40-WBST150-125	80	200	90	36	BT40-BST-70	WBST150	BST	150	70	95	5.7
BT40-WBST200-125	130	250	90	36	BT40-BST-70	WBST200	BST	150	70	95	6.8
BT50-WBST150-155	80	200	110	36	BT50-BST-100	WBST150	BST	155	100	95	7.6
BT50-WBST150-205	80	200	160	36	BT50-BST-150	WBST150	BST	205	150	95	9.3
BT50-WBST150-255	80	200	210	36	BT50-BST-200	WBST150	BST	255	200	95	12.1
BT50-WBST150-305	80	200	260	36	BT50-BST-250	WBST150	BST	305	250	95	14
BT50-WBST150-355	80	200	310	36	BT50-BST-300	WBST150	BST	355	300	95	16
BT50-WBST150-405	80	200	360	36	BT50-BST-350	WBST150	BST	405	350	95	18.6
BT50-WBST150-455	80	200	410	36	BT50-BST-400	WBST150	BST	455	400	95	21.8
BT50-WBST200-155	130	250	110	36	BT50-BST-100	WBST200	BST	155	100	95	8.7
BT50-WBST200-205	130	250	160	36	BT50-BST-150	WBST200	BST	205	150	95	10.4
BT50-WBST200-255	130	250	210	36	BT50-BST-200	WBST200	BST	255	200	95	13.2
BT50-WBST200-305	130	250	260	36	BT50-BST-250	WBST200	BST	305	250	95	15.1
BT50-WBST200-355	130	250	310	36	BT50-BST-300	WBST200	BST	355	300	95	17.1
BT50-WBST200-405	130	250	360	36	BT50-BST-350	WBST200	BST	405	350	95	19.7
BT50-WBST200-455	130	250	410	36	BT50-BST-400	WBST200	BST	455	400	95	22.9
BT50-WBST300-155	230	350	110	36	BT50-BST-100	WBST300	BST	155	100	95	11.1
BT50-WBST300-205	230	350	160	36	BT50-BST-150	WBST300	BST	205	150	95	12.8
BT50-WBST300-255	230	350	210	36	BT50-BST-200	WBST300	BST	255	200	95	15.6
BT50-WBST300-305	230	350	260	36	BT50-BST-250	WBST300	BST	305	250	95	17.5
BT50-WBST300-355	230	350	310	36	BT50-BST-300	WBST300	BST	355	300	95	19.5
BT50-WBST300-405	230	350	360	36	BT50-BST-350	WBST300	BST	405	350	95	22.1
BT50-WBST300-455	230	350	410	36	BT50-BST-400	WBST300	BST	455	400	95	25.3
BT50-WBST400-155	330	450	110	36	BT50-BST-100	WBST400	BST	155	100	95	13.4
BT50-WBST400-205	330	450	160	36	BT50-BST-150	WBST400	BST	205	150	95	15.1
BT50-WBST400-255	330	450	210	36	BT50-BST-200	WBST400	BST	255	200	95	17.9
BT50-WBST400-305	330	450	260	36	BT50-BST-250	WBST400	BST	305	250	95	19.8
BT50-WBST400-355	330	450	310	36	BT50-BST-300	WBST400	BST	355	300	95	21.8
BT50-WBST400-405	330	450	360	36	BT50-BST-350	WBST400	BST	405	350	95	24.4
BT50-WBST400-455	330	450	410	36	BT50-BST-400	WBST400	BST	455	400	95	27.6

※ 此規格不含 BSB25 四方柄搪刀 Option of BSB25 Square Shank External Boring Tool holder.

※ 拆掉護蓋，有效深可達到 45，最小搪孔範圍可達到 Ø10. Applicable Boring Depth up 45 mm with Minimum Boring Range down to Ø10mm after Taking off the Shield.

BORING

# Feature

## CBH特點

微調單位：圓周50等分，每格調整尺寸為直徑0.01mm，另有副尺可作更精細之調整，搪孔範圍 $\varnothing 20 \sim \varnothing 202$ 均可搭配選用。

搭配T型刀片離隙角為 $3^\circ$ 。

刀座心軸採用方型結構，雙支撐面固定，所以切削穩定且剛性大。

Micro-adjustments with fifty 0.01mm in diameter. Includes a sub-dial for finer adjustments ranging from  $\varnothing 20\text{mm} \sim \varnothing 202\text{mm}$ .

T-type insert has a clearance angle of  $3^\circ$ .

The insert seat spindle use square structure with two face support, proving high stability and rigidity on diameter.

## CBH大孔徑

橫向滑板，搪孔範圍 $\varnothing 200 \sim \varnothing 2000$ 均可搭配選用，材質採用鋁合金製，可減少重量。

平衡滑塊，減少搪孔時的不平衡量。

刀座心軸採用方型結構，雙支撐面固定，所以切削穩定且剛性大。

微調滑塊，每格調整尺寸為直徑0.01mm。

Horizontal boring ranges from  $\varnothing 200\text{mm} \sim \varnothing 2000\text{mm}$  in diameter and is made with light-weight aluminum alloy.

Sliding counter-weight for long term precision. 0.01mm diameter Micro-adjustable sliding block.



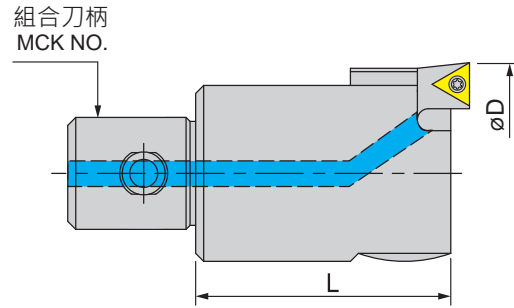
# Boring Head



# CBH 微調精搪孔頭

## CBH FINISH BORING HEAD

PAT.NO : 217175  
 PAT.NO : 221678  
 PAT.NO : ZL03276491.X  
 PAT.NO : ZL03208876.0



<b>搪孔範圍</b> ø20~202 Boring Range	<b>精度</b> 0.01mm Accuracy	<b>最高轉速</b> 6000 Max. rpm
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規格 Spec.	øD 搪孔範圍 Boring Range		組合刀柄 Mck No.	L	使用刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
	Min.	Max.							
CBH20-TB06	20	26	MCK1	35	TB..0601	M2-5.0-2.7-60	T6	0.6	0.19
CBH25-TB06	25	33	MCK2	40	TB..0601	M2-5.0-2.7-60	T6	0.6	0.20
CBH32-TB06	32	42	MCK3	40	TB..0601	M2-5.0-2.7-60	T6	0.6	0.28
CBH40-TB06	40	55	MCK4	50	TB..0601	M2-5.0-2.7-60	T6	0.6	0.59
CBH20-TP08	20	26	MCK1	35	TP..0802	M2-5.0-3.1-60	T6	0.6	0.19
CBH25-TP08	25	33	MCK2	40	TP..0802	M2-5.0-3.1-60	T6	0.6	0.26
CBH32-TP08	32	42	MCK3	40	TP..0802	M2-5.0-3.1-60	T6	0.6	0.37
CBH40-TP08	40	55	MCK4	50	TP..0802	M2-5.0-3.1-60	T6	0.6	0.52
CBH20-TC09	20	26	MCK1	35	TC..0902	M2-5.0-3.1-60	T6	0.6	0.19
CBH25-TC09	25	33	MCK2	40	TC..0902	M2-5.0-3.1-60	T6	0.6	0.20
CBH32-TC09	32	42	MCK3	40	TC..0902	M2-5.0-3.1-60	T6	0.6	0.37
CBH40-TC09	40	55	MCK4	50	TC..0902	M2-5.0-3.1-60	T6	0.6	0.50
CBH20-TP09	20	26	MCK1	35	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.10
CBH25-TP09	25	33	MCK2	40	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.20
CBH32-TP09	32	42	MCK3	40	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.30
CBH40-TP09	40	55	MCK4	50	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.50
CBH52-TP08	52	75	MCK5	60	TP..0802	M2-5.0-3.1-60	T6	0.6	1.02
CBH68-TP08	68	102	MCK6	72	TP..0802	M2-5.0-3.1-60	T6	0.6	2.02
CBH100-TP08	100	152	MCK6	72	TP..0802	M2-5.0-3.1-60	T6	0.6	2.90
CBH100B-TP08	100	152	BST	95	TP..0802	M2-5.0-3.1-60	T6	0.6	3.70
CBH150-TP08	150	202	MCK6	72	TP..0802	M2-5.0-3.1-60	T6	0.6	4.43
CBH150B-TP08	150	202	BST	95	TP..0802	M2-5.0-3.1-60	T6	0.6	4.90
CBH52-TP09	52	75	MCK5	60	TP..0902	M2.5-6.0-3.5-60	T8	1.2	1.00
CBH68-TP09	68	102	MCK6	72	TP..0902	M2.5-6.0-3.5-60	T8	1.2	2.00
CBH100-TP09	100	152	MCK6	72	TP..0902	M2.5-6.0-3.5-60	T8	1.2	3.16
CBH100B-TP09	100	152	BST	95	TP..0902	M2.5-6.0-3.5-60	T8	1.2	3.70
CBH150-TP09	150	202	MCK6	72	TP..0902	M2.5-6.0-3.5-60	T8	1.2	4.20
CBH150B-TP09	150	202	BST	95	TP..0902	M2.5-6.0-3.5-60	T8	1.2	4.90
CBH52-TC11	52	75	MCK5	60	TC..1102	M2.5-6.0-3.5-60	T8	1.2	1.00
CBH68-TC11	68	102	MCK6	72	TC..1102	M2.5-6.0-3.5-60	T8	1.2	2.00
CBH100-TC11	100	152	MCK6	72	TC..1102	M2.5-6.0-3.5-60	T8	1.2	2.90
CBH100B-TC11	100	152	BST	95	TC..1102	M2.5-6.0-3.5-60	T8	1.2	3.70
CBH150-TC11	150	202	MCK6	72	TC..1102	M2.5-6.0-3.5-60	T8	1.2	4.20
CBH150B-TC11	150	202	BST	95	TC..1102	M2.5-6.0-3.5-60	T8	1.2	4.90

### 選配表 Option

刀桿 Shank	
A127/A342	A344

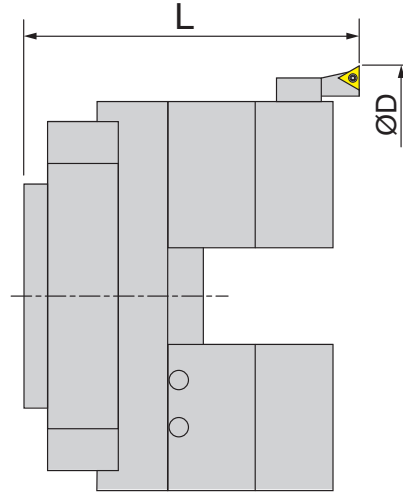
BORING



# CBH 新型大孔徑微調搪孔頭

## CBH LARGE DIAMETER BORING HEAD

PAT.NO : 217175  
 PAT.NO : 221678  
 PAT.NO : ZL03276491.X  
 PAT.NO : ZL03208876.0



搪孔範圍  
 ø200~2000  
 Boring Range

精度  
 0.01mm  
 Accuracy

### 特點 Feature

- CBH600 以下加工調整範圍為直徑 110mm · CBH600~CBH900 調整範圍為 300mm · CBH1200 以上調整範圍為 400mm

-Processing adjustment range CBH600 below 110mm diameter CBH600 of ~ RBH900 adjustment range is 300mm, CBH1200 more adjustment range of 400mm.

規格 Spec.	øD 搪孔範圍 Boring Range		L	組合型式 Combination type								
	Min.	Max.		組合刀柄 Mck No.	連接盤 Flange	橫向滑板 Extension Slide	平衡滑塊 Balance Slide	微調滑塊 Micro-Adjusted Sliding Block	刀片 Insert	重量 (KGS) Weight		
CBH200	200	310	130	BST	合金鋼	BR200	鋁合金	A-RST200	RBN200	CB200	TP.0802 TP.0902 TC..1102 (三選一)	7.40
CBH300	300	410	130	BST		BR200		A-RST300	RBN200	CB200		8.20
CBH400	400	510	130	BST		BR200		A-RST400	RBN200	CB200		9.00
CBH500	500	610	130	BST	BR200	A-RST500		RBN200	CB200	9.80		
CBH600	600	900	150	FMA47.625	BR600	A-RST300x2 只		RBN200	CB200	16.20		
CBH900	900	1200	150	FMA47.625	BR900	A-RST400x2 只	RBN200	CB200	21.40			
CBH1200	1200	1600	180	FMA47.625	BR1200	A-RST500x2 只	RBN200	CB200	35.00			
CBH1600	1600	2000	180	FMA47.625	BR1600	A-RST500x2 只	RBN200	CB200	40.20			

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
TP.0802	M2-5.0-3.1-60	T6	0.6
TP.0902	M2.5-6.0-3.5-60	T8	1.2
TC..1102	M2.5-6.0-3.5-60	T8	1.2

### 選配表 Option



BORING

# Feature

## MBH特點

微調單位：每刻度移動量為0.01mm，另有副尺可做更精確之調整，精密導程螺絲與螺帽均經硬化處理，堅固耐用。

搭配T型刀片離隙角為3°，C型刀片離隙角為0°。刀片座可承靠於本體上，能穩定搪孔尺寸與增加加工面光滑度。

內藏式水孔，易於排屑與冷卻。

Micro-adjustments with fifty 0.01mm in diameter. Includes a sub-dial for finer adjustments. High precision lead screw and nut are heat hardened for high durability.

T-type inserts with clearance angle of 3° or 0°.

Interchangeable insert seats are able to stabilize and improve surface quality.

Built-in coolant nozzle improves chip removal rate and workpiece quality.



A型刀座  
A-Type Insert seat



B型刀座  
B-Type Insert seat

MBH40~MBH500皆附A、B型兩款刀座、可自行更換增加搪孔範圍、節省客戶另外購買刀座之成本。

MBH40-MBH500 offers exchangeable A and B insert-holders for exchange on demand to obtain the optimum boring range and cost.

# Boring Head





# MBH 微調精搪孔頭

## MBH FINISH BORING HEAD

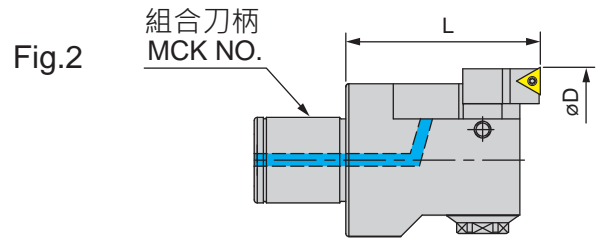
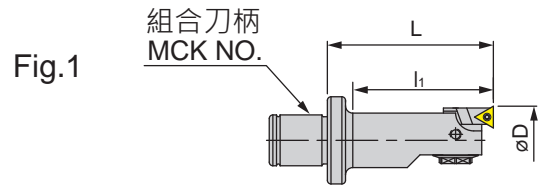


<b>搪孔範圍</b> ø16~200 Boring Range	<b>精度</b> 0.01mm Accuracy	<b>最高轉速</b> 8000 Max. rpm
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### 特點 Feature

- MBH 精搪刀使用於精切削搪孔，搪孔範圍 Ø16~Ø200mm 均可搭配選用
- 調整刻度每格調整尺寸為直徑 0.01mm
- 精密導程螺絲與螺帽均經硬化處理，堅固耐用
- 內藏式水孔，易於排屑與冷卻
- 刀片座為兩面固定無振動產生，可增加刀片壽命與加工面光滑度

- MBH Finish Boring Head is suitable for fine boring with working range from Ø16 to Ø200mm on diameter.
- Every division for adjustment is 0.01mm on diameter.
- High precision lead screw and nut have been heat treated and hardened with high durability.
- Built-in coolant nozzle easy for chip removal and work cooling.
- Insert holder is with two-face support, free of vibration, which will also extend the working life of insert and ensure smoothness of working surface.



規格 Spec.	øD 搪孔範圍 Boring Range		組合刀柄 Mck No.	L	l <sub>1</sub>	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
	Min.	Max.									
MBH16A	16	20	MCK2	55	50	WC..02	M2.0-5.0-2.7-60	T6	0.6	2	0.09
MBH16B	16	20	MCK2	80	75	WC..02	M2.0-5.0-2.7-60	T6	0.6	2	0.12
MBH20	20	26	MCK1	35		WC..02	M2.0-5.0-2.7-60	T6	0.6	1	0.07
MBH25	25	32	MCK2	40		WC..02	M2.0-5.0-2.7-60	T6	0.6	1	0.12
MBH32	32	42	MCK3	40		TP..0902	M2.5-6.0-3.5-60	T8	1.2	1	0.23
	32	42	MCK3	40		TC..0902	M2-5.0-3.1-60	T6	0.6	1	0.23
MBH32C	32	42	MCK3	40		CC..0602	M2.5-6.0-3.5-60	T8	1.2	1	0.23
MBH40	A	40	55	MCK4	50	TP..1103	M3-8.0-4.0-43	T9	1.4	1	0.43
	B	55	70	MCK4	50	TC..1102	M2.5-6.0-3.5-60	T8	1.2		
MBH52	A	52	70	MCK5	60	TP..1103	M3-8.0-4.0-43	T9	1.4	1	0.9
	B	67	85	MCK5	60	TC..1102	M2.5-6.0-3.5-60	T8	1.2		
MBH68	A	68	88	MCK6	75	TP..1103	M3-8.0-4.0-43	T9	1.4	1	1.86
	B	85	105	MCK6	75	TC..1102	M2.5-6.0-3.5-60	T8	1.2		
MBH100	A	100	140	BST	105	TP..1103	M3-8.0-4.0-43	T9	1.4	1	4.08
	B	120	160	BST	105	TC..1102	M2.5-6.0-3.5-60	T8	1.2		
MBH140	A	140	180	BST	105	TP..1103	M3-8.0-4.0-43	T9	1.4	1	5.45
	B	160	200	BST	105	TC..1102	M2.5-6.0-3.5-60	T8	1.2		
						CC..1204	M5-11-7.0-55	T20	5.0	1	5.45

※MBH40、MBH52、MBH68、MBH100、MBH140、MBH200、MBH300、MBH400、MBH500 各有 A、B 兩款刀片座，由使用者自行替換，以達到最大搪孔範圍  
 ※Each of MBH40、MBH52、MBH68、MBH100、MBH140、MBH200、MBH300、MBH400、MBH500 is with both A and B insert-holders for exchange on demand to obtain the maximum boring range.

### 選配表 Option

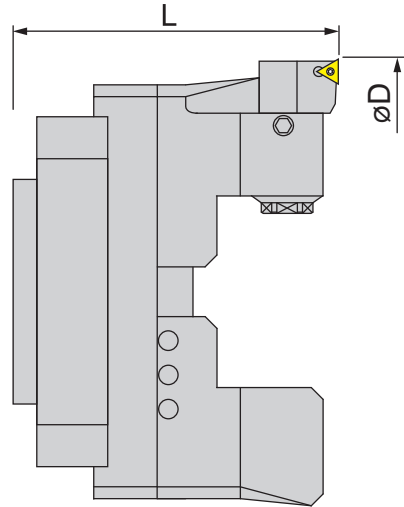
刀桿 Shank	
A127/A342	A344

BORING



# MBH 大孔徑微調精搪孔頭

## MBH LARGE DIAMETER FINISH BORING HEAD



<b>搪孔範圍</b> ø16~200 Boring Range	<b>精度</b> 0.01mm Accuracy	<b>最高轉速</b> 8000 Max. rpm
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### 特點 Feature

- MBH 精搪刀使用於精切削搪孔，搪孔範圍 Ø200~Ø1250mm 均可搭配選用
- 調整刻度每格調整尺寸為直徑 0.01mm
- 精密導程螺絲與螺帽均經硬化處理，堅固耐用
- 刀片座為兩面固定無振動產生，可增加刀片壽命與加工面光滑度

- MBH Finish Boring Head is suitable for fine boring with working range from Ø200 to Ø1250mm on diameter.
- Every division for adjustment is 0.01mm on diameter.
- High precision lead screw and nut have been heat treated and hardened with high durability.
- Insert holder is with two-face support, free of vibration, which will also extend the working life of insert and ensure smoothness of working surface.

規格 Spec.	øD 搪孔範圍 Boring Range		組合刀柄 Mck No.	L	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight																
	Min.	Max.																							
MBH200	A	200	260	BST	TC..1102 TP..1103 CC..1204	M2.5-6.0-3.5-60 M3-8.0-4.0-43 M5-11-7.5-60	T8 T9 T20	1.2 1.4 5.0	7.5																
	B	250	310	BST					8.3																
MBH300	A	300	360	BST					TC..1102 TP..1103 CC..1204	M2.5-6.0-3.5-60 M3-8.0-4.0-43 M5-11-7.5-60	T8 T9 T20	1.2 1.4 5.0	9.1												
	B	350	410	BST									9.9												
MBH400	A	400	460	BST									TC..1102 TP..1103 CC..1204	M2.5-6.0-3.5-60 M3-8.0-4.0-43 M5-11-7.5-60	T8 T9 T20	1.2 1.4 5.0	16.3								
	B	450	510	BST													22.6								
MBH500	A	500	560	BST													TC..1102 TP..1103 CC..1204	M2.5-6.0-3.5-60 M3-8.0-4.0-43 M5-11-7.5-60	T8 T9 T20	1.2 1.4 5.0	16.3				
	B	550	610	BST																	22.6				
MBH600	A	600	900	FMA47.625																	TC..1102 TP..1103 CC..1204	M2.5-6.0-3.5-60 M3-8.0-4.0-43 M5-11-7.5-60	T8 T9 T20	1.2 1.4 5.0	16.3
MBH900	A	900	1250	FMA47.625																					22.6

### 選配表 Option



BORING

# Feature

## FBH特點

內藏式水孔，刀尖直接冷卻，提升刀片壽命  
調整刻度每格尺寸為直徑0.002mm  
更換刀片座即可進行正向或反向搪孔加工。

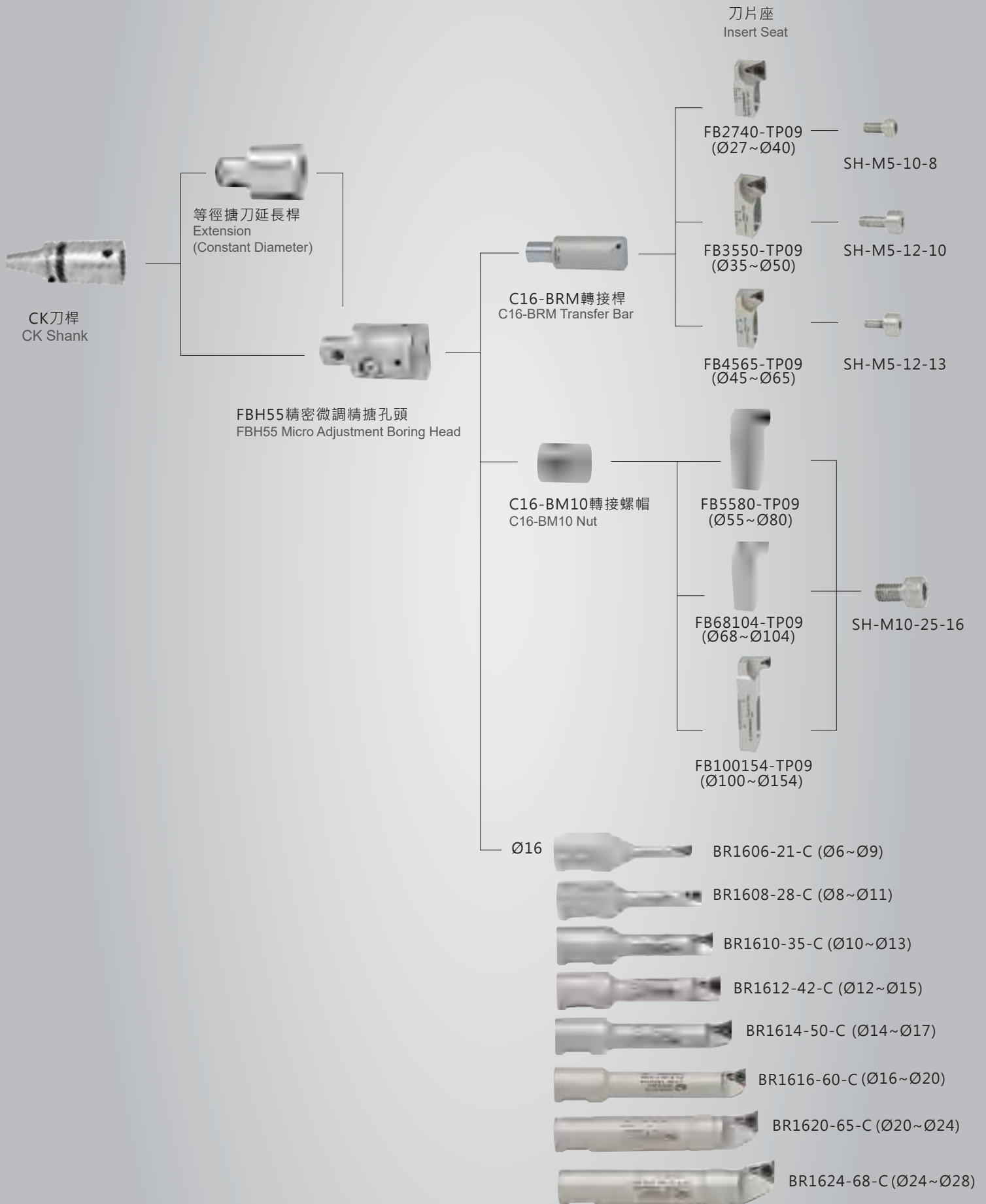
Built-in water hole, direct cooling of the tip to improve insert life.  
Adjust the scale of each grid to a diameter of 0.002mm.  
Replace the insert seat for forward or reverse boring.



# Boring Head



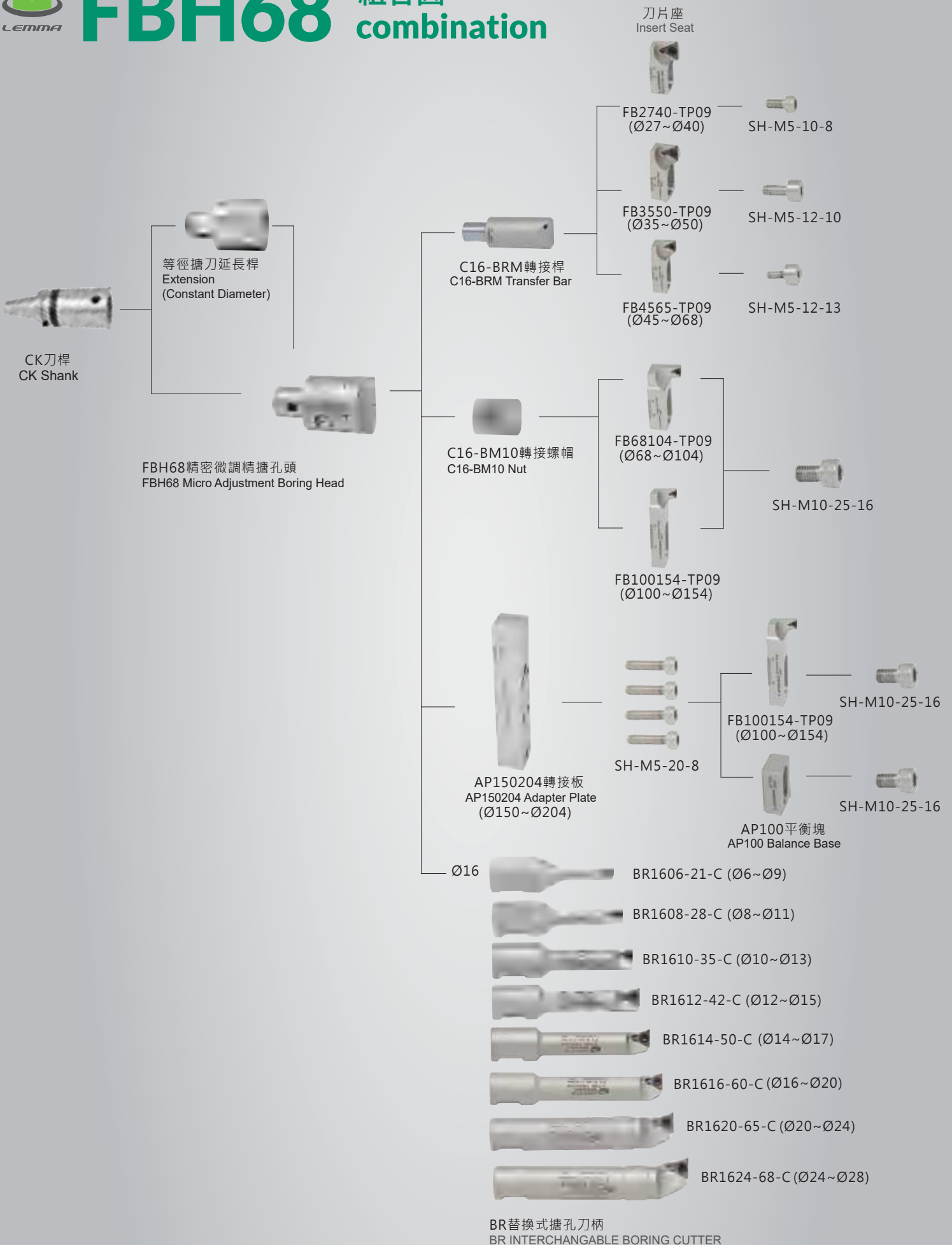
# FBH55 組合圖 combination



BR替換式搪孔刀柄  
BR INTERCHANGABLE BORING CUTTER



# FBH68 組合圖 combination





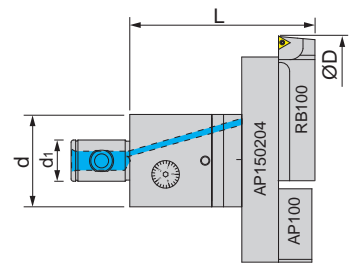
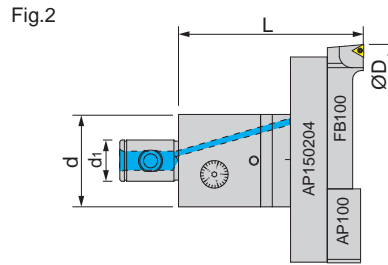
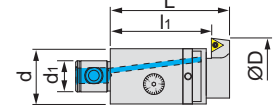
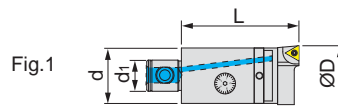
# FBH 精密微調精搪孔頭

## FBH MICRO ADJUSTMENT BORING HEAD



正搪  
Forward Boring

背搪  
Reverse Boring



搪孔範圍  
ø55~204  
Boring Range

精度  
0.002mm  
Accuracy

規格 Spec.	øD 搪孔範圍 Boring Range( 正搪 )				øD 搪孔範圍 Boring Range( 背搪 )					d	d <sub>1</sub>	組合刀柄 ck No.	刀片 Insert	Fig.	重量 (KGS) Weight
	Min.	Max.	刀片座 Insert Seat	L	Min.	Max.	刀片座 Insert Seat	L	l <sub>1</sub>						
FBH55	55	80	FB5580-TP09	85	60	84	RB6084-TP09	85	60	50	28	CK	TP.0902	1	1.04
	68	104	FB68104-TP09	95	78	115	RB78115-TP09	95	70	50	28	CK	TP.0902	1	1.11
	100	154	FB100154-TP09	95	110	164	RB110164-TP09	95	70	50	28	CK	TP.0902	1	1.22
	150	204	FB100154-TP09 AP150204 AP100	120	160	214	RB110164-TP09 AP150204 AP100	120	95	140	28	CK	TP.0902	2	2.13
FBH68	68	104	FB68104-TP09	100	78	115	RB78115-TP09	100	75	63	36	CK	TP.0902	1	2.00
	100	154	FB100154-TP09	100	110	164	RB110164-TP09	100	75	63	36	CK	TP.0902	1	2.11
	150	204	FB100154-TP09 AP150204 AP100	125	160	214	RB110164-TP09 AP150204 AP100	125	100	140	36	CK	TP.0902	2	3.02

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
TP.0902	M2.5-6.0-3.5-60	T8	1.2

BORING

### 選配表 Option





# FBH 精密微調精搪孔頭刀桿

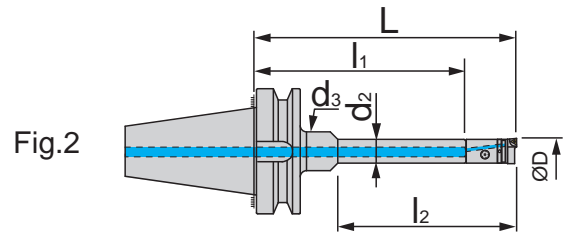
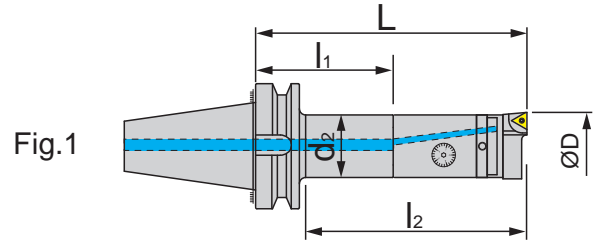
## FBH MICRO ADJUSTMENT BORING HEAD SHANK



正搪  
Forward  
Boring

搪孔範圍  
ø55~104  
Boring Range

精度  
0.002mm  
Accuracy



規格 Spec.	øD 搪孔範圍 Boring Range		搪孔組合 Tools Connection					L	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	d <sub>3</sub>	組合刀柄 Ck No.	Fig.	重量 (KGS) Weight
	Min.	Max.	刀桿 Shank	搪頭 Boring Head	- 刀片座 - Insert Seat										
BT30-FBH55-145	55	80	BT30-CK5-60	FBH55	- FB5580-TP09	145	60	115	50	-	CK	1	1.84		
BT30-FBH68-160	68	104	BT30-CK6-60	FBH68	- FB68104-TP09	160	60	130	64	-	CK	1	3.00		
BT40-FBH55-160	55	80	BT40-CK5-75	FBH55	- FB5580-TP09	160	75	125	50	-	CK	1	2.34		
BT40-FBH55-210	55	80	BT40-CK5-125	FBH55	- FB5580-TP09	210	125	175	50	-	CK	1	3.34		
BT40-FBH55-260	55	80	BT40-CK5-175	FBH55	- FB5580-TP09	260	175	225	50	-	CK	1	4.04		
BT40-FBH68-165	68	104	BT40-CK6-65	FBH68	- FB68104-TP09	165	65	130	50	-	CK	1	3.30		
BT40-FBH68-215	68	104	BT40-CK6-115	FBH68	- FB68104-TP09	215	115	180	50	-	CK	1	4.70		
BT40-FBH68-265	68	104	BT40-CK6-165	FBH68	- FB68104-TP09	265	165	230	50	-	CK	1	5.90		
BT50-FBH55-190	55	80	BT50-CK5-105	FBH55	- FB5580-TP09	190	105	145	50	-	CK	1	5.54		
BT50-FBH55-265	55	80	BT50-CK5-180	FBH55	- FB5580-TP09	265	180	220	50	-	CK	1	6.54		
BT50-FBH55-325	55	80	BT50-CK5-240	FBH55	- FB5580-TP09	325	240	280	50	-	CK	1	7.24		
BT50-FBH55-385	55	80	BT50-CK5-300	FBH55	- FB5580-TP09	385	300	280	50	64	CK	2	8.64		
BT50-FBH68-195	68	104	BT50-CK6-95	FBH68	- FB68104-TP09	195	95	150	64	-	CK	1	6.50		
BT50-FBH68-270	68	104	BT50-CK6-170	FBH68	- FB68104-TP09	270	170	225	64	-	CK	1	8.30		
BT50-FBH68-330	68	104	BT50-CK6-230	FBH68	- FB68104-TP09	330	230	285	64	-	CK	1	9.60		
BT50-FBH68-390	68	104	BT50-CK6-290	FBH68	- FB68104-TP09	390	290	345	64	-	CK	1	11.0		
BT50-FBH68-450	68	104	BT50-CK6-350	FBH68	- FB68104-TP09	450	350	285	64	90	CK	2	15.5		

BORING

### 選配表 Option





# FBH 精密微調精搪孔頭刀桿

## FBH MICRO ADJUSTMENT BORING HEAD SHANK



背搪  
Reverse  
Boring

Fig.1

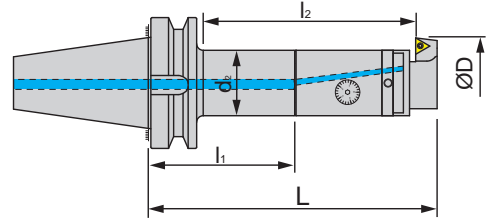
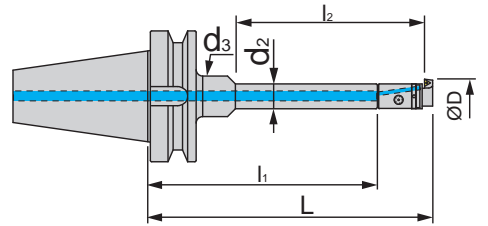


Fig.2



搪孔範圍  
ø60~115  
Boring Range

精度  
0.002mm  
Accuracy

規格 Spec.	øD 搪孔範圍 Boring Range		搪孔組合 Tools Connection		L	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	d <sub>3</sub>	組合刀柄 Ck No.	Fig.	重量 (KGS) Weight
	Min.	Max.	刀桿 Shank	搪頭 - 刀片座 Boring Head - Insert Seat								
BT30-FBH55-145-R	60	84	BT30-CK5-60	FBH55 - RB6084-TP09	145	60	90	50	-	CK	1	1.84
BT30-FBH68-160-R	78	115	BT30-CK6-60	FBH68 - RB78115-TP09	160	60	105	64	-	CK	1	3.00
BT40-FBH55-160-R	60	84	BT40-CK5-75	FBH55 - RB6084-TP09	160	75	100	50	-	CK	1	2.34
BT40-FBH55-210-R	60	84	BT40-CK5-125	FBH55 - RB6084-TP09	210	125	150	50	-	CK	1	3.34
BT40-FBH55-260-R	60	84	BT40-CK5-175	FBH55 - RB6084-TP09	260	175	200	50	-	CK	1	4.04
BT40-FBH68-165-R	78	115	BT40-CK6-65	FBH68 - RB78115-TP09	165	65	105	50	-	CK	1	3.30
BT40-FBH68-215-R	78	115	BT40-CK6-115	FBH68 - RB78115-TP09	215	115	155	50	-	CK	1	4.70
BT40-FBH68-265-R	78	115	BT40-CK6-165	FBH68 - RB78115-TP09	265	165	205	50	-	CK	1	5.90
BT50-FBH55-190-R	60	84	BT50-CK5-105	FBH55 - RB6084-TP09	190	105	120	50	-	CK	1	5.54
BT50-FBH55-265-R	60	84	BT50-CK5-180	FBH55 - RB6084-TP09	265	180	195	50	-	CK	1	6.54
BT50-FBH55-325-R	60	84	BT50-CK5-240	FBH55 - RB6084-TP09	325	240	255	50	-	CK	1	7.24
BT50-FBH55-385-R	60	84	BT50-CK5-300	FBH55 - RB6084-TP09	385	300	255	50	64	CK	2	8.64
BT50-FBH68-195-R	78	115	BT50-CK6-95	FBH68 - RB78115-TP09	195	95	125	64	-	CK	1	6.50
BT50-FBH68-270-R	78	115	BT50-CK6-170	FBH68 - RB78115-TP09	270	170	200	64	-	CK	1	8.30
BT50-FBH68-330-R	78	115	BT50-CK6-230	FBH68 - RB78115-TP09	330	230	260	64	-	CK	1	9.60
BT50-FBH68-390-R	78	115	BT50-CK6-290	FBH68 - RB78115-TP09	390	290	320	64	-	CK	1	11.0
BT50-FBH68-450-R	78	115	BT50-CK6-350	FBH68 - RB78115-TP09	450	350	260	64	90	CK	2	15.5

BORING

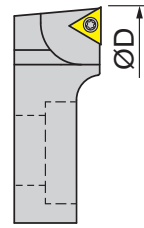
### 選配表 Option







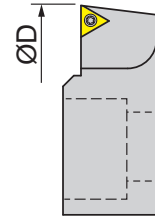
## FBH55/68 專用正反搪刀片座 FBH55/68 FORWARD/REVERSE INSERT SEAT



- 正搪 Forward Boring

規格 Spec.	組合搪頭 Suitable Boring Head	øD 搪孔範圍 Boring Range( 正搪 )		轉接螺帽 Nut	鎖固螺絲 Locking screws	刀片 Insert	重量 (KGS) Weight
		Min.	Max.				
FB5580-TP09	FBH55	55	80	C16-BM10	SH-M10-25-16	TP.0902	-
FB68104-TP09	FBH55/FBH68	68	104	C16-BM10	SH-M10-25-16	TP.0902	-
FB100154-TP09	FBH55/FBH68	100	154	C16-BM10	SH-M10-25-16	TP.0902	-

※ 附鎖固螺絲 With locking screws



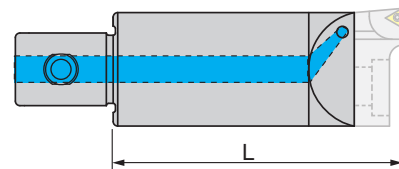
- 背搪 Reverse Boring

規格 Spec.	組合搪頭 Suitable Boring Head	øD 搪孔範圍 Boring Range( 背搪 )		轉接螺帽 Nut	鎖固螺絲 Locking screws	刀片 Insert	重量 (KGS) Weight
		Min.	Max.				
RB6084-TP09	FBH55	60	84	C16-BM10	SH-M10-25-16	TP.0902	0.20
RB78115-TP09	FBH55/FBH68	78	115	C16-BM10	SH-M10-25-16	TP.0902	0.40
RB110164-TP09	FBH55/FBH68	110	164	C16-BM10	SH-M10-25-16	TP.0902	0.60

※ 附鎖固螺絲 With locking screws



## FBH55/68 專用刀片座轉接桿 FBH55/68 TRANSFER BAR FOR INSERT HOLDER



規格 Spec.	組合搪頭 Suitable Boring Head	刀片座 Insert Seat	øD 搪孔範圍 Boring Range		L	刀片 Insert	重量 (KGS) Weight
			Min.	Max.			
C16-BRM	FBH55 FBH68	FB2740-TP09	Ø27	Ø40	62	TP.0902	-
		FB3550-TP09	Ø35	Ø50	65	TP.0902	-
		FB4565-TP09	Ø45	Ø68	68	TP.0902	-

BORING

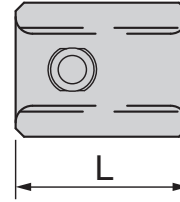
### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
TP.0902	M2.5-6.0-3.5-60	T8	1.2



## FBH55/68 專用轉接螺帽

### FBH55/68 NUT



規格 Spec.	L	重量 (KGS) Weight
C16-BM10	20.5	-



## FBH55/68 專用轉接板

### FBH55/68 ADAPTER PLATE



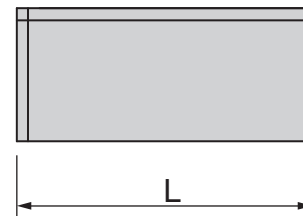
規格 Spec.	組合搪頭 Suitable Boring Head	正搪刀片座 Forward Boring Insert Seat	φD 搪孔範圍 Boring Range( 正搪 )		背搪刀片座 Forward Boring Insert Seat	φD 搪孔範圍 Boring Range( 背搪 )		刀片 Insert	重量 (KGS) Weight
			Min.	Max.		Min.	Max.		
AP150204	FBH55 FBH68	FB100154-TP09	150	204	RB110164-TP09	160	214	TP.0902	-

※ 附鎖固螺絲 SH-M5-20-8\*4pcs With locking screws SH-M5-20-8\*4pcs



## FBH55/68 專用平衡塊

### FBH55/68 BALANCE BASE



規格 Spec.	L	重量 (KGS) Weight
AP100	50	0.2

※ 附鎖固螺絲 SH-M10-25-16 With locking screws SH-M10-25-16



# FBH55 精密微調精搪孔頭套裝

## FBH55 MICRO ADJUSTMENT BORING HEAD SET



規格 Spec.	內容物 Contents								重量 (KGS) Weight			
	刀桿 Shank	搪頭 Boring Head	刀片座 Insert Seat	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque				
FBH55-SET	BT30-CK5-60 BT40-CK5-75 BT50-CK5-105 (任選一只)	FBH55	FB2740-TP09	BR1606-21-C	WBGT060104L-F RM4015(10片)	M2-3.8-2.68-43	T6	0.6	6.2			
			FB3550-TP09	BR1608-28-C	TBGT060102L-F01 RM4030(10片)	M2-5.0-2.7-60						
			FB4565-TP09	BR1610-35-C	TPGT090204L-F01 RM4030(10片)	M2.5-6.0-3.5-60	T8	1.2				
			FB5580-TP09	BR1612-42-C								
			FB68104-TP09	BR1614-50-C								
						FB100154-TP09	BR1616-60-C	TPGT110302L-F02 RM4030(10片)		M3-8.0-4.0-43	T9	1.4
							BR1620-65-C					
				BR1624-68-C								

※ 此套裝組刀片為選配 This set is an optional of insert.

規格 Spec.	內容物 Contents							重量 (KGS) Weight
	轉接桿 Transfer Bar	轉接螺帽 Nut	鎖固螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	扳手 Wrench	扭力值 (N.m) Torque	
FBH55-SET	C16-BRM	C16-BM10	SH-M5-10-8 (1只) SH-M5-12-10 (1只) SH-M5-12-13 (1只) SH-M10-25-16 (1只)	PL4 PL5 PL6 PL8	5.0 6.0	PT2.5 PT3	5.0	6.2

BORING



# FBH68 精密微調精搪孔頭套裝

## FBH68 MICRO ADJUSTMENT BORING HEAD SET



規格 Spec.	內容物 Contents								重量 (KGS) Weight
	刀桿 Shank	搪頭 Boring Head	刀片座 Insert Seat	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	
FBH68-SET	BT30-CK6-60 BT40-CK6-65 BT50-CK6-95 (任選一只)	FBH68	FB2740-TP09	BR1606-21-C	WBGTO60104L-F RM4015(10片)	M2-3.8-2.68-43	T6	0.6	7.7
			FB3550-TP09	BR1608-28-C	TBGT060102L-F01 RM4030(10片)	M2-5.0-2.7-60			
			FB4565-TP09	BR1610-35-C	TPGT090204L-F01 RM4030(10片)	M2.5-6.0-3.5-60	T8	1.2	
			FB68104-TP09	BR1612-42-C					
			FB100154-TP09	BR1614-50-C					
				BR1616-60-C	TPGT110302L-F02 RM4030(10片)	M3-8.0-4.0-43	T9	1.4	
				BR1620-65-C					
	BR1624-68-C								

※ 此套裝組刀片為選配 This set is an optional of insert.

規格 Spec.	內容物 Contents								重量 (KGS) Weight	
	轉接桿 Transfer Bar	轉接螺帽 Nut	轉接板 Adapter Plate	平衡塊 Balance Base	鎖固螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	扳手 Wrench		扭力值 (N.m) Torque
FBH68-SET	C16-BRM	C16-BM10	AP150204	AP100	SH-M5-10-8 (1只) SH-M5-12-10 (1只) SH-M5-12-13 (1只) SH-M5-20-8 (4只) SH-M10-25-16 (2只)	PL4 PL5 PL6 PL8	5.0 6.0	PT2.5 PT3	5.0	7.7

BORING

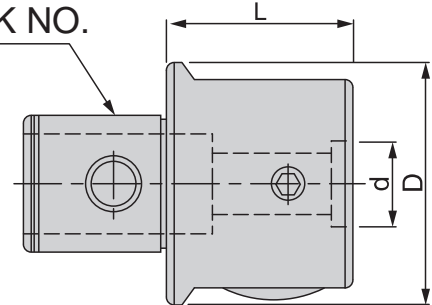


## CBI 小徑微調精搪刀系列 CBI SMALL DIAMETER FINISH BORING HEAD

PAT.NO : 217175  
PAT.NO : 221678  
PAT.NO : ZL03276491.X  
PAT.NO : ZL03208876.0



組合刀柄  
MCK NO.



### 特點 Feature

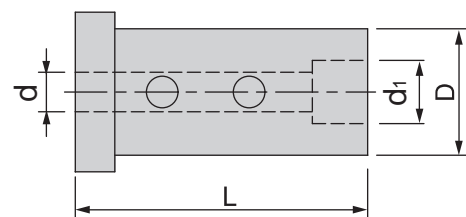
- CBI 小徑精搪刀有三種選擇，適用於  $\varnothing 8 \sim \varnothing 50 \text{mm}$  小孔徑使用，如使用全鎢鋼小徑搪刀桿可加工  $\varnothing 3 \sim \varnothing 10 \text{mm}$  範圍小孔
- 調整刻度為圓周 50 等分，每格調整尺寸為直徑 0.01mm，另有副尺可作更精細之調整
- 精密導程螺絲位於內部，不要切屑、磨耗、生鏽等影響，具有內部潤滑精準耐用

- Available are three different styles enabling small diameter boring from  $\varnothing 8 \text{mm}$  to  $\varnothing 50 \text{mm}$ . Boring range can be with in  $\varnothing 3 \text{mm}$  to  $\varnothing 10 \text{mm}$  if small diameter solid carbide boring bar has been employed.
- The dial has been graduated into 50 divisions, each of which is 0.01mm on diameter. Available is sub-dial for finer adjustment.
- High precision internal lead screw with inner lubrication is free from the effects of chip, featuring high durability.

規格 Spec.	移動量 mm	組合刀柄 Mck No.	L	D	d	重量 (KGS) Weight
CBI4	0-2.0	MCK4	32	39	10	0.40
CBI5	0-3.5	MCK5	40	50	12	0.80
CBI6	0-5.0	MCK6	50	64	16	1.27



## CBI 小徑套筒 CBI SMALL DIAMETER ADAPTER



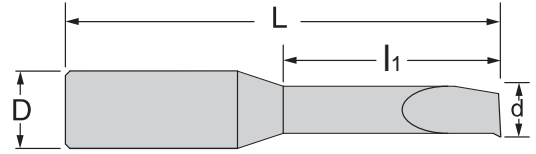
BORING

規格 Spec.	L	D	d	d <sub>1</sub>	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SH-0416-37	37	16	4	8	HS4×4	PL2	3.0	0.07
SH-0516-37	37	16	5	8	HS5×5.5	PL2	3.0	0.06
SH-0616-37	37	16	6	8	HS6×4	PL2	3.0	0.06
SH-0716-37	37	16	7	8	HS6×4	PL2	3.0	0.06



## CBI 系列專用超小徑碳化鎢搪孔刀

SUPER FINE DIAMETER TUNGSTEN CARBIDE BORING BAR DEDICATED TO CBI SERIES

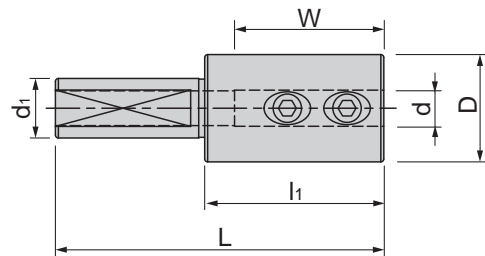


規格 Spec.	ød 搪孔範圍 Boring Range				L	l <sub>1</sub>	D	重量 (KGS) Weight
	Min.	Max.						
		CBI 4	CBI 5	CBI 6				
CBJ0603-15	3	7	10	13	50	15	6	-
CBJ0604-20	4	8	11	14	50	20	6	-
CBJ0605-25	5	9	12	15	60	25	6	-
CBJ0606-30	6	10	13	16	60	30	6	-
CBJ1008-35	8	12	15	18	75	35	10	-
CBJ1010-40	10	14	17	20	75	40		0.07



## CBI 系列專用超小徑搪刀延長桿

EXTENSION ADAPTER FOR SMALL DIAMETER BORING BAR DEDICATED TO CBI SERIES



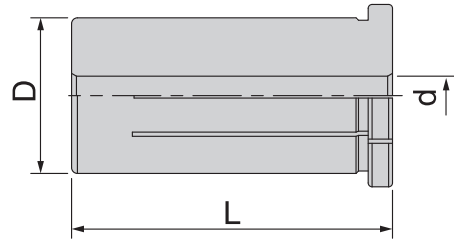
規格 Spec.	L	l <sub>1</sub>	D	d	d <sub>1</sub>	W	重量 (KGS) Weight
AC1006-30	55	30	18	6	10	25	0.08
AC1206-35	65	35	22	6	12	25	0.14
AC1210-35	65	35	22	10	12	30	0.12
AC1606-35	85	35	16	6	16	25	0.14
AC1610-35	85	35	22	10	16	30	0.14

BORING



## 鎢鋼刀柄專用套筒

SLEEVE FOR TUNGSTEN CARBIDE TOOL HOLDERS

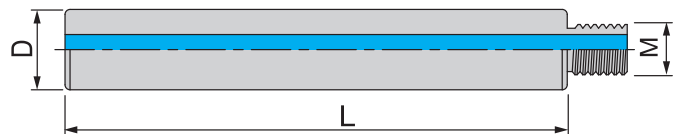


規格 Spec.	L	D	d	重量 (KGS) Weight
SBJ - 10-4K	30	10	4	0.01
SBJ - 10-6K	30	10	6	0.01
SBJ - 10-8K	30	10	8	0.01
SBJ - 12-4K	35	12	4	0.01
SBJ - 12-6K	35	12	6	0.01
SBJ - 12-8K	35	12	8	0.01
SBJ - 12-10K	35	12	10	0.01
SBJ - 16-8K	37	16	8	0.08
SBJ - 16-10K	37	16	10	0.04
SBJ - 16-12K	37	16	12	0.02
SBJ - 16-14K	37	16	14	0.01



## 抗震鎢鋼刀柄

VIBRATION RESISTANCE TUNGSTEN STEEL TOOL HOLDERS



BORING

### 特點 Feature

- 搪孔深度不得超過孔徑六倍

- Boring depth of not more than six times the diameter.

規格 Spec.	øD 搪孔範圍 Boring Range		L	D	M	組合搪頭 Suitable Boring Head	重量 (KGS) Weight
	Min.	Max.					
ST08 - W5-100L	9	13	100	8	M5×0.8P	SEB09N	0.07
ST10 - W6-110L	12	15	110	10	M6×1.0P	SEB12N	0.14
ST12 - W6-120L	14	17	120	12	M6×1.0P	SEB14N	0.21
ST14 - W6-160L	16	20	160	14	M6×1.0P	SEB16N	0.36
ST16 - W10-160L	18	42	160	16	M10×1.25P	SEB18N~SEB50N	0.47

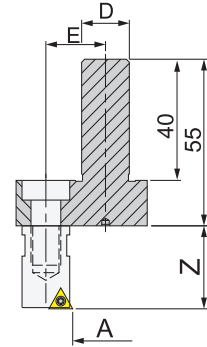
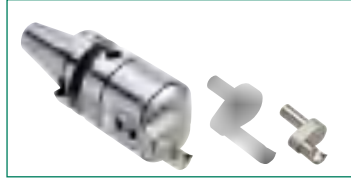


# CBR20/CBR30 組合式外圓搪孔組件

## CBR20/CBR30 MODULAR ASSEMBLIES FOR EXTERNAL BORING



### 範例 Example



規格 Spec.	搪頭	A	偏心距離 E	有效深 Z	D	使用刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
C16-CBR20 C20-CBR20	SEB36N	5 - 14	20	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB34N	7 - 16	20	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB32N	9 - 18	20	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB30N	11 - 20	20	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB28N	13 - 22	20	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB26N	15 - 24	20	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB24N	17 - 26	20	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB22N	19 - 28	20	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB20N	21 - 30	20	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB18N	23 - 32	20	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
C16-CBR30 C20-CBR30	SEB36N	25 - 34	30	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB34N	27 - 36	30	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB32N	29 - 38	30	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB30N	31 - 40	30	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB28N	33 - 42	30	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB26N	35 - 44	30	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB24N	37 - 46	30	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB22N	39 - 48	30	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB20N	41 - 50	30	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-
	SEB18N	43 - 52	30	25	16/20	TP.0802	M2-5.0-2.7-60	T6	0.6	-

※C16-CBR20、CBR30 為 CBI6 搪孔器專用搪外圓組件 C16-CBR20、CBR30 are the external boring assemblies for CBI6 boring system.

※C20-CBR20、CBR30 為 NBH2084 搪孔器專用搪外圓組件 C20-CBR20、CBR30 are the external boring assemblies for NBH2084 boring system.

※ 附螺絲 M10×20L With Screw M10 × 20L

BORING

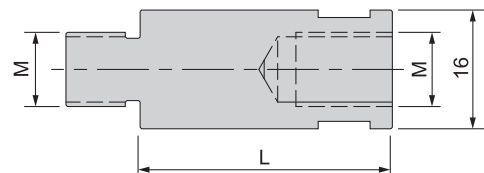


# CBR20/CBR30 專用加長連接桿

## CBR20/CBR30 EXTENSION ADAPTERS



### 範例 Example

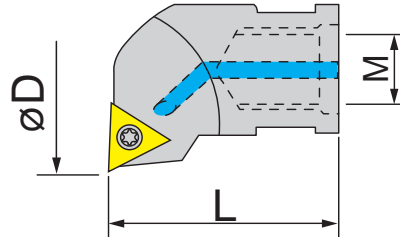


規格 Spec.	搪頭 Boring Head	L	結合牙 M	重量 (KGS) Weight
CBRM10-34	SEB18N-SEB36N	34	M10	0.06
CBRM10-64	SEB18N-SEB36N	64	M10	0.10





# 捨棄式搪孔頭 SUPPLEMENTAL BORING HEAD



規格 Spec.	øD 搪孔範圍 Boring Range		L	M	使用刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
	Min.	Max.							
SEB09N-TP08	9	10.5	18	M5	TP.0802	M2-5.0-2.7-60	T6	0.6	0.02
SEB10.5N-TP08	10.5	12	18	M5	TP.0802	M2-5.0-2.7-60	T6	0.6	0.02
SEB12N-TP08	12	14	23	M6	TP.0802	M2-5.0-2.7-60	T6	0.6	0.02
SEB14N-TP08	14	16	23	M6	TP.0802	M2-5.0-2.7-60	T6	0.6	0.02
SEB16N-TP08	16	18	23	M6	TP.0802	M2-5.0-2.7-60	T6	0.6	0.03
SEB18N-TP08	18	20	27	M10	TP.0802	M2-5.0-2.7-60	T6	0.6	0.03
SEB20N-TP08	20	22	27	M10	TP.0802	M2-5.0-2.7-60	T6	0.6	0.04
SEB22N-TP08	22	24	27	M10	TP.0802	M2-5.0-2.7-60	T6	0.6	0.04
SEB24N-TP08	24	26	27	M10	TP.0802	M2-5.0-2.7-60	T6	0.6	0.04
SEB26N-TP08	26	28	27	M10	TP.0802	M2-5.0-2.7-60	T6	0.6	0.04
SEB28N-TP08	28	30	27	M10	TP.0802	M2-5.0-2.7-60	T6	0.6	0.04
SEB30N-TP08	30	32	27	M10	TP.0802	M2-5.0-2.7-60	T6	0.6	0.04
SEB32N-TP08	32	34	27	M10	TP.0802	M2-5.0-2.7-60	T6	0.6	0.04
SEB34N-TP08	34	36	27	M10	TP.0802	M2-5.0-2.7-60	T6	0.6	0.05
SEB36N-TP08	36	38	27	M10	TP.0802	M2-5.0-2.7-60	T6	0.6	0.04

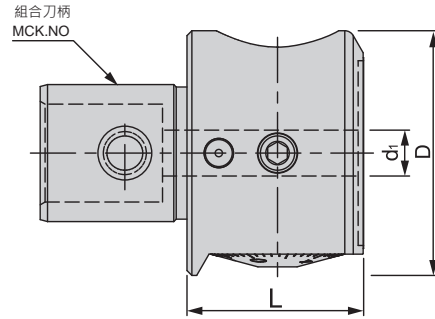
規格 Spec.	øD 搪孔範圍 Boring Range		L	M	使用刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
	Min.	Max.							
SEB09N-TB06	9	10.5	18	M5	TB.0601	M2-5.0-2.7-60	T6	0.6	0.02
SEB12N-TB06	12	14	23	M6	TB.0601	M2-5.0-2.7-60	T6	0.6	0.02
SEB14N-TP09	14	16	23	M6	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.02
SEB16N-TP09	16	18	23	M6	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.03
SEB18N-TP09	18	20	27	M10	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.03
SEB20N-TP09	20	22	27	M10	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.04
SEB22N-TP11	22	24	27	M10	TP.1103	M3-8.0-4.0-43	T9	1.4	0.04
SEB24N-TP11	24	26	27	M10	TP.1103	M3-8.0-4.0-43	T9	1.4	0.04
SEB26N-TP11	26	28	27	M10	TP.1103	M3-8.0-4.0-43	T9	1.4	0.04
SEB28N-TP11	28	30	27	M10	TP.1103	M3-8.0-4.0-43	T9	1.4	0.04
SEB30N-TP11	30	32	27	M10	TP.1103	M3-8.0-4.0-43	T9	1.4	0.04
SEB32N-TP11	32	34	27	M10	TP.1103	M3-8.0-4.0-43	T9	1.4	0.04
SEB34N-TP11	34	36	27	M10	TP.1103	M3-8.0-4.0-43	T9	1.4	0.05
SEB36N-TP11	36	38	27	M10	TP.1103	M3-8.0-4.0-43	T9	1.4	0.04
SEB38N-TP11	38	40	27	M10	TP.1103	M3-8.0-4.0-43	T9	1.4	0.05

BORING



# SBJ 高精密搪孔頭

## SBJ BORING HEAD FOR FINISHING



<b>搪孔範圍</b> ø6~50 Boring Range	<b>精度</b> 0.01mm Accuracy	<b>最高轉速</b> 8000 Max. rpm
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### 特點 Feature

- 採用特殊表面處理，加強防鏽效果
- 搭配 16mm 柄徑的小徑搪刀，並搭配不同切削刀具，達成多樣化的組合，以利客戶加工使用
- 微調單位：每刻度移動量為 0.01mm，另有副尺可做更精確之調整，搪孔範圍 Ø6~Ø50mm
- With special coating treatment, to strengthen the anti-corrosion effect.
- With 16mm shank trails Boring, with different cutting tools can be reached a variety of combinations, in order to facilitate customers choice of tool.
- Micro-adjustment until: each unit is 0.01mm. Available is a sub-dial for finer adjustment, boring range Ø6~Ø50mm.

規格 Spec.	øD 搪孔範圍 Boring Range		D	微調行程 Stroke	精度 Accuracy	d.	L	組合刀柄 Mck No.	重量 (KGS) Weight
	Min.	Max.							
SBJ10	6	22	39	2	0.01	10	28.5	CK4/MCK4	0.25
SBJ12	6	32	50	3.5	0.01	12	36	CK5/MCK5	0.50
SBJ16	6	50	63.5	6	0.01	16	45	CK6/MCK6	1.00

### 範例 Example

1. SBJ16+SBJ1612-53



2. SBJ16+SBJ-16-10K+ST10-W6-110L  
+SEB12N TP08



3. SBJ16+AC1606-35+CBJ0603-15



4. SBJ16+C16-CBR30+SEB28N TP09

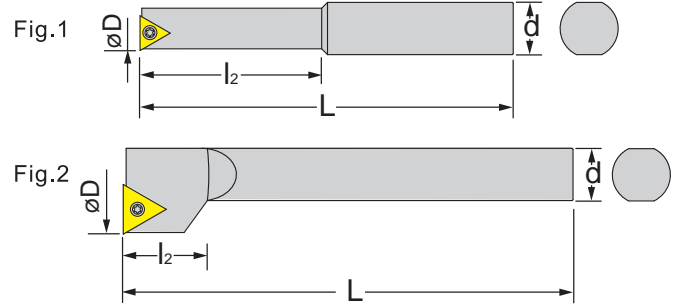


BORING



## SBJ-10 替換式搪孔刀柄

### SBJ-10 INTERCHANGABLE BORING CUTTER

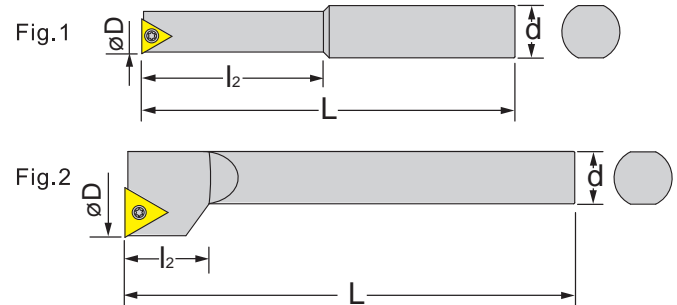


規格 Spec.	øD 搪孔範圍 Boring Range		D	d	L	l <sub>2</sub>	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
	Min.	Max.										
SBJ-1008-32	8	10	8	10	64	32	TB..0601	M2-5.0-2.7-60	T6	0.6	1	0.06
SBJ-1010-40	10	12	10	10	77	40	TB..0601	M2-5.0-2.7-60	T6	0.6	1	0.06
SBJ-1012-45	12	16	12	10	77	22	TP..0902	M2.5-6.0-3.5-60	T8	1.2	2	0.08
SBJ-1016-45	16	20	16	10	77	20	TP..0902	M2.5-6.0-3.5-60	T8	1.2	2	0.08
SBJ-1020-45	20	25	20	10	77	22.7	TP..0902	M2.5-6.0-3.5-60	T8	1.2	2	0.08



## SBJ-12 替換式搪孔刀柄

### SBJ-12 INTERCHANGABLE BORING CUTTER



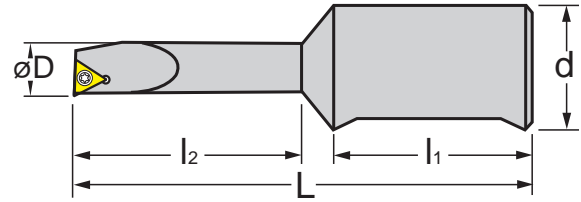
規格 Spec.	øD 搪孔範圍 Boring Range		D	d	L	l <sub>2</sub>	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
	Min.	Max.										
SBJ-1208-32	8	10	8	12	64	32	TB..0601	M2-5.0-2.7-60	T6	0.6	1	0.08
SBJ-1210-40	10	12	10	12	72	40	TB..0601	M2-5.0-2.7-60	T6	0.6	1	0.08
SBJ-1212-45	12	16	12	12	77	45	TP..0902	M2.5-6.0-3.5-60	T8	1.2	1	0.08
SBJ-1216-45	16	20	16	12	77	20	TP..0902	M2.5-6.0-3.5-60	T8	1.2	2	0.10
SBJ-1220-45	20	25	20	12	77	23	TP..0902	M2.5-6.0-3.5-60	T8	1.2	2	0.08

BORING



## SBJ-16 替換式搪孔刀柄

### SBJ-16 INTERCHANGABLE BORING CUTTER



規格 Spec.	$\phi D$ 搪孔範圍 Boring Range		D	d	L	$l_1$	$l_2$	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
	Min.	Max.										
SBJ-1606-24	6	9	6	16	-	32	24	WB..0601	M2-3.8-2.68-43	T6	0.6	0.09
SBJ-1608-32	8	11	8	16	74	32	32	TB..0601	M2-5.0-2.7-60	T6	0.6	0.09
SBJ-1608-40	8	11	8	16	82	32	40	TB..0601	M2-5.0-2.7-60	T6	0.6	0.07
SBJ-1610-40	10	13	10	16	75	32	40	TB..0601	M2-5.0-2.7-60	T6	0.6	0.09
SBJ-1610-50	10	13	10	16	85	32	50	TB..0601	M2-5.0-2.7-60	T6	0.6	0.08
SBJ-1612-53	12	17	12	16	85	32	53	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.10
SBJ-1612-65	12	17	12	16	97	32	65	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.12
SBJ-1616-68	16	21	16	16	100	32	68	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.15
SBJ-1616-85	16	21	16	16	117	32	85	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.16
SBJ-1620-83	20	26	20	16	115	32	83	TP..1103	M3-8.0-4.0-43	T9	1.4	0.23
SBJ-1620-105	20	26	20	16	137	32	105	TP..1103	M3-8.0-4.0-43	T9	1.4	0.25
SBJ-1625-90	25	32	25	16	122	32	90	TP..1103	M3-8.0-4.0-43	T9	1.4	0.25
SBJ-1630-90	30	40	30	16	122	32	90	TP..1103	M3-8.0-4.0-43	T9	1.4	0.29
SBJ-1640-90	40	50	40	16	122	32	90	TP..1103	M3-8.0-4.0-43	T9	1.4	0.30



## SBJ-20 替換式搪孔刀柄

### SBJ-20 INTERCHANGABLE BORING CUTTER



Fig.1

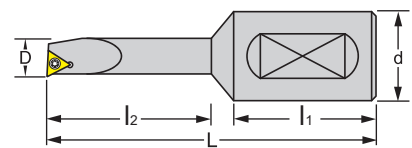
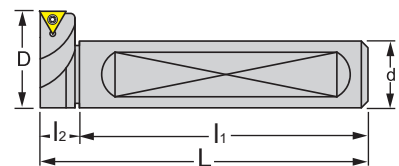


Fig.2



規格 Spec.	$\phi D$ 搪孔範圍 Boring Range		D	d	L	$l_1$	$l_2$	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
	Min.	Max.											
SBJ-2008-32	8	11	8	20	76	32	44	TB..0601	M2-5.0-2.7-60	T6	0.6	1	0.12
SBJ-2010-40	10	13	10	20	76	32	44	TB..0601	M2-5.0-2.7-60	T6	0.6	1	0.10
SBJ-2012-53	12	17	12	20	85	32	53	TP..0902	M2.5-6.0-3.5-60	T8	1.2	1	0.13
SBJ-2016-68	16	21	16	20	100	32	68	TP..0902	M2.5-6.0-3.5-60	T8	1.2	1	0.18
SBJ-2020-83	20	125	20	20	115	32	83	TP..1103	M3-8.0-4.0-43	T9	1.4	1	0.25
SBJ-2025-96	25	130	25	20	135	32	96	TP..1103	M3-8.0-4.0-43	T9	1.4	1	0.30
SBJ-2030-115	30	135	30	20	158	32	115	TP..1103	M3-8.0-4.0-43	T9	1.4	1	0.59
SBJ-L20-20	120	280	28	20	97	83.5	13.5	TP..1103	M3-8.0-4.0-43	T9	1.4	2	0.28

BORING



# SBJ 搪孔刀柄套裝組

## SBJ BORING CUTTER SET



Fig.1



Fig.2



Fig.3



Fig.4

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
SBJ-10-SET	SBJ-1008-32	TBGH060104L RM4030(10片)	M2-5.0-2.7-60	T6K	0.6	1	1	1.39
	SBJ-1010-40							
	SBJ-1012-45	TPGH090204L RM4030(10片)	M2.5-6.0-3.5-60	T8K	1.2			
	SBJ-1016-45							
	SBJ-1020-45							

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
SBJ-12-SET	SBJ-1208-32	TBGH060104L RM4030(10片)	M2-5.0-2.7-60	T6K	0.6	1	2	1.45
	SBJ-1210-40							
	SBJ-1212-45	TPGH090204L RM4030(10片)	M2.5-6.0-3.5-60	T8K	1.2			
	SBJ-1216-45							
	SBJ-1220-45							

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
SBJ-16-SET	SBJ-1608-32	TBGH060104L RM4030(10片)	M2-5.0-2.7-60	T6K	0.6	1	3	2.7
	SBJ-1610-40							
	SBJ-1612-53	TPGH090204L RM4030(10片)	M2.5-6.0-3.5-60	T8K	1.2			
	SBJ-1616-68							
	SBJ-1620-83	TPGH110304L RM4030(10片)	M3-8.0-4.0-43	T9K	1.4			
	SBJ-1625-90							
	SBJ-1630-90							
SBJ-1640-90								

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
SBJ-20-SET	SBJ-2008-32	TBGH060104L RM4030(10片)	M2-5.0-2.7-60	T6K	0.6	1	4	3.02
	SBJ-2010-40							
	SBJ-2012-53	TPGH090204L RM4030(10片)	M2.5-6.0-3.5-60	T8K	1.2			
	SBJ-2016-68							
	SBJ-2020-83	TPGH110304L RM4030(10片)	M3-8.0-4.0-43	T9K	1.4			
	SBJ-2025-96							
	SBJ-2030-115							
SBJ-L20-20								

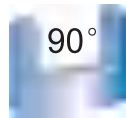
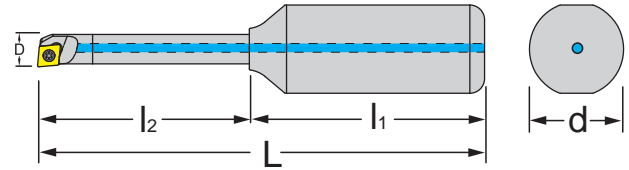
BORING



# CSBJ 鎢鋼替換式搪孔刀柄

## CSBJ INTERCHANGABLE BORING CUTTER

PAT.NO: M370451



### 特點 Feature

- 使用碳化鎢鋼材質，加工深度可達直徑的數倍
- 高剛性，延長使用刀片壽命
- 抗震性佳，加工後搪孔尺寸穩定

- The use carbonizes the tungsten steel material quality, the working depth may reach the diameter the several fold.
- High rigidity, extend use bit life.
- The vibration resistance property is good, after the processing, the boring size is stable.

### D×5

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d	øD 搪孔範圍 Boring Range		刀片 Insert	重量 (KGS) Weight
						Min.	Max.		
CSBJ-1605-28-C	68	40	28	5.6	16	5.6	8	CC..03S1	0.06
CSBJ-1606-30-C	70	40	30	6	16	6	9	CC..03S1	0.07
CSBJ-1608-40-C	80	40	40	8	16	8	11	TB..0601	0.07
CSBJ-1610-50-C	90	40	50	10	16	10	13	TB..0601	0.10
CSBJ-1612-60-C	100	40	60	12	16	12	15	TP..0902	0.13
CSBJ-1614-70-C	110	40	70	14	16	14	17	TP..0902	0.18
CSBJ-1616-80-C	120	40	80	16	16	16	19	TP..1103	0.25
CSBJ-1618-90-C	130	-	-	18	16	18	21	TP..1103	0.33

### D×6

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d	øD 搪孔範圍 Boring Range		刀片 Insert	重量 (KGS) Weight
						Min.	Max.		
CSBJ-1605-34-C	74	40	34	5.6	16	5.6	8	CC..03S1	0.06
CSBJ-1606-36-C	76	40	36	6	16	6	9	CC..03S1	0.07
CSBJ-1608-48-C	88	40	48	8	16	8	11	TB..0601	0.08
CSBJ-1610-60-C	100	40	60	10	16	10	13	TB..0601	0.10
CSBJ-1612-72-C	112	40	72	12	16	12	15	TP..0902	0.15
CSBJ-1614-84-C	124	40	84	14	16	14	17	TP..0902	0.20
CSBJ-1616-96-C	136	40	96	16	16	16	19	TP..1103	0.28
CSBJ-1618-108-C	148	-	-	18	16	18	21	TP..1103	0.38

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CC..03S1	M1.8-4.2-2.5-54	T6	0.6
TB..0601	M2-5.0-2.7-60	T6	0.6
TP..0902	M2.5-6.0-3.5-60	T8	1.2
TP..1103	M3-8.0-4.0-43	T9	1.4

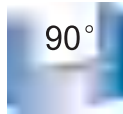
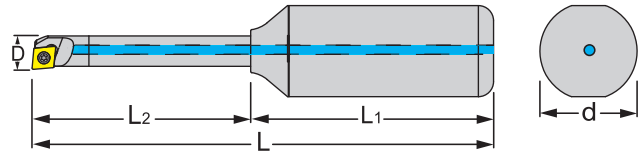
BORING



# CSBJ/CCBJ 鎢鋼替換式搪孔刀柄

## CSBJ/CCBJ INTERCHANGABLE BORING CUTTER

PAT.NO : M370451



### 特點 Feature

- 使用碳化鎢鋼材質·加工深度可達直徑的數倍
- 高剛性·延長使用刀片壽命
- 抗震性佳·加工後搪孔尺寸穩定

- The use carbonizes the tungsten steel material quality, the working depth may reach the diameter the several fold.
- High rigidity, extend use bit life.
- The vibration resistance property is good, after the processing, the boring size is stable.

### D×5

規格 Spec.	D	d	L	L <sub>1</sub>	L <sub>2</sub>	øD 搪孔範圍 Boring Range		刀片 Insert	重量 (KGS) Weight
						Min.	Max.		
CSBJ-1605-28-C	5.6	16	68	40	28	5.6	8	CC..03S1	0.06
CSBJ-1606-30-C	6	16	70	40	30	6	9	CC..03S1	0.07
CCBJ-1608-40-C	8	16	80	40	40	8	11	CC..03S1	0.07
CCBJ-1610-50-C	10	16	90	40	50	10	13	CC..0602	0.10
CCBJ-1612-60-C	12	16	100	40	60	12	15	CC..0602	0.13
CCBJ-1614-70-C	14	16	110	40	70	14	17	CC..09T3	0.18
CCBJ-1616-80-C	16	16	120	40	80	16	19	CC..09T3	0.25
CCBJ-1618-90-C	18	16	130	-	-	18	21	CC..09T3	0.33

### D×6

規格 Spec.	D	d	L	L <sub>1</sub>	L <sub>2</sub>	øD 搪孔範圍 Boring Range		刀片 Insert	重量 (KGS) Weight
						Min.	Max.		
CSBJ-1605-34-C	5.6	16	74	40	34	5.6	8	CC..03S1	0.06
CSBJ-1606-36-C	6	16	76	40	36	6	9	CC..03S1	0.07
CCBJ-1608-48-C	8	16	88	40	48	8	11	CC..03S1	0.08
CCBJ-1610-60-C	10	16	100	40	60	10	13	CC..0602	0.10
CCBJ-1612-72-C	12	16	112	40	72	12	15	CC..0602	0.15
CCBJ-1614-84-C	14	16	124	40	84	14	17	CC..09T3	0.20
CCBJ-1616-96-C	16	16	136	40	96	16	19	CC..09T3	0.28
CCBJ-1618-108-C	18	16	148	-	-	18	21	CC..09T3	0.38

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CC..03S1	M1.8-4.2-2.5-54	T6	0.6
CC..0602	M2.5-6.0-3.5-60	T8	1.2
CC..09T3	M4-8.0-5.7-60	T15	3.0

BORING



# CSBJ/CCBJ 鎢鋼替換式搪孔刀柄套裝組

## CSBJ/CCBJ INTERCHANGABLE BORING CUTTER SET

PAT.NO: M370451



Fig.1



Fig.2



Fig.3



Fig.4

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
CSBJ16-C D×5-SET	CSBJ-1605-28-C	CCGT03S104L-F RM4015(10片)	M1.8-4.2-2.5-54	T6K	0.6	1	1	2.16
	CSBJ-1606-30-C							
	CSBJ-1608-40-C	TBGT060104L	M2-5.0-2.7-60	T8K	1.2			
	CSBJ-1610-50-C	RM4030(10片)						
	CSBJ-1612-60-C	TPGT090204L	M2.5-6.0-3.5-60	T8K	1.2			
	CSBJ-1614-70-C	RM4030(10片)						
	CSBJ-1616-80-C	TPGT110304L	M3-8.0-4.0-43	T9K	1.4			
CSBJ-1618-90-C	RM4030(10片)							

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
CSBJ16-C D×6-SET	CSBJ-1605-34-C	CCGT03S104L-F RM4015(10片)	M1.8-4.2-2.5-54	T6K	0.6	1	2	2.16
	CSBJ-1606-36-C							
	CSBJ-1608-48-C	TBGT060104L	M2-5.0-2.7-60	T8K	1.2			
	CSBJ-1610-60-C	RM4030(10片)						
	CSBJ-1612-72-C	TPGT090204L	M2.5-6.0-3.5-60	T8K	1.2			
	CSBJ-1614-84-C	RM4030(10片)						
	CSBJ-1616-96-C	TPGT110304L	M3-8.0-4.0-43	T9K	1.4			
CSBJ-1618-108-C	RM4030(10片)							

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
CCBJ16-C D×5-SET	CSBJ-1605-28-C	CCGT03S104L-F RM4015(10片)	M1.8-4.2-2.5-54	T6K	0.6	1	3	2.16
	CSBJ-1606-30-C							
	CCBJ-1608-40-C	CCMT060204-M01 RM425(10片)	M2.5-6.0-3.5-60	T8K	1.2			
	CCBJ-1610-50-C							
	CCBJ-1612-60-C	CCMT09T304-M01 RM425(10片)	M4-8.0-5.7-60	T15K	3.0			
	CCBJ-1614-70-C							
	CCBJ-1616-80-C							
CCBJ-1618-90-C								

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
CCBJ16-C D×6-SET	CSBJ-1605-34-C	CCGT03S104L-F RM4015(10片)	M1.8-4.2-2.5-54	T6K	0.6	1	4	3.2
	CSBJ-1606-36-C							
	CCBJ-1608-48-C	CCMT060204-M01 RM425(10片)	M2.5-6.0-3.5-60	T8K	1.2			
	CCBJ-1610-60-C							
	CCBJ-1612-72-C	CCMT09T304-M01 RM425(10片)	M4-8.0-5.7-60	T15K	3.0			
	CCBJ-1614-84-C							
	CCBJ-1616-96-C							
CCBJ-1618-108-C								

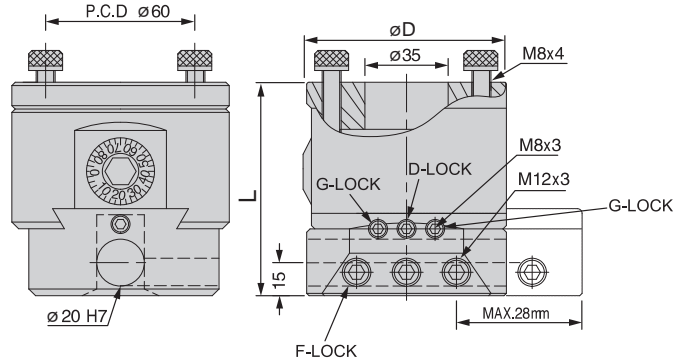
BORING





# NBH 精密精搪孔頭

## NBH PRECISION BORING HEAD



<b>搪孔範圍</b> $\varnothing 8 \sim 280$ Boring Range	<b>精度</b> 0.01mm Accuracy	<b>最高轉速</b> 8000 Max. rpm
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規格 Spec.	$\varnothing D$ 搪孔範圍 Boring Range		微調行程 Stroke	精度 Win Feed	刀具孔徑 Tooling Dia	組合刀柄	L	D	重量 (KGS) Weight
	Min.	Max.							
NBH2084S	8	280	28	0.01	$\varnothing 20$	NBH	83	84	3.26



BT/NT 粗 / 精搪孔頭刀桿  
BT/NT Boring Head Shank

NBH2084S 精密搪孔頭  
NBH2084S Precision Boring Head



SBJ-20 替換式搪孔刀柄  
SBJ-20 Interchangeable Boring Cutter

BORING

### 選配表 Option

刀桿 Shank		搪刀 Cutter
A127/A342	A344	A388



# NBH 精密精搪孔套裝組

## NBH PRECISION BORING HEAD SET



Fig.1



Fig.2



Fig.3



Fig.4

規格 Spec.	內容物 Contents							Fig.	重量 (KGS) Weight
	搪刀頭 Boring Head	刀具 Tools	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	扳手 Wrench	數量 Qty		
NT30-NBH2084S-3P-SET	NBH2084S	SBJ-2012-53	M2.5-6.0-3.5-60	T8K	1.2	PT4	1	1	6.20
NT40-NBH2084S-3P-SET									6.60
NT50-NBH2084S-3P-SET		SBJ-2025-96	M3-8.0-4.0-43	T9K	1.4	PT6			8.90
BT40-NBH2084S-3P-SET									8.00
BT50-NBH2084S-3P-SET									SBJ-L20-20

規格 Spec.	內容物 Contents							Fig.	重量 (KGS) Weight	
	搪刀頭 Boring Head	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	扳手 Wrench			數量 Qty
NT30-NBH2084S-3P-SET	NBH2084S	SBJ-2012-53	TPGT090204L	M2.5-6.0-3.5-60	T8K	1.2	PT4	1	2	6.40
NT40-NBH2084S-3P-SET			RM4030(10片)							6.80
NT50-NBH2084S-3P-SET		SBJ-2025-96	TPGT110304L	M3-8.0-4.0-43	T9K	1.4	PT6			9.10
BT40-NBH2084S-3P-SET			RM4030(10片)							8.50
BT50-NBH2084S-3P-SET			SBJ-L20-20							10.1

規格 Spec.	內容物 Contents							Fig.	重量 (KGS) Weight
	搪刀頭 Boring Head	刀具 Tools	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	扳手 Wrench	數量 Qty		
NT30-NBH2084S-8P-SET	NBH2084S	SBJ-2008-32	M2-5.0-2.7-60	T6K	0.6	PT4	1	3	7.30
NT40-NBH2084S-8P-SET		SBJ-2010-40							7.70
NT50-NBH2084S-8P-SET		SBJ-2012-53	M2.5-6.0-3.5-60	T8K	1.2	PT4			10.0
BT40-NBH2084S-8P-SET		SBJ-2016-68							8.70
BT50-NBH2084S-8P-SET		SBJ-2020-83	M3-8.0-4.0-43	T9K	1.4	PT6			11.19
		SBJ-2025-96							-
		SBJ-2030-115							-
		SBJ-L20-20							-

規格 Spec.	內容物 Contents							Fig.	重量 (KGS) Weight	
	搪刀頭 Boring Head	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	扳手 Wrench			數量 Qty
NT30-NBH2084S-8P-SET	NBH2084S	SBJ-2008-32	TBGT060102L	M2-5.0-2.7-60	T6K	0.6	PT4	1	4	7.50
NT40-NBH2084S-8P-SET		SBJ-2010-40	RM4030 (10片)							7.80
NT50-NBH2084S-8P-SET		SBJ-2012-53	TPGT090204L	M2.5-6.0-3.5-60	T8K	1.2	PT4			10.2
BT40-NBH2084S-8P-SET		SBJ-2016-68	RM4030 (10片)							9.00
BT50-NBH2084S-8P-SET		SBJ-2020-83	TPGT110304L RM4030 (10片)	M3-8.0-4.0-43	T9K	1.4	PT6			11.19
		SBJ-2025-96								-
		SBJ-2030-115								-
		SBJ-L20-20								-

BORING



# 搪孔系列刀片

## BORING HEAD INSERT



ISO 分類	P	合金鋼 Alloyed Steels	○		○	○			○								切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels			○	○			○								
	K	鑄鐵 Cast Iron	○														
	N	鋁及鋁合金 Aluminum&Al										○					
S	高溫合金 Refractory Alloys																
H	高硬度材 Hard Material																
形狀 Form	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy		鍍層超微粒 Layer coating ultra-micro				瓷金 Cermet		超硬微粒 Ultra-hard microprogram		尺寸 (mm)				圖形 Drawing	
		CVD		CHF				HT		HF		Size					
		RM315	RM425	RM4015	RM4030			RM1205		RM5005		d	i	s	r		
	CCMT060204-HM	●	●									6.35	6.4	2.38	0.4		
	CCMT060208-HM	●	●									6.35	6.4	2.38	0.8		
	CCMT09T304-HM	●	●									9.525	9.7	3.97	0.4		
	CCMT09T308-HM	●	●									9.525	9.7	3.97	0.8		
	CCMT120404-HM	●	●									12.7	12.9	4.76	0.4		
	CCMT120408-HM	●	●									12.7	12.9	4.76	0.8		
	CCGT03S102L-F			●								3.57	-	1.39	0.2		
	CCGT03S104L-F			●								3.57	-	1.39	0.4		
	TBGT060102L-F01				●			●		●		3.97	6.4	1.59	0.2		
	TBGT060104L-F01				●			●		●		3.97	6.4	1.59	0.4		
	TPGT080202L-F01				●			●		●		4.76	8.2	2.38	0.2		
	TPGT080204L-F01				●			●		●		4.76	8.2	2.38	0.4		
	TPGT090202L-F01				●			●		●		5.56	9.6	2.38	0.2		
	TPGT090204L-F01				●			●		●		5.56	9.6	2.38	0.4		
	TPGT110302L-F01				●			●		●		6.35	11	3.18	0.2		
	TPGT110304L-F01				●			●		●		6.35	11	3.18	0.4		

BORING

# Feature



## DP減震系列特點

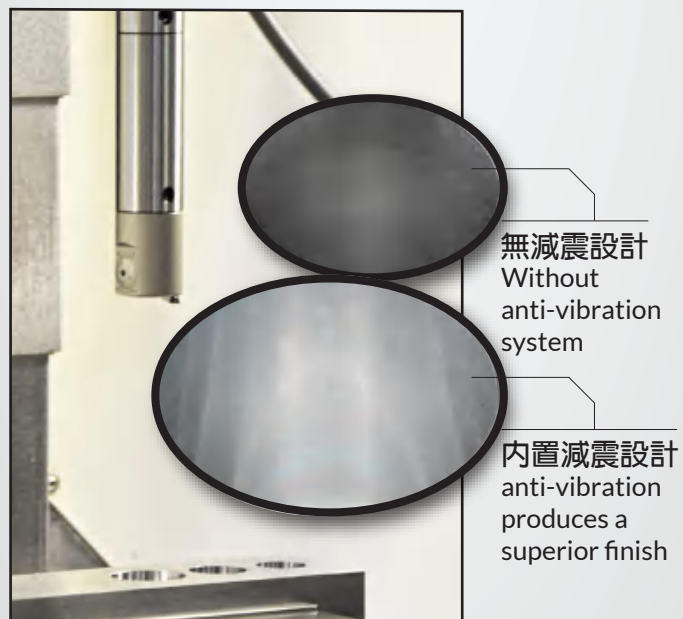


本產品應用在加工深度為柄徑的4~8倍長效果最好。減震器與搪孔頭的結合，一體式的結構，當搪孔加工時可與一般MCK/CK刀桿結合，得到更大的加工有效長與更好的加工表面精度。

具有多種規格，所有規格均具有中心出水功能。使用雙邊對稱定位接合，可使減震效果更好。

For most efficient results use for 4D~8D machining. Adjust the scale of each grid to a diameter of 0.002mm. The integrated damper and extension with generic MCK/CK arbors achieve wider cuts and better accuracy.

No matter the specifications or the desired function the coolant runs through the spindle. The bilateral symmetry joint allows for almost zero vibration.



使用減震系列產品，對於長懸伸刀具加工時，可有效改善工件表面粗糙度、提高金屬切除率、延長刀具使用壽命。

The CBH/DP is most efficient cutting deeply. It enhances the workpiece's surface finish and has a longer life.

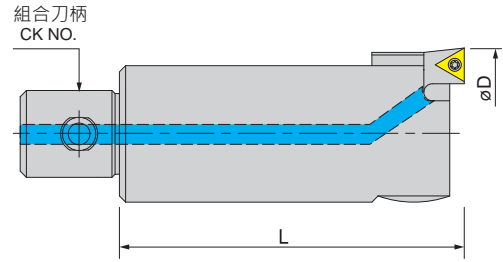
# Anti-Vibration



# CBH/DP 減震精搪頭

## CBH/DP DAMPING FINISH BORING HEAD

PAT.NO : M505356  
 PAT.NO : M510806  
 ZL201520282217.6  
 ZL201520282261.7



<b>搪孔範圍</b> ø20~152 Boring Range	<b>精度</b> 0.01mm Accuracy	<b>最高轉速</b> 6000 Max. rpm
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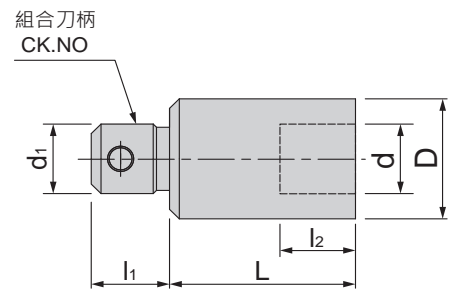
規格 Spec.	øD 搪孔範圍 Boring Range		組合刀柄 Ck No.	L	使用刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
	Min.	Max.							
CBH20DP-90L-TP08	20	26	CK1	90	TP.0802	M2-5.0-3.1-60	T6	0.6	0.22
CBH25DP-90L-TP08	25	33	CK2	90	TP.0802	M2-5.0-3.1-60	T6	0.6	0.39
CBH32DP-100L-TP08	32	42	CK3	100	TP.0802	M2-5.0-3.1-60	T6	0.6	0.71
CBH40DP-110L-TP08	40	55	CK4	110	TP.0802	M2-5.0-3.1-60	T6	0.6	1.27
CBH52DP-140L-TP08	52	75	CK5	140	TP.0802	M2-5.0-3.1-60	T6	0.6	2.72
CBH68DP-175L-TP08	68	102	CK6	175	TP.0802	M2-5.0-3.1-60	T6	0.6	5.70
CBH68DP-175L-TP09	68	102	CK6	175	TP.0902	M2.5-6.0-3.5-60	T8	1.2	5.70
CBH68DP-175L-TC11	68	102	CK6	175	TC..1102	M2.5-6.0-3.5-60	T8	1.2	5.70



# SCK/DP 減震延長桿

## SCK/DP DAMPING EXTENSION

PAT.NO : M505356  
 PAT.NO : M510806  
 ZL201520282217.6  
 ZL201520282261.7



規格 Spec.	組合刀柄 Ck No.	L	l <sub>1</sub>	l <sub>2</sub>	D	d	d <sub>1</sub>	適用搪孔頭 Suitable Boring Head	重量 (KGS) Weight
SCK2DP-2-75L	CK2	75	16	18	24	14	14	CBH25/MBH25	0.33
SCK3DP-3-100L	CK3	100	20	22	31	18	18	CBH32/MBH32	0.62
SCK4DP-4-110L	CK4	110	24	26	39	22	22	CBH40/MBH40	1.11
SCK5DP-5-130L	CK5	130	30	32	50	28	28	CBH52/MBH52/FBH55	2.30
SCK6DP-6-170L	CK6	170	40	42	64	36	36	CBH68/MBH68/FBH68	5.10

BORING

### 選配表 Option

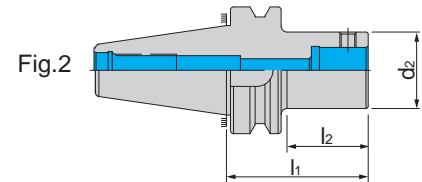
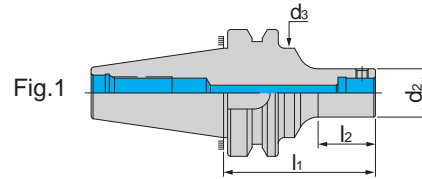
刀桿 Shank	搪頭 Boring Head	
A127/A342	A366	A369



# CK/DP 減震搪孔刀桿

## CK/DP DAMPING BORING HEAD SHANK

PAT.NO: M505356  
 PAT.NO: M510806  
 ZL201520282217.6  
 ZL201520282261.7



### 6 倍長 6 Times Longer

規格 Spec.	$l_1$	$l_2$	$d_2$	$d_3$	適用搪孔頭 Suitable Boring Head	Fig.	重量 (KGS) Weight
BT40 × CK2DP-150	150	110	24	39	SMB25/SCK2430-C/SCK2940-C	1	-
BT40 × CK3DP-200	200	160	31	50	SMB32/SCK3950-C	1	-
BT40 × CK4DP-235	235	200	39	50	SMB41/SCK4965-C	1	-
BT40 × CK5DP-310	310	280	50	-	SMB53/SCK6382-C	2	-
BT40 × CK6DP-295	295	270	64	-	SMB68/SCK80102-C	2	-
BT50 × CK2DP-160	160	110	24	39	SMB25/SCK2430-C/SCK2940-C	1	-
BT50 × CK3DP-220	220	160	31	50	SMB32/SCK3950-C	1	-
BT50 × CK4DP-260	260	205	39	64	SMB41/SCK4965-C	1	-
BT50 × CK5DP-310	310	265	50	64	SMB53/SCK6382-C	1	-
BT50 × CK6DP-375	375	330	64	-	SMB68/SCK80102-C	2	-

### 8 倍長 8 Times Longer

規格 Spec.	$l_1$	$l_2$	$d_2$	$d_3$	適用搪孔頭 Suitable Boring Head	Fig.	重量 (KGS) Weight
BT40 × CK2DP-200	200	160	24	39	SMB25/SCK2430-C/SCK2940-C	1	-
BT40 × CK3DP-260	260	220	31	50	SMB32/SCK3950-C	1	-
BT40 × CK4DP-315	315	280	39	50	SMB41/SCK4965-C	1	-
BT50 × CK2DP-210	210	160	24	39	SMB25/SCK2430-C/SCK2940-C	1	-
BT50 × CK3DP-280	280	220	31	50	SMB32/SCK3950-C	1	-
BT50 × CK4DP-340	340	285	39	64	SMB41/SCK4965-C	1	-
BT50 × CK5DP-400	400	355	50	64	SMB53/SCK6382-C	1	-
BT50 × CK6DP-505	505	460	64	-	SMB68/SCK80102-C	2	-

BORING

### 選配表 Option

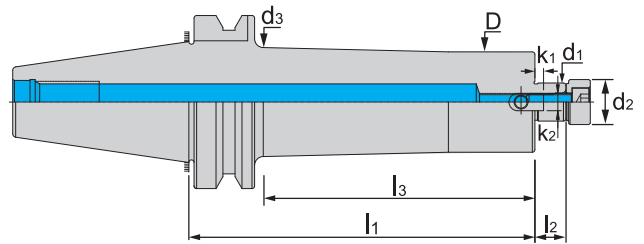
搪頭 Boring Head	延長桿 Extension
A397	A397



# FDP 減震銑刀桿

## FDP DAMPING FACE MILL ARBOR

PAT.NO : M505356  
 PAT.NO : M510806  
 ZL201520282217.6  
 ZL201520282261.7



規格 Spec.	$l_1$	$l_2$	$l_3$	D	$d_1$	$d_2$	$d_3$	$k_1$	$k_2$	重量 (KGS) Weight
BT50 × FDP22-300BG	300	19	255	58	22	31.75	61	4.25	10	-
BT50 × FDP22-350BG	350	19	305	58	22	31.75	61	4.25	10	-
BT50 × FDP22-400BG	400	19	355	58	22	31.75	61	4.25	10	-
BT50 × FDP22-500BG	500	19	455	58	22	31.75	61	4.25	10	-
BT50 × FDP27-300BG	300	20	255	60	27	31.5	78	5.8	12	-
BT50 × FDP27-350BG	350	20	305	60	27	31.5	78	5.8	12	-
BT50 × FDP27-400BG	400	20	355	60	27	31.5	78	5.8	12	-
BT50 × FDP27-450BG	450	20	405	60	27	31.5	78	5.8	12	-
BT50 × FDP27-500BG	500	20	455	60	27	31.5	78	5.8	12	-
BT50 × FDP32-300BG	300	22	255	78	32	41	85	6.8	14	-
BT50 × FDP32-400BG	400	22	355	78	32	41	85	6.8	14	-
BT50 × FDP32-500BG	500	22	455	78	32	41	85	6.8	14	-
BT50 × FDP32-600BG	600	22	555	78	32	41	85	6.8	14	-

### 範例 Example



HR



BGP



GR



SFM



KM



KFM



IFM

BORING

### 選配表 Option

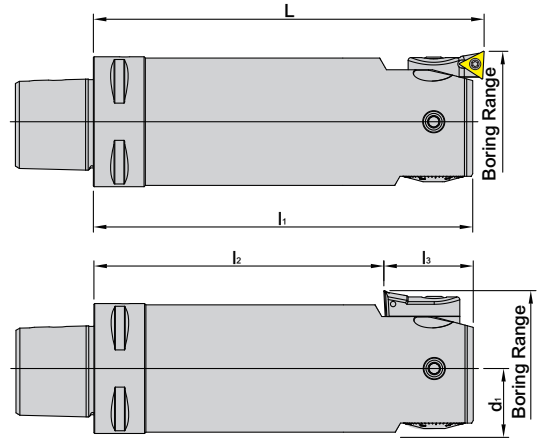
銑刀頭 Milling Cutter						
B547	B559	B581	B568	B585	B588	B591



# SPMB 減震精密微調搪頭

## DAMPED FINE BORING HEAD

**NEW**



規格 Spec.	øD 搪孔範圍 Boring Range( 正搪 )				øD 搪孔範圍 Boring Range( 背搪 )					刀片座 Insert Seat	刀片 Insert	螺絲 Screw	重量 (KGS) Weight
	Min.	Max.	L	l <sub>1</sub>	Min.	Max.	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>				
PSC32xSPMB32-115	32	42	115	110	-	-	90	25	16	SIB32-1/SIC32-1	TB..0601 TP..0802	M2-5.0-2.7-60	-
	41	51	115	110	46	51	90	25	16	SIB32-2/SIC32-2			-
	50	60	115	110	50	60	90	25	16	SIB32-3/SIC32-3			-
PSC40xSPMB41-125	41	54	125	121	-	-	96	29	20	SIB41-1/SIC41-1	TP..0902 TC..1102	M2.5-6.0-3.5-60	-
	50	63	125	121	53	63	96	29	20	SIB41-2/SIC41-2			-
	61	74	125	121	61	74	96	29	20	SIB41-3/SIC41-3			-
PSC50xSPMB53-150	53	70	150	146	62	70	116	34	25.5	SIB53-1/SIC53-1	TP..0902 TC..1102	M2.5-6.0-3.5-60	-
	65	82	150	146	65	82	116	34	25.5	SIB53-2/SIC53-2			-
	78	95	150	146	78	95	116	34	25.5	SIB53-3/SIC53-3			-
PSC63xPMB68-190	68	100	190	186.2	80	100	114.8	45.2	32.5	SIB68-1/SIC68-1	TP..0902 TC..1102	M2.5-6.0-3.5-60	-
	94	126	190	186.2	94	126	114.8	45.2	32.5	SIB68-2/SIC68-2			-
	118	150	190	186.2	118	150	114.8	45.2	32.5	SIB68-3/SIC68-3			-

※ 不含 SIB/SIC 刀片座 · 刀片座需另外購買 Not including SIB/SIC insert seat, insert seat need purchase separately.

BORING

### 選配表 Option

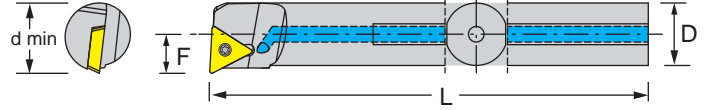
刀桿 Shank	刀片座 Insert Seat
A127/A342	A330





# DPSTUPR 一體式減震車刀架 - 出水型

## DPSTUPR DAMPING INTEGRATED BORING BARS-COOLANT



### 8 倍長 8 Times Longer

規格 Spec.	L	D	d	F	使用刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
DPS12-STUPR-09-14-196L-C	196	12	14	7.5	TP.0902	M2.5-6.0-3.5-60	T8	1.2	-
DPS12-STUPR-11-14-196L-C	196	12	14	7.5	TP.1103	M3-8.0-4.0-43	T9	1.4	-
DPS16-STUPR-11-18-228L-C	228	16	18	9.5	TP.1103	M3-8.0-4.0-43	T9	1.4	-

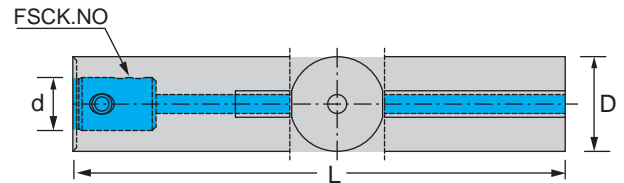
### 10 倍長 10 Times Longer

規格 Spec.	L	D	d	F	使用刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
DPC12-STUPR-09-14-220L-C	220	12	14	7.5	TP.0902	M2.5-6.0-3.5-60	T8	1.2	-
DPC12-STUPR11-14-220L-C	220	12	14	7.5	TP.1103	M3-8.0-4.0-43	T9	1.4	-
DPC16-STUPR-11-18-260L-C	260	16	18	9.5	TP.1103	M3-8.0-4.0-43	T9	1.4	-



# DPFSCK 模組化減震車刀柄 - 出水型

## DPFSCK DAMPING MODULAR BORING HEAD SHANK



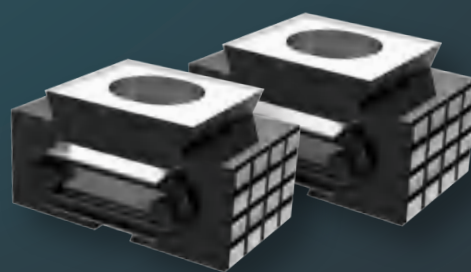
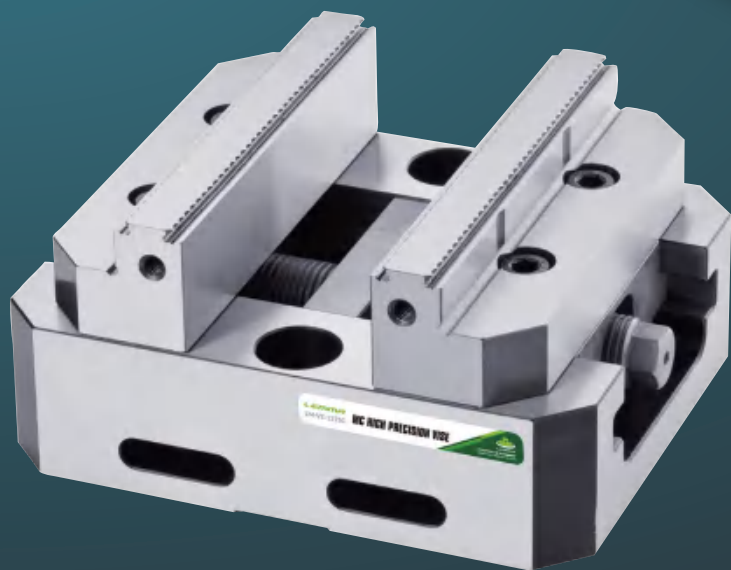
### 8 倍長 8 Times Longer

規格 Spec.	L	D	d	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
DPS20-FSCK1-240L-C	240	20	11	M5	PL2.5	5.0	-
DPS25-FSCK2-275L-C	275	25	14	M6	PL3	5.0	-
DPS32-FSCK3-326L-C	326	32	18	M6	PL3	5.0	-
DPS40-FSCK4-410L-C	410	40	22	M8	PL4	6.0	-

### 10 倍長 10 Times Longer

規格 Spec.	L	D	d	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
DPC20-FSCK1-280L-C	280	20	11	M5	PL2.5	5.0	-
DPC25-FSCK2-325L-C	325	25	14	M6	PL3	5.0	-
DPC32-FSCK3-390L-C	390	32	18	M6	PL3	5.0	-
DPC40-FSCK4-490L-C	490	40	22	M8	PL4	6.0	-

BORING



# 夾治具系統

Clamping Systems



同動求心虎鉗

Self Center

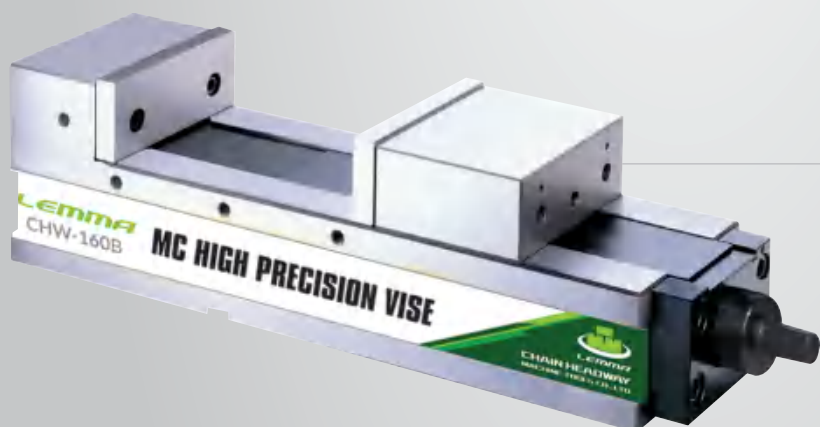
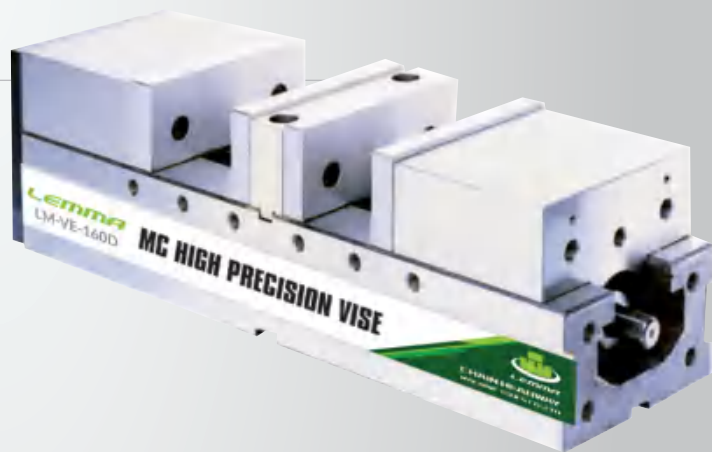


迷你虎鉗

OKV

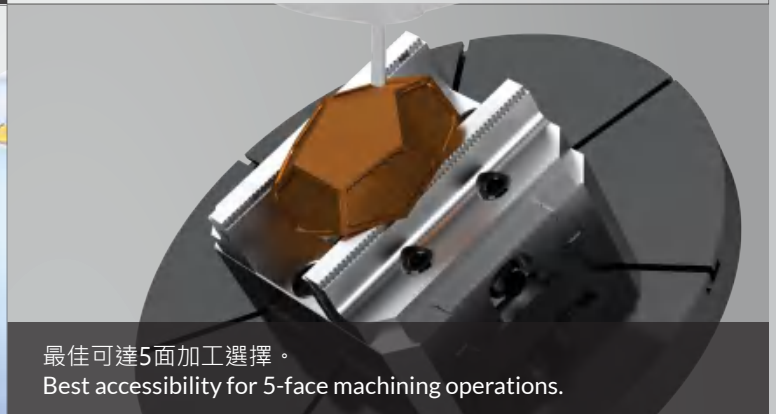
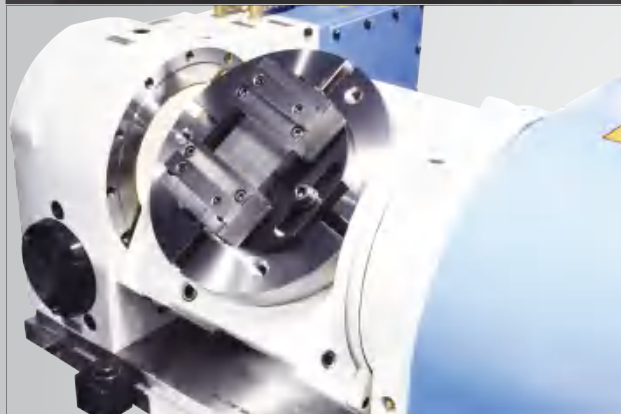
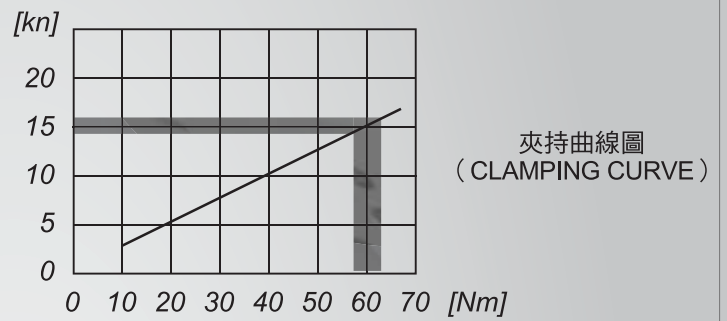
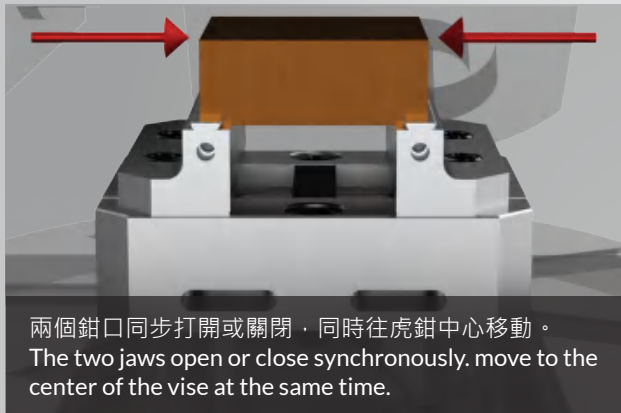
雙夾型虎鉗

Double-Clamping



一般型虎鉗

General



## 特點

## Features

同動式求心虎鉗適用於三、四、五軸、CNC分度盤及臥式銑床精密加工

Self Centring Precision Vise is suitable for 3、4、5 axis、CNC Rotary Table and Horizontal machining.

虎鉗中心重覆定位精度可保持 $\pm 0.01\text{mm}$ ，極其扁平的設計，為了最大限度地利用機台空間。

Vise precision of its center repetition position is  $\pm 0.01\text{mm}$ , extremely flat design, for maximum utilization of the machine room.

虎鉗滑軌經高週波熱處理HRC45°以上，可保持高耐磨性。

Slideway has high frequency heat treatment at HRC45° or more to keep the accuracy and its long use life.

虎鉗鉗口採用全鋼材質，經熱處理硬度達HRC55°以上，可拆換方向使用，變化性與互換性極佳。

Vise hard jaw material is full Steel and heat treatment at HRC55° or more. Owing to its good design to use both sides of jaw since it is exchangeable.

虎鉗特殊的結構設計，夾持工件時所產生的下壓力能有效防止工件上浮情形，鎖固力極佳。

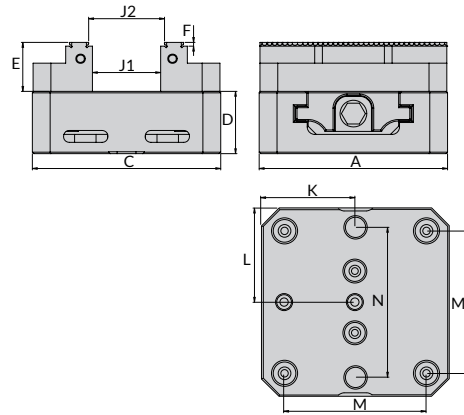
Special design for the Self Centring Precision Vise to prevent work piece from bending during clamping and machining. Thus, it has the best solution in clamping the work piece.



## LM-VE-\_SC 同動求心虎鉗

LM-VE-\_SC SELF CENTRING VISE

**NEW**



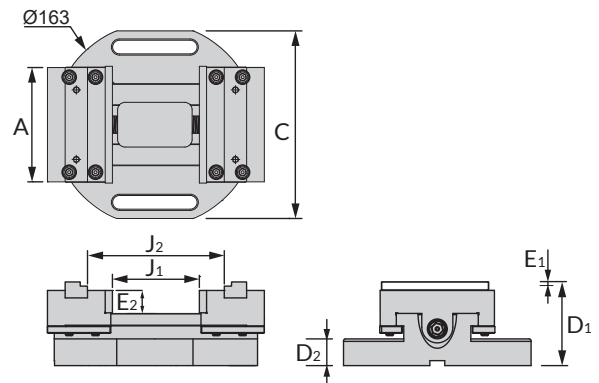
本體材質:合金鋼 Using alloy steel

規格 Spec.	A	C	D	E	F	J <sub>1</sub>	J <sub>2</sub>	K	L	M	N	夾持力 Power	重量 (KGS) Weight
LM-VE-127SC	127	127	42	33	3	0-46	0-51	63.5	63.5	96	101	15KN	5.5
LM-VE-153SC	127	153	42	33	3	0-72.5	0-79	76.5	63.5	96	101	15KN	6.7
LM-VE-210SC	127	210	42	33	3	0-122	0-127	101.5	63.5	96	101	18KN	8.7



## LM-VE-90SC 同動求心虎鉗

LM-VE-90SC SELF CENTRING VISE



本體材質:合金鋼 Using alloy steel

規格 Spec.	A	C	D <sub>1</sub>	D <sub>2</sub>	E <sub>1</sub>	E <sub>2</sub>	J <sub>1</sub>	J <sub>2</sub>	夾持力 Power	重量 (KGS) Weight
LM-VE-90SC	90	151	60	17	5	18	0-60	40-100	15KN	4.00

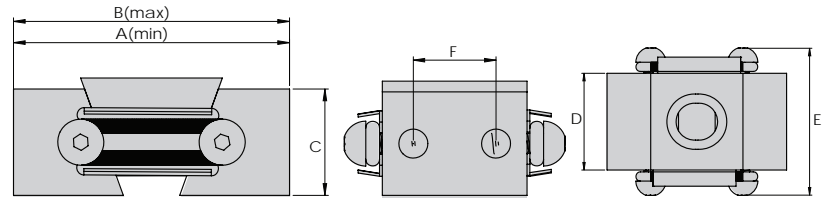
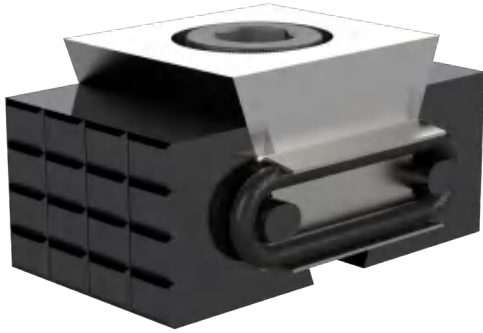
AID



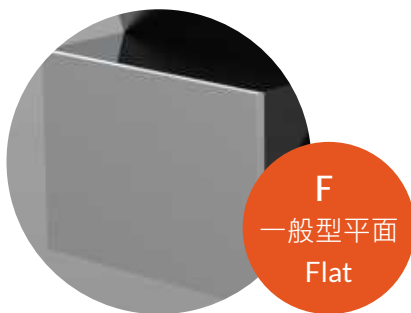
# LM-OKV- 迷你型虎鉗

## LM-OKV- MINI VISE

**NEW**



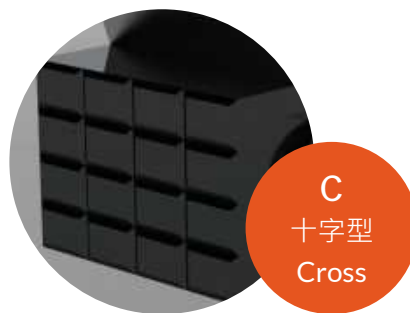
規格 Spec.	形式 Type	行程 Stroke	AB 尺寸範圍 AB Size Range	C	D	E	F	重量 (KGS) Weight
LM-OKV-2425F	一般型平面	1mm	24.5-25.5mm	11	15	21.5	-	-
LM-OKV-3742F		5mm	37-42mm	15	21	32	-	-
LM-OKV-4751F		4mm	47-51mm	22	30	37	-	-
LM-OKV-2425C	十字型	1mm	24.5-25.5mm	11	15	21.5	-	-
LM-OKV-3742C		5mm	37-42mm	15	21	32	-	-
LM-OKV-4751C		4mm	47-51mm	22	30	37	-	-
LM-OKV-3742H	孔型	5mm	37-42mm	15	21	32	12(M5)	-
LM-OKV-4751H		4mm	47-51mm	22	30	37	18(M5)	-



**F**  
一般型平面  
Flat

當工件為光滑平面時，使用平面鉗口。

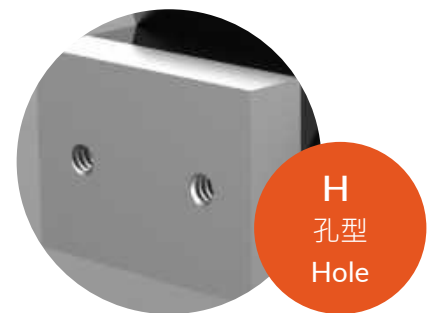
Plane jaws are used when the workpiece is a smooth plane.



**C**  
十字型  
Cross

十字型產生高摩擦力，確保在任何情況下都能可靠夾緊。

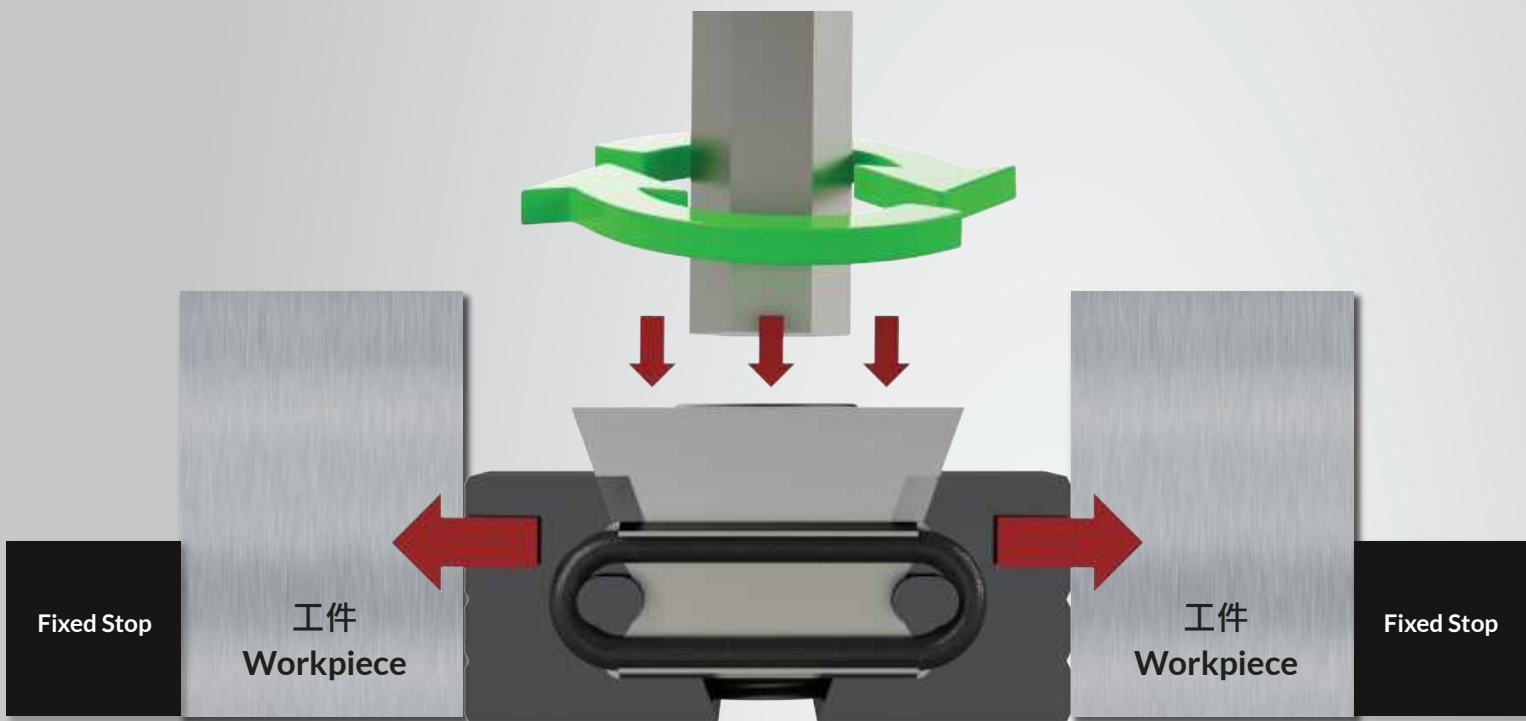
Cross type creates high friction, which ensures reliable clamping in any circumstances.



**H**  
孔型  
Hole

側面附有內螺紋，使其可以快速方便地使用各種附加零件。

Internal threads are attached to the sides, making it quick and easy to use various additional pieces.



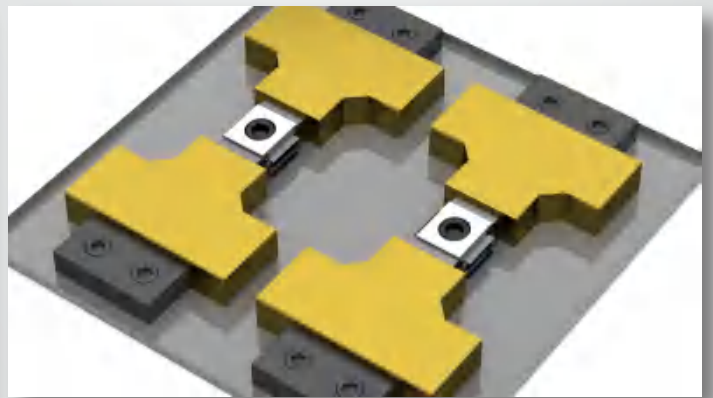
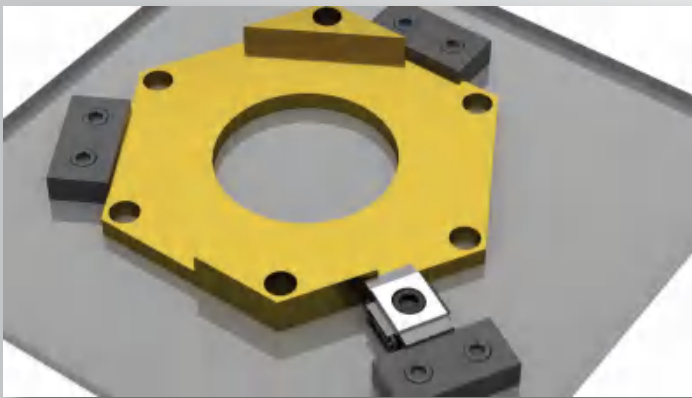
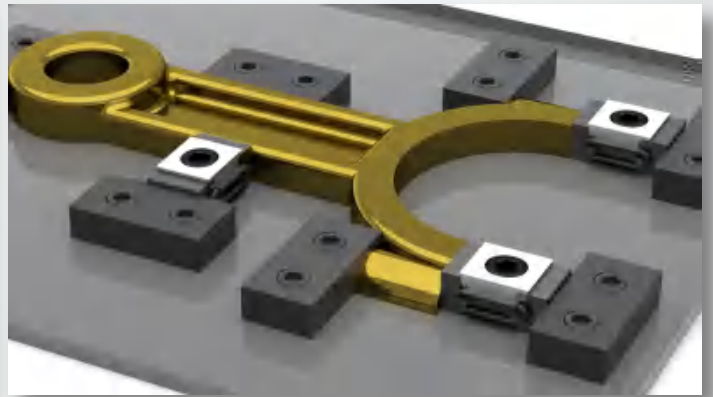
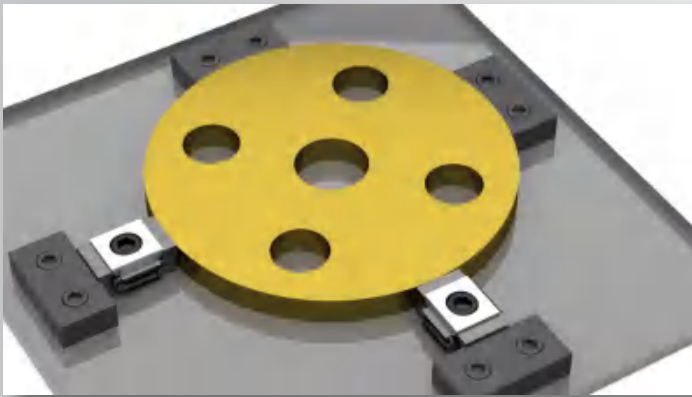
**特點**

運用六角扳手輕鬆鎖固之設計結構。  
 Designed with a hexagonal wrench for easy locking.

**Features**

迷你型虎鉗更換工件及設置快速的特點，可靈活運用因應不同變化設計需求。  
 LM-OKV to replace the workpiece and set the fast features, can flexibly use the design requirements to adapt to different changes.

適用於不同工作平台 (三軸、四軸、五軸及臥式皆可使用)。  
 Suitable for different working platforms (three-axis, four-axis, five-axis and horizontal).

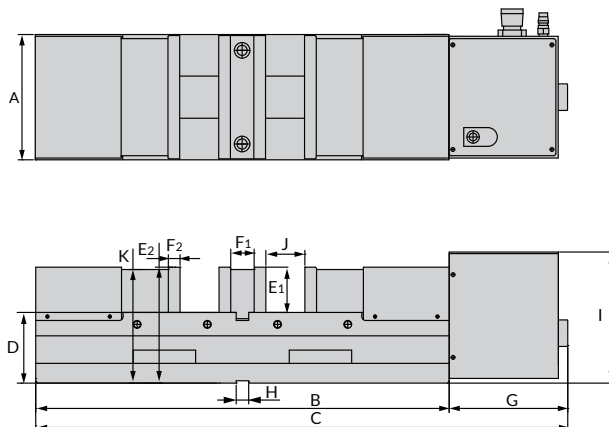




# LM-VE-\_JD 空壓雙夾緊虎鉗

## LM-VE-\_JD SUPER HI-PRESSURE DOUBLE VISE

**NEW**



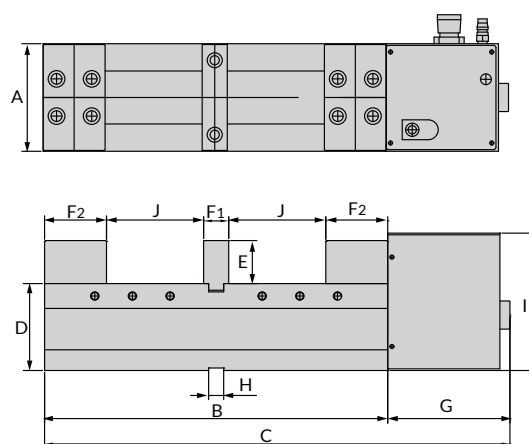
### 特點 Feature

- 空壓源 8kg/cm<sup>2</sup> 之低壓源 · 即可達 4000kgf 之超高夾持力 · 而夾持力從 0-4000kgf 可藉由調壓器自由調整設定

- Only need 8kg/cm<sup>2</sup> of low air-pressure source to achieve 4000kgf of super hi-gripping force, and this gripping force can be adjusted within 0-4000kgf y using a pressure regulator.

規格 Spec.	A	B	C	D	E1	E2	F1	F2	G	H	I	J	K	夾持力 Power	重量 (KGS) Weight
LM-VE-530JD	160	530	682	90	58	3	30	15	152	18	168	0-100	145	4000kgf	66.0

**NEW**



### 特點 Feature

- 內藏浮動下壓可產生下鎖之力 · 可消除虎口板上浮和工作傾斜

- Having built-in floating pressing structure to provide downward locking force to eliminate flotation of vise jaw and operational slope.

規格 Spec.	A	B	C	D	E	F1	F2	G	H	I	J	夾持力 Power	重量 (KGS) Weight
LM-VE-410JD	130	410	556	105	52	30	74	146	18	166	0-115	3200kgf	44.0
LM-VE-510JD	160	510	656	105	55	30	82	146	18	168	0-115	4000kgf	69.0

AID





## 自動化量產

由於空壓技術及雙夾緊特性，使虎鉗非常適合自動化批量生產。

The air pressure technology and double clamping characteristics make the vise very suitable for automated mass production.

## 特點

## Features

空壓源8kg/cm<sup>2</sup>之低壓源，即可達4000kgf之超高挾持力，而挾持力從0-4000kgf可藉由調壓器自由調整設定，適合銅鋁類產品輕加工或鑄鐵類初胚重切削。

Only need 8kg/cm<sup>2</sup> of low air pressure source can reach the super high gripping force of 4000kgf. The gripping force can be adjusted within 0-4000kgf by the pressure regulator. Suitable for light processing of copper and aluminum products or heavy duty cutting of cast iron.

當不慎操作失去空壓源時，**安全保壓設計**不會失壓且有自動補壓及穩壓之功能，挾持力永不鬆脫以確保挾持工件之功能，需再將空壓源送入方可打開。

When the air pressure source is inadvertently operated, the safety pressure maintaining design will not lose pressure and has the function of automatic voltage compensation and voltage regulation. The clamping force will never be loose to ensure the function of holding the workpiece, and the air pressure source needs to be sent again. The party can be opened.

虎鉗本體材質使用石墨鑄鐵(FCD-60)，滑軌經高週波熱處理HRC45°以上，可保持高耐磨性。  
The body of the Vise using high quality graphite casting iron (FCD-60). Slideway has high frequency heat treatment at HRC45° or more to keep the accuracy and its long use life.

內藏下壓結構可產生下鎖之力，可消除虎口板上浮和工作傾斜。  
(一般由上方螺絲鎖住滑動塊虎鉗，沒有下壓力量)

The built-in pressing structure can generate a locking force, which can eliminate the floating of vise jaw and operational slope. (The sliding block vise is locked by the upper screw, there is no downforce).

## 雙夾機構

挾持安全距離可達5mm，按下開關後，雙夾機構同時挾持兩個大小誤差5mm以內之工件。

⚠ 注意事項：不可單邊夾持。

The clamping safety distance can reach 5mm. After pressing the switch, the double clamping mechanism simultaneously holds two workpieces with a size error of less than 5mm.

⚠ Note: Can not be unilaterally clamped.

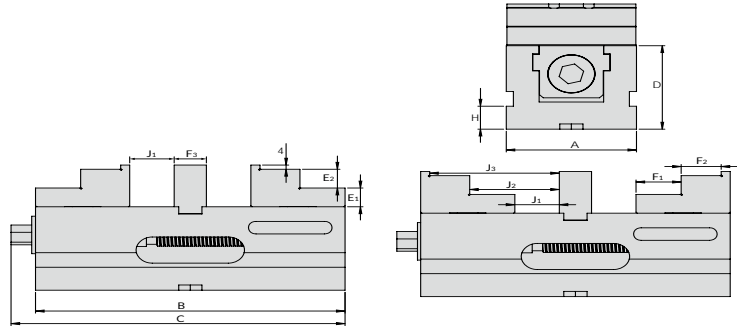




## LM-VE-SD 精巧雙夾緊虎鉗

### LM-VE-SD DOUBLE-CLAMPING PRECISION VISE

**NEW**



#### 特點 Feature

- 使用快速雙夾機構，可以同時夾緊兩邊工件，亦可單邊夾持
- 虎鉗鉗口採用全鋼材質，經熱處理硬度達 HRC55° 以上，可拆換方向使用，變化性與互換性極佳
- 虎鉗本台及鉗口有固定高度，可以組合多台同時使用
- 側面排水槽，用於排出冷卻液和切屑

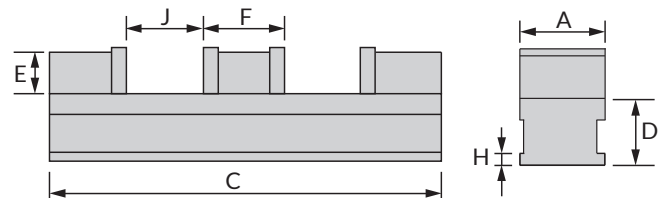
- With the fast double clamp mechanism, both workpieces can be clamped at the same time. Can be clamped unilaterally.
- Vise hard jaw material is full Steel and heat treatment at HRC55° or more. Owing to its good design to use both sides of jaw since it is exchangeable.
- The vise and the jaws have a fixed height and can be combined for use at the same time.
- Lateral drainage slots. For drainage of coolant and chips.

規格 Spec.	A	B	C	D	E	E <sub>2</sub>	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	G <sub>1</sub>	G <sub>2</sub>	H	J <sub>1</sub>	J <sub>2</sub>	J <sub>3</sub>	重量 (KGS) Weight
LM-VE-100SD	100	240	260	80	18	18	35	31	25	18	18	22	0-35	35-70	66-100	18.0



## LM-VE-D 雙夾緊虎鉗

### LM-VE-D DOUBLE-CLAMPING PRECISION VISE



#### 特點 Feature

- 虎鉗採用下鎖式機構可消除虎口上浮的功能
- 在切削中心機上 1 台可變用一次可加工 2 件工件
- 延性鑄鐵的彈簧 FCD60

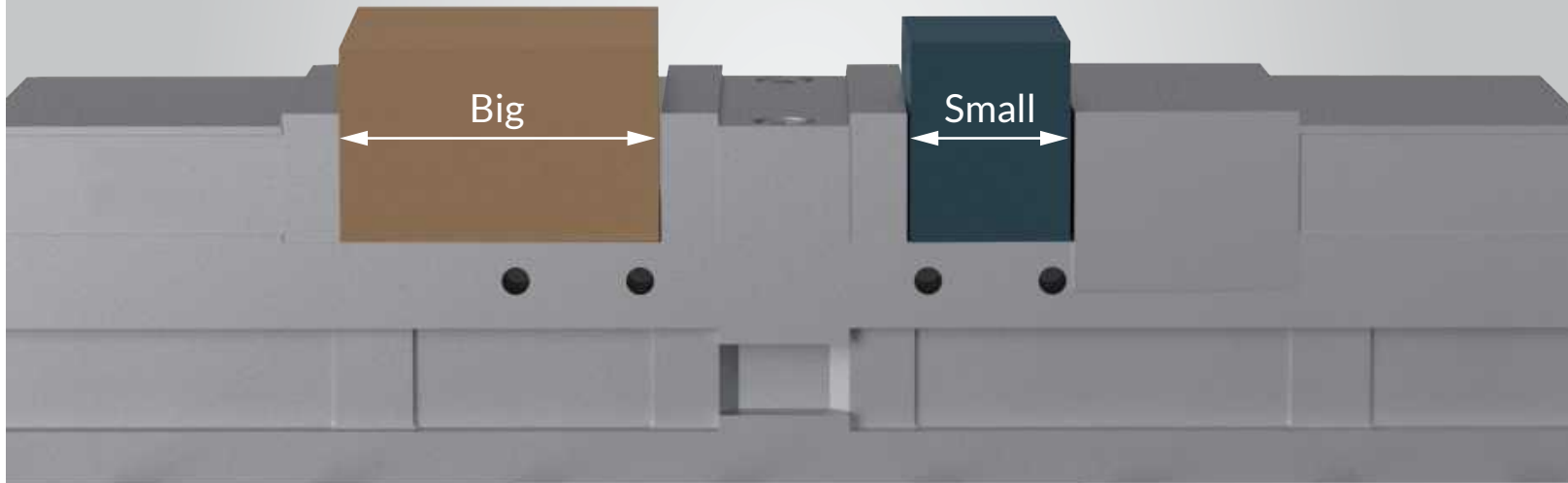
- Vise under the lock using the tiger's mouth to eliminate floating body functions.
- In the machining center with a variable on one station can process two parts.
- Rigid material vise body of ductile iron FCD60.

規格 Spec.	A	C	D	E	F	H	J	重量 (KGS) Weight
LM-VE-100D	100	400	65	40	60	23	0-55	25.0
LM-VE-160D	160	500	85	60	66	23	0-75	50.0

## 雙夾機構

使用快速雙夾機構，可以同時夾緊兩邊工件，夾持工件尺寸沒有限制，亦可單邊夾持。

With the fast double clamp mechanism, both workpieces can be clamped at the same time. There is no limit to the size of the clamping workpiece, and it can be clamped on one side.



### 特點

### Features

中間固定塊取出，可靈活運用夾持較大工件。

The intermediate fixing block is taken out, and the large workpiece can be clamped flexibly.

特殊角固結構設計使夾持工件能產生下壓力，有效防止工件上浮，鎖固力極佳。  
Clamping the workpiece can generate downforce, effectively preventing the workpiece from floating, and the locking force is excellent.

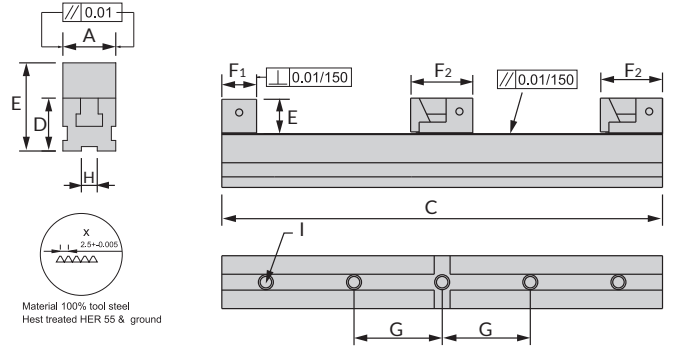
虎鉗本體材質使用石墨鑄鐵(FCD-60)，滑軌經高週波熱處理HRC45°以上，可保持高耐磨性。

The body of the Vise using high quality graphite casting iron (FCD-60). Slideway has high frequency heat treatment at HRC45° or more to keep the accuracy and its long use life.



# LM-FR 彈性並列式虎鉗

## LM-FR FLEXIBLE PARALLEL VISE



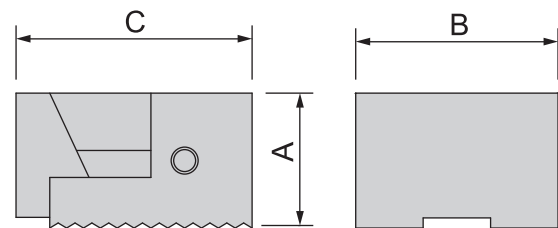
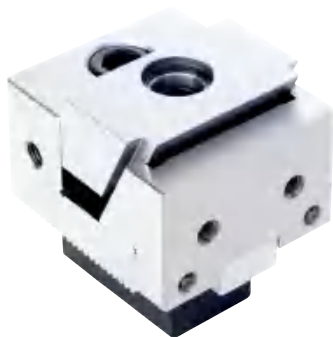
Material 100% tool steel  
Heat treated HER 55 & ground

規格 Spec.	A	C	D	E	F1	F2	G	H	I	A 型壓塊 A-Type Briquetting	B 型壓塊 B-Type Briquetting	重量 (KGS) Weight
LM-FR-6025	60	250	60	40	60	70	100	18	M12	LM-FR-60A (2 pcs)	LM-FR-60B (1 pcs)	9.00
LM-FR-6040	60	400	60	40	60	70	100	18	M12	LM-FR-60A (3 pcs)	LM-FR-60B (1 pcs)	14.0
LM-FR-6050	60	500	60	40	60	70	100	18	M12	LM-FR-60A (4 pcs)	LM-FR-60B (1 pcs)	16.0
LM-FR-6063	60	630	60	40	60	70	100	18	M12	LM-FR-60A (4 pcs)	LM-FR-60B (1 pcs)	20.0
LM-FR-9025	90	250	70	45	70	80	100	18	M16	LM-FR-90A (2 pcs)	LM-FR-90B (1 pcs)	18.0
LM-FR-9040	90	400	70	45	70	80	100	18	M16	LM-FR-90A (3 pcs)	LM-FR-90B (1 pcs)	25.0
LM-FR-9050	90	500	70	45	70	80	100	18	M16	LM-FR-90A (4 pcs)	LM-FR-90B (1 pcs)	29.0
LM-FR-9063	90	630	70	45	70	80	100	18	M16	LM-FR-90A (4 pcs)	LM-FR-90B (1 pcs)	38.0



# LM-FR-A 多夾式虎鉗壓塊

## LM-FR-A MULTI-FOLDER VISE BRIQUETTING



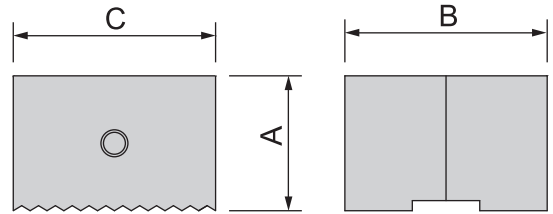
規格 Spec.	A	B	C	重量 (KGS) Weight
LM-FR-60A	40	60	70	1.40
LM-FR-90A	45	90	80	2.90

AID



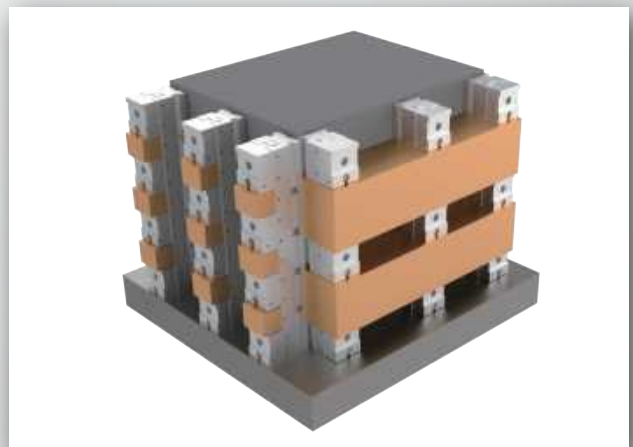
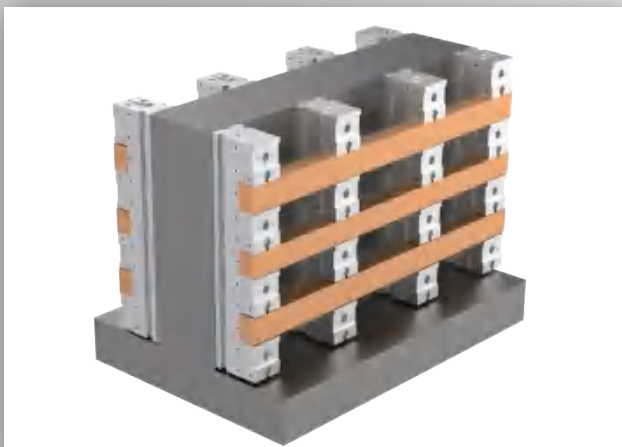
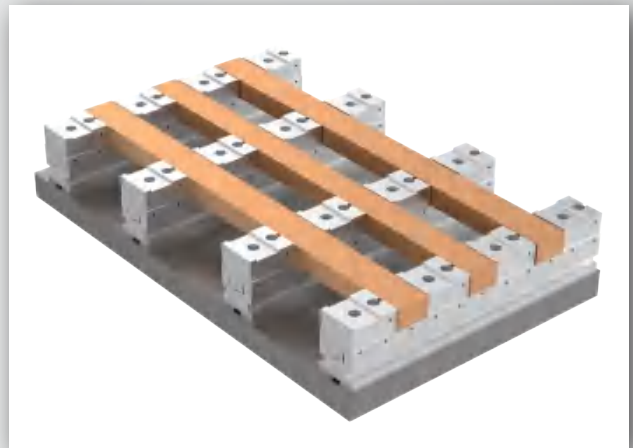
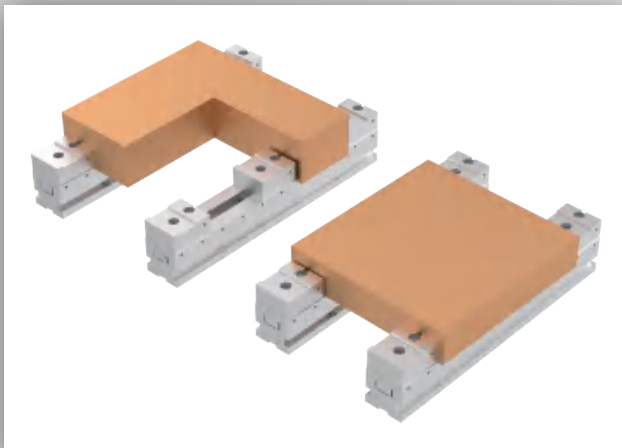
# LM-FR-\_B 多夾式虎鉗固定塊

## LM-FR-\_B MULTI-FOLDER VISE FIXED BLOCK



規格 Spec.	A	B	C	重量 (KGS) Weight
LM-FR-60B	40	60	60	1.40
LM-FR-90B	45	90	70	2.90

### 加工應用 Cutting Application

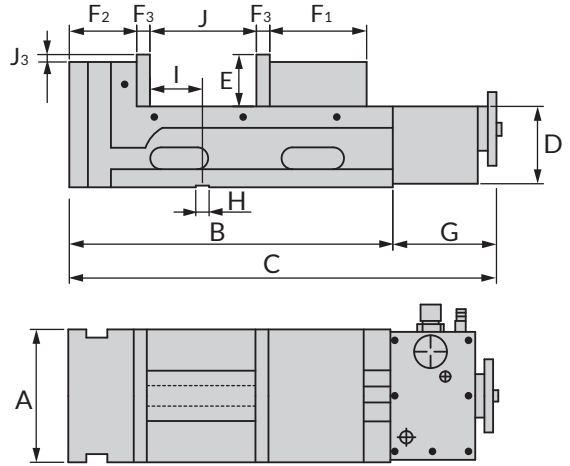
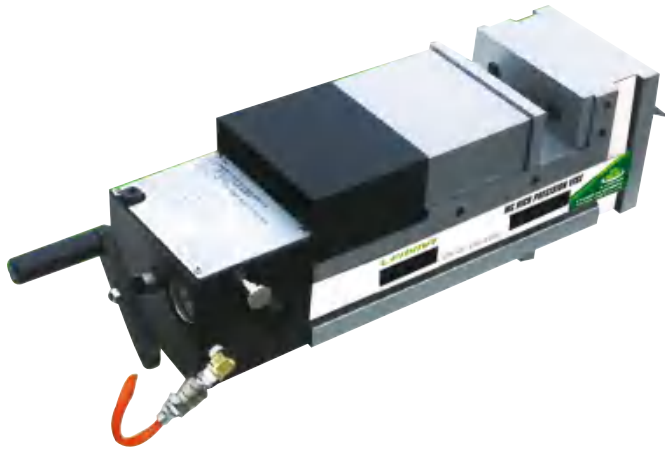


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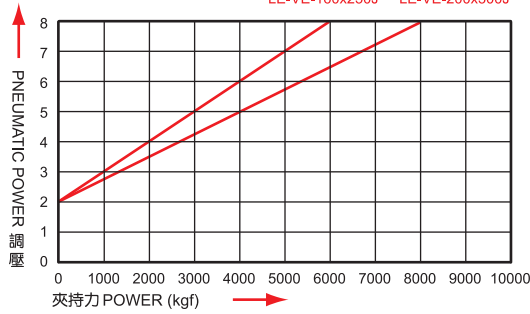


# LM-VE- \_J 空壓快速精密虎鉗

## LM-VE- \_J PNEUMATIC MC PRECISION&ANGLE LOCK VISE

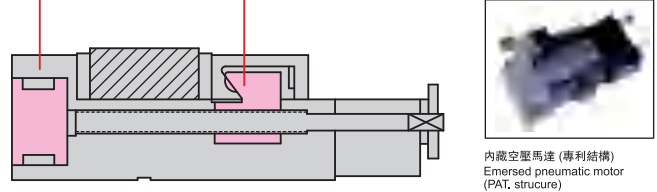


LE-VE-130x150J LE-VE-180x200J  
 LE-VE-160x160J LE-VE-200x200J  
 LE-VE-160x250J LE-VE-200x300J

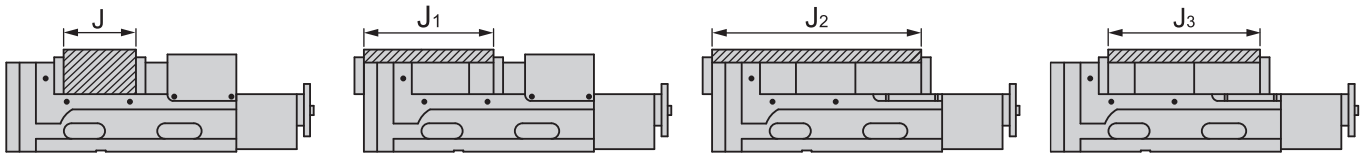


前置出力可產生雙向力，減少本體變形使工件更加精準。  
 Forward output pressure can produce two-way power for reducing main body from becoming deformed and the working parts will be more accurate.

半圓球可產生角固定鎖之力，可消除虎口板上浮和工作傾斜。  
 Conical shape can produce an angle lock power for prevention of cutting plate movement.



內藏空壓馬達 (專利結構)  
 Emerged pneumatic motor (PAT. structure)



### 特點 Feature

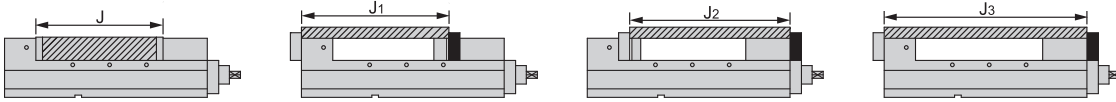
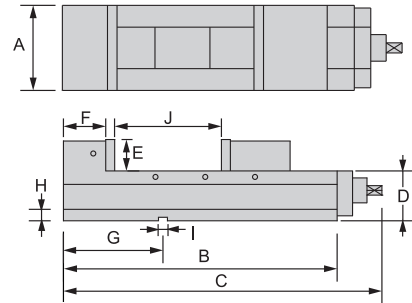
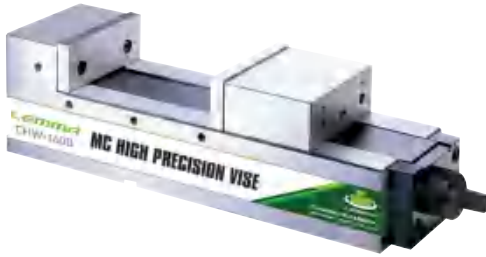
- 空壓源 8kg/cm<sup>2</sup> 之低壓源，即可達 9000kgf 之超高夾持力，而夾持力從 0-9000kgf 可藉由調壓器自由調整設定
- 開關速度只需 1.5 秒，夾持安全距離可達 8mm，並可設有手輪安全線，可輕易由肉眼辨識出工件夾持之安全距離，是否超限
- 定寸規格，本體六面磨光並預留壓板槽，不須治具板，即可直立加工

- Even the air source at low pressure 8kg/cm<sup>2</sup> which can be achieved super hi-gripping force can be adjusted freely by pressure regulator.
- The shifting speed is only 1.5 sec. with safety range:8mm, also equipped with safety line on hand wheel and can be visible the clamped work piece safety range is exceeded or not.
- Six faces of vise body be super grinding & pre-setting hold slot, and can be processed vertically without jig fixture.

規格 Spec.	A	B	C	D	E	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	G	H	I	J	J <sub>1</sub>	J <sub>2</sub>	J <sub>3</sub>	夾持力 Power	重量 (KGS) Weight
LM-VE-100-100J	100	320	435	100	48	100	85	15	125	16	45	0-100	95-220	100-200	200-300	3200kgf	29.0
LM-VE-130x150J	130	380	505	105	55	110	85	15	125	18	45	0-150	95-250	110-275	200-380	6000kgf	40.0
LM-VE-160x160J	160	400	525	105	58	120	85	15	125	18	45	0-160	95-260	120-295	210-400	6000kgf	50.0
LM-VE-160x250J	160	490	615	105	58	120	85	15	125	18	45	0-250	95-350	120-395	210-490	6000kgf	55.0
LM-VE-180x200J	180	460	585	110	63	130	90	18	125	18	72	0-200	100-300	130-350	220-460	9000kgf	72.0
LM-VE-200x200J	200	470	595	110	63	140	90	18	125	18	72	0-200	100-310	140-360	230-470	9000kgf	80.0
LM-VE-200x300J	200	570	695	110	63	140	90	18	125	18	72	0-300	100-410	140-460	230-570	9000kgf	90.0



## CHW- \_B 機械式精密虎鉗 CHW- \_B MECHANICAL -TYPE PRECISION VISE



### 特點 Feature

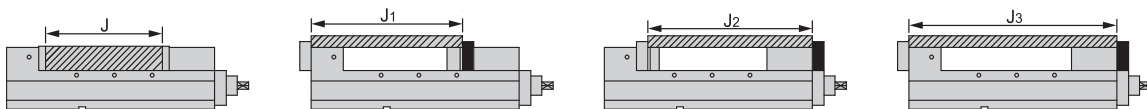
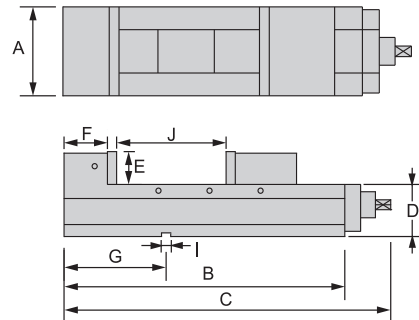
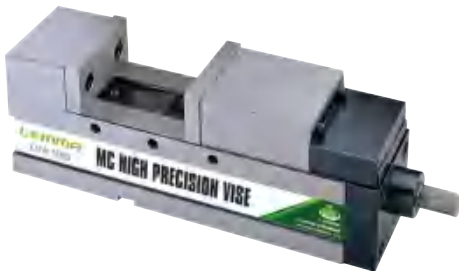
- 附防止所夾持工件上浮的角固裝置
- 無增壓機構 · 適用於較軟的工件夾持

- The unit had prevent lifting structure.
- Not turbo-charged organization, is suitable for the soft work piece clamp.

規格 Spec.	A	B	C	D	E	F	G	H	I	J	J <sub>1</sub>	J <sub>2</sub>	J <sub>3</sub>	重量 (KGS) Weight
CHW-100B	100	400	490	85	45	80	110	23	18	200	230	260	340	30.0
CHW-130B	130	450	540	95	50	85	135	23	18	240	285	320	405	43.0
CHW-160B	160	550	640	100	60	103	200	23	18	300	380	400	500	61.0
CHW-200B	200	600	690	110	65	108	220	23	18	340	438	470	578	84.0



## LM-VE- \_B 機械式虎鉗 LM-FR- \_B MECHANICAL POWER VISE



### 特點 Feature

- 高剛性結構
- 角固機械式虎鉗適合中、輕切削做精密加工
- 虎鉗本台使用高抗張力球狀石墨鑄鐵 · 抗張力強 · 不易變形

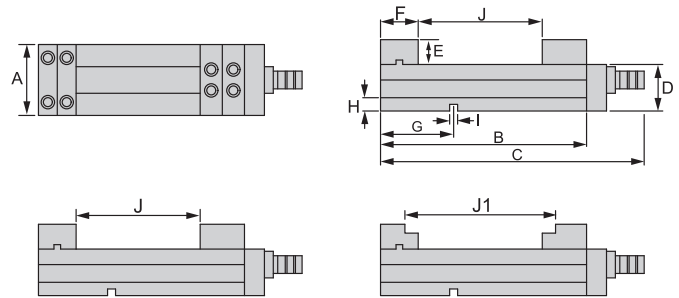
- Mechanical power type.
- Holding work-piece firmly in single and multiple vises setup.
- Rigid and high tensile casting of ductile iron.

規格 Spec.	A	B	C	D	E	F	G	I	Jaw Opening(Max.)				重量 (KGS) Weight
									J	J <sub>1</sub>	J <sub>2</sub>	J <sub>3</sub>	
LM-VE-100B	101	340	430	85	48	80	125	16	125	190	230	320	26.0
LM-VE-130B	131	405	495	95	55	85	150	18	180	240	290	380	39.0
LM-VE-160B	161	495	585	105	58	100	165		240	320	360	470	57.0
LM-VE-200B	201	570	666	110	63	108	190		280	360	420	540	86.0



# LM-VE- \_C 角固式精密機械虎鉗

## LM-VE- \_C MECHANICAL-TYPE PRECISION VISE



### 特點 Feature

- 內藏防止上浮機制，夾持時往下方的力亦作動，因此工件及可動體的上浮極小，又本體及固定顎為一體構造，因此可防止鉗體的傾倒

- This unit had prevent lifting structure, when clamping in down direction power also acting, so the workpiece and movable parts lift very small, the body and soild jaw is a combination structure, it does not tilt.

規格 Spec.	A	B	C	D	E	F	G	H	I	J	J <sub>1</sub>	夾持力 Power	重量 (KGS) Weight
LM-VE-100C	100	310	400	95	45	70	110	23	18	150	225	-	28.0
LM-VE-130C	130	410	500	100	50	80	135	23	18	250	330	-	46.0
LM-VE-160C	160	490	580	110	55	85	150	23	18	300	385	-	60.0
LM-VE-200C	200	565	655	120	60	100	220	23	18	350	450	-	100.0



- 較同等級虎鉗鉗口為深，可確實夾持較高之工件  
-The jaw more deeper than those of same grade vise. Can clamping higher work piece correctly.



- 全自動伸縮防塵設計，可防止切削屑所引起的動作不良  
-Chip cover adopted, preventing chips falling into causing bad motion.



- 較同等級虎鉗有近兩倍的開口，可輕易夾持較長工件  
-Double opening than those of same grade vise. Can easy clamp longer work piece.



#### 標準附件：

1. 把手壹組
2. 導正鍵 2 個  
M6×10L 螺絲 2 支
3. 虎鉗防屑裝置
4. 虎鉗固定塊 (4 只)

#### 特別附件 (另購)：

1. 特別虎口
2. 虎鉗定位器
3. 大開口鉗口壹組 (LJ)

#### Standard Accessories:

- 1.Handle-1 set
- 2.Guide key-2pcs  
Screw-M6×10L×2pcs
- 3.Chip cover
- 4.Vise positioner

#### Optional Accessories:

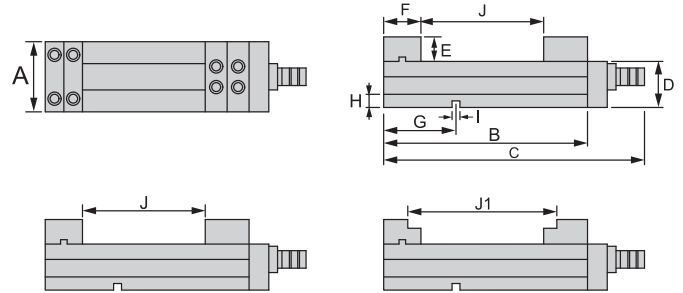
- (Purchase separately)
- 1.Special application jaw plates.
  - 2.Vise positioner
  - 3.Opening jaw plates





# LM-VE-\_S 倍力定壓式虎鉗

## LM-VE-\_S SUPER OPEN TYPE VISE



### 特點 Feature

- 內藏防止上浮機制，夾持時往下方的力亦作動，因此工件及可動體的上浮極小，又本體及固定顎為一體構造，因此可防止鉗體的傾倒

- This unit had prevent lifting structure, when clamping in down direction power also acting, so the workpiece and movable parts lift very small, the body and solid jaw is a combination structure, it does not tilt.

規格 Spec.	A	B	C	D	E	F	G	H	I	J	J <sub>1</sub>	夾持力 Power	重量 (KGS) Weight
LM-VE-100S	100	310	435	95	45	70	110	23	18	140	200	4000kgf	30.0
LM-VE-130S	130	410	535	100	50	80	135	23	18	230	315	4000kgf	48.0
LM-VE-160S	160	490	615	110	55	85	150	23	18	300	385	5000kgf	62.0
LM-VE-200S	200	565	690	120	60	100	220	23	18	350	450	5000kgf	105.0



- 全自動伸縮防塵設計，可防止切屑所引起之動作不良  
-Chip covered adopted, preventing chips falling into causing bad motion.

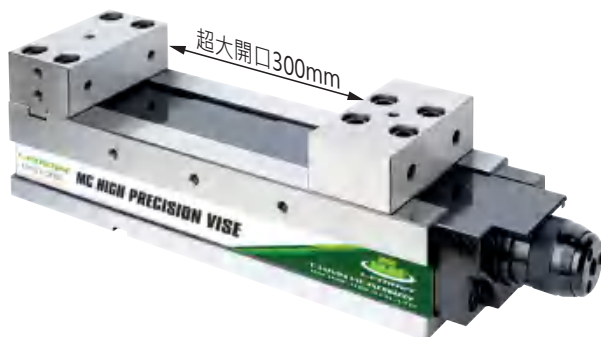


- 較同等級虎鉗有近兩倍的開口，可輕易夾持較長工件  
-Double opening than those of same grade vise. Can easy clamp longer work piece.



- 新開發專利無油倍力定壓式機械增壓系統可輕易設定所需壓力(如表)夾持力永不退壓  
-New development patented, oil-free powerful mechanical boost system. Which gives greater clamping and never collapsing pressure.

1	800kgf
2	2000kgf
3	3000kgf
4	4000kgf
5	5000kgf



#### 標準附件：

1. 把手壹組
2. 導正鍵 2 個  
M6×10L 螺絲 2 支
3. 虎鉗防屑裝置
4. 虎鉗固定塊 (4 只)

#### 特別附件 (另購)：

1. 特別虎口
2. 虎鉗定位器
3. 大開口鉗口壹組 (LJ)

#### Standard Accessories:

1. Handle-1 set
2. Guide key-2pcs  
Screw-M6×10×2pcs
3. Chip cover
4. Vise positioner

#### Optional Accessories:

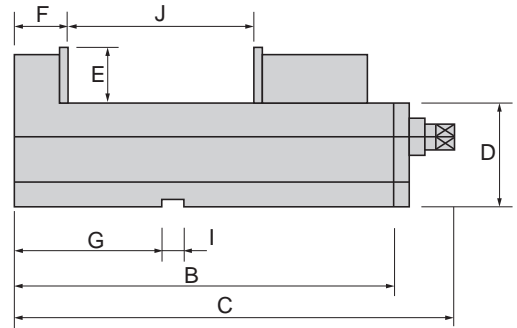
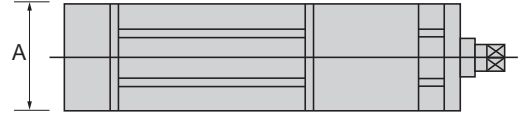
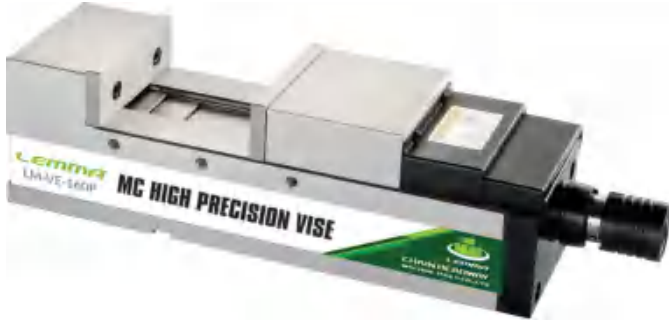
- (Purchase separately)
1. Special application jaw plates.
  2. Vise positioner
  3. Opening jaw plates



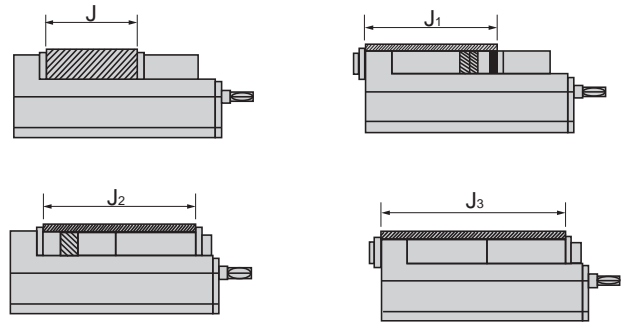
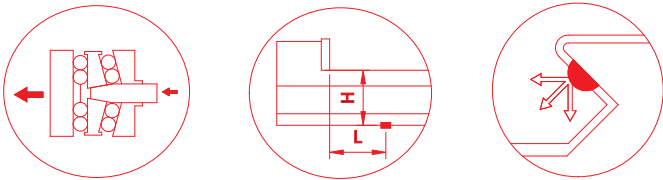
# LM-VE-  P 倍力式虎鉗

## LM-VE-  P MECHANICAL POWER VISE

PAT.



### 範例 Example



### 特點 Feature

- 倍力式增壓機構
- 總長度較短、大開口、轉動扳手較省力

- Mechanical power structure.
- The total length is short, the big aperture, to rotate the spanner to reduce effort.

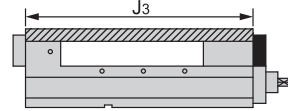
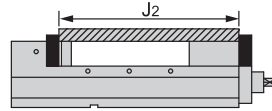
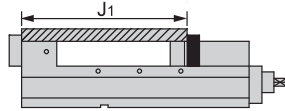
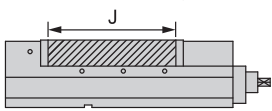
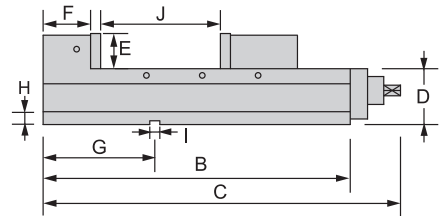
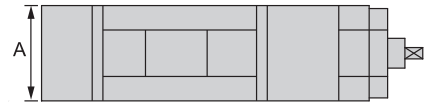
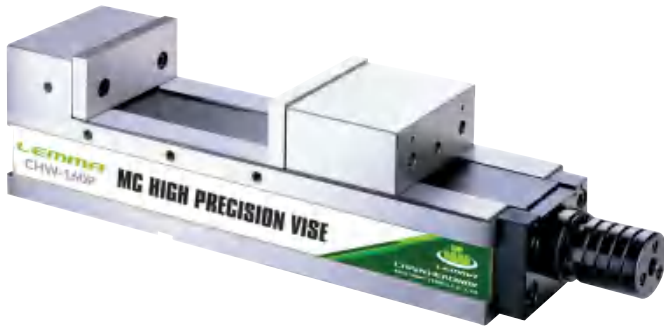
規格 Spec.	A	B	C	D	E	F	G	I	J	J <sub>1</sub>	J <sub>2</sub>	J <sub>3</sub>	夾持力 Power	重量 (KGS) Weight
LM-VE-100P	101	340	470	85	48	80	125	16	145	190	230	320	4000kgf	27.0
LM-VE-130P	131	405	535	95	55	85	150	18	220	240	290	380	4500kgf	40.0
LM-VE-160P	161	495	625	105	58	100	165	18	300	320	360	470	5200kgf	58.0
LM-VE-200P	201	570	700	110	63	108	190	18	340	360	420	540	6250kgf	87.0

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## CHW-\_P 精密倍力式虎鉗

### CHW-\_P POWERFUL-TYPE PRECISION VISE



#### 特點 Feature

- 附防止所夾持工件上浮的角固裝置
- 倍力式增壓機構

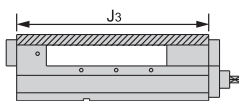
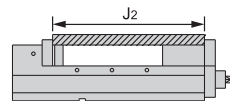
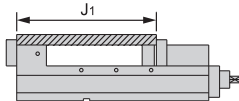
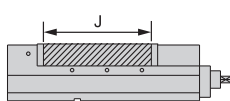
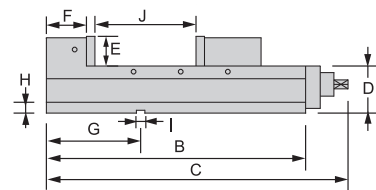
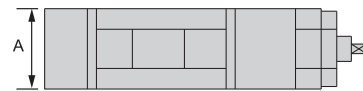
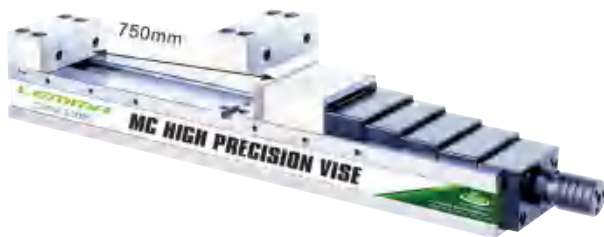
- The unit had prevent lifting structure.
- Mechanical power structure.

規格 Spec.	A	B	C	D	E	F	G	H	I	J	J <sub>1</sub>	J <sub>2</sub>	J <sub>3</sub>	夾持力 Power	重量 (KGS) Weight
CHW-100P	100	400	530	85	45	80	110	23	18	200	230	260	340	4000kgf	35.0
CHW-130P	130	450	580	95	50	85	135	23	18	240	285	320	405	4500kgf	48.0
CHW-160P	160	550	680	100	60	103	200	23	18	300	380	400	500	5000kgf	66.0
CHW-200P	200	600	730	110	60	108	220	23	18	340	438	470	578	5500kgf	104.0



## CHW-\_PL 精密倍力式虎鉗 (超長型)

### CHW-\_PL POWERFUL-TYPE PRECISION VISE(LENGTHEN)



#### 特點 Feature

- 最大開口 750mm

- Max. opening capacity 750mm.

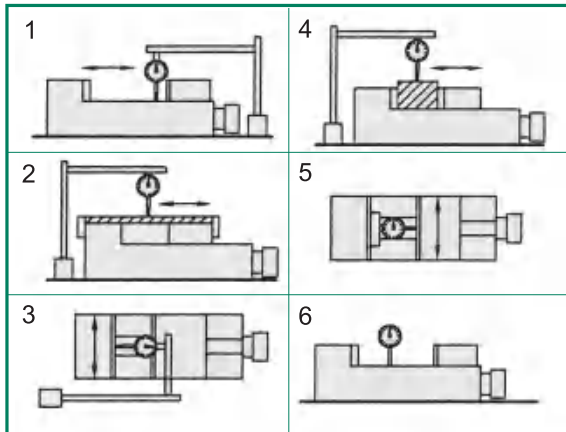
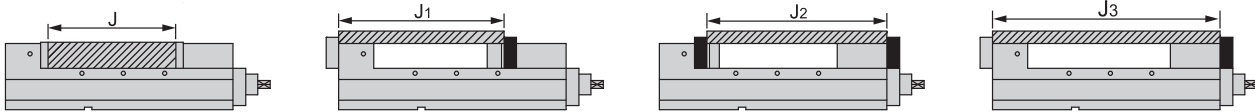
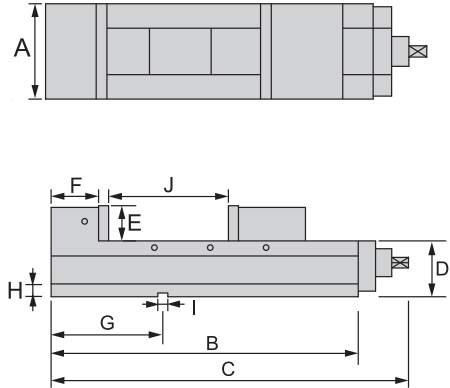
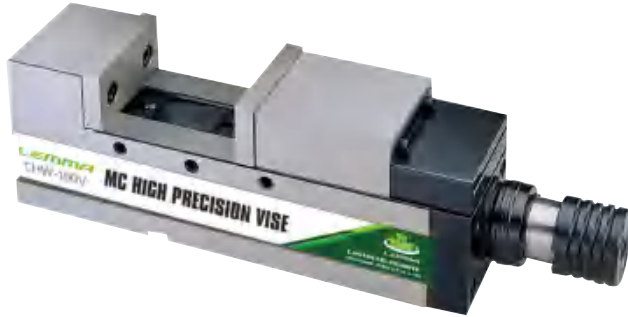
規格 Spec.	A	B	C	D	E	F	G	H	I	J	J <sub>1</sub>	J <sub>2</sub>	J <sub>3</sub>	夾持力 Power	重量 (KGS) Weight
CHW-160PL	160	1000	1130	105	60	103	100	23	18	750	850	890	1000	4400kgf	108.0
CHW-200PL	200	1100	1230	110	60	108	220	23	18	840	940	990	1100	5500kgf	145.0

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# CHW-\_V 角固式油壓精密虎鉗

## CHW-\_V HYDRAULIC&ANGLE LOCK VISE



※ 精度測定方法 Accuracy Testing Standard

NO	檢查事項 Item	JIS 規格 1 級 JIS Grade 1	驗證許可 Guaranteed
1	虎鉗底部與滑動面之平行度 Surface of vise bed parallel to bottom of vise body.	0.020 100mm	0.010 100mm
2	虎鉗大開口工件之平行度 Max opening test block parallel to bottom of vise body.	0.050 100mm	0.030 100mm
3	虎鉗底部鍵槽與虎口板之直角度測定 Keyways on bottom of vise bed square to clamping surface of jaw plate.	0.020 100mm	0.015 100mm
4	工作夾緊後之平行度 Top of rectangular test block clamped tightly by jaw parallel to bottom of vise body.	0.030 100mm	0.020 100mm
5	兩虎口板相互平行度 Both jaw plante parallel.	0.020 100mm	0.020 100mm
6	虎鉗側立與工作台之直角度 Vise side-lock on bottom slide way square.	0.020 100mm	0.010 100mm

### 特點 Feature

- 強而有力材質 | 虎鉗本台使用球狀石墨化鑄鐵 (FCD60-60kgs/mm<sup>2</sup>) 抗張力強、耐磨性高、不易變形
- 虎鉗本台滑動面均經硬化熱處理 HRC45 以上，可保持長久耐磨性及精度

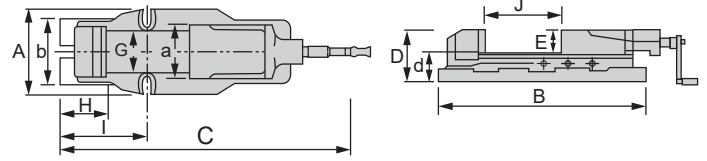
- Rigid material-vise body of ductile iron FCD60 JIS (equal to GGG60) with 60 kgs/mm<sup>2</sup> or 80000 psi tensile strength.
- Vise bed flame with harden treatment up to HRC45° and up takes up wear and maintain for long.

規格 Spec.	A	B	C	D	E	F	G	I	J	J <sub>1</sub>	J <sub>2</sub>	J <sub>3</sub>	夾持力 Power	重量 (KGS) Weight
CHW-100V	101	340	470	85	48	80	125	16	125	190	230	320	4000kgf	27.0
CHW-130V	131	405	535	95	55	85	150	18	180	240	290	380	5000kgf	40.0
CHW-160V	161	495	625	105	58	100	165	18	240	320	360	470	5500kgf	58.0
CHW-200V	201	570	700	110	63	108	190	18	280	360	420	540	6900kgf	87.0



# AH 內藏式油壓虎鉗

## AH HYDRAULIC PRECISION VISE

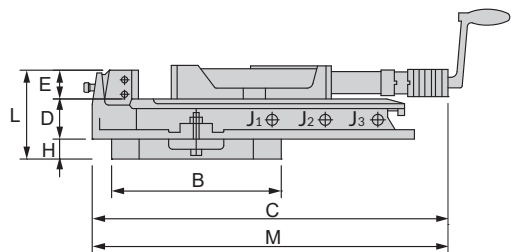
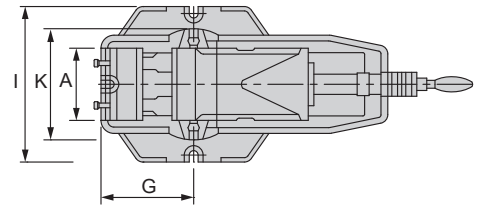
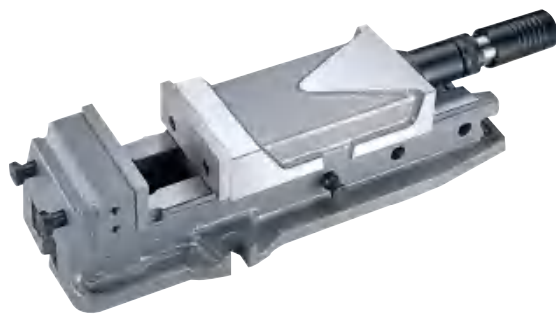


規格 Spec.	A	B	C	D	E	G	H	I	J	a	b	d	開口行程 Clamping Range			挾持力 Power	重量 (KGS) Weight
													X	Y	Z		
AH-4	170	440	525	95	36	80	95	147	170	105	135	58	0~57	55~114	112~170	2500kgf	21.0
AH-5	207	550	670	120	48	97	107	195	220	130	175	70.5	0~73	72~146	145~220	3500kgf	38.0
AH-6	225	620	970	135	53	116	117	210	300	150	182	82.5	0~100	98~200	198~300	4500kgf	53.0
AH-8	280	680	900	162	62	160	150	260	300	200	260	100	0~100	99~200	198~300	8000kgf	95.0



# LM-VE- H 外藏式油壓虎鉗

## LM-VE- H HYDRAULIC & ANGLE LOCK VISE



### 特點 Feature

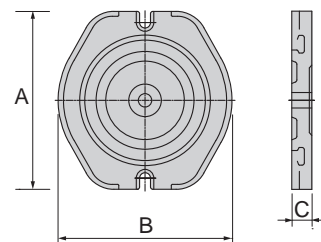
- 本體材質為球墨鑄鐵
- 角固式半圓球可產生角固下鎖之力，可消除虎口上浮和工件傾斜
- 虎鉗本台滑動面均經硬化熱處理 HRC 45°以上，可保持長久耐磨性及精度
- 油壓的最大夾持力為 4000kg

- The body is made of ductile iron.
- Down thrust "semi-sphere segment" mechanism-eliminates lift and work tilt.
- Vise bed flame hardened to HRC 45° and up takes up wear
- Max. hydraulic clamping force 4000kg.

規格 Spec.	A	B	C	D	E	G	H	I	K	L	M	行程開口 Stroke Opening			重量 (KGS) Weight
												J <sub>1</sub>	J <sub>2</sub>	J <sub>3</sub>	
LM-VE-125H	130	266	505	75	56	180	32	280	190	160	570-795	0-55	55-130	130-220	37.5
LM-VE-160H	160	320	605	85	75	195	35	334	240	192	625-935	0-58	58-160	160-310	57.4
LM-VE-200H	200	420	700	100	90	265	50	420	280	240	725-1035	0-63	63-200	200-310	94.5

規格 Spec.	A	B	C	重量 (KGS) Weight
LM-VE-125H-B	280	266	32	12.0
LM-VE-160H-B	330	310	35	16.0
LM-VE-200H-B	375	355	40	16.0

※ 底盤選配 Optional chassis.

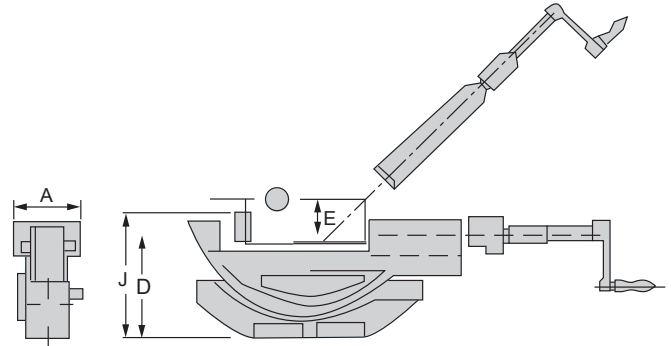


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## JLB 傾斜式油壓內藏虎鉗

JLB UNIVERSAL HYDRAULIC TILTING VISE

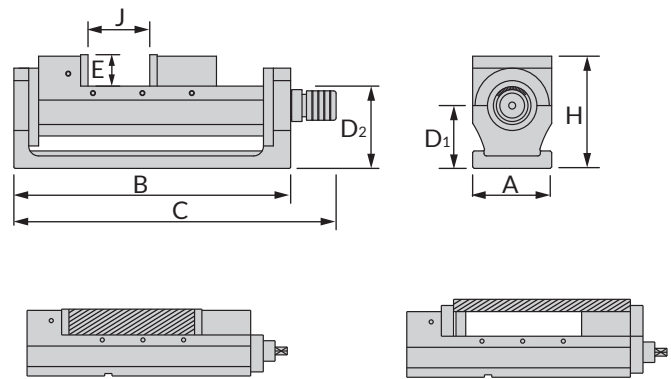
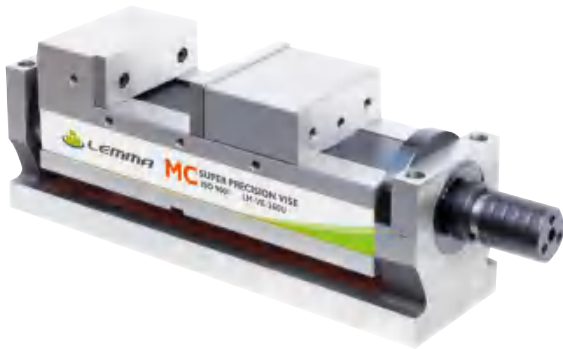


規格 Spec.	A	D	E	J	夾持力 Power	重量 (KGS) Weight
JLB-40	100	177	36	0-170	2540	23.0
JLB-60	154	237	53	0-300	4400	60.0



## LM-VE- U 傾斜式虎鉗

LM-VE- U TILTING VISE

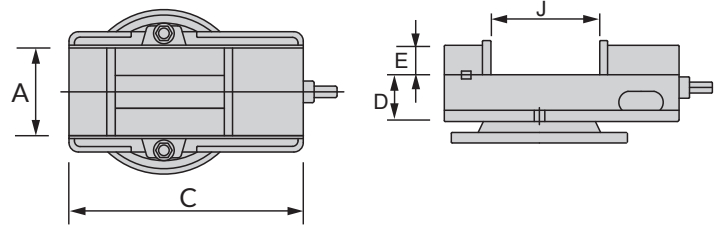


規格 Spec.	A	B	C	D <sub>1</sub>	D <sub>2</sub>	E	H	J	調整高度 Adjustable Angle	夾持力 Power	重量 (KGS) Weight
LM-VE-160U	160	550	645	126	165	63	225	200	0° ~50°	5500kgf	80.0

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## 角固式虎鉗 FIXED ANGLE VISE

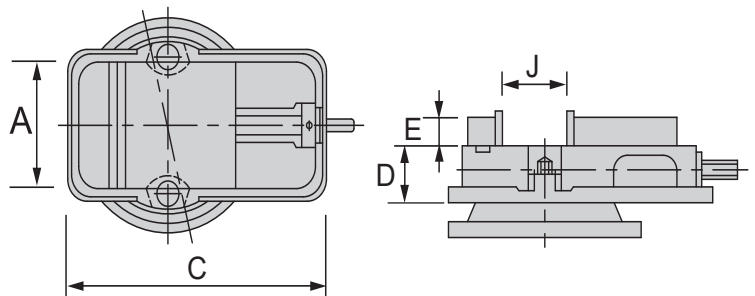
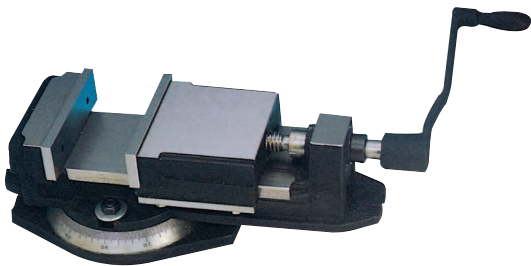


規格 Spec.	A	C	D	E	J	重量 (KGS) Weight
AV-4	100	320	65	36	100	20.0
AV-6	150	430	72	46	140	41.0
AV-8	200	600	85	62	190	73.0
AV-12	310	-	-	125	320	125.0

※ AV-12 無底盤 AV-12 no chassis.



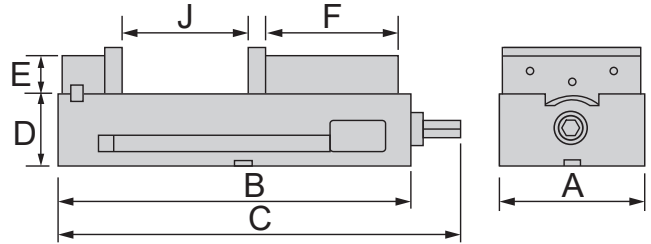
## K 型銑床虎鉗 K-TYPE MILLING VISE



規格 Spec.	A	C	D	E	J	重量 (KGS) Weight
KV-4	100	295	55	30	65	9.00
KV-6	150	460	65	40	114	28.0
KV-8	200	620	82	58	150	53.0



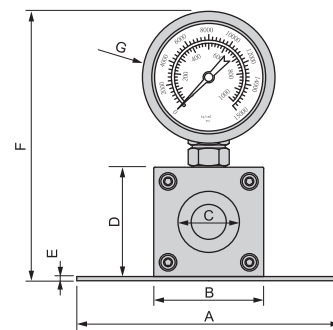
## 直角式角固虎鉗 FIXED ANGLE VISE



規格 Spec.	A	B	C	D	E	F	J	重量 (KGS) Weight
VAV-6	150	368	400	75	40	140	148	29.0



## LM-PM 虎鉗測壓力計 LM-PM THE VISE MEASURES PRESSURE GAUGE



### 特點 Feature

- 測量虎鉗壓力值 · 是否合乎標準值

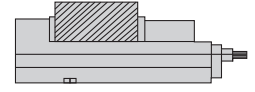
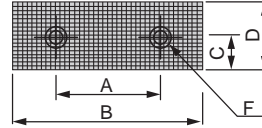
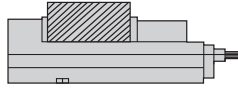
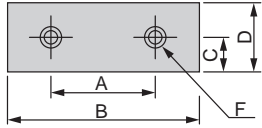
- Survey vise value of pressure, whether to conform with the normal value.

規格 Spec.	A	B	C	D	E	F	G	重量 (KGS) Weight
LM-PM-1000	120	50	28	50	2	140	70	1.16





# 虎口板 (CHW-\_B、CHW-\_P 適用) APPLICATION JAW PLATES (APPLICABLE CHW-\_B、CHW-\_P)



※ 標配 Standard accessories

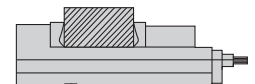
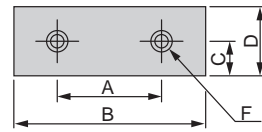
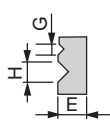
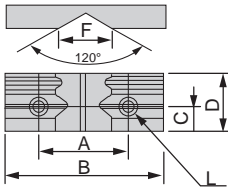
規格 Spec.	A	B	C	D	E	F	重量 (KGS) Weight
J1-100	70	98	25	48	15	M8	-
J1-130	100	128	25	53	15	M8	1.54
J1-160	100	158	25	63	18	M10	-
J1-200	120	198	28	63	18	M12	-

數量：一組兩塊 Qty: two piece per set

※ 選配 Option accessories

規格 Spec.	A	B	C	D	E	F	重量 (KGS) Weight
J2-100	70	98	25	48	15	M8	-
J2-130	100	128	25	53	15	M8	-
J2-160	100	158	25	63	18	M10	-
J2-200	120	198	28	63	18	M12	3.00

數量：一組兩塊 Qty: two piece per set



※ 選配 Option accessories

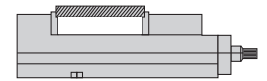
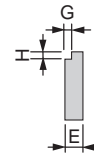
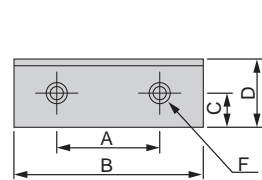
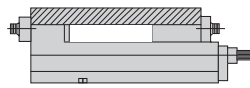
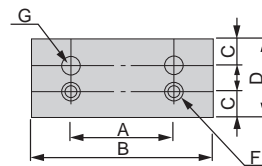
規格 Spec.	A	B	C	D	E	F	G	H	L	重量 (KGS) Weight
J3-100	70	98	25	48	30	25	-	25	M8	-
J3-130	100	128	25	53	30	25	12	25	M8	-
J3-160	100	158	25	63	30	25	12	27	M10	-
J3-200	120	198	28	63	34	30	12	30	M12	-

數量：一組一塊 Qty: one piece per set

※ 選配 Option accessories

規格 Spec.	A	B	C	D	E	F	重量 (KGS) Weight
J4-100	70	98	25	48	30	M8	-
J4-130	100	128	25	53	32	M8	-
J4-160	100	158	25	63	32	M10	-
J4-200	120	198	28	63	40	M12	-

數量：一組兩塊 Qty: two piece per set



※ 選配 Option accessories

規格 Spec.	A	B	C	D	E	F	G	重量 (KGS) Weight
J5-100	70	98	25	58	24	M8	M12	1.9
J5-130	100	128	25	63	24	M8	M12	-
J5-160	100	158	25	73	24	M10	M14	-
J5-200	120	198	28	77	24	M12	M16	-

數量：一組兩塊 Qty: two piece per set

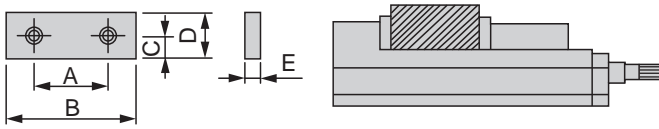
※ 選配 Option accessories

規格 Spec.	A	B	C	D	E	F	G	H	重量 (KGS) Weight
J6-100	70	98	25	48	15	M8	5	5	-
J6-130	100	128	25	53	15	M8	5	5	-
J6-160	100	158	25	63	18	M10	5	5	-
J6-200	120	198	28	63	18	M12	5	5	-

數量：一組兩塊 Qty: two piece per set



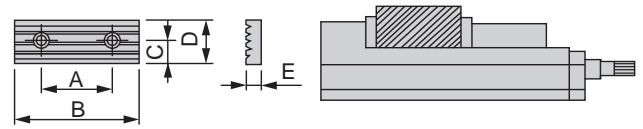
# 虎口板 (LM-VE-\_B、LM-VE-\_P、CHW-\_V 適用) APPLICATION JAW PLATES (APPLICABLE LM-VE\_B、LM-VE\_P、CHW\_V)



※ 標配 Standard accessories

規格 Spec.	A	B	C	D	E	重量 (KGS) Weight
HJ-100	60	100	22	48	15	-
HJ-130	90	130	25	55	15	-
HJ-160	90	160	25	58	15	1.50
HJ-200	120	200	28	63	18	-

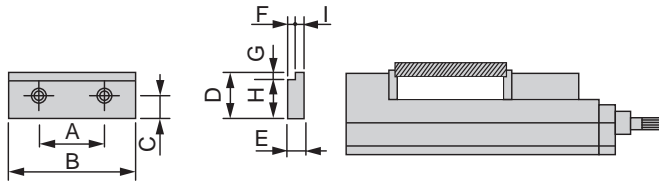
數量：一組兩塊 Qty: two piece per set



※ 選配 Option accessories

規格 Spec.	A	B	C	D	E	重量 (KGS) Weight
LJ-100	60	100	22	48	15	-
LJ-130	90	130	25	55	15	-
LJ-160	90	160	25	58	15	-
LJ-200	120	200	28	63	18	-

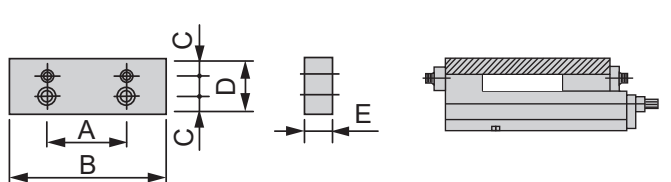
數量：一組兩塊 Qty: two piece per set



※ 選配 Option accessories

規格 Spec.	A	B	C	D	E	F	G	H	I
SJ-100	60	100	22	48	15	5	5	43	10
SJ-130	90	130	25	55	15	5	5	50	10
SJ-160	90	160	25	58	15	5	5	53	10
SJ-200	120	200	28	63	18	5	5	58	13

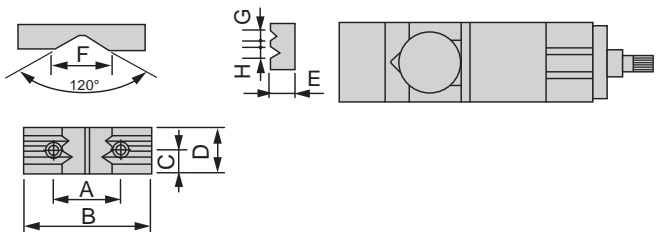
數量：一組兩塊 Qty: two piece per set



※ 選配 Option accessories

規格 Spec.	A	B	C	D	E	重量 (KGS) Weight
TJ-100	60	100	22	64	21	-
TJ-130	90	130	25	69	24	-
TJ-160	90	160	25	74	24	-
TJ-200	120	200	28	88	31	-

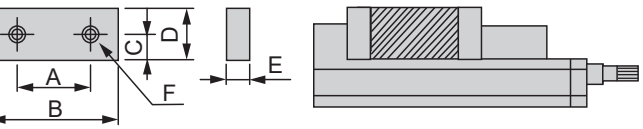
數量：一組兩塊 Qty: two piece per set



※ 選配 Option accessories

規格 Spec.	A	B	C	D	E	F	G	H
VJ-100	60	100	22	48	30	120°	13.9	20.8
VJ-130	90	130	25	55	32	120°	13.9	31.2
VJ-160	90	160	25	58	32	120°	15.6	29.4
VJ-200	120	200	28	63	40	120°	12.1	24.6

數量：一組一塊 Qty: one piece per set



※ 選配 Option accessories

規格 Spec.	A	B	C	D	E	F
FJ-1002	60	100	22	63	21	M10
FJ-1003	60	100	22	73	23	M10
FJ-1004	60	100	22	48	48	M10
FJ-1005	60	100	22	63	48	M10
FJ-1301	90	130	25	55	15	M10
FJ-1302	90	130	25	73	23	M10
FJ-1303	90	130	25	103	30	M10
FJ-1304	90	130	25	63	48	M10
FJ-1305	90	130	25	73	48	M10

規格 Spec.	A	B	C	D	E	F
FJ-1601	90	160	25	58	15	M10
FJ-1602	90	160	25	73	23	M10
FJ-1603	90	160	25	103	30	M10
FJ-1604	90	160	25	63	48	M10
FJ-1605	90	160	25	73	48	M10
FJ-2001	90	200	28	63	18	M12
FJ-2002	90	200	28	103	30	M12
FJ-2003	90	200	28	123	37	M12
FJ-2004	90	200	28	63	63	M12
FJ-2005	120	200	28	102	63	M12

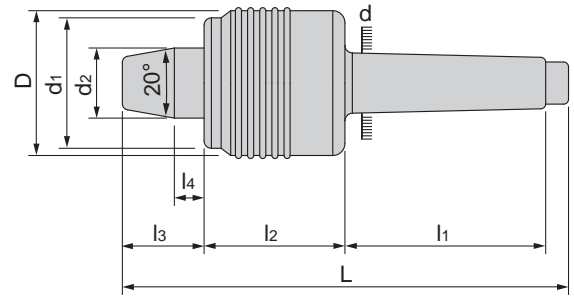
數量：一組兩塊 Qty: two piece per set

# ROLLING CENTER





## SC-68 標準型注油式替換頂尖 SC-68 GREASE-INJECTED CENTER DEVICE (FOR SLIM WORK-PIECE)



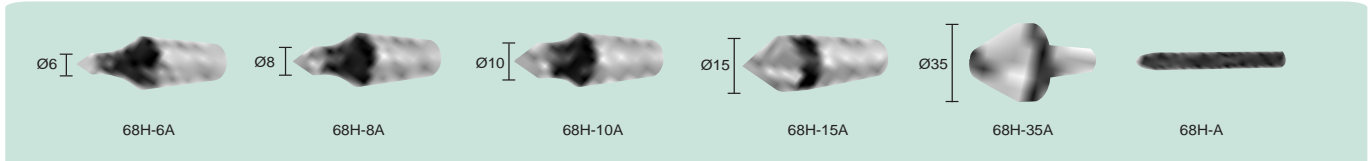
### 特點 Feature

- 有防水功能·本體易散熱
- 可定期注油增加使用壽命
- 頂尖子採用 SKS2( 刀具鋼)
- 頂尖心軸採用 S45C
- 靜態精度 :8 $\mu$

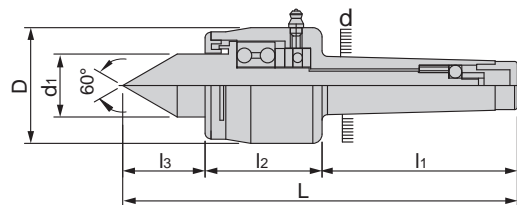
- There are waterproof, easy to heat the body.
- Regular oiling can increase the service life.
- Center adoption SKS2 (tool steel).
- Center mandrel using S45C.
- Static accuracy: 8 $\mu$ .

規格 Spec.	柄徑	內附零件 Included Accessories	rpm	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	D	d	d <sub>1</sub>	d <sub>2</sub>	重量 (KGS) Weight
SC-68H-MT4	MT4	G 組	4500	199	96	58	33	13	64	31.267	58	31.6	2.24
SC-68H-MT5	MT5	G 組	4500	226	120	58	33	13	64	44.399	58	31.6	3.10

零件圖 G 組 (頂尖中型) G set in drawing Medium for rotary center



## MRC-MT 車床頂尖 (標準型) MRC-MT LATHE CENTERS(STANDARD)



### 特點 Feature

- 有防水功能·本體易散熱
- 可定期注油增加使用壽命
- 頂尖心軸及頂尖子採用 SKS2( 刀具鋼)
- 靜態精度 :<5 $\mu$

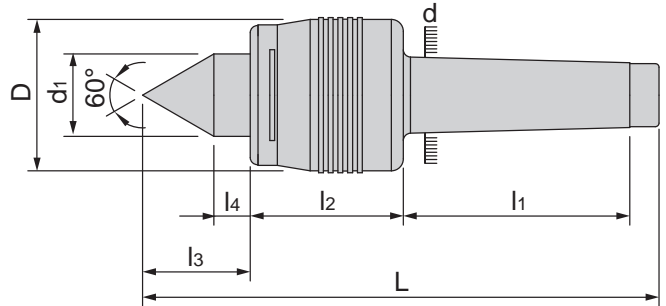
- There are waterproof, easy to heat the body
- Regular oiling can increase the service life
- Center mandrels and Center sub using SKS2 (tool steel)
- Static accuracy: <5 $\mu$

規格 Spec.	柄徑	rpm	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	d <sub>1</sub>	重量 (KGS) Weight
MRC-MT2	MT2	2800	171	69	52.5	43	49	17.78	35	1.60
MRC-MT3	MT3	2000	192.5	97	52.5	43	49	23.825	35	1.90
MRC-MT4	MT4	1500	213	117.5	52.5	43	49	31.267	35	2.30
MRC-MT5	MT5	1000	251.5	147	52.5	52	59	44.399	45	4.60
MRC-MT6	MT6	800	-	-	-	-	-	63.348	-	-



## SC-69 標準型注油式頂尖

### SC-69 OIL INJECTION ROTARY CENTER (STANDARD TYPE)



#### 特點 Feature

- 有防水功能·本體易散熱
- 可定期注油增加使用壽命
- 頂尖心軸採用 SUJ2
- 靜態精度 :5 $\mu$

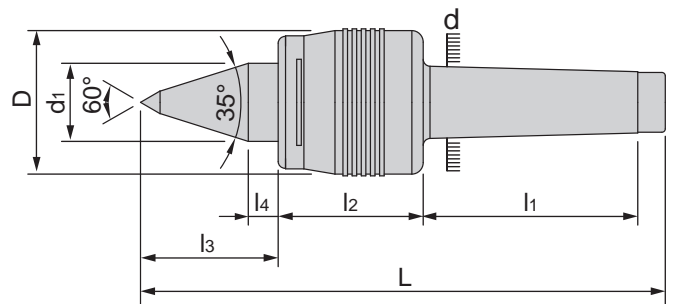
- There are waterproof, easy to heat the body
- Regular oiling can increase the service life
- Center mandrel using SUJ2
- Static accuracy: 5 $\mu$

規格 Spec.	柄徑	rpm	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	D	d	d <sub>1</sub>	重量 (KGS) Weight
SC-69M-MT4	MT4	4500	210	96	58	42	14.5	64	31.267	31.6	1.86
SC-69M-MT5	MT5	4500	237	120	58	42	14.5	64	44.399	31.6	2.46



## SC-70 標準型細物用注油式頂尖

### SC-70 OIL INJECTION ROTARY CENTER (STANDARD TYPE)



#### 特點 Feature

- 有防水功能·本體易散熱
- 可定期注油增加使用壽命
- 頂尖心軸採用 SUJ2
- 靜態精度 :5 $\mu$

- There are waterproof, easy to heat the body.
- Regular oiling can increase the service life.
- Center mandrel using SUJ2.
- Static accuracy: 5 $\mu$ .

規格 Spec.	柄徑	rpm	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	D	d	d <sub>1</sub>	重量 (KGS) Weight
SC-70L-MT4	MT4	4500	224	108	58	58	11.5	64	31.267	31.5	2.24
SC-70L-MT5	MT5	4500	251	135	58	58	11.5	64	44.399	31.5	2.90



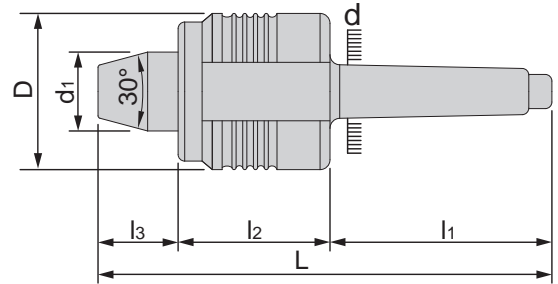
# SC-61 注油式替換頂尖

## SC-61 OIL INJECTION ROTARY CENTER

### | SC-61H



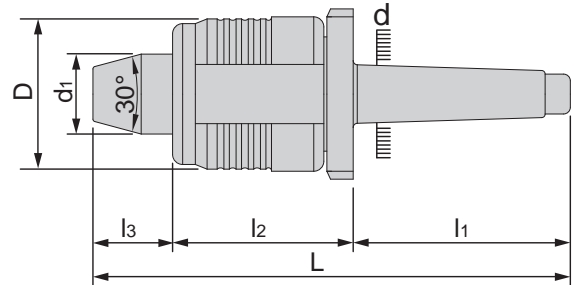
Fig.1



### | SC-61HA



Fig.2



### | 特點 Feature

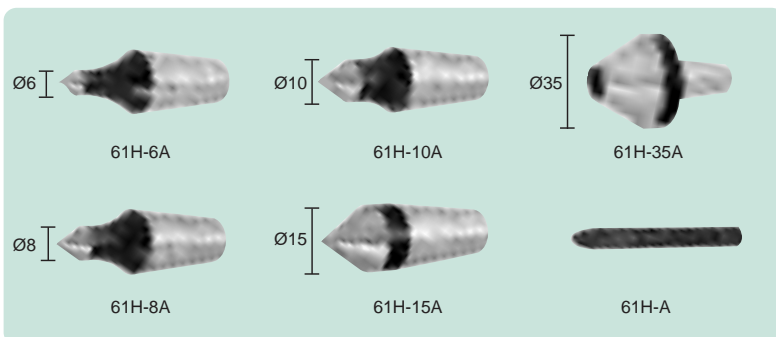
- 有防水功能 · 本體易散熱
- 可定期注油增加使用壽命
- 頂尖子採用 SKS2( 刀具鋼 )
- 頂尖心軸採用 S45C
- 靜態精度 :8μ
- SC-61HA 型 · 用螺絲推出本體輕巧方便 · 不致產生卡死

- There are waterproof, easy to heat the body.
- Regular oiling can increase the service life.
- Center adoption SKS2 (tool steel).
- Center mandrel using S45C.
- Static accuracy: 8μ.
- SC-61HA type launch with a screw body lightweight and convenient, without creating stuck.

規格 Spec.	柄徑	內附零件 Included Accessories	rpm	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	d <sub>1</sub>	徑向力 (KG)	軸向力 (KG)	Fig.	重量 (KGS) Weight
SC-61H-MT4	MT4	G 組	4500	197	108	55	34	64	31.267	31.6	1300	2200	1	2.36
SC-61H-MT5	MT5	G 組	4500	224	135	55	34	64	44.399	31.6	1400	2300	1	3.16
SC-61HA-MT4	MT4	G 組	4500	209	104	71	34	64	31.267	31.6	1300	2200	2	3.22
SC-61HA-MT5	MT5	G 組	4500	236	131	71	34	64	44.399	31.6	1400	2300	2	3.80

AID

零件圖 G 組 ( 頂尖中型 ) G set in drawing Medium for rotary center





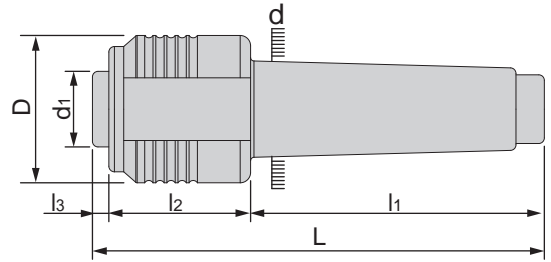
# SC-65 重切削注油式替換頂尖

## SC-65 OIL INJECTION ROTARY CENTER (HEAVY CUTTING TYPE)

### SC-65H



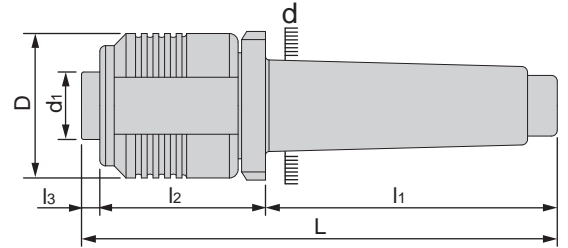
Fig.1



### SC-65HA



Fig.2



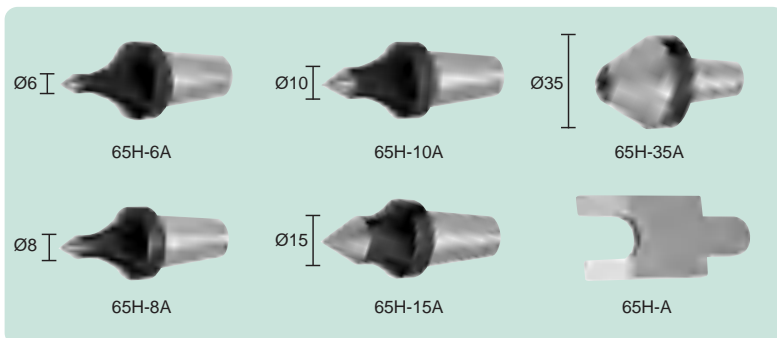
### 特點 Feature

- 增加強度使用大型頂尖子
- 有防水功能·本體易散熱
- 可定期注油增加使用壽命
- 頂尖子採用 SKS2( 刀具鋼)
- 頂尖心軸採用 S45C
- 靜態精度 :8μ
- SC-65HA 型·用螺帽推出本體輕巧方便·不致產生卡死

- Increase the intensity of the use of large top.
- There are waterproof, easy to heat the body.
- Regular oiling can increase the service life.
- Center adoption SKS2 (tool steel).
- Center mandrel using S45C.
- Static accuracy: 8μ.
- SC-65HA type launch with a nut body lightweight and convenient, without creating stuck.

規格 Spec.	柄徑	內附零件 Included Accessories	rpm	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	d <sub>1</sub>	徑向力 (KG)	軸向力 (KG)	Fig.	重量 (KGS) Weight
SC-65H-MT4	MT4	H 組	4000	178	108	56	14	68	31.267	31.6	1430	2700	1	3.16
SC-65H-MT5	MT5	H 組	4000	205	135	56	14	68	44.399	31.6	1430	2700	1	3.72
SC-65HA-MT4	MT4	H 組	4000	190	104	72	14	68	31.267	31.6	1430	2700	2	3.62
SC-65HA-MT5	MT5	H 組	4000	217	131	72	14	68	44.399	31.6	1430	2700	2	4.22

零件圖 H 組 (頂尖加大型) H set in drawing Enlarged for rotary center

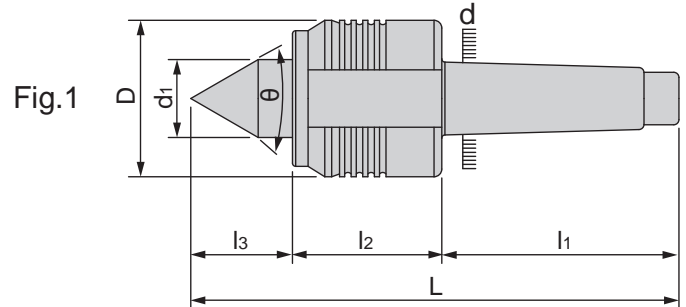




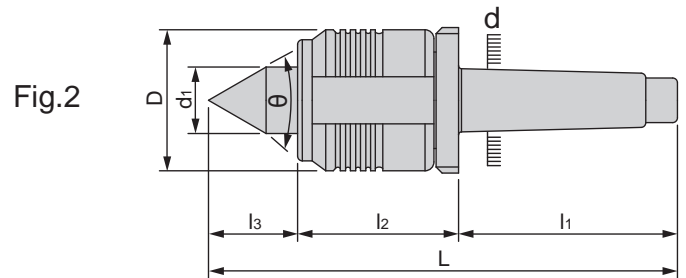
# SC-62 注油式迴轉頂尖 (中切削型)

## SC-62 OIL INJECTION ROTARY CENTER (MEDIUM CUTTING TYPE)

### | SC-62H



### | SC-62HA



### | 特點 Feature

- 有防水功能 · 本體易散熱
- 可定期注油增加使用壽命
- 頂尖心軸採用 SUJ2
- 靜態精度 :5 $\mu$
- SC-62HA 型 · 用螺帽推出本體輕巧方便 · 不致產生卡死

- There are waterproof, easy to heat the body.
- Regular oiling can increase the service life.
- Center mandrel using SUJ2.
- Static accuracy: 5 $\mu$ .
- SC-62HA type launch with a nut body lightweight and convenient, without creating stuck.

規格 Spec.	柄徑	rpm	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	d <sub>1</sub>	$\theta$	徑向力 (KG)	軸向力 (KG)	Fig.	重量 (KGS) Weight
SC-62H-MT4	MT4	4000	212	108	56	48	68	31.267	31.6	60°	1430	2700	1	2.20
SC-62H-MT5	MT5	4000	239	135	56	48	68	44.399	31.6	60°	1430	2700	1	2.84
SC-62HA-MT4	MT4	4000	224	104	72	48	68	31.267	31.6	60°	1430	2700	2	2.60
SC-62HA-MT5	MT5	4000	251	131	72	48	68	44.399	31.6	60°	1430	2700	2	3.66





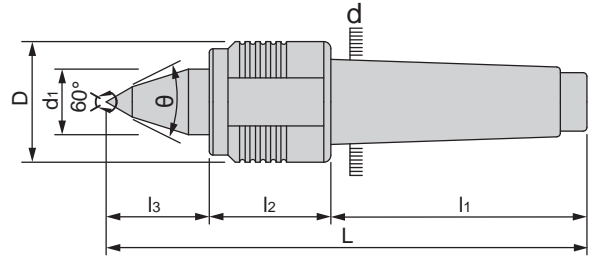
# SC-63 細物用注油式迴轉頂尖

## SC-63 OIL INJECTION ROTARY CENTER FOR SLIM WORKPIECE

### | SC-63S



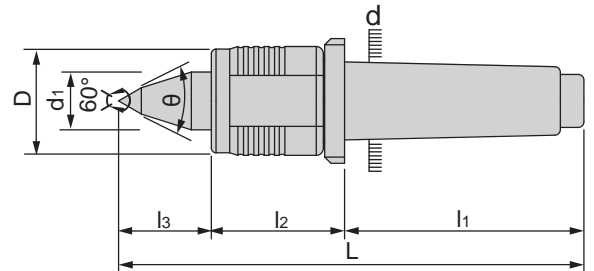
Fig.1



### | SC-63SA



Fig.2



### | 特點 Feature

- 頂尖部分縮小，加工細物不產生碰撞
- 有防水功能，本體易散熱
- 可定期注油增加使用壽命
- 頂尖心軸採用 SUJ2
- 靜態精度：5μ
- SC-63SA 型，用螺帽推出本體輕巧方便，不致產生卡死

- Center part of the reduction, the processing of fine things will not collide.
- There are waterproof, easy to heat the body.
- Regular oiling can increase the service life.
- Center mandrel using SUJ2.
- Static accuracy: 5μ.
- SC-63SA type, with the launch of the body light and easy nut, without creating stuck.

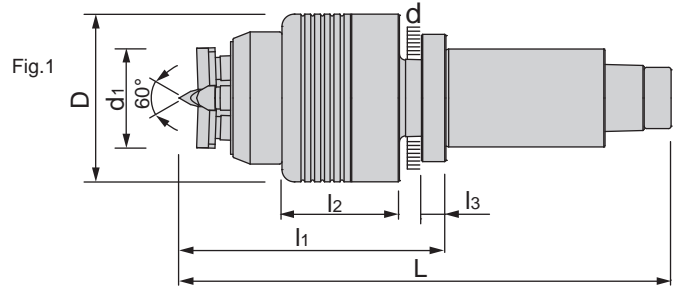
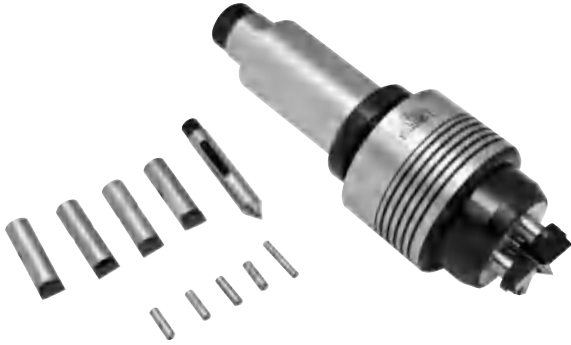
規格 Spec.	柄徑	rpm	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	d <sub>1</sub>	徑向力 (KG)	軸向力 (KG)	Fig.	重量 (KGS) Weight
SC-63S-MT4	MT4	4500	223	108	55	60	64	31.267	31.6	1300	2200	1	2.28
SC-63S-MT5	MT5	4500	250	135	55	60	64	44.399	31.6	1400	2300	1	2.80
SC-63SA-MT4	MT4	4500	235	104	71	60	64	31.267	31.6	1300	2200	2	2.98
SC-63SA-MT5	MT5	4500	262	131	71	60	64	44.399	31.6	1400	2300	2	3.48



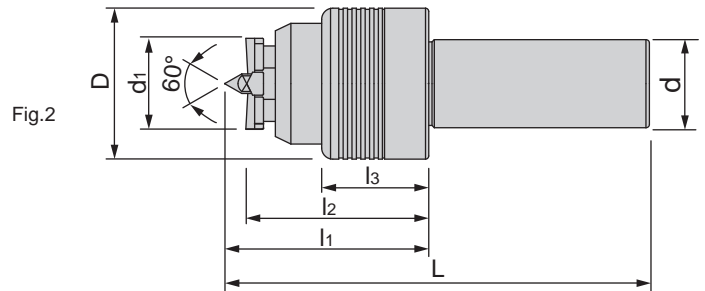
# SC-66 自動可調式插式頂尖

## SC-66 AUTOMATIC ADJUSTABLE INSERTED CENTER

### | SC-66A



### | SC-66B



### | 特點 Feature

- 工作物不平時頂尖柱可自動調整穩固工作
- 頂尖子及頂尖柱可互換使用

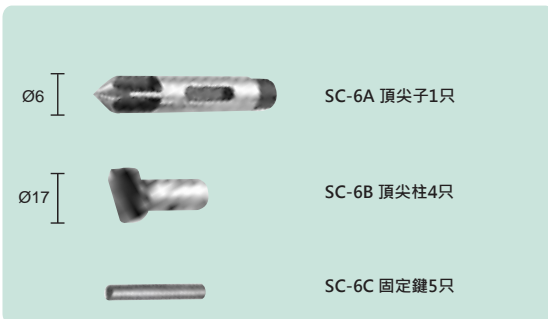
- Working things do not usually tip shaft can be adjusted automatically solid work.
- Center and Center columns are used interchangeably.

規格 Spec.	柄徑	使用範圍 Range	內附零件 Included Accessories	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	d <sub>1</sub>	Fig.	重量 (KGS) Weight
SC-66A-MT4	MT4	A組 Ø10~Ø60 B組 Ø15~Ø35	零件圖 A 組 零件圖 B 組	203	109	48	10	68.5	31.267	40.5	1	3.29
SC-66B-C40	Ø40				92	82.7	48		40			

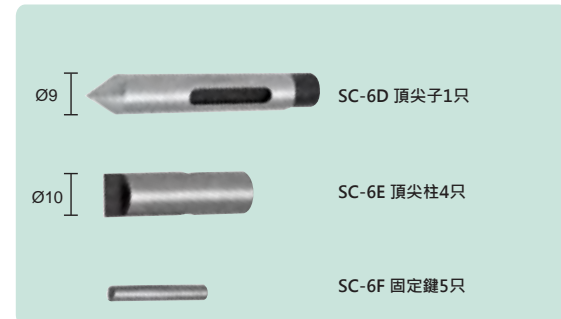
零件規格 Spec.	重量 (KGS) Weight
SC-6A	0.02
SC-6B	0.02
SC-6C	0.09
SC-6D	0.03
SC-6E	0.08
SC-6F	0.07

AID

#### 零件圖 A 組 A set in drawing



#### 零件圖 B 組 B set in drawing





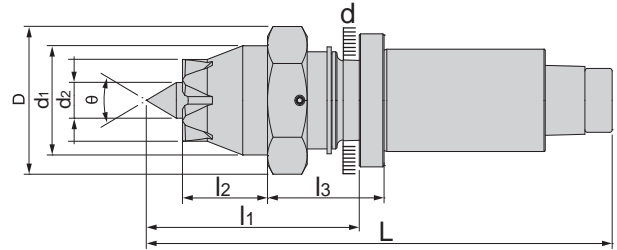
# SC-67 固定替換式插式頂尖

## SC-67 FIXED INTERCHANGEABLE INSERT CENTER

### | SC-67A



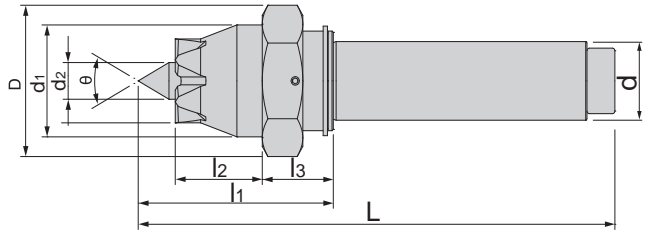
Fig.1



### | SC-67B

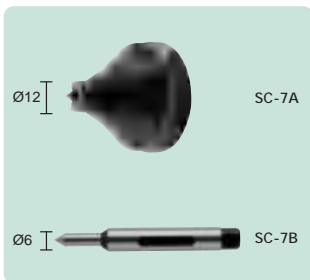


Fig.2

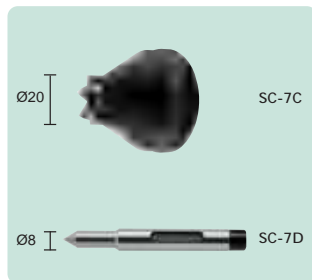


規格 Spec.	柄徑	使用範圍 Range	內附零件 Included Accessories	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	d <sub>1</sub>	d <sub>2</sub>	Fig.	重量 (KGS) Weight	零件規格 Spec.	重量 (KGS) Weight
SC-67A-MT4	MT4	C組 Ø10~Ø17 D組 Ø12~Ø25 E組 Ø14~Ø30	C組 E組 D組 F組	184.9	84.6	34.3	47	57	31.267	42.7	25	1	2.22	SC-7A	0.18
SC-67B-C30	Ø30	C組 Ø10~Ø17 D組 Ø12~Ø25 E組 Ø14~Ø30	C組 E組 D組											73.9	28
														SC-7C	0.21
														SC-7D	0.42
														SC-7E	0.21
														SC-7F	0.22
														C45xMT4	-

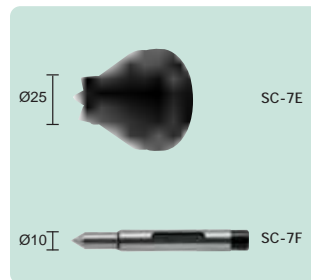
零件圖 C 組 C set in drawing



零件圖 D 組 D set in drawing



零件圖 E 組 E set in drawing



零件圖 F 組 F set in drawing

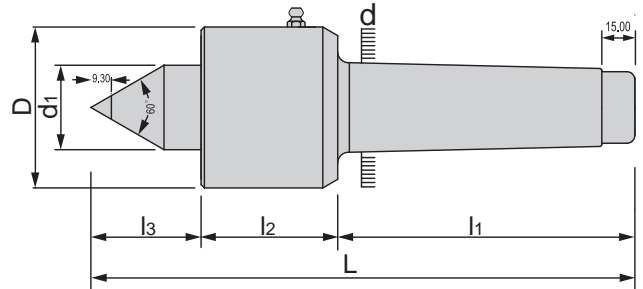


AID



## SC-100 強力重切削迴轉頂尖 ( 鎢鋼頂尖 )

SC-100 SUPER-LOAD HEAVY CUTTING CENTERS (WITH CARBIDE)



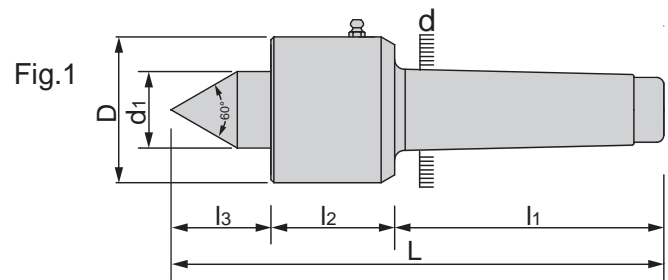
規格 Spec.	柄徑	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	d <sub>1</sub>	重量 (KGS) Weight
SC-100-MT4C	MT4	218	108	68	42	63	31.267	34.5	2.98
SC-100-MT5C	MT5	255	135	69	51	73	44.399	44.2	4.02



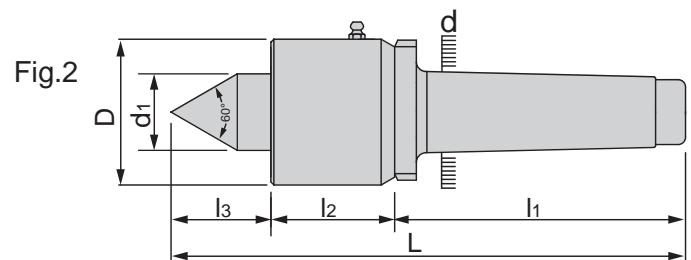
## SC-60 強力型重負荷迴轉頂尖

SC-60 SUPER-LOAD HEAVY CUTTING CENTERS

### | SC-60H



### | SC-60HA



### | 特點 Feature

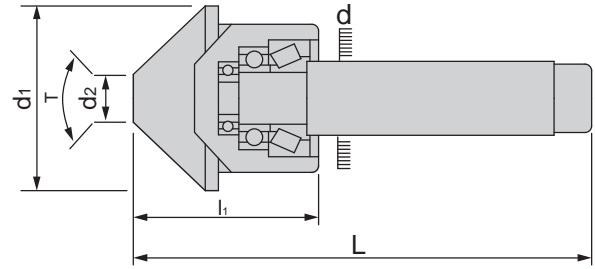
- 剛性強、穩定性佳·適用於長軸心重負荷車削加工
- 靜態精度：5μ

- The rigidity is strong, the stability is good, is suitable for the major axis grieving load lathe work.
- Static precision:5μ.

規格 Spec.	柄徑	rpm	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	d <sub>1</sub>	徑向力 (KG)	軸向力 (KG)	Fig.	重量 (KGS) Weight
SC-60H-MT4	MT4	5000	205	108	58	44	78	31.267	34.3	1900	1600	1	2.98
SC-60H-MT5	MT5		244	135	64	50	83	44.399	44.2	3000	2200	1	4.02
SC-60HA-MT6	MT6	3000	342	190	75	67	108	63.348	60	5000	3500	2	9.96

# MT-BNC 傘型頂尖

## MT-BNC BULL NOSE CENTER



### 特點 Feature

- HRC52°
- 同心度 : 0.005mm
- 真圓度 : 0.005mm
- 材質 :S45C

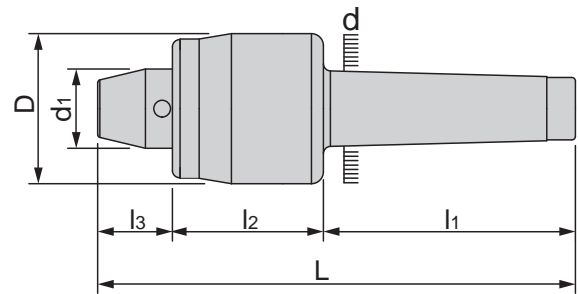
- HRC52°
- Concentricity: 0.005mm
- Roundness: 0.005mm
- Material: S45C

規格 Spec.	rpm	L	l <sub>1</sub>	d	d <sub>1</sub>	d <sub>2</sub>	T	重量 (KGS) Weight
MT4×BNC3	2500	179	68	31.267	78	19	60°	2.15
MT4×BNC4	2000	181	70	31.267	106	32	70°	3.10
MT4×BNC5	1900	194	83	31.267	128	35	70°	4.00
MT4×BNC6	1900	204	93	31.267	156	50	70°	7.00
MT4×BNC8	1500	223	116	31.267	206	54	70°	14.5
MT5×BNC5	1900	227	83	44.399	128	35	70°	5.50
MT5×BNC6	1900	237	93	44.399	156	50	70°	7.80
MT5×BNC8	1500	257	113	44.399	206	54	75°	14.5
MT6×BNC8	1500	298	113	63.348	206	54	75°	19.0



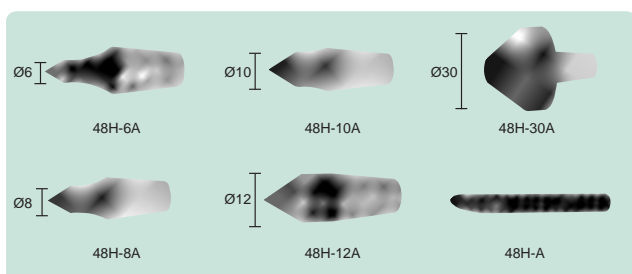
# SC-48 經濟型替換頂尖

## SC-48 ECONOMICAL INTERCHANGEABLE CENTER



規格 Spec.	柄徑	rpm	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	d <sub>1</sub>	重量 (KGS) Weight
SC-48H-MT4	MT4	1800	186.5	108	53	25.5	48.5	31.267	29.5	2.20

### 零件圖 I 組 I set in drawing



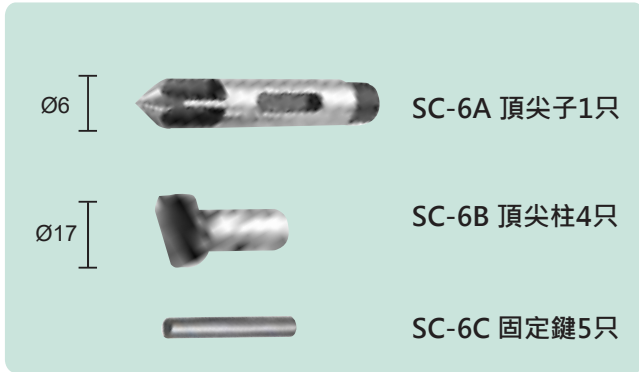
AID



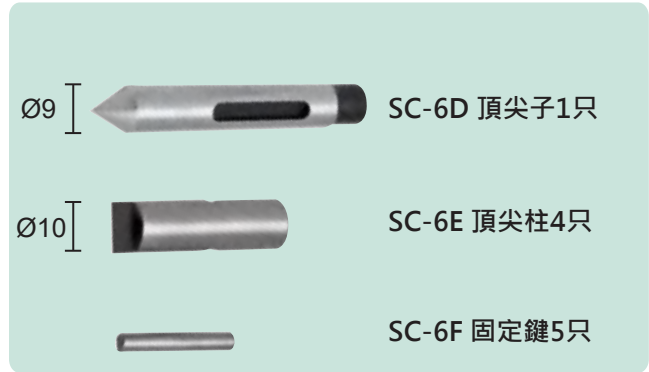
# 頂尖配件表

## CENTERS ACCESSORIES FORM

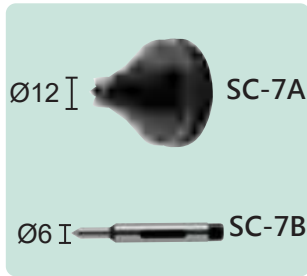
零件圖A組(適用:SC-66A)  
A set in drawing(For use on SC-66A)



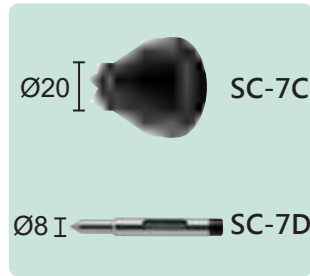
零件圖B組(適用:SC-66B)  
B set in drawing(For use on SC-66B)



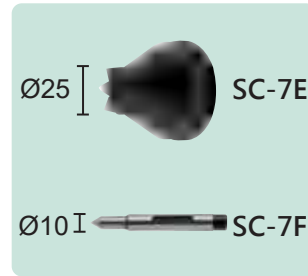
零件圖C組(適用:SC-67A/SC-67B)  
C set in drawing(For use on SC-67A/67B)



零件圖D組(適用:SC-67A/SC-67B)  
D set in drawing(For use on SC-67A/67B)



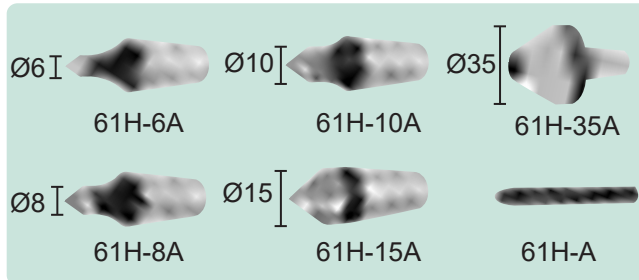
零件圖E組(適用:SC-67A/SC-67B)  
E set in drawing(For use on SC-67A/67B)



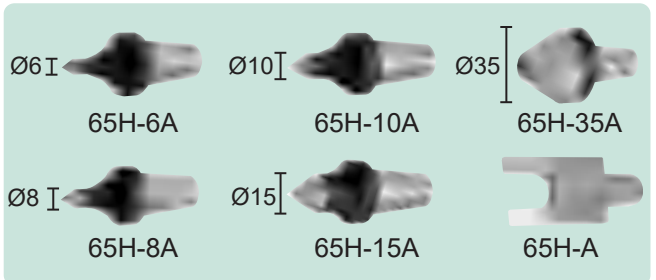
零件圖F組(適用:SC-67A/SC-67B)  
F set in drawing(For use on SC-67A/67B)



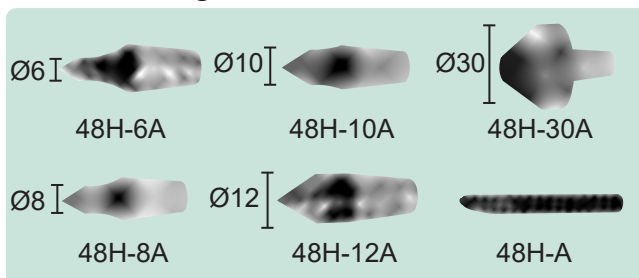
零件圖G組(頂尖中型)(適用:SC-61/SC-68)  
G set in drawing - Medium(For use on SC-61 / SC-68)



零件圖H組(頂尖加大型)(適用:SC-65)  
H set in drawing - Enlargement(For use on SC-65)



零件圖I組(頂尖小型)(適用:SC-48H)  
I set in drawing - small(For use on SC-48H)



# 注油式頂尖專用油 (SKF)

## OIL INJECTION ROTARY CENTER(SKF)



### 特點 Feature

- 在礦物油為基礎油的鋰基潤滑脂，在它的工作溫度範圍內，具有優異的熱穩定性
- 優異的氧化安定性
- 良好的機械穩定性
- 優異的耐水性和防鏽性
- Mineral oil based lithium soap thickened grease with excellent thermal stability within its operating temperature range.
- Excellent oxidation stability.
- Good mechanical stability.
- Excellent water resistance and rust inhibiting properties.

規格 Spec.	顏色 Color	工作溫度範圍 (°C) Operating temperature range(°C)	容量 (ml) Capacity	重量 (KGS) Weight
LGMT-2	紅棕色	-30°C ~ -120°C	420	0.33

※ 由於環保問題，原 LGEP-2 改用 LGMT-2 取代



## 頂尖使用報告表

### CENTERS USE ACCOUNT

客戶名稱：

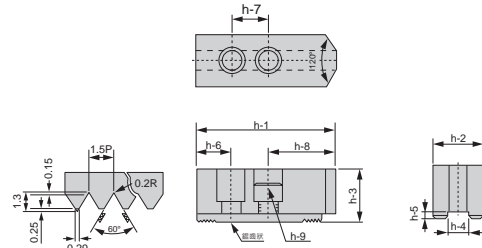
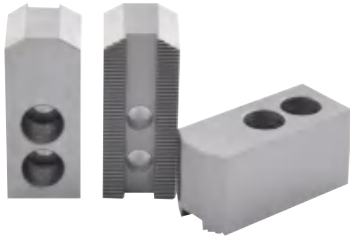
填表日期： 年 月 日

1. 機械型號 (廠牌):	使用產品規格:
2. 使用轉速:	8. 工件長度:
3. 刀具進給量:	9. 工件中心孔尺寸:
4. 單邊切削深度:	10. 工件外徑:
5. 尾座壓力:	11. 工件重量:
6. 注油時間:	12. 工件材質:
7. 夾持圖形 (加工圖面):	
使用狀況反應:	
備註： 1. 尾座壓力至少 12kg/cm <sup>2</sup> 以上，但須考量工件本身的硬度。 2. 連續使用達 4 小時必須使用頂尖專用油來注油，以保護頂尖並延長使用壽命。 3. 中心孔必須在所使用工作機上一次成形，以維持精度。	

填表人：

# HKS 油壓生爪

## HKS POWER PRESSURE SOFT JAW



規格 Spec.	h-1	h-2	h-3	h-4	h-5	h-6	h-7	h-8	h-9	鋸齒狀節具 Sprration Pitch	重量 (KGS) Weight
HKS-5	62	23	30	10	4	18	14	38	M8	1.5×60°	-
HKS-6	73	31	36	12	20		37	M10	-		
HKS-8	95	35	38	14	22		25	46	M12		-
HKS-10	110	40	42	16	27		30	50	M12		-
HKS-12	129	50	50	18 21	30		30	60	M16		-
HKS-15	165	62	62	22	8	38	43	85	M20	-	

5" 油壓生爪尺寸表

規格 Spec.	長 h-1	寬 h-2	高 h-3	重量 (KGS) Weight
HKS-5×62×23×30	62	23	30	-
HKS-5×62×23×30×120	62	23	30	-
HKS-5×62×23×50	62	23	50	-
HKS-5×62×23×70	62	23	70	-
HKS-5×62×23×80	62	23	80	-
HKS-5×62×23×100	62	23	100	-

8" 油壓生爪尺寸表

規格 Spec.	長 h-1	寬 h-2	高 h-3	重量 (KGS) Weight
HKS-8×95×35×37	95	35	37	-
HKS-8×95×35×37×60	95	35	37	-
HKS-8×95×35×37×90	95	35	37	-
HKS-8×95×35×37×120	95	35	37	-
HKS-8×95×35×50	95	35	50	-
HKS-8×95×35×50×60	95	35	50	-
HKS-8×95×35×50×120	95	35	50	-
HKS-8×95×35×60	95	35	60	-
HKS-8×95×35×60×60	95	35	60	-
HKS-8×95×35×60×90	95	35	60	-
HKS-8×95×35×60×120	95	35	60	-
HKS-8×95×35×70	95	35	70	-
HKS-8×95×35×70×60	95	35	70	-
HKS-8×95×35×70×120	95	35	70	-
HKS-8×95×35×80	95	35	80	-
HKS-8×95×35×90	95	35	90	-
HKS-8×95×35×100	95	35	100	-
HKS-8×95×35×110	95	35	110	-
HKS-8×95×35×120	95	35	120	-
HKS-8×95×35×130	95	35	130	-
HKS-8×95×35×140	95	35	140	-
HKS-8×95×35×150	95	35	150	-
HKS-8×95×35×160	95	35	160	-
HKS-8×95×35×180	95	35	180	-
HKS-8×95×35×200	95	35	200	-
HKS-8×95×50×35	95	50	35	-
HKS-8×95×50×35×120	95	50	35	-
HKS-8×95×50×50	95	50	50	-
HKS-8×95×50×60	95	50	60	-
HKS-8×95×50×70	95	50	70	-
HKS-8×95×50×80	95	50	80	-
HKS-8×95×50×90	95	50	90	-
HKS-8×95×50×100	95	50	100	-
HKS-8×95×50×120	95	50	120	3.00
HKS-8×95×50×150	95	50	150	-

6" 油壓生爪尺寸表

規格 Spec.	長 h-1	寬 h-2	高 h-3	重量 (KGS) Weight
HKS-6×73×31×36	73	31	36	-
HKS-6×73×31×36×60	73	31	36	-
HKS-6×73×31×36×90	73	31	36	-
HKS-6×73×31×36×120	73	31	36	-
HKS-6×73×31×50	73	31	50	-
HKS-6×73×31×60	73	31	60	-
HKS-6×73×31×70	73	31	70	-
HKS-6×73×31×70×60	73	31	70	-
HKS-6×73×31×80	73	31	80	-
HKS-6×73×31×90	73	31	90	-
HKS-6×73×31×100	73	31	100	-
HKS-6×73×31×110	73	31	110	-
HKS-6×73×31×120	73	31	120	-
HKS-6×73×31×130	73	31	130	-
HKS-6×73×31×150	73	31	150	-
HKS-6×73×50×31	73	50	31	-
HKS-6×73×50×36	73	50	36	-
HKS-6×73×50×50	73	50	50	-
HKS-6×73×50×60	73	50	60	-
HKS-6×73×50×70	73	50	70	-
HKS-6×73×60×31	73	60	31	-
HKS-6×73×60×36	73	60	36	-
HKS-6×73×60×50	73	60	50	-
HKS-6×73×60×60	73	60	60	-
HKS-6×73×70×36	73	70	36	-
HKS-6×73×70×70	73	70	70	-
HKS-6×73×80×36	73	80	36	-
HKS-6×95×35×37	95	35	37	-



# HKS 油壓生爪

## HKS POWER PRESSURE SOFT JAW

8" 油壓生爪尺寸表

規格 Spec.	長 h-1	寬 h-2	高 h-3	重量 (KGS) Weight
HKS-8×95×60×35	95	60	35	-
HKS-8×95×60×50	95	60	50	-
HKS-8×95×60×60	95	60	60	-
HKS-8×95×60×70	95	60	70	-
HKS-8×95×60×80	95	60	80	-
HKS-8×95×60×90	95	60	90	-
HKS-8×95×60×100	95	60	100	-
HKS-8×95×60×120	95	60	120	-
HKS-8×95×60×150	95	60	150	-
HKS-8×95×70×35	95	70	35	-
HKS-8×95×70×50	95	70	50	-
HKS-8×95×70×60	95	70	60	-
HKS-8×95×70×70	95	70	70	-
HKS-8×95×80×40	95	80	40	-
HKS-8×95×80×50	95	80	50	-
HKS-8×95×80×60	95	80	60	-
HKS-8×95×80×80	95	80	80	-
HKS-8×95×90×90	95	90	90	-
HKS-8×95×100×40	95	100	40	-
HKS-8×95×100×50	95	100	50	-
HKS-8×95×100×60	95	100	60	-
HKS-8×95×100×100	95	100	100	-
HKS-8×95×120×50	95	120	50	-
HKS-8×130×35×40	130	35	40	-
HKS-8×130×35×50	130	35	50	-
HKS-8×150×35×50	150	35	50	-
HKS-8×150×35×70	150	35	70	-

10" 油壓生爪尺寸表

規格 Spec.	長 h-1	寬 h-2	高 h-3	重量 (KGS) Weight
HKS-10×110×40×42	110	40	42	-
HKS-10×110×40×42×60	110	40	42	-
HKS-10×110×40×42×120	110	40	42	-
HKS-10×110×40×50	110	40	50	-
HKS-10×110×40×60	110	40	60	-
HKS-10×110×40×70	110	40	70	-
HKS-10×110×40×80	110	40	80	-
HKS-10×110×40×80×60	110	40	80	-
HKS-10×110×40×80×120	110	40	80	-
HKS-10×110×40×90	110	40	90	-
HKS-10×110×40×100	110	40	100	-
HKS-10×110×40×110	110	40	110	-
HKS-10×110×40×120	110	40	120	-
HKS-10×110×40×130	110	40	130	-
HKS-10×110×40×140	110	40	140	-
HKS-10×110×40×150	110	40	150	-
HKS-10×110×40×160	110	40	160	-
HKS-10×110×40×180	110	40	180	-
HKS-10×110×40×200	110	40	200	-
HKS-10×110×40×220	110	40	220	-
HKS-10×110×50×50	110	50	50	-
HKS-10×110×50×60	110	50	60	-
HKS-10×110×50×70	110	50	70	-
HKS-10×110×50×80	110	50	80	-
HKS-10×110×50×100	110	50	100	-

10" 油壓生爪尺寸表

規格 Spec.	長 h-1	寬 h-2	高 h-3	重量 (KGS) Weight
HKS-10×110×60×40	110	60	40	-
HKS-10×110×60×50	110	60	50	-
HKS-10×110×60×60	110	60	60	-
HKS-10×110×60×70	110	60	70	-
HKS-10×110×60×80	110	60	80	-
HKS-10×110×60×100	110	60	100	-
HKS-10×110×70×40	110	70	40	-
HKS-10×110×70×50	110	70	50	-
HKS-10×110×70×70	110	70	70	-
HKS-10×110×70×70×60	110	70	70	-
HKS-10×110×70×80	110	70	80	-
HKS-10×110×80×40	110	80	40	-
HKS-10×110×80×50	110	80	50	-
HKS-10×110×80×80	110	80	80	-
HKS-10×110×90×90	110	90	90	-
HKS-10×110×100×40	110	100	40	-
HKS-10×110×100×50	110	100	50	-
HKS-10×110×100×60	110	100	60	-
HKS-10×110×100×100	110	100	100	-
HKS-10×110×120×50	110	120	50	-
HKS-10×150×40×42	150	40	42	-
HKS-10×150×40×50	150	40	50	-
HKS-10×150×40×60	150	40	60	-
HKS-10×150×40×70	150	40	70	-
HKS-10×150×40×80	150	40	80	-
HKS-10×180×40×60	180	40	60	-
HKS-10×180×40×90	180	40	90	-
HKS-10×200×40×50	200	40	50	-
HKS-10×200×40×60	200	40	60	-
HKS-10×200×40×90	200	40	90	-

12" 油壓生爪尺寸表

規格 Spec.	長 h-1	寬 h-2	高 h-3	重量 (KGS) Weight
HKS-12×130×50×50	130	50	50	-
HKS-12×130×50×50×60	130	50	50	-
HKS-12×130×50×60	130	50	60	-
HKS-12×130×50×70	130	50	70	-
HKS-12×130×50×80	130	50	80	-
HKS-12×130×50×90	130	50	90	-
HKS-12×130×50×100	130	50	100	-
HKS-12×130×50×110	130	50	110	-
HKS-12×130×50×120	130	50	120	-
HKS-12×130×50×130	130	50	130	-
HKS-12×130×50×140	130	50	140	-
HKS-12×130×50×150	130	50	150	-
HKS-12×130×50×160	130	50	160	-
HKS-12×130×50×170	130	50	170	-
HKS-12×130×50×180	130	50	180	-
HKS-12×130×50×190	130	50	190	-
HKS-12×130×50×200	130	50	200	-
HKS-12×130×80×80	130	80	80	-

# HKS 油壓生爪

## HKS POWER PRESSURE SOFT JAW

12" 油壓生爪尺寸表

規格 Spec.	長 h-1	寬 h-2	高 h-3	重量 (KGS) Weight
HKS-12×150×50×50	150	50	50	-
HKS-12×150×50×60	150	50	60	-
HKS-12×150×50×70	150	50	70	-
HKS-12×150×50×80	150	50	80	-
HKS-12×150×50×100	150	50	100	-
HKS-12×180×50×50	180	50	50	-
HKS-12×180×50×60	180	50	60	-
HKS-12×180×50×80	180	50	80	-
HKS-12×180×50×100	180	50	100	-
HKS-12×200×50×50	200	50	50	-
HKS-12×200×50×80	200	50	80	-
HKS-12×220×50×50	220	50	50	-
HKS-12×220×50×60	220	50	60	-
HKS-12×220×50×80	220	50	80	-
HKS-12×260×50×60	260	50	60	-
HKS-12×450×40×80	450	40	80	-

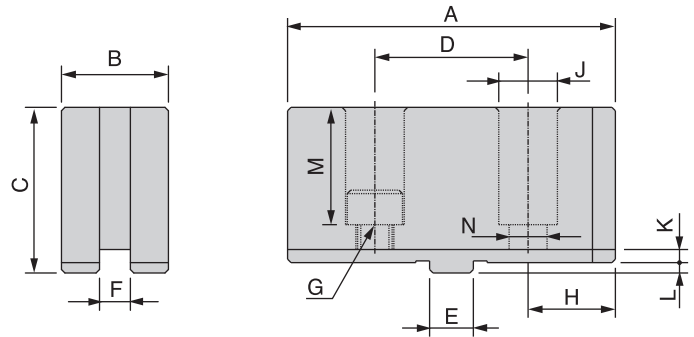
15" 油壓生爪尺寸表

規格 Spec.	長 h-1	寬 h-2	高 h-3	重量 (KGS) Weight
HKS-15×165×62×62	165	62	62	-
HKS-15×165×62×70	165	62	70	-
HKS-15×165×62×80	165	62	80	-
HKS-15×165×62×100	165	62	100	-
HKS-15×165×62×120	165	62	120	-
HKS-15×165×62×150	165	62	150	-
HKS-15×165×62×180	165	62	180	-
HKS-15×165×62×200	165	62	200	-
HKS-15×200×62×70	200	62	70	-
HKS-15×200×62×100	200	62	100	-
HKS-15×250×62×70	250	62	70	-

- 材質為：中碳鋼 - 特殊規格尺寸可訂作  
 訂購前請註明角度  
 - 120° 平 標準型  
 - 120° 尖 特殊另外加價  
 - 60° 尖 特殊另外加價

# SKS 強力生爪

## SKS POWER PRESSURE SOFT JAW



### 特點 Feature

- 適用於強力三爪夾頭上，尺寸是國際規格，並有高可塑性  
 - 材質 S50C，不經熱處理，無硬度，可以修整成各種形狀尺寸來夾持工件

- Is suitable on the force universal chuck cartridge, the size is the international specification, and has the high plasticity.  
 - Material S50C, without heat treatment, no hardness, into various shapes and sizes can be trimmed to clamp workpiece.

規格 Spec.	A	B	C	D	E	F	G	H	J	K	L	M	N	重量 (KGS) Weight
SKS-6	73	26	37	38.1	12.68	7.94	M8×1.25P	17.45	14	3.5	3	25	9	1.3
SKS-7	95	31	48	44.4	12.68	7.94	M10×1.5P	23.5	17	3.8	3	34	11	2.6
SKS-9	110	37		54	19.03	12.7	M12×1.75P	28	19	4.2	3	34	13	3.6
SKS-12	125	42	54	63.5	19.03	12.7	M12×1.75P	30.75	19	4.2	3	38	13	5.5

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# SKS 強力生爪

## SKS POWER PRESSURE SOFT JAW

6" 強力生爪尺寸表

規格 Spec.	長 A	寬 B	高 C	重量 (KGS) Weight
SKS-6-73-25-37H	73	25	37	-
SKS-6-73-25-50H	73	25	50	-
SKS-6-73-25-60H	73	25	60	-
SKS-6-73-25-70H	73	25	70	-
SKS-6-73-25-80H	73	25	80	-
SKS-6-73-25-90H	73	25	90	-
SKS-6-73-25-100H	73	25	100	-
SKS-6-85-32-32H	85	32	32	-

7" 強力生爪尺寸表

規格 Spec.	長 A	寬 B	高 C	重量 (KGS) Weight
SKS-7-95-31-48H	95	31	48	-
SKS-7-95-31-60H	95	31	60	-
SKS-7-95-31-70H	95	31	70	-
SKS-7-95-31-80H	95	31	80	-
SKS-7-95-31-90H	95	31	90	-
SKS-7-95-31-100H	95	31	100	-
SKS-7-95-31-120H	95	31	120	-
SKS-7-95-32-32H	95	32	32	-
SKS-7-95-50-56H	95	50	56	-
SKS-7-150-31-50H	150	31	50	-
SKS-7-180-31-50H	180	31	50	-

9" 強力生爪尺寸表

規格 Spec.	長 A	寬 B	高 C	重量 (KGS) Weight
SKS-9-105-32-32H	105	32	32	-
SKS-9-105-32-32H-60	105	32	32	-
SKS-9-110-37-48H	110	37	48	-
SKS-9-110-37-48H-120	110	37	48	-
SKS-9-110-37-60H	110	37	60	-
SKS-9-110-37-70H	110	37	70	-
SKS-9-110-37-80H	110	37	80	-
SKS-9-110-37-100H	110	37	100	-
SKS-9-110-37-120H	110	37	120	-
SKS-9-110-37-130H	110	37	130	-
SKS-9-110-37-150H	110	37	150	-
SKS-9-110-37-180H	110	37	180	-
SKS-9-110-37-200H	110	37	200	-
SKS-9-110-54-56H	110	54	56	-
SKS-9-150-37-50H	150	37	50	-
SKS-9-150-37-60H	150	37	60	-
SKS-9-150-37-80H	150	37	80	-
SKS-9-180-37-60H	180	37	60	-
SKS-9-200-37-50H	200	37	50	-
SKS-9-200-37-60H	200	37	60	-
SKS-9-200-37-80H	200	37	80	-

12" 強力生爪尺寸表

規格 Spec.	長 A	寬 B	高 C	重量 (KGS) Weight
SKS-12-125-40-54H	125	40	54	-
SKS-12-125-40-70H	125	40	70	-
SKS-12-125-40-80H	125	40	80	-
SKS-12-125-40-90H	125	40	90	-
SKS-12-125-40-100H	125	40	100	-
SKS-12-125-40-120H	125	40	120	-
SKS-12-125-40-150H	125	40	150	-
SKS-12-125-40-180H	125	40	180	-
SKS-12-125-40-200H	125	40	200	-
SKS-12-180-40-60H	180	40	60	-
SKS-12-200-40-60H	200	40	60	-
SKS-12-230-40-60H	230	40	60	-
SKS-12-250-50-60H	250	50	60	-

15" 強力生爪尺寸表

規格 Spec.	長 A	寬 B	高 C	重量 (KGS) Weight
SKS-15-160-50-70H	160	50	70	-
SKS-15-160-50-100H	160	50	100	-
SKS-15-160-50-120H	160	50	120	-
SKS-15-160-50-150H	160	50	150	-

- SKS-7 與 SKS-8 共用 SKS-7 and SKS-8 altogether use.
- SKS-9 與 SKS-10 共用 SKS-9 and SKS-10 altogether use.



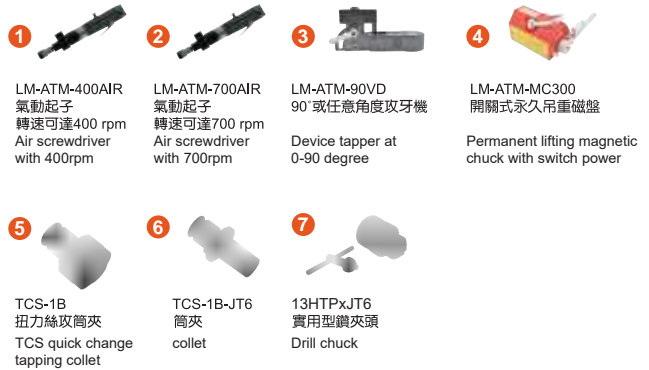
# LM-ATM 氣動攻牙機

## LM-ATM AIR TAPPING MACHINE



### 選配表 Option

- |                 |              |
|-----------------|--------------|
| 1.LM-ATM-400AIR | 5.TCS-1B     |
| 2.LM-ATM-700AIR | 6.TCS-1B-JT6 |
| 3.LM-ATM-90VD   | 7.13HTP×JT6  |
| 4.LM-ATM-MC300  |              |



### 特點 Feature

- 貫穿或盲孔、牙攻均受保護
- 定位快速·工作範圍大
- 應用範圍：攻牙、倒角、絞孔、鑽孔、鎖螺絲
- 可選配萬向頭 (另購)

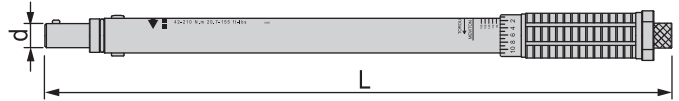
- The drill is protected, the drill penetrates the object.
- Rapid location an large-scale of working area.
- Application area: drilling, cutting the edge, developing screw thread , developing tunnel shape, fastening the screw.
- 90° and various degree tapping device.

規格 Spec.	攻牙能力 Tapping Capacity	主軸轉速 Speed (rpm)	氣動主軸 Air Spindle	工作範圍 Work Range (mm)	適用夾具 Tapping Fixtures	空氣壓力 Air Pressure	重量 (KGS) Weight
LM-ATM1011	M2~M10	700	LM-ATM700AIR	1100	TCS-1B	6-8kg	21.0
LM-ATM1211	M3~M12	400	LM-ATM400AIR	1100	TCS-1B	6-8kg	21.0
LM-ATM1015	M2~M10	700	LM-ATM700AIR	1500	TCS-1B	6-8kg	25.0
LM-ATM1215	M3~M12	400	LM-ATM400AIR	1500	TCS-1B	6-8kg	25.0
LM-ATM1020	M2~M10	700	LM-ATM700AIR	2000	TCS-1B	6-8kg	25.0
LM-ATM1220	M3~M12	400	LM-ATM400AIR	2000	TCS-1B	6-8kg	25.0



# LM-TW 扭力扳手

## LM-TW TORQUE SPANNER



### 特點 Feature

- 高精密度：扭矩誤差值 ±4%
- 特殊 Ø16 圓頭型設計
- 雙刻度：N.m(牛頓米)、ft-lbs(呎磅)
- 可雙向使用

- Precision: Torque magnitude of error ±4%.
- Special Ø16 round head design.
- Double scale: N.m,ft-lbs.
- Two-way use.

規格 Spec.	L	d	扭力值 Torque		重量 (KGS) Weight
			N.m	ft-lbs	
LM-TW-25	257	16	5~25	4~18	0.58
LM-TW-110	365		10~110	7~81	0.82
LM-TW-210	450		42~210	20.7~155	1.40



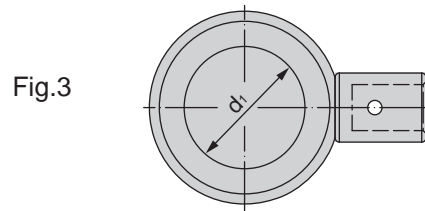
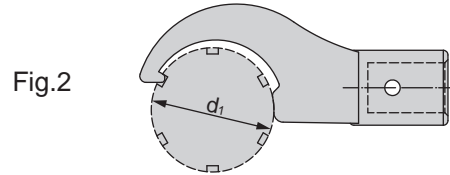
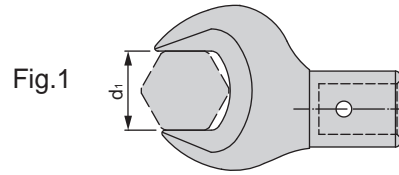
### 螺帽扳手 Nut Spanner

圖形 Form	規格 Spec.	扭力值 Torque	
		N.m	ft-lbs
	SKS6-LH	25	18
	SKS10-LH	45	33
	SKS16-LH	70	51
	SKS25-LH	100	73
	SKS6W-TDQ	25	18
	SKS10W-TDQ	45	33
	SKS16W-TDQ	70	51
	SKS25W-TDQ	100	73
	MLC20-LH	60	45
	MLC32-LH	80	60
	MLC42-LH	110	80
	EOC25-LH	200	147

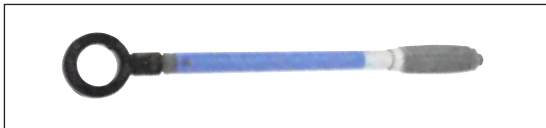
圖形 Form	規格 Spec.	扭力值 Torque	
		N.m	ft-lbs
	ER11M-LH	20	14
	ER16M-LH	30	21
	ER20M-LH	40	24
	ER25M-LH	60	29
	ER16A-LH	40	30
	ER20A-LH	60	44
	ER25-UM、KM-LH/RD	80	59
	ER32-UM、KM-LH/RD	170	125
	ER40-UM、KM-LH/RD	130	95
	ER11W-TDQ	20	13
	ER16W-TDQ	68	50
	ER20W-TDQ	102	75
	ER25W-TDQ	80	59
	ER32W-TDQ	170	125



# 螺帽扳手 NUT SPANNER



## 範例 Example



## 特點 Feature

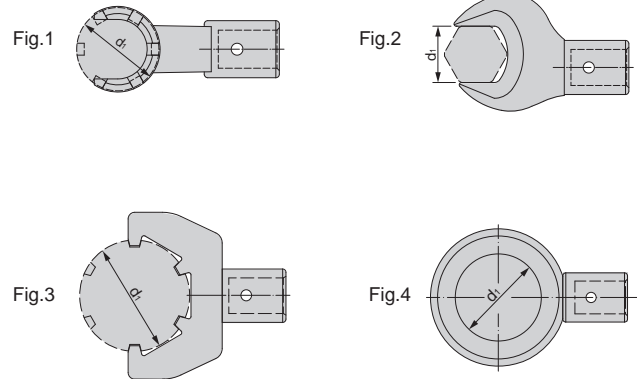
- 搭配扭力扳手使用
- 參考規格，設定標準螺帽扭力值
- 預先設定好扭力值，可以預防加工時掉落，鎖緊後不容易鬆脫，也不會使筒夾彈性疲乏損壞

- Please use it with torque spanner.
- Set standard for nut clamping torque, please see the type as below for your reference.
- Due to setting power in advance, it can prevent tool dropping when processing. Not easy to loosen for tightness and make the collets elastic fatigue.

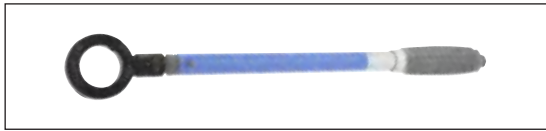
規格 Spec.	d <sub>1</sub>	扭力值 Torque		配合螺帽 Nut	Fig.	重量 (KGS) Weight
		N.m	ft-lbs			
SKS6-LH	18	25	18	SKS6-NUT	1	0.08
SKS10-LH	30	45	33	SKS10-NUT	2	0.16
SKS16-LH	40	70	51	SKS16-NUT	2	0.18
SKS25-LH	55	100	73	SKS25-NUT	2	0.20
SKS6W-TDQ	18	25	18	SKS6	3	0.16
SKS10W-TDQ	30	45	33	SKS10	3	0.26
SKS16W-TDQ	40	70	51	SKS16	3	0.30
SKS25W-TDQ	55	100	73	SKS25	3	0.38
MLC20-LH	46	60	45	MLC20	2	-
MLC32-LH	64	80	60	MLC32	2	0.22
MLC42-LH	65	110	80	MLC42	2	0.22
EOC25-LH	60	200	147	EOC25	2	0.30



# 螺帽扳手 NUT TORQUE SPANNER



## 範例 Example



## 特點 Feature

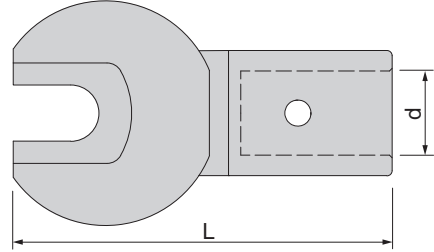
- 搭配扭力扳手使用
- 參考規格，設定標準螺帽扭力值
- 預先設定好扭力值，可以預防加工時掉落，鎖緊後不容易鬆脫，也不會使筒夾彈性疲乏損壞

- Please use it with torque spanner.
- Set standard for nut clamping torque, please see the type as below for your reference.
- Due to setting power in advance, it can prevent tool dropping when processing. Not easy to loosen for tightness and make the collets elastic fatigue.

規格 Spec.	d <sub>1</sub>	扭力值 Torque		配合螺帽 Nut	Fig.	重量 (KGS) Weight
		N.m	ft-lbs			
ER11M-LH	16	20	14	ER11M	1	0.09
ER16M-LH	22	30	21	ER16M	1	0.10
ER20M-LH	28	40	24	ER20M	1	0.10
ER25M-LH	35	60	29	ER25M	1	0.10
ER16A-LH	25	40	30	ER16A	2	0.14
ER20A-LH	30	60	44	ER20A	2	0.20
ER25-UM、KM-LH/RD	42	80	59	ER25-UM/KM/RD	3	0.25
ER32-UM、KM-LH/RD	50	170	125	ER32-UM/KM/RD	3	0.30
ER40-UM、KM-LH/RD	63	130	95	ER40-UM/KM/RD	3	0.40
ER11W-TDQ	18	20	13	ER11	3	0.16
ER16W-TDQ	30	68	50	ER16	4	0.26
ER20W-TDQ	34	102	75	ER20	4	0.26
ER25W-TDQ	42	80	59	ER25	4	0.30
ER32W-TDQ	50	170	125	ER32	4	0.34



# 替換式拉頭扳手 INDEXABLE SPANNER FOR PULL STUD



## 特點 Feature

- 可施予正確的力距，鎖固拉頭

- Apply appropriate torque to lock the pull stud.

規格 Spec.	L	d	配合拉頭 Pull Studs	重量 (KGS) Weight
PS-BT30-LH	58	16	BT30 拉頭	0.14
PS-BT40-LH	72	16	BT40 拉頭	0.20
PS-BT50-LH	80	16	BT50 拉頭	-

## 範例 Example



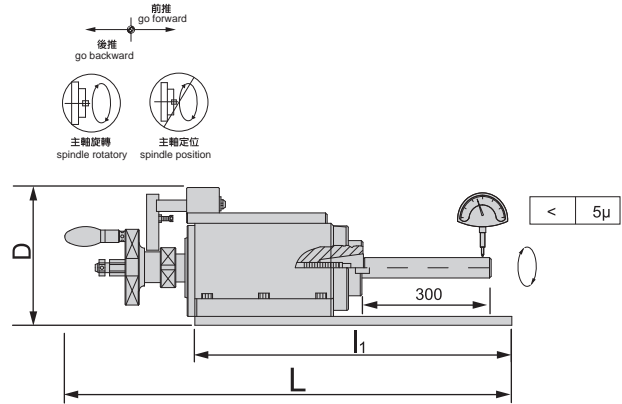
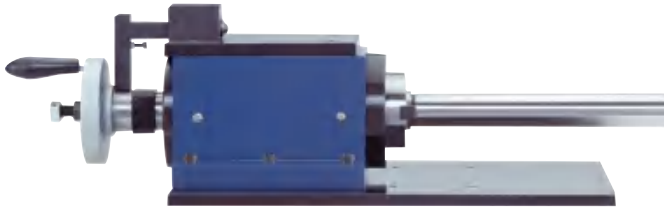
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# CHW-SK 精度檢測儀

## CHW-SK SPLNDLE MASTER

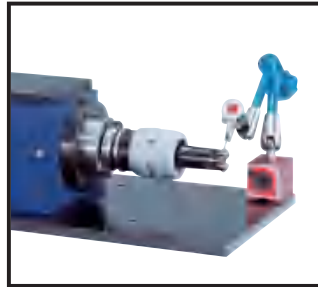


### 範例 Example



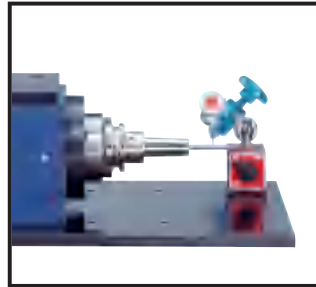
校正刀片公差

Correction insert tolerances



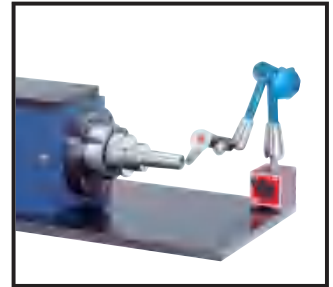
校正刀片公差

Correction insert tolerances



校正筒夾公差

Correction collet tolerances



校正刀桿公差

Correction shank tolerances

### 操作注意事項 Operation Instruction

- 檢查校正桿是否標準，轉動主軸是否清潔
- 主軸上固定鍵，定位並向右固定轉軸
- 螺桿上鎖校正，(約 15m/m 牙深) 上緊固定螺帽密合
- 主軸上固定鍵向左撥開，即可轉動主軸
- 將量錶置於檢驗位置上，即可檢驗及校正
- 量錶量測時，請確實掌握測試桿最高點為探測接觸點

- Check and ensure the aligner bar is standard. Turn the spindle and see if it is clean.
- Position the fixing key on spindle, turn right and fix the spindle.
- Fix the aligner key on left. Turn the spindle.
- Turn the fixing key to the left. Turn the spindle.
- Place the meter at the testing position. Test and again.
- The highest Position of the testing bar is the contact point.

### 注意事項 Notice

- 校正座必須置於水平固定架上
- 放置清潔室溫保持 20° ± 10° 左右
- 禁止對校正座敲打或碰觸
- 隨時保持清潔及定期檢測、保養
- 將量錶置於檢驗位置上，即可檢驗及校正
- 量錶量測時，請確實掌握測試桿最高點為探測接觸點

- Correction seat must be placed on a horizontal bracket.
- Place Clean room temperature is maintained around 20° ± 10°.
- Do not knock or touch the corrected seat.
- kept clean and regular testing, maintenance.
- The scale is placed on the test location, you can test and calibration
- Scale measurements, be sure to grasp the highest point of the test rod probe contact point.

規格 Spec.	斜度 Taper	L	l <sub>1</sub>	D	螺桿尺寸 Rod Screw	重量 (KGS) Weight
CHW-SK30	NT30/BT30	650	500	210	M12×1.75P	50.0
CHW-SK40	NT40/BT40	680	500	240	M16×2.0P	70.0
CHW-SK50	NT50/BT50	900	700	260	M24×2.0P	110.0

※ 主軸測試棒另外訂購 Spindle test bar is ordered separately.

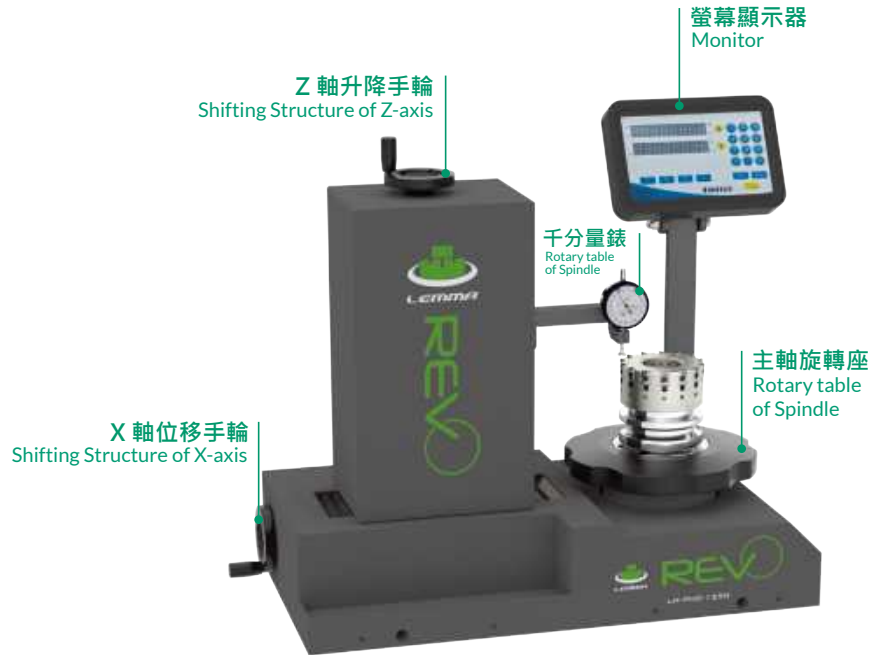


# LM-PHC 高精密刃高校正儀

## LM-PHC HIGH PRECISION TOOL PRESETTER

**NEW**

規格 Spec.	LM-PHC125R
量測範圍 Range of Measuring	直徑Diameter (X): $\varnothing 125\text{mm}$ 高度Height (Z): 45~170mm
機台外型尺寸 Size of Machine	長(L)x 寬(W)x 高(H) 656x350x585mm
量測精度 Accuracy of Measuring	0.001mm
機台重量 Weight of Machine	95 Kg
電源 Power	100-240V, 50/60HZ, 0.5A
工具櫃尺寸 (選配) Size of Tool Cabinet (Optional)	長(L)x 寬(W)x 高(H) 1050x510x850mm
工具櫃重量 Weight of Tool Cabinet	85 Kg



### 標配 Standard

圖示 Image	名稱 Name	規格 Spec.
	PHC旋轉量錶支架	LM-PHC-0010
	BT50測試棒 BT50 Testing Bar	BT50-TS170L
	主軸清潔棒 Spindle Cleaner Bar	W50
	六角扳手組 Hex Wrench set	LM-PHC-0012
	千分量錶 Dial Indicator	MITUTOYO-2109S-10

### 選配 Option

圖示 Image	名稱 Name	規格 Spec.
	工具櫃 Tool Cabinet	LM-PHC-0011
	主軸轉換套 Spindle Adapter	BT50 - BT40
		BT50 - BT30

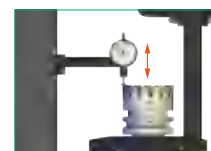
## 量測方式

### Measurement method

簡化校刀時間、降低生產成本  
Simplify the adjusting time of cutting tool, reduce the production cost.



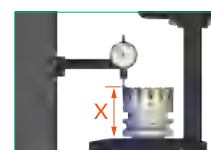
可在機台的外側進行量測，當要調整刀具刃高時，可直接進行調整及刀片鎖固螺絲的鎖固，不會有干涉產生，使調整效率更加快速  
There's no interference when you adjust the height of flute because you can adjust and lock the insert screw directly, measure it from the outside of machine. It is able to raise the efficiency of measurement.



刃高校正  
Insert height correction



刀刃外徑校正  
Blade outer diameter correction



刀長補正  
Tool Length Compensation



# LM-DH 刀具設定儀

## LM-DH TOOL PRE-SETTER



LM-DH3300R



LM-DH4400R



LM-DH6600R

### 操作注意事項 Operation Instruction

- 全系列立柱 (Z 軸) 採用超耐磨鋁合金，經特殊處理不易變形，搭配精密線性滑軌，操作簡便、精度更佳
- 全系列立柱 (Z 軸) 配備快速移動裝置，便捷性更加提升
- 全系列 X 軸、Z 軸皆裝置精密光學尺，螢幕顯示精確、易讀

- Made of super wear resistant aluminum alloy, Z-axis column is specially treated and free of deformation Equipped with high precision linear scale, the column is easy to operate with higher accuracy.
- Z-axis column is equipped with rapid traverse for higher moving efficiency.
- Both X-axis and Z-axis are equipped with high precision D.R.O. Values shown on the monitor are more accurate and easy to read.

規格 Spec.	量測範圍 Measurement range		數顯解析度 Resolution	儀器外型尺寸 Machine size (LxWxH)	工具櫃尺寸 (選配) Cabinet size (Optional)	工具櫃重量 Cabinet weight	電源 Power supply	儀器重量 (KGS) Weight
	直徑 D	高度 L						
LM-DH3300R	Ø300	30~300	0.005	650×320×730	700×570×800	60	AC 110V/220V 50Hz/60Hz	49
LM-DH4400R	Ø400	30~400	0.005	760×360×860	700×570×800	60		75
LM-DH6600R	Ø600	30~600	0.005	860×360×1060	800×570×650	60		85

### 標配 Standard

圖示 Fig.	名稱 Name
	測試棒 BT50 (Ø40mm · 長 200mm) X1 支 Test bar BT50 (Ø40mm · length 200mm) *1 pc
	百分錶 X2 只 Dial indicator * 2pcs
	六角扳手 X1 組 Hex wrench *1set
	光學尺 (X 軸、Y 軸) 各一組 linear scale (X axis & Y axis 1 set of each)

### 選配 Option

圖示 Fig.	名稱 Name
	工具櫃 Selective accessories Tool cabinet
	#50~#30 轉換套筒 #50~#30 convert sleeve



# LM-DH 刀具設定儀工具櫃

## LM-DH TOOL PRE-SETTER CABINET



LM-DH4400-C



LM-DH6600-C

規格 Spec.	工具櫃適用機型 Cabinet For Type	尺寸 (長 × 寬 × 高) Size(LxWxH)	重量 (KGS) Weight
LM-DH4400-C	LM-DH3300 · LM-DH4400	700×570×800	60.0
LM-DH6600-C	LM-DH6600	800×570×650	60.0



# 萬向磁性表座 UNIVERSAL ARM MAGNETIC BASE



LM-B080 (標準型)  
Magnetic Base



LM-080-A  
Standard



LM-M080 (機械式)  
Mechanical Arm



LM-100-A  
Standard



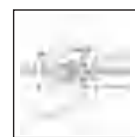
LM-M120 (機械式)  
Mechanical Arm



LM-120-A  
Standard



LM-H100 (油壓式)  
Hydraulic Arm



適用各型量表  
Suitable each meter

## 特點 Feature

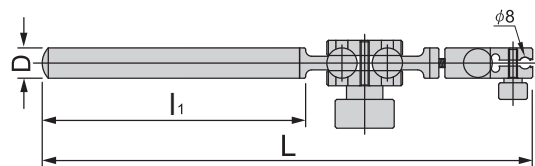
- 萬向曲臂設計、方向可任意調整
- 槓桿旋臂上附有微調裝置:Ø8mm 鳩尾槽座
- 適合各式樣之分釐錶、槓桿錶之夾持

- For indicators, can be set in any point on 360°, very quick and convenient in operation.
- On the release lever arm attaches the vernier arrangement: Ø8mm dove tail trough place.
- Suits dial indicator of, supporting on both sides of the releas lever table the various model.

規格 Spec.	磁力 Holding Power	方式 Manner	臂長 Arm Length	磁座尺寸 Base Dimension (mm)			孔徑 Tapped Hold	重量 (KGS) Weight
				長 L	寬 W	高 H		
LM-080-A	80kg	-	-	60	50	55	M8x1.25P	1.05
LM-100-A	100kg	-	-	75	50	55	M8x1.25P	1.15
LM-120-A	120kg	-	-	85	50	55	M8x1.25P	1.32
LM-B080	80kg	-	-	60	50	55	-	1.60
LM-M080	80kg	機械式 Mechanical	340mm	60	50	55	-	1.50
LM-M120	120kg	機械式 Mechanical	340mm	85	50	55	-	2.20
LM-H100	100kg	油壓式 Hydraulic	310mm	75	50	55	-	1.90



# 萬向中心錶架 ACCU STAND



## 範例 Example



規格 Spec.	L	l <sub>1</sub>	D	重量 (KGS) Weight
LM-AS-1060	180	90	10	0.20

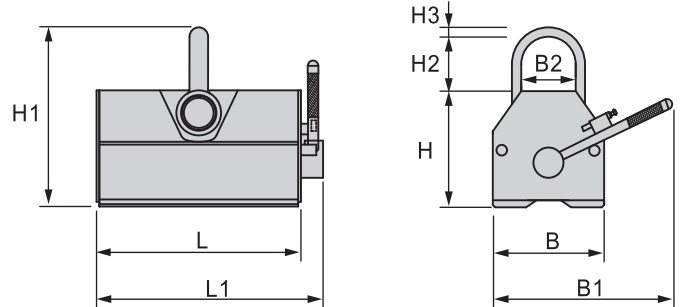
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# LM-MC 開閉式永久吊重磁盤

LM-MC ON/OFF TYPE PERMANENT LIFTING MAGNETIC CHUCK

PAT.NO: M313672



## 範例 Example



## 特點 Feature

- 特殊設計之 ON/OFF 開關，操作容易
- 操作時不會損壞工件表面
- 吸力超強，不必使用電源，可連續使用沒有停電之困擾

- Very easy operation with special design of ON/OFF switch. Easy-Locked function, provides you switch on and lock the handle at the same time.
- Working-piece surface will not be damaged during the working.
- High holding magnetic power, this lifter can be used successive. Electro power is no necessary for the lifter to avoid power failure problem.

## 注意事項 Notice

- 本產品請勿使用於表面溫度高於 80°之工件。
- 使用前請先確定是否有異物或開關未切換及是否平衡不搖晃，吸著牢固再開始搬運。
- 吊盤需接觸搬運工件時，再操作手把，請勿空操作
- 吊盤未使用時或未接觸搬運工件時，請勿切換開關以免造成損壞（請勿無工件時操作吊盤。）

- Please do not use the product if the working piece surface temperature is higher than 80° degree.
- Before lifting a work-piece, please check if any foreign-material or iron chip exists between the lifter and work-piece, please clean up the surface of the lifter and work-piece.
- Checks the switch position to make sure it is set correctly, and also checks the held work-piece is it is being held completed and balanced before lifting.
- Please do not switch the handle "on" if it is not being used to avoid any damage caused.

## 用途 Application

- 適用於搬運各種鐵類工作物

- Suitable for carrying various Iron material work-piece.

規格 Spec.	吊重能力 Capacity (KGS)	吸著面 Chucking Face		外部面積尺寸 Capacity							最大吊重範圍 (Max Lifting Range)					安全係數 Safety Coefficient	重量 (KGS) Weight
											鐵板 Steel Plate		實心圓鐵 Not Hollow Round Steel				
		B	L	H	B1	L1	H1	B2	H2	H3	吊重能力 Max.lifting Capacity(kg)	最小厚度需求 Min.thickness Required(mm)	最大吊重容量 Maclifting Capacity(kg)	最大直徑 Max. Dimension(mm)	最大長度 Maximum Length(mm)		
LM-MC-100	100	63	92	71	164	110	122	32	43	8	100	15	45	150	1000	× 3.5	2.50
LM-MC-300	300	93	165	96	210	185	170	45	62	13	300	25	135	250	1500	× 3.5	8.00
LM-MC-600	600	122	236	120	303	265	227	59	92	15	600	30	270	350	2000	× 3.5	22.0
LM-MC-1000	1000	171	263	164	413	298	302	95	116	20	1000	40	450	450	2500	× 3.5	51.0
LM-MC-2000	2000	232	378	215	576	415	390	119	148	28	2000	55	870	550	3000	× 3.5	131
LM-MC-3000	3000	300	454	265	717	490	500	156	213	32	3000	60	1320	650	3500	× 3.5	250

AID

## 工件定位器 WORK STOP TOOL



範例 Example



規格 Spec.	重量 (KGS) Weight
MAS-160B	0.85

※ 萬向 360°大範圍使用 Universal 360° wide range of use

## 銑刀刀柄座 TOOLING SHEATH



範例 Example



規格 Spec.	重量 (KGS) Weight
TC-30S	0.07
TC-40S	0.07
TC-50S	0.10
TC-HSK63S	0.04

## 噴霧式切削冷卻器 MIST COOLANT



範例 Example



規格 Spec.	長度 Length	重量 (KGS) Weight
MCS-B	500m/m	0.72

## 刀具管理車 TOOL CARRIAGE



※ 不含展示刀具 Does not include display tools

規格 Spec.	每排數量 Qty	重量 (KGS) Weight
TC-30	4×7=28	50.5
TC-40	4×7=28	50.5
TC-50	4×5=20	51.0

## GP 虎鉗平行板 GP VISE PARALLEL SET



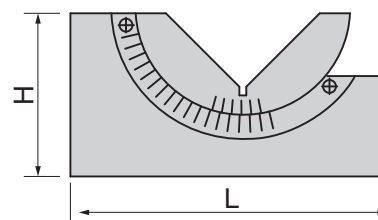
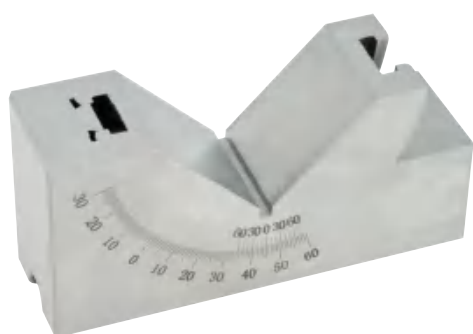
### 範例 Example



虎鉗平行板  
VISE PARALLEL SET

規格 Spec.	厚 x 寬 x 長 x 數量	重量 (KGS) Weight	規格 Spec.	厚 x 寬 x 長 x 數量	重量 (KGS) Weight
GP-18	5 x 16 x 100 x 2	10.0	GP-150	8.5 x 14 x 150 x 2	-
	6 x 18 x 100 x 2			8.5 x 16 x 150 x 2	
	8 x 24 x 100 x 2			8.5 x 20 x 150 x 2	
	10 x 30 x 100 x 2			8.5 x 24 x 150 x 2	
	12 x 36 x 150 x 2			8.5 x 30 x 150 x 2	
	14 x 48 x 150 x 2			8.5 x 32 x 150 x 2	
	18 x 60 x 150 x 2			8.5 x 36 x 150 x 2	
	22 x 62 x 150 x 2			8.5 x 40 x 150 x 2	
	15 x 31 x 200 x 2		8.5 x 44 x 150 x 2		

## 可調式角度規 ADJUSTABLE ANGLE PLATES

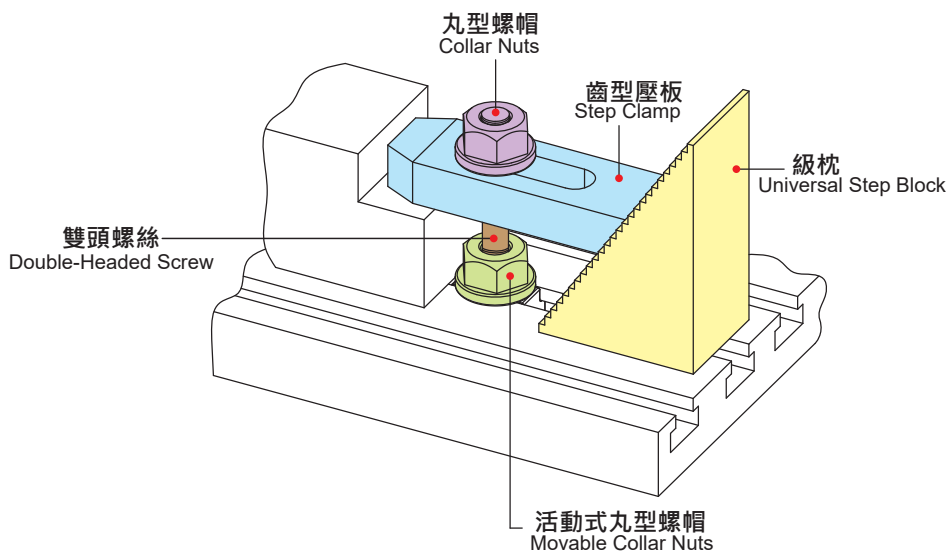
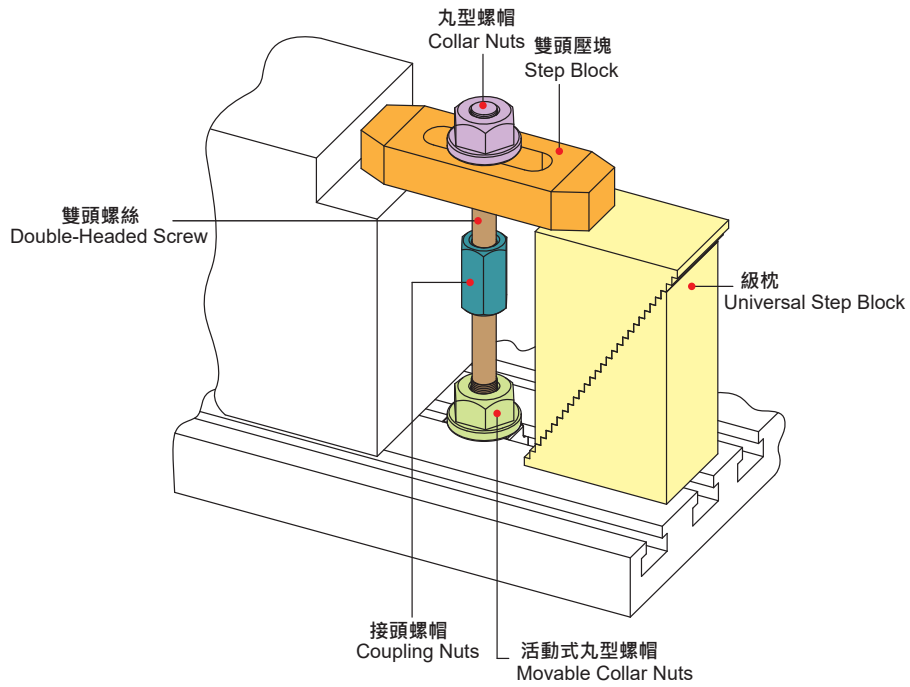
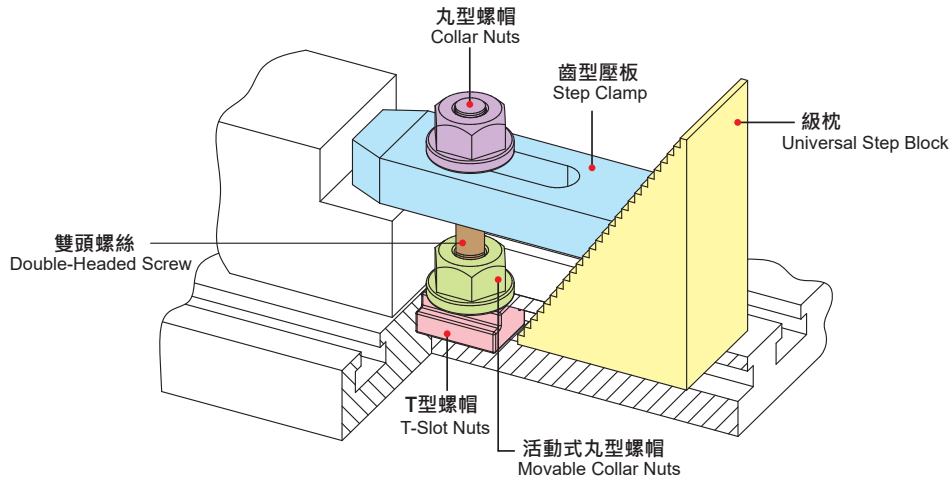


規格 Spec.	L	W	H	重量 (KGS) Weight
AP-1	102	46	47	1.50
AP-2	102	30	47	1.00
AP-3	75	25	32	0.50

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# 萬能夾具組合圖

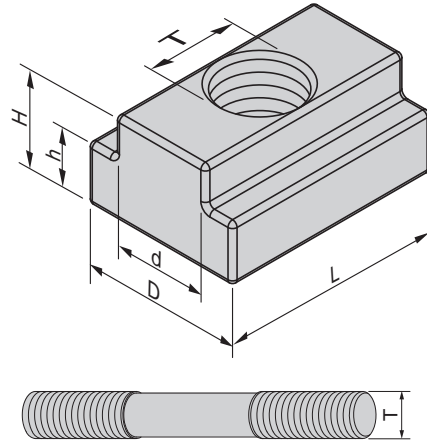
## CLAMPING KIT





# 萬能夾具組

## CLAMPING KIT



### 內容物：

- 24 個雙頭螺絲：
- 英制螺絲桿規格長度有：3"、4"、5"、6"、7"、8" 各 4 支
- 公制螺絲桿規格長度有：75、100、125、150、175、200mm 各 4 支
- 6 個 T 型螺帽
- 6 個丸型螺帽
- 4 個接頭螺帽
- 12 個級枕
- 6 個齒型壓板

### Contents:

- 24 double-headed screws:
- spec. in inch: 3", 4", 5", 6", 7", 8" 4pcs of each or
- spec. in metric: 75, 100, 125, 150, 175, 200mm 4pcs of each.
- 6 T-shot nuts
- 6 Collar nuts
- 4 Coupling nuts
- 12 universal step block
- 6 step clamps

英制 (inch)

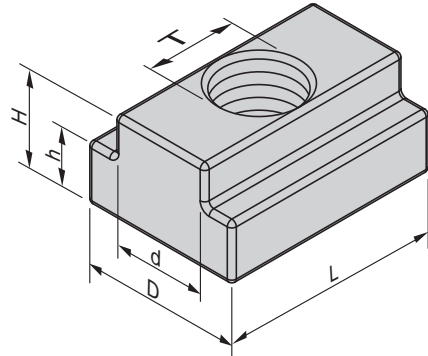
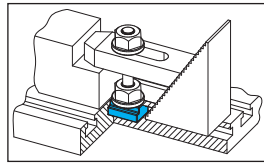
規格 Spec.	T	d	H	h	D	L	重量 (KGS) Weight
PK-103A	3/8"-16UNC	7/16"	1/2"	7/32"	11/16"	7/8"	10.2
PK-103B	3/8"-16UNC	1/2"	1/2"	9/32"	7/8"	7/8"	10.2
PK-104A	1/2"-13UNC	9/16"	5/8"	11/32"	7/8"	1"-1/8"	12.36
PK-104B	1/2"-13UNC	5/8"	5/8"	11/32"	1"	1"-1/8"	12.36
PK-105A	5/8"-11UNC	11/16"	3/4"	7/16"	1"-1/8"	1"-7/32"	12.46
PK-105B	5/8"-11UNC	3/4"	3/4"	15/32"	1"-1/4"	1"-7/32"	12.46
PK-206A	3/4"-10UNC	13/16"	1"	9/16"	1"-9/32"	1"-1/2"	18.20
PK-206B	3/4"-10UNC	7/8"	1"-1/8"	9/16"	1"-3/8"	1"-1/2"	18.20

公制 (mm)

規格 Spec.	T	d	H	h	D	L	重量 (KGS) Weight
CK-10	M10 x 1.5P	11.5	12	6.8	17.5	22	10.2
CK-12A	M12 x 1.75P	13.8	16	8	22	28	10.5
CK-12B	M12 x 1.75P	13.8	16	8	22	28	11.4
CK-16A	M16 x 2.0P	17.5	19	11	28	31	13.4
CK-16B	M16 x 2.0P	17.5	19	11	28	31	14.3
CK-20	M20 x 2.5P	21.7	28	14	35	38	29.0
CK-24	M24 x 3.0P	27.5	36	18	44	49	63.0

# T 型螺帽

## T-SLOT NUTS



### 特點 Feature

- 可配合公、英制 T 型槽使用

-With the mm、inch T-slots to use.

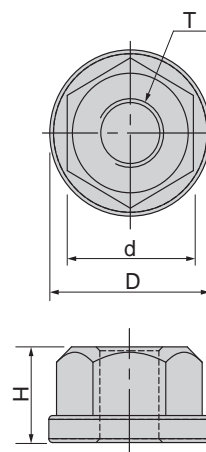
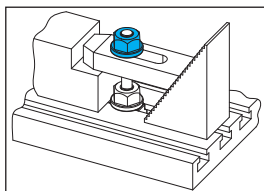
英制 (inch)

規格 Spec.	d	H	h	D	L	T	重量 (KGS) Weight
3/8-T-S	7/16"	1/2"	7/32"	11/16"	7/8"	3/8"-16	0.02
3/8-T-M	1/2"	1/2"	9/32"	7/8"	7/8"	3/8"-16	0.03
3/8-T-L	9/16"	5/8"	5/16"	7/8"	1"-1/8"	3/8"-16	0.05
1/2-T-S	9/16"	5/8"	5/16"	7/8"	1"-1/8"	1/2"-12	0.05
1/2-T-M	5/8"	5/8"	5/16"	1"	1"-1/8"	1/2"-12	0.06
1/2-T-L	11/16"	3/4"	7/16"	1"-1/8"	1"-1/4"	1/2"-12	0.09
5/8-T-S	11/16"	3/4"	7/16"	1"-1/8"	1"-1/4"	5/8"-11	0.08
5/8-T-M	3/4"	3/4"	15/32"	1"-1/4"	1"-1/4"	5/8"-11	0.10
5/8-T-L	13/16"	1"	9/16"	1"-1/4"	1"-1/2"	5/8"-11	0.16
3/4-T-S	13/16"	1"	9/16"	1"-1/4"	1"-1/2"	3/4"-10	0.15
3/4-T-M	7/8"	1"-1/8"	9/16"	1"-3/8"	1"-3/4"	3/4"-10	0.18
3/4-T-L	1"	1"	5/8"	1"-9/16"	1"-3/4"	3/4"-10	0.26

公制 (mm)

規格 Spec.	d	H	h	D	L	T	重量 (KGS) Weight
M8T	9.7	12	6	16	22	M8 x 1.25P	0.02
M10T	11.5	12	6.8	17.5	22	M10 x 1.5P	0.02
M12T-S	13.8	16	8	22	28	M12 x 1.75P	0.05
M12T-M	15.5	16	8	25	28	M12 x 1.75P	0.06
M16T	17.5	19	11	28	31	M16 x 2.0P	0.08
M20T	21.7	28	14	35	38	M20 x 2.5P	0.17
M24T	27.5	36	18	44	49	M24 x 3.0P	-

## 丸型螺帽 COLLAR NUTS



### 特點 Feature

- 可配合雙頭螺絲、壓板使用

- With the double-headed screw to use.

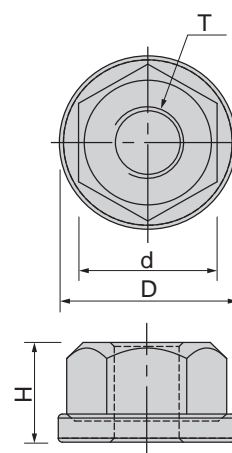
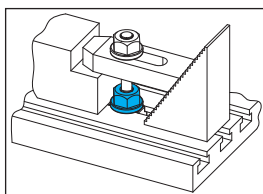
規格 Spec.	d	D	H	T	重量 (KGS) Weight
3/8-F	11/16"	7/8"	17/32"	3/8"-16	0.02
1/2-F	13/16"	1"-3/16"	11/16"	1/2"-12	0.04
5/8-F	1"-1/32"	1"-3/8"	13/16"	5/8"-11	0.08
3/4-F	1"-1/4"	1"-5/8"	1"	3/4"-10	0.16

英制 (inch)

規格 Spec.	d	D	H	T	重量 (KGS) Weight
M8-F	13	18	8	M8 x 1.25P	0.01
M10-F	17	22	13	M10 x 1.5P	0.02
M12-F	21	30	17	M12 x 1.75P	0.04
M16-F	26	35	22	M16 x 2.0P	0.07
M20-F	32	42	27	M20 x 2.5P	0.15
M24-F	41	50	32	M24 x 3.0P	0.29

公制 (mm)

## 活動式丸型螺帽 MOVABLE COLLAR NUTS



### 特點 Feature

- 鎖上工物時底不卡死 · 不致工件物損壞

- Lock the engineering physics, stuck from the end of the workpiece material damage.

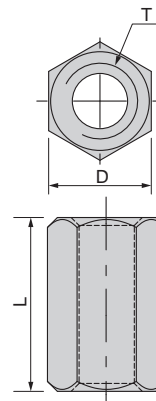
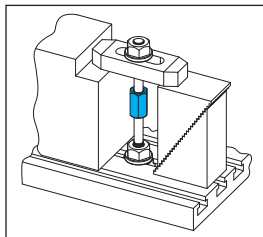
規格 Spec.	d	D	H	T	重量 (KGS) Weight
1/2-R	13/16"	1"-1/8"	5/8"	1/2"-12	-
5/8-R	1"-1/32"	1"-3/8"	11/16"	5/8"-11	0.10
3/4-R	1"-1/4"	1"-5/8"	1"	3/4"-10	0.17

英制 (inch)

規格 Spec.	d	D	H	T	重量 (KGS) Weight
M16-R	26	35	23	M16 x 2.0P	-

公制 (mm)

## 接頭螺帽 COUPLING NUTS



### 特點 Feature

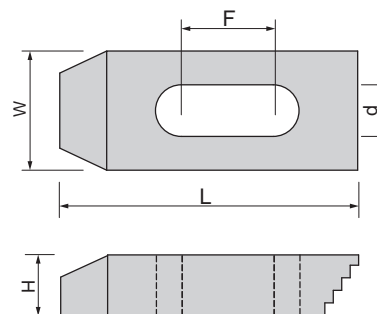
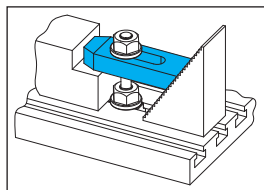
- 可配合雙頭螺絲·延長或固定使用

-With the double-headed screw,extend or fixed to use.

規格 Spec.	D	L	T	英制 (inch)	
				重量 (KGS)	Weight
3/8-C	11/16"	1"	3/8"-16	-	
1/2-C	13/16"	1"-1/4"	1/2"-12	0.07	
5/8-C	1"-1/32"	1"-5/8"	5/8"-11	0.13	
3/4-C	1"-1/4"	1"-7/8"	3/4"-10	0.23	

規格 Spec.	D	L	T	公制 (mm)	
				重量 (KGS)	Weight
M8-C	13	22	M8 x 1.25P	0.02	
M10-C	17	25	M10 x 1.5P	-	
M12-C	21	32	M12 x 1.75P	0.07	
M16-C	26	40	M16 x 2.0P	0.12	
M20-C	32	48	M20 x 2.5P	0.23	
M24-C	41	63	M24 x 3.0P	-	

## 齒型壓板 STEP CLAMP



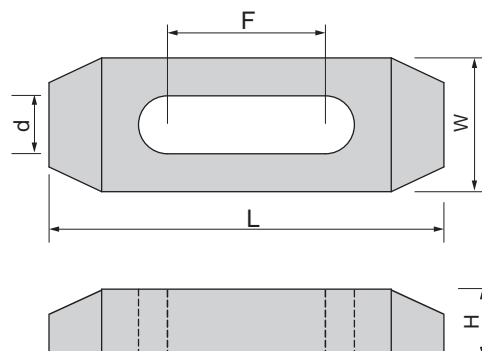
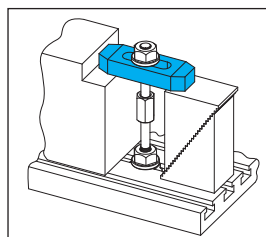
### 特點 Feature

- 可配合級枕使用·方便調整高低

-With the step blocks use, easy to adjust the height.

規格 Spec.	d	L	W	H	F	適用範圍 Range		重量 (KGS) Weight
						英制 (inch)	公制 (mm)	
SC-3/8-2-1/2	3/8"	2"-1/2"	1"	1/2"	3/4"	3/8"	M10	0.12
SC-3/8-4	3/8"	4"	1"	5/8"	1"-3/16"	3/8"	M10	0.23
SC-3/8-6	3/8"	6"	1"-1/8"	3/4"	2"-1/8"	3/8"	M10	0.50
SC-1/2-2-1/2	1/2"	2"-1/2"	1"-1/8"	1/2"	11/16"	1/2"	M12-M14	0.13
SC-1/2-4	1/2"	4"	1"-1/4"	3/4"	1"-7/32"	1/2"	M12-M14	0.32
SC-1/2-6	1/2"	6"	1"-1/4"	7/8"	2"-11/64"	1/2"	M12-M14	0.64
SC-5/8-2-1/2	5/8"	2"-1/2"	1"-1/4"	5/8"	9/16"	5/8"	M16	0.17
SC-5/8-4	5/8"	4"	1"-1/2"	3/4"	1"-3/16"	5/8"	M16	0.37
SC-5/8-6	5/8"	6"	1"-1/2"	7/8"	2"-1/4"	5/8"	M16	0.68
SC-3/4-4	3/4"	4"	1"-1/2"	3/4"	1"-3/16"	3/4"	M18-M20	0.35
SC-3/4-6	3/4"	6"	1"-1/2"	1"	1"-31/32"	3/4"	M18-M20	0.74
SC-3/4-8	3/4"	8"	1"-3/4"	1"-1/8"	2"-3/4"	3/4"	M18-M20	1.44

## 雙頭壓塊 COLLAR NUTS



### 特點 Feature

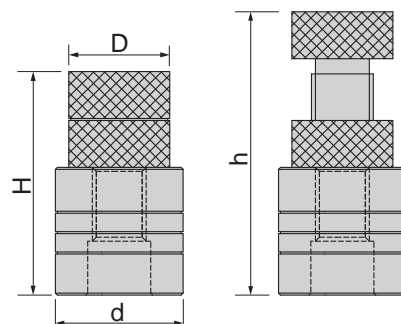
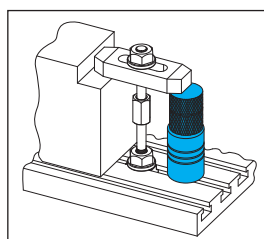
- 可配合千斤頂使用 · 方便調整高低

- With the screw jack use, easy to adjust the height.

英制 (inch)

規格 Spec.	d	L	W	H	F	重量 (KGS) Weight
PC-15-2-1/2	15	2"-1/2"	30	13	16	0.25
PC-15-4	15	4"	32	19	31	0.67
PC-15-6	15	6"	32	22	55	1.2
PC-18-2-1/2	18	2"-1/2"	32	16	14	0.31
PC-18-4	18	4"	38	19	30	0.85
PC-18-6	18	6"	38	22	57	1.47
PC-21-4	21	4"	38	19	30	0.75
PC-21-6	21	6"	38	25	50	1.43
PC-21-8	21	8"	44.5	28.5	70	2.82
PC-26-6	26	6"	50	32	39	1.9
PC-26-8	26	8"	50	38	69	2.75
PC-26-10	26	10"	50	38	74	3.8

## 千斤頂 SCREW JACK



### 特點 Feature

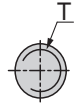
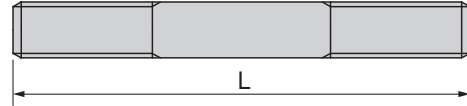
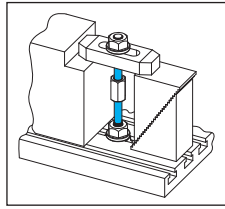
- 可自由調整高低 · 承受重量

- Be free to adjust the level to withstand the weight.

規格 Spec.	H	D	d	使用範圍 Range (H~h)	重量 (KGS) Weight
S-70	56	25	32	56~75	0.30
S-150	102	40	50	102~160	1.40
S-250	142	45	55	142~235	3.60

# 雙頭螺絲

## DOUBLE-HEADED SCREW



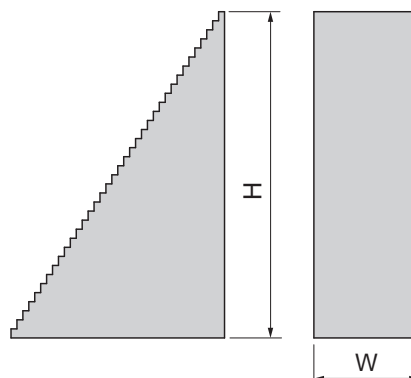
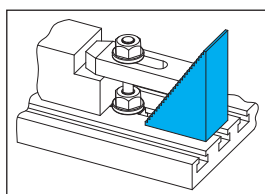
英制 (inch)

公制 (mm)

規格 Spec.	L	T	重量 (KGS) Weight
O-3/8-3	3"	3/8"-16	0.03
O-3/8-4	4"	3/8"-16	0.04
O-3/8-5	5"	3/8"-16	0.05
O-3/8-6	6"	3/8"-16	0.06
O-3/8-7	7"	3/8"-16	0.07
O-3/8-8	8"	3/8"-16	-
O-1/2-3	3"	2/1"-12	0.06
O-1/2-4	4"	2/1"-12	0.08
O-1/2-5	5"	2/1"-12	0.10
O-1/2-6	6"	2/1"-12	0.12
O-1/2-7	7"	2/1"-12	0.14
O-1/2-8	8"	2/1"-12	0.15
O-5/8-3	3"	5/8"-11	0.09
O-5/8-4	4"	5/8"-11	0.12
O-5/8-5	5"	5/8"-11	0.16
O-5/8-6	6"	5/8"-11	0.19
O-5/8-7	7"	5/8"-11	0.22
O-5/8-8	8"	5/8"-11	0.25
O-5/8-9	9"	5/8"-11	-
O-5/8-10	10"	5/8"-11	-
O-5/8-12	12"	5/8"-11	-
O-5/8-14	14"	5/8"-11	0.52
O-5/8-16	16"	5/8"-11	0.56
O-5/8-18	18"	5/8"-11	0.60
O-5/8-20	20"	5/8"-11	0.64
O-3/4-3	3"	3/4"-10	0.14
O-3/4-4	4"	3/4"-10	0.18
O-3/4-5	5"	3/4"-10	0.23
O-3/4-6	6"	3/4"-10	0.27
O-3/4-7	7"	3/4"-10	0.31
O-3/4-8	8"	3/4"-10	0.36
O-3/4-9	9"	3/4"-10	-
O-3/4-10	10"	3/4"-10	-
O-3/4-12	12"	3/4"-10	-
O-3/4-14	14"	3/4"-10	0.52
O-3/4-16	16"	3/4"-10	0.56
O-3/4-18	18"	3/4"-10	0.60
O-3/4-20	20"	3/4"-10	0.64

規格 Spec.	L	T	重量 (KGS) Weight
O-M8-3	75	M8 x 1.25P	0.02
O-M8-4	100	M8 x 1.25P	0.03
O-M8-5	125	M8 x 1.25P	0.04
O-M8-6	150	M8 x 1.25P	0.05
O-M8-7	175	M8 x 1.25P	0.05
O-M8-8	200	M8 x 1.25P	0.06
O-M10-3	75	M10 x 1.5P	0.04
O-M10-4	100	M10 x 1.5P	0.05
O-M10-5	125	M10 x 1.5P	0.06
O-M10-6	150	M10 x 1.5P	0.07
O-M10-7	175	M10 x 1.5P	0.08
O-M10-8	200	M10 x 1.5P	0.09
O-M12-3	75	M12 x 1.75P	0.05
O-M12-4	100	M12 x 1.75P	0.07
O-M12-5	125	M12 x 1.75P	0.09
O-M12-6	150	M12 x 1.75P	0.11
O-M12-7	175	M12 x 1.75P	0.13
O-M12-8	200	M12 x 1.75P	0.14
O-M16-3	75	M16 x 2.0P	0.10
O-M16-4	100	M16 x 2.0P	0.13
O-M16-5	125	M16 x 2.0P	0.16
O-M16-6	150	M16 x 2.0P	0.19
O-M16-7	175	M16 x 2.0P	-
O-M16-8	200	M16 x 2.0P	0.26
O-M16-9	225	M16 x 2.0P	-
O-M16-10	250	M16 x 2.0P	-
O-M16-12	300	M16 x 2.0P	-
O-M16-14	350	M16 x 2.0P	0.38
O-M16-16	400	M16 x 2.0P	0.41
O-M16-18	450	M16 x 2.0P	0.44
O-M16-20	500	M16 x 2.0P	0.47
O-M20-3	75	M20 x 2.5P	-
O-M20-4	100	M20 x 2.5P	0.20
O-M20-5	125	M20 x 2.5P	0.25
O-M20-6	150	M20 x 2.5P	0.30
O-M20-7	175	M20 x 2.5P	-
O-M20-8	200	M20 x 2.5P	0.41
O-M24-3	75	M24 x 3.0P	0.20
O-M24-4	100	M24 x 3.0P	-
O-M24-5	125	M24 x 3.0P	0.80
O-M24-6	150	M24 x 3.0P	1.40
O-M24-7	175	M24 x 3.0P	2.00
O-M24-8	200	M24 x 3.0P	2.60

# 級枕 UNIVERSAL STEP BLOCKS



## 特點 Feature

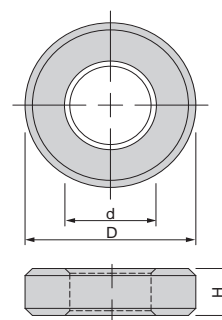
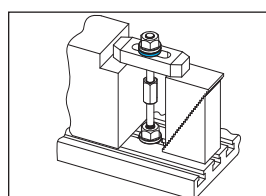
- 可配合壓板使用 · 方便調整高低

- With the step clamp use, easy to adjust the height.

英制 (inch)

規格 Spec.	適用夾具 Suitable fixture	H	w	重量 (KGS) Weight
1 x 1¼	3/8"	1"-1/4"	1"	0.06
1 x 1¾	3/8"	1"-3/4"	1"	0.14
1 x 3¾	3/8"	3"-7/8"	1"	0.58
1¼ x 1¼	1/2" · 5/8"	1"-1/4"	1"-1/4"	0.08
1¼ x 1¾	1/2" · 5/8"	1"-3/4"	1"-1/4"	0.16
1¼ x 3¾	1/2" · 5/8"	3"-7/8"	1"-1/4"	0.75
1½ x 2½	3/4"	2"-1/2"	1"-1/2"	0.38
1½ x 3¾	3/4"	3"-7/8"	1"-1/2"	0.39
1½ x 5½	3/4"	5"-1/2"	1"-1/2"	1.24

# 墊圈 WASHER



## 特點 Feature

- 可配合螺帽使用 · 方便做高低或延長的調整

- With the nut use, easy to adjust the height or extend.

規格 Spec.	型式 Type		d	D	H	重量 (KGS) Weight
	英制 (inch)	公制 (mm)				
W-3	3/8"	M10	10.3	22	4	0.01
W-4	1/2"	M12	13	30	6	0.03
W-5	5/8"	M16	16.5	35	10	0.06
W-6	3/4"	M20	20.5	38	10	0.06

AID

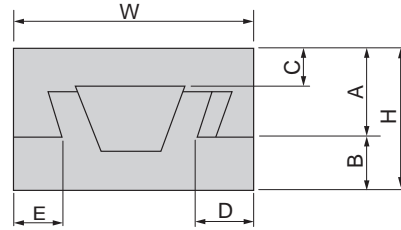
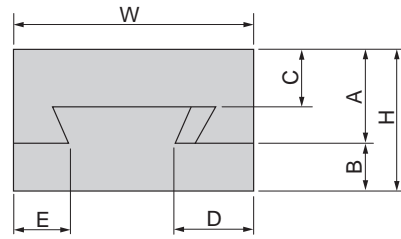
# 鳩尾型滑座 DOVETAIL-SLIDE



T-2" T-3"



T-4" T-5" T-6" T-8" T-10" T-12"



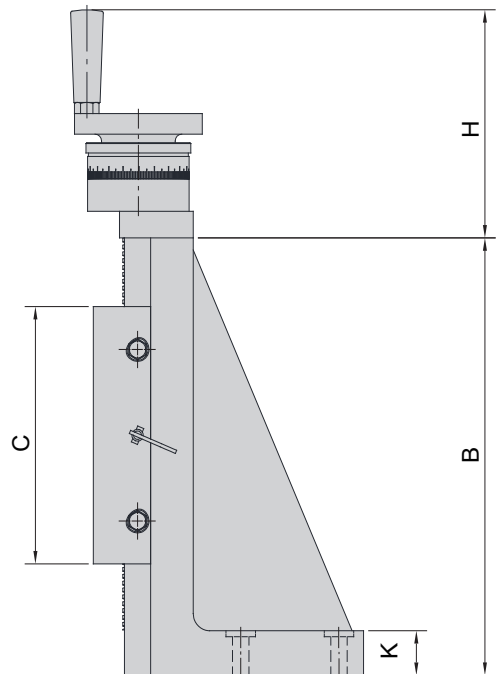
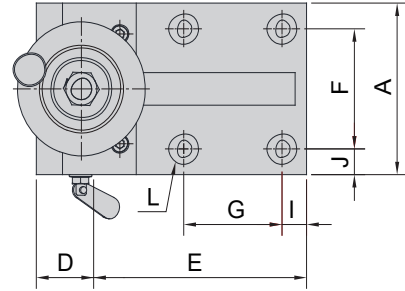
材質:FC-30 Material:FC-30

單位 Unit: mm

普通規格 Spec.	研磨規格 Polish Spec.	w	L	H	A	B	C	D	E	重量 (KGS) Weight
T-204	T-204P	50	100	40	25	15	16	19	12	4.6
T-208	T-208P	50	200	40	25	15	16	19	12	5.2
T-212	T-212P	50	300	40	25	15	16	19	12	5.8
T-216	T-216P	50	400	40	25	15	16	19	12	6.4
T-220	T-220P	50	500	40	25	15	16	19	12	7.00
T-306	T-306P	75	150	45	28	17	17	24	17	9.5
T-312	T-312P	75	300	45	28	17	17	24	17	11.0
T-318	T-318P	75	450	45	28	17	17	24	17	12.5
T-324	T-324P	75	600	45	28	17	17	24	17	14.0
T-408	T-408P	100	200	55	35	20	15	29	22	13.6
T-416	T-416P	100	400	55	35	20	15	29	22	16.8
T-424	T-424P	100	600	55	35	20	15	29	22	23.0
T-512	T-512P	125	300	60	40	20	18	33	29	16.0
T-524	T-524P	125	600	60	40	20	18	33	29	29.0
T-612	T-612P	150	300	65	40	25	20	35	31	26.5
T-624	T-624P	150	600	65	40	25	20	35	31	35.0
T-816	T-816P	200	400	90	60	30	27	43	37	61.0
T-832	T-832P	200	800	90	60	30	27	43	37	83.0
T-1020	T-1020P	250	500	95	60	35	27	40	34	66.0
T-1030	T-1030P	250	750	95	60	35	27	40	34	94.0
T-1040	T-1040P	250	1000	95	60	35	27	40	34	146
T-1060	T-1060P	250	1500	95	60	35	27	40	34	188
T-1220	T-1220P	300	500	95	60	35	27	40	34	85
T-1230	T-1230P	300	750	95	60	35	27	40	34	143
T-1240	T-1240P	300	1000	95	60	35	27	40	34	190
T-1260	T-1260P	300	1500	95	60	35	27	40	34	288



# 立式鳩尾滑座 VERTICAL DOVETAIL SLIDE TABLE



## 特點 Feature

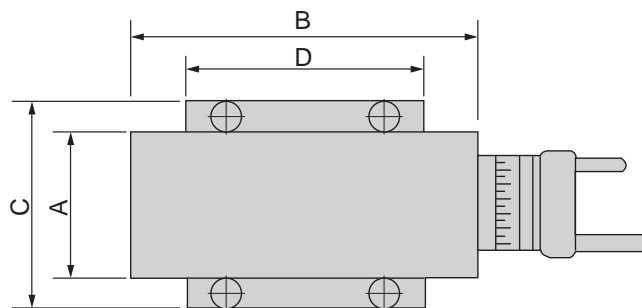
- 材質 :FC-30
- 精度 : 平行度與直角度 0.015mm(300L)
- 特點 : 滑動面均經熱處理及精密研磨加工

- Material:FC-30
- Precision://L 0.015mm(300L)
- Feature:The sliding surfaces are treated by heat-treatment & precision ground.

單位 Unit: mm

規格 Spec.	A	B	C	D	E	F	G	H	I	J	K	L	重量 (KGS) Weight
STD-100	100	255	150	35	130	70	60	134	15	15	26	Ø11×4	14.0
STD-130	130	265	165	40	135	100	60	134	20	15	28	Ø11×4	18.0
STD-150	150	385	200	40	185	110	90	165	20	20	35	Ø13×4	34.0
STD-200	200	510	250	60	212	160	130	165	20	20	40	Ø17×4	67.0
STD-250	250	600	300	60	280	200	160	190	25	25	40	Ø17×4	115.0
STD-2075	200	750	250	60	212	160	130	165	20	20	40	Ø17×4	-

## 單向角牙滑座 ONE WAY ANGLE THREAD SLIDE TABLE



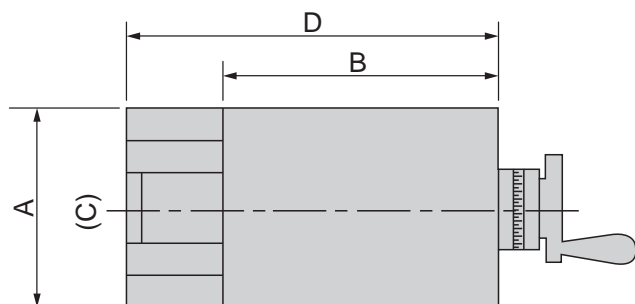
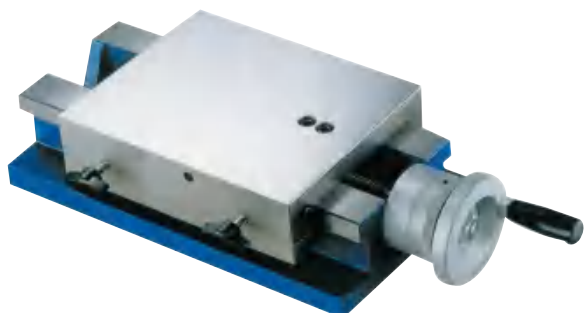
### 特點 Feature

- 材質: FC-30
- 精度: 0.01mm(300L)

- Material: FC-30
- Precision: 0.01mm(300L)

規格 Spec.	工作台面積 AxB	底座面積 CxD	行程 Stroke	總高度 Total Height	刻度環 Dial Graduation	重量 (KGS) Weight
ST-75	75 × 180	105 × 157	75	60	2.5 × 0.02	6.5
ST-100	100 × 235	140 × 160	100	70	2.5 × 0.02	9.5
ST-125	125 × 300	165 × 255	125	80	4.0 × 0.02	18.5

## 單向角牙滑座 ONE WAY ANGLE THREAD SLIDE TABLE



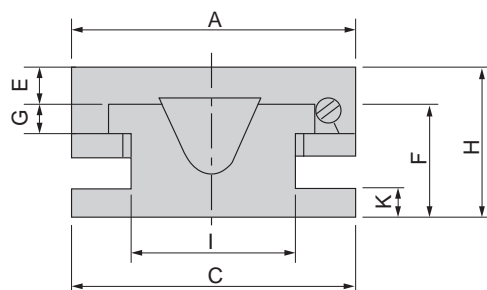
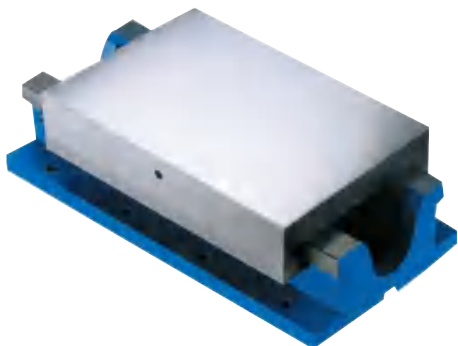
### 特點 Feature

- 材質: FC-30
- 精度: 0.01mm(300L)
- 特點: 滑動面均經熱處理及精密研磨加工

- Material: FC-30
- Precision: 0.01mm(300L)
- Feature: The sliding surfaces are treated by heat-treatment & precision ground.

規格 Spec.	工作台尺寸 AxB	底座尺寸 CxD	行程 Stroke	總高度 Total Height	刻度環 Dial Graduation	重量 (KGS) Weight
STA-1630	160 × 200	160 × 300	100	90	4.0 × 0.02	21.0
STA-1640	160 × 200	160 × 400	200	90	4.0 × 0.02	25.0
STA-2030	200 × 300	200 × 300	50	120	4.0 × 0.02	38.0
STA-2040	200 × 300	200 × 400	100	120	4.0 × 0.02	44.0
STA-2060	200 × 300	200 × 600	300	120	4.0 × 0.02	52.0
STA-2080	200 × 300	200 × 800	500	120	4.0 × 0.02	63.0
STA-3050	300 × 350	300 × 500	150	188	4.0 × 0.02	98.0
STA-3070	300 × 350	300 × 700	350	188	4.0 × 0.02	125.0

## 經濟工字滑台 V 型 ECONOMICH TYPE SLIDE TABLE V TYPE



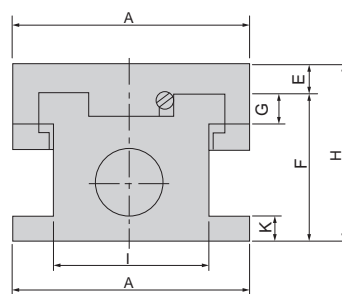
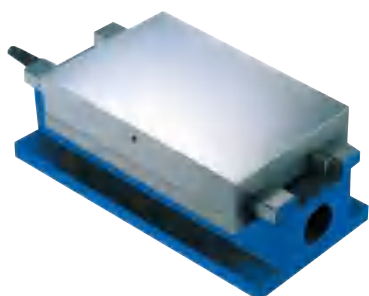
### 特點 Feature

- 材質 :FC-30
- 精度 :0.01mm(300L)
- 特點 : 滑動面均經熱處理及精密研磨加工

- Material:FC-30
- Precision:0.01mm(300L)
- Feature:The sliding surfaces are treated by heat-treatment & precision ground.

規格 Spec.	工作台面積 AxB	底座面積 CxD	高度 H	E	F	G	K	I	油缸孔徑 Hydraulic Cylinder	重量 (KGS) Weight
STB1630	160×200	160×300	90	20	70	17	20	90	U 型	19.0
STB1640	160×200	160×400	90	20	70	17	20	90	U 型	22.0
STB2040	200×300	200×400	120	30	90	20	20	120	U 型	38.0
STB2060	200×300	200×600	120	30	90	20	20	120	U 型	48.0
STB2080	200×300	200×800	120	30	90	20	20	120	U 型	60.0
STB20100	200×300	200×1000	120	30	90	20	20	120	U 型	70.0

## 強力型工字滑台 POWER H TYPE SLIDE TABLE



### 特點 Feature

- 材質 :FC-30
- 精度 :0.01mm(300L)
- 特點 : 滑動面均經熱處理及精密研磨加工

- Material:FC-30
- Precision:0.01mm(300L)
- Feature:The sliding surfaces are treated by heat-treatment & precision ground.

規格 Spec.	工作台面積 AxB	底座面積 CxD	高度 H	E	F	G	K	I	油缸孔徑 Hydraulic Cylinder	重量 (KGS) Weight
STC2040	200×300	200×400	150	30	120	20	25	120	Ø58	50.0
STC2050	200×300	200×500	150	30	120	20	25	120	Ø58	58.0
STC2060	200×300	200×600	150	30	120	20	25	120	Ø58	65.0
STC3050	300×350	300×500	188	39	149	27	28	212	Ø62	98.0
STC3070	300×350	300×700	188	39	149	27	28	212	Ø62	120
STC3080	300×350	300×800	188	39	149	27	28	212	Ø62	135
STC30100	300×350	300×1000	188	39	149	27	28	212	Ø62	155
STC30120	300×350	300×1200	188	39	149	27	28	212	Ø62	175
STC30150	300×350	300×1500	188	39	149	27	28	212	Ø62	200
STC30200	300×350	300×2000	188	39	149	27	28	212	Ø62	330

# 精密十字工作台

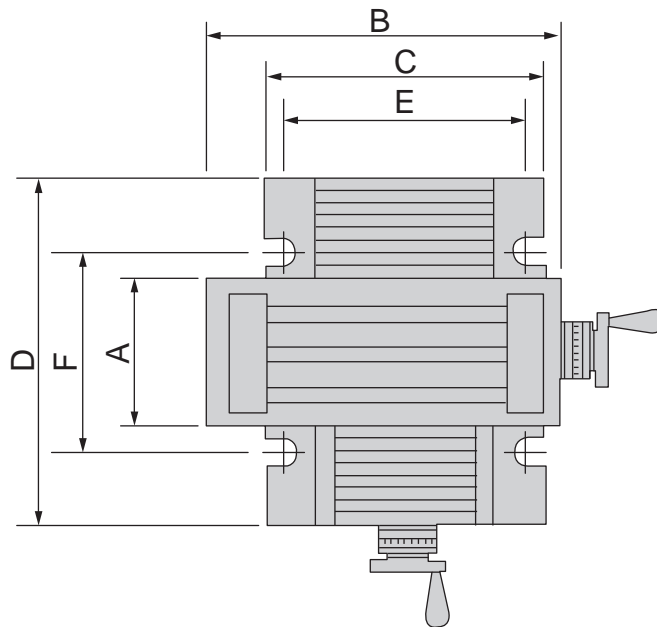
## PRECISION CROSS WORKTABLE



SCT-100



SCT-150 SCT-200 SCT-250



### 特點 Feature

- 材質: FC-30
- 精度: 平行度與直角度 0.015mm(300L)
- 特點: 滑動面均經熱處理及精密研磨加工

- Material: FC-30
- Precision: //L 0.015mm(300L)
- Feature: The sliding surfaces are treated by heat-treatment & precision ground.

單位 Unit: mm

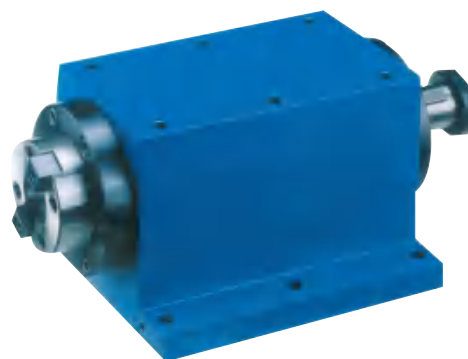
規格 Spec.	A	B	C	D	E	F	行程 Stroke	T 槽螺帽 T Slot Size	總高度 Total Height	刻度環 Dial Graduation	L×W×H mm	重量 (KGS) Weight
SCT-100	100	180	130	100	115	50	50×80	3/8"	100	2.5×0.02	290×240×140	11.0
SCT-150	150	350	250	300	220	205	150×175	3/8"	135	4×0.02	450×390×180	38.0
SCT-200	200	500	300	400	250	290	200×250	3/8"	155	4×0.02	640×520×200	72.0
SCT-250	250	600	400	500	340	430	250×300	1/2"	210	4×0.02	790×680×310	141.0
SCT-250A	250	800	400	500	340	430	250×550	1/2"	210	4×0.02	-	156.0
SCT-300	300	710	360	600	310	350	300×410	平面	160	4×0.02	-	165.0

# 精密搪銑主軸頭

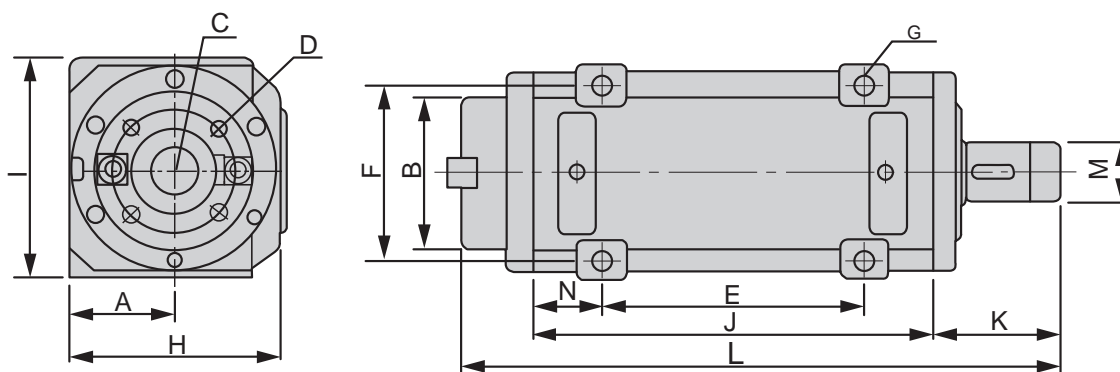
## PRECISION BORING/MILLING MAIN SPINDLE HEAD



SH30 SH40 SH50



SH30I SH40I



### 特點 Feature

- 以斜度滾柱軸承配合，適合精密與重切削
- 主軸精度 :0.005mm 內

- Equipped with taper roller bearing for precision working.
- Spindle accuracy 0.005mm.

規格 Spec.	斜度 Taper	Max. rpm	A	B	C	D	E	F	G	H	I	J	K	L	M	N	軸承 外徑	重量 (KGS) Weight
SH-MT3	MT3	7000	45	Ø42	-	-	80	70	Ø9-4	90	90	160	70	270	Ø25	42.5	Ø62	8.00
		7000	45	Ø42	-	-	80	70	Ø9-4	90	90	160	70	270	Ø25	42.5	Ø55	
SH30	NT30	3000	55	Ø69.832	Ø54	M10x1.5P-4	120	90	Ø11-4	114	114	200	74	317	Ø30	40	Ø75	18.0
SH40	NT40	2500	70	Ø88.882	Ø66.7	M12x1.75P-4	190	120	Ø15-4	145	150	280	102	427	Ø35	45	Ø90	39.0
SH-MT4	MT4	2500	70	Ø88.882	-	-	190	120	Ø15-4	145	150	280	102	427	Ø35	45	Ø90	36.0
SH50	NT50	2000	85	Ø128.57	Ø101.6	M16x2.0P-4	220	150	Ø15-4	178	184	340	104	500	Ø50	60	Ø115	75.0
SH30I	NT30	3000	77	Ø69.832	Ø54	M10x1.5P-4	160	140	Ø11-6	133	176	200	74	317	Ø30	20	Ø75	22.0
SH40I	NT40	2500	77	Ø88.882	Ø66.7	M12x1.75P-4	180	170	Ø11-6	147	200	220	100	367	Ø35	20	Ø90	45.0



# LM-SG 快速鑽頭研磨機

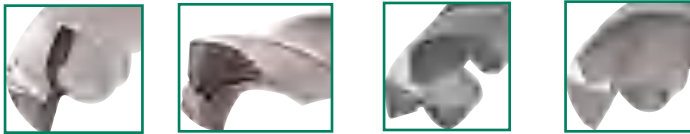
## LM-SG FAST DRILL RE-SHARPENING MACHINE



LM-SG-213



LM-SG-830



### 標準附件 Standard mating parts

- ER 筒夾 2.5、3、4、5、6、7、8、9、10、11、12、13mm 共 12pcs
- CBN 鑽石砂輪 #200x1pcs(HS 鑽石專用)  
砂輪規格:LM-GW-B200(B)
- 六角扳手 4mmx5mm 各 1pcs
- ER collets 2.5, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13mm, 12pcs in total.
- CBN Diamond Wheel #200\*1pc (For HS diamond use).  
Wheel spec: LM-GW-B200(B)
- Hex wrench 4mm\*5mm 1pc of each

### 特殊附件 Special purpose mating parts

- SDC 鑽石砂輪 #400( 鎢鋼鑽頭專用 )  
砂輪規格 :LM-GW-S400(C)
- CBN 鑽石砂輪 #400(4mm 以下專用 )  
砂輪規格 :LM-GW-B400(A)
- ER 筒夾 2.5、3.5mm~12.5mm 11pcs
- SDC diamond wheel#400 (for tungsten steel drill use)  
Wheel spec.: LM-GW-S400(C)
- CBN diamond wheel#400 (for use on below 4mm)  
Wheel spec.: LM-GW-B400(A)
- ER Collet 2.5, 3.5~12.5mm, 11pcs in total

### 標準附件 Standard mating parts

- ER 筒夾 12、13、14、15、16、17、18、19、20、21、22、23、24、25、26mm 共 15pcs
- CBN 鑽石砂輪 #200x1pcs(HS 鑽石專用)  
砂輪規格:LM-GW-B150(J)
- 六角扳手 4mmx5mm 各 1pcs
- ER collets 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23mm, 24mm, 25mm, 26mm, 15pcs in total.
- CBN Diamond Wheel #200\*1pc (For HS diamond use).  
Wheel spec: LM-GW-B150(J)
- Hex wrench 4mm\*5mm 1pc of each

### 特殊附件 Special purpose mating parts

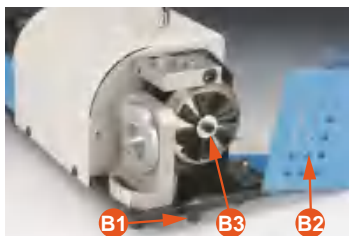
- SDC 鑽石砂輪 #200( 鎢鋼鑽頭專用 )  
砂輪規格 :LM-GW-S200(K)
- ER 筒夾 8~12mm、26~30mm
- SDC diamond wheel#200 (for tungsten steel drill use)  
Wheel spec.: LM-GW-S200(K)
- ER Collet 8~12mm, 26~30mm



### 更換鑽石砂輪步驟

1. 將本機右側旋扭 **B1** 鬆開，並將側蓋 **B2** 掀開
2. 用4mm六角扳手逆時鐘方向將螺絲 **B3** 掀開
3. 更換新鑽石砂輪，再將螺絲鎖上即可
4. 將側蓋 **B2** 蓋好，並將旋扭 **B1** 鎖緊

**注意!** 鑽石砂輪螺絲 **B3** 未鎖緊，側蓋 **B2** 未蓋好旋扭 **B1** 未鎖緊前，不可將電源打開，以免發生危險



### Procedures for changing the grinding wheel

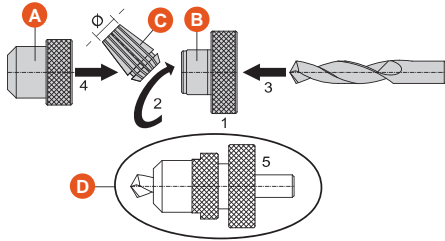
1. Loosen the side knob **B1** and open the side cover **B2**.
2. Use a 4mm hexagon wrench to loosen the screw **B3**, unscrew it counter-clockwise.
3. Replace a new diamond grinding wheel and tighten the screw after the wheel is installed.
4. Be sure to close the side cover **B2** and fasten the side knob **B1** properly.

#### Attention!

1. Please make sure that the diamond wheel screw **B3** is tightened, the side cover **B2** is properly closed, and the side knob is fastened before turning ON the machine, in order to prevent any hazard from occurring.
2. The machine has an automatic "power-off" device that will automatically turn the machine off when the cover is opened.

規格 Spec.	研磨範圍 Drill Diameter	先端角 Point Angle	電源 Power	馬達 Motor	轉速 rpm	重量 (KGS) Weight
LM-SG-213	Ø2~Ø13	85°~140°	AC110AC220V( 單相 )	200W	6000	9.00
LM-SG-830	Ø8~Ø30	85°~140°	AC110AC220V( 單相 )	450W	4000	27.0

### 如何完成鑽頭研磨前準備 How to prepare for drill grinding



### 一. 鑽頭研磨前準備步驟 Procedures for changing the grinding wheel:

1. 首先確認鑽頭直徑，再選擇筒夾 **C** 直徑
  2. 將選擇的筒夾以適當角度嵌入筒夾迫緊帽內 **B**
  3. 鑽頭插入筒夾內，並伸出約35mm左右，但不可鎖緊
  4. 筒夾環 **A** 套入筒夾 **C** 並鎖入筒夾迫緊帽 **B** 然後輕輕鎖入並保持鑽頭可用手旋轉
  5. 以上步驟即完成鑽頭研磨前準備 **D**
1. Choose a collet accordingly to **C** the diameter of the drill.
  2. Insert the chosen collet into the collet holder **B** at an appropriate angle.
  3. Insert the drill through the holder with the tip protruding by 35mm, but do not tighten.
  4. Connect the collet nut **A** to the collet **C** which is locked into the collet holder **B**, then slowly tighten it making sure that you can still turn the drill with your hands.
  5. Complete the steps 1 to 4 accordingly for grinding.

### 二. 鑽頭長度及角度定位 Setting the drill length and position its movement for drilling:

1. 先將刻度環 **C1** 向右轉到底後再向左轉至所要研磨之鑽頭尺寸
2. 將ER夾具組 **D** 插入長度設定座 **C2** 內並將直柄嵌入凹槽內
3. 將ER夾具組 **D** 向右旋轉至頂住直柄同時將鑽頭向右旋轉至頂住鑽頭刃刃為止
4. ER螺母 **B** 向右旋轉將鑽頭夾緊
5. 將ER夾具組 **D** 取出確認鑽頭刃刃與ER夾頭之凹槽是否平行，如果沒有平行要重新設定一次

注意! 舊鑽頭少於3/4時，其刻度環調大1-2格

1. Turn the scale ring **C1** all the way clockwise then counter-clockwise to the size of the drill to be grinded.
  2. Insert the ER collet chuck set **D** into the preset length slot **C2** and push it all the way in.
  3. Turn the collet chuck set **D** clockwise until it touches against the pin, and turn the drill clockwise until the cutting edge is felt.
  4. Screw the ER collet **B** holder clockwise to tighten the drill.
  5. Take out the collet chuck **D** set to make sure the drill's cutting edge is parallel to the slot of the ER clamping nut. If it's not, repeat the above steps.
- Attention: For old used drills with which are now 3/4 of its original length, it is advisable to increase the scale ring by 1-2 mm.

### 三. 鑽頭前端角研磨 Edge grinding:

1. 先ER夾具組 **D** 插入端角研磨座，並將凹槽嵌入直柄內
2. 將ER夾具組之鑽頭 **D** 輕輕接觸砂輪，並做順時鐘、逆時鐘方向之旋轉研磨直到沒有研磨聲音為止即可
3. 將ER夾具組 **D** 取出，轉180°再依上述1、2步驟重複研磨一次即可完成刃刃研磨

1. Insert the ER collet chuck set **D** into the drill edge device, and align the collet chuck with the drill edge device.
2. Slowly insert the drill **D** until it touches the grinding wheel slightly, turn it clockwise and counter-clockwise until the grinding sound disappears.
3. Take out the collet chuck set **D** and turn it 180 degrees, and repeat steps 1 and 2 to finish grinding the two edges of the drill.

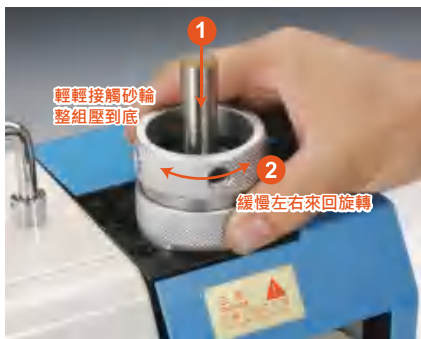
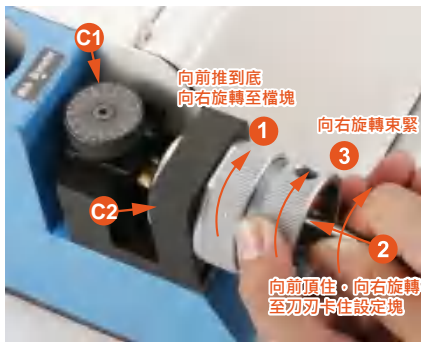
### 四. 鑽頭中心靜點研磨 Center point grinding for drills:

1. 將ER夾具組 **D** 前端直柄對準凹槽插入
  2. 將ER夾具組 **D** 上之鑽頭輕輕接觸砂輪並作緩慢進給，壓到底後再作左右旋轉，一直到沒有研磨聲音為止即可
  3. 將ER夾具組 **D** 取出，轉180°再依上述1、2步驟重複研磨一次即可完成鑽頭靜點研磨
1. Insert the collet chuck set **D** by aligning it with the drill center point device.
  2. Slowly insert the drill **D** until it touches the grinding wheel slightly, turn it clockwise and counter-clockwise until the grinding sound disappears.
  3. Take out the collet chuck set **D** and turn it 180 degrees, and repeat steps 1 and 2 to finish the center point grinding

### 五. 靜點座調整 Adjustment for trimming angles:

1. 靜點倒角要大，將 **E** 螺絲向左  $\oplus$  微調至所需之大小
2. 靜點倒角要小，將 **E** 螺絲向右  $\ominus$  微調至所需之大小

1. To obtain a larger or smaller trimming angle, turn the screw counter-clockwise to increase and clockwise to decrease.





# LM-SG 快速端銑刀研磨機

## LM-SG FAST END MILL RE-SHARPENING MACHINE



LM-SG-413



LM-SG-1225



### 標準附件 Standard mating parts

- 一組電源線
- 二支保險絲
- ER 筒夾 4、5、6、7、8、9、10、11、12、13mm 共 10pcs
- 2、3、4 刃夾頭各一組
- SDC 鑽石砂輪 #270(Ø4~5mm 專用) 砂輪規格 :LM-GW-S300(E)
- SDC 鑽石砂輪 #270(Ø6~13mm 專用) 砂輪規格 :LM-GW-S300(G)
- 一隻六角扳手 4mm
- A set of power line
- Two fuses
- ER collets 4, 5, 6, 7, 8, 9, 10, 11, 12, 13mm, 10pcs in total
- 2, 3, 4 chuck for flutes, a set of each
- SDC diamond wheel#270 (for use on dia.4~5mm)  
Wheel spec.: LM-GW-S300(E)
- SDC diamond wheel#270 (for use on dia.6~13mm)  
Wheel spec.: LM-GW-S300(G)
- A allen wrench of 4mm

### 特殊附件 Special purpose mating parts

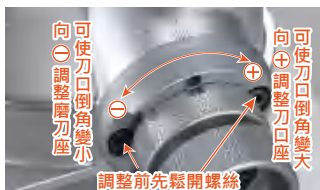
- CBN 鑽石砂輪 #270(Ø4~6mm 專用) 砂輪規格 :LM-GW-B300(D)
- CBN 鑽石砂輪 #270(Ø6~13mm 專用) 砂輪規格 :LM-GW-B300(F)
- CBN diamond wheel#270 (for use on dia.4~6mm)  
Wheel spec.: LM-GW-B300(D)
- CBN diamond wheel#270 (for use on dia.6~13mm)  
Wheel spec.: LM-GW-B300(F)

### 標準附件 Standard mating parts

- 一組電源線
- 一支保險絲
- ER 筒夾 12、16、18、20、22、25mm 共 6pcs
- 2、3、4 刃夾頭各一組
- CBN 鑽石砂輪 #150(Ø12~25mm HSS 鑽頭專用) 砂輪規格 :LM-GW-B150(R)
- SDC 鑽石砂輪 #150(Ø12~25mm 鎢鋼鑽頭專用) 砂輪規格 :LM-GW-S150(S)
- 一隻六角扳手 4mm
- A set of power line
- One fuses
- ER collets 12, 16, 18, 20, 22, 25mm, 6pcs in total
- 2, 3, 4 chuck for flutes, a set of each
- CBN diamond wheel#150 (use on dia.12~25mm HSS Drill)  
Wheel spec.: LM-GW-B150(R)
- SDC diamond wheel#150(use on dia.12~25mm Tungsten steel Drill)  
Wheel spec.: LM-GW-S150(S)
- A allen wrench of 4mm

### 特殊附件 Special purpose mating parts

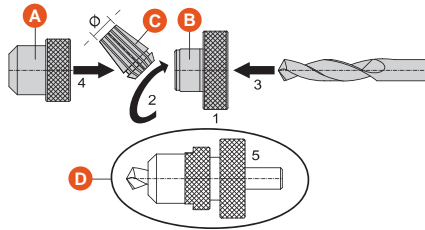
- CBN 鑽石砂輪 #150(2 刃專用) 砂輪規格 :LM-GW-B150(R)-2T
- SDC 鑽石砂輪 #150(2 刃專用) 砂輪規格 :LM-GW-S150(S)-2T
- ER40-32mm 筒夾 /C32-16、20、25mm 筒夾
- CBN diamond wheel#150 ( use on 2T)  
Wheel spec.: LM-GW-B150(R)-2T
- SDC diamond wheel#150 (use on 2T)  
Wheel spec.: LM-GW-S150(S)-2T
- ER40-32mm collet / C32-16, 20, 25mm collet



規格 Spec.	研磨範圍 Drill Diameter	先端角 Point Angle	電源 Power	馬達 Motor	轉速 rpm	重量 (KGS) Weight
LM-SG-413	Ø4~Ø13	一番角 6° 一番角 20°	AC110	3/4HP 450W	6000	17.0
LM-SG-1225	Ø12~Ø25	一番角 30°	AC220V 50/60Hz	1000W	4300	31.0

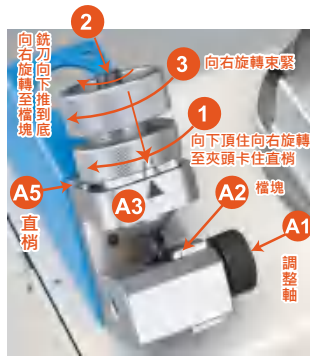


如何完成端銑刀研磨前準備  
How to prepare for end mill grinding



### 一. 端銑刀研磨前準備 Procedures for changing the grinding wheel:

1. 首先確認銑刀直徑，再選擇筒夾 C 直徑
2. 將選擇的筒夾以適當角度嵌入筒夾迫緊帽內 B
3. 銑刀插入筒夾內，並伸出約35mm左右，但不可鎖緊
4. 筒夾環 A 套入筒夾 C 並鎖入筒夾迫緊帽 B 然後輕輕鎖入並保持銑刀可用手旋轉
5. 以上步驟即完成銑刀研磨前準備 D



### 二. 端銑刀長度及角度定位 Setting the end mill length and position its movement for drilling:

1. 先將調整軸 A1 以逆時鐘方向轉至檔塊 A2 的刻度線對準所需之尺寸位置
2. 將ER夾具組 1 上的半圓槽對準校刀座上的三角點，直放到底
3. 將ER夾具組 1 向右旋轉至頂住直柄 A5 同時將銑刀過中心之刀刃以順時鐘方向旋轉至頂住檔塊 A2 為止
4. ER螺母 3 以順時鐘方向旋轉，將銑刀輕輕夾緊後取出，再用力旋轉緊



### 三. 端銑刀刀口研磨切削 End mill grinding cutting tip:

1. 將ER夾具組 H 對準 B1 刀口座之凹槽
2. 輕輕接觸砂輪做緩慢進給研磨一直到底為止
3. 將ER夾具組 H 取出換下一個刀刀，並重複1、2的動作，一直到所有刀刃研磨齊為止

1. The ER Group H fixture aligned recesses B1 edge of seat.
2. Lightly touch the grinding wheel to do to feed slowly so far has been in the end.
3. The ER Group H fixture replaced remove a blade, and repeat the operation 1,2, until all blade grinding up.



### 四. 端銑刀後斜角研磨切削 End mill after grinding bevel cutting:

1. 將ER夾具組 H 插入後斜角座 C1 並對準螺絲頭，輕輕將夾具組放入凹槽內並作緩慢進給一直到底為止
2. 將ER夾具組 H 取出換下一個未研磨刀刀並重複第1動作，一直到所有刀刃研磨齊為止

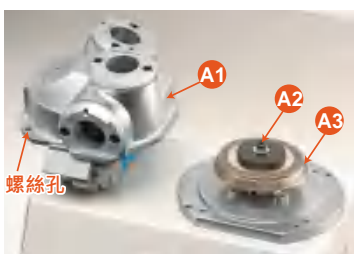
1. Place the ER Group H fixture after insertion bevel seat C1 and align the screw head, gently set into the groove of the clamp and feed has been slow to make up in the end.
2. The ER Group H fixture removed and replaced by a non-abrasive blades repeat an action until all blade grinding up.



### 五. 端銑刀刀刃研磨切削 End mill grinding cutting edge:

1. 將ER夾具組 H 對準L型之凹槽，插入輕輕接觸砂輪做緩慢進給，放到底後並作左和右移動研磨，一直研磨到無聲為止
2. 將ER夾具組 H 取出換下一個未研磨刀刀並重複第1動作
3. 一直到所有刀刃研磨齊為止

1. Place the ER Group H fixture alignment of the L-shaped groove, gently insert the contact wheel to do to feed slowly, after the release in the end and make a left and right to move the grinding, polishing has been silent so far to.
2. Remove the ER group H replaced a jig is not abrasive blades and repeat the first operation.
3. Keep all blade grinding up.



### 六. 更換鑽石砂輪步驟 Replacing the diamond wheel step:

1. 用4mm的六角扳手將磨刀機上蓋周圍的三支螺絲以逆時鐘將螺絲 A2 鬆開
2. 掀開上蓋
3. 用4mm六角扳手逆時鐘將螺絲 A2 鬆開
4. 更換新鑽石砂輪 A3 再將螺絲 A2 以順時鐘方向鎖緊即可
5. 將磨刀機上蓋 A1 蓋好，並將周圍三支螺絲鎖緊即可

1. With a 4mm hex wrench Grinder cover around three screws counter-clockwise to loosen the screws A2
2. Lifting up the cover
3. With a 4mm hex wrench counterclockwise to loosen the screw A2
4. And then replaced with a new diamond wheel A3 to A2 screws clockwise to lock.
5. The Grinder cover A1 cover, and around three locking to screws.



# LM-SG-SD 快速鑽頭研磨機

## LM-SG-SD FAST DRILL RE-SHARPENING MACHINE



### SG7572P 短刃鑽頭專用研磨機

SG7572P Duanren special drill grinding machine  
SG-ESS Drills ドリル



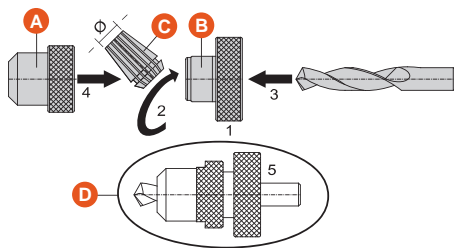
### 標準附件 Standard mating parts

- 一組電源線
- 一組保險絲
- PER20 筒夾 3、4、5、6、7、8、9、10、11、12 共 10pcs( 後夾型)
- ER20 筒夾 13 共 1pcs( 標準型)
- ER20 夾頭一組
- CBN 鑽石砂輪 #250 砂輪規格 :LM-GW-B250(T)
- CBN 鑽石砂輪 #400 砂輪規格 :LM-GW-B400(M)
- 六角扳手 4mm、5mm 各一支
- A set of power line
- One fuse
- PER20 collets 3, 4, 5, 6, 7, 8, 9, 10, 11, 12mm, 10pcs in total (rear clamping)ER20 collet 13, 1pc (standard)
- ER20 chuck a set
- CBN diamond wheel#250 Wheel spec.: LM-GW-B250(T)
- CBN diamond wheel#400 Wheel spec.: LM-GW-B400(M)
- A allen wrench of 4mm, & 5mm. 1pc of each

### 特殊附件 Special purpose mating parts

- ER20 筒夾 3.5、4.5、5.5、6.5、7.5、8.5、9.5、10.5、11.5、12.5 共 10pcs
- SDC 鑽石砂輪 #250  
砂輪規格 :LM-GW-S250(U)
- SDC 鑽石砂輪 #400  
砂輪規格 :LM-GW-S400(V)
- ER20 collet 3.5, 4.5, 5.5, 6.5, 7.5, 8.5, 9.5, 10.5, 11.5, 12.5, 10pcs in total.
- SDC diamond wheel#250  
Wheel spec.: LM-GW-S250(U)
- SDC diamond wheel#400  
Wheel spec.: LM-GW-S400(V)

#### 如何完成鑽頭研磨前準備 How to prepare for drill grinding



#### 一. 鑽頭研磨前準備步驟 Procedures for changing the grinding wheel:

1. 首先確認鑽頭直徑 · 再選擇筒夾 **C** 直徑
  2. 將選擇的筒夾以適當角度嵌入筒夾迫緊帽內 **B**
  3. 鑽頭插入筒夾內 · 並伸出約35mm左右 · 但不可鎖緊
  4. 筒夾環 **A** 套入筒夾 **C** 並鎖入筒夾迫緊帽 **B** 然後輕輕鎖入並保持鑽頭可用手旋轉
  5. 以上步驟即完成鑽頭研磨前準備 **D**
1. Choose a collet accordingly to **C** the diameter of the drill.
  2. Insert the chosen collet into the collet holder **B** at an appropriate angle.
  3. Insert the drill through the holder with the tip protruding by 35mm, but do not tighten.
  4. Connect the collet nut **A** to the collet **C** which is locked into the collet holder **B**, then slowly tighten it making sure that you can still turn the drill with your hands.
  5. Complete the steps 1 to 4 accordingly for grinding.

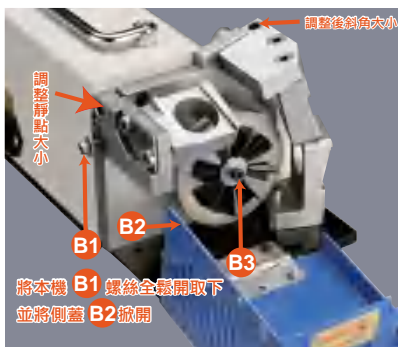
#### 二. 更換鑽石砂輪步驟 Procedures for changing the grinding wheel:

1. 將本機 **B1** 螺絲全鬆開取下 · 並將砂輪蓋 **B2** 掀開
  2. 用4mm六角扳手逆時鐘方向將螺絲 **B3** 鬆開
  3. 更換新鑽石砂輪 · 再將螺絲鎖上即可
  4. 將砂輪蓋 **B2** 蓋上 · 並將螺絲 **B1** 鎖緊
- 注意!** 鑽石砂輪螺絲 **B3** 未鎖緊 · 砂輪蓋 **B2** 未蓋好 · 螺絲 **B1** 未鎖緊前 · 不可將電源打開 · 以免發生危險

1. Loosen the side knob **B1** and open the side cover **B2**.
2. Use a 4mm hexagon wrench to loosen the screw **B3**, unscrew it counter-clockwise.
3. Replace a new diamond grinding wheel and tighten the screw after the wheel is installed.
4. Be sure to close the side cover **B2** and fasten the side knob **B1** properly.

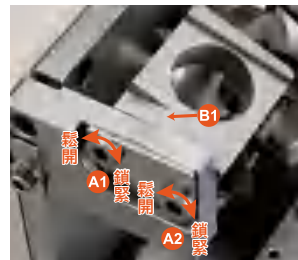
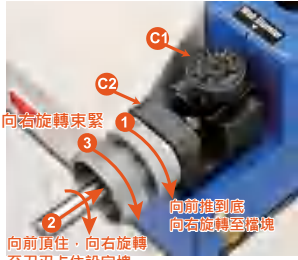
#### Attention!

1. Please make sure that the diamond wheel screw **B3** is tightened, the side cover **B2** is properly closed, and the side knob is fastened before turning ON the machine, in order to prevent any hazard from occurring.
2. The machine has an automatic 'power-off' device that will automatically turn the machine off when the cover is opened.



AID

規格 Spec.	研磨範圍 Drill Diameter	先端角 Point Angle	電源 Power	馬達 Motor	轉速 rpm	重量 (KGS) Weight
LM-SG-313-SD	Ø3~Ø13	135°	AC110 AC220V 50/60Hz	200W	4500	12.85



### 三. 鑽頭長度及角度定位 Setting the drill length and position its movement for drilling:

1. 先將刻度環 C1 向右轉到底後再向左轉至所要研磨之鑽頭尺寸
  2. 將ER夾具組 D 插入長度設定座 C2 內並將直柄插入凹槽內
  3. 將ER夾具組 D 向右旋轉至頂住直柄同時將鑽頭向右旋轉至頂住鑽頭刀刃為止
  4. ER螺母 B 向右旋轉將鑽頭夾緊
  5. 將ER夾具組 D 取出確認鑽頭刀刃與ER夾頭之凹槽是否平行，如果沒有平行要重新設定一次
- 注意!** 舊鑽頭少於3/4時，其刻度環調大1-2格

1. Turn the scale ring C1 all the way clockwise then counter-clockwise to the size of the drill to be grinded.
  2. Insert the ER collet chuck set D into the preset length slot C2 and push it all the way in.
  3. Turn the collet chuck set D clockwise until it touches against the pin, and turn the drill clockwise until the cutting edge is felt.
  4. Screw the ER collet B holder clockwise to tighten the drill.
  5. Take out the collet chuck D set to make sure the drill's cutting edge is parallel to the slot of the ER clamping nut. If it's not, repeat the above steps.
- Attention: For old used drills with which are now 3/4 of its original length, it is advisable to increase the scale ring by 1-2 mm.

### 四. 鑽頭靜點研磨 Static point drill grinding:

1. 靜點倒角要大，將 E 螺絲向順時針 ⊕ 微調至所需之大小
  2. 靜點倒角要小，將 E 螺絲向逆時針 ⊖ 微調至所需之大小
1. To obtain a larger or smaller trimming angle, turn the screw counter-clockwise to increase and clockwise to decrease.

### 五. 鑽頭排屑溝寬度調整 Bit chip groove width adjustment:

1. 先確認鑽頭尺寸
  2. 核對排屑槽寬度
  3. 將 A1 和 A2 螺絲鬆開
  4. 將靜點座 B1 上的刻度移動至所需尺寸
  5. 再把 A1 和 A2 螺絲鎖緊固定即可做研磨
1. Check the drill size.
  2. Check the Iron filings groove width.
  3. Loosen the screws A1 and A2.
  4. The scale moves static point B1 on the seat to a desired size.
  5. Then A1 and A2 locking screw fixation can do grind.

### 六. 鑽頭中心靜點研磨 Center point grinding for drills:

1. 將ER夾具組 D 前端直柄對準凹槽插入
  2. 將ER夾具組 D 上之鑽頭輕輕接觸砂輪並作緩慢進給，壓到底後再作左右旋轉，一直到沒有研磨聲音為止即可
  3. 將ER夾具組 D 取出，轉180°再依上述1、2步驟重複研磨一次即可完成鑽頭靜點研磨
1. Insert the collet chuck set D by aligning it with the drill center point device.
  2. Slowly insert the drill D until it touches the grinding wheel slightly, turn it clockwise and counter-clockwise until the grinding sound disappears.
  3. Take out the collet chuck set D and turn it 180 degrees, and repeat steps 1 and 2 to finish the center point grinding.

### 七. 鑽頭後斜角研磨 After bevel grinding drill:

1. 將ER夾具組 D 前端直柄對準後斜角研磨座之凹槽插入
  2. 將ER夾具組 D 上之鑽頭輕輕接觸砂輪並作緩慢進給，壓到底後再作左右旋轉，一直到沒有研磨聲音為止即可
  3. 將ER夾具組 D 取出，轉180°再依上述1、2步驟重複研磨一次即可完成後斜角研磨
1. Insert the collet chuck set D by aligning it with the drill center point device.
  2. Slowly insert the drill D until it touches the grinding wheel slightly, turn it clockwise and counter-clockwise until the grinding sound disappears.
  3. Take out the collet chuck set D and turn it 180 degrees, and repeat steps 1 and 2 to finish the center point grinding.

### 八. 鑽頭刀刃研磨 Blade grinding drill:

1. 將ER夾具組 D 前端直柄對準刀刃研磨座之凹槽插入
  2. 將ER夾具組 D 上之鑽頭輕輕接觸砂輪並作緩慢進給，壓到底後再作左右旋轉，一直到沒有研磨聲音為止即可
  3. 將ER夾具組 D 取出，轉180°再依上述1、2步驟重複研磨一次即可完成刀刃研磨
1. Insert the collet chuck set D by aligning it with the drill center point device.
  2. Slowly insert the drill D until it touches the grinding wheel slightly, turn it clockwise and counter-clockwise until the grinding sound disappears.
  3. Take out the collet chuck set D and turn it 180 degrees, and repeat steps 1 and 2 to finish the center point grinding.

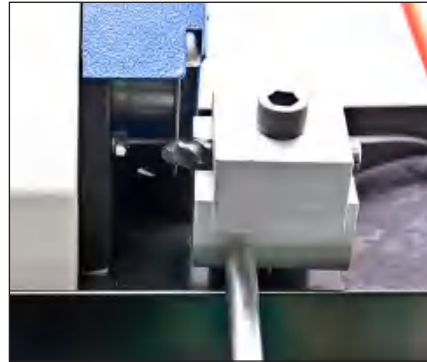


# LM-SG 圓棒切斷研磨機

## LM-SG ROUNDED BAR CUT OFF RE-SHARPENING MACHINE



### 範例 Example



### 標準附件 Standard mating parts

- 一組電源線
- 兩組保險絲
- SDC 鑽石砂輪 #100  
砂輪規格 :LM-GW-S100
- 六角扳手 4mm、5mm、10mm 各一支
- 一組握把
- A set of power line
- Two fuse
- SDC diamond wheel#100  
Wheel spec.: LM-GW-S100
- A allen wrench of 4mm, 5mm,10mm. 1pc of each
- A set of handle

### 特殊附件 Special purpose mating parts

- CBN 鑽石砂輪 #80  
砂輪規格 :LM-GW-B80(Y)
- CBN diamond wheel#80  
Wheel spec.: LM-GW-B80(Y)

### 選配表 Option

- 水箱 : LM-SG-316-WB
- Water box: LM-SG-316-WB

### 範例 Example



規格 Spec.	切斷範圍 Cut Range	電源 Power	馬達 Motor	轉速 rpm	重量 (KGS) Weight
LM-SG-316	3mm~16mm	AC110 AC220V 50/60Hz	600w	6000	13.5



# 基孔制與基軸制公差範圍列表

## REFERENCE DETAILS

μm

mm		H																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14 <sup>1)</sup>	15 <sup>1)</sup>	16 <sup>1)</sup>	17 <sup>1)</sup>	18 <sup>1)</sup>
- Over	3 <sup>1)</sup> Under	μm											mm						
-	3 <sup>1)</sup>	+0.8 0	+1.2 0	+2 0	+3 0	+4 0	+6 0	+10 0	+14 0	+25 0	+40 0	+60 0	+0.1 0	+0.14 0	+0.25 0	+0.4 0	+0.6 0		
3	6	+1 0	+1.5 0	+2.5 0	+4 0	+5 0	+8 0	+12 0	+18 0	+30 0	+48 0	+75 0	+0.12 0	+0.18 0	+0.3 0	+0.48 0	+0.75 0	+1.2 0	+1.8 0
6	10	+1 0	+1.5 0	+2.5 0	+4 0	+6 0	+9 0	+15 0	+22 0	+36 0	+58 0	+90 0	+0.15 0	+0.22 0	+0.36 0	+0.58 0	+0.9 0	+1.5 0	+2.2 0
10	18	+1.2 0	+2 0	+3 0	+5 0	+8 0	+11 0	+18 0	+27 0	+43 0	+70 0	+110 0	+0.18 0	+0.27 0	+0.43 0	+0.7 0	+1.1 0	+1.8 0	+2.7 0
18	30	+1.5 0	+2.5 0	+4 0	+6 0	+9 0	+13 0	+21 0	+33 0	+52 0	+84 0	+130 0	+0.21 0	+0.33 0	+0.52 0	+0.84 0	+1.3 0	+2.1 0	+3.3 0
30	50	+1.5 0	+2.5 0	+4 0	+7 0	+11 0	+16 0	+25 0	+39 0	+62 0	+100 0	+160 0	+0.25 0	+0.39 0	+0.62 0	+1 0	+1.6 0	+2.5 0	+3.9 0
50	80	+2 0	+3 0	+5 0	+8 0	+13 0	+19 0	+30 0	+46 0	+74 0	+120 0	+190 0	+0.3 0	+0.46 0	+0.74 0	+1.2 0	+1.9 0	+3 0	+4.6 0
80	120	+2.5 0	+4 0	+6 0	+10 0	+15 0	+22 0	+35 0	+54 0	+87 0	+140 0	+220 0	+0.35 0	+0.54 0	+0.87 0	+1.4 0	+2.2 0	+3.5 0	+5.4 0
120	180	+3.5 0	+5 0	+8 0	+12 0	+18 0	+25 0	+40 0	+63 0	+100 0	+160 0	+250 0	+0.4 0	+0.63 0	+1 0	+1.6 0	+2.5 0	+4 0	+6.3 0
180	250	+4.5 0	+7 0	+10 0	+14 0	+20 0	+29 0	+46 0	+72 0	+115 0	+185 0	+290 0	+0.46 0	+0.72 0	+1.15 0	+1.85 0	+2.9 0	+4.6 0	+7.2 0
250	315	+6 0	+8 0	+12 0	+16 0	+23 0	+32 0	+52 0	+81 0	+130 0	+210 0	+320 0	+0.52 0	+0.81 0	+1.3 0	+2.1 0	+3.2 0	+5.2 0	+8.1 0
315	400	+7 0	+9 0	+13 0	+18 0	+25 0	+36 0	+57 0	+89 0	+140 0	+230 0	+360 0	+0.57 0	+0.89 0	+1.4 0	+2.3 0	+3.6 0	+5.7 0	+8.9 0
400	500	+8 0	+10 0	+15 0	+20 0	+27 0	+40 0	+63 0	+97 0	+155 0	+250 0	+400 0	+0.63 0	+0.97 0	+1.55 0	+2.5 0	+4 0	+6.3 0	+9.7 0

mm		h																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14 <sup>1)</sup>	15 <sup>1)</sup>	16 <sup>1)</sup>	17	18
Over	Under	μm											mm						
-	3 <sup>1)</sup>	0 -0.8	0 -1.2	0 -2	0 -3	0 -4	0 -6	0 -10	0 -14	0 -25	0 -40	0 -60	0 -0.1	0 -0.14	0 -0.25	0 -0.4	0 -0.6		
3	6	0 -1	0 -1.5	0 -2.5	0 -4	0 -5	0 -8	0 -12	0 -18	0 -30	0 -48	0 -75	0 -0.12	0 -0.18	0 -0.3	0 -0.48	0 -0.75	0 -1.2	0 -1.8
6	10	0 -1	0 -1.5	0 -2.5	0 -4	0 -6	0 -9	0 -15	0 -22	0 -36	0 -58	0 -90	0 -0.15	0 -0.22	0 -0.36	0 -0.58	0 -0.9	0 -1.5	0 -2.2
10	18	0 -1.2	0 -2	0 -3	0 -5	0 -8	0 -11	0 -18	0 -27	0 -43	0 -70	0 -110	0 -0.18	0 -0.27	0 -0.43	0 -0.7	0 -1.1	0 -1.8	0 -2.7
18	30	0 -1.5	0 -2.5	0 -4	0 -6	0 -9	0 -13	0 -21	0 -33	0 -52	0 -84	0 -130	0 -0.21	0 -0.33	0 -0.52	0 -0.84	0 -1.3	0 -2.1	0 -3.3
30	50	0 -1.5	0 -2.5	0 -4	0 -7	0 -11	0 -16	0 -25	0 -39	0 -62	0 -100	0 -160	0 -0.25	0 -0.39	0 -0.62	0 -1	0 -1.6	0 -2.5	0 -3.9
50	80	0 -2	0 -3	0 -5	0 -8	0 -13	0 -19	0 -30	0 -46	0 -74	0 -120	0 -190	0 -0.3	0 -0.46	0 -0.74	0 -1.2	0 -1.9	0 -3	0 -4.6
80	120	0 -2.5	0 -4	0 -6	0 -10	0 -15	0 -22	0 -35	0 -54	0 -87	0 -140	0 -220	0 -0.35	0 -0.54	0 -0.87	0 -1.4	0 -2.2	0 -3.5	0 -5.4
120	180	0 -3.5	0 -5	0 -8	0 -12	0 -18	0 -25	0 -40	0 -63	0 -100	0 -160	0 -250	0 -0.4	0 -0.63	0 -1	0 -1.6	0 -2.5	0 -4	0 -6.3
180	250	0 -4.5	0 -7	0 -10	0 -14	0 -20	0 -29	0 -46	0 -72	0 -115	0 -185	0 -290	0 -0.46	0 -0.72	0 -1.15	0 -1.85	0 -2.9	0 -4.6	0 -7.2
250	315	0 -6	0 -8	0 -12	0 -16	0 -23	0 -32	0 -52	0 -81	0 -130	0 -210	0 -320	0 -0.52	0 -0.81	0 -1.3	0 -2.1	0 -3.2	0 -5.2	0 -8.1
315	400	0 -7	0 -9	0 -13	0 -18	0 -25	0 -36	0 -57	0 -89	0 -140	0 -230	0 -360	0 -0.57	0 -0.89	0 -1.4	0 -2.3	0 -3.6	0 -5.7	0 -8.9
400	500	0 -8	0 -10	0 -15	0 -20	0 -27	0 -40	0 -63	0 -97	0 -155	0 -250	0 -400	0 -0.63	0 -0.97	0 -1.55	0 -2.5	0 -4	0 -6.3	0 -9.7

BT  
SBT  
DAT  
CAT  
NT  
ISO  
HSK  
HSK-T  
VDI  
PSC  
SAF  
TAP  
ACCESSORIES  
BORING  
AID  
INSERT  
MILLING  
TURNING



# 刀具動平衡等級標準與要求

## STANDARDS AND REQUIREMENTS TOOL BALANCING

動平衡等級 Balance Grade		G0.4	G1	G2.5	G6.3	G16	G40	G100	G250	G630	G1600	G4000
Precision Required	exw(mm/s)	0.4	1	2.5	6.3	16	40	100	250	630	1600	4000
	exw(μm * rpm)	3820	9549	23875	60165	152800	382000	954900	2387500	6016500	15280000	38200000

動平衡級數設定是根據ISO-1940的標準，其計算公式如下：

Setting of the balance series is according to ISO-1940 standard. The formula as follows:

不平衡值計算：

Unbalance value calculation:

$$U = M \times e$$

$$U = \frac{G \times M}{n} \times 9549$$

U = 不平衡量 Unbalance(g-mm)

e = 偏心距離 Eccentric distance(mm)

M = 轉子重量 Poter weight(kg)

G = 不平衡值等級 Unbalance series

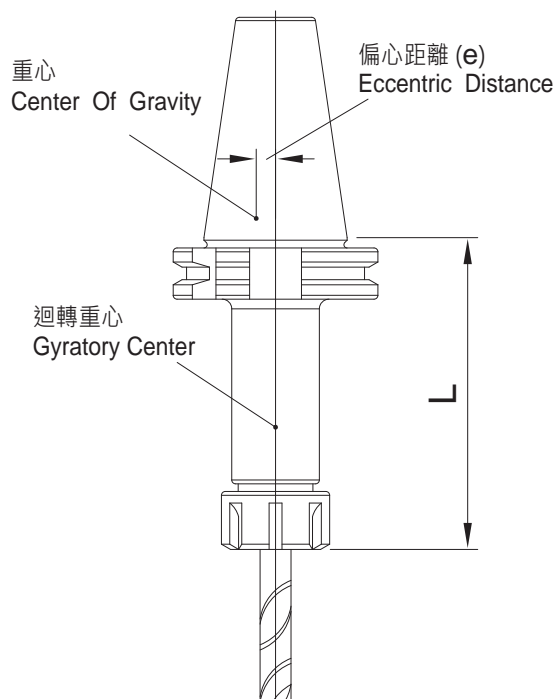
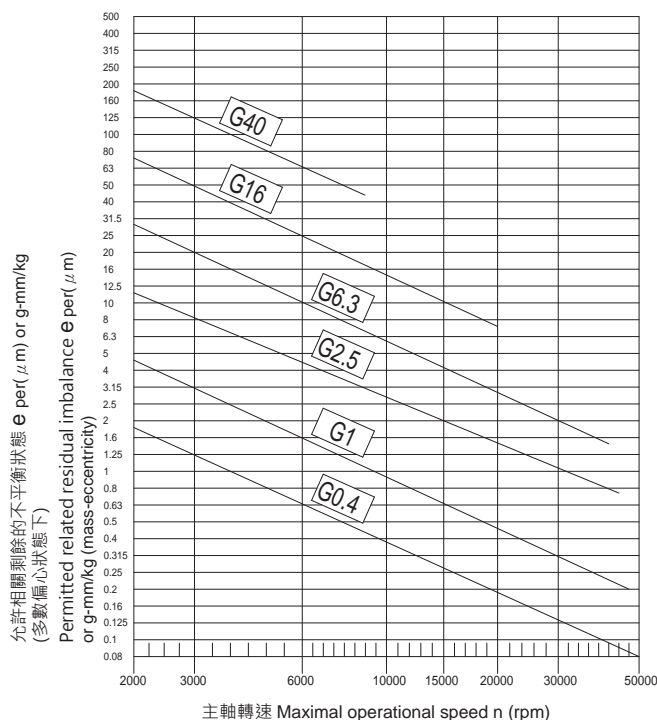
n = 轉速 (rpm)

9549=常數Constant

已知轉速、重量、與不平衡量可計算符合之動平衡等級：

Already known the speed, weight, and the unbalance amount. Be able to calculate the proper balance grade.

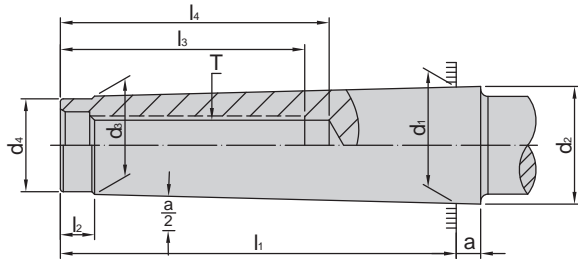
$$G = \frac{n \times U}{9549 \times M}$$



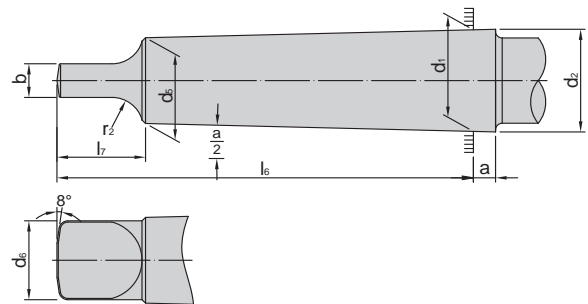


# 參考資料 REFERENCE DETAILS

## ▶ MTB



## ▶ MTA



DIN 228 FORM A <Drawing Thread Type>

MTB

規格 Spec.	a	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub> max.	T	l <sub>1</sub> max.	l <sub>2</sub>	l <sub>3</sub> min.	l <sub>4</sub> min.
2	5	17.78	18	14.6	14	3/8" 16W, M10 x 1.5P	64	5	24	31.5
3	5	23.825	24.1	19.8	19	1/2" 12W, M12 x 1.75P	81	7	24	33.5
4	6.5	31.267	31.6	25.9	25	5/8" 11W, M16 x 2.0P	102.5	9	32	42.5
5	6.5	44.399	44.7	37.6	35.7	1" 8W, M24 x 3.0P	129.5	10	40	52.5
6	8	63.348	63.8	53.9	51	1" 8W, M24 x 3.0P	182	16	47	61.5

DIN 228 FORM B <Tongue Type>

MTA

規格 Spec.	a	b <sub>h13</sub>	d <sub>5</sub>	d <sub>6</sub> max.	l <sub>6</sub> <sub>0-1</sub>	l <sub>7</sub> max.	r <sub>2</sub>	$\frac{\alpha}{2}$
2	5	6.3	14	13.5	75	16	6	1°25' 50"
3	5	7.9	19.1	18.5	94	20	7	1°26' 16"
4	6.5	11.9	25.2	24.5	117.5	24	8	1°29' 15"
5	6.5	15.9	36.5	35.7	149.5	29	10	1°30' 26"
6	8	19	52.4	51	210	40	13	1°29' 36"

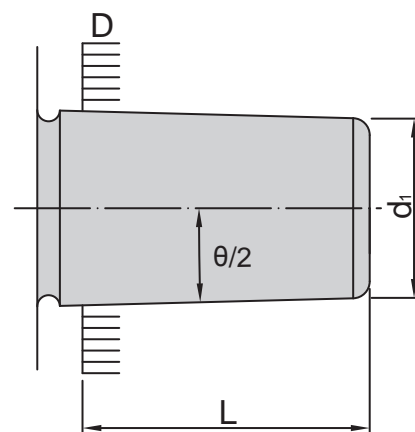
## JACOBS TAPER

規格 Spec.	θ/2 TAPER	D	d <sub>1</sub>	L
JT 2	2° 19'52"	14.199	12.386	22.225
JT33	1° 49'01"	15.850	14.237	25.400
JT 6	1° 29'10"	17.170	15.852	25.400
JT 3	1° 31'26"	20.599	18.951	30.956
JT 4	1° 29'59"	28.550	26.346	42.069
JT 5	1° 29'05"	35.890	33.422	47.625

## DIN 238

規格 Spec.	θ/2 TAPER	D	d <sub>1</sub>	L
B12	1° 25'43"	12.065	11.1	18.5
B16	1° 25'50"	15.733	14.5	24.0
B18	1° 25'50"	17.780	16.2	32.0

DRILL CHUCK HOLE TAPER SPECIFICATION

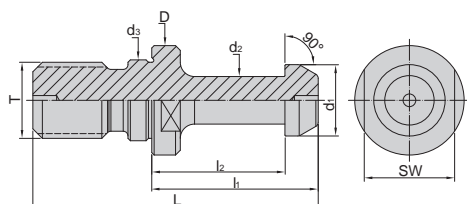


BT  
SBT  
DAT  
CAT  
NT  
ISO  
HSK  
HSK-T  
VDI  
PSC  
SAF  
TAP  
ACCESSORIES  
BORING  
AID  
INSERT  
MILLING  
TURNING

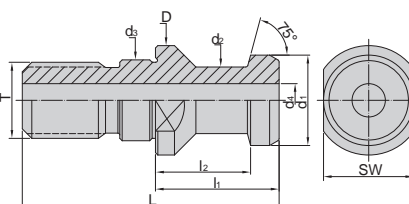


## 參考資料 REFERENCE DETAILS

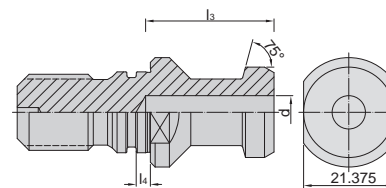
### ▶ MAS BT



### ▶ DIN 69872-A



### ▶ DIN 69872-B



#### MAS BT PULL STUDS SPECIFICATION

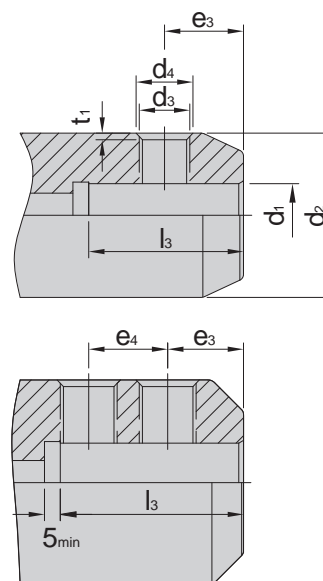
規格 Spec.	D 0 -0.2	d <sub>1</sub> 0 -0.1	d <sub>2</sub> 0 -0.1	d <sub>3</sub> h7	L	l <sub>1</sub> 0 -0.1	l <sub>2</sub> 0 -0.1	θ ±15°	SW 0 -0.35	T 6h	
BT30 - 45°	16.5	11	7	12.5	43	23	18	45°	13	M12 x 1.75P	P30T - 1
BT40 - 45°	23	15	10	17	60	35	28	45°	19	M16 x 2.0P	P40T - 1
BT50 - 45°	38	23	17	25	85	45	35	45°	30	M24 x 3.0P	P50T - 1
BT30 - 60°	16.5	11	7	12.5	43	23	18	60°	13	M12 x 1.75P	P30T - 2
BT40 - 60°	23	15	10	17	60	35	28	60°	19	M16 x 2.0P	P40T - 2
BT50 - 60°	38	23	17	25	85	45	35	60°	30	M24 x 3.0P	P50T - 2

#### DIN 69 872 A & B PULL STUDS SPECIFICATION

規格 Spec.	D 0 -0.2	d <sub>1</sub> f7	d <sub>2</sub> 0 -0.1	d <sub>3</sub> f7	d <sub>4</sub> +0.1 0	L	l <sub>1</sub> ±0.1	l <sub>2</sub> ±0.1	l <sub>3</sub> +1 0	l <sub>4</sub> 0 -0.1	SW 0 -0.1	T
DAT30 - A	17	13	9	13	-	44	24	19	-	-	14	M12 x 1.75P
DAT40 - A	23	19	14	17	7	54	26	20			19	M16 x 2.0P
DAT50 - A	36	28	21	25	11.5	74	34	25			30	M24 x 3.0P
DAT30 - B	17	13	9	13	-	44	24	19	2.3	14	M12 x 1.75P	
DAT40 - B	23	19	14	17	7	54	26	20	27	3.0	19	M16 x 2.0P
DAT50 - B	36	28	21	25	11.5	74	34	25	37	4.5	30	M24 x 3.0P

#### DIN 1835 - B END MILL HOLDER SPECIFICATION

規格 Spec.	d <sub>1</sub> H5	d <sub>2</sub> 0 -0.1	d <sub>3</sub> 6H	d <sub>4</sub> Min	l <sub>3</sub> ±1	e <sub>3</sub> 0 -0.1	e <sub>4</sub> ±0.5	t <sub>1</sub>
6	6	25	M6	8	35	18	-	1
8	8	28	M8	10				1.3
10	10	35	M10	12	1.5			
12	12	42	M12	14	1.6			
16	16	48	M14	16	1.7			
20	20	52	M16	18	49	25		2.1
25	25	65	M18	20	54	24		25
32	32	72	M20	22	58			
40	40	90	M24	26	68	30	32	2.2



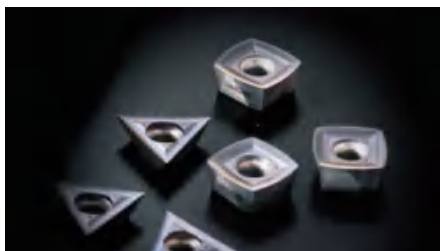


# 產品導覽

PRODUCTS INDEX



刀片編碼 B484~B487  
INSERT CODING



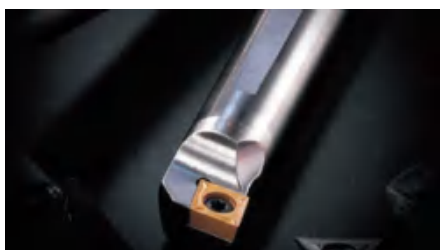
刀片介紹 B488~B502  
INSERT INTRODUCTION



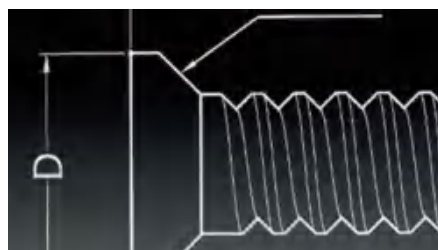
刀片總覽 B503~B531  
INSERT OVERVIEW



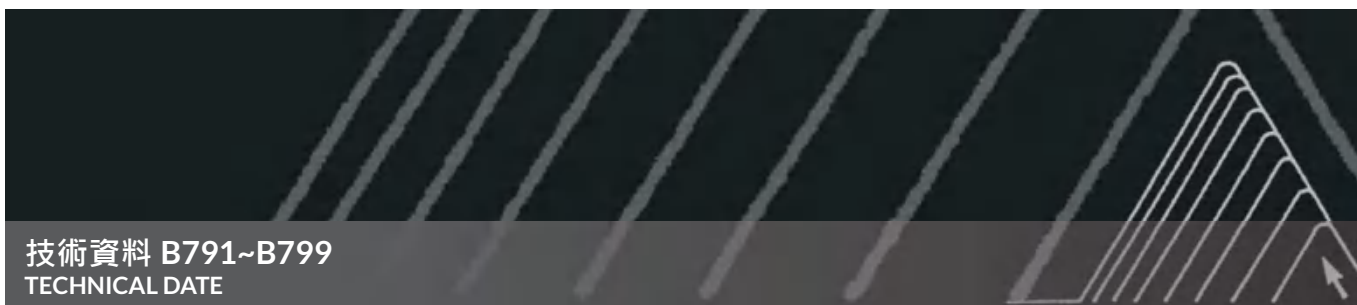
銑削刀具 B532~B728  
MILLING TOOL



車刀刀具 B729~B781  
TURNING TOOL



刀具零件表 B782~B790  
CUTTING TOOL SPARE PARTS

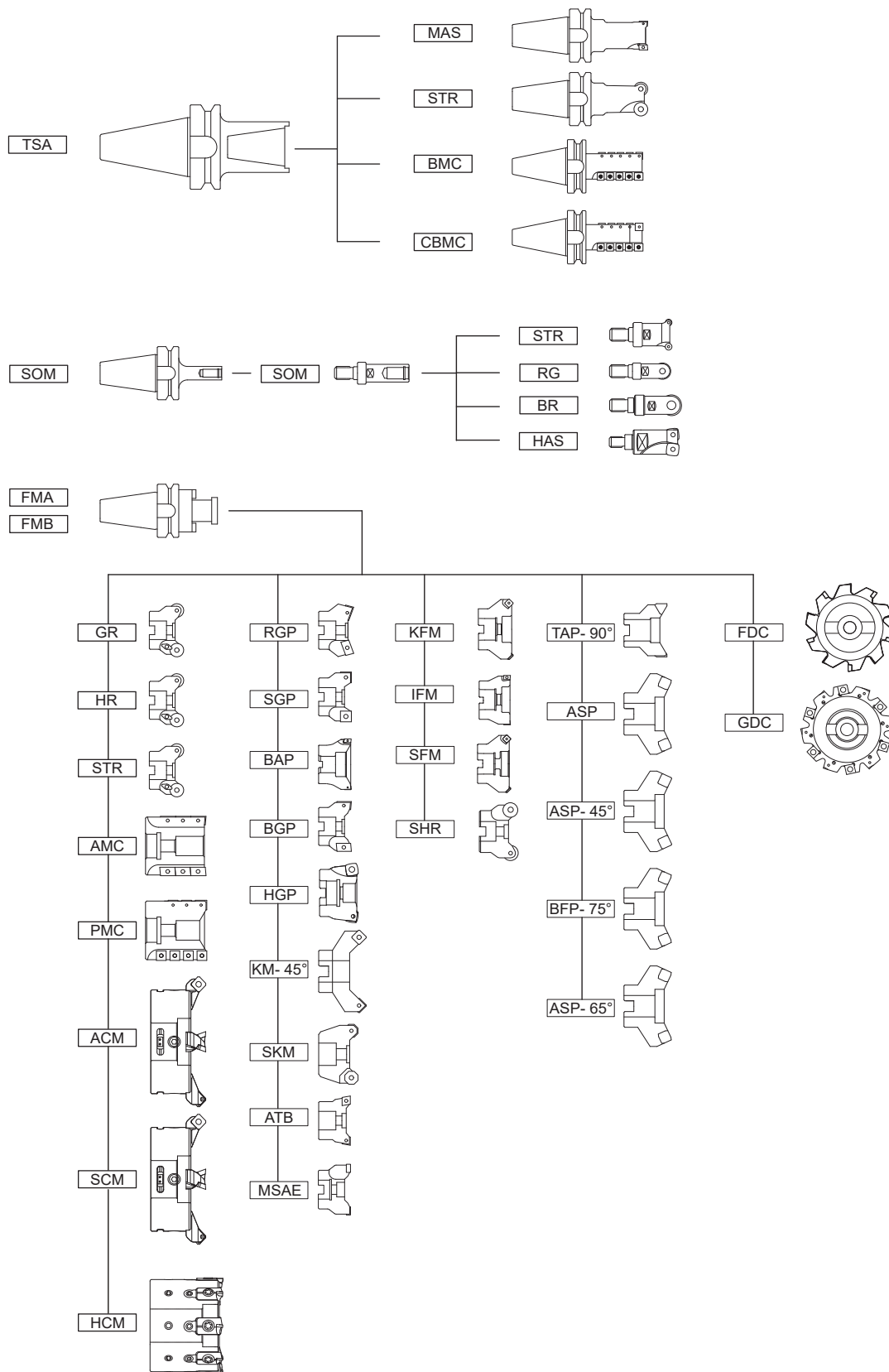


技術資料 B791~B799  
TECHNICAL DATE



# 刀桿與刀具組合圖示

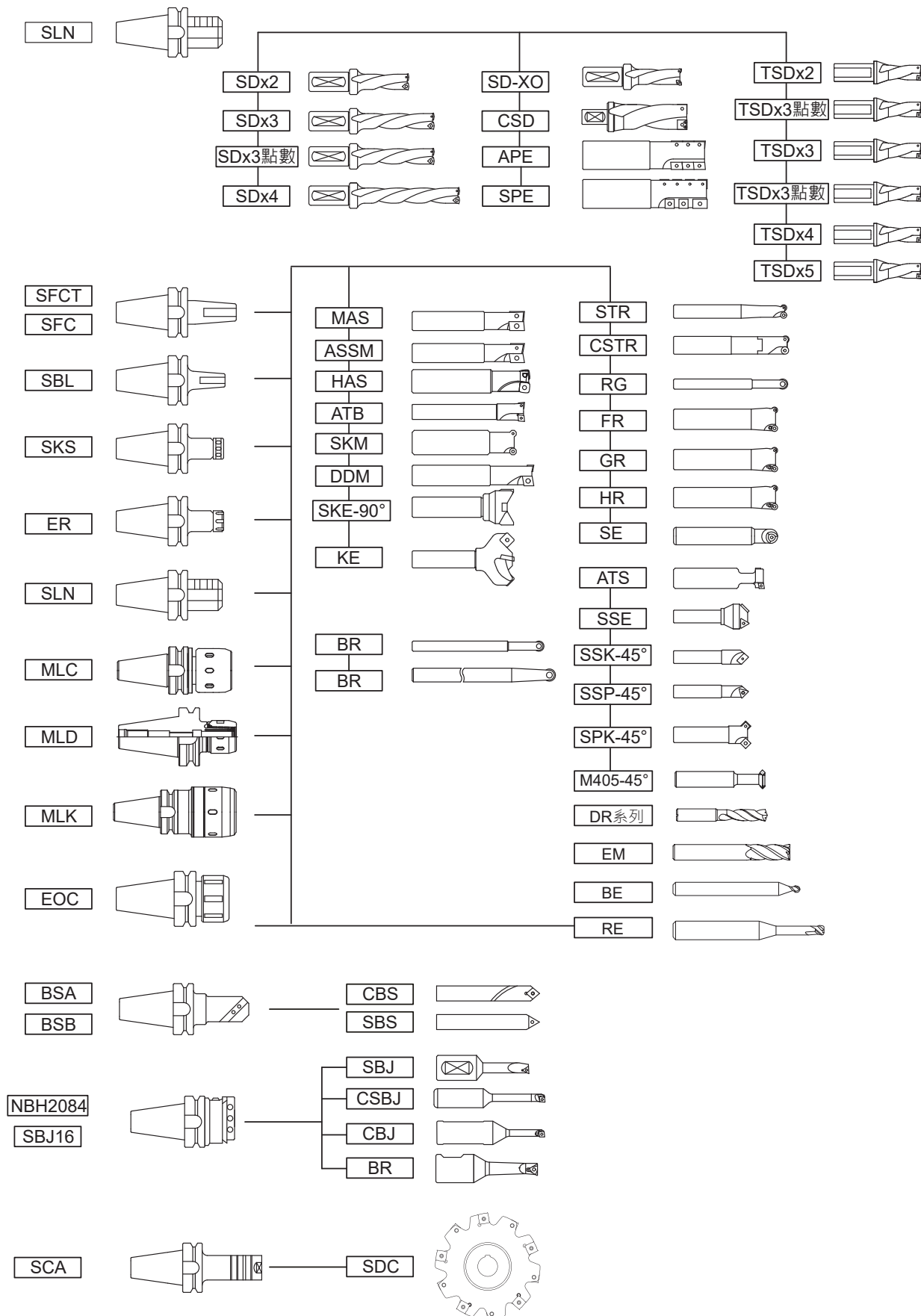
## CHUCK AND TOOLS COMBINATION ICON





# 刀桿與刀具組合圖示

## CHUCK AND TOOLS COMBINATION ICON





# 銑削刀片規格介紹

## DESIGNATION OF MILLING INSERTS

記號	孔	孔的形狀	斷屑槽	形狀
N	無孔	—	無	
R			單面	
F			兩面	
W	有孔	40°~60°	無	
T			單面	
Q	有孔	40°~60°	無	
U			兩面	
B	有孔	70°~90°	無	
H			單面	
C	有孔	70°~90°	無	
J			兩面	
X	—	—	—	—

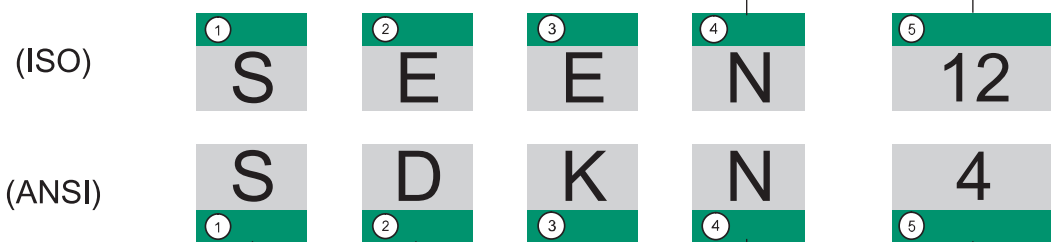
4 斷屑槽.螺絲孔記號

形狀	切刃長( $l$ )
S	
T	
R	
H	
A	

5 切刃長記號

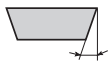
記號	厚度 (mm)
02	2.38
03	3.18
T3	3.97
04	4.76
06	6.35

6 厚度記號



1 形狀記號			
記號	形狀	刀尖角	圖形
H	正六角形	120°	
S	正方形	90°	
T	正三角形	60°	
C	菱形	80°	
E		75°	
G		70°	
L	長方形	90°	
A	平行四邊形	85°	
R	圓形	—	
W	六角形	80°	
	修光刃刀片	—	
X	特殊形狀	其他	
Y	特殊形狀	35°	
Z	特殊形狀		

2 離隙角記號	
記號	離隙角
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
O	其他
X	其他
S	其他



3 精度記號 (mm)			
記號	刀尖位置容許公差	厚度容許公差	內接圓直徑容許公差
A	± 0.005	± 0.025	± 0.025
C	± 0.013	± 0.025	± 0.025
E	± 0.025	± 0.025	± 0.025
G	± 0.025	± 0.13	± 0.025
H	± 0.013	± 0.025	± 0.013
K	± 0.013	± 0.025	± 0.05 ~ ± 0.13
M	± 0.08 ~ ± 0.18	± 0.13	± 0.05 ~ ± 0.13
N	± 0.08 ~ ± 0.18	± 0.025	± 0.05 ~ ± 0.13

基準 內接圓	內接圓直徑( $\phi d$ )容許公差		刀尖高(mm)容許公差	
	J.K.L.M.N (級)	U (級)	M.N (級)	U (級)
6.35	± 0.05	± 0.08	± 0.08	± 0.13
9.525				
12.7	± 0.08	± 0.13	± 0.13	± 0.2
15.875				
19.05				
25.4	± 0.13	± 0.25	± 0.18	± 0.38

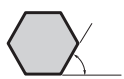
INSERT



# 銑削刀片規格介紹

## DESIGNATION OF MILLING INSERTS

記號	切削角
A	45°
D	60°
E	75°
F	85°
H	87°
P	90°
Z	特殊



7 切削角記號

記號	離隙角
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
Z	特殊



8 離隙角記號

記號	切削刃狀態	形狀
F	大銳角 削角	
E	圓切 削角	
T	雙切削 導角	
S	導角及 圓切削角	
P	雙倒角及 圓切削角	

9 刀邊處理

記號	方向
R	右
L	左
N	中間

10 切削方向

記號	斷屑槽等級
R01	粗切削
M01	中切削
F01	精切削

11 特別記號

6 03 7 A 8 G 9 T 10 N - 11 M01

6 2 7 Z 9 T 10 N 11 12

4 斷屑槽.螺絲孔記號		
記號	斷屑槽狀況	孔
A	無	有孔
F	雙面	無孔
G	雙面	有孔
M	單面	有孔
N	無	無孔
W	無	無孔

5 內接圓記號		
記號	內接圓直徑(mm)	
英制	3	9.525
	4	12.7
	5	15.875
	6	19.05

6 厚度記號		
記號	厚度(mm)	
英制	2	3.18
	3	4.76
	4	6.35
	6	9.52

7 刀尖代號	
記號	刀尖圓弧半徑(mm)
1	0.4 (0.397)
2	0.8 (0.794)
3	1.2 (1.191)
4	1.6 (1.588)
5	2.0 (1.984)
6	2.4 (2.381)

INSERT



# 車削刀片規格介紹

## DESIGNATION OF TURNING INSERTS

記號	形狀	頂角	圖形
H	正六角形	120°	
O	正八角形	135°	
P	正五角形	108°	
S	正方形	90°	
T	正三角形	60°	
C	菱形	80°	
D		55°	
E		75°	
F		50°	
M		86°	
V		35°	
Y	多角形	25°	
W	六角形	80°	
L	長方形	90°	
A	平行四邊形	85°	
B		82°	
K		55°	
R	圓形	—	

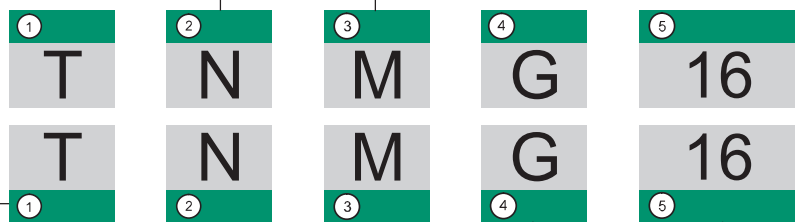
**1 形狀記號**

記號	離隙角
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
O	其他

**2 離隙角記號**

記號 (級)	容許公差 (mm)		
	高度 (mm)	厚度 (mm)	內接圓直徑 (Φd)
A	± 0.005	± 0.025	± 0.025
F	± 0.005	± 0.025	± 0.013
C	± 0.013	± 0.025	± 0.025
H	± 0.013	± 0.025	± 0.013
E	± 0.025	± 0.025	± 0.025
G	± 0.025	± 0.13	± 0.025
J	± 0.005	± 0.025	± 0.005 ~ ± 0.13
K	± 0.013	± 0.025	± 0.05 ~ ± 0.13
L	± 0.025	± 0.025	± 0.05 ~ ± 0.13
M	± 0.08 ~ ± 0.18	± 0.13	± 0.05 ~ ± 0.13
N	± 0.08 ~ ± 0.18	± 0.025	± 0.05 ~ ± 0.13
U	± 0.13 ~ ± 0.38	± 0.13	± 0.08 ~ ± 0.25

**3 等級記號**



4 螺絲孔記號			
記號	孔	孔的形狀	斷屑槽 形狀
N	無孔	—	無
R			單面
F	有孔	有孔	兩面
A			無
M	有孔	有孔	單面
G			兩面
W	有孔	40°~60°	無
T			單面
Q	有孔	40°~60°	有孔
U			兩面
B	有孔	70°~90°	無
H			單面
C	有孔	70°~90°	無
J			兩面
X	—	—	—

5 長度記號																
* (R)		S		C		W		T		D		V		K		內接圓直徑
記號	寸法	記號	寸法	記號	寸法	記號	寸法	記號	寸法	記號	寸法	記號	寸法	記號	寸法	
		03	3.97	03	4.0			06	6.9	04	4.8					3.97
		04	4.76	04	4.8			08	8.2	05	5.8					4.76
*05	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5
		05	5.56	05	5.6	03	3.8	09	9.6	06	6.8					5.56
*06	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6
		06	6.35	06	6.5	04	4.3	11	11	07	7.8	11	11.2			6.35
		07	7.94	08	8.1	05	5.4	13	13.8	09	9.7					7.94
*08	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8
09	9.525	09	9.525	09	9.7	06	6.5	16	16.5	11	11.6	16	16.6	16	19.7	9.525
*10	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10
*12	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12
12	12.7	12	12.7	12	12.9	08	8.7	22	22	15	15.5	22	22.1			12.7
15	15.875	15	15.875	16	16.1	10	10.9	27	27.5	19	19.4					15.875
*16	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16
19	19.05	19	19.05	19	19.3	13	13	33	33	23	23.3					19.05
*20	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20
		22	22.225	22	22.6			38	38.5	27	27.1					22.225
*25	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25
25	25.4	25	25.4	25	25.8			44	44	31	31					25.4
31	31.75	31	31.75	32	32.2			55	55	38	38.8					31.75
*32	32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32

INSERT

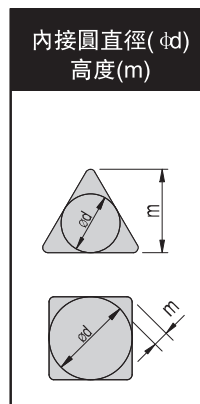


# 車削刀片規格介紹

## DESIGNATION OF TURNING INSERTS

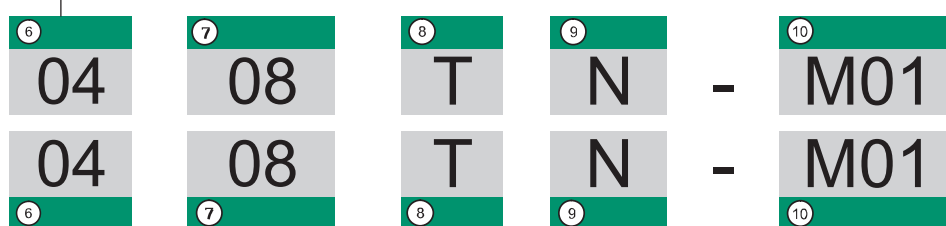
(單位: mm)

基準 內接圓	內接圓直徑( $\phi d$ )容許公差		高度(m)容許公差		適用形狀
	J.K.L.M.N (級)	U (級)	J.K.L.M.N (級)	U (級)	
6.35	± 0.05	± 0.08	± 0.08	± 0.13	H  W
9.525					
12.7	± 0.08	± 0.13	± 0.13	± 0.2	O  R
15.875					
19.05	± 0.1	± 0.18	± 0.15	± 0.27	P
25.4					
31.75	± 0.13	± 0.25	± 0.18	± 0.38	S
32					
	± 0.15	± 0.25	± 0.2	± 0.38	T
	± 0.15	± 0.25	± 0.2	± 0.38	C、E、M
基準 內接圓	內接圓直徑( $\phi d$ )容許公差		高度(m)容許公差		適用形狀
6.35	± 0.05		± 0.11		
9.525	± 0.05		± 0.11		
12.7	± 0.08		± 0.15		
15.875	± 0.1		± 0.18		V
19.05	± 0.1		± 0.18		
6.35	± 0.05		± 0.16		Y
9.525	± 0.05		± 0.16		



記號	厚度 (mm)
01	1.59
02	2.38
T2	2.78
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35
07	7.94
09	9.52

⑥ 厚度記號



⑦ r 角記號

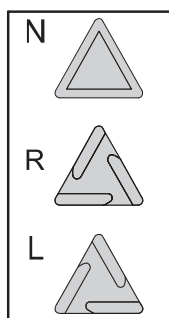
記號	刀尖圓弧半徑
00	0.03
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
28	2.8
32	3.2

⑧ 刀邊處理

記號	切削刀的狀態	形狀
F	大銳角 削角	
E	圓切 削角	
W.T	雙切削 導角	
S	導角及 圓切 削角	

⑨ 切削方向

記號	方向
R	右
L	左
N	中間



⑩ 特別記號

記號	斷屑槽等級
R01	粗切削
M01	中切削
F01	精切削

INSERT



# 切削範圍對照表

## CUTTING RANGE

ISO 分類	Material 加工材質	Material Strength 工件抗拉強度	Uncoated	TiN	Uncoated				TiCN	AlCrN + TiAlN	TiCN		AlCrN	AlCrN + TiAlN	TiAlN	AlCrN		
			SP30	STE30	TSK10	TSP20	TSP25	RM1205	OM1115	OM2010	OM2115	RM315	RM425	OM2040	OM4010	OM4025	OM4030 RM4030	OM4040
			外觀顏色 Surface color	銀色 Silver	金黃色 Golden yellow	銀色 Silver				金黃色 Golden yellow	鐵灰色 Iron gray	金黃色 Golden yellow	鐵灰色 Iron gray		藍、紫色 Blue · Purple	鐵灰色 Iron gray	藍、紫色 Blue · Purple	棕色 Brown
P	Unalloyed Steels 非鐵合金鋼類	P10 P20 P30 P40 P50																
	Alloyed Steels 合金鋼類																	
M	Stainless Steels 不鏽鋼類	M10 M20 M30 M40																
K	Cast Iron 鑄類	K01 K10 K20 K30 K40																
N	Aluminium & Al 鋁及鋁合金	N10 N20 N30 N40																
S	Refractory Alloys 高溫合金	S10 S20 S30 S40																
H	Hard Material 高硬度材	H10 H20 H30 H40																

INSERT





# 切削範圍對照表

## CUTTING RANGE

ISO 分類	Material 加工材質	Material Strength 工件抗拉強度	TiAlN		Uncoated	TiN		AlTiN	DLC	Uncoated		TiCN	Uncoated		
			RM4010	RM4025	RM5005	PTE30	WTE25	WTL20	OM5060	OM5005	WCM15	OM1215	GH1	GH05	WSK10
			外觀顏色 Surface color	鐵灰色 Iron gray	藍、紫色 Blue、Purple	銀白色 Iron gray	金黃色 Golden yellow			彩色 Color	銀白色 Iron gray	棕色 Brown	金黃色 Golden yellow	銀白色 Iron gray	
P	Unalloyed Steels 非鐵合金鋼類	P10 P20 P30 P40 P50													
	Alloyed Steels 合金鋼類														
M	Stainless Steels 不鏽鋼類	M10 M20 M30 M40													
K	Cast Iron 鑄類	K01 K10 K20 K30 K40													
N	Aluminium & Al 鋁及鋁合金	N10 N20 N30 N40													
S	Refractory Alloys 高溫合金	S10 S20 S30 S40													
H	Hard Material 高硬度材	H10 H20 H30 H40													

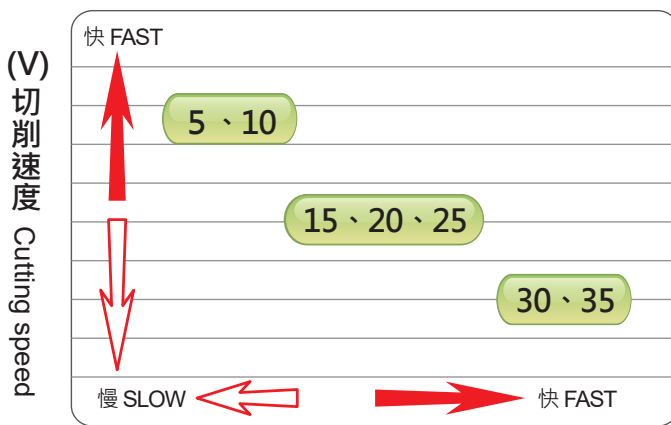
INSERT



# 精密刀片材質列表 PRECISION INSERT MATERIAL

精切削 <b>F01</b> Fine Cutting	中切削 <b>M01</b> Middle Cutting	中切削 <b>HM</b> Middle Cutting	中切削 <b>AR</b> Middle Cutting	中切削 <b>PG</b> Middle Cutting
中切削 <b>GM2</b> Middle Cutting	中切削 <b>GS2</b> Middle Cutting	精切削 <b>-701</b> Fine Cutting	粗切削 <b>R01</b> Rough Cutting	

## 材質與速度關係圖 Cutting Relative chart



(F) 進給速度 FEED RATE

### ! 慎選 Consideration!

加工速度並決定適合的切削進給量，避免超速過載！  
Cutting speed depends on suitable feed rate and avoid overloaded cutting!

## 斷屑槽示意表 Cutting Chipbreaker

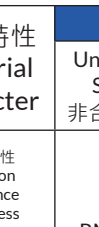
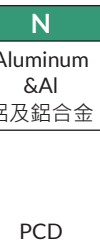
斷屑槽程度 Breaker degree groove		切削深度 Depth of cut (mm)	<b>R01</b> 斷續・不良的切削狀況 Not continuous cutting
粗切削 Rough cutting	<b>R01</b>		<b>M01</b> 一般的切削狀況 Normal cutting
中切削 Middle cutting	<b>M01</b>		<b>F01</b> 穩定・良好的切削狀況 Stable & good cutting
精切削 Fine cutting	<b>F01</b>		進給速率 (mm/r) Feed rate

INSERT



# 切削範圍對照表

## CUTTING RANGE

類別 class	材質特性 Material character	P	M	K	N	S	H
		Unalloyed Steels 非合金鋼類	Alloyed Steels 合金鋼類	Stainless Steels 不鏽鋼類	Cast Iron 鑄鐵類	Aluminum &Al 鋁及鋁合金	Refractory Alloys 高溫合金
外徑 outer diameter	 Turning 耐磨韌性 abrasion resistance toughness ↕ 韌性 toughness / ductile	RM4010	RM4010	RM4010	RM4010	PCD	CBN250
		RM425	RM425	RM425	RM315	GH05	RM4010
內徑 inner diameter	 Boring 耐磨韌性 abrasion resistance toughness ↕ 韌性 toughness / ductile	RM1205	RM1205	RM1205	RM1205	PCD	CBN250
		RM4010	RM4010	RM4010	RM4010	GH05	RM4015
車牙 turning thread	 Threading 耐磨韌性 abrasion resistance toughness ↕ 韌性 toughness / ductile	RM425	RM425	-	RM425	-	-
切斷 cutting off	 Parting-off 耐磨韌性 abrasion resistance toughness ↕ 韌性 toughness / ductile	RM4010	RM4010	OM4025	OM4025	OM5005	-
		OM4010	OM4010				
切槽 cutting groove	 Grooving 耐磨韌性 abrasion resistance toughness ↕ 韌性 toughness / ductile	OM4025	OM4025	OM4025	OM4025	-	OM4025
		RM4030	RM4030	RM4030			
鑽孔 Drilling	 Drilling 耐磨韌性 abrasion resistance toughness ↕ 韌性 toughness / ductile	RM3130	RM3130	RM3130	RM3130	RM5005	-
		RM4025	RM4025	RM4025	RM4025	RM5060	PTE30
銑削 Milling	 Milling 耐磨韌性 abrasion resistance toughness ↕ 韌性 toughness / ductile	OM4010	OM4010	OM4010	RM3130	PCD	CBN250
		OM4025	OM4025	OM4025		OM5005	CBN500
		RM1230	RM1230	WTL10		RM5005	OM4010
		RM1205	RM1205	RM4010		GH1	
		RM1215	RM1215	RM4130		GH05	
		RM4010	RM4010	RM4030			
		RM4130	RM4130	RM1215			
		RM4030	RM4030				
		PTE30	PTE30				

INSERT



TiAlN  
MICROGRAIN

Physical Vapor Deposition: 物理氣相沉積

耐熱性優秀的 3~7μm 鍍層而形成的高質量、高性能的捨棄式刀片的主力材質，廣泛適用於鋼、鑄鐵、難切削的高速、高效率加工。

Coating thickness 3~7 μm, with good heat resistance, best quality & high performance, is a main coating for supplemental inserts. Widely use on steel, cast iron and hardened cutting, high speed and high efficiency cutting.

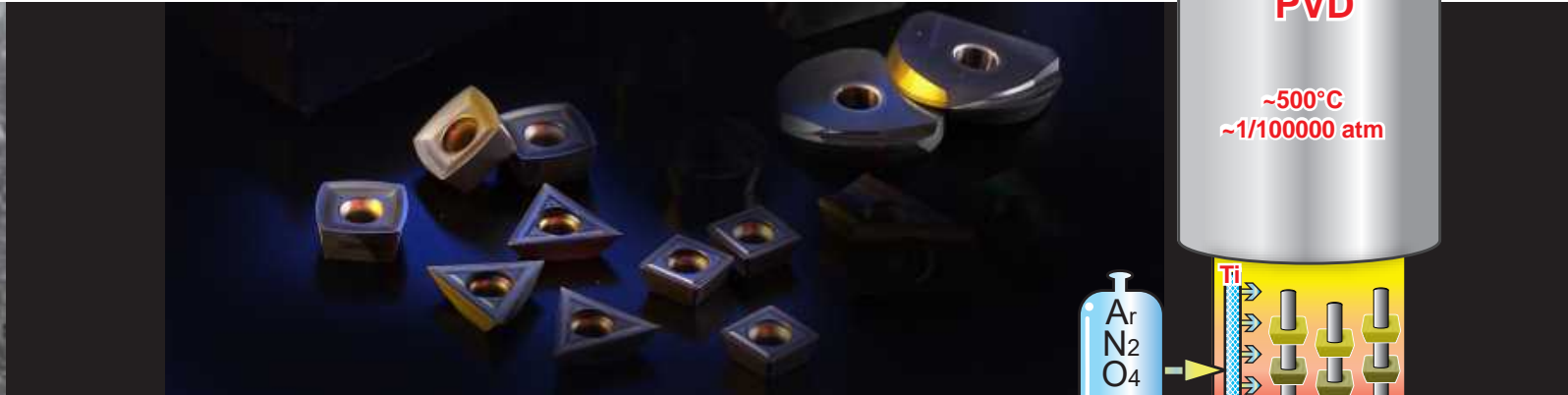
被加工材質 Machining Materials	ISO 範圍 ISO scope	材質 Grade	顏色 Color	硬度 (Hv) Hardness	承受溫度 (攝氏) Withstanding Temperature(°C)	主要成份 composition	切削速度 Vc(m/min)	特點 Features
P 鋼 Alloyed Steels	K10~K20	OM4010	鐵灰色 Iron Grey	3300	>1100	AlCrN	150~300	在超微粒底材表面鍍上耐溶著性、抗氧化性佳的鍍層，適合加工合金鋼，具有高穩定性及壽命長的特性。On Ultra-micro grain substrate, layer coated with solvent resistance and anti-oxidation. Use on alloy steel, is more stable and extended life.
	K10~K20	OM4025	藍紫色 Blue purple	3300	900	TiAlN	150~250	
	K10~K20	OM4035	金黃色 Gold yellow	3300	900	TiAlN+TiN	100~220	
	P15~P25	RM4010	藍紫色 Blue purple	3300	900	TiAlN	150~250	
	M15~M25	RM4030	紅銅色 Red copper	3300	1100	AlTiN	100~200	
	P15~P25	PTE30	金黃色 Gold yellow	3300	900	TiAlN+TiN	150~250	
M 不鏽鋼 Stainless Steels	K10~K20	OM4010	鐵灰色 Iron Grey	3300	>1100	AlCrN	100~220	在超微粒底材表面鍍上耐溶著性、抗氧化性佳的鍍層，適合加工合金鋼及不鏽鋼等難切削材之加工。On Ultra-micro grain substrate, layer coated with solvent resistance and anti-oxidation. Use on cast iron & Spheroidal Graphite Cast Iron with high efficiency machining.
	K10~K20	OM4025		3300	900	TiAlN	100~200	
S 高溫合金 Refractory Alloys	K10~K20	OM4010	鐵灰色 Iron Grey	3300	>1100	AlCrN	20~40	在超微粒底材表面鍍上耐溶著性、抗氧化性佳的鍍層，適合加工高溫合金，具有高穩定性及壽命長的特性。On Ultra-micro grain substrate, layer coated with solvent resistance and anti-oxidation. Use on cast iron & Spheroidal Graphite Cast Iron with high efficiency machining.
H 高硬度材 質 Hard Material	K10~K20	OM4010	鐵灰色 Iron Grey	3300	>1100	AlCrN	50~100	在超微粒底材表面鍍上耐溶著性、抗氧化性佳的鍍層，適合加工高硬鋼材，具有高穩定性及壽命長的特性。On Ultra-micro grain substrate, layer coated with solvent resistance and anti-oxidation. Use on cast iron & Spheroidal Graphite Cast Iron with high efficiency machining.

INSERT



# 鍍層等級 - PVD

## COATING GRADES-PVD



### Physical Vapor Deposition: 物理氣相沉積

在 PVD 鍍層處理中，通過金屬蒸汽在刀片表面上冷凝而形成。PVD 的工作原理與濕空氣在冷路面上冷凝繼而在路面上形成冰霜的原理相同。PVD 的形成溫度比 CVD 更低。通常，PVD 的處理溫度為大約 500°C。

In the PVD coating process, by metal vapor condensing on the surface of the insert is formed. The same principle works with PVD humid air condensing on the cold pavement and then formed on the road surface frost. PVD formation temperature is lower than CVD. Typically, PVD processing temperature is about 500°C.

### 車削 Turning

被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
P 鋼	K10~K20	OM4010		
	K10~K20	OM4025		
	K10~K20	OM4035		
	P15~P25	RM4130		
	M15~M25	RM4010		
	P15~P25			RM4030
M 不鏽鋼	K10~K20	PTE30		
	K10~K20	OM4010		
K 鑄鐵	K15~K25	OM4025		
S 高溫合金	K10~K20	OM4010		
H 高硬度 材質	K10~K20	OM4010		

### 銑削 Milling

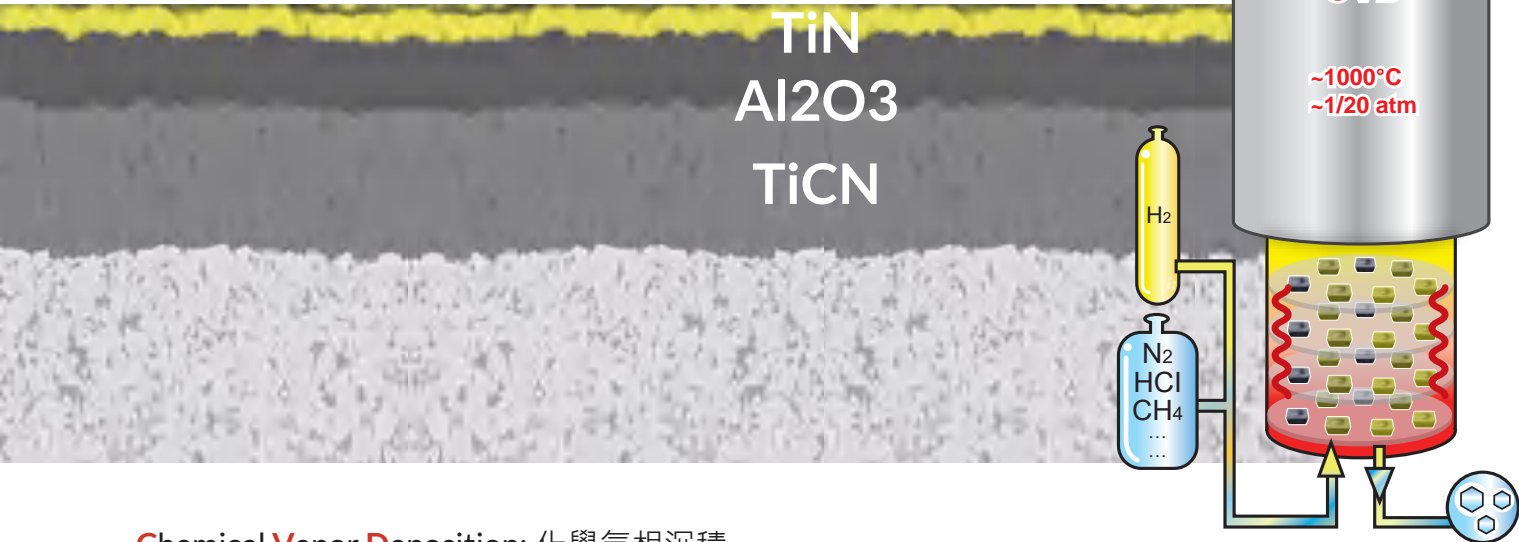
被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
P 鋼	K10~K20	OM4010		
	K10~K20	OM4025		
	K10~K20			
	K10~K20	OM4035		
	K10~K20	RM4130		
	P15~P25	RM4010		
	M15~M25			RM4030
	P15~P25		PTE30	
M 不鏽鋼	K10~K20	OM4010		
	K10~K20	OM4025		
K 鑄鐵	K15~K25		OM4030	
S 高溫合金	K10~K20	OM4010		
H 高硬度 材質	K10~K20	OM4010		

INSERT



# 鍍層等級 - CVD

## COATING GRADES-CVD



### Chemical Vapor Deposition: 化學氣相沉積

鍍層具有優秀的耐磨損性、耐熱性、及鍍層膜黏著力優秀的多層鍍層膜而形成的高品質、高性能的捨棄式主力刀片材質，廣泛適用於鋼、鑄鐵、難削材的高速、高效率加工。

Excellent abrasion, heat resistance and good adhesion multi-layer coating CVD with best quality and high performance, is a main coating for supplemental inserts. Widely use on steel, cast iron and high speed and high efficiency processing.

被加工材質 Machining Materials	ISO 範圍 ISO scope	材質 Grade	顏色 Color	硬度 (Hv) Hardness	摩擦係數 Friction Coefficient	主要成份 composition	切削速度 cutting speed Vc(m/min)	特點 Features
P 鋼	P15~P35	OM1115	金黃色 Golden yellow	2000	0.4	MT-Ti(CN)+Al <sub>2</sub> O <sub>3</sub> +TiN	60~320	採用特殊專用的底材，提高了耐磨性及耐崩損性。 Adopt the special base material for greater wear & abrasion resistance
	P25~P40	OM2115	金黃色 Golden yellow	2000	0.4	MT-Ti(CN)+Al <sub>2</sub> O <sub>3</sub> +TiN	160~280	適用於合金鋼及不鏽鋼類的粗、中加工。 For use on alloyed steel and stainless steel and for rough machining & middle machining.
	P15~P25	RM425	鐵灰色 Iron Grey	2000	0.35	MT-Ti(CN)+Al <sub>2</sub> O <sub>3</sub> +TiN	170~460	刃口衝擊性和耐磨性增強，進而提高刃口的破損力。 Increase the strength of flute and greater abrasion resistance.
M 不鏽鋼	P15~P35	OM1115	金黃色 Golden yellow	2000	0.4	MT-Ti(CN)+Al <sub>2</sub> O <sub>3</sub> +TiN	50~210	採用特殊專用的底材，提高了耐磨性及耐崩損性。 Adopt the special base material for greater wear & abrasion resistance
	P25~P35	OM2115	金黃色 Golden yellow	2000	0.4	MT-Ti(CN)+Al <sub>2</sub> O <sub>3</sub> +TiN	100~220	適用於合金鋼及不鏽鋼類的粗、中加工。 For use on alloyed steel and stainless steel and for rough machining & middle machining.
	P15~P25	RM425	鐵灰色 Iron Grey	2000	0.35	MT-Ti(CN)+Al <sub>2</sub> O <sub>3</sub> +TiN	70~180	刃口衝擊性和耐磨性增強，進而提高刃口的破損力。 Increase the strength of flute and greater abrasion resistance.
K 鑄鐵	K10~K20	RM315	鐵灰色 Iron Grey	2000	0.3	MT-Ti(CN)+Al <sub>2</sub> O <sub>3</sub>	190~410	適用於鑄鐵重切削加工，可承受輕微的輕切削加工。 Use on heavy cutting for cast iron, can bear light cutting.

### 車削 Turning

被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
P 鋼	P15~P25		RM425	
M 不鏽鋼	P15~P25		RM425	
K 鑄鐵	K10~K20			RM315

### 銑削 Milling

被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
P 鋼	P15~P35	OM1115		
	P25~P40	OM2115		
M 不鏽鋼	P15~P35		OM1115	
	P25~P35		OM2115	

INSERT



# RC Coating

## MICROGRAIN (HF)K10,C3

### Rainbow Coating: 彩虹鍍層

鍍層是一種碳元素構成、性質上和鑽石類似，同時又具有石墨原子組成結構的物質。具有高硬度、高彈性、耐磨損性以及良好的低磨擦係數特性，適合作為耐磨鍍層。適用於鋁、銅、塑膠及非鐵金屬材料加工。

The coating is composed with carbon element, similar to diamond-like, also graphite atom composed. High rigidity, More flexibility, great abrasion resistance and lower friction coefficient, suitable for coating with abrasion resistance.

For use on Aluminum / copper / plastic and non-iron metal material processing.

材質 Material	工件切削底面 Cutting bottom of workpiece	工件切削側面 Cutting side of workpiece	顯微鏡 x20 倍 microscope	比較結果 Compared result
OM5005- 未鍍層 OM5005-without coating				表面平坦度★★ Surface flatness 抗沾黏★★★ anti-adhesion
OM5060- 鍍層 OM5060-coating				表面平坦度★★★★ Surface flatness 抗沾黏★★★★ anti-adhesion

被加工材質 Machining Materials	ISO 範圍 ISO scope	材質 Grade	顏色 Color	硬度 (Hv)	摩擦係數 (Friction Coefficient)	最高使用溫度 (°C)	切削速度 Vc(m/min)	特點 Features
N 鋁及鋁合金 Aluminum & Al	K10~K20	OM5060	彩色 Color	2000~3000	0.1~0.15	300°~400°	500~800	低磨擦係數、耐磨損、抗沾黏、表面平滑。 low friction coefficient abrasion resistance anti-adhesion surface smooth
	K10~K20	RM5060	彩色 Color	2000~3000	0.1~0.15	300°~400°	500~700	

### 車削 Turning

被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
N 鋁及鋁合金 Aluminum & Al	K10~K20	OM5060		
	K10~K20	RM5060		

### 銑削 Milling

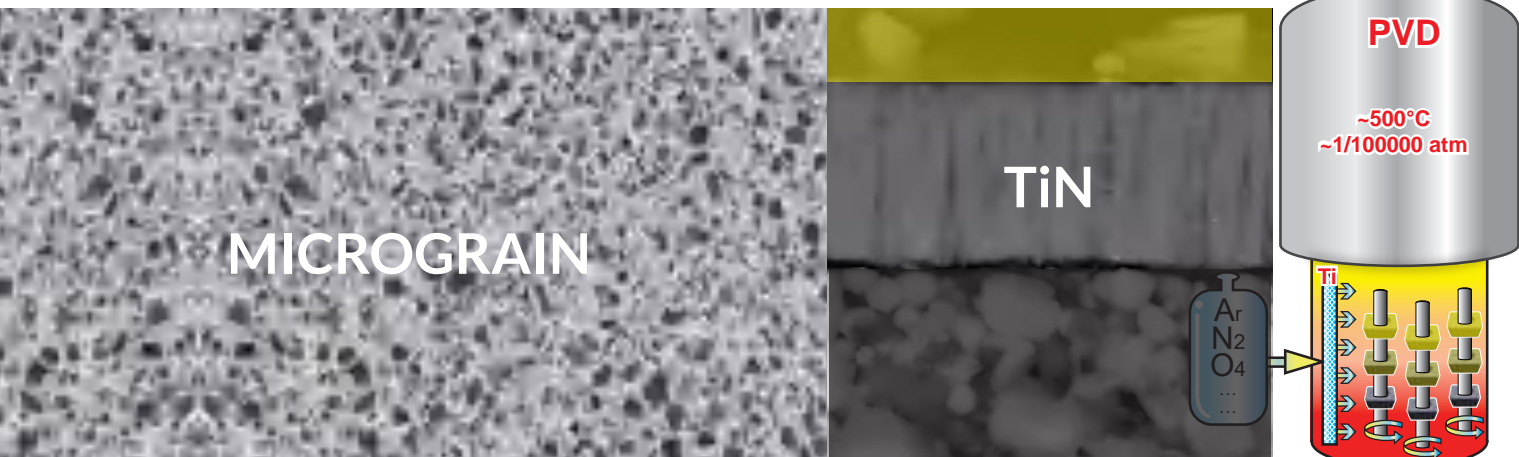
被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
N 鋁及鋁合金 Aluminum & Al	K10~K20	OM5060		
	K10~K20	RM5060		

INSERT



# 鍍層等級 - HT/PVD

## COATING GRADES-HT/PVD



### Coated Cermet: 金屬陶瓷鍍層

金屬陶瓷以 Ti 系碳化物、氮化物為主要成份，也被稱為 Ti 系硬質合金。結合最優化及特殊合金，提高了耐磨損性與耐破損性，並且可發揮穩定性能。

Consist of main Ti based carbide and nitrides, also called Ti carbide alloy. With the optimized and unique alloy, greater wear resistance and stable performance.

被加工材質 Machining Materials	ISO 範圍 ISO scope	材質 Grade	顏色 Color	硬度 (Hv) Hardness	主要成份 composition	切削速度 Vc(m/min)	特點 Features
P 鋼 Alloyed Steels	P15~P25	RM1215	金黃色 Gold yellow	3200	TiN+TiCN	100~300	均勻細緻的高強度金屬陶瓷，高速切削時的耐磨損性、耐熱性較佳，適合用於合金鋼及不銹鋼類加工。 Even tiny coated cermet with high strength, greater wear resistance and heat resistance during high speed cutting. For use on alloy steel and stainless steel.
	P15~P25	RM1230	紅銅色 Red copper	3300	TiN+TiCN	120~320	表面強化的金屬陶瓷，高速切削時的耐磨損、耐熱及抗崩刃性較佳，適合用於合金鋼及不銹鋼類加工。 Coated cermet with strengthened surface, greater wear resistance and heat resistance during high speed cutting. For use on alloy steel and stainless steel.
	P15~P25	RM1205	銀灰色 Silver	1800	UN Coating	100~300	高強度及高韌性的金屬陶瓷，提高耐磨性及耐酸化性，可在廣泛的切削條件下，獲得良好的精加工表面。適用於合金鋼及不銹鋼類加工。 High strength and high toughness cermet, improve the wear resistance and acid resistance, can be in a wide range of cutting conditions to obtain a good surface finish. Apply to steel and stainless steel processing category.
M 不銹鋼 Stainless Steels	P10~P20	RM1215	金黃色 Gold yellow	3200	TiN+TiCN	80~230	均勻細緻的高強度金屬陶瓷，高速切削時的耐磨損性、耐熱性較佳，適合用於合金鋼及不銹鋼類加工。 Even tiny coated cermet with high strength, greater wear resistance and heat resistance during high speed cutting. For use on alloy steel and stainless steel.
	P05~P20	RM1230	紅銅色 Red copper	3300	TiN+TiCN	100~250	表面強化的金屬陶瓷，高速切削時的耐磨損、耐熱及抗崩刃性較佳，適合用於合金鋼及不銹鋼類加工。 Coated cermet with strengthened surface, greater wear resistance and heat resistance during high speed cutting. For use on alloy steel and stainless steel.

### 車削 Turning

被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
P 鋼	P15~P25	RM1215		
	P15~P25		RM1230	
	P15~P25	RM1205		
M 不銹鋼	P15~P25	RM1215		
	P15~P25		RM1230	

INSERT





WC  
CO

### Cemented Carbide: 硬質合金

HW 硬質合金在常溫到高溫的條件下，都兼具優良的耐磨性和韌性，韌性高、切削阻力低適用於所有被加工材質。  
Both greater wear resistance and ductile, low cutting resistance under the high temperature. Use on huge machined material.

被加工材質 Machining Materials	ISO 範圍 ISO scope	材質 Grade	顏色 Color	硬度 (HRA)	主要成份 composition	切削速度 Vc(m/min)	特點 Features
N 鋁及鋁合金 Aluminum & Al	K10~K20	GH1	銀色 Silver	91.5	WC+CO	150~600	耐磨損性優、抗崩韌性佳。 Greater wear resistance, good ductile
	K10~K20	GH05		91.5	WC+CO	150~600	非鐵金屬的連續及精加工表面光亮。 Continuous cutting for non-Ferrous metal. High precision cutting make surface more smooth polished.
	K10~K15	SK15		92	WC+CO	300~800	鑄鐵、非鐵金屬具有穩定的耐磨損性及抗崩韌性。 Cast Iron and non-ferrous metal has stable wear resistance

### 車削 Turning

被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
N 鋁及鋁合金 Aluminum & Al	K10~K20	GH05		
	K10~K20	SK15		

### 銑削 Milling

被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
N 鋁及鋁合金 Aluminum & Al	K10~K20	GH1		
	K10~K20	GH05		
	K10~K20	SK15		

INSERT



# 粗細微粒底材

## Various size substrate

### Cubic Boron Nitride: 立方氮化硼

加入特殊陶瓷成份作為結合劑，在超高壓高溫的條件下燒結合成，與原來材質相比，具有更高的硬度和更優秀的耐熱性。

With ceramic bonded, produced by sintering at high pressure and high temperature. Compared with original one, there has greater hardness and heat resistance.

工具鋼 Tool steel	硬鎳鑄鐵 Hardened ni cast iron
合金鋼 Alloy steel	高溫合金 HRC35 以上 Epoxy Resins
鑄鐵 Cast iron	鈷基合金 Cobalt-based alloy
冷激鑄鐵 Chilled cast iron	鎳基合金 Nickel-based alloy
高鈷粉末金屬 Poedered metal with more cobalt	

被加工材質 Machining Materials	ISO 範圍 ISO scope	材質 Grade	顏色 Color	硬度 (Hv)	主要成份 composition	切削速度 Vc(m/min)	特點 Features
<b>K</b> 鑄鐵 Cast Iron	-	CBN500	鐵灰色 Iron gray	3000~4000	CBN+TiN	100~1500	高硬度、耐高溫下穩定性佳、良好的耐磨性。 Stabilization and greater wear resistance due to high hardness and heat resistance
<b>H</b> 高硬度材質 High Hardness Material	-	CBN250	鐵灰色 Iron gray	3000~3500	CBN+TiN	50~300	高硬度、耐高溫下穩定性佳、良好的耐磨性、高速連續加工使用，建議採用乾式切削，可加工出光亮表面。 Stabilization and greater wear resistance due to high hardness and heat resistance. Use on continuous high speeding process. Suggest dry cutting to machine the polishing surface.

### 車削 Turning

被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
<b>K</b> 鑄鐵 Cast Iron	-	CBN500		
<b>H</b> 高硬度材質 High Hardness Material	-	CBN250		

### 銑削 Milling

被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
<b>K</b> 鑄鐵 Cast Iron	-	CBN500		
<b>H</b> 高硬度材質 High Hardness Material	-	CBN250		

INSERT



# 粒度及特性 - CBN

## CRAIN SIZE&FEATURE-CBN

### CBN250



粒度

1 $\mu$ m

硬度

2400Hv

切削速度

100~400 Vc(m/min)

### CBN300



粒度

2 $\mu$ m

硬度

2400Hv

切削速度

100~400 Vc(m/min)

### CBN400



粒度

3 $\mu$ m

硬度

2400Hv

切削速度

800~220 Vc(m/min)

是耐磨與耐崩刃性的通用材質。適合刀具使用壽命更長的應用。在對灰鑄鐵和硬鑄鐵進行斷續加工、淬硬鋼銑削對大多數鐵基閥座環加工時表現優異。是大多數鐵基粉末金屬的優先選擇材質。

CBN 250 is a universally adopted material to improve abrasion and wear resistance to lengthen the cutter's life. The enhanced performance is best for interrupted cutting of grey and hard cast iron, milling of quenched steel, and in the machining of most valve seat ring alloys.

提高了粒子間的結合強度，是切刃強度最高的材質。適用於所有常見硬化鋼的中度到重度斷續車削。在韌性、月牙灣和後刀面耐磨性之間實現很好的平衡。還可用於鐵基閥座環的插銑加工。

Our improved powder combination and strength makes CBN300 the most cutting edge material of this type. It is suitable for moderate to heavy interrupted turning of all common hardened steel. It provides an excellent balance of toughness with crater and flank wear resistance. Also it can be used for plunge machining of valve seat rings.

適用於汽車用鋼的輕度斷續切削，由於具有較優的耐磨性，所以非常適用在冷作工具鋼和某些閥座用合金。還建議用於拋光粗糙的高強度鑄鐵。

It is suitable for continuous and lightly interrupted cutting of automotive industries. Excellent abrasion resistance makes CBN400 the ideal choice for cold work tool steels and certain valve seat alloys. It is also recommended for finishing abrasive high strength cast irons.

超硬燒結合金  
Super-hard sintered alloy

中切削硬化鋼  
Interrupted cutting of hardened steel

連續~輕切削加工  
Continuous~  
Light interrupted cutting

INSERT



# 微粒金剛石

## Micro-diamond

### Poly Crystalline Diamond: 聚晶鑽石

聚晶鑽石通常用來進行精密切削加工和普通半精密加工，還可用作較大切削量的粗加工和斷續加工（如：銑削等）。其焊接性、機械磨削性和斷裂韌性最高。經過嚴格篩選過的人造鑽石顆粒，經過高壓高溫技術燒結並將人造超微粒子鑽石結晶的集積層僅密切合於碳化鎢基座上而成。

Generally use on precision cutting and semi-precision cutting, also use on heavy rough cutting and non continuous cutting (like milling etc..). Good property on soldering / sharpening and ductile metal. Strictly selected synthetic diamond, powder bonded together by sintering at high pressures and temperature, produced on a cemented carbide substrate.

塑膠 Plastic	石墨 Graphite
黃銅青銅合金 Brass&Bronze Alloys	氧基樹脂 Epoxy Resins
矽鋁合金 Silicon-Aluminum Alloys	木材、複合木材 Wood, compound Wood
銅合金 Copper Alloys	硬質橡膠 Hard Rubber
鎂合金 Magnesium Alloy	玻璃纖維 Fibre Glass Composites
鋁合金 Aluminum Alloys	陶瓷 Ceramics
預燒結或全燒結碳化鎢 Presintered or Sintered Tungsten Carbide	碳、石碳酸 Carbon-Phenolic

鋁合金 Aluminum 4~8% SI		鋁合金 Aluminum 9~13% SI	
車削 線速度 900~3500(m/min) 進給 0.1~0.4(mm/rev) 切削深度 Ap 0.1~0.4(mm)	銑削 線速度 1000~5000(m/min) 進給 0.1~0.3(mm/rev) 切削深度 Ap 0.1~0.3(mm)	車削 線速度 600~2400(m/min) 進給 0.1~0.4(mm/rev) 切削深度 Ap 0.1~0.4(mm)	銑削 線速度 1000~5000(m/min) 進給 0.1~0.3(mm/rev) 切削深度 Ap 0.1~0.3(mm)
銅合金 Copper Alloy 銅、鋅、黃銅 Copper, zinc, brass		木材 Wood	
車削 線速度 900~3500(m/min) 進給 0.1~0.4(mm/rev) 切削深度 Ap 0.1~0.4(mm)	銑削 線速度 1000~5000(m/min) 進給 0.1~0.3(mm/rev) 切削深度 Ap 0.1~0.3(mm)	車削 線速度 400~1260(m/min) 進給 0.03~0.3(mm/rev) 切削深度 Ap 0.1~0.4(mm)	銑削 線速度 1000~5000(m/min) 進給 0.05~2.0(mm/rev) 切削深度 Ap 0.1~0.4(mm)

INSERT



# 粒度及特性 - PCD

## CRAIN SIZE&FEATURE-PCD

PCD010



粒度  
**1μm**  
硬度  
**7000~8000Hv**  
切削速度  
**300~3000 Vc(m/min)**

超細晶粒結構擁有極強的刃口鋒利度和刃口耐用度，適用於需要鏡面拋光效果的應用場合。  
Ultrafine grain structure allows precisely sharpened and durable cutting edges. It's most suitable for mirror polishing.

鋁合金的銑削和粗切，也適用於鈦及鈦合金和複合材料的機加工。  
Milling and roughing for aluminum material and also can process titanium and titanium alloys and composite material.

PCD020



粒度  
**2μm**  
硬度  
**8000~9000Hv**  
切削速度  
**200~3000 Vc(m/min)**

鈷含量更高，便於加工，適用於需要重度加工的複雜工具。  
Increased cobalt levels improve processing. It is suitable for heavy-cutting.

非鐵金屬的一般精加工、壓模成形表面加工、ERP、硬質橡膠、木材、無機板材等的切割及端面加工。  
Finishing for non-ferrous, surface milling for press forming, and face milling for ERP, hard rubber, wood, and inorganic plates.

PCD100

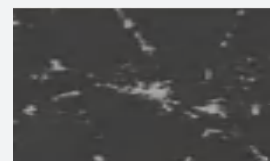


粒度  
**10μm**  
硬度  
**9000~10000Hv**  
切削速度  
**100~2500 Vc(m/min)**

平均粒徑為 10μm，廣泛適用於需要良好的韌性和較高的耐磨性的情況。  
The average grain size is 10μm. It processes high tolerance and wear resistant workpieces.

非鐵金屬的一般加工、陶瓷燒結品、壓模成形表面加工、ERP、硬質橡膠、石墨加工、木材、無機板材等的切割及端面加工。  
Processing for non-ferrous, surface milling for shrink-fitting ceramic and press forming, and face-milling for ERP, hard rubber, graphite, wood, and inorganic plates.

PCD250



粒度  
**25μm**  
硬度  
**10000~11000Hv**  
切削速度  
**50~2000 Vc(m/min)**

平均粒徑為 25μm，適用於需要高耐磨性的加工場合。  
The average grain size is 25μm. It processes highly wear-resistant workpieces.

高矽鋁合金加工、鋁複合材料的加工、硬質合金、陶瓷半燒結品、壓模成形的粗加工、陶瓷燒結加工、石材、岩石加工。  
Processing for silicon-aluminum alloys, aluminum composite, cemented carbide, and shrink-fitting semi-ceramic; roughing for press forming, shrink-fitting ceramic, and rock.

被加工材質 Machining Materials	ISO 範圍 ISO scope	材質 Grade	顏色 Color	硬度 (Hv)	主要成份 composition	切削速度 Vc(m/min)	特點 Features
N 鋁及鋁合金 Aluminum & Al	-	PCD	黑色 Black	7000~8000	Micrograin Diamond	10~1000	超微粒聚晶鑽石，抗沾黏及耐磨性佳，導熱係數高、熱膨脹及摩擦係數低。 Micro Poly crystalline diamond, adhesion resistance and greater wear resistance, high thermal conductivity. Thermal expansion

### 車削 Turning

被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
N 鋁及鋁合金	-	PCD		

### 銑削 Milling

被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
N 鋁及鋁合金	-	PCD		

INSERT



## MICROGRAIN (HF)K10,C3

### Micrograin Carbide: 超微粒硬質合金

與一般硬質合金比較，其硬質相粒子是極細的，平均粒度在 1 $\mu$ m 以下，因此能獲得比相同硬度的一般硬質合金更高的韌性和抗塑變形性。

Compared with normal carbide alloy, HF is much more tiny, average is below 1  $\mu$ m, hence get greater deformation resistance and more ductile than normal carbide alloy.

被加工材質 Machining Materials	ISO 範圍 ISO scope	材質 Grade	顏色 Color	硬度 (HRA)	主要成份 composition	切削速度 Vc(m/min)	特點 Features
N 鋁及鋁合金 Aluminum & Al	Z10	OM5005	銀色 Silver	92.7	Micrograin	200~800	可使用於鑄鐵、鋁合金及耐熱合金之加工。 For use on cast iron, Al alloy and other alloy with heat resistance.
	Z10	RM5005	銀色 Silver	92.8	Micrograin	150~600	適用於加工 $\leq$ 12% 矽含量鍛造鋁合金材料。 For use on the forged Al alloy with less than 12% silicon element

### 車削 Turning

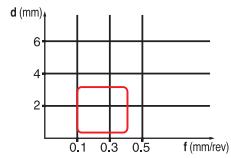
被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
N 鋁及鋁合金 Aluminum & Al	Z10	OM5005		
	Z10	RM5005		

### 銑削 Milling

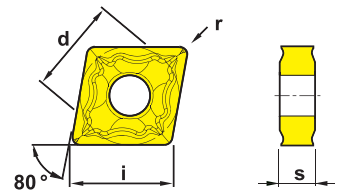
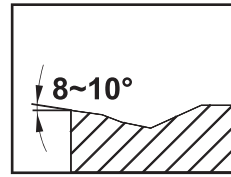
被加工材質 Machining Materials	ISO 範圍 ISO scope	精切削 Fine cutting	中切削 Middle cutting	重切削 Heavy cutting
N 鋁及鋁合金 Aluminum & Al	Z10	OM5005		



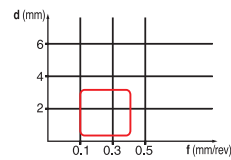
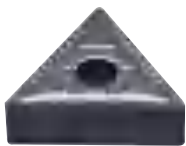
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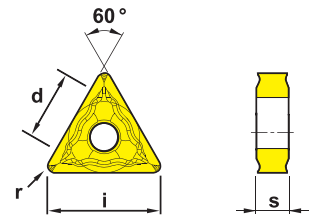
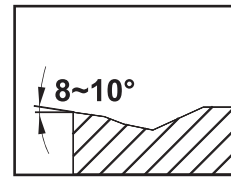
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f = 0.1 ~ 0.4 mm/rev



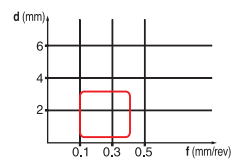
適合刀具 Cutting Tool	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						尺寸 (mm)			
		CVD						Size			
		RM315	RM425					d	i	s	r
MCLNR	CNMG120404-GM2	●	●					12.7	12.9	4.76	0.4
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	CNMG120408-GR2	●						12.7	12.9	4.76	0.8



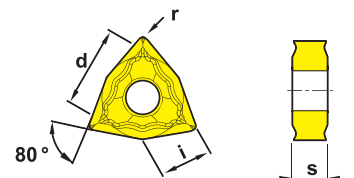
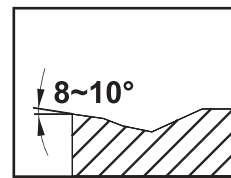
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f = 0.1 ~ 0.4 mm/rev



適合刀具 Cutting Tool	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						尺寸 (mm)			
		CVD						Size			
		RM315	RM425					d	i	s	r
	TNMG160404-GM2	●	●					9.525	16.5	4.76	0.4
	TNMG160408-GM2	●	●					9.525	16.5	4.76	0.8



d = 0.8 ~ 3.5 mm  
f = 0.1 ~ 0.4 mm/rev

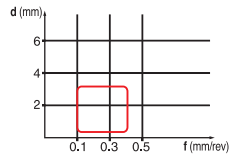


適合刀具 Cutting Tool	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						尺寸 (mm)			
		CVD						Size			
		RM315	RM425					d	i	s	r
MWLNR	WNMG080404-GM2	●	●					12.7	8.7	4.76	0.4
	WNMG080408-GM2	●	●					12.7	8.7	4.76	0.8

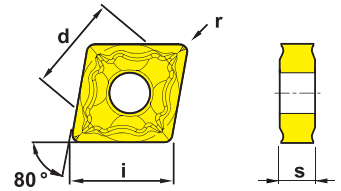
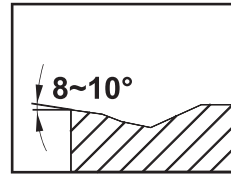
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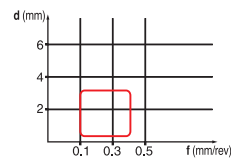
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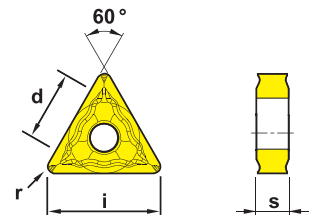
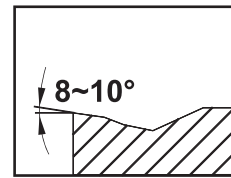
d = 0.8 ~ 3.5 mm  
f = 0.1 ~ 0.4 mm/rev



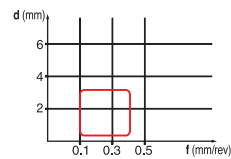
適合刀具 Cutting Tool	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						尺寸 (mm)			
		CVD						Size			
		RM425						d	i	s	r
MCLNR	CNMG120404-GS2	●						12.7	12.9	4.76	0.4
	CNMG120408-GS2	●						12.7	12.9	4.76	0.8



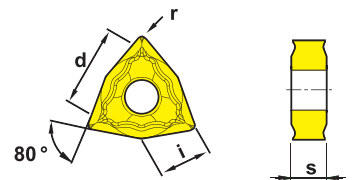
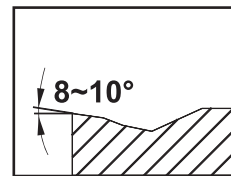
d = 0.8 ~ 3.5 mm  
f = 0.1 ~ 0.4 mm/rev



適合刀具 Cutting Tool	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						尺寸 (mm)			
		CVD						Size			
		RM425						d	i	s	r
MTUNR	TNMG160404-GS2	●						9.525	16.5	4.76	0.4
	TNMG160408-GS2	●						9.525	16.5	4.76	0.8



d = 0.8 ~ 3.5 mm  
f = 0.1 ~ 0.4 mm/rev



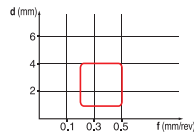
適合刀具 Cutting Tool	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						尺寸 (mm)			
		CVD						Size			
		RM425						d	i	s	r
MWLNR	WNMG080404-GS2	●						12.7	8.7	4.76	0.4
	WNMG080408-GS2	●						12.7	8.7	4.76	0.8

MILLING

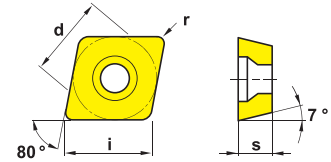
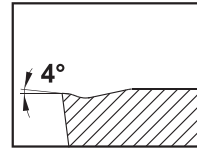




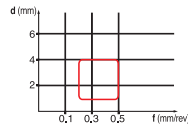
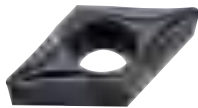
# 車削刀片 TURNING INSERT



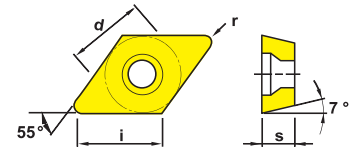
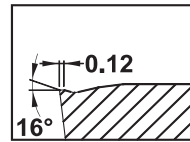
d = 1 ~ 4 mm  
f = 0.2 ~ 0.5 mm/rev



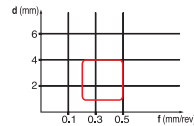
適合刀具 Cutting Tool	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						尺寸 (mm)			
		CVD						Size			
		RM315	RM425					d	i	s	r
DDM · ATB CBS · ATS SCLCR · SCLCL SCK · RBH RBH-LA	CCMT060204-HM	●	●					6.35	6.4	2.38	0.4
	CCMT060208-HM	●	●					6.35	6.4	2.38	0.8
	CCMT09T304-HM	●	●					9.525	9.7	3.97	0.4
	CCMT09T308-HM	●	●					9.525	9.7	3.97	0.8
	CCMT120404-HM	●	●					12.7	12.9	4.76	0.4
	CCMT120408-HM	●	●					12.7	12.9	4.76	0.8



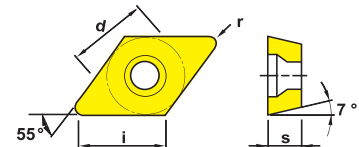
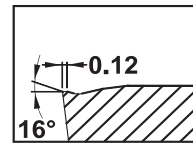
d = 1 ~ 4 mm  
f = 0.2 ~ 0.5 mm/rev



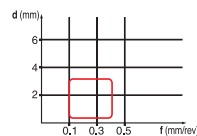
適合刀具 Cutting Tool	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						尺寸 (mm)			
		CVD						Size			
		RM425						d	i	s	r
SDUCR	DCMT070204-HM	●						6.35	7.8	2.38	0.4
	DCMT070208-HM	●						6.35	7.8	2.38	0.8
	DCMT11T304-HM	●						12.7	12.9	4.76	0.4
	DCMT11T308-HM	●						12.7	12.9	4.76	0.8



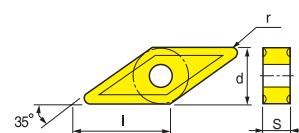
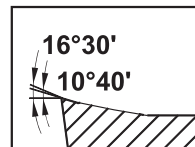
d = 1 ~ 4 mm  
f = 0.2 ~ 0.5 mm/rev



適合刀具 Cutting Tool	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						尺寸 (mm)			
		CVD						Size			
		RM425						d	i	s	r
MDLNR	DNMG150604-GS2	●						15.875	15.5	6.35	0.4
	DNMG150608-GS2	●						15.875	15.5	6.35	0.8



d = 0.8 ~ 3.5 mm  
f = 0.1 ~ 0.4 mm/rev

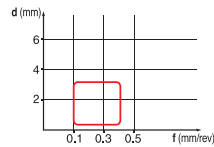


適合刀具 Cutting Tool	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						尺寸 (mm)			
		CVD						Size			
		RM425						d	i	s	r
MVJNR	VNMG160404-GM2	●						16.6	9.525	4.76	0.4
	VNMG160408-GM2	●						16.6	9.525	4.76	0.8

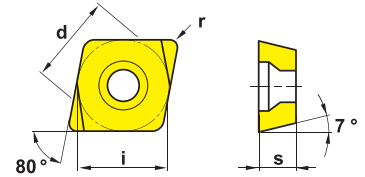
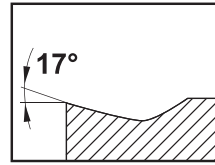
MILLING



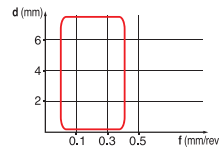
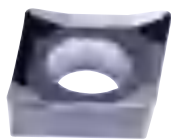
# 車削刀片 TURNING INSERT



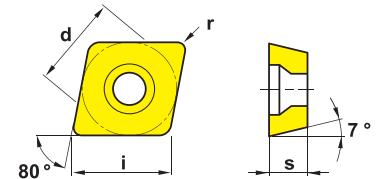
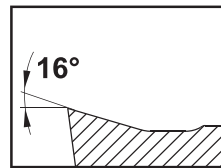
$d = 0.8 \sim 3.5 \text{ mm}$   
 $f = 0.1 \sim 0.4 \text{ mm/rev}$



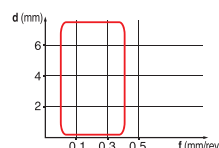
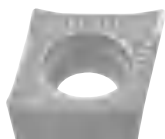
適合刀具 Cutting Tool	規格 Spec.	鍍層超微粒 Layer coating ultra-micro										
		CHF										
		尺寸 (mm) Size										
		RM4015							d	i	s	r
CSBJ、SCLCR	CCGT03S102L-F	●							3.57	-	1.39	0.2
	CCGT03S104L-F	●							3.57	-	1.39	0.4
	CCGT04T002L-F	●							4.37	-	1.79	0.2
	CCGT04T004L-F	●							4.37	-	1.79	0.4



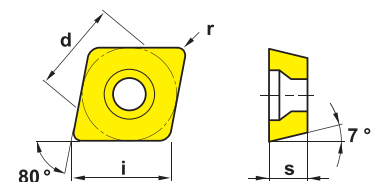
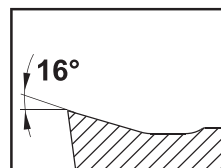
$d = 0.1 \sim 8 \text{ mm}$   
 $f = 0.05 \sim 0.4 \text{ mm/rev}$



適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram										
		HF										
		尺寸 (mm) Size										
		GH05							d	i	s	r
DDM、ATB	CCGT060202	●							6.35	6.5	2.38	0.2
CBS、ATS	CCGT060204	●							6.35	6.5	2.38	0.4
SCLCR、SCLCL	CCGT060208	●							6.35	6.5	2.38	0.8
SCK、RBH	CCGT09T304	●							9.525	9.7	3.97	0.4
	CCGT09T308	●							9.525	9.7	3.97	0.8
RBH-LA	CCGT120404	●							12.7	12.9	4.76	0.4
	CCGT120408	●							12.7	12.9	4.76	0.8



$d = 0.1 \sim 8 \text{ mm}$   
 $f = 0.05 \sim 0.4 \text{ mm/rev}$

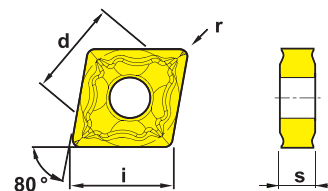
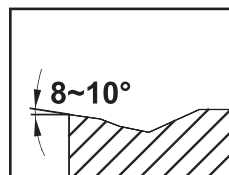
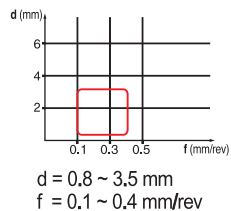


適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram										
		HF										
		尺寸 (mm) Size										
		RM5005							d	i	s	r
DDM、ATB	CCGT060202-NK	●							6.35	6.5	2.38	0.2
CBS、ATS	CCGT060204-NK	●							6.35	6.5	2.38	0.4
SCLCR、SCLCL	CCGT060208-NK	●							6.35	6.5	2.38	0.8
SCK、RBH	CCGT09T304-NK	●							9.525	9.7	3.97	0.4
RBH-LA	CCGT09T308-NK	●							9.525	9.7	3.97	0.8
	CCGT120404-NK	●							12.7	12.9	4.76	0.4
	CCGT120408-NK	●							12.7	12.9	4.76	0.8

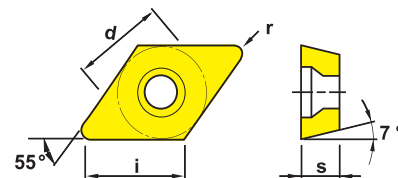
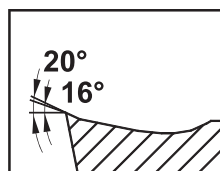
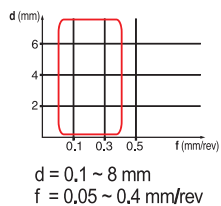
INSERT



# 車削刀片 TURNING INSERT



適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram								尺寸 (mm) Size			
		HF								Size			
		GH05								d	i	s	r
MCLNR	CNMG120404	●								12.7	12.9	4.76	0.4
	CNMG120408	●								12.7	12.9	4.76	0.8

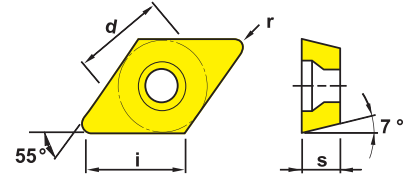
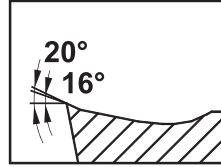
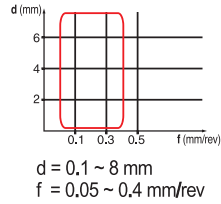
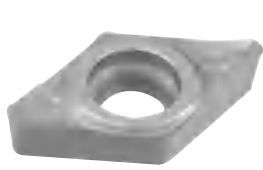


適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram								尺寸 (mm) Size			
		HF								Size			
		GH05								d	i	s	r
SDUCR、SDQCR SDZCR、SDNCR SDJCR、SDUCL SDJ2CR、SDNCN	DCGT070202	●								6.35	7.8	2.38	0.2
	DCGT070204	●								6.35	7.8	2.38	0.4
	DCGT11T302	●								9.525	11.6	3.97	0.2
	DCGT11T304	●								9.525	11.6	3.97	0.4
	DCGT11T308	●								9.525	11.6	3.97	0.8

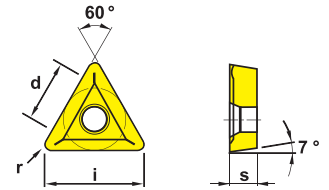
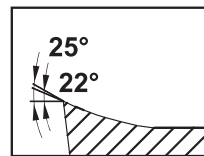
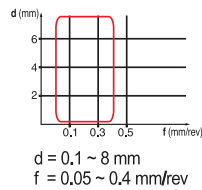
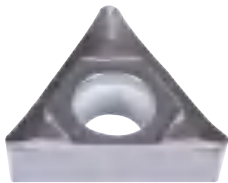
INSERT



# 車削刀片 TURNING INSERT



適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram							尺寸 (mm)			
		HF							Size			
		RM5005							d	i	s	r
SDUCR、SDQCR SDZCR、SDNCR SDJCR、SDUCL SDJ2CR、SDNCN	DCGT070208-NK	●							6.35	7.8	2.38	0.8
	DCGT070204-NK	●							6.35	7.8	2.38	0.4
	DCGT11T302-NK	●							9.525	11.6	3.97	0.2
	DCGT11T304-NK	●							9.525	11.6	3.97	0.4
	DCGT11T308-NK	●							9.525	11.6	3.97	0.8

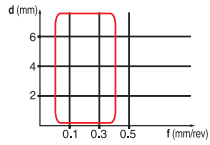


適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram							尺寸 (mm)			
		HF							Size			
		GH05							d	i	s	r
STUCR、STUCL RBH、RBH-LA	TCGT090204	●							5.56	9.6	3.38	0.4
	TCGT110204	●							6.35	11	2.38	0.4
	TCGT16T304	●							9.525	16.5	3.97	0.4
	TCGT16T308	●							9.525	16.5	3.97	0.8

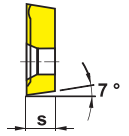
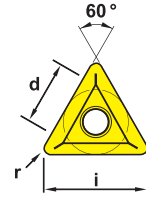
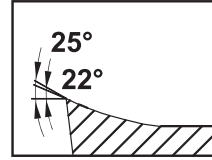
INSERT



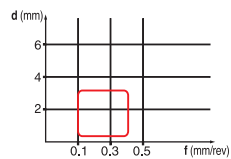
# 車削刀片 TURNING INSERT



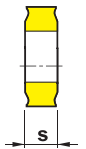
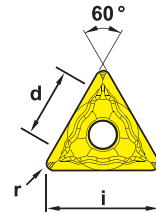
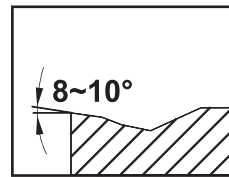
d = 0.1 ~ 8 mm  
f = 0.05 ~ 0.4 mm/rev



適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram								尺寸 (mm)			
		HF								Size			
		RM5005								d	i	s	r
STUCR、STUCL RBH、RBH-LA	TCGT090204-NK	●								5.56	9.6	3.38	0.4
	TCGT110204-NK	●								6.35	11	2.38	0.4
	TCGT16T304-NK	●								9.525	16.5	3.97	0.4
	TCGT16T308-NK	●								9.525	16.5	3.97	0.8



d = 0.8 ~ 3.5 mm  
f = 0.1 ~ 0.4 mm/rev



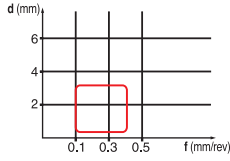


適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram								尺寸 (mm)			
		HF								Size			
		GH05								d	i	s	r
	TNMG160404	●								9.525	16.5	4.76	0.4
	TNMG160408	●								9.525	16.5	4.76	0.8

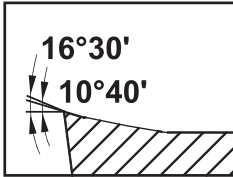
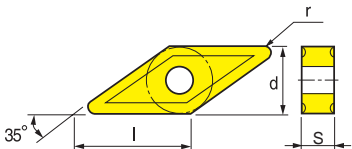
INSERT





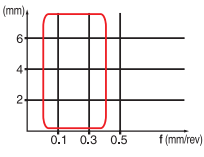
# 車削刀片 TURNING INSERT

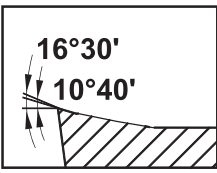
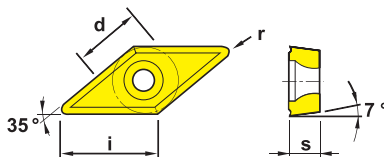
$d = 0.8 \sim 3.5 \text{ mm}$   
 $f = 0.1 \sim 0.4 \text{ mm/rev}$



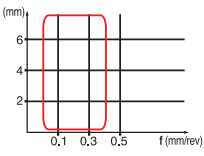
適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram								尺寸 (mm)						
		HF								Size						
		RM5005								d	i	s	r			
SVJCR、SVVCN	VNMG160408-NA	●											9.525	16.6	4.76	0.8

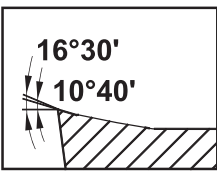
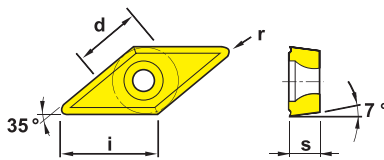
$d = 0.1 \sim 8 \text{ mm}$   
 $f = 0.05 \sim 0.4 \text{ mm/rev}$

適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram								尺寸 (mm)						
		HF								Size						
		GH05								d	i	s	r			
SVJCR、SVVCN	VCGT160402	●											9.525	16.5	4.76	0.2
	VCGT160404	●											9.525	16.5	4.76	0.4
	VCGT160408	●											9.525	16.5	4.76	0.8
	VCGT160412	●											9.525	16.5	4.76	1.2

$d = 0.1 \sim 8 \text{ mm}$   
 $f = 0.05 \sim 0.4 \text{ mm/rev}$

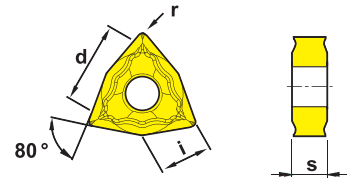
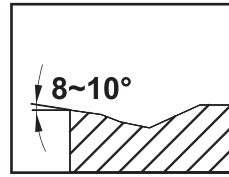
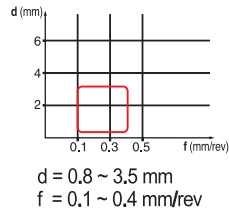
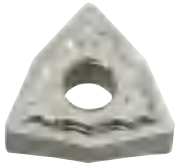



適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram								尺寸 (mm)						
		HF								Size						
		RM5005								d	i	s	r			
SVJCR、SVVCN	VCGT160402-NK	●											9.525	16.5	4.76	0.2
	VCGT160404-NK	●											9.525	16.5	4.76	0.4
	VCGT160408-NK	●											9.525	16.5	4.76	0.8
	VCGT160412-NK	●											9.525	16.5	4.76	1.2

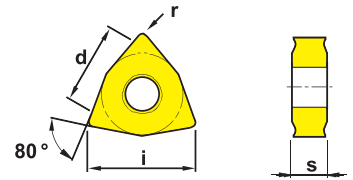
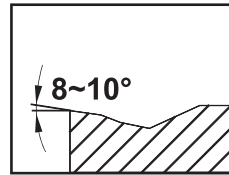
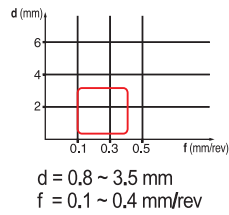
INSERT



# 車削刀片 TURNING INSERT



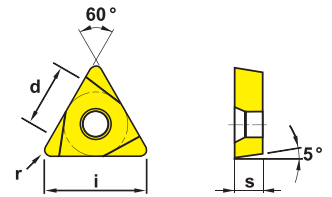
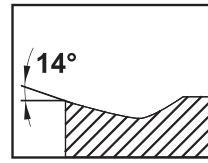
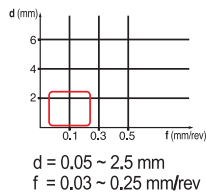
適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram							尺寸 (mm)			
		HF							Size			
		GH05							d	i	s	r
MWLNR	WNMG080404		●							12.7	8.7	4.76
	WNMG080408	●							12.7	8.7	4.76	0.8



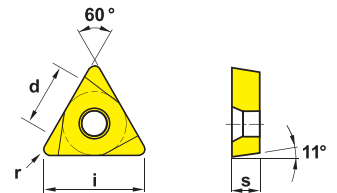
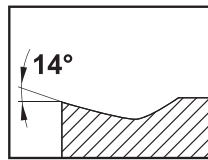
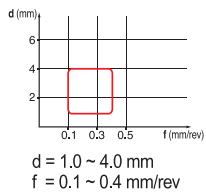
適合刀具 Cutting Tool	規格 Spec.	超硬微粒 Ultra-hard microprogram							尺寸 (mm)			
		HF							Size			
		RM5005							d	i	s	r
MWLNR	WNMG080408-NA		●							12.7	8.7	4.76



# 搪孔刀片 BORING INSERT



適合刀具 Cutting Tool	規格 Spec.	鍍層超微粒 Layer coating ultra-micro				瓷金 Cermet		超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size			
		CHF				HT		HF							
		RM4030				RM1205		RM5005					d	i	s
BYB、SBJ、CBH、SMB、SBS	TBGT060102L-F01	●				●		●				3.97	6.4	1.59	0.2
	TBGT060104L-F01	●				●		●				3.97	6.4	1.59	0.4



適合刀具 Cutting Tool	規格 Spec.	鍍層超微粒 Layer coating ultra-micro				瓷金 Cermet		超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size			
		CHF				HT		HF							
		RM4030				RM1205		RM5005					d	i	s
CBH、SMB、SEB	TPGT080202L-F01	●				●		●				4.76	8.2	2.38	0.2
	TPGT080204L-F01	●				●		●				4.76	8.2	2.38	0.4
	TPGT090202L-F01	●				●		●				5.56	9.6	2.38	0.2
	TPGT090204L-F01	●				●		●				5.56	9.6	2.38	0.4
	TPGT110202L-F01	●				●		●				6.35	11	2.38	0.2
	TPGT110204L-F01	●				●		●				6.35	11	2.38	0.4

INSERT





# 鑽石刀片 POLYCRYSTALLINE DIAMOND INSERTS

ISO  
分類

P	合金鋼 Alloyed Steels					
M	不鏽鋼 Stainless Steels					
K	鑄鐵 Cast Iron					
N	鋁及鋁合金 Aluminum&Al	○				
S	高溫合金 Refractory Alloys					
H	高硬度材 Hard Material					

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

形狀 Form	規格 Spec.	聚晶鑽石 Polycrystalline diamond				尺寸 (mm)				圖形 Drawing
		DP				Size				
		PCD				d	i	s	r	
	APKT160404	●				9.525	16.5	4.76	-	
	APKT1604PDER	●				9.525	16.5	4.76	-	
	SEHT120404	●				12.7	-	4.76	-	
	SEHT1204APAN	●				12.7	-	4.76	-	
	CCGT060202	●				6.35	6.5	2.38	0.2	
	CCGT060204	●				6.35	6.5	2.38	0.4	
	CCGT09T304	●				9.525	9.7	3.97	0.4	
	CCGT120404	●				12.7	12.9	4.76	0.4	
	CNMG120404	●				12.7	12.9	4.76	0.4	
	DCGT070202	●				6.35	7.8	2.38	0.2	
	DCGT070204	●				6.35	7.8	2.38	0.4	
	DCGT11T302	●				9.525	11.6	3.97	0.2	
	DCGT11T304	●				9.525	11.6	3.97	0.4	
	TCGT110202	●				6.35	11	2.38	0.2	
	TCGT110204	●				6.35	11	2.38	0.4	
	TCGT16T304	●				9.525	16.5	3.97	0.4	
	VCGT160402	●				9.525	16.5	4.76	0.2	
	VCGT160404	●				9.525	16.5	4.76	0.4	
	VCGT160408	●				9.525	16.5	4.76	0.8	
	TNMG160402	●				9.525	16.5	4.76	0.2	
	TNMG160404	●				9.525	16.5	4.76	0.4	
	TBGT060102	●				3.97	6.4	1.59	0.2	
	TBGT060104	●				3.97	6.4	1.59	0.4	

INSERT



# 鑽石刀片 POLYCRYSTALLINE DIAMOND INSERTS

ISO 分類	合金鋼 Alloyed Steels					切削狀態 Cutting Condition :	尺寸 (mm)				圖形 Drawing
	不鏽鋼 Stainless Steels						尺寸 (mm)				
	鑄鐵 Cast Iron						尺寸 (mm)				
	鋁及鋁合金 Aluminum&Al					○					
	高溫合金 Refractory Alloys										
	高硬度材 Hard Material										

形狀 Form	規格 Spec.	聚晶鑽石 Polycrystalline diamond				尺寸 (mm)				圖形 Drawing
		DP				Size				
		PCD				d	i	s	r	
	TPGT090202	●				5.56	9.6	2.38	0.2	
	TPGT090204	●				5.56	9.6	2.38	0.4	
	TPGT110302	●				6.35	11	3.18	0.2	
	TPGT110304	●				6.35	11	3.18	0.4	
	TPGH080202	●				4.76	8.2	2.38	0.2	
	TPGH080204	●				4.76	8.2	2.38	0.4	

ISO 分類	合金鋼 Alloyed Steels					切削狀態 Cutting Condition :	尺寸 (mm)				圖形 Drawing			
	不鏽鋼 Stainless Steels						尺寸 (mm)							
	鑄鐵 Cast Iron						尺寸 (mm)							
	鋁及鋁合金 Aluminum&Al					●	●	●	●					
	高溫合金 Refractory Alloys													
	高硬度材 Hard Material													

形狀 Form	規格 Spec.	聚晶鑽石 Polycrystalline diamond				尺寸 (mm)				圖形 Drawing
		DP				Size				
		PCD010	PCD020	PCD100	PCD250	d	i	s	r	
	APEW160404		●			9.525	16.5	4.76	-	
	APEW1604PDER		●			9.525	16.5	4.76	-	
	SEEW120404		●			12.7	-	4.76	-	
	SEEW1204APAN		●			12.7	-	4.76	-	
	CCEW060202		●			6.35	6.5	2.38	0.2	
	CCEW060204		●			6.35	6.5	2.38	0.4	
	CCEW09T304		●			9.525	9.7	3.97	0.4	
	CCEW120404		●			12.7	12.9	4.76	0.4	
	CNEW120404		●			12.7	12.9	4.76	0.4	

● - 標準庫存 Standard stock

INSERT



# 鑽石刀片

## POLYCRYSTALLINE DIAMOND INSERTS

ISO  
分類

P	合金鋼 Alloyed Steels					
M	不鏽鋼 Stainless Steels					
K	鑄鐵 Cast Iron					
N	鋁及鋁合金 Aluminum&Al	●	●	●	●	
S	高溫合金 Refractory Alloys					
H	高硬度材 Hard Material					

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

形狀 Form	規格 Spec.	聚晶鑽石 Polycrystalline diamond				尺寸 (mm)				圖形 Drawing
		DP				Size				
		PCD010	PCD020	PCD100	PCD250	d	i	s	r	
	DCEW070202		●			6.35	7.8	2.38	0.2	
	DCEW070204		●			6.35	7.8	2.38	0.4	
	DCEW11T302		●			9.525	11.6	3.97	0.2	
	DCEW11T304		●			9.525	11.6	3.97	0.4	
	TCEW110202		●			6.35	11	2.38	0.2	
	TCEW110204		●			6.35	11	2.38	0.4	
	TCEW16T304		●			9.525	16.5	3.97	0.4	
	VCEW160402		●			9.525	16.5	4.76	0.2	
	VCEW160404		●			9.525	16.5	4.76	0.4	
	VCEW160408		●			9.525	16.5	4.76	0.8	
	TNEW160402		●			9.525	16.5	4.76	0.2	
	TNEW160404		●			9.525	16.5	4.76	0.4	
	TBEW060102		●			3.97	6.4	1.59	0.2	
	TBEW060104		●			3.97	6.4	1.59	0.4	
	TPEW090202		●			5.56	9.6	2.38	0.2	
	TPEW090204		●			5.56	9.6	2.38	0.4	
	TPEW110302		●			6.35	11	3.18	0.2	
	TPEW110304		●			6.35	11	3.18	0.4	
	TPEW080202		●			4.76	8.2	2.38	0.2	
	TPEW080204		●			4.76	8.2	2.38	0.4	

● - 標準庫存 Standard stock

INSERT



# 氮化硼刀片

## CUBIC BORON NITRIDE INSERTS

ISO  
分類

P	合金鋼 Alloyed Steels	●					
M	不鏽鋼 Stainless Steels	●					
K	鑄鐵 Cast Iron		●				
N	鋁及鋁合金 Aluminum&Al						
S	高溫合金 Refractory Alloys						
H	高硬度材 Hard Material	●	○				

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

形狀 Form	規格 Spec.	氮化硼 BN				尺寸 (mm)				圖形 Drawing
		BN				Size				
		CBN250	CBN500			d	i	s	r	
	CCGT060202	●	●			6.35	6.5	2.38	0.2	
	CCGT060204	●	●			6.35	6.5	2.38	0.4	
	CCGT060208	●				6.35	6.5	2.38	0.8	
	CCGT09T302	●	●			9.525	9.7	3.97	0.2	
	CCGT09T304	●	●			9.525	9.7	3.97	0.4	
	CCGT09T308	●				9.525	9.7	3.97	0.8	
	CCGT120404	●	●			12.7	12.9	4.76	0.4	
	CNGG120404	●	●			12.7	12.9	4.76	0.4	
	CNGG120408	●				12.7	12.9	4.76	0.8	
	DCGT070202	●	●			6.35	7.8	2.38	0.2	
	DCGT070204	●				6.35	7.8	2.38	0.4	
	DCGT070208	●				6.35	7.8	2.38	0.8	
	DCGT11T302	●	●			9.525	11.6	3.97	0.2	
	DCGT11T304	●	●			9.525	11.6	3.97	0.4	
	TBGT060104	●				3.97	6.4	1.59	0.4	
	TPGT110202	●	●			6.35	11	2.38	0.2	
	TPGT110204	●	●			6.35	11	2.38	0.4	
	TPGT110208	●				6.35	11	2.38	0.8	
	TPGT16T302	●	●			9.525	16.5	3.97	0.2	
	TPGT16T304	●	●			9.525	16.5	3.97	0.4	

INSERT



# 氮化硼刀片

## CUBIC BORON NITRIDE INSERTS

ISO  
分類

P	合金鋼 Alloyed Steels	●					
M	不鏽鋼 Stainless Steels	●					
K	鑄鐵 Cast Iron		●				
N	鋁及鋁合金 Aluminum&Al						
S	高溫合金 Refractory Alloys						
H	高硬度材 Hard Material	●	○				

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

形狀 Form	規格 Spec.	氮化硼 BN				尺寸 (mm)				圖形 Drawing
		BN				Size				
		CBN250	CBN500			d	i	s	r	
	TNGG160402	●	●			9.525	16.5	4.76	0.2	
	TNGG160404	●	●			9.525	16.5	4.76	0.4	
	TNGG160408	●	●			9.525	16.5	4.76	0.8	
	TPGH080202	●	●			4.76	8.2	2.38	0.2	
	TPGH080204	●	●			4.76	8.2	2.38	0.4	
	TPGH090202	●				5.56	9.6	2.38	0.2	
	TPGH090204	●	●			5.56	9.6	2.38	0.4	
	TPGH110302	●	●			6.35	11	3.18	0.2	
	TPGH110304	●	●			6.35	11	3.18	0.4	
	TPGH110308	●				6.35	11	3.18	0.8	
	TPGH16T304	●				9.525	16.5	3.97	0.4	
	VCGT110302	●				6.35	11	3.18	0.2	
	VCGT110304	●				6.35	11	3.18	0.4	
	VCGT160402	●	●			9.525	16.5	4.76	0.2	
	VCGT160404	●	●			9.525	16.5	4.76	0.4	
	VCGT160408	●				9.525	16.5	4.76	0.8	
	VNGG160404	●				9.525	16.5	4.76	0.4	
	VNGG160408	●				9.525	16.5	4.76	0.8	
	APMT1604PDER	●				9.525	16.5	4.76	-	
	SEHT1204APAN	●	●			12.7	-	4.76	-	

INSERT



# 氮化硼刀片

## CUBIC BORON NITRIDE INSERTS

ISO  
分類

P	合金鋼 Alloyed Steels					
M	不鏽鋼 Stainless Steels					
K	鑄鐵 Cast Iron					
N	鋁及鋁合金 Aluminum&Al					
S	高溫合金 Refractory Alloys					
H	高硬度材 Hard Material	●	●	●		

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

形狀 Form	規格 Spec.	氮化硼 BN				尺寸 (mm)				圖形 Drawing
		BN				Size				
		CBN250	CBN300	CBN400		d	i	s	r	
	CCEW060202	●				6.35	6.5	2.38	0.2	
	CCEW060204	●				6.35	6.5	2.38	0.4	
	CCEW060208	●				6.35	6.5	2.38	0.8	
	CCEW09T302	●				9.525	9.7	3.97	0.2	
	CCEW09T304	●				9.525	9.7	3.97	0.4	
	CCEW09T308	●				9.525	9.7	3.97	0.8	
	CCEW120404	●				12.7	12.9	4.76	0.4	
	CNEW120404	●				12.7	12.9	4.76	0.4	
	CNEW120408	●				12.7	12.9	4.76	0.8	
	DCEW070202	●				6.35	7.8	2.38	0.2	
	DCEW070204	●				6.35	7.8	2.38	0.4	
	DCEW070208	●				6.35	7.8	2.38	0.8	
	DCEW11T302	●				9.525	11.6	3.97	0.2	
	DCEW11T304	●				9.525	11.6	3.97	0.4	
	TBEW060104	●				3.97	6.4	1.59	0.4	
	TPEW080202	●				4.76	8.2	2.38	0.2	
	TPEW080204	●				4.76	8.2	2.38	0.4	
	TPEW090202	●				5.56	9.6	2.38	0.2	
	TPEW090204	●				5.56	9.6	2.38	0.4	
	TPEW110302	●				6.35	11	3.18	0.2	
	TPEW110304	●				6.35	11	3.18	0.4	
	TPEW110308	●				6.35	11	3.18	0.8	
	TPEW16T302	●				9.525	16.5	3.97	0.2	
	TPEW16T304	●				9.525	16.5	3.97	0.4	
	TNEW160402	●				9.525	16.5	4.76	0.2	
	TNEW160404	●				9.525	16.5	4.76	0.4	
	TNEW160408	●				9.525	16.5	4.76	0.8	

● - 標準庫存 Standard stock

INSERT



# 氮化硼刀片

## CUBIC BORON NITRIDE INSERTS

ISO 分類	P 合金鋼 Alloyed Steels						切削狀態 Cutting Condition :				圖形 Drawing
	M 不鏽鋼 Stainless Steels						● 連續切削 Continuous Cutting	○ 一般切削 General Cutting	■ 斷續切削 Interrupted Cutting		
	K 鑄鐵 Cast Iron										
	N 鋁及鋁合金 Aluminum&Al										
	S 高溫合金 Refractory Alloys										
	H 高硬度材 Hard Material	●	●	●							
形狀 Form	規格 Spec.	氮化硼 BN				尺寸 (mm)					
		BN				Size					
		CBN250	CBN300	CBN400			d	i	s		r
	VCEW110302	●					6.35	11	3.18	0.2	
	VCEW110304	●					6.35	11	3.18	0.4	
	VCEW160402	●					9.525	16.5	4.76	0.2	
	VCEW160404	●					9.525	16.5	4.76	0.4	
	VCEW160408	●					9.525	16.5	4.76	0.8	
	VNEW160404	●					9.525	16.5	4.76	0.4	
	VNEW160408	●					9.525	16.5	4.76	0.8	
		●									
	APEW1604PDER	●					9.525	16.5	4.76	-	
		●									
	SEEW1204APAN	●					12.7	-	4.76	-	
		●									
		●									

● - 標準庫存 Standard stock



# 毛胚刀片 BLANK INSERTS

ISO  
分類

P	合金鋼 Alloyed Steels								
M	不鏽鋼 Stainless Steels								
K	鑄鐵 Cast Iron								
N	鋁及鋁合金 Aluminum&Al								
S	高溫合金 Refractory Alloys								
H	高硬度材 Hard Material								

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

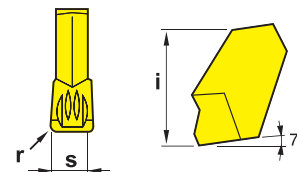
形狀 Form	規格 Spec.	硬質合金 Carbide							尺寸 (mm)				圖形 Drawing
		HC							Size				
		BM							d	i	s	r	
	APEW1003	●							6.68	10.5	3.18		
	APEW1604	●							9.525	16.5	4.76		
	SEEW1204	●							12.7	-	4.76		
	CCEW0602	●							6.35	6.5	2.38	-	
	CCEW09T3	●							9.525	9.7	3.97	-	
	CCEW1204	●							12.7	12.9	4.76	-	
	CNEW1204	●							12.7	12.9	4.76	-	
	DCEW0702	●							6.35	7.8	2.38	-	
	DCEW11T3	●							9.525	11.6	3.97	-	
	TCEW0902	●							5.56	9.6	2.38	-	
	TCEW1102	●							6.35	11	2.38	-	
	TCEW16T3	●							9.525	16.5	3.97	-	
	VCEW1103	●							6.35	11.2	3.78	-	
	VCEW1604	●							9.525	16.5	4.76	-	
	TNEW1604	●							9.525	16.5	4.76	-	
	TBEW0601	●							3.97	6.4	1.59	-	
	TPEW0802	●							4.76	8.2	2.38	-	
	TPEW0902	●							5.56	9.6	2.38	-	
	TPEW1103	●							6.35	11	3.18	-	
	TPEW16T3	●							9.525	16.5	3.97	-	

INSERT

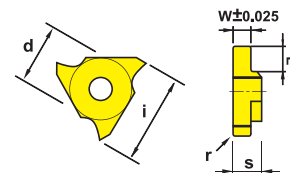




# 切斷刀片 PARTING-OFF INSERTS



適合刀具 Cutting Tool	規格 Spec.	鍍層超微粒 Layer coating ultra-micro						超硬微粒 Ultra-hard microprogram						尺寸 (mm)			
		CHF						HF						Size			
		OM4010	OM4025					OM5005							d	i	s
TDC、SGTHR 、SGIH	TGTN3	●	●					●						-	11.3	3.1	0.2
	TGTN4	●	●					●						-	11.3	4.1	0.25



適合刀具 Cutting Tool	規格 Spec.	鍍層超微粒 Layer coating ultra-micro								尺寸 (mm)					
		CHF								Size					
		RM4010								w	L	d	i	s	r
KGBR/WGHR	TGAR4200	●								2	3.9	12.7	19.7	4.76	0.2
	TGAR4250	●								2.5	5.4	12.7	19.7	4.76	0.3
	TGAR4300	●								3	5.4	12.7	19.7	4.76	0.3
	TGAR4350	●								3.5	5.4	12.7	19.7	4.76	0.3
	TGAR4400	●								4	5.4	12.7	19.7	4.76	0.4

INSERT



# 車牙刀片 THREADING INSERTS

外螺紋 External Threading

形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro						尺寸 (mm)				圖形 Drawing
		CHF						Size				
		RM325						ic	i	x	y	
	16ERA60	●						9.525	16	0.8	0.9	
	16ERAG60	●						9.525	16	1.1	1.5	
	16ERG60	●						9.525	16	1.2	1.7	
	22ERN60	●						9.525	16	1.7	2.5	
	16ERA55	●						9.525	16	0.8	0.9	
	16ERAG55	●						9.525	16	1.1	1.5	
	16ERG55	●						9.525	16	1.2	1.7	
	22ERN55	●						12.7	22	1.7	2.5	
	16ER1.0ISO	●						9.525	16	0.8	0.7	
	16ER1.25ISO	●						9.525	16	0.8	0.9	
	16ER1.5ISO	●						9.525	16	0.8	1.0	
	16ER1.75ISO	●						9.525	16	1.2	1.2	
	16ER2.0ISO	●						9.525	16	1.2	1.3	
	16ER2.5ISO	●						9.525	16	1.2	1.5	
	16ER3.0ISO	●						9.525	16	1.2	1.5	
	22ER3.5ISO	●						12.7	22	1.6	2.3	
	22ER4.0ISO	●						12.7	22	1.6	2.3	
	22ER4.5ISO	●						12.7	22	1.7	2.4	
	22ER5.0ISO	●						12.7	22	1.7	2.5	
	16ER24UN	●						9.525	16	0.8	0.8	
	16ER20UN	●						9.525	16	0.8	0.9	
	16ER18UN	●						9.525	16	0.8	1.0	
	16ER16UN	●						9.525	16	0.9	1.1	
	16ER14UN	●						9.525	16	1.2	1.5	
	16ER12UN	●						9.525	16	1.2	1.5	
	16ER10UN	●						9.525	16	1.2	1.5	
	16ER8UN	●						9.525	16	1.3	1.7	

INSERT



# 車牙刀片 THREADING INSERTS

內螺紋 Internal Threading

形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro						尺寸 (mm) Size				圖形 Drawing
		CHF						Size				
		RM325						ic	i	x	y	
	11IRA60	●						6.35	11	0.8	0.9	
	16IRA60	●						9.525	16	0.8	0.9	
	16IRAG60	●						9.525	16	1.1	1.5	
	16IRG60	●						9.525	16	1.2	1.7	
	22IRN60	●						12.7	22	1.7	2.5	
	11IRA55	●						6.35	11	0.8	0.9	
	16IRA55	●						9.525	16	0.8	0.9	
	16IRAG55	●						9.525	16	1.1	1.5	
	16IRG55	●						9.525	16	1.2	1.7	
	22IRN55	●						12.7	22	1.7	2.5	
	11IR1.0ISO	●						6.35	11	0.8	0.7	
	11IR1.25ISO	●						6.35	11	0.8	0.9	
	11IR1.5ISO	●						6.35	11	0.8	1.0	
	11IR1.75ISO	●						6.35	11	0.9	1.1	
	11IR2.0ISO	●						6.35	11	0.9	1.1	
	16IR1.0ISO	●						9.525	16	0.8	0.7	
	16IR1.25ISO	●						9.525	16	0.8	0.9	
	16IR1.5ISO	●						9.525	16	0.8	1.0	
	16IR1.75ISO	●						9.525	16	1.2	1.2	
	16IR2.0ISO	●						9.525	16	1.2	1.3	
	16IR2.5ISO	●						9.525	16	1.2	1.5	
	16IR3.0ISO	●						9.525	16	1.2	1.5	
	22IR3.5ISO	●						12.7	22	1.6	2.3	
	22IR4.0ISO	●						12.7	22	1.6	2.3	
	22IR4.5ISO	●						12.7	22	1.6	2.4	
22IR5.0ISO	●						12.7	22	1.6	2.3		
	11IR20UN	●						6.35	11	0.8	0.9	
	11IR18UN	●						6.35	11	0.8	1.0	
	16IR24UN	●						9.525	16	0.8	0.8	
	16IR20UN	●						9.525	16	0.8	0.9	
	16IR18UN	●						9.525	16	0.8	1.0	
	16IR16UN	●						9.525	16	0.9	1.1	
	16IR14UN	●						9.525	16	1.2	1.5	
	16IR12UN	●						9.525	16	1.2	1.5	
	16IR10UN	●						9.525	16	1.2	1.5	
	16IR8UN	●						9.525	16	1.3	1.7	

INSERT



# 鑽孔刀片 DRILLING INSERTS

ISO 分類	P	合金鋼 Alloyed Steels	●	○	○	○	○								切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting			
	M	不鏽鋼 Stainless Steels	●		○	○	○											
	K	鑄鐵 Cast Iron	●		○	○												
N	鋁及鋁合金 Aluminum&Al							■										
S	高溫合金 Refractory Alloys																	
H	高硬度材 Hard Material			○														
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro					超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing			
		CHF					HF											
		PTE30	RM4010	OM4010	OM4025	OM4035							d	i		s	r	
	WCKT030208																	
	WCKT040208																	
	WCKT050308																	
	WCKT06T308																	
	WCKT080408																	
	WCMX030208-M01	●																
	WCMX080412-M01	●																
	WCMT040208-M01	●																
	WCMT050308-M01	●																
	WCMT06T308-M01	●																
	WCMX030208R-PG		●															
	WCMX040208R-PG		●															
	WCMX050308R-PG		●															
	WCMX06T308R-PG		●															
	WCMX080412R-PG		●															

INSERT



# 銑削刀片 MILLING INSERTS

ISO  
分類

P	合金鋼 Alloyed Steels	○	○		○												
M	不鏽鋼 Stainless Steels	○			○												
K	鑄鐵 Cast Iron	○			○												
N	鋁及鋁合金 Aluminum&Al								■	■	○	■					
S	高溫合金 Refractory Alloys										○						
H	高硬度材 Hard Material																

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro					超硬微粒 Ultra-hard microprogram				尺寸 (mm)				圖形 Drawing
		CHF					HF				Size				
		OM4025	OM4025N	RM3130	RM4130	RM535	GH05	OM5005	OM5060	RM5005	d	i	s	r	
	APKT060204-M02				●						6.45	3.7	2.38	0.4	
	APKT100304PDER-M04				●						6.68	10.5	2.38	0.4	
	APKT1003PDER-M05					●					6.68	10.5	3.47	-	
	APEX100304PDFR-F01						●	●			6.68	10.5	2.38	0.4	
	APHT1003PDFR-F03								●		6.68	10.4	3.47	0.8	
	APGT100304PDFR-F04								●		6.68	10.5	2.38	0.4	
	APKT1604PDER-M05					●					9.525	16.4	4.76	0.4	
	APEX1604PDFR-701						●				9.525	16.4	4.76	0.2	
	APEX1604PDFR-F01							●	●		9.525	16.4	4.76	-	
	APEX160400PDFR-F01							●	●		9.525	16.4	4.76	-	
	APEX160404PDFR-F01							●	●		9.525	16.4	4.76	0.4	
	APEX160408PDFR-F01							●	●		9.525	16.4	4.76	0.8	
	APKT160408-M01	●	●								9.525	16.6	4.76	0.8	
	APGT1604PDFR-G2								●		9.525	16.5	4.76	0.8	
	APGT160408PDFR-F02								●		9.525	16.4	4.76	0.8	
	APKT160408PDER-M02			●	●						9.525	16.4	4.76	0.8	
	APMT1604PDER-M04				●						9.525	16.5	4.76	0.8	
	APMT1135PDER-M04				●						6.35	11	3.5	0.4	

INSERT



# 銑削刀片

## MILLING INSERTS

形狀 Form	規格 Spec.	鍍層超微粒 Ultra-hard microprogram										尺寸 (mm) Size				圖形 Drawing
		CHF										d	i	s	r	
		OM4010	OM4025													
<p><b>P</b> 合金鋼 Alloyed Steels <b>M</b> 不鏽鋼 Stainless Steels <b>K</b> 鑄鐵 Cast Iron <b>N</b> 鋁及鋁合金 Aluminum&amp;Al <b>S</b> 高溫合金 Refractory Alloys <b>H</b> 高硬度材 Hard Material</p>		○	○												切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting	
		○														
		○														
	APMT1503-R01 (P27215-3R)	●	●									15	9.52	3.18	0.8	
	APMT160408-R01		●									9.525	16.5	4.76	0.8	
	CNEX120612-M01	●	●									12.7	-	6.35	1.2	
	CNEX150812-M01	●	●									15	-	8	1.2	
	LPMT1504-R01 (P27275-3R)		●									12.7	15.88	4.76	-	
	LC1210	●										12.0	14.0	2.50	1.0	
	LC1220	●										12.0	14.0	2.50	2.0	
	LC1230	●										12.0	14.0	2.50	3.0	
	LC1210-F	●										12.0	14.0	2.50	1.0	
	LC1220-F	●										12.0	14.0	2.50	2.0	
	LC1230-F	●										12.0	14.0	2.50	3.0	
	LC1210-RE	●										12.0	14.0	2.50	1.0	
	LC1220-RE	●										12.0	14.0	2.50	2.0	
	LC1230-RE	●										12.0	14.0	2.50	3.0	
	LC1245-CH	●	●									12.0	14.0	2.50	-	
	LC1260-CH	●	●									12.0	14.0	2.50	-	

INSERT



# 銑削刀片 MILLING INSERTS

ISO 分類	P	合金鋼 Alloyed Steels	○	○			○	○	○	○								切削狀態 Cutting Condition: ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○			○	○	○	○								
	K	鑄鐵 Cast Iron					○	○										
	N	鋁及鋁合金 Aluminum&Al																
S	高溫合金 Refractory Alloys																	
H	高硬度材 Hard Material					○												
形狀 Form	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy				鍍層超微粒 Layer coating ultra-micro				超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing
		HC				CHF				HF				Size				
		OM1115	OM2115			OM4010	OM4025	OM4035	SP4036	OM5005					d	i	s	
	ODMT040408							●						12.7	4.6	4.76	0.8	
	BR10(P3200-D10)					●	●			●				10	4	2.5	-	
	BR12(P3200-D12)					●	●			●				12	5	2.5	-	
	BR16(P3200-D16)					●	●			●				16	5	3	-	
	BR20(P3200-D20)					●	●			●				20	5	3	-	
	BR25(P3200-D25)					●	●			●				25	6	4	-	
	BR08S(P3204-D08)					●	●			●				8	3	2	-	
	BR10S(P3204-D10)					●	●			●				10	4	2.5	-	
	BR12S(P3204-D12)					●	●			●				12	5	2.5	-	
	BR16S(P3204-D16)					●	●			●				16	5	3	-	
	BR20S(P3204-D20)					●	●			●				20	5	3	-	
	BR25S(P3204-D25)					●	●			●				25	6	4	-	
	BR30S(P3204-D30)					●	●			●				30	8	5	-	
BR32S(P3204-D32)					●	●			●				32	8	5	-		
	RDHX0501MOE	●	●											5	-	1.51	2.5	
	RDHW0702MOT							●						7	-	2.38	3.5	
	RDHW1003MOT							●						10	-	3.47	5	
	RDMT0802MOT					●	●							8	-	2.38	4	
	RDMT10T3MOT						●							10	-	3.97	5	
	RDKW0702MO	●	●											7	-	2.38	3.5	
	RDKW1003MO	●	●											10	-	3.18	5	

INSERT



# 銑削刀片 MILLING INSERTS

ISO 分類	P	合金鋼 Alloyed Steels	○	○		○	○											切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○	○		○	○										
	K	鑄鐵 Cast Iron	○	○														
N	鋁及鋁合金 Aluminum&Al								■	■	■							
S	高溫合金 Refractory Alloys			○														
H	高硬度材 Hard Material	○																
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro						超硬微粒 Ultra-hard microprogram			尺寸 (mm) Size				圖形 Drawing			
		CHF						HF			d	i	s	r				
		OM4010	OM4025	RM2140	RM4025	RM4130	RM4230		OM5005	OM5060	RM5005							
	RPMW1003MO		●									10	-	3.18	5			
	RPMW1003MON					●						10	-	3.18	5			
	RPMT10T3MON					●						10	-	3.97	5			
	RPMT1204MON					●						12	-	4.76	6			
	RPET1204MOE-M01	●	●					●				12	-	4.76	6			
	RPEX1204MOE-X8	●	●					●				12	-	4.76	6			
	RDMX0802MOTN-X8	●	●									8	-	2.38	4			
	RDET1003MOF-F01							●	●			10	-	3.18	5			
	RDET1604MOF-F01							●	●			16	-	4.76	8			
	RDMT0802MOTN					●						8	-	2.38	4			
	RDMT10T3MOTN					●						10	-	3.97	5			
	RDMT1204MOTN					●						12	-	4.76	6			
	RDMT1604MOTN					●						16	-	4.76	8			
	SDMT090308-R01	●	●									9.52	-	3.18	0.8			
	SEKT1204AFTN				●							12.7	-	4.76	-			
	SEMT13T3AGEN-M02			●	●							13.4	-	3.97	2.55			
	SEET13T3AGFN-F01								●			13.4	-	3.97	2.55			
	SEHT1204AFEN-M01	●	●									12.7	-	4.76	Facet			
	SEHT1204AFEN-M02					●						12.7	-	4.76	Facet			

INSERT





# 銑削刀片

## MILLING INSERTS

ISO 分類	P	合金鋼 Alloyed Steels	○	○	○		○											
	M	不鏽鋼 Stainless Steels	○	○			○											
	K	鑄鐵 Cast Iron	○	○			○											
	N	鋁及鋁合金 Aluminum&Al							■	■	■	■						
S	高溫合金 Refractory Alloys																	
H	高硬度材 Hard Material	○																
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro					超硬微粒 Ultra-hard microprogram					尺寸 (mm) Size				圖形 Drawing		
		CHF					HF					d	i	s	r			
		OM4010	OM4025	RM4025	RM3130	RM4030	GH1	OM5005	OM5060	RM5060								
	SEHT1204AFFN						●		●				12.7	-	4.76	-		
	SEKW1204AFN		●										12.7	-	4.76	-		
	SNFX1102	●	●					●					11	-	2.3	-		
	SNFX1103	●	●					●					11	-	2.7	-		
	SNFX1203	●	●					●					12.7	-	3.2	-		
	SNFX1205	●	●					●					12.7	-	5.4	-		
	SNFX1207	●	●					●					12.7	-	7	-		
	SNFX120516		●										12.7	-	5.4	1.6		
	SPGT050204-M02					●			●				5	-	2.38	0.4		
	SPGT060204-M02					●			●				6	-	2.38	0.4		
	SPGT07T308-M02					●			●				7.94	-	3.97	0.8		
	SPGT090408-M02					●			●				9.8	-	4.3	0.8		
	SPGT110408-M02					●			●				11.5	-	4.76	0.8		
	SPGT140512-M02					●			●				14.3	-	5.2	1.2		
	SPET120408-M02	●	●						●				12.7	-	4.76	0.8		
	SPMT050204-M01			●	●								5	-	2.38	0.4		
	SPMT060204-M01			●	●								6	-	2.38	0.4		
	SPMT07T308-M01			●	●								7.94	-	3.97	0.8		
	SPMT090408-M01			●	●								9.8	-	4.3	0.8		
	SPMT110408-M01			●	●								11.5	-	4.76	0.8		
	SPMT140512-M01			●	●								14.3	-	5.2	1.2		
	SPMT120408-R01			●									12.7	-	4.76	0.8		

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

INSERT



# 銑削刀片 MILLING INSERTS

ISO 分類	P	合金鋼 Alloyed Steels	○	○		○	○	○										切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○	○													
	K	鑄鐵 Cast Iron	○	○														
N	鋁及鋁合金 Aluminum&Al																	
S	高溫合金 Refractory Alloys																	
H	高硬度材 Hard Material	○																
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro				硬質合金 Hard alloy			超硬微粒 Ultra-hard microprogram			尺寸 (mm)				圖形 Drawing		
		CHF				HW			HF			Size						
		OM4010	OM4025	RM3240	RM4025	TSP20	TSP25	TSK10	OM5005				d	i	s		r	
	SPMW090304	●	●									9.525	-	3.18	0.4			
	SPMT090308-M01				●							9.8	-	3.18	0.8			
	SPET060308ER-M01	●	●						●			7	7	3.18	0.8			
	SDET120508ER-M01	●	●									12.7	12.7	5.56	0.8			
	SDET090408EDER-M01	●	●						●			9.52	9.52	4.76	0.8			
	SDMT090408EDER-M01		●	●								9.52	9.52	4.76	0.8			
	SEKN1203AFR						●	●				12.7	-	3.18	-			
	SEKN1504AFR					●	●	●				15.875	-	4.76	-			
	SPK43C2SR					●	●					12.7	-	4.76	-			
	SPK53C2SR					●	●	●				15.88	-	4.76	-			
	SPKN1203EDR					●	●					12.7	-	3.18	-			

INSERT



# 銑削刀片 MILLING INSERTS

ISO 分類	P	合金鋼 Alloyed Steels	○	○				○	○									切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○														
	K	鑄鐵 Cast Iron	○	○														
	N	鋁及鋁合金 Aluminum&Al																
S	高溫合金 Refractory Alloys																	
H	高硬度材 Hard Material	○																
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro				硬質合金 Hard alloy			超硬微粒 Ultra-hard microprogram			尺寸 (mm) Size				圖形 Drawing		
		CHF				HW			HF			Size						
		OM4010	OM4025			TSP20	TSP25	TSK10	OM5005			d	i	s	r			
	TCEX100302E-FR								●		5.8	10	3.18	0.2				
	TCEX100304E-FR								●		5.8	10	3.18	0.4				
	TCEX100302E-AR	●	●								5.8	10	3.18	0.2				
	TCEX100304E-AR	●	●								5.8	10	3.18	0.4				
	TCEX13T302E-FR								●		7.94	13.4	3.97	0.2				
	TCEX13T304E-FR								●		7.94	13.4	3.97	0.4				
	TCEX13T302E-AR	●	●								7.94	13.4	3.97	0.2				
	TCEX13T304E-AR	●	●								7.94	13.4	3.97	0.4				
	TCEX16T304E-FR								●		9.52	16.5	3.97	0.4				
	TCEX16T308E-FR								●		9.52	16.5	3.97	0.8				
	TCMX16T304E-AR	●	●								9.52	16.5	3.97	0.4				
	TCMX16T308E-AR	●	●								9.52	16.5	3.97	0.8				
	TPKN1603PDR						●	●			9.525	-	3.18	-				
	TPKN2204PDR					●	●	●			12.7	-	4.76	-				
	TPMN160308						●	●			9.525	-	3.18	0.8				
	TPMN220412					●	●	●			12.7	-	4.76	1.2				

INSERT

# Milling

Precision Tool Systems





# BT/MAS 剛體模霸刀桿

## BT/MAS CORNER ROUNDING END MILLS

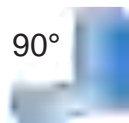


Fig.1

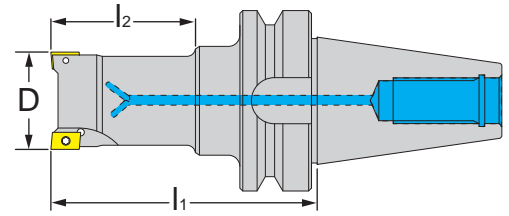
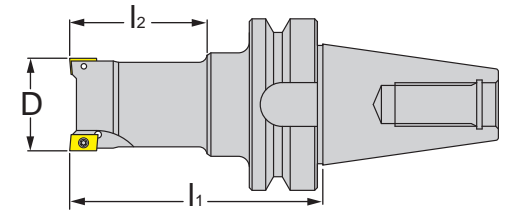


Fig.2



### 特點 Feature

- 整體式結構
- 剛性增加
- 加工效率提升
- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Integrated structure.
- Improved rigidity.
- Advanced efficiency.
- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	$l_1$	$l_2$	D	刃數 Teeth	刀片 Insert	Fig.	重量 (KGS) Weight
BT30-MAS16AP10-65-2T-C	65	28	16	2	AP.1003	1	0.60
BT30-MAS20AP10-65-3T-C	65	28	20	3	AP.1003	1	0.56
BT30-MAS25AP10-65-4T-C	65	33	25	4	AP.1003	1	0.60
BT30-MAS32AP10-65-5T-C	65	40	32	5	AP.1003	1	0.70
BT40-MAS16AP10-90-2T-C	90	35	16	2	AP.1003	1	1.27
BT40-MAS20AP10-90-3T-C	90	40	20	3	AP.1003	1	1.28
BT40-MAS25AP10-90-4T-C	90	53	25	4	AP.1003	1	1.34
BT40-MAS32AP10-90-5T-C	90	55	32	5	AP.1003	1	1.40
BT40-MAS40AP10-90-6T-C	90	60	40	6	AP.1003	1	1.60
● BT30-MAS25AP10-65-3T	65	33	25	3	AP.1003	2	0.60

●無鍍層 uncoating.

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP.1003	M2.5-6.45-3.7-43	T8	1.2

MILLING



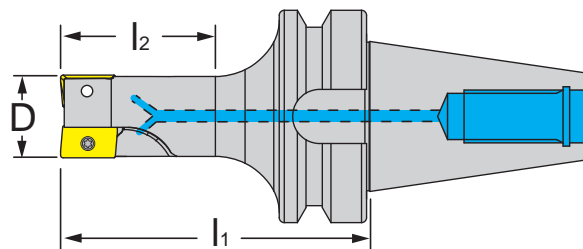


# BT/MAS 剛體模霸刀桿

## BT/MAS CORNER ROUNDING END MILLS



90°



### 特點 Feature

- 整體式結構
- 剛性增加
- 加工效率提升
- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Integrated structure.
- Improved rigidity.
- Advanced efficiency.
- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	$l_1$	$l_2$	D	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
BT40-MAS25AP16-90-2T-C	90	45	25	2	AP..1604	1.34
BT40-MAS32AP16-90-3T-C	90	45	32	3	AP..1604	1.44
BT40-MAS40AP16-90-4T-C	90	45	40	4	AP..1604	1.60
BT40-MAS50AP16-90-4T-C	90	45	50	4	AP..1604	1.87
BT50-MAS25AP16-90-2T-C	90	40	25	2	AP..1604	4.02
BT50-MAS32AP16-90-3T-C	90	40	32	3	AP..1604	4.06
BT50-MAS40AP16-90-4T-C	90	40	40	4	AP..1604	4.12
BT50-MAS50AP16-90-4T-C	90	40	50	4	AP..1604	4.36
BT50-MAS63AP16-90-5T-C	90	40	63	5	AP..1604	4.76

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP..1604	M4-10-5.7-60	T15	3.0





# BT/MAS 剛體模霸刀桿

## BT/MAS CORNER ROUNDING END MILLS



ISO 分類	P	合金鋼 Alloyed Steels	○	○		○											切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○			○											
	K	鑄鐵 Cast Iron	○		○												
	N	鋁及鋁合金 Aluminum&Al						■	■	○	■						
S	高溫合金 Refractory Alloys					○											
H	高硬度材 Hard Material																
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro					超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing		
		CHF					HF				Size						
		OM4025	OM4025N	RM3130	RM4130	RM535	GH05	OM5005	OM5060	RM5005	d	i	s	r			
	APKT100304PDER-M04				●						6.68	10.5	2.38	0.4			
	APKT1003PDER-M05					●					6.68	10.5	3.47	-			
	APEX100304PDFR-F01						●	●			6.68	10.5	2.38	0.4			
	APHT1003PDFR-F03								●		6.68	10.4	3.47	0.8			
	APGT100304PDFR-F04									●	6.68	10.5	2.38	0.4			
	APKT1604PDER-M05					●					9.525	16.4	4.76	0.4			
	APEX1604PDFR-701						●				9.525	16.4	4.76	0.2			
	APEX1604PDFR-F01							●	●		9.525	16.4	4.76	-			
	APEX160400PDFR-F01							●	●		9.525	16.4	4.76	-			
	APEX160404PDFR-F01							●	●		9.525	16.4	4.76	0.4			
	APEX160408PDFR-F01							●	●		9.525	16.4	4.76	0.8			
	APKT160408-M01	●	●								9.525	16.6	4.76	0.8			
	APGT1604PDFR-G2									●	9.525	16.5	4.76	0.8			
	APGT160408PDFR-F02									●	9.525	16.4	4.76	0.8			
	APKT160408PDER-M02				●	●					9.525	16.4	4.76	0.8			

MILLING



## AP\_10.16 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P 低合金鋼 Low-Alloy Steels	OM4025	220~300	0.14~0.24	1.0~2.0
	OM4025N	220~300	0.14~0.24	1.0~2.0
	RM4130	60~300	0.10~0.25	1.0~2.0
	合金鋼 Alloyed Steels	OM4025	100~195	0.12~0.20
M 不鏽鋼 Stainless Steels	RM4130	60~300	0.10~0.25	1.0~2.0
	OM4025	180~230	0.15~0.35	0.5~1.5
K 鑄鐵 Cast Iron	RM4130	120~160	0.10~0.25	0.5~1.5
	OM4025	200~300	0.06~0.30	1.5~3.0
N 鋁合金 Aluminum&Al	OM4025	200~300	0.06~0.30	1.5~3.0
	OM5005	400~850	0.05~0.30	1.5~3.0
	OM5060	400~850	0.05~0.30	1.5~3.0
	RM5005	400~850	0.05~0.30	1.5~3.0
S 高溫合金 Refractory Alloys	GH05	300~700	0.04~0.25	1.5~3.0
	RM535	100~195	0.12~0.20	1.0~2.0

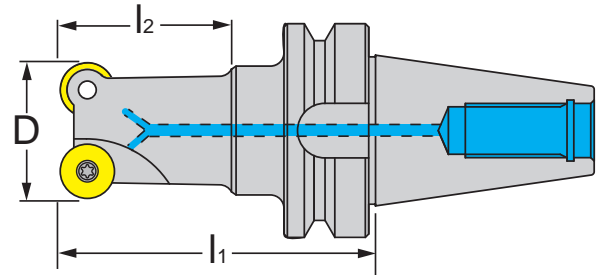
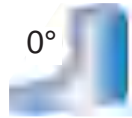
主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.





# BT/STR 剛體模霸刀桿 BT/STR CORNER ROUNDING END MILLS



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	D	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
BT40-STR3.5R16-90L-2T	90	40	16	2	RD..0702	1.29
BT40-STR3.5R16-120L-2T	120	65	16	2	RD..0702	1.30
BT40-STR3.5R20-90L-3T	90	45	20	3	RD..0702	1.32
BT40-STR3.5R20-120L-3T	120	70	20	3	RD..0702	1.33
BT40-STR3.5R25-90L-3T	90	40	25	3	RD..0702	1.36
BT40-STR3.5R25-120L-3T	120	70	25	3	RD..0702	1.41
BT40-STR3.5R30-120L-4T	120	85	30	4	RD..0702	1.52
BT40-STR5R30-90L-3T	90	55	30	3	RD..1003	1.31
BT40-STR5R35-90L-4T	90	60	35	4	RD..1003	1.42
BT40-STR5R35-120L-4T	120	85	35	4	RD..1003	1.59

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
RD..0702	M2.5-6.45-3.7-43	T8	M3.5-8.0-5.0-60	T15	3.0
RD..1003	M3.5-8.0-5.0-60	T15	M4-8.0-5.7-60	T15	3.0

※ 圓刀端銑刀，其軸向切深與有效刃徑有相對應關係，計算切削數據時，須修正  
The axial cutting depth is related to effective diameter on a round tooth milling cutter. Please be aware when calculating cutting parameter.

每刃進給切削公式  
Feeding per teeth

$$f_z = h_m \times \sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}$$

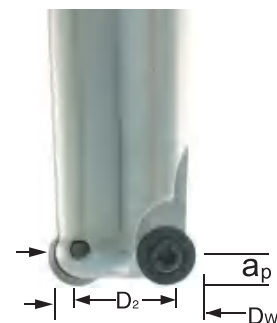
平均屑片厚度計算公式  
Average chip thickness

$$h_m = \frac{f_z}{\sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}}$$

有效刃徑計算公式  
Effective diameter

$$D_w = D_2 + 2 \times \sqrt{r^2 - (r - A_p)^2}$$

where: D<sub>w</sub> = 有效直徑 (mm)  
D<sub>2</sub> = 刀具中心距 (mm)  
r = 刀片半徑 (mm)  
A<sub>p</sub> = 切深 (mm)



MILLING





# BT/STR 剛體模霸刀桿 BT/STR CORNER ROUNDING END MILLS



ISO 分類	P	合金鋼 Alloyed Steels	○	○															切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○															
	K	鑄鐵 Cast Iron																	
N	鋁及鋁合金 Aluminum&Al																		
S	高溫合金 Refractory Alloys																		
H	高硬度材 Hard Material																		
形狀 Form	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						鍍層超微粒 Layer coating ultra-micro						尺寸 (mm)				圖形 Drawing	
		HC						CHF						Size					
		OM1115	OM2115					SP4036								d	i		s
	RDHW0702MOT							●							7	-	2.38	3.5	
	RDHW1003MOT							●							10	-	3.47	5	
	RDKW0702MO	●	●												7	-	2.38	3.5	
	RDKW1003MO	●	●												10	-	3.18	5	

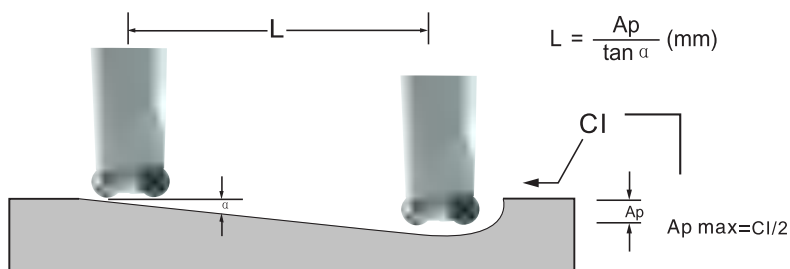
## RD\_07.10 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	平均屑片厚度 (mm)	切深 (mm)
P 低合金鋼 Low-Alloy Steels	OM1115	160~300	0.14~0.04	0.10~0.50
	OM2115	120~250	0.08~0.25	0.10~0.50
	SP4036	220~300	0.08~0.25	0.10~0.50
P 合金鋼 Alloyed Steels	OM1115	160~300	0.14~0.04	0.10~0.50
	OM2115	120~250	0.08~0.25	0.10~0.50
	SP4036	100~195	0.08~0.22	0.10~0.40
M 不鏽鋼 Stainless Steels	OM1115	70~100	0.06~0.10	0.10~0.25
	OM2115	70~100	0.06~0.10	0.10~0.25
	SP4036	70~100	0.06~0.10	0.10~0.25

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.

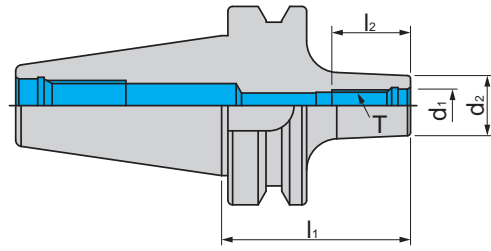
### 最大斜向切削公式 Max. inclined cutting



規格	螺旋下刀孔徑 (mm)		最大斜度 切削角度 $\alpha^\circ$	最大斜向進刀 長度
	最小	最大		
STR-3.5R16	16	23	13°	15.16
STR-3.5R20	20	27	14.5°	13.53
STR-3.5R25	25	32	10°	19.85
STR-5R25	25	32	10°	19.85
STR-5R30	30	40	14°	20.05
STR-5R35	35	45	14°	20.05



## BT/SOM 鎖牙式刀桿 BT/SOM SCREWED-ON END MILLS HOLDER



### 特點 Feature

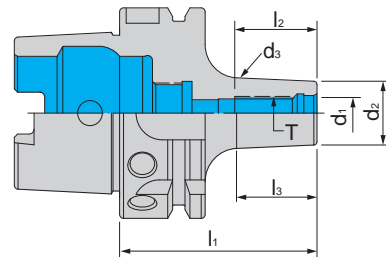
- 標準平衡 G6.3 10000rpm(全研磨)
- 整支通孔·利於出水及抗震

- Standard balance of G6.3 at 10000 rpm.(all grinding).
- Through-hole design, ideal for water leakage and vibration resistance.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	T	重量 (KGS) Weight
BT40 × SOM6-60	60	25	23.4	6.5	13	15.1	M6×1.0P	1.10
BT40 × SOM8-60	60	25	23.4	8.5	15	17.1	M8×1.25P	1.10
BT40 × SOM10-60	60	25	23.4	10.5	19	21.1	M10×1.5P	1.20
BT40 × SOM12-70	70	31	31.5	12.5	21	22.8	M12×1.75P	1.20
BT40 × SOM12-100	100	31	42.4	12.5	21	23.8	M12×1.75P	1.30
BT40 × SOM16-80	80	30	48.2	17	25	29.1	M16×2.0P	1.20
BT50 × SOM6-60	60	25	12.4	6.5	13	14.1	M6×1.0P	3.00
BT50 × SOM8-60	60	25	12.4	8.5	15	16.1	M8×1.25P	3.00
BT50 × SOM10-60	60	25	12.4	10.5	19	20.1	M10×1.5P	3.00
BT50 × SOM12-70	70	31	22.4	12.5	21	22.9	M12×1.75P	3.00
BT50 × SOM12-100	100	31	52.4	12.5	21	25.6	M12×1.75P	3.00
BT50 × SOM16-80	80	30	32.4	17	25	27.7	M16×2.0P	3.00



## HSK(A)/SOM 鎖牙式刀桿 HSK(A)/SOM SCREWED-ON END MILLS HOLDER



### 特點 Feature

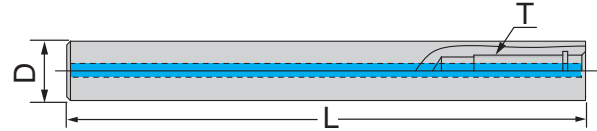
- 標準平衡 G6.3 8000rpm(全研磨)
- 整支通孔·利於出水及抗震

- Standard balance of G6.3 at 8000 rpm.(all polishing).
- Through-hole design, ideal for water leakage and vibration resistance.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	T	重量 (KGS) Weight
HSK50A × SOM6-60	60	25	24	6.5	13	15	M6 × 1.0P	0.70
HSK50A × SOM8-60	60	25	24	8.5	15	17	M8 × 1.25P	0.70
HSK50A × SOM10-60	60	25	24	10.5	19	21	M10 × 1.5P	0.80
HSK50A × SOM12-70	70	31	36	12.5	21	24	M12 × 1.75P	0.80
HSK50A × SOM16-80	80	30	49	17	25	29	M16 × 2.0P	0.80
HSK63A × SOM6-60	60	25	24	6.5	13	15	M6 × 1.0P	1.00
HSK63A × SOM8-60	60	25	24	8.5	15	17	M8 × 1.25P	1.00
HSK63A × SOM10-60	60	25	24	10.5	19	21	M10 × 1.5P	1.10
HSK63A × SOM12-70	70	31	34	12.5	21	23	M12 × 1.75P	1.10
HSK63A × SOM16-80	80	30	49	17	25	29	M16 × 2.0P	1.10



## 直柄 C/M 螺紋鎖固式鎢鋼延長桿 C/M STRAIGHT SHANK TUNGSTEN CARBIDE EXTENSION SHANK



### 特點 Feature

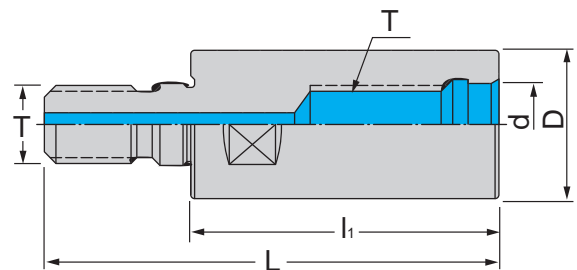
- 整支通孔 · 利於出水及抗震

- Through-hole design, ideal for water leakage and vibration resistance.

規格 Spec.	L	D	T	重量 (KGS) Weight
C10-M5-150-C	150	10	M5X0.8P	0.16
C12-M6-100-C	100	12	M6×1.0P	0.16
C12-M6-150-C	150	12	M6×1.0P	0.24
C16-M8-100-C	100	16	M8×1.25P	0.26
C16-M8-150-C	150	16	M8×1.25P	0.57
C16-M8-200-C	200	16	M8×1.25P	0.54
C20-M10-150-C	150	20	M10×1.5P	0.60
C20-M10-200-C	200	20	M10×1.5P	0.85
C25-M12-200-C	200	25	M12×1.75P	1.30
C25-M12-250-C	250	25	M12×1.75P	1.60



## SOM 鎖牙式延長桿 SOM SCREWED-ON END MILLS EXTENSION SHANK



### 特點 Feature

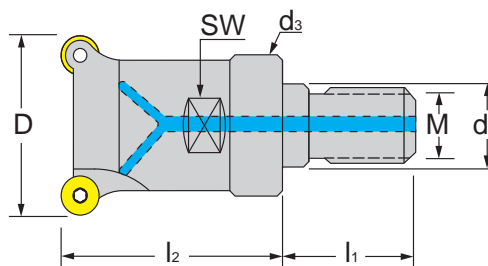
- 整支通孔利於出水及抗震  
- 採用抗震型材質  
- 螺紋精度一級牙 4H

- Through-hole design, ideal for water leakage and vibration resistance.  
- Made of vibration resistance material.  
- Thread accuracy grade 1, 4H.

規格 Spec.	L	l <sub>1</sub>	D	d	T	重量 (KGS) Weight
SOM6-25	42	25	13	6.5	M6×1.0P	0.03
SOM8-32	50	32	15	8.5	M8×1.25P	0.06
SOM10-40	59	40	19	10.5	M10×1.5P	0.09
SOM12-50	73	50	21	12.5	M12×1.75P	0.13
SOM16-60	85	60	25	17	M16×2.0P	0.23



# STR 鎖牙式切削刀具 STR SCREWED-ON END MILLING CUTTER



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	D	d <sub>1</sub>	d <sub>3</sub>	M	SW	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
STR-2.5R12M6-2T	17	22	12	6.5	10	6	8	2	RD..0501	0.03
STR-3.5R16M8-2T	18	23	16	8.5	13.5	8	12	2	RD..0702	0.05
STR-3.5R20M10-3T	19	30	20	10.5	18	10	14	3	RD..0702	0.08
STR-3.5R25M12-3T	23	35	25	12.5	21	12	17	3	RD..0702	0.12
STR-5R25M12-2T	23	35	25	12.5	21	12	17	2	RD..1003	0.11
STR-5R30M16-3T	25	42	30	17	26	16	21	3	RD..1003	0.19
STR-5R35M16-4T	25	42	35	17	29	16	21	4	RD..1003	0.23

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
RD..0501	M2-3.8-2.68-43	T6	0.6	M2-3.8-2.68-43	T6	0.6
RD..0702	M2.5-6.45-3.7-43	T8	1.2	M3.5-8.0-5.0-60	T15	3.0
RD..1003	M3.5-8.0-5.0-60	T15	3.0	M4-8.0-5.7-60	T15	3.0

每刃進給切削公式  
Feeding per teeth

$$f_z = h_m \times \sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}$$

平均屑片厚度計算公式  
Average chip thickness

$$h_m = \frac{f_z}{\sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}}$$

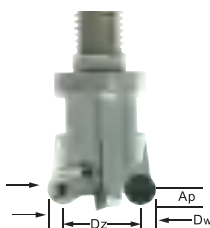
有效刃徑計算公式  
Effective diameter

$$D_w = D_2 + 2 \times \sqrt{r^2 - (r - A_p)^2}$$

where: D<sub>w</sub> = 有效直徑 (mm)  
D<sub>2</sub> = 刀具中心距 (mm)  
r = 刀片半徑 (mm)  
A<sub>p</sub> = 切深 (mm)

鎖固力矩 Locking torque

螺紋 Screw thread	緊固力矩 Locking N.m	扳手開口度 (mm) Spanner Size
M6	6Nm	SW8
M8	23Nm	SW12
M10	46Nm	SW14
M12	80Nm	SW17
M16	90Nm	SW21
M20	200Nm	SW30
M20	200Nm	SW36



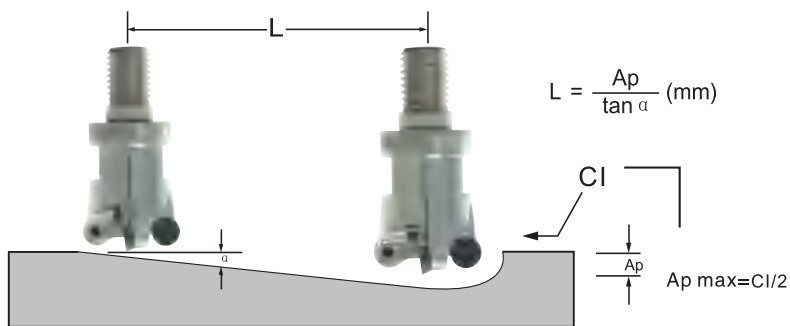


# STR 鎖牙式切削刀具 STR SCREWED-ON END MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○	○																			切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting	
	M	不鏽鋼 Stainless Steels	○	○																				
	K	鑄鐵 Cast Iron																						
N	鋁及鋁合金 Aluminum&Al																							
S	高溫合金 Refractory Alloys																							
H	高硬度材 Hard Material																							
形狀 Form	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						鍍層超微粒 Layer coating ultra-micro						尺寸 (mm) Size				圖形 Drawing						
		HC						CHF						Size										
		OM1115	OM2115					SP4019								d	i		s	r				
	RDHX0501MOE	●	●												5	-	1.51	2.5						
	RDHW0702MOT							●							7	-	2.38	3.5						
	RDHW1003MOT							●							10	-	3.47	5						

## 最大斜向切削公式 Max. inclined cutting



規格	螺旋下刀孔徑 (mm)		最大斜度切削角度 α°	最大斜向進刀長度
	最小	最大		
STR-2.5R12	12	19	21.5°	8.89
STR-3.5R16	16	23	13°	15.16
STR-3.5R20	20	27	14.5°	13.53
STR-3.5R25	25	32	10°	19.85
STR-5R25	25	32	10°	19.85
STR-5R30	30	40	14°	20.05
STR-5R35	35	45	14°	20.05

## RD\_05.07.10 切削條件數據表 Cutting Conditions

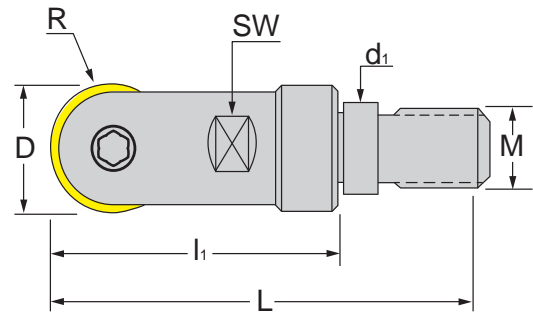
被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	平均屑片厚度 (mm)	切深 (mm)
P 低合金鋼 Low-Alloy Steels	OM1115	160~300	0.14~0.04	0.10~0.50
	OM2115	120~250	0.08~0.25	0.10~0.50
	SP4019	220~300	0.08~0.25	0.10~0.50
P 合金鋼 Alloyed Steels	OM1115	160~300	0.14~0.04	0.10~0.50
	OM2115	120~250	0.08~0.25	0.10~0.50
	SP4019	100~195	0.08~0.22	0.10~0.40
M 不鏽鋼 Stainless Steels	OM1115	70~100	0.06~0.10	0.10~0.25
	OM2115	70~100	0.06~0.10	0.10~0.25
	SP4019	70~100	0.06~0.10	0.10~0.25

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



# BR 鎖牙式球型銑刀 BRSCREWED-ON ROUNDED CORNER END MILLING CUTTER



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	D	d <sub>1</sub>	R	M N.m	SW	刀片 Insert	重量 (KGS) Weight
BR-4R08M6	34	20	8	8.5	4	M6 / 10	8	BR08.(P32..D08)	0.04
BR-5R10M6	36	21	10	8.5	5	M6 / 10	8	BR10.(P32..D10)	0.05
BR-6R12M6	40	25	12	8.5	6	M6 / 10	8	BR12.(P32..D12)	0.05
BR-8R16M8	43	26	16	8.5	8	M8 / 23	12	BR16.(P32..D16)	0.06
BR-10R20M10	51	32	20	10.5	10	M10 / 46	14	BR20.(P32..D20)	0.09
BR-12.5R25M12	62	40	25	12.5	12.5	M12 / 80	17	BR25.(P32..D25)	0.06
BR-15R30M16	62	40	30	17	15	M16 / 90	21	BR30.(P32..D30)	0.26
BR-16R32M16	65	43	32	17	16	M16 / 90	21	BR32.(P32..D32)	0.29

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
BR08.(P32..D08)	BR4	T8	1.2
BR10.(P32..D10)	BR5	T15	3.0
BR12.(P32..D12)	BR6	T20	5.0
BR16.(P32..D16)	BR8	T20	5.0
BR20.(P32..D20)	BR10	T20	5.0
BR25.(P32..D25)	BR12.5	T30	10.0
BR30.(P32..D30)	BR15	T30	10.0
BR32.(P32..D32)	BR16	T30	10.0





# BR 鎖牙式球型銑刀

## BRSCREWED-ON ROUNDED CORNER END MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○	○																			切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting		
	M	不鏽鋼 Stainless Steels	○	○																					
	K	鑄鐵 Cast Iron	○	○																					
	N	鋁及鋁合金 Aluminum&Al									■														
S	高溫合金 Refractory Alloys																								
H	高硬度材 Hard Material		○																						
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro				超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing											
		CHF				HF																			
		OM4010	OM4025			OM5005					d	i	s		r										
	BR10(P3200-D10)	●	●							●					10	4	2.5	-							
	BR12(P3200-D12)	●	●							●					12	5	2.5	-							
	BR16(P3200-D16)	●	●							●					16	5	3	-							
	BR20(P3200-D20)	●	●							●					20	5	3	-							
	BR25(P3200-D25)	●	●							●					25	6	4	-							
	BR08S(P3204-D08)	●	●							●					8	3	2	-							
	BR10S(P3204-D10)	●	●							●					10	4	2.5	-							
	BR12S(P3204-D12)	●	●							●					12	5	2.5	-							
	BR16S(P3204-D16)	●	●							●					16	5	3	-							
	BR20S(P3204-D20)	●	●							●					20	5	3	-							
	BR25S(P3204-D25)	●	●							●					25	6	4	-							
	BR30S(P3204-D30)	●	●							●					30	8	5	-							
	BR32S(P3204-D32)	●	●							●					32	8	5	-							

### BR\_10.12.16.20.25.30.32 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)
P 低合金鋼 Low-Alloy Steels	OM4010	180~200	0.08~0.20
	OM4025	180~220	0.08~0.19
P 合金鋼 Alloyed Steels	OM4010	100~140	0.08~0.12
	OM4025	100~120	0.06~0.12
M 不鏽鋼 Stainless Steels	OM4010	160~200	0.08~0.12
	OM4025	155~190	0.08~0.12
K 鑄鐵 Cast Iron	OM4025	110~143	0.09~0.11
N 鋁合金 Aluminum&Al	OM5005	300~500	0.05~0.30

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.

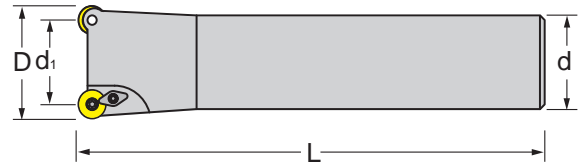
MILLING





# HR 圓刃端銑刀

## HR ROUNDED CORNER END MILLING CUTTER



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	d	d <sub>1</sub>	R	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
HR-4R2020-150L	150	20	20	12	4R	2	RP..0803	0.37
HR-5R2525-150L	150	25	25	15	5R	2	RP..10T3	0.56
HR-5R2525-200L	200	25	25	15	5R	2	RP..10T3	0.76
HR-5R3025-150L	150	30	25	20	5R	2	RP..10T3	0.59
HR-5R3025-200L	200	30	25	20	5R	2	RP..10T3	0.78
HR-5R3532-150L	150	35	32	25	5R	3	RP..10T3	0.92
HR-5R3532-200L	200	35	32	25	5R	3	RP..10T3	1.26
HR-5R3532-300L	300	35	32	25	5R	3	RP..10T3	1.89
HR-6R3225-200L	200	32	25	20	6R	2	RP..1204	0.78
HR-6R3232-200L	200	32	32	20	6R	2	RP..1204	1.21
HR-6R4032-180L	180	40	32	28	6R	3	RP..1204	1.16
HR-6R4032-230L	230	40	32	28	6R	3	RP..1204	1.48

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板螺絲 Clamp Screw	壓板 Clamp	扳手 Wrench	扭力值 (N.m) Torque
RP..0803	M3-8.0-4.4-60	T9	1.4	-	-	T9	1.4
RP..10T3	M4-10-5.0-43	T15	3.0	M3.5-8.0-5.5-60	HR-5R	T15	3.0
RP..1204	M4-10-5.0-43	T15	3.0	M5-11-7.5-60	HR-6R	T20	5.0



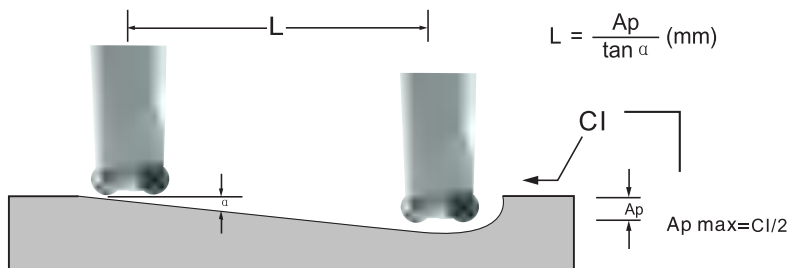
# HR 圓刃端銑刀

## HR ROUNDED CORNER END MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○	○					○	○						切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting		
	M	不鏽鋼 Stainless Steels	○	○					○	○								
	K	鑄鐵 Cast Iron	○	○														
	N	鋁及鋁合金 Aluminum&Al									■	■						
S	高溫合金 Refractory Alloys																	
H	高硬度材 Hard Material		○															
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro				硬質合金 Hard alloy				超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing
		CHF				HW				HF				Size				
		OM4010	OM4025			SP6564	MP91M			GH1	OM5005			d	i	s	r	
	RPMT0803M3E-41					●	●						8	-	3.18	4		
	RPEX0803M3F-701								●				8	-	3.18	4		
	RPET1204MOE-M01	●	●							●			12	-	4.76	6		

### 最大斜向切削公式 Max. inclined cutting



規格	螺旋下刀孔徑 (mm)		最大徑向切削角度 α°	最大斜向進刀長度
	最小	最大		
HR-4R20	14	20	5.4°	31.74
HR-5R25	17	25	7.85°	39.01
HR-5R30	22	32	7.55°	37.72
HR-5R35	25	35	7.23°	39.16
HR-6R40	40	52	4.15°	82.69
HR-5R50	50	62	4.4°	77.98
HR-6R63	63	75	3.5°	98.10

### RP\_08.12 切削條件數據表 Cutting Conditions

被加工材質 work Material	刀片種類 Inserts					
	RP_06		RP_08		RP_12	
	米速 Vc(m/min)	平均屑片厚度 hm(mm)	米速 Vc(m/min)	平均屑片厚度 hm(mm)	米速 Vc(m/min)	平均屑片厚度 hm(mm)
P 低合金鋼 Low-Alloy Steels	180~300	0.12~0.18	180~300	0.10~0.24	180~300	0.12~0.30
	合金鋼 Alloyed Steels	100~195	0.06~0.12	70~195	0.08~0.22	70~195
M 不鏽鋼 Stainless Steels	70~100	0.05~0.10	70~100	0.08~0.10	55~100	0.08~0.14
K 鑄鐵 Cast Iron	180~350	0.06~0.12	140~350	0.08~0.22	140~350	0.08~0.25
N 鋁合金 Aluminum&Al	275~1000	0.04~0.06	275~1000	0.04~0.10	275~1000	0.04~0.16

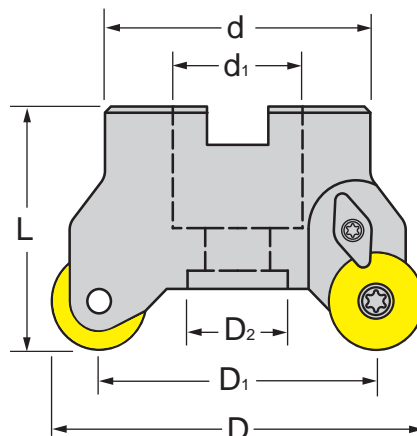
主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



# HR 圓刃殼型銑刀

## HR ROUNDED CORNER END MILLING CUTTER



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
HR-5R50-FMB22-4T	50	50	40	18	40	22	4	RP.10T3	0.41
HR-6R50-FMB22-4T	50	50	38	18	40	22	4	RP.1204	0.41
HR-6R50-FMB22-3T	50	50	38	18	40	22	3	RP.1204	0.44
HR-6R63-FMB22-5T	55	63	51	18	50	22	5	RP.1204	0.67
HR-6R63-FMB22-4T	55	63	51	18	50	22	4	RP.1204	0.66
HR-6R63-5T	55	63	51	19	50	25.4	5	RP.1204	0.63
HR-6R80-FMB27-6T	55	80	68	19	60	27	6	RP.1204	1.22

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板螺絲 Clamp Screw	壓板 Clamp	扳手 Wrench	扭力值 (N.m) Torque
RP.10T3	M4-10-5.0-43	T15	3.0	M3.5-8.0-5.5-60	HR-5R	T15	3.0
RP.1204	M4-10-5.0-43	T15	3.0	M5-11-7.5-60	HR-6R	T20	5.0

每刃進給切削公式  
Feeding per teeth

$$f_z = h_m \times \sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}$$

平均屑片厚度計算公式  
Average chip thickness

$$h_m = \frac{f_z}{\sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}}$$

有效刃徑計算公式  
Effective diameter

$$D_w = D_2 + 2 \times \sqrt{r^2 - (r - A_p)^2}$$

where: D<sub>w</sub> = 有效直徑 (mm)  
D<sub>2</sub> = 刀具中心距 (mm)  
r = 刀片半徑 (mm)  
A<sub>p</sub> = 切深 (mm)



MILLING



# HR 圓刃端銑刀 HR ROUNDED CORNER END MILLING CUTTER



ISO 分類	P 合金鋼 Alloyed Steels	○	○	○			○	○							
	M 不鏽鋼 Stainless Steels	○	○	○			○	○							
	K 鑄鐵 Cast Iron	○	○												
	N 鋁及鋁合金 Aluminum&Al								■	■					
S 高溫合金 Refractory Alloys															
H 高硬度材 Hard Material	○														

切削狀態 Cutting Condition:  
● 連續切削 Continuous Cutting  
○ 一般切削 General Cutting  
■ 斷續切削 Interrupted Cutting

形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro			硬質合金 Hard alloy		超硬微粒 Ultra-hard microprogram			尺寸 (mm) Size				圖形 Drawing	
		CHF			HW		HF			d	i	s	r		
		OM4010	OM4025	RM4130	MP91M	SP6564		GH1	OM5005						
	RPMT10T3MOE-41-X4				●	●					10	-	3.97	5	
	RPMT1204MOE-41-X4				●	●					12	-	4.76	6	
	RPEX10T3MOF-701								●		10	-	3.97	5	
	RPEX1204MOF-701-X4								●		12	-	4.76	6	
	RPET1204MOE-M01	●	●							●	12	-	4.76	6	
	RPMT10T3MON			●							10	-	3.97	5	
	RPMT1204MON			●							12	-	4.76	6	

## RP\_10.12 切削條件數據表 Cutting Conditions

被加工材質 work Material	刀片種類 Inserts			
	RP_10		RP_12	
	米速 Vc(m/min)	平均屑片厚度 hm(mm)	米速 Vc(m/min)	平均屑片厚度 hm(mm)
P 低合金鋼 Low-Alloy Steels	180~300	0.10~0.28	180~300	0.12~0.30
	70~195	0.08~0.24	70~195	0.08~0.25
M 不鏽鋼 Stainless Steels	55~100	0.08~0.14	55~100	0.08~0.14
K 鑄鐵 Cast Iron	140~350	0.08~0.24	140~350	0.08~0.25
N 鋁合金 Aluminum&Al	275~1000	0.04~0.12	275~1000	0.04~0.16

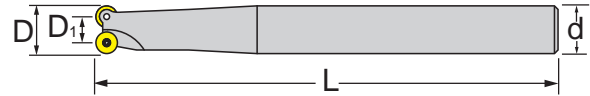
主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



# STR 圓刃端銑刀

## STR ROUNDED CORNER END MILLING CUTTER



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	D <sub>1</sub>	d	R	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
STR-2.5R1212-108L-2T	108	12	7	12	2.5R	2	RD..0501	0.10
STR-3.5R1616-150L-2T	150	16	9	16	3.5R	2	RD..0702	0.26
STR-3.5R2020-170L-2T	170	20	13	20	3.5R	2	RD..0702	0.44
STR-3.5R2525-150L-3T	150	25	18	25	3.5R	3	RD..0702	0.57
STR-5R2525-150L-2T	150	25	15	25	5R	2	RD..1003	0.56
STR-5R2525-200L-2T	200	25	15	25	5R	2	RD..1003	0.76
STR-5R3025-150L-3T	150	30	20	25	5R	3	RD..1003	0.58
STR-5R3025-200L-3T	200	30	20	25	5R	3	RD..1003	0.78

### 配件表 Accessories

規格 Spec.	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板螺絲 Clamp Screw	壓板扳手 Wrench	扭力值 (N.m) Torque
STR-2.5R1212-108L-2T	RD..0501	M2-3.8-2.68-43	T6	0.6	-	-	-
STR-3.5R1616-150L-2T	RD..0702	M2.5-6.45-3.7-43	T8	1.2	-	-	-
STR-3.5R2020-170L-2T	RD..0702	M2.5-6.45-3.7-43	T8	1.2	M3.5-8.0-5.0-60	T15	3.0
STR-3.5R2525-150L-3T	RD..0702	M2.5-6.45-3.7-43	T8	1.2	M3.5-8.0-5.0-60	T15	3.0
STR-5R2525-150L-2T	RD..1003	M3.5-8.0-5.0-60	T15	3.0	M4-5.0-5.7-60	T15	3.0
STR-5R2525-200L-2T	RD..1003	M3.5-8.0-5.0-60	T15	3.0	M4-5.0-5.7-60	T15	3.0
STR-5R3025-150L-3T	RD..1003	M3.5-8.0-5.0-60	T15	3.0	M4-5.0-5.7-60	T15	3.0
STR-5R3025-200L-3T	RD..1003	M3.5-8.0-5.0-60	T15	3.0	M4-5.0-5.7-60	T15	3.0

每刃進給切削公式  
Feeding per teeth

$$f_z = h_m \times \sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}$$

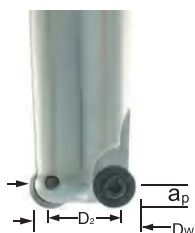
平均屑片厚度計算公式  
Average chip thickness

$$h_m = \frac{f_z}{\sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}}$$

有效刃徑計算公式  
Effective diameter

$$D_w = D_2 + 2 \times \sqrt{r^2 - (r - A_p)^2}$$

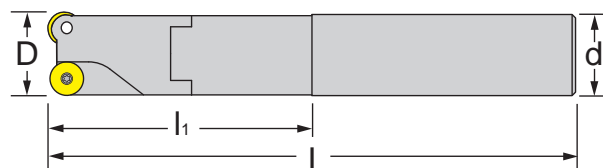
where: D<sub>w</sub> = 有效直徑 (mm)  
D<sub>2</sub> = 刀具中心距 (mm)  
r = 刀片半徑 (mm)  
A<sub>p</sub> = 切深 (mm)





# CSTR 碳化鎢鋼圓刃銑刀

## CSTR ROUNDED CORNER CARBIDE TUNGSTEN STEEL END MILL



### 特點 Feature

- CSTR 系列以鎢鋼柄部確保剛性，加以 2.5R 高性能超硬刀片，結合而成高性能低成本的革命性產品
- 細小尺寸設計最適合中小型模具的模穴粗銑
- 阻抗排解力強，穩定性極佳
- 刀片相容性高，使用者適應性強
- The revolutionary CSTR series are a combination of tungsten carbide shank and 2.5R super hard insert which are featured low cost and high efficiency.
- Small size is available for rough milling of small-medium mold cavity.
- High resistance relief and excellent stability.
- Complied to various inserts. User friendly.

規格 Spec.	L	l <sub>1</sub>	D	d	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
CSTR-2.5R1010-85L-2T	85	40	10	10	2	RD..0501	-
CSTR-2.5R1110-110L-2T	110	-	11	10	2	RD..0501	0.14
CSTR-2.5R1212-95L-2T	95	50	12	12	2	RD..0501	0.16
CSTR-2.5R1212-95L-3T	95	50	12	12	3	RD..0501	0.16
CSTR-2.5R1312-125L-2T	125	-	13	12	2	RD..0501	0.20
CSTR-2.5R1312-125L-3T	125	-	13	12	3	RD..0501	0.20
CSTR-3.5R1716-150L-2T	150	-	17	16	2	RD..0702	0.25
CSTR-3.5R1716-200L-2T	200	-	17	16	2	RD..0702	0.60
CSTR-3.5R2120-150L-3T	150	-	21	20	3	RD..0702	0.64
CSTR-3.5R2120-200L-3T	200	-	21	20	3	RD..0702	0.89
CSTR-3.5R2625-150L-4T	150	-	26	25	4	RD..0702	1.70
CSTR-3.5R2625-250L-4T	250	-	26	25	4	RD..0702	1.70
CSTR-5R2120-200L-2T	200	-	21	20	2	RD..1003	0.89
CSTR-5R2625-250L-3T	250	-	26	25	3	RD..1003	1.70

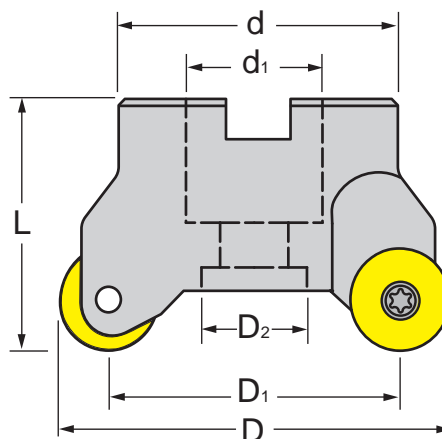
### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
RD..0501	M2-3.8-2.68-43	T6	0.6
RD..0702	M2.5-6.45-3.7-43	T8	1.2
RD..1003	M3.5-8.0-5.0-60	T15	3.0





# STR 圓刃殼型銑刀 STR ROUNDED CORNER END MILLS



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
STR-5R50-FMB22-5T	50	50	40	18	40	22	5	RD..1003	0.45

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板螺絲 Clamp Screw	壓板扳手 Wrench	扭力值 (N.m) Torque
RD..1003	M3.5-8.0-5.0-60	T15	3.0	M4-8.0-5.7-60	T15	3.0

每刃進給切削公式  
Feeding per teeth

$$fz = hm \times \sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}$$

平均屑片厚度計算公式  
Average chip thickness

$$hm = \frac{fz}{\sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}}$$

有效刃徑計算公式  
Effective diameter

$$D_w = D_2 + 2 \times \sqrt{r^2 - (r - A_p)^2}$$

where:  $D_w$  = 有效直徑 (mm)  
 $D_2$  = 刀具中心距 (mm)  
 $r$  = 刀片半徑 (mm)  
 $A_p$  = 切深 (mm)





# STR 殼型刃銑刀 STR ROUNDED CORNER END MILLS



ISO 分類	P	合金鋼 Alloyed Steels	○	○											切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○											
	K	鑄鐵 Cast Iron													
N	鋁及鋁合金 Aluminum&Al						■	■							
S	高溫合金 Refractory Alloys														
H	高硬度材 Hard Material														
形狀 Form	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy			鍍層超微粒 Layer coating ultra-micro			超硬微粒 Ultra-hard microprogram			尺寸 (mm)				圖形 Drawing
		HC			CHF			HF			Size				
		OM1115	OM2115		SP4019			OM5005	OM5060		d	i	s	r	
	RDHX0501MOE	●	●								5	-	1.51	2.5	
	RDHW0702MOT				●						7	-	2.38	3.5	
	RDHW1003MOT				●						10	-	3.47	5	
	RDET1003MOF-F01							●	●		10	-	3.18	5	

## RD\_05.07.10 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	平均屑片厚度 (mm)	切深 (mm)
P 低合金鋼 Low-Alloy Steels	OM1115	160~300	0.1~0.4	0.10~0.50
	OM2115	160~300	0.1~0.4	0.10~0.50
	SP4019	110~290	0.05~0.15	0.10~0.35
P 合金鋼 Alloyed Steels	OM1115	160~300	0.1~0.4	0.10~0.50
	OM2115	160~300	0.1~0.4	0.10~0.50
	SP4019	70~150	0.05~0.10	0.10~0.30
M 不鏽鋼 Stainless Steels	SP4019	150~240	0.05~0.10	0.10~0.20
N 鋁合金 Aluminum&Al	OM5005	140~350	0.08~0.22	0.10~0.25
	OM5060	140~350	0.08~0.22	0.10~0.25

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.





# FR 圓刃端銑刀

## FR CORNER ROUNDING END MILLS



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	D <sub>1</sub>	d	R	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
C25-FR25-150L	150	25	15	25	5R	2	RP.1003	0.55
C25-FR25-180L	180	25	15	25	5R	2	RP.1003	0.67
C25-FR25-250L	250	25	15	25	5R	2	RP.1003	0.95
C25-FR30-150L	150	30	20	25	5R	2	RP.1003	0.59
C25-FR30-200L	200	30	20	25	5R	2	RP.1003	0.79
C25-FR30-250L	250	30	20	25	5R	2	RP.1003	0.98
C25-FR30-300L	300	30	20	25	5R	2	RP.1003	1.20
C32-FR32-200L	200	32	22	32	5R	3	RP.1003	1.18
C32-FR35-120L	120	35	25	32	5R	3	RP.1003	0.72
C32-FR35-150L	150	35	25	32	5R	3	RP.1003	0.91
C32-FR35-200L	200	35	25	32	5R	3	RP.1003	1.25
C32-FR35-250L	250	35	25	32	5R	3	RP.1003	1.55
C32-FR35-300L	300	35	25	32	5R	3	RP.1003	1.88
C32-FR35-350L	350	35	25	32	5R	3	RP.1003	2.18
C32-FR40-120L	120	40	30	32	6R	3	RP.1203	0.76
C32-FR40-180L	180	40	30	32	6R	3	RP.1203	1.15

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
RP.1003	M4-10-5.7-60	T15	3.0	M5-0.8P	T15	3.0
RP.1203	M4-10-5.7-60	T15	3.0	M5-0.8P	T15	3.0



# FR 圓刃端銑刀 FR CORNER ROUNDING END MILLS



形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro			超硬微粒 Ultra-hard microprogram			尺寸 (mm) Size				圖形 Drawing			
		CHF			HF										
		OM4010	OM4025	RM4130				OM5005							
		d	i	s	r										
	RPMW1003MO	●	●				●				10	-	3.18	-	
	RPMW1003MON			●							10	-	3.18	5	

切削狀態 Cutting Condition:

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

## RP\_10.12 切削條件數據表 Cutting Conditions

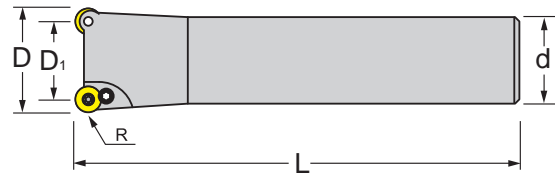
被加工材質 Machining Materials	硬度 HB	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)
P 低合金鋼 Low-Alloy Steels	HB160 以下	OM4010	100~180	0.10~0.40
		OM4025	120~190	0.10~0.40
		RM4130	130~200	0.10~0.40
P 合金鋼 Alloyed Steels	HRC30 以下	OM4010	90~150	0.10~0.40
		OM4025	95~165	0.12~0.40
		RM4130	100~170	0.12~0.40
M 不鏽鋼 Stainless Steels	HB270 以下	OM4010	70~130	0.10~0.40
		OM4025	70~145	0.12~0.40
		RM4130	70~150	0.12~0.40
K 鑄鐵 Cast Iron	HB220 以下	OM4025	90~150	0.12~0.40
N 鋁合金 Aluminum&Al	-	OM5005	300~500	0.05~0.30

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



# GR 圓刃端銑刀 GR CORNER ROUNDING END MILLS



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

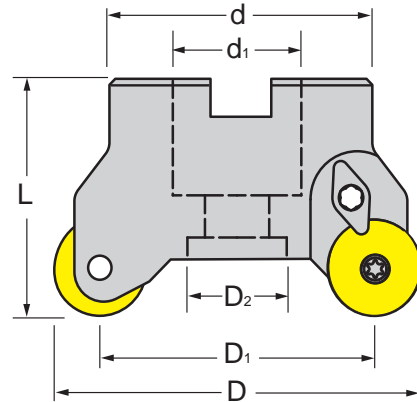
規格 Spec.	L	D	D <sub>1</sub>	d	R	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
GR-4R1212-130L	130	12	8	12	4R	1	RD..0802	0.15
GR-4R1616-150L	150	16	8	16	4R	1	RD..0802	0.25
GR-4R1616-200L	200	16	8	16	4R	1	RD..0802	0.34
GR-4R2019-150L	150	20	12	19	4R	2	RD..0802	0.35
GR-4R2019-200L	200	20	12	19	4R	2	RD..0802	0.46
GR-4R2020-150L	150	20	12	20	4R	2	RD..0802	0.37
GR-4R2020-200L	200	20	12	20	4R	2	RD..0802	0.51
GR-5R2525-150L	150	25	15	25	5R	2	RD..10T3	0.55
GR-5R2525-200L	200	25	15	25	5R	2	RD..10T3	0.74
GR-5R2525-250L	250	25	15	25	5R	2	RD..10T3	0.93
GR-5R3025-150L	150	30	20	25	5R	2	RD..10T3	0.55
GR-5R3025-200L	200	30	20	25	5R	2	RD..10T3	0.78
GR-5R3532-150L	150	35	25	32	5R	3	RD..10T3	0.92
GR-5R3532-200L	200	35	25	32	5R	3	RD..10T3	1.25
GR-5R3532-250L	250	35	25	32	5R	3	RD..10T3	1.57
GR-5R3532-300L	300	35	25	32	5R	3	RD..10T3	1.87
GR-5R3532-350L	350	35	25	32	5R	3	RD..10T3	2.24
GR-5R4032-180L	180	40	30	32	5R	3	RD..10T3	1.15
GR-5R4032-230L	230	40	30	32	5R	3	RD..10T3	1.47
GR-8R5032-200L	200	50	34	32	8R	3	RD..1604	1.31

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板螺絲 Clamp Screw	壓板 Clamp	壓板扳手 Wrench	扭力值 (N.m) Torque
RD..0802	M3-6.0-3.7-43	T10	2.0	M3.5-8.0-5.5-60	GR-5R	T15	3.0
RD..10T3	M4-10-5.0-43	T15	3.0	M3.5-8.0-5.5-60	GR-5R	T15	3.0
RD..1604	M5-11-7.5-60	T20	5.0	M5-11-7.5-60	GR-6R	T20	5.0



# GR 圓刃殼型銑刀 GR CORNER ROUNDING END MILLS



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
GR-5R50-FMB22	50	50	40	18	40	22	4	RD..10T3	0.42
GR-6R50-FMB22	50	50	38	18	40	22	4	RD..1204	0.29
GR-6R63-FMB22	50	63	51	18	50	22	4	RD..1204	0.54
GR-8R63-FMB22	50	63	47	18	50	22	4	RD..1604	0.62
GR-8R66	50	66	50	19	50	25.4	4	RD..1604	0.61
GR-8R66-FMB22	50	66	50	18	50	22	4	RD..1604	0.65
GR-8R80	55	80	64	19	62	25.4	5	RD..1604	1.07
GR-8R80-FMB27	55	80	64	19	62	27	5	RD..1604	1.06
GR-8R100	55	100	84	42	70	31.75	6	RD..1604	1.63
GR-8R100-FMB32	55	100	84	42	70	32	6	RD..1604	1.62

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板螺絲 Clamp Screw	壓板 Clamp	壓板扳手 Wrench	扭力值 (N.m) Torque
RD..10T3	M4-10-5.0-43	T15	3.0	M3.5-8.0-5.5-60	GR-5R	T15	3.0
RD..1204	M4-9.5-5.5-55	T15	3.0	M5-11-7.5-60	GR-6R	T20	5.0
RD..1604	M5-11-7.5-60	T20	5.0	M5-11-7.5-60	GR-6R	T20	5.0



# GR 圓刃殼型銑刀

## GR CORNER ROUNDING END MILLS



ISO 分類	P	合金鋼 Alloyed Steels	○	○	○												
	M	不鏽鋼 Stainless Steels	○	○	○												
	K	鑄鐵 Cast Iron	○	○													
ISO 分類	N	鋁及鋁合金 Aluminum&Al				■	■										
	S	高溫合金 Refractory Alloys															
	H	高硬度材 Hard Material	○														

切削狀態 Cutting Condition :  
 ● 連續切削 Continuous Cutting  
 ○ 一般切削 General Cutting  
 ■ 斷續切削 Interrupted Cutting

形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro				超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing		
		CHF				HF				Size						
		OM4010	OM4025	RM4130		OM5005	OM5060			d	i	s	r			
	RDMT0802MOT	●	●										8	-	2.38	-
	RDMT10T3MOT	●	●										10	-	3.97	-
	RDMX0802MOTN-X8	●	●										8	-	2.38	-
	RDET1604MOF-F01					●	●						16	-	4.76	-
	RDMT0802MOTN			●									8	-	2.38	4
	RDMT10T3MOTN			●									10	-	3.97	5
	RDMT1204MOTN			●									12	-	4.76	6
	RDMT1604MOTN			●									16	-	4.76	8

被加工材質 Machining Materials	刀片材質 Grade	刀具外徑 (Outer diameter)									
		Ø12mm(4R)		Ø16mm(4R)		Ø20mm(4R)		Ø25mm(5R)		Ø32mm(5R)	
		主軸轉速 (rpm)	床檯進給 (mm/min)	主軸轉速 (rpm)	床檯進給 (mm/min)	主軸轉速 (rpm)	床檯進給 (mm/min)	主軸轉速 (rpm)	床檯進給 (mm/min)	主軸轉速 (rpm)	床檯進給 (mm/min)
P 低合金鋼 Low-Alloy Steels	OM4010	5,780	578	4,334	1,298	4,818	3,850	3,850	3,073	3,012	3,619
	OM4025	5,255	525	3,940	1,180	4,380	3,500	3,500	2,794	2,739	3,290
P 合金鋼 Alloy Steels	OM4010	4,174	525	3,131	939	2,891	1,161	2,310	919	1,804	1,076
	OM4025	3,795	478	2,847	854	2,629	1,056	2,100	836	1,640	979
M 不鏽鋼 Stainless Steels	OM4010	5,780	576	4,335	1,300	3,838	1,924	3,085	1,548	2,407	1,802
	OM4025	5,254	524	3,941	1,181	3,489	1,749	2,805	1,408	2,189	1,639
K 鑄鐵 Cast Iron	OM4025	3,795	379	2,846	853	3,146	2,519	2,519	2,013	1,969	2,365

被加工材質 Machining Materials	刀片材質 Grade	刀具外徑 (Outer diameter)									
		Ø40mm(5R)		Ø50mm(5R)		Ø63mm(5R)		Ø66mm(5R)		Ø80mm(8R)	
		主軸轉速 (rpm)	床檯進給 (mm/min)	主軸轉速 (rpm)	床檯進給 (mm/min)	主軸轉速 (rpm)	床檯進給 (mm/min)	主軸轉速 (rpm)	床檯進給 (mm/min)	主軸轉速 (rpm)	床檯進給 (mm/min)
P 低合金鋼 Low-Alloy Steels	OM4010	2,407	2,167	1,925	2,307	1,524	1,829	1,458	1,750	1,210	1,452
	OM4025	2,189	1,970	1,750	2,098	1,386	1,663	1,326	1,591	1,100	1,320
P 合金鋼 Alloy Steels	OM4010	1,441	863	1,161	928	919	734	875	699	726	580
	OM4025	1,310	785	1,056	844	836	668	796	636	660	528
M 不鏽鋼 Stainless Steels	OM4010	1,925	1,155	1,536	1,228	1,222	976	1,167	933	871	696
	OM4025	1,750	1,050	1,397	1,117	1,111	888	1,061	849	792	633
K 鑄鐵 Cast Iron	OM4025	1,573	1,415	1,265	1,518	1,000	1,201	955	1,147	792	950

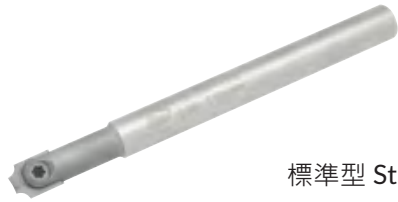
主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.

MILLING



# BR 精切削全 R 端銑刀 BR PRECISION BALL END MILLS



標準型 Standard Type



加長型 Extended Type

Fig.1

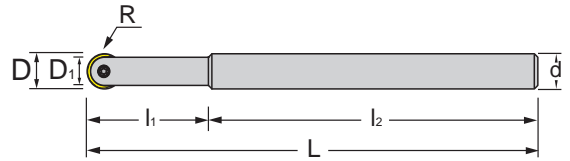
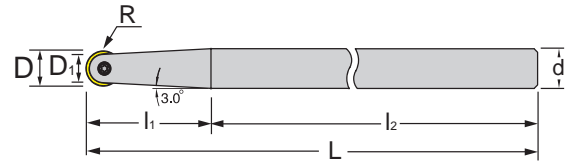


Fig.2



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	D <sub>1</sub>	d	R	刀片 Insert	Fig.	重量 (KGS) Weight
C10-BR4-140L	140	30	110	8	7	10	R4	BR08. (P32..D08)	2	0.10
C10-BR5-130L	130	30	100	10	9	10	R5	BR10. (P32..D10)	1	0.10
C12-BR5-150L	150	35	115	10	9	12	R5	BR10. (P32..D10)	2	0.15
C12-BR6-130L	130	32	98	12	10	12	R6	BR12. (P32..D12) / LC..	1	0.14
C16-BR6-160L	160	58	128	12	10	16	R6	BR12. (P32..D12) / LC..	2	0.25
C16-BR8-150L	150	36	114	16	14	16	R8	BR16. (P32..D16)	2	0.25
C20-BR8-200L	200	65	135	16	14	20	R8	BR16. (P32..D16)	2	0.48
C20-BR10-160L	160	45	115	20	18	20	R10	BR20. (P32..D20)	2	0.39
C25-BR10-250L	250	76	174	20	18	25	R10	BR20. (P32..D20)	2	0.91
C25-BR12.5-180L	180	45	135	25	23	25	R12.5	BR25. (P32..D25)	2	0.67
C32-BR12.5-250L	250	98	152	25	23	32	R12.5	BR25. (P32..D25)	2	1.46
C32-BR16-200L	200	45	155	32	30	32	R16	BR32. (P32..D32)	2	1.24
C42-BR16-280L	280	98	182	32	30	42	R16	BR32. (P32..D32)	2	2.66

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
BR08. (P32..D08)	BR4	T8	1.2
BR10. (P32..D10)	BR5	T15	3.0
BR12. (P32..D12) / LC..	BR6	T20	5.0
BR16. (P32..D16)	BR8	T20	5.0
BR20. (P32..D20)	BR10	T20	5.0
BR25. (P32..D25)	BR12.5	T30	6.0
BR32. (P32..D32)	BR16	T30	6.0

MILLING





# BR 精切削全 R 端銑刀 BR PRECISION BALL END MILLS

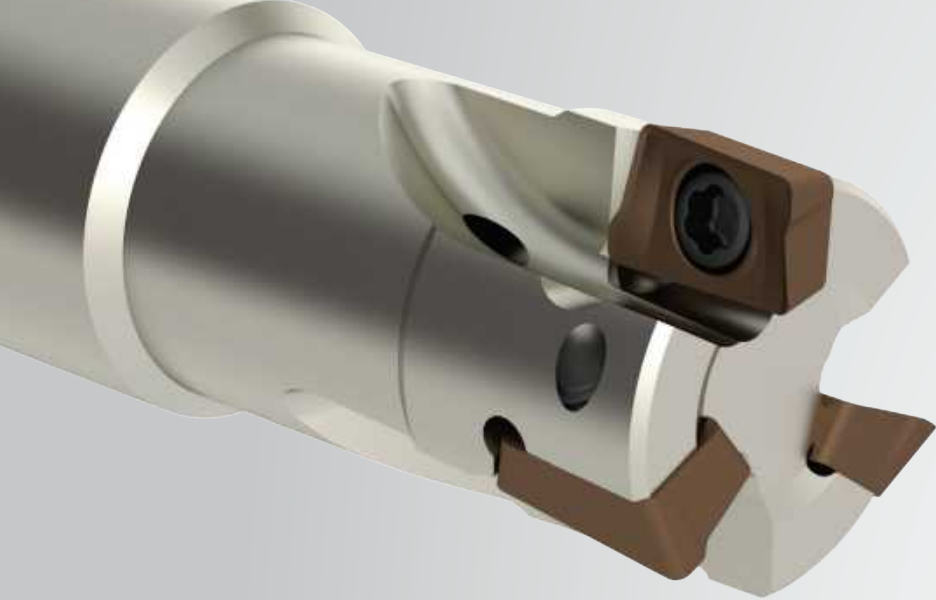


ISO 分類	P	合金鋼 Alloyed Steels	○	○													切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○													
	K	鑄鐵 Cast Iron	○	○													
N	鋁及鋁合金 Aluminum&Al									■							
S	高溫合金 Refractory Alloys																
H	高硬度材 Hard Material		○														
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro				超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing			
		CHF				HF				Size							
		OM4010	OM4025			OM5005					d	i	s		r		
	LC1210	●									12	14	2.5	1			
	LC1220	●									12	14	2.5	2			
	LC1230	●									12	14	2.5	3			
	LC1210-F	●									12	14	2.5	1			
	LC1220-F	●									12	14	2.5	2			
	LC1230-F	●									12	14	2.5	3			
	LC1210-RE	●									12	14	2.5	1			
	LC1220-RE	●									12	14	2.5	2			
	LC1230-RE	●									12	14	2.5	3			
	LC1245-CH	●	●								12	14	2.5	-			
	LC1260-CH	●	●								12	14	2.5	-			
	BR10(P3200-D10)	●	●			●					10	4	2.5	-			
	BR12(P3200-D12)	●	●			●					12	5	2.5	-			
	BR16(P3200-D16)	●	●			●					16	5	3	-			
	BR20(P3200-D20)	●	●			●					20	5	3	-			
	BR25(P3200-D25)	●	●			●					25	6	4	-			
	BR08S(P3204-D08)	●	●			●					8	3	2	-			
	BR10S(P3204-D10)	●	●			●					10	4	2.5	-			
	BR12S(P3204-D12)	●	●			●					12	5	2.5	-			
	BR16S(P3204-D16)	●	●			●					16	5	3	-			
	BR20S(P3204-D20)	●	●			●					20	5	3	-			
	BR25S(P3204-D25)	●	●			●					25	6	4	-			
	BR30S(P3204-D30)	●	●			●					30	8	5	-			
	BR32S(P3204-D32)	●	●			●					32	8	5	-			

## LC12.BR08.10.12.16.20.25.32 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials		刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)
P	低合金鋼 Low-Alloy Steels	OM4010	180~200	0.08~0.20
		OM4025	180~220	0.08~0.19
P	合金鋼 Alloyed Steels	OM4010	100~140	0.08~0.12
		OM4025	100~120	0.06~0.12
M	不鏽鋼 Stainless Steels	OM4010	160~200	0.08~0.12
		OM4025	155~190	0.08~0.12
K	鑄鐵 Cast Iron	OM4025	110~143	0.09~0.11
N	鋁合金 Aluminum&Al	OM5005	300~500	0.05~0.30

MILLING



# MAS

## 迷你銑刀

End Mill Cutter

# Feature

中心出水 Water Hole

| 多刃型設計可提高加工效率

Multi-cutting-edge design improves machining efficiency.

| 刀具材質選用特殊鋼材，增強刀具穩定性

Made by special alloyed steel to enhance the stability of the cutting tool.

| 尺寸從 $\varnothing 8$ ~ $\varnothing 63$ 均有刀具刀配，鎖牙式結構可結合碳化鎢鎖牙延長桿，針對小尺寸及閃避干涉加工使用，適合電子產業及加工產業

The MAS type cutters are available from 8 to 63 mm. We also have screwed on type structure which can be combined with tungsten carbide extension. They are suitable for small and interference cutting especially for electronics industries.

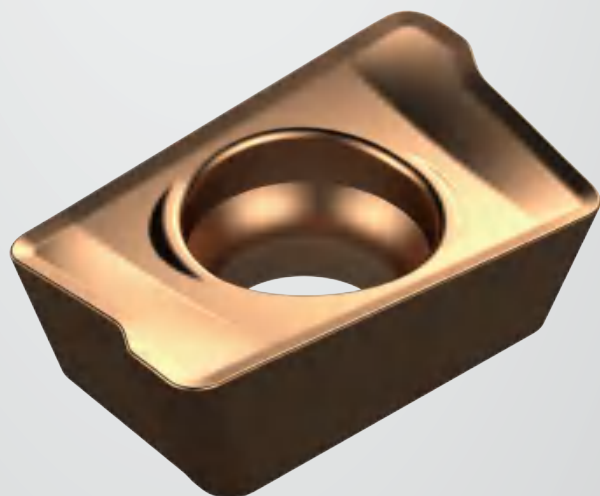
# APKT060204

| 刃口強化，低阻力的高精度設計，適合斷續切削

Low-resistance and high-precision design are good for interrupted cutting.

| 複合塗層，可提高刀片使用壽命

Composite coating helps to improve insert life.





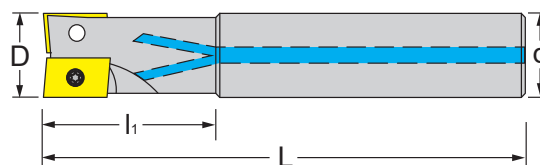


# MAS 迷你銑刀

## MAS END MILL CUTTER



**NEW**



### 特點 Feature

- 刀具材質選用特殊鋼材，增強刀具穩定性
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made by special alloyed steel to enhance the stability of the cutting tool.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	D	d	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
MAS-1008AP06-100-2T-C	100	15	10	8	2	AP.0602	-
MAS-1010AP06-80-2T-C	80	20	10	10	2	AP.0602	-
MAS-1110AP06-80-2T-C	80	20	11	10	2	AP.0602	-
MAS-1210AP06-100-2T-C	100	20	12	10	2	AP.0602	-
MAS-1212AP06-80-2T-C	80	20	12	12	2	AP.0602	-
MAS-1212AP06-80-3T-C	80	20	12	12	3	AP.0602	-
MAS-1412AP06-80-3T-C	80	20	14	12	3	AP.0602	-
MAS-1614AP06-160-3T-C	160	25	16	14	3	AP.0602	-
MAS-1616AP06-120-3T-C	120	25	16	16	3	AP.0602	-
MAS-1616AP06-160-3T-C	160	25	16	16	3	AP.0602	-
MAS-1616AP06-90-4T-C	90	25	16	16	4	AP.0602	-
MAS-1816AP06-90-4T-C	90	25	18	16	4	AP.0602	-
MAS-2018AP06-160-4T-C	160	30	20	18	4	AP.0602	-
MAS-2020AP06-160-4T-C	160	30	20	20	4	AP.0602	-
MAS-2020AP06-100-5T-C	100	30	20	20	5	AP.0602	-
MAS-2120AP06-110-5T-C	110	30	21	20	5	AP.0602	-
MAS-2520AP06-110-7T-C	110	40	25	20	7	AP.0602	-
MAS-2525AP06-120-7T-C	120	40	25	25	7	AP.0602	-
MAS-3225AP06-130-8T-C	130	45	32	25	8	AP.0602	-
MAS-4032AP06-140-10T-C	140	45	40	32	10	AP.0602	-

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP.0602	M1.8-3.9-2.45-60-TP6-EU	TP6-EU	0.6

MILLING

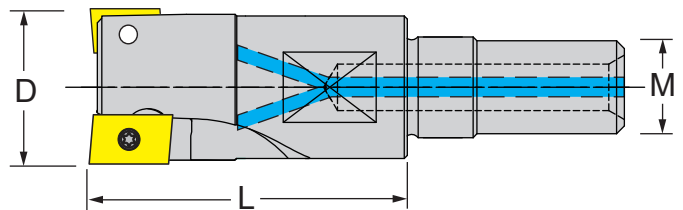
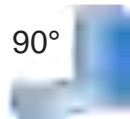


# MAS 鎖牙式迷你銑刀

## MAS SCREWED-ON END MILL CUTTER



**NEW**



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	M	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
MAS-10-M6-AP06-C	20	10	M6	2	AP.0602	-
MAS-11-M6-AP06-C	20	11	M6	2	AP.0602	-
MAS-12-M6-AP06-C	20	12	M6	3	AP.0602	-
MAS-13-M6-AP06-C	20	13	M6	3	AP.0602	-
MAS-16-M8-AP06-C	25	16	M8	4	AP.0602	-
MAS-17-M8-AP06-C	25	17	M8	4	AP.0602	-
MAS-20-M10-AP06-C	30	20	M10	5	AP.0602	-
MAS-21-M10-AP06-C	30	21	M10	5	AP.0602	-
MAS-25-M12-AP06-C	35	25	M12	7	AP.0602	-
MAS-26-M12-AP06-C	35	26	M12	7	AP.0602	-
MAS-32-M16-AP06-C	43	32	M16	8	AP.0602	-
MAS-40-M16-AP06-C	50	40	M16	10	AP.0602	-

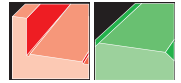
### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP.0602	M1.8-3.9-2.45-60-TP6-EU	TP6-EU	0.6



# BGP 迷你殼形銑刀

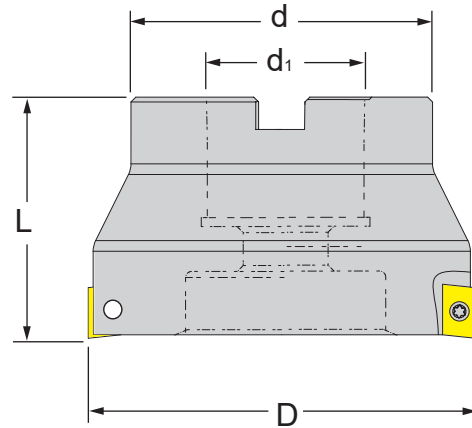
## BGP FACE MILL CUTTER



**NEW**



90°



### 特點 Feature

- 刀器材質選用特殊鋼材，增強刀具穩定性
- 整體預硬後，再行精修，避免二次處理所產生應變

- Made by special alloyed steel to enhance the stability of the cutting tool.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	d	d1	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
BGP-400-FMB16-AP06-10T-C	40	40	34	16	10	AP.0602	-
BGP-500-FMB22-AP06-12T-C	40	50	45	22	12	AP.0602	-
BGP-630-FMB22-AP06-14T-C	40	63	45	22	14	AP.0602	-

ISO 分類	P	合金鋼 Alloyed Steels	○						切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting	
	M	不鏽鋼 Stainless Steels	○							
	K	鑄鐵 Cast Iron	○							
形狀 Form	規格 Spec.	鍍層超微粒 Layer Coating Ultra-micro				尺寸 (mm) Size				圖形 Drawing
		CHF				Size				
		RM4130				d	i	s	r	
	APKT060204-M02	●				6.45	3.7	2.38	0.4	

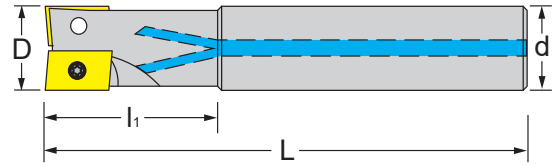
被加工材質 Machining Materials	刀片材質 Materials	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)
P 合金鋼 Alloyed Steels	RM4130	160(70~260)	0.12(0.08~0.16)
M 不鏽鋼 Stainless Steels	RM4130	120(90~140)	0.10(0.08~0.12)
K 鑄鐵 Cast Iron	RM4130	140(100~240)	0.12(0.08~0.16)

MILLING



# MAS 高速銑刀

## MAS END MILL CUTTER



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	D	d	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
MAS-1012-100L	100	20	10	12	1	AP.1003	0.09
MAS-1212-100L	100	25	12	12	1	AP.1003	0.09
MAS-1616-120L	120	25	16	16	2	AP.1003	0.18
MAS-1616-160L	160	25	16	16	2	AP.1003	0.24
MAS-1716-120L	120	25	17	16	2	AP.1003	0.30
MAS-1716-180L	180	25	17	16	2	AP.1003	0.30
MAS-2020-120L	120	30	20	20	2	AP.1003	0.28
MAS-2020-150L	150	30	20	20	2	AP.1003	0.36
MAS-2020-200L	200	30	20	20	2	AP.1003	0.49
MAS-2120-150L	150	30	21	20	2	AP.1003	0.38
MAS-2120-200L	200	30	21	20	2	AP.1003	0.60

### 配件表 Accessories

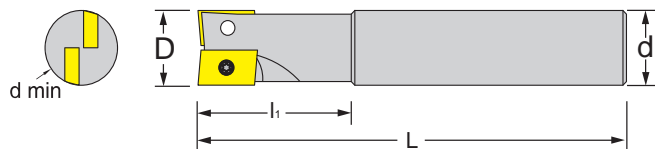
規格 Spec.	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
MAS-1012-100L	APKT1003	M2.5-5.0-3.7-43	T8	1.2
MAS-1212-100L	APKT1003	M2.5-6.45-3.7-43	T8	1.2
MAS-1616-120L	APKT1003	M2.5-5.0-3.7-43	T8	1.2
MAS-1616-160L	APKT1003	M2.5-5.0-3.7-43	T8	1.2
MAS-1716-120L	APKT1003	M2.5-5.0-3.7-43	T8	1.2
MAS-1716-180L	APKT1003	M2.5-5.0-3.7-43	T8	1.2
MAS-2020-120L	APKT1003	M2.5-6.45-3.7-43	T8	1.2
MAS-2020-150L	APKT1003	M2.5-6.45-3.7-43	T8	1.2
MAS-2020-200L	APKT1003	M2.5-6.45-3.7-43	T8	1.2
MAS-2120-150L	APKT1003	M2.5-6.45-3.7-43	T8	1.2
MAS-2120-200L	APKT1003	M2.5-6.45-3.7-43	T8	1.2

MILLING





# MAS 高速銑刀 MAS END MILL CUTTER



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

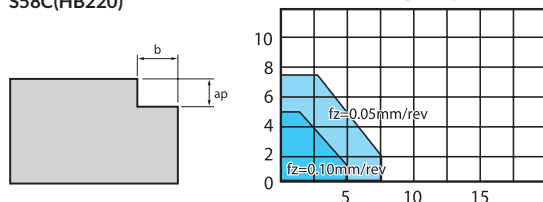
規格 Spec.	L	l <sub>1</sub>	D	d	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
MAS-2525-150L	150	40	25	25	2	AP..1604	0.55
MAS-2525-220L	220	40	25	25	2	AP..1604	0.81
MAS-3232-150L	150	45	32	32	2	AP..1604	0.88
MAS-3232-150L	150	45	32	32	3	AP..1604	0.87
MAS-3232-200L	200	45	32	32	2	AP..1604	1.20
MAS-3232-250L	250	45	32	32	2	AP..1604	1.53
MAS-4032-150L	150	45	40	32	4	AP..1604	0.99
MAS-4032-250L	250	45	40	32	4	AP..1604	1.62

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP..1604	M4-10-5.7-60	T15	3.0

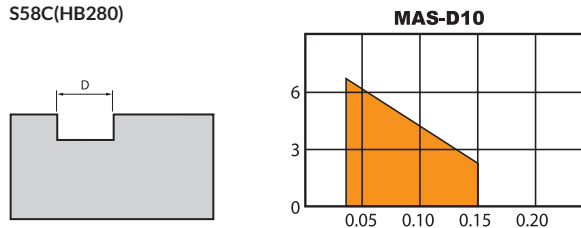
## 肩銑加工 Shoulder milling

被削材質：  
S58C(HB220)



## 開槽加工 Grooving

被削材質：  
S58C(HB280)



MILLING





# MAS 高速銑刀

## MAS END MILL CUTTER



形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro					超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing
		CHF					HF				Size				
		OM4025	OM4025N	RM3130	RM4130	RM535	GH05	OM5005	OM5060	RM5005	d	i	s	r	
	APKT060204-M02				●						6.45	3.7	2.38	0.4	
	APKT100304PDER-M04				●						6.68	10.5	2.38	0.4	
	APKT1003PDER-M05					●					6.68	10.5	3.47	-	
	APEX100304PDFR-F01						●	●			6.68	10.5	2.38	0.4	
	APHT1003PDFR-F03								●		6.68	10.4	3.47	0.8	
	APGT100304PDFR-F04								●		6.68	10.5	2.38	0.4	
	APKT1604PDER-M05					●					9.525	16.4	4.76	0.4	
	APEX1604PDFR-701						●				9.525	16.4	4.76	0.2	
	APEX1604PDFR-F01							●	●		9.525	16.4	4.76	-	
	APEX160400PDFR-F01							●	●		9.525	16.4	4.76	-	
	APEX160404PDFR-F01							●	●		9.525	16.4	4.76	0.4	
	APEX160408PDFR-F01							●	●		9.525	16.4	4.76	0.8	
	APKT160408-M01	●	●								9.525	16.6	4.76	0.8	
	APGT1604PDFR-G2								●		9.525	16.5	4.76	0.8	
	APGT160408PDFR-F02								●		9.525	16.4	4.76	0.8	
	APKT160408PDER-M02			●	●						9.525	16.4	4.76	0.8	

切削狀態 Cutting Condition :

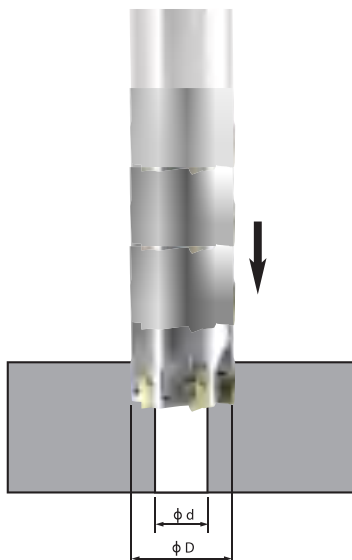
- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting



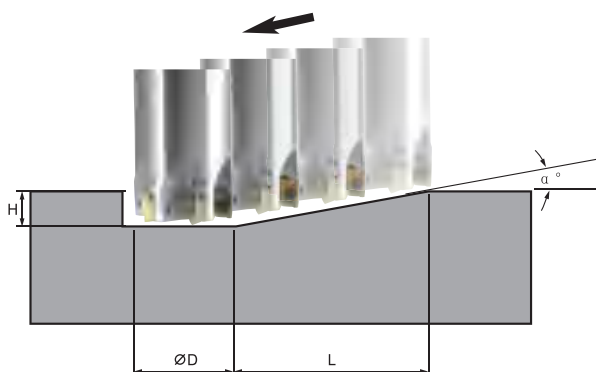
## AP\_10.16 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P 低合金鋼 Low-Alloy Steels	OM4025	220~300	0.14~0.24	1.0~2.0
	OM4025N	220~300	0.14~0.24	1.0~2.0
	RM4130	60~300	0.10~0.25	1.0~2.0
合金鋼 Alloyed Steels	OM4025	100~195	0.12~0.20	1.0~2.0
	RM4130	60~300	0.10~0.25	1.0~2.0
M 不鏽鋼 Stainless Steels	OM4025	180~230	0.15~0.35	0.5~1.5
	RM4130	120~160	0.10~0.25	0.5~1.5
K 鑄鐵 Cast Iron	OM4025	200~300	0.06~0.30	1.5~3.0
	RM3130	200~300	0.06~0.30	1.5~3.0
N 鋁合金 Aluminum&Al	OM5005	400~850	0.05~0.30	1.5~3.0
	OM5060	400~850	0.05~0.30	1.5~3.0
	RM5005	400~850	0.05~0.30	1.5~3.0
	GH05	300~700	0.04~0.25	1.5~3.0
S 高溫合金 Refractory Alloys	RM535	100~195	0.12~0.20	1.0~2.0

沉孔頭加工 Countersunk hole drilling



斜度銑削加工 Inclined milling



### MAS AP\_10

規格 Spec.	刀具直徑 Diameter ØD(mm)	下孔徑 Ød(mm)
MAS-1012-100L	10	6
MAS-1212-100L	12	5
MAS-1616-120L	16	5.5
MAS-2020-120L	20	8

### MAS AP\_16

規格 Spec.	刀具直徑 Diameter ØD(mm)	下孔徑 Ød(mm)
MAS-2525-150L	25	8
MAS-3232-150L	32	15
MAS-4032-150L	40	23

### MAS AP\_10

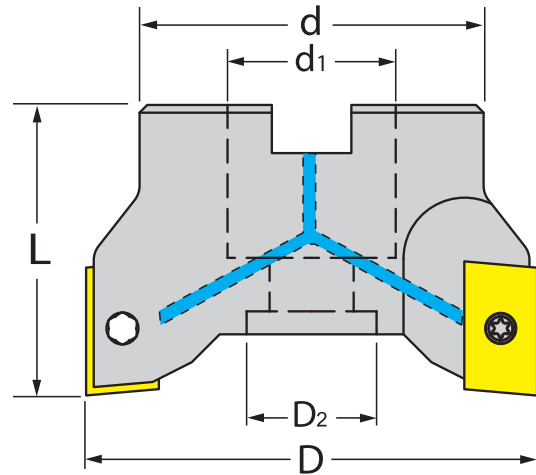
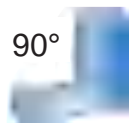
規格 Spec.	刀具直徑 Diameter ØD(mm)	最大斜度銑削角度 α° Max. inclined milling angle	L(mm) α° Max
MAS-1012-100L	10	5.0	91.5
MAS-1212-100L	12	32.0	14.4
MAS-1616-120L	16	15.0	33.5
MAS-2020-120L	20	7.5	128.7

### MAS AP\_16

規格 Spec.	刀具直徑 Diameter ØD(mm)	最大斜度銑削角度 α° Max. inclined milling angle	L(mm) α° Max
MAS-2525-150L	25	11.5	182
MAS-3232-150L	32	5.3	309
MAS-4032-150L	40	4.0	386



# BGP 直角殼形平面銑刀 BGP SQUARE SHOULDER MILLING CUTTER



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

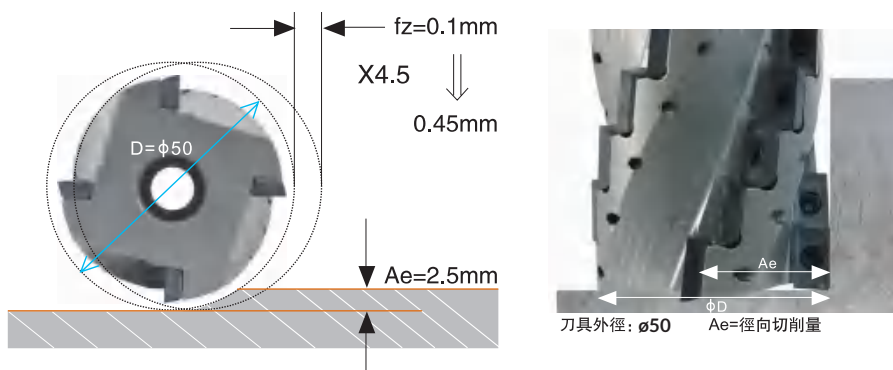
- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
BGP-500-FMB22-AP10-7T-C	40	50	18	40	22	7	AP..1003	0.54
BGP-630-FMB22-AP10-9T-C	40	60	18	48	22	9	AP..1003	0.76
BGP-800-FMB27-AP10-11T-C	50	80	32	62	27	11	AP..1003	1.36
BGP-1000-FMB32-AP10-13T-C	50	100	42	78	32	13	AP..1003	2.12
BGP-1250-FMB40-AP10-16T-C	63	125	50	89	40	16	AP..1003	3.66

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP..1003	M2.5-6.3-3.7-43-T8-TIN	T8	1.2

## 範例 Example



刀具外徑:  $\phi 50$  Ae=徑向切削量

刀具外徑 Cutter diameter: $\phi 50$
徑向切削量 Radial cutting: 2.5mm(5%)
進給率 × 倍數 Feeding rate x multiple: 4.5
當切削率 Practical cutting rate: $Ae/D=100\% \rightarrow fz=0.1\text{mm/rev}$ $Ae/D=5\% \rightarrow \times 4.5 \rightarrow fz=0.45\text{mm/rev}$

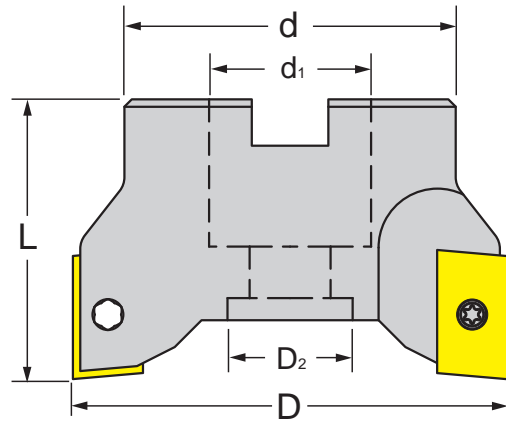






# BGP 直角殼形平面銑刀

## BGP SQUARE SHOULDER MILLING CUTTER



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
BGP-500	50	50	19	40	25.4	4	AP..1604	0.42
BGP-500-FMB22	50	50	18	40	22	4	AP..1604	0.46
BGP-630	50	63	19	50	25.4	5	AP..1604	0.72
BGP-630-FMB22	50	63	18	50	22	5	AP..1604	0.76
BGP-800	55	80	42	60	31.75	6	AP..1604	0.94
BGP-800-FMB27	55	80	42	60	27	6	AP..1604	0.99
BGP-1000	55	100	42	60	31.75	8	AP..1604	1.62
BGP-1000-FMB32	55	100	42	60	32	8	AP..1604	1.61
BGP-1250	63	125	60	85	38.1	8	AP..1604	3.09
BGP-1250-FMB40	63	125	60	85	40	8	AP..1604	3.07
BGP-1600	63	160	80	120	50.8	10	AP..1604	4.73
BGP-1600-FMB40	63	160	80	120	40	10	AP..1604	5.61

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP..1604	M4-10-5.7-60	T15	3.0





# BGP 直角殼形平面銑刀

## BGP SQUARE SHOULDER MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○	○		○											切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○			○											
	K	鑄鐵 Cast Iron	○		○												
	N	鋁及鋁合金 Aluminum&Al						■	■	○	■						
S	高溫合金 Refractory Alloys					○											
H	高硬度材 Hard Material																
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro					超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing		
		CHF					HF				Size						
		OM4025	OM4025N	RM3130	RM4130	RM535	GH05	OM5005	OM5060	RM5005	d	i	s	r			
	APKT100304PDER-M04				●						6.68	10.5	2.38	0.4			
	APKT1003PDER-M05					●					6.68	10.5	3.47	-			
	APEX100304PDFR-F01						●	●			6.68	10.5	2.38	0.4			
	APHT1003PDFR-F03								●		6.68	10.4	3.47	0.8			
	APGT100304PDFR-F04								●		6.68	10.5	2.38	0.4			
	APKT1604PDER-M05					●					9.525	16.4	4.76	0.4			
	APEX1604PDFR-701						●				9.525	16.4	4.76	0.2			
	APEX1604PDFR-F01							●	●		9.525	16.4	4.76	-			
	APEX160400PDFR-F01							●	●		9.525	16.4	4.76	-			
	APEX160404PDFR-F01							●	●		9.525	16.4	4.76	0.4			
	APEX160408PDFR-F01							●	●		9.525	16.4	4.76	0.8			
	APKT160408-M01	●	●								9.525	16.6	4.76	0.8			
	APGT1604PDFR-G2								●		9.525	16.5	4.76	0.8			
	APGT160408PDFR-F02								●		9.525	16.4	4.76	0.8			
	APKT160408PDER-M02			●	●						9.525	16.4	4.76	0.8			



## AP\_10.16 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P 低合金鋼 Low-Alloy Steels	OM4025	220~300	0.14~0.24	1.0~2.0
	OM4025N	220~300	0.14~0.24	1.0~2.0
	RM4130	60~300	0.10~0.25	1.0~2.0
合金鋼 Alloyed Steels	OM4025	100~195	0.12~0.20	1.0~2.0
	RM4130	60~300	0.10~0.25	1.0~2.0
M 不鏽鋼 Stainless Steels	OM4025	180~230	0.15~0.35	0.5~1.5
	RM4130	120~160	0.10~0.25	0.5~1.5
K 鑄鐵 Cast Iron	OM4025	200~300	0.06~0.30	1.5~3.0
	RM3130	200~300	0.06~0.30	1.5~3.0
N 鋁合金 Aluminum&Al	OM5005	400~850	0.05~0.30	1.5~3.0
	OM5060	400~850	0.05~0.30	1.5~3.0
	RM5005	400~850	0.05~0.30	1.5~3.0
	GH05	300~700	0.04~0.25	1.5~3.0
S 高溫合金 Refractory Alloys	RM535	100~195	0.12~0.20	1.0~2.0

主軸轉速  $= (1000 \times \text{切削速度}) \div (3.14 \times \text{刀具外徑})$  Spindle Speed  $= (1000 \times \text{Cutting speed}) \div (3.14 \times \text{Cutter diameter})$ .

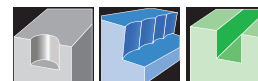
床檯進給 (mm/min) = 每刃進給  $\times$  刀具刃數  $\times$  主軸轉速 Feeding Speed (mm/min) = Feed per teeth  $\times$  Teeth  $\times$  Spindle speed.

### 增加切削效率公式 Formula of advancing cutting efficiency

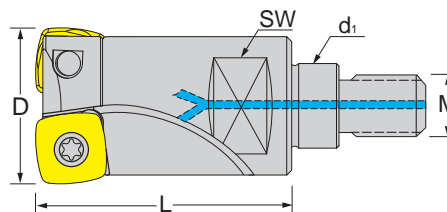
刀具刃徑切寬百分比 Percentage between insert diameter and cutting width	進給率 $\times$ 倍數 Feeding rate $\times$ Multiple	刀具刃徑切寬百分比 Percentage between insert diameter and cutting width	進給率 $\times$ 倍數 Feeding rate $\times$ Multiple
1%	10.00	9%	3.30
2%	7.00	10%	3.20
3%	5.80	20%	2.20
4%	5.00	30%	1.80
5%	4.50	40%	1.60
6%	4.00	50%	1.40
7%	3.80	60%	1.30
8%	3.50	70<100%	1.00



## HAS 鎖牙式大進給切削刀具 HAS SCREWED-ON HIGH SPEED MILLING CUTTER



78°



### 特點 Feature

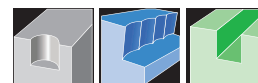
- 切削力以軸向為主·與圓形刀片刀具相比較·刀片及刀具的使用壽命較長
- 可大進給切削工件·減少加工時間
- 刀片可使用四個刃口·有效降低成本

- The cutting force is exerted in the axial direction. Compare with cutters using round insert, cutters using square inserts are more durable.
- Available for high feeding cutting, and is able to shorten processing time.
- There are 4 edge usable on each insert, which is cost saving.

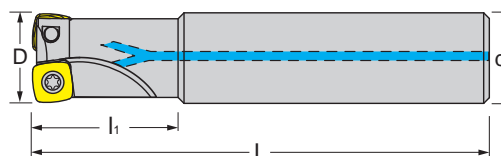
規格 Spec.	L	D	d <sub>1</sub>	M	SW	鎖固力 (N.m)	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
HAS-1616-M8-SP06-C	25	16	8.5	8	10	25	2	SP..0603	0.04
HAS-2020-M10-SP06-C	35	20	10.5	10	15	40	3	SP..0603	0.07
HAS-2525-M12-SP06-C	35	25	12.5	12	19	60	4	SP..0603	0.10
HAS-3232-M16-SP06-C	43	32	17	16	26	80	5	SP..0603	0.22
HAS-2525-M12-SD09-C	35	25	12.5	12	19	60	2	SD..0904	0.08
HAS-3232-M16-SD09-C	43	32	17	16	26	80	3	SD..0904	0.19
HAS-4040-M16-SD09-C	50	40	17	16	30	80	4	SD..0904	0.39



## HAS 直柄式大進給切削刀具 HAS STRAIGHT SHANK HIGH SPEED MILLING CUTTER



78°



### 特點 Feature

- 切削力以軸向為主·與圓形刀片刀具相比較·刀片及刀具的使用壽命較長
- 可大進給切削工件·減少加工時間
- 刀片可使用四個刃口·有效降低成本

- The cutting force is exerted in the axial direction. Compare with cutters using round insert, cutters using square inserts are more durable.
- Available for high feeding cutting, and is able to shorten processing time.
- There are 4 edge usable on each insert, which is cost saving.

規格 Spec.	L	l <sub>1</sub>	D	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
HAS-1616-120L-C	120	25	16	16	2	SP..0603	0.15
HAS-2020-120L-C	120	32	20	20	3	SP..0603	0.24
HAS-2525-150L-C	150	40	25	25	4	SP..0603	0.49
HAS-3232-150L-C	150	40	32	32	5	SP..0603	0.83
HAS-2525-120L-C	120	35	25	25	2	SD..0904	0.42
HAS-2625-120L-C	120	35	26	25	2	SD..0904	0.44
HAS-3232-130L-C	130	40	32	32	3	SD..0904	0.74
HAS-3332-130L-C	130	40	33	32	3	SD..0904	0.76
HAS-4032-170L-C	170	50	40	32	4	SD..0904	1.10

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SP..0603	M2.5-6.3-3.7-43-T8-TIN	T8	1.2
SD..0904	M3.5-10-5.2-43-T15-TIN	T15	3.0

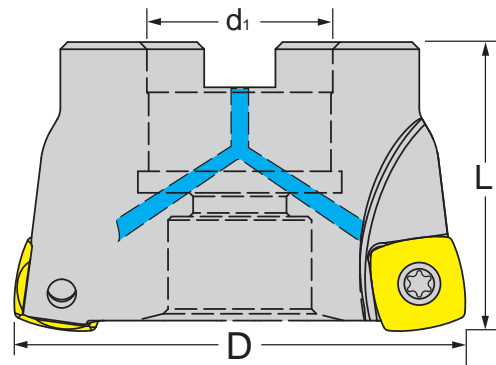
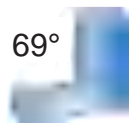


# HGP 殼形式大進給切削刀具

## HGP SHELL HIGH SPEED MILLING CUTTER



69°



### 特點 Feature

- 切削力以軸向為主，與圓形刀片刀具相比較，刀片及刀具的使用壽命較長
- 可大進給切削工件，減少加工時間
- 刀片可使用四個刃口，有效降低成本

- The cutting force is exerted in the axial direction. Compare with cutters using round insert, cutters using square inserts are more durable.
- Available for high feeding cutting, and is able to shorten processing time.
- There are 4 edge usable on each insert, which is cost saving.

規格 Spec.	L	D	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
HGP-500-FMB22-C	40	50	22	4	SD..1205	0.37
HGP-500-FMA25.4-C	40	50	25.4	4	SD..1205	0.38
HGP-630-FMB22-C	40	63	22	4	SD..1205	0.54
HGP-630-FMA25.4-C	40	63	25.4	4	SD..1205	0.66
HGP-800-FMB27-C	50	80	27	5	SD..1205	1.03
HGP-800-FMA31.75-C	50	80	31.75	5	SD..1205	1.04
HGP-1000-FMB32-C	50	100	32	6	SD..1205	1.54
HGP-1000-FMA31.75-C	50	100	31.75	6	SD..1205	1.54
HGP-1250-FMB40-C	63	125	40	8	SD..1205	3.38
HGP-1250-FMA38.1-C	63	125	38.1	8	SD..1205	3.37

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SD..1205	M4-13-5.2-43-T15-TIN	T15	3.0





# HAS/HGP 大進給切削刀具

## HAS/HGP HIGH SPEED MILLING CUTTER

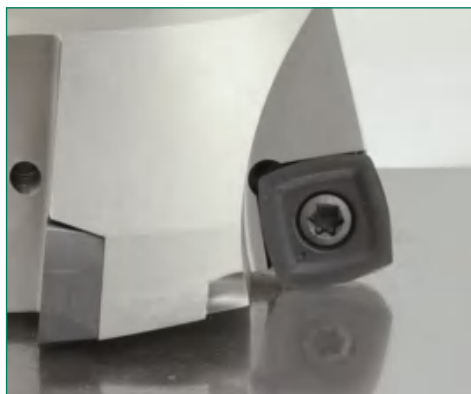


形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro				超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing				
		CHF				HF				Size								
		OM4010	OM4025	RM3240	OM4025	OM5005					d	i	s		r			
	SPET060308ER-M01	●	●						●					7	7	3.18	0.8	
	SDET120508ER-M01	●	●											12.7	12.7	5.56	0.8	
	SDET090408EDER-M01	●	●						●					9.52	9.52	4.76	0.8	
	SDMT090408EDER-M01			●	●									9.52	9.52	4.76	0.8	

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

### 範例 Example





## SP\_06/SD\_09.12 切削條件數據表 Cutting Conditions

### SP.0603

被加工材質 Machining Materials	面銑 Facing			開槽 Slotting			插銑 Plunging		
	切削速度 Speed	每刃進給 Feed	切深 D.O.C.	切削速度 Speed	每刃進給 Feed	切深 D.O.C.	切削速度 Speed	每刃進給 Feed	切寬 W.O.C.
	V <sub>c</sub> (m/min)	h <sub>m</sub> (mm)	a <sub>p</sub> max (mm)	V <sub>c</sub> (m/min)	h <sub>m</sub> (mm)	a <sub>p</sub> max (mm)	V <sub>c</sub> (m/min)	f max (mm)	a <sub>e</sub> max (mm)
P 低合金鋼 Low-Alloy Steels	107-235	0.2-0.8	0.9	107-235	0.2-0.6	0.9	107-235	0.04-0.15	3
	合金鋼 Alloyed Steels	75-160	0.2-0.8	0.9	75-160	0.2-0.6	0.9	75-160	0.04-0.1
M 不鏽鋼 Stainless Steels	115-265	0.15-0.8	0.9	115-265	0.15-0.6	0.9	115-265	0.04-0.12	3
	析出硬化系 Precipitation-Hardening	50-150	0.15-0.8	0.9	50-150	0.15-0.6	0.9	50-150	0.04-0.12
K 鑄鐵 Cast Iron	152-335	0.2-0.8	0.9	152-335	0.2-0.6	0.9	152-335	0.04-0.12	3
N 鋁及鋁合金 Aluminum&Al	-	-	-	-	-	-	-	-	-
S 高溫合金 Refractory Alloys	25-60	0.15-0.5	0.9	25-60	0.1-0.4	0.9	25-60	0.04-0.08	3
H 高硬度材質 Hard Material	35-100	0.2-0.5	0.9	35-100	0.2-0.4	0.9	35-100	0.04-0.08	3

### SD..0904

被加工材質 Machining Materials	面銑 Facing			開槽 Slotting			插銑 Plunging		
	切削速度 Speed	每刃進給 Feed	切深 D.O.C.	切削速度 Speed	每刃進給 Feed	切深 D.O.C.	切削速度 Speed	每刃進給 Feed	切寬 W.O.C.
	V <sub>c</sub> (m/min)	h <sub>m</sub> (mm)	a <sub>p</sub> max (mm)	V <sub>c</sub> (m/min)	h <sub>m</sub> (mm)	a <sub>p</sub> max (mm)	V <sub>c</sub> (m/min)	f max (mm)	a <sub>e</sub> max (mm)
P 低合金鋼 Low-Alloy Steels	120-235	0.3-2.0	1.5	120-235	0.3-1.5	1.5	120-235	0.1-0.2	6.0
	合金鋼 Alloyed Steels	70-160	0.3-2.0	1.5	70-160	0.3-1.5	1.5	70-160	0.1-0.16
M 不鏽鋼 Stainless Steels	115-265	0.2-1.0	1.5	115-265	0.2-0.8	1.5	115-265	0.12-0.16	6.0
	析出硬化系 Precipitation-Hardening	50-100	0.02-0.6	1.5	50-100	0.1-0.4	1.5	50-100	0.05-0.08
K 鑄鐵 Cast Iron	150-395	0.3-2.0	1.5	150-395	0.3-1.5	1.5	150-395	0.1-0.2	6.0
N 鋁及鋁合金 Aluminum&Al	400-1000	0.3-1.5	1.5	400-1000	0.3-1.0	1.5	400-1000	0.1-0.3	6.0
S 高溫合金 Refractory Alloys	25-60	0.2-0.8	1.5	25-60	0.1-0.5	1.5	25-60	0.05-0.1	6.0
H 高硬度材質 Hard Material	35-100	0.3-1.0	1.5	35-100	0.3-0.8	1.5	35-100	0.08-0.12	6.0

### SD..1205

被加工材質 Machining Materials	面銑 Facing			開槽 Slotting			插銑 Plunging		
	切削速度 Speed	每刃進給 Feed	切深 D.O.C.	切削速度 Speed	每刃進給 Feed	切深 D.O.C.	切削速度 Speed	每刃進給 Feed	切寬 W.O.C.
	V <sub>c</sub> (m/min)	h <sub>m</sub> (mm)	a <sub>p</sub> max (mm)	V <sub>c</sub> (m/min)	h <sub>m</sub> (mm)	a <sub>p</sub> max (mm)	V <sub>c</sub> (m/min)	f max (mm)	a <sub>e</sub> max (mm)
P 低合金鋼 Low-Alloy Steels	120-235	0.3-3.0	2.5	120-235	0.3-2.0	2.0	120-235	0.1-0.25	9.0
	合金鋼 Alloyed Steels	70-160	0.3-3.0	2.5	70-160	0.3-2.0	2.0	70-160	0.1-0.18
M 不鏽鋼 Stainless Steels	115-265	0.2-1.2	2.5	115-265	0.2-1.0	2.0	115-265	0.12-0.13	9.0
	析出硬化系 Precipitation-Hardening	50-100	0.02-0.7	2.5	50-100	0.1-0.6	2.0	50-100	0.05-0.1
K 鑄鐵 Cast Iron	150-395	0.3-3.0	2.5	150-395	0.3-2.0	2.0	150-395	0.1-0.25	9.0
N 鋁及鋁合金 Aluminum&Al	400-1000	0.3-1.5	2.5	400-1000	0.3-1.5	2.0	400-1000	0.1-0.4	9.0
S 高溫合金 Refractory Alloys	25-60	0.2-1.0	2.5	25-60	0.1-0.7	2.0	25-60	0.05-0.12	9.0
H 高硬度材質 Hard Material	35-100	0.3-1.5	2.5	35-100	0.3-1.0	2.0	35-100	0.08-0.15	9.0

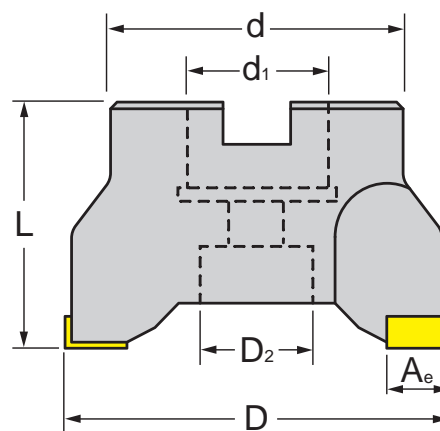
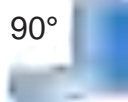
主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



# MSAE 強力型插銑刀頭

## MSAE SQUARE SHOULDER MILLING CUTTER



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	D <sub>2</sub>	d	d <sub>1</sub>	切幅寬 Ae	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
MSAE-50-FMB22	50	50	18	42	22	11	3	CN..1206	0.47
MSAE-63-FMB22	50	63	18	50	22	14	3	CN..1508	0.75
MSAE-80	55	80	42	60	25.4	14	4	CN..1508	1.05
MSAE-80-FMB27	55	80	42	60	27	14	4	CN..1508	1.03

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CN..1206	M4-10-5.7-60	T15	3.0
CN..1508	M5-14-7.0-43	T20	5.0

ISO 分類	ISO 分類										切削狀態 Cutting Condition :						
	P	M	K	N	S	H											
	合金鋼 Alloyed Steels	不鏽鋼 Stainless Steels	鑄鐵 Cast Iron	鋁及鋁合金 Aluminum&Al	高溫合金 Refractory Alloys	高硬度材 Hard Material											
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro								尺寸 (mm) Size				圖形 Drawing			
		CHF								Size							
		OM4010	OM4025							d	i	s	r				
	CNEX120612-M01	●	●										12.7	-	6.35	1.2	
	CNEX150812-M01	●	●										15	-	8	1.2	

MILLING





# MSAE 強力型插銑刀頭

## MSAE SQUARE SHOULDER MILLING CUTTER



### 特點 Feature

大進給、大切深、排屑性良好。可做多種加工方式應用。加工範圍可遍及零件加工、模具製造業使用。

High feeding, deep cutting, and smooth chip evacuation. Available for various processing. Could be applied to part processing, mold making.

刀片可承受高進給時所產生的巨大切削阻力。由於容屑槽較大，可供鐵屑暫時停留排出，較不受鐵屑干擾，而產生震動，影響切削效率。

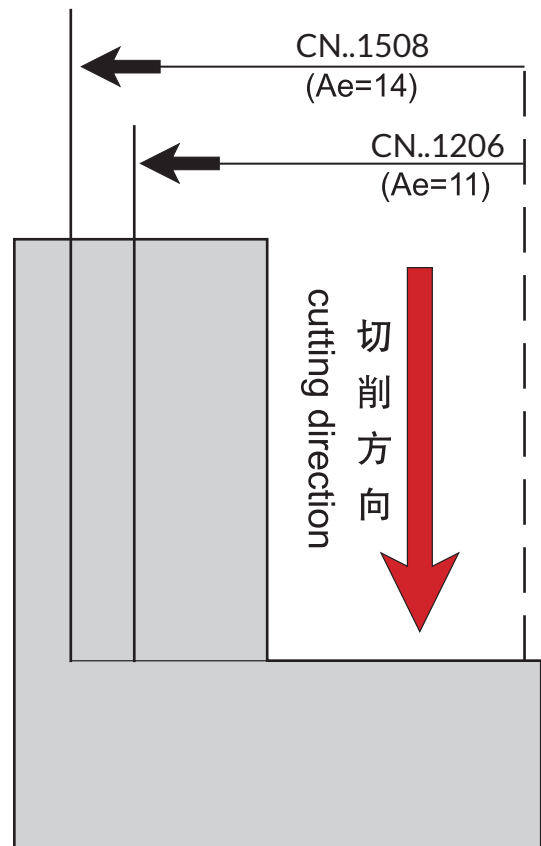
The insert can bear huge cutting resistance during high feeding. With bigger chip flute which stores chips temporarily, the cutter is free of vibration and is high cutting efficiency.

本刀片設計於優越的斷屑能力，及降低切削阻力。並增加刀片刃口強度，有助於重插銑、中插銑及半精加工。

The insert is designed with superior chip-breaking, strong teeth and low resistance which is suitable for plunge milling and semi-finishing.

本刀片採用超微粒底材，鍍層 PVD 的 (TiAlSi)N 被覆，可泛用於各種加工材質。

The insert is made Form ultra micro material, PVD (TiAlSi)N coating and can cut on workpiece of different material.



## CN\_12.15 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials		刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)
P	低合金鋼 Low-Alloy Steels	OM4010	90~190	0.10~0.25
		OM4025	80~170	0.08~0.25
M	合金鋼 Alloyed Steels	OM4010	70~160	0.08~0.20
		OM4025	70~160	0.08~0.20
M	不鏽鋼 Stainless Steels	OM4010	70~180	0.10~0.20
		OM4025	70~160	0.10~0.18
K	鑄鐵 Cast Iron	OM4025	110~180	0.08~0.25

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.

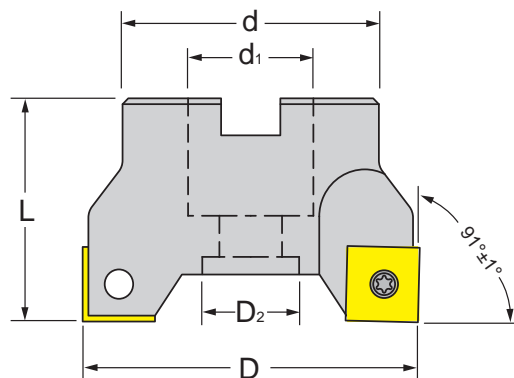
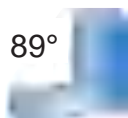


# SGP 直角殼形平面銑刀

## SGP SQUARE SHOULDER MILLING CUTTER



89°



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	D <sub>2</sub>	d	d <sub>1</sub>	切幅寬 Ae	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
SGP-50-FMB22	50	50	18	40	22	12	4	SP..1204	0.44
SGP-63	50	63	19	50	25.4	12	5	SP..1204	0.68
SGP-63-FMB22	50	63	18	50	22	12	5	SP..1204	0.71
SGP-80	50	80	32	60	25.4	12	6	SP..1204	0.93
SGP-80-FMB27	50	80	32	60	27	12	6	SP..1204	0.99
SGP-100	55	100	42	70	31.75	12	8	SP..1204	1.71
SGP-100-FMB32	55	100	42	70	32	12	8	SP..1204	1.71
SGP-125-FMB40	63	125	58	90	40	12	8	SP..1204	3.22
SGP-160-FMB40	63	160	58	130	40	12	10	SP..1204	6.22

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SP..1204	M5-10-6.3-43	T20	5.0

可有效使用刀片切削刃，可利用刀刃可達四刃，具有經濟效率的刀片。  
4 indexable edges.

刀片可與其他粗切削工具互換使用。  
Inserts are compatible with that of other rough cutting tools.

最大切削量可達 10mm，加工範圍為 50~100mm。  
Max. cutting is up to 10mm, range is up to 50~100mm.

可使用在平面銑削與肩部銑削。  
Can be applied to face milling and shoulder milling.



MILLING



# SGP 直角殼形平面銑刀

## SGP SQUARE SHOULDER MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○	○	○															
	M	不鏽鋼 Stainless Steels	○	○																
	K	鑄鐵 Cast Iron	○	○																
	N	鋁及鋁合金 Aluminum&Al							■											
S	高溫合金 Refractory Alloys																			
H	高硬度材 Hard Material	○																		
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro			超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing							
		CHF			HF															
		OM4010	OM4025	RM4025	OM5005					d	i	s		r						
	SPET120408-M02	●	●				●									12.7	-	4.76	0.8	
	SPMT120408-R01			●												12.7	-	4.76	0.8	

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

### SP\_12 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P 低合金鋼 Low-Alloy Steels	OM4010	100~220	0.10~0.35	2.0~9.0
	OM4025	100~220	0.10~0.35	2.0~9.0
	RM4025	100~220	0.10~0.35	2.0~9.0
P 合金鋼 Alloyed Steels	OM4010	70~120	0.10~0.25	1.0~5.0
	OM4025	70~120	0.10~0.25	1.0~5.0
	RM4025	70~120	0.10~0.25	1.0~5.0
M 不鏽鋼 Stainless Steels	OM4010	130~200	0.12~0.30	3.0~8.0
	OM4025	130~200	0.12~0.30	3.0~8.0
K 鑄鐵 Cast Iron	OM4010	100~210	0.10~0.20	2.0~9.0
	OM4025	100~210	0.10~0.20	2.0~9.0
N 鋁合金 Aluminum&Al	OM5005	450(500~700)	1.2(1.2~1.8)	2.0~9.0

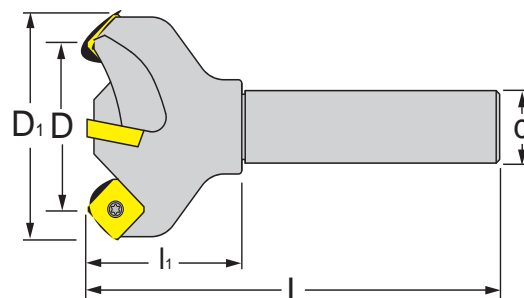
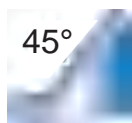
主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).  
 床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.

MILLING



# KE45° 高速端銑刀

## KE45° FACE MILLING CUTTER



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	D	D <sub>1</sub>	d	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
C20-KE50	120	45	50	63.7	20	4	SE..1204	0.77
C25-KE50	120	45	50	63.7	25	4	SE..1204	0.85
C32-KE50	120	45	50	63.7	32	4	SE..1204	1.06
C25-KE63	120	45	63	75	25	5	SE..1204	1.14
C32-KE63	120	45	63	75	32	5	SE..1204	1.36

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..1204	M5-11-7.0-55	T20	5.0

ISO 分類	P	合金鋼 Alloyed Steels	○	○															切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○	○														
	K	鑄鐵 Cast Iron	○	○															
	N	鋁及鋁合金 Aluminum&Al							■	■									
	S	高溫合金 Refractory Alloys																	
	H	高硬度材 Hard Material	○																

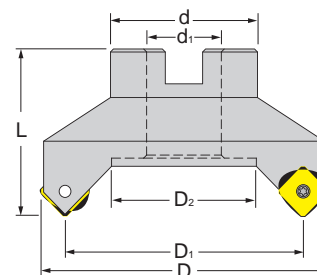
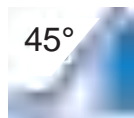
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro CHF						超硬微粒 Ultra-hard microprogram HF						尺寸 (mm) Size				圖形 Drawing				
		OM4010	OM4025	RM4230				GH1	OM5060					d	i	s	r					
	SEHT1204AFEN-M01	●	●															12.7	-	4.76	Facet	
	SEHT1204AFEN-M02			●														12.7	-	4.76	Facet	
	SEHT1204AFFN							●	●									12.7	-	4.76	-	
	SEKW1204AFN		●															12.7	-	4.76	-	

MILLING



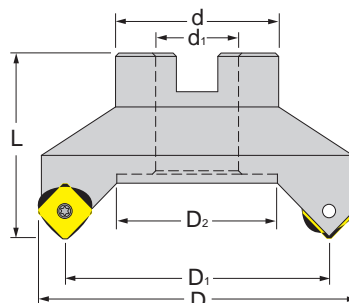
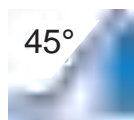
# KM45°殼形銑刀

## KM45° FACE MILLING CUTTER



規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
KM-50-FMB22	40	63	50	18	46	22	4	SE..1204	0.52
KM-63	45	76	63	19	48	25.4	5	SE..1204	0.78
KM-63-FMB22	45	76	63	18	48	22	5	SE..1204	0.80
KM-80	50	95	80	45	60	31.75	6	SE..1204	1.15
KM-80-FMB27	50	95	80	44.2	60	27	6	SE..1204	1.21
KM-100	50	114	100	61.8	80	31.75	6	SE..1204	1.83
KM-100-FMB32	50	114	100	61.8	80	32	6	SE..1204	1.81
KM-125	63	140	125	72.1	90	38.1	8	SE..1204	3.07
KM-125-FMB40	63	140	125	72.1	90	40	8	SE..1204	3.04
KM-160	63	175	160	110.9	120	50.8	10	SE..1204	5.05
KM-160-FMB40	63	175	160	110.9	120	40	10	SE..1204	5.35
KM-200	63	215	200	145.9	160	47.625	12	SE..1204	7.62
KM-250	63	265	250	195.8	220	47.625	14	SE..1204	13.3

左旋 Counter Clockwise



規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
KM-80-FMB27-L	50	95	80	44.2	60	27	6	SE..1204	1.17
KM-80-FMA31.75-L	50	94	80	45	60	31.75	6	SE..1204	0.66
KM-100-FMB32-L	50	114	100	61.8	80	32	6	SE..1204	1.83
KM-125-FMB40-L	63	140	125	72.1	90	40	8	SE..1204	3.07
KM-160-FMB40-L	63	175	160	110.9	120	40	10	SE..1204	5.05

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..1204	M5-11-7.0-55	T20	5.0



MILLING



## KM45° 殼形銑刀 KM45° FACE MILLING CUTTER



### SE\_12 切削條件數據表 Cutting Conditions

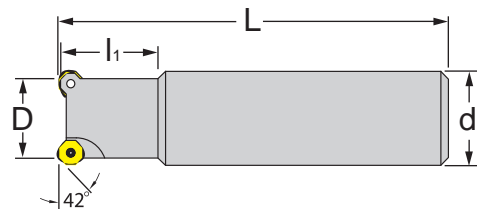
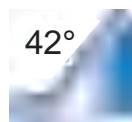
被加工材質 Machining Materials		刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P	低合金鋼 Low-Alloy Steels	OM4010	220~260	0.20~0.45	1.0~3.0
		OM4025	220~260	0.20~0.45	1.0~3.0
	合金鋼 Alloyed Steels	OM4010	100~195	0.20~0.35	1.0~3.0
		OM4025	100~195	0.20~0.35	1.0~3.0
M	不鏽鋼 Stainless Steels	OM4010	140~180	0.10~0.30	1.0~2.0
		OM4025	140~180	0.10~0.30	1.0~2.0
		RM4230	140~180	0.10~0.30	1.0~2.0
	析出硬化系 Precipitation-Hardening	OM4025	70~85	0.15~0.20	0.2~1.0
K	鑄鐵 Cast Iron	OM4025	180~300	0.15~0.35	1.0~3.0
N	鋁合金 Aluminum&Al	OM5060	500~850	0.15~0.35	3.6~6.0
		GH1	275~450	0.15~0.35	3.0~6.0

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed(mm/min) = Feed per teeth × Teeth × Spindle speed.



## SKM 高速八角面銑刀 SKM FACE MILLING CUTTER



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	D	d	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
SKM-2520-120L	120	40	25	20	2	OD..0404	0.32
SKM-2525-120L	120	40	25	25	2	OD..0404	0.45
SKM-3225-120L	120	40	32	25	3	OD..0404	0.48
SKM-3232-120L	120	40	32	32	3	OD..0404	0.71
SKM-4032-120L	120	50	40	32	4	OD..0404	0.82

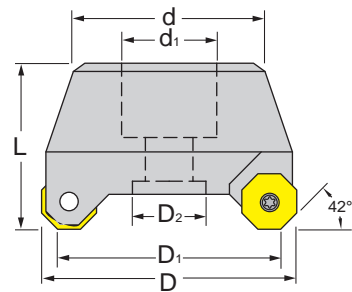
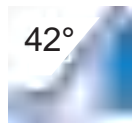
### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
OD..0404	M4-10-5-7-60	T15	3.0



# SKM 高速八角面殼型銑刀

## SKM FACE MILLING CUTTER



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

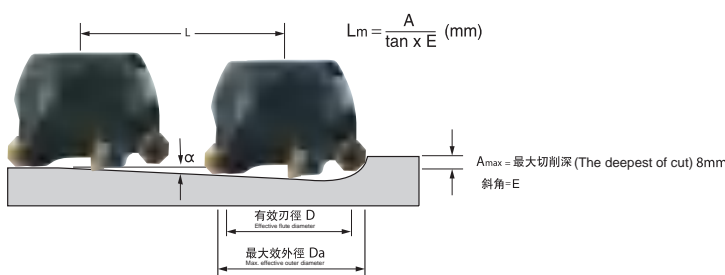
- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
SKM-50-FMB22	45	58	50	18	42.24	22	4	OD..0404	0.50
SKM-63	45	71	63	19	48.82	25.4	5	OD..0404	0.63
SKM-63-FMB22	45	71	63	18	48.82	22	5	OD..0404	0.67
SKM-80	50	88	80	44	61.78	31.75	6	OD..0404	1.13
SKM-80-FMB27	50	88	80	35	61.78	27	6	OD..0404	1.24
SKM-100	55	108	100	45	70	31.75	7	OD..0404	1.86
SKM-100-FMB32	55	108	100	45	70	32	7	OD..0404	1.86
SKM-125	58	133	125	60	90	38.1	8	OD..0404	3.13
SKM-160	63	168	160	93.81	125	50.8	10	OD..0404	5.83

### 配件表 Accessories

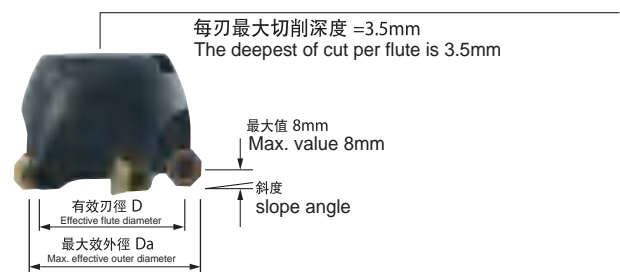
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
OD..0404	M4-10-5.7-60	T15	3.0

直角斜度銑削公式 Inclination angle milling formula :



螺旋斜度銑削公式

Formula to spiral milling



### 螺旋銑削加工數據 Spiral milling data

銑削刀具 Milling cutter		螺旋切削直徑 ØSpiral milling diameter of cut		斜度 slope
有效刃徑 D effective flute diamter	最大外徑 Da Max. outer diameter	最小值 D Min.	最大值 D Max.	
Ø50	Ø60	Ø94	Ø118	6.0°
Ø63	Ø73	Ø120	Ø144	4.6°
Ø80	Ø90	Ø154	Ø178	3.3°
Ø100	Ø110	Ø194	Ø218	2.6°
Ø125	Ø135	Ø244	Ø268	2.0°
Ø160	Ø170	Ø314	Ø338	1.5°

MILLING



# SKM 高速八角面銑刀

## SKM FACE MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○	○											切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting			
	M	不鏽鋼 Stainless Steels	○	○			○		○									
	K	鑄鐵 Cast Iron	○						○									
N	鋁及鋁合金 Aluminum&Al									■								
S	高溫合金 Refractory Alloys							○										
H	高硬度材 Hard Material	○																
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro			硬質合金 Hard alloy			超硬微粒 Ultra-hard microprogram			尺寸 (mm)				圖形 Drawing			
		CHF			HW			HF			Size							
		OM4010	OM4035		X500	MP91M	SP6564				GH1					d	i	s
	ODMT040408	●	●											12.7	4.6	4.76	0.8	
	ODMT040408EN-41				●	●	●							12.7	4.6	4.76	0.8	
	ODET0404APFN-441								●					12.7	4.6	4.76	0.8	

### OD\_04 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials		刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P	低合金鋼 Low-Alloy Steels	OM4010	130~330	0.08~0.40	1.0~2.0
		OM4035	130~330	0.08~0.40	1.0~2.0
P	合金鋼 Alloyed Steels	OM4010	70~160	0.08~0.20	1.0~2.0
		OM4035	70~160	0.08~0.20	1.0~2.0
M	不鏽鋼 Stainless Steels	OM4035	160~260	0.06~0.24	1.0~2.0
		SP6564	160~260	0.06~0.24	1.0~2.0
		X500	120~220	0.06~0.26	1.0~2.0
K	鑄鐵 Cast Iron	MP91M	180~400	0.08~0.35	2.0~3.5
N	鋁合金 Aluminum&Al	GH1	400~850	0.06~0.33	2.0~3.5
S	高溫合金 Refractory Alloys	X500	30~60	0.08~0.22	0.2~1.0

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

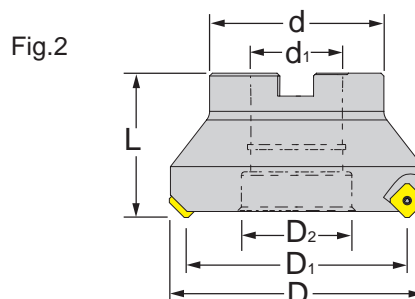
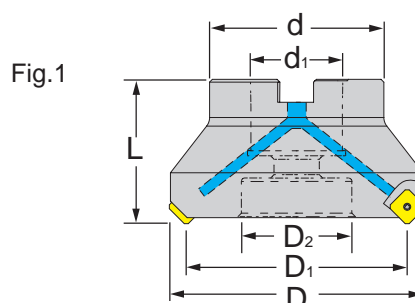
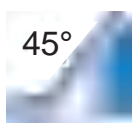
床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.





# SFM 殼形銑刀

## SFM FACE MILLING CUTTER



規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	Fig.	重量 (KGS) Weight
SFM-50-FMB22-C	40	62	50	18	48	22	4	SE..13T3	1	0.64
SFM-50-FMA25.4-C	40	62	50	20	50	25.4	4	SE..13T3	1	0.54
SFM-63-FMB22-C	40	75	63	18	48	22	5	SE..13T3	1	0.70
SFM-63-FMA25.4-C	40	75	63	20	50	25.4	5	SE..13T3	1	0.68
SFM-80-FMB27-C	50	92	80	32	62	27	6	SE..13T3	1	1.28
SFM-80-FMA31.75-C	50	92	80	42	62	31.75	6	SE..13T3	1	1.20
SFM-100-FMB32-C	50	112	100	42	78	32	7	SE..13T3	1	1.98
SFM-100-FMA31.75-C	50	112	100	42	78	31.75	7	SE..13T3	1	2.04
SFM-125-FMB40-C	63	137	125	50	89	40	8	SE..13T3	1	3.57
SFM-125-FMA38.1-C	63	137	125	50	80	38.1	8	SE..13T3	1	3.24
SFM-160-FMB40	63	172	160	50	98	40	10	SE..13T3	2	5.30
SFM-160-FMA50.8	63	172	160	67	98	50.8	10	SE..13T3	2	4.80
SFM-200-FMB60	63	210.4	200	174	138	60	12	SE..13T3	2	6.78
SFM-200-FMA47.625	63	210.4	200	174	138	47.625	12	SE..13T3	2	7.18
SFM-250-FMB60	63	260.4	250	224	138	60	14	SE..13T3	2	10.40
SFM-250-FMA47.625	63	260.4	250	224	138	47.625	14	SE..13T3	2	10.72

### 配件表 Accessories

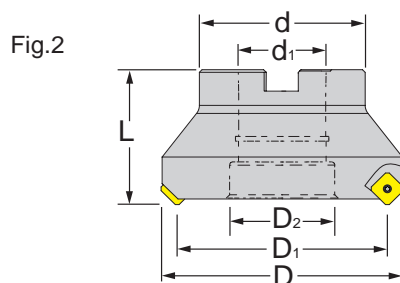
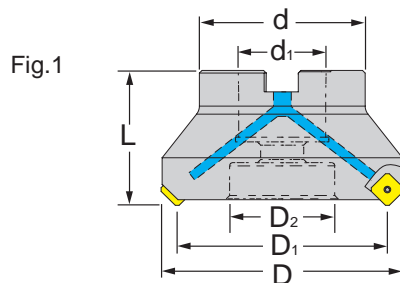
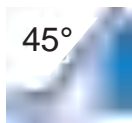
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..13T3	M3.5-11.7-5.3-60	T15	3.0



# SFM 燒結式殼形銑刀 SFM SHRINK FIT FACE MILLING CUTTER



燒結式 Shrink-Fit

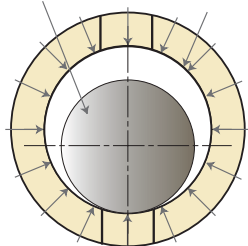


規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	Fig.	重量 (KGS) Weight
SFM-50-SF-FMB22-C	40	62	50	18	48	22	4	SE..13T3	1	0.64
SFM-50-SF-FMA25.4-C	40	62	50	20	50	25.4	4	SE..13T3	1	0.54
SFM-63-SF-FMB22-C	40	75	63	18	48	22	5	SE..13T3	1	0.70
SFM-63-SF-FMA25.4-C	40	75	63	20	50	25.4	5	SE..13T3	1	0.68
SFM-80-SF-FMB27-C	50	92	80	32	62	27	6	SE..13T3	1	1.28
SFM-80-SF-FMA31.75-C	50	92	80	42	62	31.75	6	SE..13T3	1	1.20
SFM-100-SF-FMB32-C	50	112	100	42	78	32	7	SE..13T3	1	1.98
SFM-100-SF-FMA31.75-C	50	112	100	42	78	31.75	7	SE..13T3	1	2.04
SFM-125-SF-FMB40-C	63	137	125	50	89	40	8	SE..13T3	1	3.57
SFM-125-SF-FMA38.1-C	63	137	125	50	80	38.1	8	SE..13T3	1	3.24
SFM-160-SF-FMB40	63	172	160	50	98	40	10	SE..13T3	2	5.30
SFM-160-SF-FMA50.8	63	172	160	67	98	50.8	10	SE..13T3	2	4.80

## 配件表 Accessories

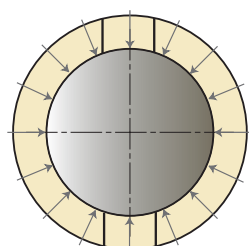
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..13T3	M3.5-11.7-5.3-60	T15	3.0

心軸 Spindle  
銑刀內孔 Inner diameter of cutter



傳統標準刀柄 Conventional Chuck

熱膨脹的刀具 Shrink-Fit Chuck



SF 刀具 SF Chuck

SF 刀具原理 SF Tool Principle



MILLING



# SFM 殼形銑刀

## SFM FACE MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels																	
	M	不鏽鋼 Stainless Steels			○														
	K	鑄鐵 Cast Iron																	
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro						超硬微粒 Ultra-hard microprogram			尺寸 (mm) Size				圖形 Drawing				
		CHF						HF											
		OM4010	OM4025	RM2140	RM4025	RM4130	RM4230	OM5005	OM5060	RM5005	d	i	s	r					
	SEMT13T3AGEN-M02			●	●									13.4	-	3.97	2.55		
	SEET13T3AGFN-F01									●				13.4	-	3.97	2.55		

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

### SE\_13T3 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials		刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)
P	低合金鋼 Low-Alloy Steels	RM4025	220~260	0.20~0.45
	合金鋼 Alloyed Steels	RM4025	220~260	0.20~0.45
M	不鏽鋼 Stainless Steels	RM2140	130~250	0.20~0.35
N	鋁合金 Aluminum&Al	RM5005	500~850	0.15~0.35
S	高溫合金 Refractory Alloys	RM2140	130~250	0.20~0.35

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).  
 床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.

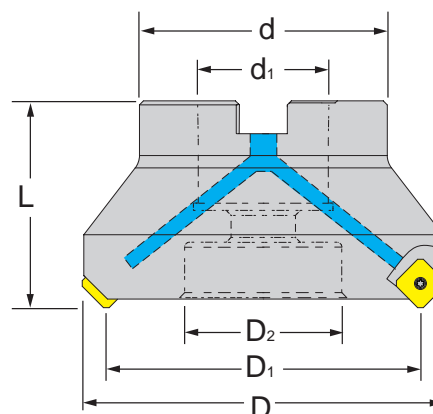
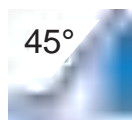
MILLING



## KFM 殼形銑刀 KFM FACE MILLING CUTTER



出水型 Through Hole



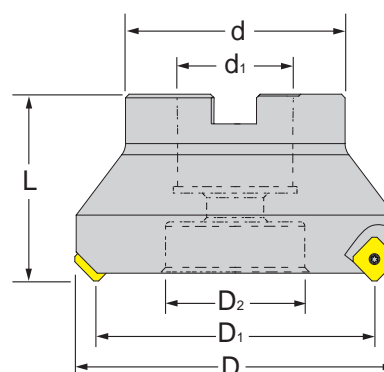
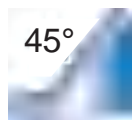
規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
KFM-50-FMB22-4T-C	40	62	50	18	48	22	4	SE..1204	0.51
KFM-63-FMB22-5T-C	40	75	63	18	48	22	5	SE..1204	0.73
KFM-80-FMB27-6T-C	50	92	80	32	62	27	6	SE..1204	1.31
KFM-100-FMB32-7T-C	50	112	100	42	78	32	7	SE..1204	2.00
KFM-125-FMB40-8T-C	63	138	125	50	89	40	8	SE..1204	3.53



## KFM 燒結式殼形銑刀 KFM SHRINK FIT FACE MILLING CUTTER



燒結式 Shrink-Fit



規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
KFM-60-SF-FMA25.4	40	72.3	60	20	50	25.4	4	SE..1204	-
KFM-63-SF-FMA25.4	40	75.4	63	20	50	25.4	4	SE..1204	0.70

MILLING

### 配件表 Accessories

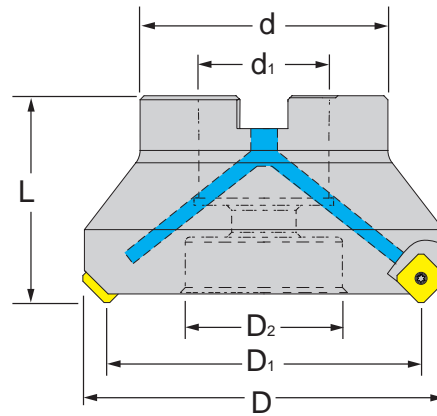
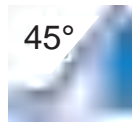
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..1204	M5-11-7.0-55	T20	5.0



# KFM 燒結式殼形銑刀 KFM SHRINK FIT FACE MILLING CUTTER



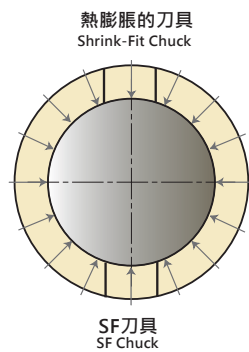
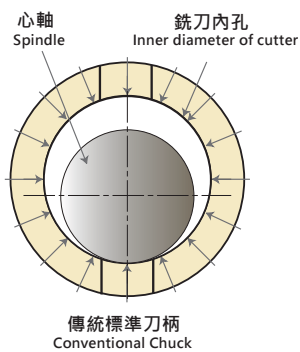
燒結式 Shrink-Fit 出水型 Through Hole



規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
KFM-50-SF-FMB22-C	40	62	50	18	48	22	4	SE..1204	0.51
KFM-50-SF-FMA25.4-C	40	62	50	20	50	25.4	4	SE..1204	0.51
KFM-63-SF-FMB22-C	40	75	63	18	48	22	5	SE..1204	0.73
KFM-63-SF-FMA25.4-C	40	75	63	32	50	25.4	5	SE..1204	0.70
KFM-80-SF-FMB27-C	50	92	80	32	62	27	6	SE..1204	1.31
KFM-80-SF-FMA31.75-C	50	92	80	42	62	31.75	6	SE..1204	1.21
KFM-100-SF-FMB32-C	50	112	100	42	78	32	7	SE..1204	2.00
KFM-100-SF-FMA31.75-C	50	112	100	42	78	31.75	7	SE..1204	2.02
KFM-125-SF-FMB40-C	63	137	125	50	89	40	8	SE..1204	3.53
KFM-125-SF-FMA38.1-C	63	137	125	50	80	38.1	8	SE..1204	3.25

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..1204	M5-11-7.0-55	T20	5.0



### SF 刀具原理 SF Tool Principle



MILLING





# KFM 殼形銑刀

## KFM FACE MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○	○	○													切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○		○												
	K	鑄鐵 Cast Iron	○	○														
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro				超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing				
		CHF				HF				Size								
		OM4010	OM4025	RM4025	RM4230	OM5060	GH1					d	i		s	r		
	SEKT1204AFTN			●										12.7	-	4.76	-	
	SEHT1204AFEN-M01	●	●											12.7	-	4.76	Facet	
	SEHT1204AFEN-M02				●									12.7	-	4.76	Facet	
	SEHT1204AFFN							●	●					12.7	-	4.76	-	
	SEKW1204AFN		●											12.7	-	4.76	-	

### SE\_12 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P 低合金鋼 Low-Alloy Steels	OM4010	260~320	0.20~0.45	1.0~3.0
	OM4025	220~260	0.20~0.45	1.0~3.0
	RM4025	220~260	0.20~0.45	1.0~3.0
P 合金鋼 Alloyed Steels	OM4010	130~250	0.20~0.35	1.0~3.0
	OM4025	100~195	0.20~0.35	1.0~3.0
	RM4025	100~195	0.20~0.35	1.0~3.0
M 不鏽鋼 Stainless Steels	OM4010	180~220	0.10~0.30	1.0~2.0
	OM4025	140~180	0.10~0.30	1.0~2.0
K 析出硬化系 Precipitation-Hardening	OM4010	90~120	0.15~0.20	0.2~1.0
	OM4025	70~85	0.15~0.20	0.2~1.0
K 鑄鐵 Cast Iron	OM4010	160~300	0.12~0.35	1.0~3.0
	OM4025	180~300	0.15~0.35	1.0~3.0
N 鋁合金 Aluminum&Al	OM5060	500~850	0.15~0.35	3.6~6.0
	GH1	275~450	0.15~0.35	3.0~6.0

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.

MILLING

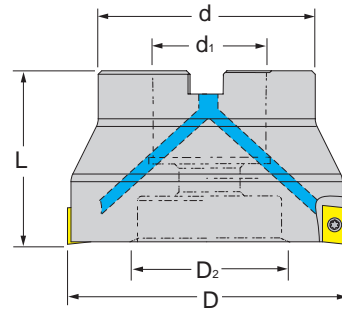


# IFM 殼形銑刀

## IFM FACE MILLING CUTTER



出水型 Through Hole

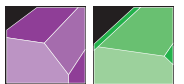


規格 Spec.	L	D	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
IFM-50-FMB22-C	40	50	18	45	22	5	AP..1604	0.43
IFM-63-FMB22-C	40	63	18	48	22	5	AP..1604	0.57
IFM-80-FMB27-C	50	80	32	62	27	6	AP..1604	1.16
IFM-100-FMB32-C	50	100	42	78	32	7	AP..1604	1.90
IFM-125-FMB40-C	63	125	50	89	40	8	AP..1604	3.41

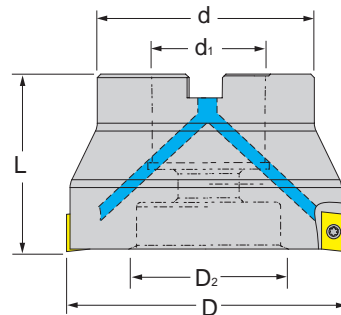


# IFM 燒結式殼形銑刀

## IFM SHRINK FIT FACE MILLING CUTTER



燒結式 Shrink-Fit 出水型 Through Hole



規格 Spec.	L	D	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
IFM-50-SF-FMB22-C	40	50	18	40	22	5	AP..1604	0.43
IFM-50-SF-FMA25.4-C	40	50	20	48.5	25.4	5	AP..1604	0.42
IFM-63-SF-FMB22-C	40	63	18	48	22	5	AP..1604	0.57
IFM-63-SF-FMA25.4-C	40	63	32	50	25.4	5	AP..1604	1.20
IFM-80-SF-FMB27-C	50	80	32	62	27	6	AP..1604	1.16
IFM-80-SF-FMA31.75-C	50	80	42	62	31.75	6	AP..1604	1.04
IFM-100-SF-FMB32-C	50	100	42	78	32	7	AP..1604	1.90
IFM-100-SF-FMA31.75-C	50	100	42	78	31.75	7	AP..1604	1.91
IFM-125-SF-FMB40-C	63	125	50	89	40	8	AP..1604	3.41
IFM-125-SF-FMA38.1-C	63	125	50	80	38.1	8	AP..1604	3.23

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP..1604	M4-10-5.7-60	T15	3.0





# IFM 殼形銑刀

## IFM FACE MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○	○	○										切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○		○										
	K	鑄鐵 Cast Iron	○		○										
	N	鋁及鋁合金 Aluminum&Al					■	■	○	■					
S	高溫合金 Refractory Alloys							○							
H	高硬度材 Hard Material														
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro					超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing
		CHF					HF				Size				
		OM4025	OM4025N	RM3130	RM4130	RM535	GH05	OM5005	OM5060	RM5005	d	i	s	r	
	APKT1604PDER-M05					●					9.525	16.4	4.76	0.4	
	APEX1604PDFR-701						●				9.525	16.4	4.76	0.2	
	APEX1604PDFR-F01							●	●		9.525	16.4	4.76	-	
	APEX160400PDFR-F01							●	●		9.525	16.4	4.76	-	
	APEX160404PDFR-F01							●	●		9.525	16.4	4.76	0.4	
	APEX160408PDFR-F01							●	●		9.525	16.4	4.76	0.8	
	APKT160408-M01	●	●								9.525	16.6	4.76	0.8	
	APGT1604PDFR-G2								●		9.525	16.5	4.76	0.8	
	APGT160408PDFR-F02								●		9.525	16.4	4.76	0.8	
	APKT160408PDER-M02			●	●						9.525	16.4	4.76	0.8	

### AP\_16 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P 低合金鋼 Low-Alloy Steels	OM4025	120~300	0.15~0.40	3.0~8.0
	OM4025N	120~300	0.15~0.40	3.0~8.0
	RM4130	60~300	0.10~0.25	3.0~8.0
合金鋼 Alloyed Steels	OM4025	80~180	0.15~0.35	3.0~8.0
	RM4130	60~300	0.10~0.25	3.0~8.0
M 不鏽鋼 Stainless Steels	OM4025	120~160	0.15~0.35	3.0~8.0
	RM4130	120~160	0.10~0.25	3.0~8.0
K 鑄鐵 Cast Iron	OM4025	160~250	0.15~0.30	3.0~8.0
	RM3130	160~250	0.15~0.30	3.0~8.0
N 鋁合金 Aluminum&Al	OM5005	400~1000	0.04~0.20	3.0~8.0
	OM5060	400~1000	0.04~0.20	3.0~8.0
	RM5005	400~1000	0.04~0.20	3.0~8.0
	GH05	300~800	0.04~0.20	3.0~8.0
S 高溫合金 Refractory Alloys	RM535	80~180	0.15~0.35	3.0~8.0

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.

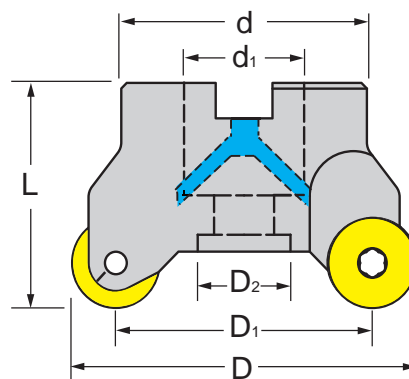




# SHR 定位圓刃殼形銑刀 SHR CORNER ROUNDING END MILLS



出水型 Through Hole



規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
SHR-6R50-FMB22-4T-C	50	50	38	18	46	22	4	RP.1204	0.59
SHR-6R50-FMB22-3T-C	50	50	38	18	46	22	3	RP.1204	0.62
SHR-6R63-FMB22-5T-C	50	63	51	18	50	22	5	RP.1204	0.78
SHR-6R63-FMB22-4T-C	50	63	51	18	50	22	4	RP.1204	0.81
SHR-6R63-FMA25.4-5T-C	50	63	51	18	50	25.4	5	RP.1204	0.77

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
RP.1204	M4-10-5.0-43	T15	3.0

每刃進給切削公式  
Feeding per teeth

$$f_z = h_m \times \sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}$$

平均屑片厚度計算公式  
Average chip thickness

$$h_m = \frac{f_z}{\sqrt{\frac{D}{A_p}} \times \sqrt{\frac{D_w}{A_p}}}$$

有效刃徑計算公式  
Effective diameter

$$D_w = D_2 + 2 \times \sqrt{r^2 - (r - A_p)^2}$$

where:  $D_w$  = 有效直徑 (mm)  
 $D_2$  = 刀具中心距 (mm)  
 $r$  = 刀片半徑 (mm)  
 $A_p$  = 切深 (mm)



MILLING

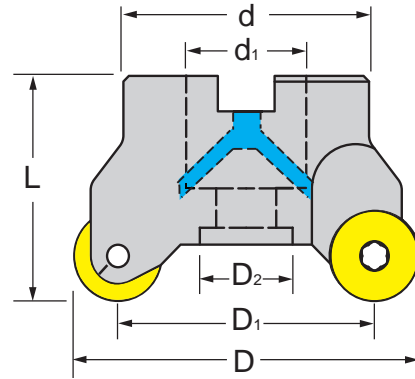
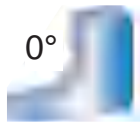


# SHR 燒結式定位圓刃殼形銑刀

## SHR SHRINK-FIT CORNER ROUNDING END MILLS



燒結式 Shrink-Fit 出水型 Through Hole

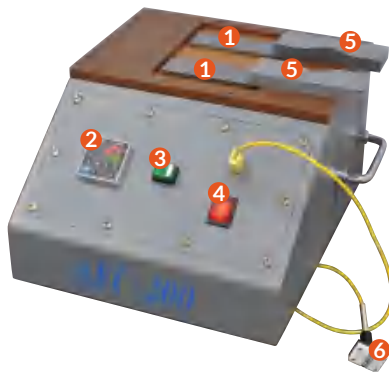


規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刀數 Teeth	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SHR-6R50-SF-FMB22-4T-C	50	50	38	18	46	22	4	RP.1204	M4-10-5.0-43	T15	3.0	0.59
SHR-6R50-SF-FMB22-3T-C	50	50	38	18	46	22	3	RP.1204	M4-10-5.0-43	T15	3.0	0.62
SHR-6R63-SF-FMB22-5T-C	50	63	51	18	50	22	5	RP.1204	M4-10-5.0-43	T15	3.0	0.78
SHR-6R63-SF-FMB22-4T-C	50	63	51	18	50	22	4	RP.1204	M4-10-5.0-43	T15	3.0	0.81
SHR-6R63-SF-FMA25.4-5T-C	50	63	51	18	50	25.4	5	RP.1204	M4-10-5.0-43	T15	3.0	0.77



# SFC 平面銑刀加熱器

## SFC SHRINK-FIT MACHINE



- ① 正負兩極面 Positive and negative poles face
- ② 微電腦溫度控制器 Microcomputer Temperature Controller
- ③ 啟動加熱 Start heating
- ④ 啟動電源 Turn on the power
- ⑤ V 型枕 V block
- ⑥ 測溫棒 Temperature Stick

規格 Spec.	SFC-200
電源 Power	220V( 單相 )220V(Single-phase)
輸出電源 Out put	15A
機體尺寸 Uni dimension (mm)	350(L)x190(W)x400(H)
重量 Weight (KGS)	32
冷卻方式 Cooling system	氣冷 Gas-cooled
建議使用範圍 range	Ø50~Ø160mm 面銑刀 Ø50~Ø160mm Face milling cutter
加熱時間 Heating time	加熱面銑刀到 150°C ~160°C約 4~6 分鐘 ( 依平面銑刀大小及形狀而定 ) 。 Heating face milling cutter to 150°C ~ 160°C for 4 ~ 6 minutes. (Depending on the size and shape of face milling cutters may be.)
使用刀具種類 cutting tool type	須使用特製捨棄式刀具 Abandon the use of special tools required to type.
刀具材質 Tool Material	特殊合金鋼 Special alloy steel
功能 Function	利用加熱原理將平面銑刀內孔膨脹後，並可緊密配合平面銑刀桿。 Principle of using heat expansion of the plane after the hole face milling cutter, and work closely with face milling arbor.

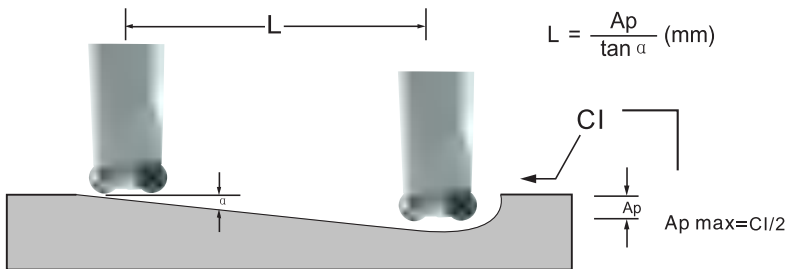


# SHR 定位圓刃殼形銑刀 SHR CORNER ROUNDING END MILLS



ISO 分類	P	合金鋼 Alloyed Steels	○	○													切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○													
	K	鑄鐵 Cast Iron	○	○													
	N	鋁及鋁合金 Aluminum&Al									■						
	S	高溫合金 Refractory Alloys															
	H	高硬度材 Hard Material		○													
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro				超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing			
		CHF				HF				Size							
		OM4010	OM4025					OM5005					d		i	s	r
	RPEX1204MOE-X8	●	●				●					12	-	4.76	6		

## 最大斜向切削公式 Max. inclined cutting



規格 Spec.	螺旋下刀孔徑 (mm)		最大徑向切削角度 $\alpha^\circ$	最大斜向進刀長度
	最小	最大		
SHR-6R63	63	75	3.5°	98.10

## RP\_12 切削條件數據表 Cutting Conditions

被加工材質 Work Material	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P 低合金鋼 Low-Alloy Steels	OM4010	220~300	0.08~0.16	0.1~6.0
	OM4025	180~220	0.08~0.16	0.1~6.0
P 合金鋼 Alloyed Steels	OM4010	100~200	0.08~0.16	0.1~6.0
	OM4025	120~140	0.08~0.16	0.1~6.0
M 不鏽鋼 Stainless Steels	OM4010	80~140	0.08~0.14	0.1~3.0
	OM4025	80~120	0.08~0.14	0.1~3.0
K 鑄鐵 Cast Iron	OM4025	220~350	0.08~0.25	0.1~6.0
N 鋁合金 Aluminum&Al	OM5005	700~1000	0.06~0.12	0.1~6.0

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

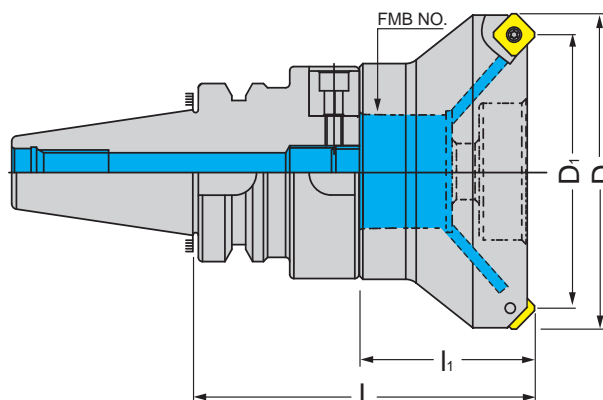
床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



# BT/KFM 燒結式平面銑刀桿 BT/KFM SHRINK-FIT FACE MILLING ARBOR



燒結式 Shrink-Fit



FMB 為公制規格 (mm)

規格 Spec.	面銑組合 Face Milling Connection		組合刀柄 FMB NO.	L	l <sub>1</sub>	D	D <sub>1</sub>	刃數 Teeth	刀片 Inserts	重量 (KGS) Weight
	刀桿 Tool Holder	刀具 Cutting Tool								
BT30B-KFM-50-SF-85-C	BT30×FMB22-45	KFM-50-SF-FMB22-C	FMB22	85	40	62	50	4	SE..1204	-
BT30B-KFM-50-SF-100-C	BT30×FMB22-60	KFM-50-SF-FMB22-C	FMB22	100	40	62	50	4	SE..1204	-
BT30B-KFM-63-SF-85-C	BT30×FMB22-45	KFM-63-SF-FMB22-C	FMB22	85	40	75	63	5	SE..1204	-
BT30B-KFM-63-SF-100-C	BT30×FMB22-60	KFM-63-SF-FMB22-C	FMB22	100	40	75	63	5	SE..1204	-
BT30B-KFM-80-SF-95-C	BT30×FMB27-45	KFM-80-SF-FMB27-C	FMB27	95	50	92	80	6	SE..1204	-
BT30B-KFM-80-SF-110-C	BT30×FMB27-60	KFM-80-SF-FMB27-C	FMB27	110	50	92	80	6	SE..1204	-
BT30B-KFM-100-SF-95-C	BT30×FMB32-45	KFM-100-SF-FMB32-C	FMB32	95	50	112	100	7	SE..1204	-
● BT40B-KFM-50-SF-85-C	BT40×FMB22-45	KFM-50-SF-FMB22-C	FMB22	85	40	62	50	4	SE..1204	-
BT40B-KFM-50-SF-100-C	BT40×FMB22-60	KFM-50-SF-FMB22-C	FMB22	100	40	62	50	4	SE..1204	-
BT40B-KFM-50-SF-140-C	BT40×FMB22-100	KFM-50-SF-FMB22-C	FMB22	140	40	62	50	4	SE..1204	-
BT40B-KFM-50-SF-190-C	BT40×FMB22-150	KFM-50-SF-FMB22-C	FMB22	190	40	62	50	4	SE..1204	-
BT40B-KFM-50-SF-240-C	BT40×FMB22-200	KFM-50-SF-FMB22-C	FMB22	240	40	62	50	4	SE..1204	-
● BT40B-KFM-63-SF-85-C	BT40×FMB22-45	KFM-63-SF-FMB22-C	FMB22	85	40	75	63	5	SE..1204	-
BT40B-KFM-63-SF-100-C	BT40×FMB22-60	KFM-63-SF-FMB22-C	FMB22	100	40	75	63	5	SE..1204	-
BT40B-KFM-63-SF-140-C	BT40×FMB22-100	KFM-63-SF-FMB22-C	FMB22	140	40	75	63	5	SE..1204	-
BT40B-KFM-63-SF-190-C	BT40×FMB22-150	KFM-63-SF-FMB22-C	FMB22	190	40	75	63	5	SE..1204	-
BT40B-KFM-63-SF-240-C	BT40×FMB22-200	KFM-63-SF-FMB22-C	FMB22	240	40	75	63	5	SE..1204	-
● BT40B-KFM-80-SF-95-C	BT40×FMB27-45	KFM-80-SF-FMB27-C	FMB27	95	50	92	80	6	SE..1204	-
BT40B-KFM-80-SF-110-C	BT40×FMB27-60	KFM-80-SF-FMB27-C	FMB27	110	50	92	80	6	SE..1204	-
BT40B-KFM-80-SF-140-C	BT40×FMB27-90	KFM-80-SF-FMB27-C	FMB27	140	50	92	80	6	SE..1204	-
BT40B-KFM-80-SF-155-C	BT40×FMB27-105	KFM-80-SF-FMB27-C	FMB27	155	50	92	80	6	SE..1204	-
● BT40B-KFM-100-SF-95-C	BT40×FMB32-45	KFM-100-SF-FMB32-C	FMB32	95	50	112	100	7	SE..1204	-
BT40B-KFM-100-SF-110-C	BT40×FMB32-60	KFM-100-SF-FMB32-C	FMB32	110	50	112	100	7	SE..1204	-
● BT40B-KFM-125-SF-123-C	BT40×FMB40-60	KFM-125-SF-FMB40-C	FMB40	123	63	137	125	8	SE..1204	-

● : 標準品 · 其餘規格按訂單生產 is standard type. Others are manufactured by orders.

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..1204	M5-11-7.0-55	T20	5.0

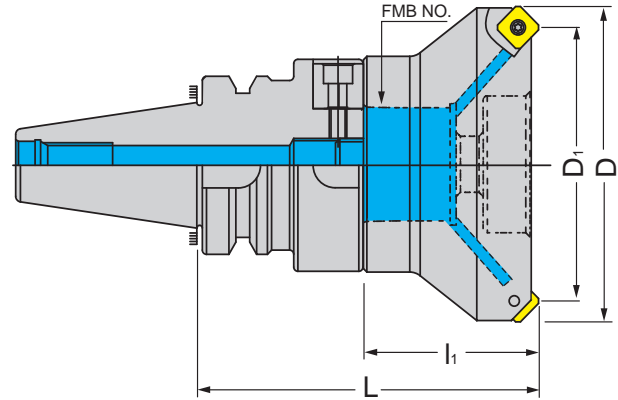
MILLING



# BT/KFM 燒結式平面銑刀桿 BT/KFM SHRINK-FIT FACE MILLING ARBOR



燒結式 Shrink-Fit



FMB 為公制規格 (mm)

規格 Spec.	面銑組合 Face Milling Connection		組合刀柄 FMB NO.	L	l <sub>1</sub>	D	D <sub>1</sub>	刃數 Teeth	刀片 Inserts	重量 (KGS) Weight
	刀桿 Tool Holder	刀具 Cutting Tool								
● BT50B-KFM-50-SF-85-C	BT50×FMB22-45	KFM-50-SF-FMB22-C	FMB22	85	40	62	50	4	SE..1204	-
BT50B-KFM-50-SF-130-C	BT50×FMB22-90	KFM-50-SF-FMB22-C	FMB22	130	40	62	50	4	SE..1204	-
BT50B-KFM-50-SF-190-C	BT50×FMB22-150	KFM-50-SF-FMB22-C	FMB22	190	40	62	50	4	SE..1204	-
BT50B-KFM-50-SF-240-C	BT50×FMB22-200	KFM-50-SF-FMB22-C	FMB22	240	40	62	50	4	SE..1204	-
BT50B-KFM-50-SF-290-C	BT50×FMB22-250	KFM-50-SF-FMB22-C	FMB22	290	40	62	50	4	SE..1204	-
BT50B-KFM-50-SF-340-C	BT50×FMB22-300	KFM-50-SF-FMB22-C	FMB22	340	40	62	50	4	SE..1204	-
BT50B-KFM-50-SF-390-C	BT50×FMB22-350	KFM-50-SF-FMB22-C	FMB22	390	40	62	50	4	SE..1204	-
BT50B-KFM-50-SF-440-C	BT50×FMB22-400	KFM-50-SF-FMB22-C	FMB22	440	40	62	50	4	SE..1204	-
● BT50B-KFM-63-SF-85-C	BT50×FMB22-45	KFM-63-SF-FMB22-C	FMB22	85	40	75	63	5	SE..1204	-
BT50B-KFM-63-SF-130-C	BT50×FMB22-90	KFM-63-SF-FMB22-C	FMB22	130	40	75	63	5	SE..1204	-
BT50B-KFM-63-SF-190-C	BT50×FMB22-150	KFM-63-SF-FMB22-C	FMB22	190	40	75	63	5	SE..1204	-
BT50B-KFM-63-SF-240-C	BT50×FMB22-200	KFM-63-SF-FMB22-C	FMB22	240	40	75	63	5	SE..1204	-
BT50B-KFM-63-SF-290-C	BT50×FMB22-250	KFM-63-SF-FMB22-C	FMB22	290	40	75	63	5	SE..1204	-
BT50B-KFM-63-SF-340-C	BT50×FMB22-300	KFM-63-SF-FMB22-C	FMB22	340	40	75	63	5	SE..1204	-
BT50B-KFM-63-SF-390-C	BT50×FMB22-350	KFM-63-SF-FMB22-C	FMB22	390	40	75	63	5	SE..1204	-
BT50B-KFM-63-SF-440-C	BT50×FMB22-400	KFM-63-SF-FMB22-C	FMB22	440	40	75	63	5	SE..1204	-
● BT50B-KFM-80-SF-100-C	BT50×FMB27-50	KFM-80-SF-FMB27-C	FMB27	100	50	92	80	6	SE..1204	-
BT50B-KFM-80-SF-140-C	BT50×FMB27-90	KFM-80-SF-FMB27-C	FMB27	140	50	92	80	6	SE..1204	-
BT50B-KFM-80-SF-200-C	BT50×FMB27-150	KFM-80-SF-FMB27-C	FMB27	200	50	92	80	6	SE..1204	-
BT50B-KFM-80-SF-250-C	BT50×FMB27-200	KFM-80-SF-FMB27-C	FMB27	250	50	92	80	6	SE..1204	-
BT50B-KFM-80-SF-300-C	BT50×FMB27-250	KFM-80-SF-FMB27-C	FMB27	300	50	92	80	6	SE..1204	-
● BT50B-KFM-100-SF-100-C	BT50×FMB32-50	KFM-100-SF-FMB32-C	FMB32	100	50	112	100	7	SE..1204	-
BT50B-KFM-100-SF-140-C	BT50×FMB32-90	KFM-100-SF-FMB32-C	FMB32	140	50	112	100	7	SE..1204	-
● BT50B-KFM-125-SF-113-C	BT50×FMB40-50	KFM-125-SF-FMB40-C	FMB40	113	63	137	125	8	SE..1204	-
BT50B-KFM-125-SF-153-C	BT50×FMB40-90	KFM-125-SF-FMB40-C	FMB40	153	63	137	125	8	SE..1204	-
BT50B-KFM-125-SF-168-C	BT50×FMB40-105	KFM-125-SF-FMB40-C	FMB40	168	63	137	125	8	SE..1204	-

● : 標準品 · 其餘規格按訂單生產 is standard type. Others are manufactured by orders.

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..1204	M5-11-7.0-55	T20	5.0

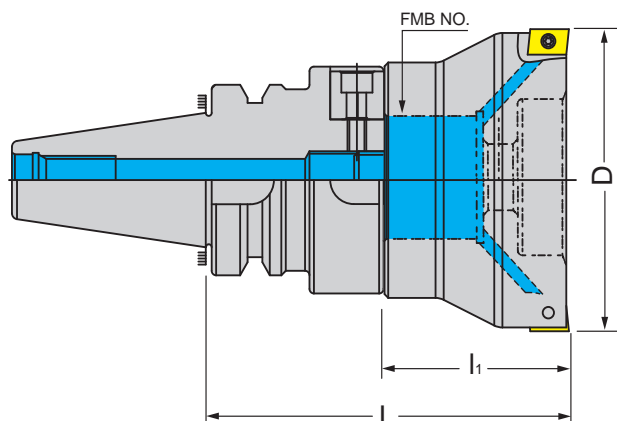
MILLING



# BT/IFM 燒結式平面銑刀桿 BT/IFM SHRINK-FIT FACE MILLING ARBOR



燒結式 Shrink-Fit



FMB 為公制規格 (mm)

規格 Spec.	面銑組合 Face Milling Connection		組合刀柄 FMB NO.	L	l <sub>1</sub>	D	刃數 Teeth	刀片 Inserts	重量 (KGS) Weight
	刀桿 Tool Holder	刀具 Cutting Tool							
BT30B-IFM-50-SF-95-C	BT30×FMB22-45	IFM-50-SF-FMB22-C	FMB22	95	50	50	5	AP..1604	-
BT30B-IFM-50-SF-110-C	BT30×FMB22-60	IFM-50-SF-FMB22-C	FMB22	110	50	50	5	AP..1604	-
BT30B-IFM-63-SF-95-C	BT30×FMB22-45	IFM-63-SF-FMB22-C	FMB22	95	50	63	5	AP..1604	-
BT30B-IFM-63-SF-110-C	BT30×FMB22-60	IFM-63-SF-FMB22-C	FMB22	110	50	63	5	AP..1604	-
BT30B-IFM-80-SF-100-C	BT30×FMB27-45	IFM-80-SF-FMB27-C	FMB27	100	55	80	6	AP..1604	-
BT30B-IFM-80-SF-115-C	BT30×FMB27-60	IFM-80-SF-FMB27-C	FMB27	115	55	80	6	AP..1604	-
BT30B-IFM-100-SF-100-C	BT30×FMB32-45	IFM-100-SF-FMB32-C	FMB32	100	55	100	7	AP..1604	-
● BT40B-IFM-50-SF-95-C	BT40×FMB22-45	IFM-50-SF-FMB22-C	FMB22	95	50	50	5	AP..1604	-
BT40B-IFM-50-SF-110-C	BT40×FMB22-60	IFM-50-SF-FMB22-C	FMB22	110	50	50	5	AP..1604	-
BT40B-IFM-50-SF-150-C	BT40×FMB22-100	IFM-50-SF-FMB22-C	FMB22	150	50	50	5	AP..1604	-
BT40B-IFM-50-SF-200-C	BT40×FMB22-150	IFM-50-SF-FMB22-C	FMB22	200	50	50	5	AP..1604	-
BT40B-IFM-50-SF-250-C	BT40×FMB22-200	IFM-50-SF-FMB22-C	FMB22	250	50	50	5	AP..1604	-
● BT40B-IFM-63-SF-95-C	BT40×FMB22-45	IFM-63-SF-FMB22-C	FMB22	95	50	63	5	AP..1604	-
BT40B-IFM-63-SF-110-C	BT40×FMB22-60	IFM-63-SF-FMB22-C	FMB22	110	50	63	5	AP..1604	-
BT40B-IFM-63-SF-150-C	BT40×FMB22-100	IFM-63-SF-FMB22-C	FMB22	150	50	63	5	AP..1604	-
BT40B-IFM-63-SF-200-C	BT40×FMB22-150	IFM-63-SF-FMB22-C	FMB22	200	50	63	5	AP..1604	-
BT40B-IFM-63-SF-250-C	BT40×FMB22-200	IFM-63-SF-FMB22-C	FMB22	250	50	63	5	AP..1604	-
● BT40B-IFM-80-SF-95-C	BT40×FMB27-45	IFM-80-SF-FMB27-C	FMB27	95	55	80	6	AP..1604	-
BT40B-IFM-80-SF-115-C	BT40×FMB27-60	IFM-80-SF-FMB27-C	FMB27	115	55	80	6	AP..1604	-
BT40B-IFM-80-SF-145-C	BT40×FMB27-90	IFM-80-SF-FMB27-C	FMB27	145	55	80	6	AP..1604	-
BT40B-IFM-80-SF-160-C	BT40×FMB27-105	IFM-80-SF-FMB27-C	FMB27	160	55	80	6	AP..1604	-
● BT40B-IFM-100-SF-100-C	BT40×FMB32-45	IFM-100-SF-FMB32-C	FMB32	100	55	100	7	AP..1604	-
BT40B-IFM-100-SF-115-C	BT40×FMB32-60	IFM-100-SF-FMB32-C	FMB32	115	55	100	7	AP..1604	-
● BT40B-IFM-125-SF-123-C	BT40×FMB40-60	IFM-125-SF-FMB40-C	FMB40	123	63	125	8	AP..1604	-

● : 標準品 · 其餘規格按訂單生產 is standard type. Others are manufactured by orders.

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP..1604	M4-10-5.7-60	T15	3.0

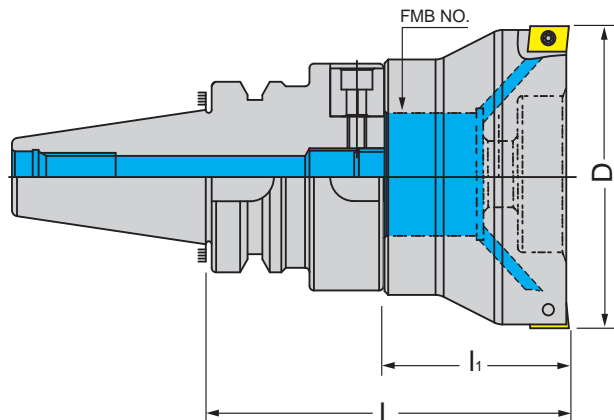
MILLING



# BT/IFM 燒結式平面銑刀桿 BT/IFM SHRINK-FIT FACE MILLING ARBOR



燒結式 Shrink-Fit



FMB 為公制規格 (mm)

規格 Spec.	面銑組合 Face Milling Connection		組合刀柄 FMB NO.	L	l <sub>1</sub>	D	刃數 Teeth	刀片 Inserts	重量 (KGS) Weight
	刀桿 Tool Holder	刀具 Cutting Tool							
● BT50B-IFM-50-SF-95-C	BT50×FMB22-45	IFM-50-SF-FMB22-C	FMB22	95	50	50	5	AP.1604	-
BT50B-IFM-50-SF-140-C	BT50×FMB22-90	IFM-50-SF-FMB22-C	FMB22	140	50	50	5	AP.1604	-
BT50B-IFM-50-SF-200-C	BT50×FMB22-150	IFM-50-SF-FMB22-C	FMB22	200	50	50	5	AP.1604	-
BT50B-IFM-50-SF-250-C	BT50×FMB22-200	IFM-50-SF-FMB22-C	FMB22	250	50	50	5	AP.1604	-
BT50B-IFM-50-SF-300-C	BT50×FMB22-250	IFM-50-SF-FMB22-C	FMB22	300	50	50	5	AP.1604	-
BT50B-IFM-50-SF-350-C	BT50×FMB22-300	IFM-50-SF-FMB22-C	FMB22	350	50	50	5	AP.1604	-
BT50B-IFM-50-SF-400-C	BT50×FMB22-350	IFM-50-SF-FMB22-C	FMB22	400	50	50	5	AP.1604	-
BT50B-IFM-50-SF-450-C	BT50×FMB22-400	IFM-50-SF-FMB22-C	FMB22	450	50	50	5	AP.1604	-
● BT50B-IFM-63-SF-95-C	BT50×FMB22-45	IFM-63-SF-FMB22-C	FMB22	95	50	63	5	AP.1604	-
BT50B-IFM-63-SF-140-C	BT50×FMB22-90	IFM-63-SF-FMB22-C	FMB22	140	50	63	5	AP.1604	-
BT50B-IFM-63-SF-200-C	BT50×FMB22-150	IFM-63-SF-FMB22-C	FMB22	200	50	63	5	AP.1604	-
BT50B-IFM-63-SF-250-C	BT50×FMB22-200	IFM-63-SF-FMB22-C	FMB22	250	50	63	5	AP.1604	-
BT50B-IFM-63-SF-300-C	BT50×FMB22-250	IFM-63-SF-FMB22-C	FMB22	300	50	63	5	AP.1604	-
BT50B-IFM-63-SF-350-C	BT50×FMB22-300	IFM-63-SF-FMB22-C	FMB22	350	50	63	5	AP.1604	-
BT50B-IFM-63-SF-400-C	BT50×FMB22-350	IFM-63-SF-FMB22-C	FMB22	400	50	63	5	AP.1604	-
BT50B-IFM-63-SF-450-C	BT50×FMB22-400	IFM-63-SF-FMB22-C	FMB22	450	50	63	5	AP.1604	-
● BT50B-IFM-80-SF-105-C	BT50×FMB27-50	IFM-80-SF-FMB27-C	FMB27	105	55	80	6	AP.1604	-
BT50B-IFM-80-SF-145-C	BT50×FMB27-90	IFM-80-SF-FMB27-C	FMB27	145	55	80	6	AP.1604	-
BT50B-IFM-80-SF-205-C	BT50×FMB27-150	IFM-80-SF-FMB27-C	FMB27	205	55	80	6	AP.1604	-
BT50B-IFM-80-SF-255-C	BT50×FMB27-200	IFM-80-SF-FMB27-C	FMB27	255	55	80	6	AP.1604	-
BT50B-IFM-80-SF-305-C	BT50×FMB27-250	IFM-80-SF-FMB27-C	FMB27	305	55	80	6	AP.1604	-
● BT50B-IFM-100-SF-105-C	BT50×FMB32-50	IFM-100-SF-FMB32-C	FMB32	105	55	100	7	AP.1604	-
BT50B-IFM-100-SF-145-C	BT50×FMB32-90	IFM-100-SF-FMB32-C	FMB32	145	55	100	7	AP.1604	-
● BT50B-IFM-125-SF-113-C	BT50×FMB40-50	IFM-125-SF-FMB40-C	FMB40	113	63	125	8	AP.1604	-
BT50B-IFM-125-SF-153-C	BT50×FMB40-90	IFM-125-SF-FMB40-C	FMB40	153	63	125	8	AP.1604	-
BT50B-IFM-125-SF-168-C	BT50×FMB40-105	IFM-125-SF-FMB40-C	FMB40	168	63	125	8	AP.1604	-

● : 標準品 · 其餘規格按訂單生產 is standard type. Others are manufactured by orders.

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP.1604	M4-10-5.7-60	T15	3.0

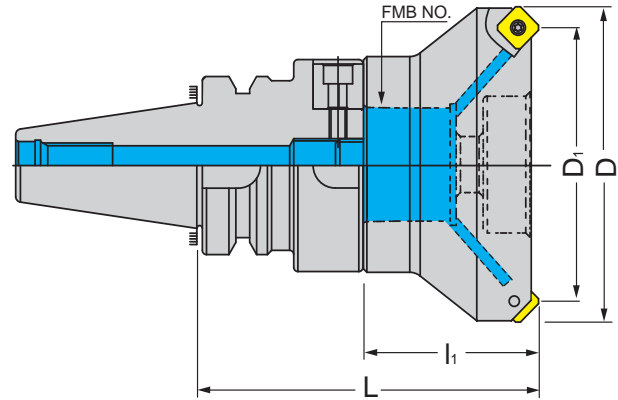
MILLING



# BT/SFM 燒結式平面銑刀桿 BT/SFM SHRINK-FIT FACE MILLING ARBOR



燒結式 Shrink-Fit



FMB 為公制規格 (mm)

規格 Spec.	面銑組合 Face Milling Connection		組合刀柄 FMB NO.	L	l <sub>1</sub>	D	D <sub>1</sub>	刃數 Teeth	刀片 Inserts	重量 (KGS) Weight
	刀桿 Tool Holder	刀具 Cutting Tool								
BT30B-SFM-50-SF-85-C	BT30×FMB22-45	SFM-50-SF-FMB22-C	FMB22	85	40	62	50	4	SE..12T3	-
BT30B-SFM-50-SF-100-C	BT30×FMB22-60	SFM-50-SF-FMB22-C	FMB22	100	40	62	50	4	SE..12T3	-
BT30B-SFM-63-SF-85-C	BT30×FMB22-45	SFM-63-SF-FMB22-C	FMB22	85	40	75	63	5	SE..12T3	-
BT30B-SFM-63-SF-100-C	BT30×FMB22-60	SFM-63-SF-FMB22-C	FMB22	100	40	75	63	5	SE..12T3	-
BT30B-SFM-80-SF-95-C	BT30×FMB27-45	SFM-80-SF-FMB27-C	FMB27	95	50	92	80	6	SE..12T3	-
BT30B-SFM-80-SF-110-C	BT30×FMB27-60	SFM-80-SF-FMB27-C	FMB27	110	50	92	80	6	SE..12T3	-
BT30B-SFM-100-SF-95-C	BT30×FMB32-45	SFM-100-SF-FMB32-C	FMB32	95	50	112	100	7	SE..12T3	-
● BT40B-SFM-50-SF-85-C	BT40×FMB22-45	SFM-50-SF-FMB22-C	FMB22	85	40	62	50	4	SE..12T3	-
BT40B-SFM-50-SF-100-C	BT40×FMB22-60	SFM-50-SF-FMB22-C	FMB22	100	40	62	50	4	SE..12T3	-
BT40B-SFM-50-SF-140-C	BT40×FMB22-100	SFM-50-SF-FMB22-C	FMB22	140	40	62	50	4	SE..12T3	-
BT40B-SFM-50-SF-190-C	BT40×FMB22-150	SFM-50-SF-FMB22-C	FMB22	190	40	62	50	4	SE..12T3	-
BT40B-SFM-50-SF-240-C	BT40×FMB22-200	SFM-50-SF-FMB22-C	FMB22	240	40	62	50	4	SE..12T3	-
● BT40B-SFM-63-SF-85-C	BT40×FMB22-45	SFM-63-SF-FMB22-C	FMB22	85	40	75	63	5	SE..12T3	-
BT40B-SFM-63-SF-100-C	BT40×FMB22-60	SFM-63-SF-FMB22-C	FMB22	100	40	75	63	5	SE..12T3	-
BT40B-SFM-63-SF-140-C	BT40×FMB22-100	SFM-63-SF-FMB22-C	FMB22	140	40	75	63	5	SE..12T3	-
BT40B-SFM-63-SF-190-C	BT40×FMB22-150	SFM-63-SF-FMB22-C	FMB22	190	40	75	63	5	SE..12T3	-
BT40B-SFM-63-SF-240-C	BT40×FMB22-200	SFM-63-SF-FMB22-C	FMB22	240	40	75	63	5	SE..12T3	-
● BT40B-SFM-80-SF-95-C	BT40×FMB27-45	SFM-80-SF-FMB27-C	FMB27	95	50	92	80	6	SE..12T3	-
BT40B-SFM-80-SF-110-C	BT40×FMB27-60	SFM-80-SF-FMB27-C	FMB27	110	50	92	80	6	SE..12T3	-
BT40B-SFM-80-SF-140-C	BT40×FMB27-90	SFM-80-SF-FMB27-C	FMB27	140	50	92	80	6	SE..12T3	-
BT40B-SFM-80-SF-155-C	BT40×FMB27-105	SFM-80-SF-FMB27-C	FMB27	155	50	92	80	6	SE..12T3	-
● BT40B-SFM-100-SF-95-C	BT40×FMB32-45	SFM-100-SF-FMB32-C	FMB32	95	50	112	100	7	SE..12T3	-
BT40B-SFM-100-SF-110-C	BT40×FMB32-60	SFM-100-SF-FMB32-C	FMB32	110	50	112	100	7	SE..12T3	-
● BT40B-SFM-125-SF-123-C	BT40×FMB40-60	SFM-125-SF-FMB40-C	FMB40	123	63	137	125	8	SE..12T3	-

● : 標準品 · 其餘規格按訂單生產 is standard type. Others are manufactured by orders.

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..12T3	M3.5-10-5.3-60	T15	3.0

MILLING

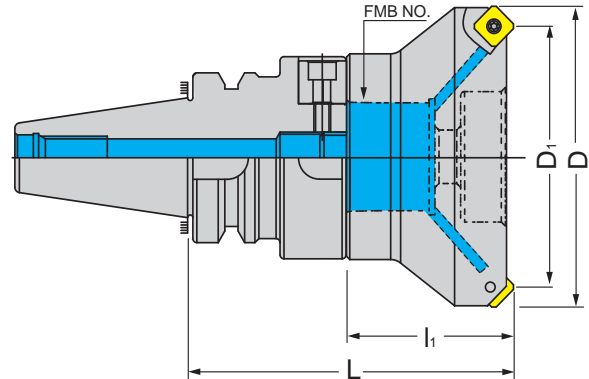




# BT/SFM 燒結式平面銑刀桿 BT/SFM SHRINK-FIT FACE MILLING ARBOR



燒結式 Shrink-Fit



FMB 為公制規格 (mm)

規格 Spec.	面銑組合 Face Milling Connection		組合刀柄 FMB NO.	L	l <sub>1</sub>	D	D <sub>1</sub>	刃數 Teeth	刀片 Inserts	重量 (KGS) Weight
	刀桿 Tool Holder	刀具 Cutting Tool								
● BT50B-SFM-50-SF-85-C	BT50×FMB22-45	SFM-50-SF-FMB22-C	FMB22	85	40	62	50	4	SE..12T3	-
BT50B-SFM-50-SF-130-C	BT50×FMB22-90	SFM-50-SF-FMB22-C	FMB22	130	40	62	50	4	SE..12T3	-
BT50B-SFM-50-SF-190-C	BT50×FMB22-150	SFM-50-SF-FMB22-C	FMB22	190	40	62	50	4	SE..12T3	-
BT50B-SFM-50-SF-240-C	BT50×FMB22-200	SFM-50-SF-FMB22-C	FMB22	240	40	62	50	4	SE..12T3	-
BT50B-SFM-50-SF-290-C	BT50×FMB22-250	SFM-50-SF-FMB22-C	FMB22	290	40	62	50	4	SE..12T3	-
BT50B-SFM-50-SF-340-C	BT50×FMB22-300	SFM-50-SF-FMB22-C	FMB22	340	40	62	50	4	SE..12T3	-
BT50B-SFM-50-SF-390-C	BT50×FMB22-350	SFM-50-SF-FMB22-C	FMB22	390	40	62	50	4	SE..12T3	-
BT50B-SFM-50-SF-440-C	BT50×FMB22-400	SFM-50-SF-FMB22-C	FMB22	440	40	62	50	4	SE..12T3	-
● BT50B-SFM-63-SF-85-C	BT50×FMB22-45	SFM-63-SF-FMB22-C	FMB22	85	40	75	63	5	SE..12T3	-
BT50B-SFM-63-SF-130-C	BT50×FMB22-90	SFM-63-SF-FMB22-C	FMB22	130	40	75	63	5	SE..12T3	-
BT50B-SFM-63-SF-190-C	BT50×FMB22-150	SFM-63-SF-FMB22-C	FMB22	190	40	75	63	5	SE..12T3	-
BT50B-SFM-63-SF-240-C	BT50×FMB22-200	SFM-63-SF-FMB22-C	FMB22	240	40	75	63	5	SE..12T3	-
BT50B-SFM-63-SF-290-C	BT50×FMB22-250	SFM-63-SF-FMB22-C	FMB22	290	40	75	63	5	SE..12T3	-
BT50B-SFM-63-SF-340-C	BT50×FMB22-300	SFM-63-SF-FMB22-C	FMB22	340	40	75	63	5	SE..12T3	-
BT50B-SFM-63-SF-390-C	BT50×FMB22-350	SFM-63-SF-FMB22-C	FMB22	390	40	75	63	5	SE..12T3	-
BT50B-SFM-63-SF-440-C	BT50×FMB22-400	SFM-63-SF-FMB22-C	FMB22	440	40	75	63	5	SE..12T3	-
● BT50B-SFM-80-SF-100-C	BT50×FMB27-50	SFM-80-SF-FMB27-C	FMB27	100	50	92	80	6	SE..12T3	-
BT50B-SFM-80-SF-140-C	BT50×FMB27-90	SFM-80-SF-FMB27-C	FMB27	140	50	92	80	6	SE..12T3	-
BT50B-SFM-80-SF-200-C	BT50×FMB27-150	SFM-80-SF-FMB27-C	FMB27	200	50	92	80	6	SE..12T3	-
BT50B-SFM-80-SF-250-C	BT50×FMB27-200	SFM-80-SF-FMB27-C	FMB27	250	50	92	80	6	SE..12T3	-
BT50B-SFM-80-SF-300-C	BT50×FMB27-250	SFM-80-SF-FMB27-C	FMB27	300	50	92	80	6	SE..12T3	-
● BT50B-SFM-100-SF-100-C	BT50×FMB32-50	SFM-100-SF-FMB32-C	FMB32	100	50	112	100	7	SE..12T3	-
BT50B-SFM-100-SF-140-C	BT50×FMB32-90	SFM-100-SF-FMB32-C	FMB32	140	50	112	100	7	SE..12T3	-
● BT50B-SFM-125-SF-113-C	BT50×FMB40-50	SFM-125-SF-FMB40-C	FMB40	113	63	137	125	8	SE..12T3	-
BT50B-SFM-125-SF-153-C	BT50×FMB40-90	SFM-125-SF-FMB40-C	FMB40	153	63	137	125	8	SE..12T3	-
BT50B-SFM-125-SF-168-C	BT50×FMB40-105	SFM-125-SF-FMB40-C	FMB40	168	63	137	125	8	SE..12T3	-

● : 標準品 · 其餘規格按訂單生產 is standard type. Others are manufactured by orders.

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..12T3	M3.5-10-5.3-60	T15	3.0

MILLING

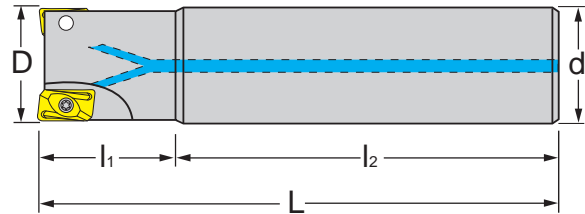


# M104 直角高速銑刀

## M104 END MILLING CUTTER



90°



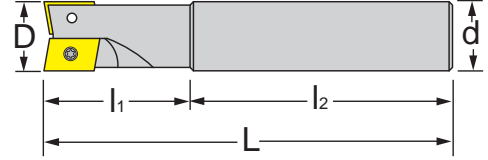
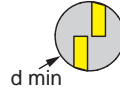
規格 Spec.	D -0.1	d	L	l <sub>1</sub>	l <sub>2</sub>	刃數 Teeth	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
M104AP1190-1012-100-1T-C	10	12	100	25	75	1	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	0.10
M104AP1190-1212-100-1T-C	12	12	100	30	70	1	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	0.10
M104AP1190-1516-200-2T-C	15	16	200	30	170	2	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	-
M104AP1190-1616-120-2T-C	16	16	120	30	90	2	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	0.17
M104AP1190-1616-160-2T-C	16	16	160	30	130	2	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	0.31
M104AP1190-1716-150-2T-C	17	16	150	30	120	2	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	0.24
M104AP1190-1820-100-2T-C	18	20	100	28	72	2	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	-
M104AP1190-1920-200-2T-C	19	20	200	35	165	2	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	0.34
M104AP1190-2020-120-2T-C	20	20	120	35	85	2	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	0.28
M104AP1190-2020-150-2T-C	20	20	150	35	115	2	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	0.38
M104AP1190-2020-150-3T-C	20	20	150	35	115	3	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	-
M104AP1190-2020-200-3T-C	20	20	200	35	165	3	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	-
M104AP1190-2120-150-3T-C	21	20	150	35	115	3	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	-
M104AP1190-2220-150-3T-C	22	20	150	35	115	3	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	0.34
M104AP1190-2320-150-3T-C	23	20	150	35	115	3	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	0.50
M104AP1190-2525-150-3T-C	25	25	150	35	115	3	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	-
M104AP1190-2525-150-4T-C	25	25	150	35	115	4	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	-
M104AP1190-2625-150-4T-C	26	25	150	35	115	4	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	-
M104AP1190-3032-150-4T-C	30	32	150	45	115	4	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	-
M104AP1190-3132-150-4T-C	31	32	150	45	115	4	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	0.87
M104AP1190-3232-150-5T-C	32	32	150	45	115	5	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	-
M104AP1190-3332-150-5T-C	33	32	150	45	115	5	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	0.87
M104AP1190-3532-150-5T-C	35	32	150	45	115	5	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	-
M104AP1190-4032-150-6T-C	40	32	150	45	115	6	AP.1135	M2.5-5.5-3.3-60-T8-TIN	T8	1.2	-
M104AP1690-2525-150-2T-C	25	25	150	40	110	2	AP.1604	M4-10-5.4-60-T15-TIN	T15	3.0	0.54
M104AP1690-2525-220-2T-C	25	25	220	40	180	2	AP.1604	M4-10-5.4-60-T15-TIN	T15	3.0	0.80
M104AP1690-2525-300-2T-C	25	25	300	40	260	2	AP.1604	M4-10-5.4-60-T15-TIN	T15	3.0	1.11
M104AP1690-2625-150-2T-C	26	25	150	40	110	2	AP.1604	M4-10-5.4-60-T15-TIN	T15	3.0	0.55
M104AP1690-3232-150-3T-C	32	32	150	45	105	3	AP.1604	M4-10-5.4-60-T15-TIN	T15	3.0	0.84
M104AP1690-3232-250-3T-C	32	32	250	45	205	3	AP.1604	M4-10-5.4-60-T15-TIN	T15	3.0	1.54
M104AP1690-3232-300-3T-C	32	32	300	45	255	3	AP.1604	M4-10-5.4-60-T15-TIN	T15	3.0	1.75
M104AP1690-3332-150-3T-C	33	32	150	45	105	3	AP.1604	M4-10-5.4-60-T15-TIN	T15	3.0	0.84
M104AP1690-3532-300-3T-C	35	32	300	45	255	3	AP.1604	M4-10-5.4-60-T15-TIN	T15	3.0	1.82

MILLING



# ASSM 直角高速銑刀

## ASSM END MILLING CUTTER



90°



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d	刃數 Teeth	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
ASSM-1012-100L	100	23	75	10	12	1	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.09
ASSM-1212-100L	100	30	70	12	12	1	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.10
ASSM-1615-150L	150	30	120	16	15	2	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.21
ASSM-1615-200L	200	30	170	16	15	2	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.28
ASSM-1616-120L	120	30	90	16	16	2	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.19
ASSM-1616-160L	160	30	130	16	16	2	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.25
ASSM-1716-150L	150	30	120	17	16	2	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.26
ASSM-2019-150L	150	35	115	20	19	2	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.34
ASSM-2019-200L	200	35	165	20	19	2	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.36
ASSM-2020-120L	120	35	85	20	20	2	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.30
ASSM-2020-150L	150	35	115	20	20	2	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.38
ASSM-2020-200L	200	35	165	20	20	2	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.50
ASSM-2120-150L	150	35	115	21	20	2	AP..1135	M2.5-6.0-3.5-60	T8	1.2	0.38
ASSM-2525-150L	150	40	110	25	25	2	AP..1604	M4-8.0-5.7-60	T15	3.0	0.55
ASSM-2525-220L	220	40	180	25	25	2	AP..1604	M4-8.0-5.7-60	T15	3.0	0.83
ASSM-2525-300L	300	40	260	25	25	2	AP..1604	M4-8.0-5.7-60	T15	3.0	1.13
ASSM-2625-150L	150	40	110	26	25	2	AP..1604	M4-8.0-5.7-60	T15	3.0	0.58
ASSM-3232-150L	150	45	105	32	32	2	AP..1604	M4-10-5.7-60	T15	3.0	0.90
ASSM-3232-250L	250	45	205	32	32	3	AP..1604	M4-10-5.7-60	T15	3.0	1.53
ASSM-3232-300L	300	45	255	32	32	3	AP..1604	M4-10-5.7-60	T15	3.0	1.84
ASSM-3332-150L	150	45	105	33	32	2	AP..1604	M4-10-5.7-60	T15	3.0	0.92
ASSM-3532-200L	200	45	155	35	32	3	AP..1604	M4-10-5.7-60	T15	3.0	1.24
ASSM-3532-250L	250	45	205	35	32	3	AP..1604	M4-10-5.7-60	T15	3.0	1.58
ASSM-3532-300L	300	45	255	35	32	3	AP..1604	M4-10-5.7-60	T15	3.0	1.87

### 套裝組 Set

規格 Spec.	內容物 Contents						重量 (KGS) Weight
	刀具 Tool	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty	
ASSM-2020-150L-SET	ASSM-2020-150L	APMT1135PDER-M04 RM4130(10片)	M2.5-6.0-3.5-60	T8K	1.2	1	0.87
ASSM-2525-150L-SET	ASSM-2525-150L	APMT1604PDER-M04 RM4130(10片)	M4-8.0-5.7-60	T15K	3.0		1.14

MILLING



# ASSM 直角高速銑刀

## ASSM END MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○	○												切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting				
	M	不鏽鋼 Stainless Steels	○	○																
	K	鑄鐵 Cast Iron																		
N	鋁及鋁合金 Aluminum&Al																			
S	高溫合金 Refractory Alloys																			
H	高硬度材 Hard Material																			
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro											尺寸 (mm)				圖形 Drawing			
		CHF											Size							
		RM4130	OM4025											d	i	s		r		
	APMT1604PDER-M04	●														9.525	16.5	4.76	0.8	
	APMT160408-R01		●													9.525	16.5	4.76	0.8	
	APMT1135PDER-M04	●														6.35	11	3.5	0.4	

### AP\_11.16 切削條件數據表 Cutting Conditions

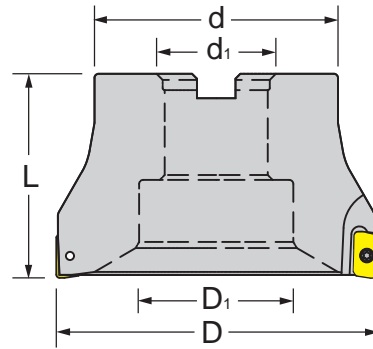
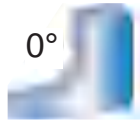
被加工材質 Work Material		刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)
P	低合金鋼 Low-Alloy Steels	RM4130	80~370	0.08~0.35
		OM4025	170~250	0.12~0.25
P	合金鋼 Alloyed Steels	OM4025	165~275	0.12~0.25
		RM4130	60~250	0.10~0.25
M	不鏽鋼 Stainless Steels	OM4025	180~260	0.10~0.25
		RM4130	110~180	0.10~0.25

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



# BAP 直角殼形平面銑刀 BAP SQUARE SHOULDER MILLING CUTTER



規格 Spec.	L	D	D <sub>1</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
BAP-500-FMB22-11	40	50	18	40	22	7	AP.1135	0.40
BAP-630-FMB22-11	40	63	18	50	22	8	AP.1135	0.66
BAP-630-FMA25.4-11	40	63	19	50	25.4	8	AP.1135	0.80
BAP-800-FMB27-11	50	80	43	60	27	9	AP.1135	1.20
BAP-800-FMA31.75-11	50	80	43	60	31.75	9	AP.1135	1.20
BAP-1000-FMB32-11	50	100	43	78	32	11	AP.1135	2.08
BAP-1000-FMA31.75-11	50	100	43	78	31.75	11	AP.1135	2.09

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP.1135	M2.5-6.0-3.5-60	T8	1.2

ISO 分類	P	合金鋼 Alloyed Steels	○													切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○													
	K	鑄鐵 Cast Iron														
形狀 Form	N	鋁及鋁合金 Aluminum&Al														圖形 Drawing 
	S	高溫合金 Refractory Alloys														
	H	高硬度材 Hard Material														
規格 Spec.	鍍層超微粒 Layer coating ultra-micro										尺寸 (mm) Size				圖形 Drawing	
	CHF										Size					
											d	i	s	r		
	APMT1135PDER-M04										6.35	11	3.5	0.4		

## AP\_11 切削條件數據表 Cutting Conditions

被加工材質 Work Material	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)
P 低合金鋼 Low-Alloy Steels	RM4130	80~370	0.08~0.35
P 合金鋼 Alloyed Steels	RM4130	60~250	0.10~0.25
M 不鏽鋼 Stainless Steels	RM4130	110~180	0.10~0.25

MILLING

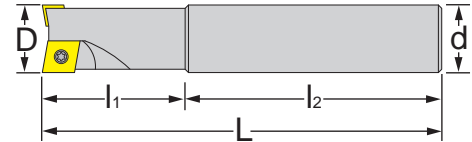
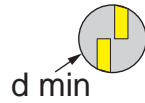


# DDM 鑽銑共用型銑刀

## DDM DRILLING END MILLING CUTTER



90°



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d	刃數 Teeth	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
C10-DDM10-130L	130	30	100	10	10	1	CC.0602	M2.5-5.5-3.35-60	T8	1.2	0.09
C12-DDM12-120L	120	30	90	12	12	1	CP.0802	M2.5-5.5-3.35-60	T8	1.2	0.11
C12-DDM12-150L	150	40	110	12	12	1	CP.0802	M2.5-5.5-3.35-60	T8	1.2	0.14
C16-DDM16-120L	120	30	90	16	16	2	CC.0602	M2.5-5.5-3.35-60	T8	1.2	0.19
C16-DDM16-175L	175	40	135	16	16	2	CP.0802	M2.5-6.45-3.7-43	T8	1.2	0.27
C20-DDM20-120L	120	30	90	20	20	2	CC.0602	M2.5-5.5-3.35-60	T8	1.2	0.31
C20-DDM20-185L	185	50	135	20	20	2	CP.0902	M3.5-6.0-5.0-60	T15	3.0	0.46
C25-DDM25-150L	150	40	110	25	25	2	CP.0903 CP.1203	M4-8.75-5.6-60	T15	3.0	0.55
C25-DDM25-220L	220	70	150	25	25	2		M4-8.75-5.6-60	T15	3.0	0.82
C25-DDM25-300L	300	170	130	25	25	2		M4-8.75-5.6-60	T15	3.0	1.14
C32-DDM25-300L	300	170	130	25	32	2	CP.1204 CP.1604	M4-8.75-5.6-60	T15	3.0	1.58
C32-DDM32-150L	150	40	110	32	32	2		M5-11-7.5-60	T20	5.0	0.86
C32-DDM32-250L	250	80	170	32	32	2		M5-11-7.5-60	T20	5.0	1.50
C32-DDM32-300L	300	80	220	32	32	2		M5-11-7.5-60	T20	5.0	1.85
C32-DDM32-350L	350	80	270	32	32	2	CP.1604 CP.1904	M5-11-7.5-60	T20	5.0	2.18
C32-DDM40-170L	170	50	120	40	32	2		M6-12-8.4-60	T25	7.5	1.09
C32-DDM40-250L	250	50	200	40	32	2		M6-12-8.4-60	T25	7.5	1.63



# DDM 鑽銑共用型銑刀

## DDM DRILLING END MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○												切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting			
	M	不鏽鋼 Stainless Steels	○															
	K	鑄鐵 Cast Iron	○															
N	鋁及鋁合金 Aluminum&Al																	
S	高溫合金 Refractory Alloys																	
H	高硬度材 Hard Material																	
形狀 Form	規格 Spec.	硬質合金 Hard alloy											尺寸 (mm)				圖形 Drawing	
		HW											Size					
		CY250												d	i	s		r
	CCMT060204	●												6.35	-	2.38	0.4	
	CPMT090308	●												9.52	-	3.18	0.8	
	CPMT120408	●												12.7	-	4.76	0.8	
	CPMT080204Z	●												7.94	-	2.38	0.4	
	CPMT090204Z	●												9.52	-	2.38	0.4	
	CPMT120308Z	●												12.7	-	3.18	0.8	
	CPMT160408Z	●												15.57	-	4.76	0.8	
	CPMT190408Z	●												19.05	-	4.76	0.8	

### CC\_06.CP\_08.09.12.16.19 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	加工形態 Processing Type	刀片材質 Grade	刀具外徑 (Outer diameter)									
			ø16mm		ø20mm		ø25mm		ø32mm		ø40mm	
			主軸轉速 (rpm)	床檯進給 (mm/min)	主軸轉速 (rpm)	床檯進給 (mm/min)	主軸轉速 (rpm)	床檯進給 (mm/min)	主軸轉速 (rpm)	床檯進給 (mm/min)	主軸轉速 (rpm)	床檯進給 (mm/min)
P 低合金鋼 Low-Alloy Steels	螺旋加工 Helical	CY250	2.980	1.200	2.400	1.150	1.910	1.150	1.500	1.150	1.200	1.290
	鑽銑加工 Drilling	CY250	1.600	130	1.600	130	1.270	130	1.500	130	1.200	120
合金鋼 Alloyed Steels	螺旋加工 Helical	CY250	1.600	660	1.270	530	1.020	640	800	640	640	670
	鑽銑加工 Drilling	CY250	700	60	720	60	570	60	680	60	540	55
M 不鏽鋼 Stainless Steels	螺旋加工 Helical	CY250	2.000	800	1.600	770	1.270	770	1.050	770	840	900
	鑽銑加工 Drilling	CY250	1.120	90	1.120	90	890	90	1.050	90	840	80
K 鑄鐵 Cast Iron	螺旋加工 Helical	CY250	3.000	1.250	2.400	1.000	1.910	1.200	1.500	1.200	1.200	1.270
	鑽銑加工 Drilling	CY250	700	60	720	60	570	60	680	60	540	55

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

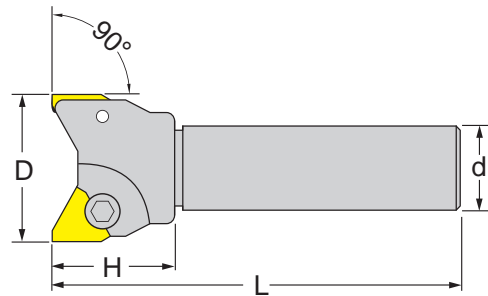
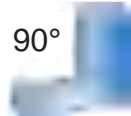
床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.

MILLING



# SKE 90°捨棄式直角銑刀

## SKE 90° SUPPLEMENTAL SQUARE MILLING CUTTER



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	D	d	H	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
SKE-2020	90	20	20	30	2	TP..1102	0.21
SKE-2025	100	25	20	30	2	TP..1103	0.26
SKE-2030	100	30	20	30	2	TP..1603	0.27
SKE-2035	100	35	20	40	2	TP..1603	0.32
SKE-2535	105	35	25	40	2	TP..1603	0.43
SKE-3235	110	35	32	40	2	TP..1603	0.64
SKE-2040	110	40	20	40	3	TP..1603	0.39
SKE-2540	110	40	25	40	3	TP..1603	0.48
SKE-3240	115	40	32	40	3	TP..1603	0.70
SKE-2045	105	45	20	40	3	TP..1603	0.48
SKE-2050	105	50	20	40	3	TP..1603	0.52
SKE-2550	110	50	25	40	3	TP..1603	0.63
SKE-3250	115	50	32	40	3	TP..1603	0.84
SKE-3263	125	63	32	45	3	TP..2204	1.20

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
TP..1102	M5-0.8P	T15	3.0
TP..1103	M5-0.8P	T15	3.0
TP..1603	M6-0.75P	PL4	5.0
TP..2204	M8-1.0P	PL5	6.0





# SKE 90°捨棄式直角銑刀

## SKE 90° SUPPLEMENTAL SQUARE MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○	○															切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels																	
	K	鑄鐵 Cast Iron			○														
	N	鋁及鋁合金 Aluminum&Al																	
S	高溫合金 Refractory Alloys																		
H	高硬度材 Hard Material																		
形狀 Form	規格 Spec.	硬質合金 Hard alloy											尺寸 (mm)				圖形 Drawing		
		HW											Size						
		TSP20	TSP25	TSK10										d	i	s		r	
	TPKN1603PDR		●	●										9.525	-	3.18	-		
	TPKN2204PDR	●	●	●										12.7	-	4.76	-		
	TPMN160308		●	●										9.525	-	3.18	0.8		
	TPMN220412	●	●	●										12.7	-	4.76	1.2		

### TP\_16.22 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials		刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)
P	低合金鋼 Low-Alloy Steels	TSP20	125~200	0.1~0.3
		TSP25	125~200	0.1~0.3
P	合金鋼 Alloyed Steels	TSP20	50~100	0.1~0.2
		TSP25	50~100	0.1~0.2
K	鑄鐵 Cast Iron	TSK10	80~120	0.1~0.3

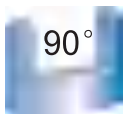
主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



# ATB 固定式粗搪刀桿

## ATB FIXED CUTTER BORING BAR



規格 Spec.	L	l <sub>1</sub>	D	d	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
ATB-1216-120L	120	30	11.7	16	1	CC..060202(D+0.1) CC..060204(D) CC..060208(D-0.2)	-
ATB-1316-120L	120	30	12.7	16	1		-
ATB-1416-120L	120	30	13.7	16	1		-
ATB-1516-120L	120	30	14.7	16	1		-
ATB-1616-120L	120	30	15.7	16	2		0.18
ATB-1716-120L	120	30	16.7	16	2		-
ATB-1816-120L	120	30	17.7	16	2		0.19
ATB-1916-120L	120	30	18.7	16	2		0.19
ATB-2016-120L	120	30	19.7	16	2		0.19
ATB-2216-120L	120	30	21.7	16	2		0.19
ATB-2420-130L	130	30	23.7	20	2		0.32
ATB-2520-130L	130	30	24.7	20	2		0.34
ATB-2620-130L	130	30	25.7	20	2	CC..09T302(D+0.1) CC..09T304(D) CC..09T308(D-0.2)	0.33
ATB-2720-130L	130	30	26.7	20	2		0.34
ATB-2820-130L	130	30	27.7	20	2		0.35
ATB-3025-160L	160	40	29.7	25	2		0.62
ATB-3525-160L	160	40	34.7	25	2		0.65
ATB-4025-160L	160	40	39.7	25	2		0.69
ATB-4232-200L	200	45	41.7	32	2		1.29
ATB-4532-200L	200	45	44.7	32	2		1.28
ATB-4832-200L	200	45	47.7	32	2		1.33
ATB-5032-200L	200	45	49.7	32	2		1.35
ATB-5532-200L	200	45	54.7	32	2		1.50

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CC..060202(D+0.1)	M2.5-6.45-3.7-43	T8	1.2
CC..060204(D)	M2.5-6.45-3.7-43	T8	1.2
CC..060208(D-0.2)	M2.5-6.45-3.7-43	T8	1.2
CC..09T302(D+0.1)	M4-10-5.7-60	T15	3.0
CC..09T304(D)	M4-10-5.7-60	T15	3.0
CC..09T308(D-0.2)	M4-10-5.7-60	T15	3.0

D 尺寸會隨著刀片 R 角改變 · 尺寸跟著改變 D varies with R angle on insert.

< 例 > ATB-2016-120L

D=19.7

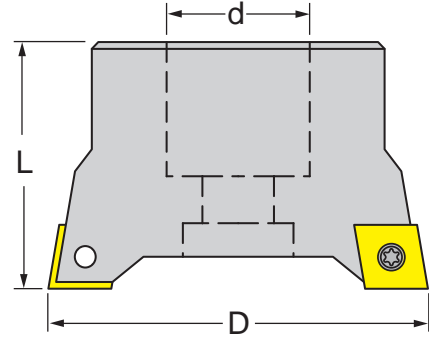
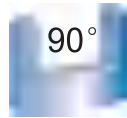
使用刀片為 CC..060202 時 · D=19.8

04 時 · D=19.7

08 時 · D=19.5

# ATB 固定式粗搪刀桿

## ATB FIXED CUTTER BORING BAR



規格 Spec.	L	D	d	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
ATB45-FMB22	50	44.8	22	2	CC..09T3	0.55
ATB50-FMB22	50	49.8	22	2	CC..09T3	0.59
ATB55-FMB22	50	54.8	22	2	CC..09T3	-
ATB60-FMB22	50	59.8	22	2	CC..09T3	0.63
ATB60-FMA25.4	50	59.8	25.4	2	CC..09T3	0.63
ATB65-FMA25.4	50	64.8	25.4	2	CC..09T3	0.69
ATB70-FMA25.4	50	69.8	25.4	2	CC..09T3	0.75
ATB75-FMA25.4	50	74.8	25.4	2	CC..09T3	-
ATB80-FMA25.4	50	79.8	25.4	2	CC..09T3	0.80
ATB85-FMA25.4	50	84.8	25.4	2	CC..09T3	0.85
ATB90-FMA25.4	50	89.8	25.4	2	CC..09T3	1.00
ATB95-FMA25.4	50	94.8	25.4	2	CC..09T3	1.15
ATB100-FMA25.4	50	99.8	25.4	2	CC..09T3	1.30
ATB105-FMA31.75	50	104.8	31.75	2	CC..09T3	1.30
ATB110-FMA31.75	50	109.8	31.75	2	CC..09T3	1.40
ATB115-FMA31.75	50	114.8	31.75	2	CC..09T3	1.50
ATB120-FMA31.75	50	119.8	31.75	2	CC..09T3	1.62
ATB125-FMA31.75	50	124.8	31.75	2	CC..09T3	1.73
ATB130-FMA31.75	50	129.8	31.75	2	CC..09T3	1.85

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CC..09T3	M4-10-5.7-60	T15	3.0

D 尺寸會隨著刀片 R 角改變，尺寸跟著改變 D varies with R angle on insert.

< 例 > ATB-60-FMB22

D=59.7

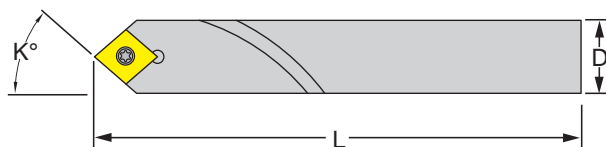
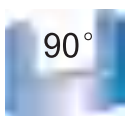
使用刀片為 CC..09T302 時，D=59.7

04 時，D=59.6

08 時，D=59.4

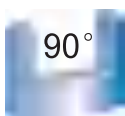


# CBS 替換式搪孔刀柄 CBS INTERCHANGEABLE BORING CUTTER



	規格 Spec.	L	D	K°	刀片 Insert	重量 (KGS) Weight
	CBS-308	55	8	30°	CC..0602	0.04
	CBS-310	65	10	30°	CC..0602	0.06
	CBS-313	80	13	30°	CC..09T3	0.12
	CBS-316	120	16	30°	CC..09T3	0.25
	CBS-319	140	19	30°	CC..1204	0.41
	CBS-408	55	8	45°	CC..0602	0.04
	CBS-410	65	10	45°	CC..0602	0.06
	CBS-413	80	13	45°	CC..09T3	0.12
	CBS-416	120	16	45°	CC..09T3	0.26
	CBS-419	140	19	45°	CC..1204	0.40
	CBS-908	55	8	90°	CC..0602	0.04
	CBS-910	65	10	90°	CC..0602	0.06
	CBS-913	80	13	90°	CC..09T3	0.12
	CBS-916	120	16	90°	CC..09T3	0.27
	CBS-919	140	19	90°	CC..1204	0.41

左旋  
Counterclockwise



	規格 Spec.	L	D	K°	刀片 Insert	重量 (KGS) Weight
	CBS-908L	55	8	90°	CC..0602	0.04
	CBS-910L	65	10	90°	CC..0602	0.06
	CBS-913L	80	13	90°	CC..09T3	0.12
	CBS-916L	120	16	90°	CC..09T3	0.27
	CBS-919L	140	19	90°	CC..1204	0.42

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CC..0602	M2.5-6.0-3.5-60	T8	1.2
CC..09T3	M4-10-5.7-60	T15	3.0
CC..1204	M5-11-7.5-60	T20	5.0

MILLING



# ATB、CBS 擴孔刀片

## ATB、CBS BORING CUTTER INSERT



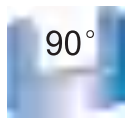
※ 不同刀片 R 角會改變尺寸 varies with R angle on insert.

ISO 分類	P	合金鋼 Alloyed Steels		○													切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels															
	K	鑄鐵 Cast Iron		○													
	N	鋁及鋁合金 Aluminum&Al						■	■								
S	高溫合金 Refractory Alloys																
H	高硬度材 Hard Material																
形狀 Form	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy						超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing	
		CVD						HF				Size					
		RM315	RM425					GH05	RM5005					d	i		s
	CCMT060204-HM	●	●										6.35	6.4	2.38	0.4	
	CCMT060208-HM	●	●										6.35	6.4	2.38	0.8	
	CCMT09T304-HM	●	●										9.525	9.7	3.97	0.4	
	CCMT09T308-HM	●	●										9.525	9.7	3.97	0.8	
	CCMT120404-HM	●	●										12.7	12.9	4.76	0.4	
	CCMT120408-HM	●	●										12.7	12.9	4.76	0.8	
	CCGT060202							●					6.35	6.5	2.38	0.2	
	CCGT060204							●					6.35	6.5	2.38	0.4	
	CCGT060208							●					6.35	6.5	2.38	0.8	
	CCGT09T304							●					9.525	9.7	3.97	0.4	
	CCGT09T308							●					9.525	9.7	3.97	0.8	
	CCGT120404							●					12.7	12.9	4.76	0.4	
CCGT120408							●					12.7	12.9	4.76	0.8		
	CCGT060202-NK							●					6.35	6.5	2.38	0.2	
	CCGT060204-NK							●					6.35	6.5	2.38	0.4	
	CCGT060208-NK							●					6.35	6.5	2.38	0.8	
	CCGT09T304-NK							●					9.525	9.7	3.97	0.4	
	CCGT09T308-NK							●					9.525	9.7	3.97	0.8	
	CCGT120404-NK							●					12.7	12.9	4.76	0.4	
CCGT120408-NK							●					12.7	12.9	4.76	0.8		

MILLING



# SBS 替換式搪孔刀柄 SBS INTERCHANGEABLE BORING CUTTER



	規格 Spec.	L	D	角度 Angle	刀片 Insert	重量 (KGS) Weight
	SBS-308	55	8	30°	TP.0902	0.04
	SBS-310	65	10	30°	TP.0902	0.06
	SBS-313	80	13	30°	TP.1103	0.11
	SBS-316	120	16	30°	TP.1103	0.24
	SBS-319	140	19	30°	TP.1603	0.40
	SBS-325	150	25	30°	TP.1603	0.74
	SBS-408	55	8	45°	TP.0902	0.04
	SBS-410	65	10	45°	TP.0902	0.06
	SBS-413	80	13	45°	TP.1103	0.11
	SBS-416	120	16	45°	TP.1103	0.26
	SBS-419	140	19	45°	TP.1603	0.41
	SBS-425	150	25	45°	TP.1603	0.72
	SBS-908	55	8	90°	TP.0902	0.04
	SBS-910	65	10	90°	TP.0902	0.06
	SBS-913	80	13	90°	TP.1103	0.11
	SBS-916	120	16	90°	TP.1103	0.25
	SBS-919	140	19	90°	TP.1603	0.42
	SBS-925	150	25	90°	TP.1603	0.74

## 配件表 Accessories

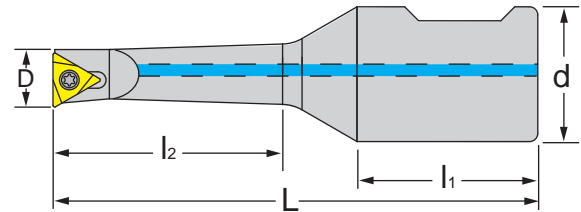
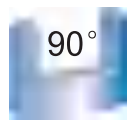
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
TP.0902	M2.5-6.0-3.5-60	T8	1.2
TP.1103	M3-8.0-4.0-43	T9	1.4
TP.1603	M4-10-5.0-43	T15	3.0



# BR 替換式搪孔刀柄 BR INTERCHANGEABLE BORING CUTTER



出水型 Through Hole



## 特點 Feature

- 可使用於 HBOR 精搪孔頭上
- 附中心出水孔

- Could be used with HBOR boring head.
- With coolant hole.

規格 Spec.	ØD 搪孔範圍 Boring Range		L	l <sub>1</sub>	l <sub>2</sub>	D	d	刀片 Insert	重量 (KGS) Weight
	Min.	Max.							
BR1606-21-C	6	9	56	22	21	6	16	WB..0601	0.04
BR1608-28-C	8	11	58	22	28	8	16	TB..0601	0.04
BR1610-35-C	10	13	64	22	35	10	16	TB..0601	0.05
BR1612-42-C	12	15	69	22	42	12	16	TP..0902	0.06
BR1614-50-C	14	17	76	22	50	14	16	TP..0902	0.07
BR1616-60-C	16	20	87	22	60	16	16	TP..0902	0.09
BR1620-65-C	20	24	90	22	65	20	16	TP..1103	0.11
BR1624-68-C	24	28	93	22	68	24	16	TP..1103	0.12

## 配件表 Accessories

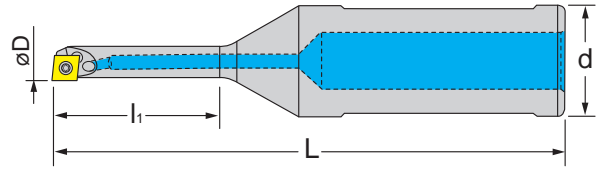
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
WB..0601	M2-3.8-2.68-43	T6	0.6
TB..0601	M2-5.0-2.7-60	T6	0.6
TP..0902	M2.5-6.0-3.5-60	T8	1.2
TP..1103	M3-8.0-4.0-43	T9	1.4



# CBJ 替換式搪孔刀柄 CBJ INTERCHANGEABLE BORING CUTTER



出水型 Through Hole



## 特點 Feature

- 可使用於 HBOR 及 SBJ16 精搪孔頭上
- 附中心出水孔

- Could be used with HBOR、SBJ16 boring head.
- With coolant hole.

規格 Spec.	ØD 搪孔範圍 Boring Range		L	l <sub>1</sub>	d	刀片 Insert	重量 (KGS) Weight
	Min.	Max.					
CBJ-1606-24-C	6	9	73	24	16	CC..03S1	0.09
CBJ-1608-32-C	8	11	78	32	16	CC..04T0	0.09
CBJ-1610-40-C	10	13	86	40	16	CC..0602	0.10
CBJ-1612-53-C	12	17	99	53	16	CC..0602	0.10
CBJ-1616-68-C	16	21	114	68	16	CC..0602	0.15
CBJ-1620-83-C	20	26	122	83	16	CC..09T3	0.19
CBJ-1625-90-C	25	32	129	90	16	CC..09T3	0.20
CBJ-1630-90-C	30	40	129	90	16	CC..09T3	0.28
CBJ-1640-90-C	40	50	129	90	16	CC..09T3	0.40

## 配件表 Accessories

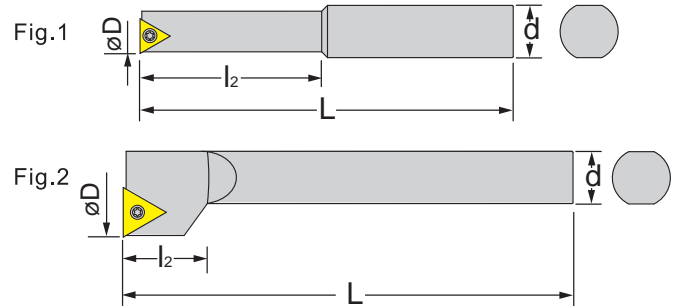
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CC..03S1	M1.8-4.2-2.5-54	T6	0.6
CC..04T0	M2.2-4.7-3.1-60	T7	0.9
CC..0602	M2.5-6.0-3.5-60	T8	1.2
CC..09T3	M4-8.0-5.7-60	T9	1.4





## SBJ-10 替換式搪孔刀柄

SBJ-10 INTERCHANGABLE BORING CUTTER

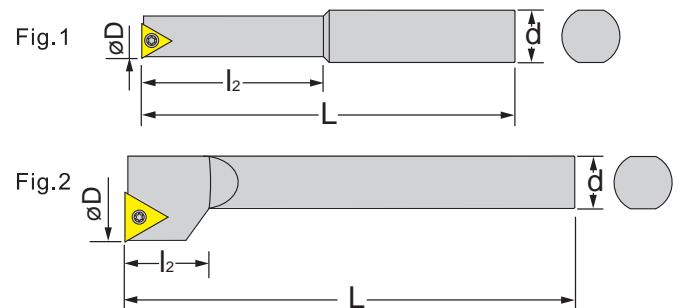


規格 Spec.	øD 搪孔範圍 Boring Range		D	d	L	l <sub>2</sub>	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
	Min.	Max.										
SBJ-1008-32	8	10	8	10	64	32	TB..0601	M2-5.0-2.7-60	T6	0.6	1	0.06
SBJ-1010-40	10	12	10	10	77	40	TB..0601	M2-5.0-2.7-60	T6	0.6	1	0.06
SBJ-1012-45	12	16	12	10	77	22	TP..0902	M2.5-6.0-3.5-60	T8	1.2	2	0.08
SBJ-1016-45	16	20	16	10	77	20	TP..0902	M2.5-6.0-3.5-60	T8	1.2	2	0.08
SBJ-1020-45	20	25	20	10	77	22.7	TP..0902	M2.5-6.0-3.5-60	T8	1.2	2	0.08



## SBJ-12 替換式搪孔刀柄

SBJ-12 INTERCHANGABLE BORING CUTTER

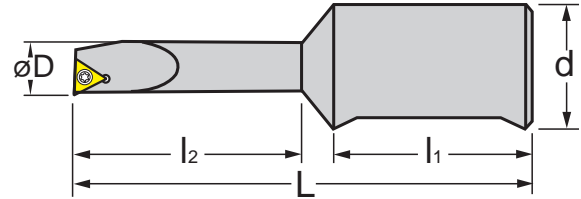


規格 Spec.	øD 搪孔範圍 Boring Range		D	d	L	l <sub>2</sub>	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
	Min.	Max.										
SBJ-1208-32	8	10	8	12	64	32	TB..0601	M2-5.0-2.7-60	T6	0.6	1	0.08
SBJ-1210-40	10	12	10	12	72	40	TB..0601	M2-5.0-2.7-60	T6	0.6	1	0.08
SBJ-1212-45	12	16	12	12	77	45	TP..0902	M2.5-6.0-3.5-60	T8	1.2	1	0.08
SBJ-1216-45	16	20	16	12	77	20	TP..0902	M2.5-6.0-3.5-60	T8	1.2	2	0.10
SBJ-1220-45	20	25	20	12	77	23	TP..0902	M2.5-6.0-3.5-60	T8	1.2	2	0.08



## SBJ-16 替換式搪孔刀柄

### SBJ-16 INTERCHANGABLE BORING CUTTER



規格 Spec.	$\phi D$ 搪孔範圍 Boring Range		D	d	L	$l_1$	$l_2$	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
	Min.	Max.										
SBJ-1606-24	6	9	6	16	-	32	24	WB..0601	M2-3.8-2.68-43	T6	0.6	0.09
SBJ-1608-32	8	11	8	16	74	32	32	TB..0601	M2-5.0-2.7-60	T6	0.6	0.09
SBJ-1608-40	8	11	8	16	82	32	40	TB..0601	M2-5.0-2.7-60	T6	0.6	0.07
SBJ-1610-40	10	13	10	16	75	32	40	TB..0601	M2-5.0-2.7-60	T6	0.6	0.09
SBJ-1610-50	10	13	10	16	85	32	50	TB..0601	M2-5.0-2.7-60	T6	0.6	0.08
SBJ-1612-53	12	17	12	16	85	32	53	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.10
SBJ-1612-65	12	17	12	16	97	32	65	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.12
SBJ-1616-68	16	21	16	16	100	32	68	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.15
SBJ-1616-85	16	21	16	16	117	32	85	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.16
SBJ-1620-83	20	26	20	16	115	32	83	TP..1103	M3-8.0-4.0-43	T9	1.4	0.23
SBJ-1620-105	20	26	20	16	137	32	105	TP..1103	M3-8.0-4.0-43	T9	1.4	0.25
SBJ-1625-90	25	32	25	16	122	32	90	TP..1103	M3-8.0-4.0-43	T9	1.4	0.25
SBJ-1630-90	30	40	30	16	122	32	90	TP..1103	M3-8.0-4.0-43	T9	1.4	0.29
SBJ-1640-90	40	50	40	16	122	32	90	TP..1103	M3-8.0-4.0-43	T9	1.4	0.30



## SBJ-20 替換式搪孔刀柄

### SBJ-20 INTERCHANGABLE BORING CUTTER



Fig.1

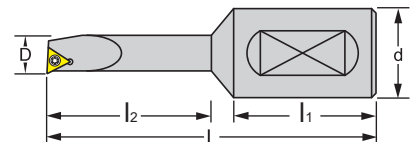
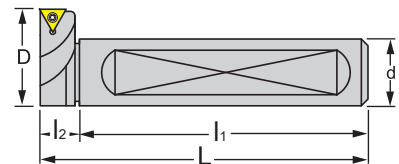


Fig.2



規格 Spec.	$\phi D$ 搪孔範圍 Boring Range		D	d	L	$l_1$	$l_2$	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	Fig.	重量 (KGS) Weight
	Min.	Max.											
SBJ-2008-32	8	11	8	20	76	32	44	TB..0601	M2-5.0-2.7-60	T6	0.6	1	0.12
SBJ-2010-40	10	13	10	20	76	32	44	TB..0601	M2-5.0-2.7-60	T6	0.6	1	0.10
SBJ-2012-53	12	17	12	20	85	32	53	TP..0902	M2.5-6.0-3.5-60	T8	1.2	1	0.13
SBJ-2016-68	16	21	16	20	100	32	68	TP..0902	M2.5-6.0-3.5-60	T8	1.2	1	0.18
SBJ-2020-83	20	125	20	20	115	32	83	TP..1103	M3-8.0-4.0-43	T9	1.4	1	0.25
SBJ-2025-96	25	130	25	20	135	32	96	TP..1103	M3-8.0-4.0-43	T9	1.4	1	0.30
SBJ-2030-115	30	135	30	20	158	32	115	TP..1103	M3-8.0-4.0-43	T9	1.4	1	0.59
SBJ-L20-20	120	280	28	20	97	83.5	13.5	TP..1103	M3-8.0-4.0-43	T9	1.4	2	0.28



# SBJ 擴孔刀柄套裝組

## SBJ BORING CUTTER SET



Fig.1



Fig.2



Fig.3



Fig.4

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
CSBJ16-C D×5-SET	CSBJ-1605-28-C	CCGT03S104L-F RM4015(10片)	M1.8-4.2-2.5-54	T6K	0.6	1	1	2.16
	CSBJ-1606-30-C							
	CSBJ-1608-40-C	TBGT060104L RM4030(10片)	M2-5.0-2.7-60	T8K	1.2			
	CSBJ-1610-50-C							
	CSBJ-1612-60-C	TPGT090204L RM4030(10片)	M2.5-6.0-3.5-60	T8K	1.2			
	CSBJ-1614-70-C							
	CSBJ-1616-80-C	TPGT110304L RM4030(10片)	M3-8.0-4.0-43	T9K	1.4			
CSBJ-1618-90-C								

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
CSBJ16-C D×6-SET	CSBJ-1605-34-C	CCGT03S104L-F RM4015(10片)	M1.8-4.2-2.5-54	T6K	0.6	1	2	2.16
	CSBJ-1606-36-C							
	CSBJ-1608-48-C	TBGT060104L RM4030(10片)	M2-5.0-2.7-60	T8K	1.2			
	CSBJ-1610-60-C							
	CSBJ-1612-72-C	TPGT090204L RM4030(10片)	M2.5-6.0-3.5-60	T8K	1.2			
	CSBJ-1614-84-C							
	CSBJ-1616-96-C	TPGT110304L RM4030(10片)	M3-8.0-4.0-43	T9K	1.4			
CSBJ-1618-108-C								

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
CCBJ16-C D×5-SET	CSBJ-1605-28-C	CCGT03S104L-F RM4015(10片)	M1.8-4.2-2.5-54	T6K	0.6	1	3	2.16
	CSBJ-1606-30-C							
	CCBJ-1608-40-C	CCMT060204-M01 RM425(10片)	M2.5-6.0-3.5-60	T8K	1.2			
	CCBJ-1610-50-C							
	CCBJ-1612-60-C	CCMT09T304-M01 RM425(10片)	M4-8.0-5.7-60	T15K	3.0			
	CCBJ-1614-70-C							
	CCBJ-1616-80-C							
CCBJ-1618-90-C								

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
CCBJ16-C D×6-SET	CSBJ-1605-34-C	CCGT03S104L-F RM4015(10片)	M1.8-4.2-2.5-54	T6K	0.6	1	4	3.2
	CSBJ-1606-36-C							
	CCBJ-1608-48-C	CCMT060204-M01 RM425(10片)	M2.5-6.0-3.5-60	T8K	1.2			
	CCBJ-1610-60-C							
	CCBJ-1612-72-C	CCMT09T304-M01 RM425(10片)	M4-8.0-5.7-60	T15K	3.0			
	CCBJ-1614-84-C							
	CCBJ-1616-96-C							
CCBJ-1618-108-C								

MILLING



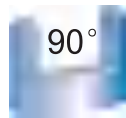
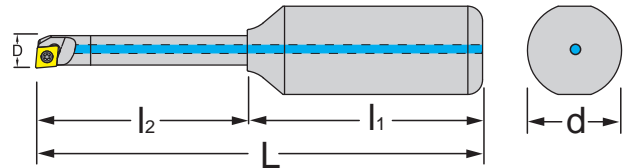
# CCBJ/CSBJ-16 鎢鋼替換式搪孔刀柄

## CCBJ/CSBJ-16 INTERCHANGABLE BORING CUTTER

PAT.NO: M370451



出水型 Through Hole



### 特點 Feature

- 使用碳化鎢鋼材質·加工深度可達直徑的數倍
- 高剛性·延長使用刀片壽命
- 抗震性佳·加工後搪孔尺寸穩定

- Tungsten carbide material applied. Working depth could be up to times of cutter diameter.
- Super rigidity, long life.
- Excellent vibration resistance, which can bore accurate size.

### D×5

規格 Spec.	L	$l_1$	$l_2$	D	d	搪孔範圍 Boring Range	刀片 Insert	重量 (KGS) Weight
CSBJ-1605-28-C	68	40	28	5.6	16	5.6-8	CC..03S1	0.06
CSBJ-1606-30-C	70	40	30	6	16	6-9	CC..03S1	0.07
CCBJ-1608-40-C	80	40	40	8	16	8-11	CC..03S1	0.07
CCBJ-1610-50-C	90	40	50	10	16	10-13	CC..0602	0.10
CCBJ-1612-60-C	100	40	60	12	16	12-15	CC..0602	0.13
CCBJ-1614-70-C	110	40	70	14	16	14-17	CC..09T3	0.18
CCBJ-1616-80-C	120	40	80	16	16	16-19	CC..09T3	0.25
CCBJ-1618-90-C	130	-	-	18	16	18-21	CC..09T3	0.33

### D×6

規格 Spec.	L	$l_1$	$l_2$	D	d	搪孔範圍 Boring Range	刀片 Insert	重量 (KGS) Weight
CSBJ-1605-34-C	74	40	34	5.6	16	5.6-8	CC..03S1	0.06
CSBJ-1606-36-C	76	40	36	6	16	6-9	CC..03S1	0.07
CCBJ-1608-48-C	88	40	48	8	16	8-11	CC..03S1	0.08
CCBJ-1610-60-C	100	40	60	10	16	10-13	CC..0602	0.10
CCBJ-1612-72-C	112	40	72	12	16	12-15	CC..0602	0.15
CCBJ-1614-84-C	124	40	84	14	16	14-17	CC..09T3	0.20
CCBJ-1616-96-C	136	40	96	16	16	16-19	CC..09T3	0.28
CCBJ-1618-108-C	148	-	-	18	16	18-21	CC..09T3	0.38

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CC..03S1	M1.8-4.2-2.5-54	T6	0.6
CC..0602	M2.5-6.0-3.5-60	T8	1.2
CC..09T3	M4-8.0-5.7-60	T15	3.0

MILLING



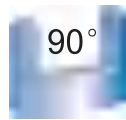
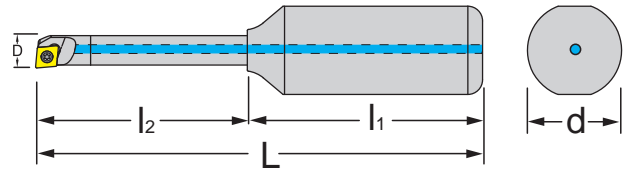
# CSBJ-16 鎢鋼替換式搪孔刀柄

## CSBJ-16 INTERCHANGABLE BORING CUTTER

PAT.NO: M370451



出水型 Through Hole



### 特點 Feature

- 使用碳化鎢鋼材質 · 加工深度可達直徑的數倍
- 高剛性 · 延長使用刀片壽命
- 抗震性佳 · 加工後搪孔尺寸穩定

- Tungsten carbide material applied. Working depth could be up to times of cutter diameter.
- Super rigidity, long life.
- Excellent vibration resistance, which can bore accurate size.

### Dx5

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d	搪孔範圍 Boring Range	刀片 Insert	重量 (KGS) Weight
CSBJ-1605-28-C	68	40	28	5.6	16	5.6-8	CC..03S1	0.06
CSBJ-1606-30-C	70	40	30	6	16	6-9	CC..03S1	0.07
CSBJ-1608-40-C	80	40	40	8	16	8-11	TB..0601	0.07
CSBJ-1610-50-C	90	40	50	10	16	10-13	TB..0601	0.10
CSBJ-1612-60-C	100	40	60	12	16	12-15	TP..0902	0.13
CSBJ-1614-70-C	110	40	70	14	16	14-17	TP..0902	0.18
CSBJ-1616-80-C	120	40	80	16	16	16-19	TP..1103	0.25
CSBJ-1618-90-C	130	-	-	18	16	18-21	TP..1103	0.33

### Dx6

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d	搪孔範圍 Boring Range	刀片 Insert	重量 (KGS) Weight
CSBJ-1605-34-C	74	40	34	5.6	16	5.6-8	CC..03S1	0.06
CSBJ-1606-36-C	76	40	36	6	16	6-9	CC..03S1	0.07
CSBJ-1608-48-C	88	40	48	8	16	8-11	TB..0601	0.08
CSBJ-1610-60-C	100	40	60	10	16	10-13	TB..0601	0.10
CSBJ-1612-72-C	112	40	72	12	16	12-15	TP..0902	0.15
CSBJ-1614-84-C	124	40	84	14	16	14-17	TP..0902	0.20
CSBJ-1616-96-C	136	40	96	16	16	16-19	TP..1103	0.28
CSBJ-1618-108-C	148	-	-	18	16	18-21	TP..1103	0.38

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CC..03S1	M1.8-4.2-2.5-54	T6	0.6
TB..0601	M2-5.0-2.7-60	T6	0.6
TP..0902	M2.5-6.0-3.5-60	T8	1.2
TP..1103	M3-8.0-4.0-43	T9	1.4

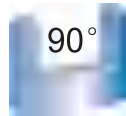
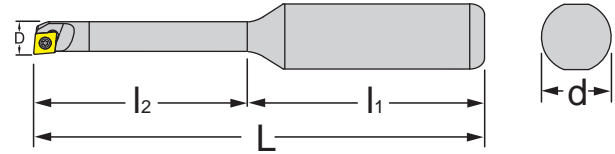
MILLING



# CSBJ-20 鎢鋼替換式搪孔刀柄

## CSBJ-20 INTERCHANGABLE BORING CUTTER

PAT.NO: M370451



### 特點 Feature

- 使用碳化鎢鋼材質，加工深度可達直徑的數倍
- 高剛性，延長使用刀片壽命
- 抗震性佳，加工後搪孔尺寸穩定

- Tungsten carbide material applied. Working depth could be up to times of cutter diameter.
- Super rigidity, long life.
- Excellent vibration resistance, which can bore accurate size.

## Dx5

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d	搪孔範圍 Boring Range	刀片 Insert	重量 (KGS) Weight
CSBJ-2005-28	68	40	28	5.6	20	5.6-8	CC..03S1	0.12
CSBJ-2006-30	70	40	30	6	20	6-9	CC..03S1	0.13
CSBJ-2008-40	80	40	40	8	20	8-11	TB..0601	0.13
CSBJ-2010-50	90	40	50	10	20	10-13	TB..0601	0.16
CSBJ-2012-60	100	40	60	12	20	12-15	TP..0902	0.19
CSBJ-2014-70	110	40	70	14	20	14-17	TP..0902	0.24
CSBJ-2016-80	120	40	80	16	20	16-19	TP..1103	0.31
CSBJ-2018-90	130	40	90	18	20	18-21	TP..1103	0.39
CSBJ-2020-100	140	40	100	20	20	20-26	TP..1103	0.42
CSBJ-2025-125	165	-	-	25	20	25-31	TP..1103	0.72
CSBJ-2030-150	190	-	-	30	20	31-37	TP..1103	0.86

## Dx6

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	d	搪孔範圍 Boring Range	刀片 Insert	重量 (KGS) Weight
CSBJ-2005-34	74	40	34	5.6	20	5.6-8	CC..03S1	0.12
CSBJ-2006-36	76	40	36	6	20	6-9	CC..03S1	0.13
CSBJ-2008-48	88	40	48	8	20	8-11	TB..0601	0.13
CSBJ-2010-60	100	40	60	10	20	10-13	TB..0601	0.16
CSBJ-2012-72	112	40	72	12	20	12-15	TP..0902	0.20
CSBJ-2014-84	124	40	84	14	20	14-17	TP..0902	0.27
CSBJ-2016-96	136	40	96	16	20	16-19	TP..1103	0.35
CSBJ-2018-108	148	40	108	18	20	18-21	TP..1103	0.44
CSBJ-2020-120	160	40	120	20	20	20-26	TP..1103	0.48
CSBJ-2025-150	190	-	-	25	20	25-31	TP..1103	0.84
CSBJ-2030-180	220	-	-	30	20	31-37	TP..1103	0.99

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CC..03S1	M1.8-4.2-2.5-54	T6	0.6
TB..0601	M2-5.0-2.7-60		
TP..0902	M2.5-6.0-3.5-60	T8	1.2
TP..1103	M3-8.0-4.0-43	T9	1.4

MILLING



# CSBJ/CCBJ 鎢鋼替換式搪孔刀柄套裝組

## CSBJ/CCBJ INTERCHANGABLE BORING CUTTER SET

PAT.NO: M370451



Fig.1



Fig.2



Fig.3



Fig.4

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
CSBJ16-C D×5-SET	CSBJ-1605-28-C	CCGT03S104L-F WCM15(10片)	M1.8-4.2-2.5-54	T6K	0.6	1	1	2.16
	CSBJ-1606-30-C							
	CSBJ-1608-40-C	TBGH060104L RM4030(10片)	M2-5.0-2.7-60	T8K	1.2			
	CSBJ-1610-50-C							
	CSBJ-1612-60-C	TPGH090204L RM4030(10片)	M2.5-6.0-3.5-60	T9K	1.4			
	CSBJ-1614-70-C							
	CSBJ-1616-80-C	TPGH110304L RM4030(10片)	M3-8.0-4.0-43	T9K	1.4			
CSBJ-1618-90-C								

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
CSBJ16-C D×6-SET	CSBJ-1605-34-C	CCGT03S104L-F WCM15(10片)	M1.8-4.2-2.5-54	T6K	0.6	1	2	2.16
	CSBJ-1606-36-C							
	CSBJ-1608-48-C	TBGH060104L RM4030(10片)	M2-5.0-2.7-60	T8K	1.2			
	CSBJ-1610-60-C							
	CSBJ-1612-72-C	TPGH090204L RM4030(10片)	M2.5-6.0-3.5-60	T9K	1.4			
	CSBJ-1614-84-C							
	CSBJ-1616-96-C	TPGH110304L RM4030(10片)	M3-8.0-4.0-43	T9K	1.4			
CSBJ-1618-108-C								

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
CCBJ16-C D×5-SET	CSBJ-1605-28-C	CCGT03S104L-F WCM15(10片)	M1.8-4.2-2.5-54	T6K	0.6	1	3	2.16
	CSBJ-1606-30-C							
	CCBJ-1608-40-C	CCMT060204-M01 OM4010(10片)	M2.5-6.0-3.5-60	T8K	1.2			
	CCBJ-1610-50-C							
	CCBJ-1612-60-C	CCMT09T304-M01 OM4010(10片)	M4-8.0-5.7-60	T15K	3.0			
	CCBJ-1614-70-C							
	CCBJ-1616-80-C	CCMT09T304-M01 OM4010(10片)	M4-8.0-5.7-60	T15K	3.0			
CCBJ-1618-90-C								

規格 Spec.	內容物 Contents						Fig.	重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty		
CCBJ16-C D×6-SET	CSBJ-1605-34-C	CCGT03S104L-F WCM15(10片)	M1.8-4.2-2.5-54	T6K	0.6	1	4	3.2
	CSBJ-1606-36-C							
	CCBJ-1608-48-C	CCMT060204-M01 OM4010(10片)	M2.5-6.0-3.5-60	T8K	1.2			
	CCBJ-1610-60-C							
	CCBJ-1612-72-C	CCMT09T304-M01 OM4010(10片)	M4-8.0-5.7-60	T15K	3.0			
	CCBJ-1614-84-C							
	CCBJ-1616-96-C	CCMT09T304-M01 OM4010(10片)	M4-8.0-5.7-60	T15K	3.0			
CCBJ-1618-108-C								

MILLING



# 搪孔系列刀片 BORING HEAD INSERT



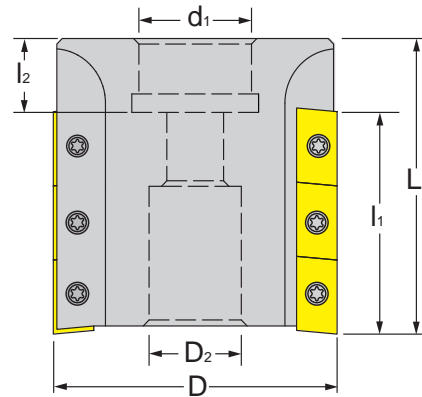
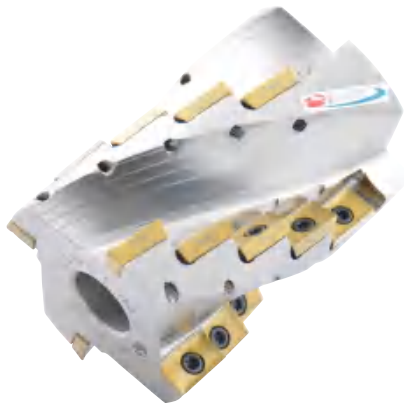
ISO 分類	P	合金鋼 Alloyed Steels	○		○	○			○						切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting	
	M	不鏽鋼 Stainless Steels			○	○			○							
	K	鑄鐵 Cast Iron	○													
	N	鋁及鋁合金 Aluminum&Al											○			
	S	高溫合金 Refractory Alloys														
	H	高硬度材 Hard Material														
形狀 Form	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy		鍍層超微粒 Layer coating ultra-micro				瓷金 Cermet		超硬微粒 Ultra-hard microprogram		尺寸 (mm)				圖形 Drawing
		CVD		CHF				HT		HF		Size				
		RM315	RM425	RM4015	RM4030			RM1205			RM5005		d	i	s	
	CCMT060204-HM	●	●									6.35	6.4	2.38	0.4	
	CCMT060208-HM	●	●									6.35	6.4	2.38	0.8	
	CCMT09T304-HM	●	●									9.525	9.7	3.97	0.4	
	CCMT09T308-HM	●	●									9.525	9.7	3.97	0.8	
	CCMT120404-HM	●	●									12.7	12.9	4.76	0.4	
	CCMT120408-HM	●	●									12.7	12.9	4.76	0.8	
	CCGT03S102L-F				●							3.57	-	1.39	0.2	
	CCGT03S104L-F				●							3.57	-	1.39	0.4	
	TBGT060102L-F01				●			●		●		3.97	6.4	1.59	0.2	
	TBGT060104L-F01				●			●		●		3.97	6.4	1.59	0.4	
	TPGT080202L-F01				●			●		●		4.76	8.2	2.38	0.2	
	TPGT080204L-F01				●			●		●		4.76	8.2	2.38	0.4	
	TPGT090202L-F01				●			●		●		5.56	9.6	2.38	0.2	
	TPGT090204L-F01				●			●		●		5.56	9.6	2.38	0.4	
	TPGT110302L-F01				●			●		●		6.35	11	3.18	0.2	
	TPGT110304L-F01				●			●		●		6.35	11	3.18	0.4	





# AMC 殼式粗切削端銼刀

## AMC SHELL TYPE ROUGH CUTTING END MILLS



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

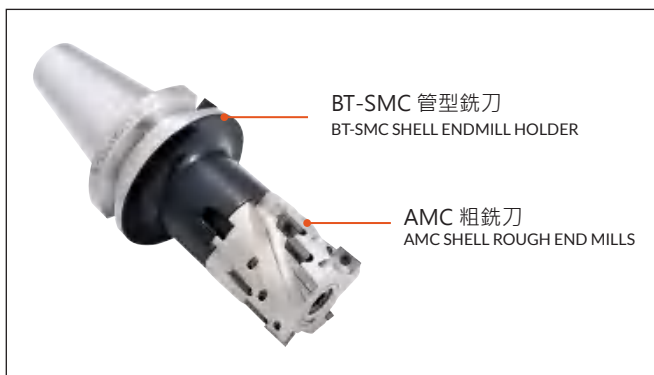
- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	D <sub>2</sub>	d <sub>1</sub>	刃數 Teeth	刀片數 Insert Qty.	刀片 Insert	重量 (KGS) Weight
AMC-50-45L-FMB22	64	45	31	50	18	22	3	9	AP..1604	0.51
AMC-63-45L-FMA25.4	64	45	-	63	19	25.4	4	12	AP..1604	1.03
AMC-63-68L-FMA25.4	90	68	42	63	19	25.4	4	20	AP..1604	1.19
AMC-63-68L-FMA31.75	90	68	-	63	26	31.75	4	20	AP..1604	0.92

### 配件表 Accessories

規格 Spec.	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	華司螺絲 Screw	小頭華司 Screw
AMC-50-45L-FMB22	AP..1604	M4-10-5.7-60	T15	3.0	AMC-M10-1.5P-50L	-
AMC-63-45L-FMA25.4	AP..1604	M4-10-5.7-60	T15	3.0	AMC-1/2-12W-2L	-
AMC-63-45L-FMB27	AP..1604	M4-10-5.7-60	T15	3.0	AMC-M12-1.75P-50L	-
AMC-63-68L-FMA25.4	AP..1604	M4-10-5.7-60	T15	3.0	AMC-1/2-12W-2L	-
AMC-63-68L-FMA31.75	AP..1604	M4-10-5.7-60	T15	3.0	AMC-1/2-12W-2-1/2L	D25.2-19-16L

### 範例 Example





# AMC 殼式粗切削端銑刀

## AMC SHELL TYPE ROUGH CUTTING END MILLS



ISO 分類	P	合金鋼 Alloyed Steels	○	○		○									切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○			○									
	K	鑄鐵 Cast Iron	○		○										
N	鋁及鋁合金 Aluminum&Al						■	■	○	■					
S	高溫合金 Refractory Alloys								○						
H	高硬度材 Hard Material														
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro					超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing
		CHF					HF				Size				
		OM4025	OM4025N	RM3130	RM4130	RM535	GH05	OM5005	OM5060	RM5005	d	i	s	r	
	APKT1604PDER-M05					●					9.525	16.4	4.76	0.4	
	APEX1604PDFR-701						●				9.525	16.4	4.76	0.2	
	APEX1604PDFR-F01						●	●			9.525	16.4	4.76	-	
	APEX160400PDFR-F01						●	●			9.525	16.4	4.76	-	
	APEX160404PDFR-F01						●	●			9.525	16.4	4.76	0.4	
	APEX160408PDFR-F01							●	●		9.525	16.4	4.76	0.8	
	APKT160408-M01	●	●								9.525	16.6	4.76	0.8	
	APGT1604PDFR-G2								●		9.525	16.5	4.76	0.8	
	APGT160408PDFR-F02								●		9.525	16.4	4.76	0.8	
	APKT160408PDER-M02			●	●						9.525	16.4	4.76	0.8	

### AP\_16 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P 低合金鋼 Low-Alloy Steels	OM4025	120~300	0.15~0.40	3.0~8.0
	OM4025N	120~300	0.15~0.40	3.0~8.0
	RM4130	60~300	0.10~0.25	3.0~8.0
合金鋼 Alloyed Steels	OM4025	80~180	0.15~0.35	3.0~8.0
	RM4130	60~300	0.10~0.25	3.0~8.0
M 不鏽鋼 Stainless Steels	OM4025	120~160	0.15~0.35	3.0~8.0
	RM4130	120~160	0.10~0.25	3.0~8.0
K 鑄鐵 Cast Iron	OM4025	160~250	0.15~0.30	3.0~8.0
	RM3130	160~250	0.15~0.30	3.0~8.0
N 鋁合金 Aluminum&Al	OM5005	400~1000	0.04~0.20	3.0~8.0
	OM5060	400~1000	0.04~0.20	3.0~8.0
	RM5005	400~1000	0.04~0.20	3.0~8.0
	GH05	300~800	0.04~0.20	3.0~8.0
S 高溫合金 Refractory Alloys	RM535	80~180	0.15~0.35	3.0~8.0

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.

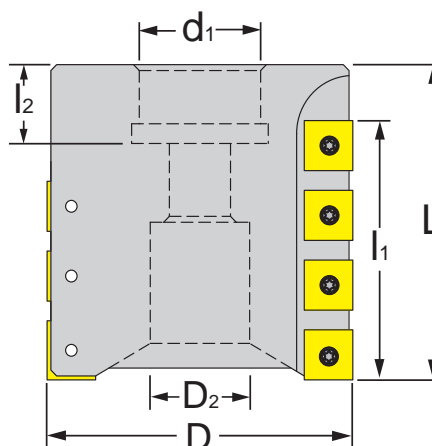
MILLING



# PMC 殼式粗切削端銑刀 PMC SHELL TYPE ROUGH CUTTING END MILLS



90°



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

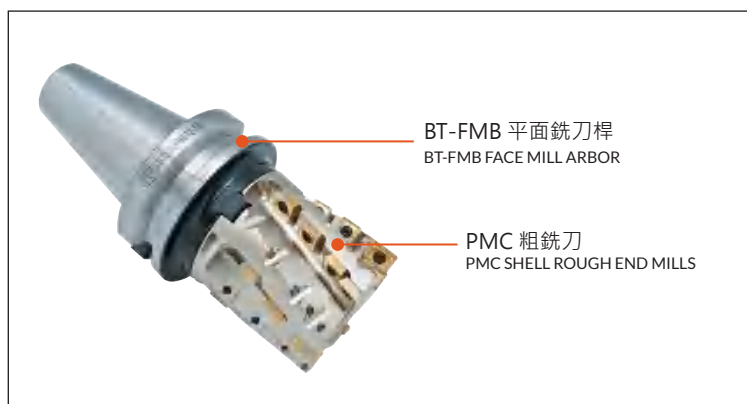
- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	D <sub>2</sub>	d <sub>1</sub>	刃數 Teeth	刀片 Insert	刀片數 Insert Qty.	刀片 Insert	刀片數 Insert	重量 (KGS) Weight
PMC-80-67L	80	67	42	80	26	31.75	6	LP..1504	3	SP..1204	18	1.92
PMC-80-67L-FMB32	80	67	42	80	26	32	6	LP..1504	3	SP..1204	18	1.92
PMC-100-77L-FMB40	100	77	-	100	48	40	8	LP..1504	4	SP..1204	28	3.82

## 配件表 Accessories

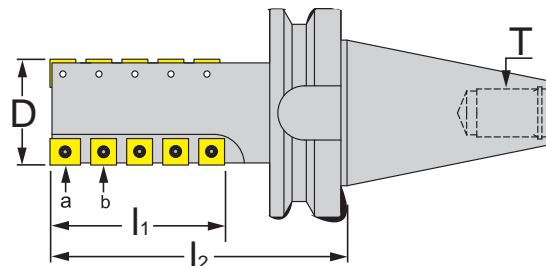
規格 Spec.	刀片 Insert	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	華司螺絲 Screw	小頭華司 Screw
PMC-80-67L	LP..1504	SP..1204	M5-11-6.4-43	T20	5.0	PMC-1/2-12W-2-1/2L	D25.2-19-16L
PMC-80-67L-FMB32	LP..1504	SP..1204	M5-11-6.4-43	T20	5.0	PMC-M12-1.75P-50L	D25.2-19-16L
PMC-100-77L-FMB40	LP..1504	SP..1204	M5-11-6.4-43	T20	5.0	PMC-M16-2.0P-80L	-

## 範例 Example





# BMC 粗切削端銑刀 BMC ROUGH CUTTING END MILLS



90°



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

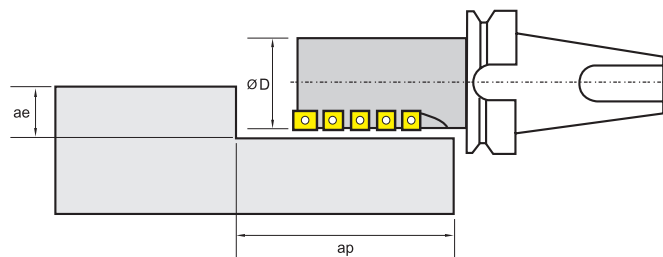
- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	l <sub>1</sub>	l <sub>2</sub>	D	T	刃數 Teeth	刀片 Insert Qty.	刀片數量 Insert Qty.	重量 (KGS) Weight
						LP..1504 (a)	SP..1204 (b)	
NT50-BMC50-77L	77	123.2	50	1"-8W	4	2	14	4.21
NT50-BMC63-87L	87	133.2	63	1"-8W	4	2	16	5.19
BT50-BMC50-77L	77	144	50	M24×3.0P	4	2	14	5.08
BT50-BMC50-97L	97	166	50	M24×3.0P	4	2	18	5.48
BT50-BMC63-87L	87	156	63	M24×3.0P	4	2	16	5.90
BT50-BMC63-107L	107	176	63	M24×3.0P	4	2	20	6.48

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
LP..1504	M5-11-6.4-43	T20K	5.0
SP..1204	M5-11-6.4-43	T20K	5.0

軸向切削量 (Ap) Depth of cut in axial direction	徑向切削量 (Ae) Depth of cut in radial direction
Ap ≤ 1D →	(ae/D) ≤ 0.5
1D < Ap ≤ 1.5D →	(ae/D) ≤ 0.25
1.5D < Ap ≤ 2D →	(ae/D) ≤ 0.1



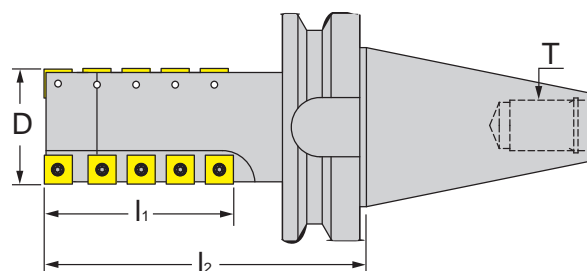
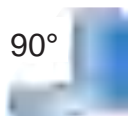
MILLING





# BT/CBMC 替換式粗切削銑刀

## BT/CBMC CHANGE ROUGH CUTTING END MILLS



### 特點 Feature

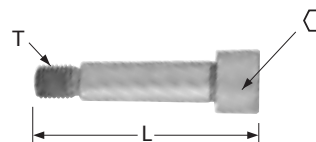
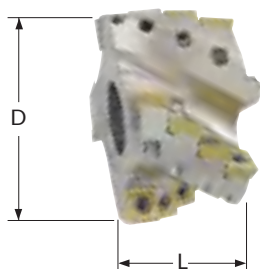
- 如切削損壞時，前端刀頭可更換粗銑刀，降低成本

- If damaged during cutting, there is replacement cutter heads available as optional products.

規格 Spec.	$l_1$	$l_2$	D	T	刃數 Teeth	刀片 Insert	刀片數量 Insert Qty.	重量 (KGS) Weight
BT50-CBMC63-200L	200	285	63	M24×3.0P	3	SP.1204	57	7.40
BT50-CBMC63-260L	260	345	63	M24×3.0P	3	SP.1204	75	8.10
BT50-CBMC80-200L	200	285	80	M24×3.0P	4	SP.1204	76	10.0

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SP.1204	M5-10-6.3-43	T20K	5.0



規格 Spec.	L	D	刃數 Teeth	刀片數量 Insert Qty.	重量 (KGS) Weight
CBMC63-42L	42	63	3	12	0.60
CBMC80-42L	42	80	4	16	1.00

規格 Spec.	L	T	Wrench	重量 (KGS) Weight
CBMC63-M16-83L	83	M16	10	0.14
CBMC80-M16-93L	93	M16	12	0.20

### 範例 Example



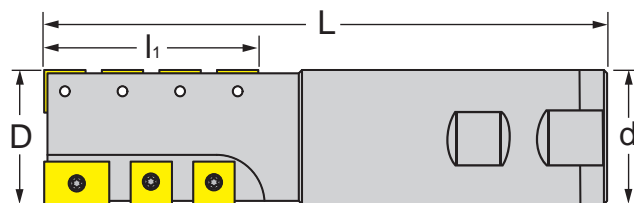
MILLING





# SPE 粗切削銑刀

## SPE ROUGH CUTTING END MILLS



90°



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

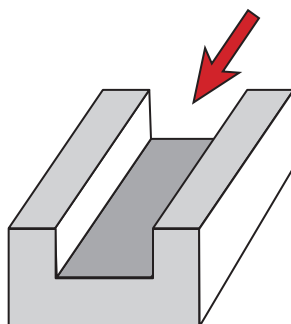
- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	剖面 Profile	L	l <sub>1</sub>	D	d	刃數 Teeth	刀片 Insert	刀片數量 Insert Qty.	刀片 Insert	刀片數量 Insert Qty.	重量 (KGS) Weight
SPE-40-56L-2T	A	173	56	40	42	2	LP..1504	1	SP..1204	5	1.45
SPE-40-50L-4T	A	155	64	40	32	4	AP..1503	2	SD..0903	16	0.92
SPE-50-97L-4T	B	224	97	50	50.8	4	LP..1504	2	SP..1204	18	2.69
SPE-50-158L-4T	B	284	158	50	50.8	4	LP..1504	2	SP..1204	30	3.15

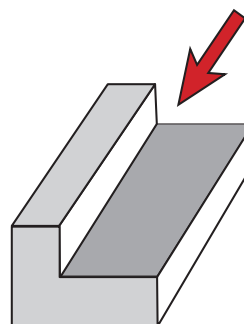
### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
LP..1504	M5-11-6.4-43	T20	5.0
AP..1503	M4-10-5.0-43	T15	3.0
SD..0903	M4-10-5.0-43	T15	3.0
SP..1204	M5-11-6.4-43	T20	5.0

最大切削深度 .12mm  
Max. 12mm



開槽  
Slotting



側邊加工  
Shoulder cutting

MILLING



# 粗切削銑刀 ROUGH CUTTING END MILLS



ISO 分類	P	合金鋼 Alloyed Steels	○	○	○													切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○														
	K	鑄鐵 Cast Iron	○	○														
N	鋁及鋁合金 Aluminum&Al																	
S	高溫合金 Refractory Alloys																	
H	高硬度材 Hard Material		○															
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro						超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing		
		CHF						HF										
		OM4010	OM4025	RM4025				OM5005					d	i	s		r	
	APMT1503-R01 (P27215-3R)	●	●										9.52	15	3.18	0.8		
	LPMT1504-R01 (P27275-3R)		●										12.7	15.88	4.76	-		
	SPET120408-M02	●	●					●					12.7	-	4.76	0.8		
	SPMT120408-R01			●									12.7	-	4.76	0.8		

## AP\_15.SP\_12.SD\_09.LP\_15 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	加工型態 Processing Type	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)
P 低合金鋼 Low-Alloy Steels	開槽 Slotting	OM4010	90~120	0.05~0.10
	側邊加工 Side Milling		110~140	0.08~0.13
	開槽 Slotting	OM4025	90~110	0.05~0.10
	側邊加工 Side Milling		110~130	0.08~0.13
	開槽 Slotting	RM4025	90~110	0.05~0.10
	側邊加工 Side Milling		110~130	0.08~0.13
P 合金鋼 Alloyed Steels	開槽 Slotting	OM4010	70~100	0.05~0.10
	側邊加工 Side Milling		90~120	0.06~0.15
	開槽 Slotting	OM4025	70~90	0.05~0.10
	側邊加工 Side Milling		90~110	0.06~0.15
	開槽 Slotting	RM4025	70~90	0.05~0.10
	側邊加工 Side Milling		90~110	0.06~0.15
M 不鏽鋼 Stainless Steels	側邊加工 Side Milling	OM4010	130~190	0.06~0.15
		OM4025	130~170	0.06~0.15
K 鑄鐵 Cast Iron	開槽 Slotting	OM4025	70~90	0.18~0.12
	側邊加工 Side Milling		90~150	0.10~0.15
N 鋁合金 Aluminum&Al	開槽 Slotting	OM5005	450(500~700)	1.2(1.2~1.8)
	側邊加工 Side Milling			

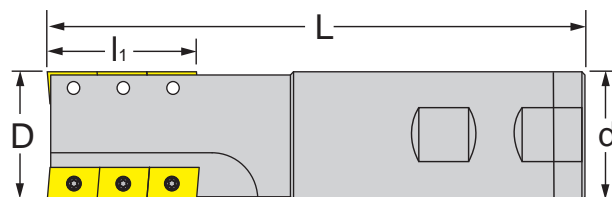
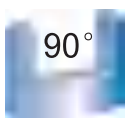
主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



# APE 粗切削銑刀

## APE ROUGH CUTTING END MILLS



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	D	d	刃數 Teeth	刀片數量 Insert Qty.	刀片 Insert	重量 (KGS) Weight
APE-2020-28L-2T	107	28	20	20	2	5	AP..1003	0.23
APE-2525-37L-2T	125	37	25	25	2	8	AP..1003	0.41
APE-3232-46L-3T	135	46	32	32	3	15	AP..1003	0.70

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
AP..1003	M2.5-6.45-3.7-43	T8	1.2

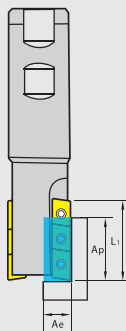
### 側邊加工 SHOULDER CUTTING

Ap	Ar	每刃進給 f (mm/rev)		
		0.08	0.12	0.1
9	8	-	1.0	1.0
	16	-	1.5	1.8
18	8	1.5	1.8	2.0
	16	2.0	2.5	2.8
27	8	2.0	2.5	2.8
	16	3.0	3.8	4.0

kW

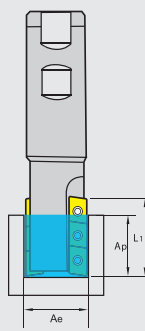
### 側銑加工 PROFILE MILLING

d1	ap
Ø 20	22
Ø 25	30
Ø 32	37
Ø 40	44

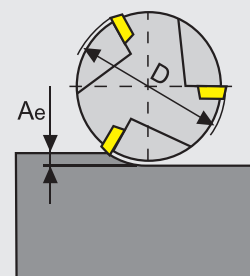


### 開槽加工 SOLT MILLING

d1	ap
Ø 20	14
Ø 25	18
Ø 32	23
Ø 40	27



ae	correct feed rate
D	2.2×fz
0.1	2.2×fz
0.2	1.4×fz
0.5	1.0×fz
0.7	0.8×fz
1.0	0.7×fz



### 開槽加工 SOLT MILLING

D	Ap	每刃進給 f (mm/rev)		
		0.08	0.12	0.1
20-25	9	1.8	2.2	2.5
	18	3.2	4.0	4.5
	27	-	5.5	5.8

kW

D	Ap	每刃進給 f (mm/rev)		
		0.10	0.15	0.20
32	20	4.4	5.5	6.8
	30	5.8	7.8	9.2
	40	7.8	10	-

kW

MILLING





# APE 粗切削銑刀

## APE ROUGH CUTTING END MILLS



形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro								超硬微粒 Ultra-hard microprogram			尺寸 (mm) Size				圖形 Drawing				
		CHF								HF			Size								
		RM4130	RM535							OM5005	OM5060	RM5005						d	i	s	r
	APKT100304PDER-M04	●														6.68	10.5	2.38	0.4		
	APKT1003PDER-M05		●													6.68	10.5	3.47	-		
	APEX100304PDFR-F01								●	●						6.68	10.5	2.38	0.4		
	APHT1003PDFR-F03										●					6.68	10.4	3.47	0.8		
	APGT100304PDFR-F04										●					6.68	10.5	2.38	0.4		

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

### AP<sub>10</sub> 切削條件數據表 Cutting Conditions

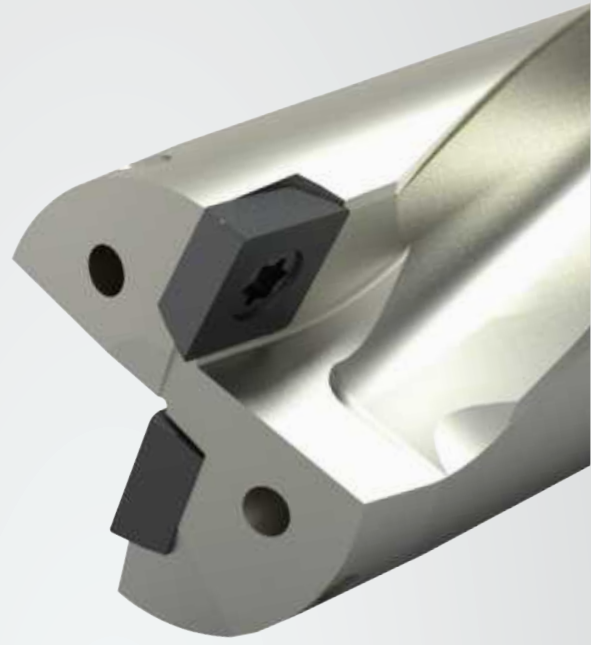
被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P 低合金鋼 Low-Alloy Steels	RM4130	60~300	0.10~0.25	1.0~2.0
	合金鋼 Alloyed Steels	RM4130	60~300	1.0~2.0
M 不鏽鋼 Stainless Steels	RM4130	120~160	0.10~0.25	0.5~1.5
N 鋁合金 Aluminum&Al	OM5005	400~850	0.05~0.30	1.5~3.0
	OM5060	400~850	0.05~0.30	1.5~3.0
	RM5005	400~850	0.05~0.30	1.5~3.0
S 高溫合金 Refractory Alloys	RM535	120~160	0.10~0.25	0.5~1.5

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.

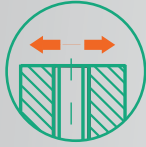
# TSD特殊加工方式

TSD Special cutting method



斜面孔

Oblique Face



擴孔

Enlarge Hole



交叉孔

Cross Hole



半邊孔

Half Hole



套孔

Target Drills



凹面孔

Concave Face

# High Speed Drill



## 注意事項 Tips

可用於粗加工除料或不規則表面鑽孔，無需預加工小孔，但表面傾斜角度不超過6度

Drilling irregular surface slope angle must be less than 6 degree.  
Use exact drills directly. Don't use pilot.

在進刀和退刀時，降低進給率30%~50%

Reduce feed rate 30 to 50 percentage during enter and finish.

層板堆疊加工時，間隙應小於0.2mm

Drilling staked layer gap b/w the layer must be less than 0.2mm.

板材有變形及彎曲時，仍可進行加工作業

Be able to drill irregular bend layers.

在進刀和退刀時，降低進給率30%~50%

Reduce feed rate 30 to 50 percentage during enter and finish.

正確的使用切削液的壓力值，有助於鐵屑的排出，及降低刀具振動，和提高刀具壽命

Use the coolant with exact pressure provide you stable operation and improve cutter life.



# Feature

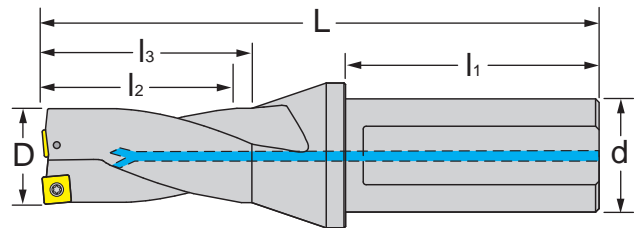
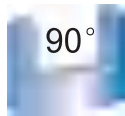


# TSD 四角刀片快速鑽頭 (2 倍長)

## TSD SQUARE INSERT HIGH SPEED DRILL



Dx2



### 特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- Smart solution for reducing production cost! 4 edges are usable on 1 insert.
- Both inner teeth and outer teeth use the same insert, which is easy for stock management, fool-proof for mis-assembly of insert.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C25-TSD13-26L	106	56	26	31	13	25	SP.0502	0.32
C25-TSD14-28L	108	56	28	33	14	25	SP.0502	0.33
C25-TSD15-30L	110	56	30	35	15	25	SP.0502	0.33
C25-TSD16-32L	114	56	32	37	16	25	SP.0602	0.34
C25-TSD17-34L	116	56	34	39	17	25	SP.0602	0.35
C25-TSD18-36L	118	56	36	41	18	25	SP.0602	0.36
C25-TSD19-38L	120	56	38	43	19	25	SP.0602	0.37
C25-TSD20-40L	122	56	40	45	20	25	SP.0602	0.38
C25-TSD21-42L	124	56	42	47	21	25	SP.0602	0.39
C25-TSD22-44L	126	56	44	49	22	25	SP.07T3	0.60
C32-TSD23-46L	134	60	46	51	23	32	SP.07T3	0.61
C32-TSD24-48L	136	60	48	53	24	32	SP.07T3	0.61
C32-TSD25-50L	138	60	50	55	25	32	SP.07T3	0.64
C32-TSD26-52L	140	60	52	57	26	32	SP.07T3	0.66
C32-TSD27-54L	142	60	54	59	27	32	SP.07T3	0.67
C32-TSD28-56L	146	60	56	61	28	32	SP.0904	0.68
C32-TSD29-58L	148	60	58	63	29	32	SP.0904	0.72
C32-TSD30-60L	150	60	60	65	30	32	SP.0904	0.74
C32-TSD31-62L	152	60	62	67	31	32	SP.0904	0.76
C32-TSD32-64L	154	60	64	69	32	32	SP.0904	0.78
C32-TSD33-66L	156	60	66	71	33	32	SP.0904	0.80
C32-TSD34-68L	158	60	68	73	34	32	SP.1104	0.82
C32-TSD35-70L	160	60	70	75	35	32	SP.1104	0.84
C32-TSD36-72L	162	60	72	77	36	32	SP.1104	0.86
C32-TSD37-74L	164	60	74	79	37	32	SP.1104	0.88
C32-TSD38-76L	166	60	76	81	38	32	SP.1104	0.93
C32-TSD39-78L	168	60	78	83	39	32	SP.1104	0.94
C40-TSD40-80L	184	70	80	85	40	40	SP.1104	1.40
C40-TSD41-82L	186	70	82	87	41	40	SP.1104	1.38
C40-TSD42-84L	188	70	84	89	42	40	SP.1405	1.42
C40-TSD43-86L	190	70	86	91	43	40	SP.1405	1.44
C40-TSD44-88L	192	70	88	93	44	40	SP.1405	1.51
C40-TSD45-90L	194	70	90	95	45	40	SP.1405	1.57
C40-TSD46-92L	196	70	92	97	46	40	SP.1405	1.61
C40-TSD47-94L	198	70	94	99	47	40	SP.1405	1.66
C40-TSD48-96L	200	70	96	101	48	40	SP.1405	1.71
C40-TSD49-98L	202	70	98	103	49	40	SP.1405	1.77
C40-TSD50-100L	204	70	100	102	50	40	SP.1405	1.81

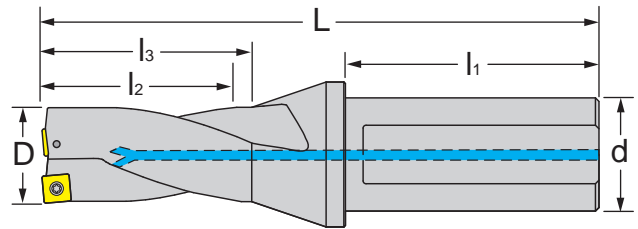
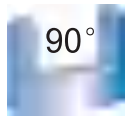
MILLING



# TSD 四角刀片快速鑽頭 (2 倍點數) TSD SQUARE INSERT HIGH SPEED DRILL



Dx2 0.5 Type



## 特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- Smart solution for reducing production cost! 4 edges are usable on 1 insert.
- Both inner teeth and outer teeth use the same insert, which is easy for stock management, fool-proof for mis-assembly of insert.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C25-TSD13.5-27L	107	56	27	32	13.5	25	SP..0502	0.33
C25-TSD14.5-29L	109	56	29	34	14.5	25	SP..0502	0.33
C25-TSD15.5-31L	113	56	31	36	15.5	25	SP..0602	0.34
C25-TSD16.5-33L	115	56	33	38	16.5	25	SP..0602	0.35
C25-TSD17.5-35L	117	56	35	40	17.5	25	SP..0602	0.36
C25-TSD18.5-37L	119	56	37	42	18.5	25	SP..0602	0.36
C25-TSD19.5-39L	121	56	39	44	19.5	25	SP..0602	0.37
C25-TSD20.5-41L	123	56	41	46	20.5	25	SP..0602	0.38
C25-TSD21.5-43L	125	56	43	48	21.5	25	SP..0602	0.39

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SP.0502	M2-4.3-2.7-60-T6-TIN	T6	0.6
SP..0602	M2.2-5.2-3.1-60-T7-TIN	T7	0.9
SP.07T3	M2.5-6.33-3.5-48-T8-TIN	T8	1.2
SP.0904	M3.5-8.4-5.0-60-T10-TIN	T10	2.0
SP..1104	M4-9.35-5.65-60-T15-TIN	T15	3.0
SP..1405	M5-12.8-7.0-60-T20-TIN	T20	5.0

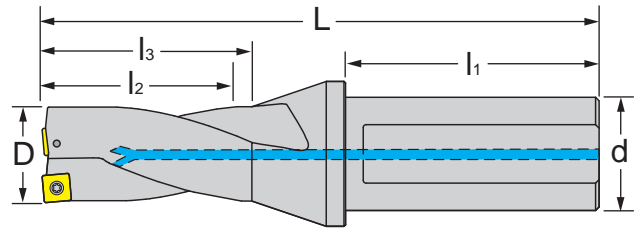
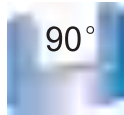


# TSD 四角刀片快速鑽頭 (3 倍長)

## TSD SQUARE INSERT HIGH SPEED DRILL



Dx3



### 特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- Smart solution for reducing production cost! 4 edges are usable on 1 insert.
- Both inner teeth and outer teeth use the same insert, which is easy for stock management, fool-proof for mis-assembly of insert.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C20-TSD13-39L	111	50	39	44	13	20	SP..0502	0.20
C20-TSD14-42L	114	50	42	47	14	20	SP..0502	0.18
C20-TSD15-45L	117	50	45	50	15	20	SP..0502	0.21
C25-TSD16-48L	130	56	48	53	16	25	SP..0602	0.31
C25-TSD17-51L	133	56	51	56	17	25	SP..0602	0.32
C25-TSD18-54L	136	56	54	59	18	25	SP..0602	0.34
C25-TSD19-57L	139	56	57	62	19	25	SP..0602	0.35
C25-TSD20-60L	142	56	60	65	20	25	SP..0602	0.37
C25-TSD21-63L	145	56	63	68	21	25	SP..0602	0.38
C25-TSD22-66L	148	56	66	71	22	25	SP..07T3	0.39
C25-TSD23-69L	157	60	69	74	23	25	SP..07T3	-
C25-TSD24-72L	160	60	72	77	24	25	SP..07T3	-
C25-TSD25-75L	163	60	75	80	25	25	SP..07T3	-
C32-TSD23-69L	157	60	69	74	23	32	SP..07T3	0.66
C32-TSD24-72L	160	60	72	77	24	32	SP..07T3	0.67
C32-TSD25-75L	163	60	75	80	25	32	SP..07T3	0.72
C32-TSD26-78L	166	60	78	83	26	32	SP..07T3	0.73
C32-TSD27-81L	169	60	81	86	27	32	SP..07T3	0.75
C32-TSD28-84L	174	60	84	89	28	32	SP..0904	0.78
C32-TSD29-87L	177	60	87	92	29	32	SP..0904	0.81
C32-TSD30-90L	180	60	90	95	30	32	SP..0904	0.83

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SP..0502	M2-4.3-2.7-60-T6-TIN	T6	0.6
SP..0602	M2.2-5.2-3.1-60-T7-TIN	T7	0.9
SP..07T3	M2.5-6.33-3.5-48-T8-TIN	T8	1.2
SP..0904	M3.5-8.4-5.0-60-T10-TIN	T10	2.0
SP..1104	M4-9.35-5.65-60-T15-TIN	T15	3.0
SP..1405	M5-12.8-7.0-60-T20-TIN	T20	5.0

MILLING



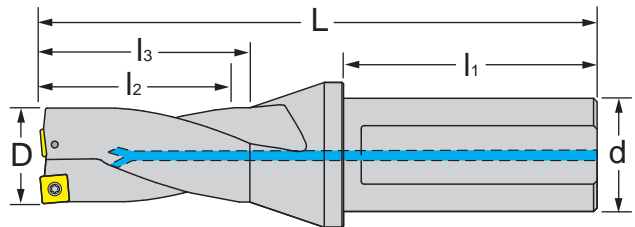
# TSD 四角刀片快速鑽頭 (3 倍長)

## TSD SQUARE INSERT HIGH SPEED DRILL



Dx3

DX3



### 特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- Smart solution for reducing production cost! 4 edges are usable on 1 insert.
- Both inner teeth and outer teeth use the same insert, which is easy for stock management, fool-proof for mis-assembly of insert.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C32-TSD31-93L	183	60	93	98	31	32	SP..0904	0.88
C32-TSD32-96L	186	60	96	101	32	32	SP..0904	0.90
C32-TSD33-99L	189	60	99	104	33	32	SP..0904	0.93
C32-TSD34-102L	192	60	102	107	34	32	SP..1104	0.98
C32-TSD35-105L	195	60	105	110	35	32	SP..1104	0.99
C32-TSD36-108L	198	60	108	113	36	32	SP..1104	1.09
C32-TSD37-111L	201	60	111	116	37	32	SP..1104	1.08
C32-TSD38-114L	204	60	114	119	38	32	SP..1104	1.12
C32-TSD39-117L	207	60	117	122	39	32	SP..1104	1.22
C40-TSD40-120L	224	70	120	125	40	40	SP..1104	1.74
C40-TSD41-123L	227	70	123	128	41	40	SP..1104	1.79
C40-TSD42-126L	230	70	126	131	42	40	SP.1405	1.62
C40-TSD43-129L	233	70	129	134	43	40	SP.1405	1.70
C40-TSD44-132L	236	70	132	137	44	40	SP.1405	1.75
C40-TSD45-135L	239	70	135	140	45	40	SP.1405	1.84
C40-TSD46-138L	242	70	138	143	46	40	SP.1405	1.92
C40-TSD47-141L	245	70	141	146	47	40	SP.1405	1.97
C40-TSD48-144L	248	70	144	149	48	40	SP.1405	2.06
C40-TSD49-147L	251	70	147	152	49	40	SP.1405	2.12
C40-TSD50-150L	254	70	150	155	50	40	SP.1405	2.22

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SP.0904	M3.5-8.4-5.0-60-T10-TIN	T10	2.0
SP.1104	M4-9.35-5.65-60-T15-TIN	T15	3.0
SP.1405	M5-12.8-7.0-60-T20-TIN	T20	5.0

MILLING



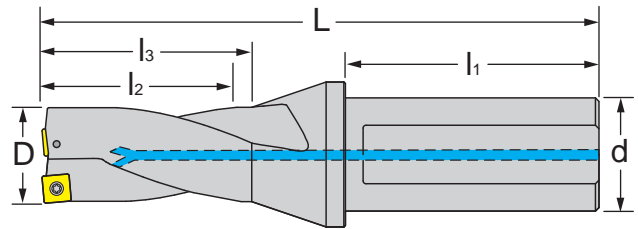
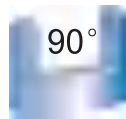


# TSD 四角刀片快速鑽頭 (3 倍點數)

## TSD SQUARE INSERT HIGH SPEED DRILL



Dx3 0.5 Type



### 特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- Smart solution for reducing production cost! 4 edges are usable on 1 insert.
- Both inner teeth and outer teeth use the same insert, which is easy for stock management, fool-proof for mis-assembly of insert.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C20-TSD13.5-40.5L	112.5	50	40.5	45.5	13.5	20	SP.0502	0.18
C20-TSD14.5-43.5L	115.5	50	43.5	48.5	14.5	20	SP.0502	0.21
C25-TSD15.5-46.5L	128.5	56	46.5	51.5	15.5	25	SP.0602	0.32
C25-TSD16.5-49.5L	131.5	56	49.5	54.5	16.5	25	SP.0602	0.33
C25-TSD17.5-52.5L	134.5	56	52.5	57.5	17.5	25	SP.0602	0.33
C25-TSD18.5-55.5L	137.5	56	55.5	60.5	18.5	25	SP.0602	0.35
C25-TSD19.5-58.5L	140.5	56	58.5	63.5	19.5	25	SP.0602	0.38
C25-TSD20.5-61.5L	143.5	56	61.5	66.5	20.5	25	SP.0602	0.38
C25-TSD21.5-64.5L	146.5	56	64.5	69.5	21.5	25	SP.0602	0.40
C32-TSD22.5-67.5L	155.5	60	67.5	72.5	22.5	32	SP.07T3	0.65
C32-TSD23.5-70.5L	158.5	60	70.5	75.5	23.5	32	SP.07T3	0.66
C32-TSD24.5-73.5L	161.5	60	73.5	78.5	24.5	32	SP.07T3	0.71
C32-TSD25.5-76.5L	164.5	60	76.5	81.5	25.5	32	SP.07T3	0.72
C32-TSD26.5-79.5L	167.5	60	79.5	84.5	26.5	32	SP.07T3	0.75
C32-TSD27.5-82.5L	170.5	60	82.5	87.5	27.5	32	SP.07T3	0.76
C32-TSD28.5-85.5L	175.5	60	85.5	90.5	28.5	32	SP.0904	0.80
C32-TSD29.5-88.5L	178.5	60	88.5	93.5	29.5	32	SP.0904	0.82
C32-TSD30.5-91.5L	181.5	60	91.5	96.5	30.5	32	SP.0904	0.87
C32-TSD31.5-94.5L	184.5	60	94.5	99.5	31.5	32	SP.0904	0.89
C32-TSD32.5-97.5L	187.5	60	97.5	102.5	32.5	32	SP.0904	0.92
C32-TSD33.5-100.5L	190.5	60	100.5	105.5	33.5	32	SP.0904	0.96

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SP.0502	M2-4.3-2.7-60-T6-TIN	T6	0.6
SP.0602	M2.2-5.2-3.1-60-T7-TIN	T7	0.9
SP.07T3	M2.5-6.33-3.5-48-T8-TIN	T8	1.2
SP.0904	M3.5-8.4-5.0-60-T10-TIN	T10	2.0
SP.1104	M4-9.35-5.65-60-T15-TIN	T15	3.0
SP.1405	M5-12.8-7.0-60-T20-TIN	T20	5.0

MILLING

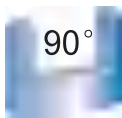
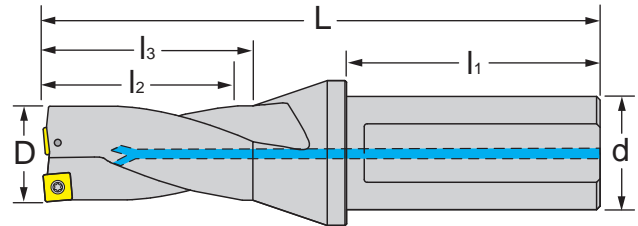


# TSD 四角刀片快速鑽頭 (4 倍長)

## TSD SQUARE INSERT HIGH SPEED DRILL



Dx4



### 特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- Smart solution for reducing production cost! 4 edges are usable on 1 insert.
- Both inner teeth and outer teeth use the same insert, which is easy for stock management, fool-proof for mis-assembly of insert.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C25-TSD13-52L	132	56	52	57	13	25	SP..0502	0.34
C25-TSD14-56L	136	56	56	61	14	25	SP..0502	0.34
C25-TSD15-60L	140	56	60	65	15	25	SP..0502	0.36
C25-TSD16-64L	146	56	64	69	16	25	SP..0602	0.37
C25-TSD17-68L	150	56	68	73	17	25	SP..0602	0.38
C25-TSD18-72L	154	56	72	77	18	25	SP..0602	0.40
C25-TSD19-76L	158	56	76	81	19	25	SP..0602	0.41
C25-TSD20-80L	162	56	80	85	20	25	SP..0602	0.43
C25-TSD21-84L	166	56	84	89	21	25	SP..0602	0.45
C25-TSD22-88L	170	56	88	93	22	25	SP..07T3	0.67
C32-TSD23-92L	180	60	92	97	23	32	SP..07T3	0.69
C32-TSD24-96L	184	60	96	101	24	32	SP..07T3	0.71
C32-TSD25-100L	188	60	100	105	25	32	SP..07T3	0.74
C32-TSD26-104L	192	60	104	109	26	32	SP..07T3	0.77
C32-TSD27-108L	196	60	108	113	27	32	SP..07T3	0.81
C32-TSD28-112L	202	60	112	117	28	32	SP..0904	0.86
C32-TSD29-116L	206	60	116	121	29	32	SP..0904	0.88
C32-TSD30-120L	210	60	120	125	30	32	SP..0904	0.94
C32-TSD31-124L	214	60	124	129	31	32	SP..0904	0.96
C32-TSD32-128L	218	60	128	133	32	32	SP..0904	1.01
C32-TSD33-132L	222	60	132	137	33	32	SP..0904	1.06
C32-TSD34-136L	226	60	136	141	34	32	SP..1104	1.07
C32-TSD35-140L	230	60	140	145	35	32	SP..1104	1.12
C32-TSD36-144L	234	60	144	149	36	32	SP..1104	1.15
C32-TSD37-148L	238	60	148	153	37	32	SP..1104	1.21
C32-TSD38-152L	242	60	152	157	38	32	SP..1104	1.24
C32-TSD39-156L	246	60	156	161	39	32	SP..1104	1.33

MILLING



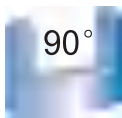
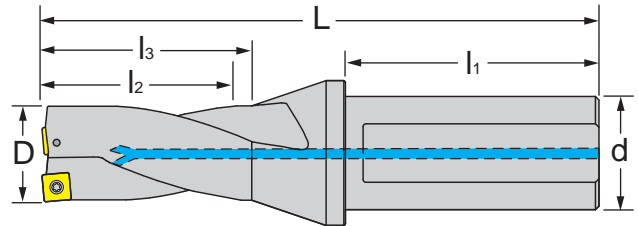




# TSD 四角刀片快速鑽頭 (4 倍長) TSD SQUARE INSERT HIGH SPEED DRILL



Dx4



## 特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- Smart solution for reducing production cost! 4 edges are usable on 1 insert.
- Both inner teeth and outer teeth use the same insert, which is easy for stock management, fool-proof for mis-assembly of insert.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C40-TSD40-160L	264	70	160	165	40	40	SP.1104	1.80
C40-TSD41-164L	268	70	164	169	41	40	SP.1104	1.81
C40-TSD42-168L	272	70	168	173	42	40	SP.1405	1.83
C40-TSD43-172L	276	70	172	177	43	40	SP.1405	1.93
C40-TSD44-176L	280	70	176	181	44	40	SP.1405	2.00
C40-TSD45-180L	284	70	180	185	45	40	SP.1405	2.13
C40-TSD46-184L	288	70	184	189	46	40	SP.1405	2.20
C40-TSD47-188L	292	70	188	193	47	40	SP.1405	2.28
C40-TSD48-192L	296	70	192	197	48	40	SP.1405	2.38
C40-TSD49-196L	300	70	196	201	49	40	SP.1405	2.48
C40-TSD50-200L	304	70	200	205	50	40	SP.1405	2.61

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SP.0502	M2-4.3-2.7-60-T6-TIN	T6	0.6
SP.0602	M2.2-5.2-3.1-60-T7-TIN	T7	0.9
SP.07T3	M2.5-6.33-3.5-48-T8-TIN	T8	1.2
SP.0904	M3.5-8.4-5.0-60-T10-TIN	T10	2.0
SP.1104	M4-9.35-5.65-60-T15-TIN	T15	3.0
SP.1405	M5-12.8-7.0-60-T20-TIN	T20	5.0

MILLING



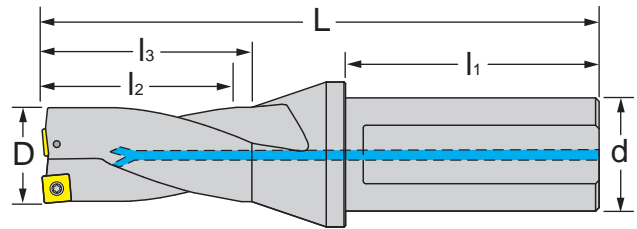
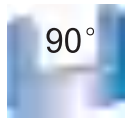


# TSD 四角刀片快速鑽頭 (5 倍長)

## TSD SQUARE INSERT HIGH SPEED DRILL



Dx5



### 特點 Feature

- 刀片使用四個刃口，可有效降低成本
- 刀片採四角型和內刃皆使用相同刀片，庫存容易管理，成本降低
- 同一刀片的使用可預防安裝錯誤和有效降低刀具損壞

- Smart solution for reducing production cost! 4 edges are usable on 1 insert.
- Both inner teeth and outer teeth use the same insert, which is easy for stock management, fool-proof for mis-assembly of insert.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C25-TSD16-80L	162	56	80	85	16	25	SP.0602	0.38
C25-TSD17-85L	167	56	85	90	17	25	SP.0602	0.40
C25-TSD18-90L	172	56	90	95	18	25	SP.0602	0.42
C25-TSD19-95L	177	56	95	100	19	25	SP.0602	0.44
C25-TSD20-100L	182	56	100	105	20	25	SP.0602	0.46
C25-TSD21-105L	187	56	105	110	21	25	SP.0602	0.49
C25-TSD22-110L	192	56	110	115	22	25	SP.07T3	0.50
C32-TSD23-115L	203	60	115	120	23	32	SP.07T3	0.75
C32-TSD24-120L	208	60	120	125	24	32	SP.07T3	0.77
C32-TSD25-125L	213	60	125	130	25	32	SP.07T3	0.80
C32-TSD26-130L	218	60	130	135	26	32	SP.07T3	0.83
C32-TSD27-135L	223	60	135	140	27	32	SP.07T3	0.87
C32-TSD28-140L	230	60	140	145	28	32	SP.0904	0.93
C32-TSD29-145L	235	60	145	150	29	32	SP.0904	0.97
C32-TSD30-150L	240	60	150	155	30	32	SP.0904	1.01
C32-TSD31-155L	245	60	155	160	31	32	SP.0904	1.06
C32-TSD32-160L	250	60	160	165	32	32	SP.0904	1.11
C32-TSD33-165L	255	60	165	170	33	32	SP.0904	1.17
C32-TSD34-170L	260	60	170	175	34	32	SP.1104	1.20
C32-TSD35-175L	265	60	175	180	35	32	SP.1104	1.26
C32-TSD36-180L	270	60	180	185	36	32	SP.1104	1.31
C32-TSD37-185L	275	60	185	190	37	32	SP.1104	1.36
C32-TSD38-190L	280	60	190	195	38	32	SP.1104	1.45
C32-TSD39-195L	285	60	195	200	39	32	SP.1104	1.51
C40-TSD40-200L	304	70	200	205	40	40	SP.1104	2.20
C40-TSD41-205L	309	70	205	210	41	40	SP.1104	2.40

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SP.0602	M2.2-5.2-3.1-60-T7-TIN	T7	0.9
SP.07T3	M2.5-6.33-3.5-48-T8-TIN	T8	1.2
SP.0904	M3.5-8.4-5.0-60-T10-TIN	T10	2.0
SP.1104	M4-9.35-5.65-60-T15-TIN	T15	3.0
SP.1405	M5-12.8-7.0-60-T20-TIN	T20	5.0

MILLING



# TSD 四角刀片快速鑽頭套裝 (3 倍長) TSD SQUARE INSERT HIGH SPEED DRILL SET



Dx3



Fig.1



Fig.2

規格 Spec.	內容物 Contents						重量 (KGS) Weight
	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty	Fig.	
C20-TSD13-39L-SET	SPGT050204-M02 RM4030(10 片)	M2-4.3-2.7-60-T6-TIN	T6K	0.6	1	1	0.70
C20-TSD14-42L-SET							0.75
C20-TSD15-45L-SET							0.80
C25-TSD16-48L-SET	SPGT060204-M02 RM4030(10 片)	M2.2-5.2-3.1-60-T7-TIN	T7K	0.9			0.85
C25-TSD17-51L-SET							0.85
C25-TSD18-54L-SET							0.89
C25-TSD19-57L-SET							0.94
C25-TSD20-60L-SET							0.94
C25-TSD21-63L-SET	-						
C25-TSD22-66L-SET	SPGT07T308-M02 RM4030(10 片)	M2.5-6.33-3.5-48-T8-TIN	T8K	1.2			2
C32-TSD23-69L-SET					-		
C32-TSD24-72L-SET					-		
C32-TSD25-75L-SET					-		
C32-TSD26-78L-SET					-		
C32-TSD27-81L-SET					-		
C32-TSD28-84L-SET	SPGT090408-M02 RM4030(10 片)	M3.5-8.4-5.0-60-T10-TIN	T10K	2.0	-		
C32-TSD29-87L-SET					-		
C32-TSD30-90L-SET					-		
C32-TSD31-93L-SET					-		
C32-TSD32-96L-SET					-		
C32-TSD33-99L-SET					-		

MILLING



# TSD 四角刀片快速鑽頭

## TSD SQUARE INSERT HIGH SPEED DRILL



ISO 分類	P	合金鋼 Alloyed Steels	○	○											切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting			
	M	不鏽鋼 Stainless Steels		○														
	K	鑄鐵 Cast Iron		○														
N	鋁及鋁合金 Aluminum&Al						■											
S	高溫合金 Refractory Alloys																	
H	高硬度材 Hard Material																	
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro			超硬微粒 Ultra-hard microprogram				尺寸 (mm)				圖形 Drawing					
		CHF			HF				Size									
		RM4025	RM3130	RM4030					RM5060						d	i	s	r
	SPGT050204-M02			●					●					5	-	2.38	0.4	
	SPGT060204-M02			●					●					6	-	2.38	0.4	
	SPGT07T308-M02			●					●					7.94	-	3.97	0.8	
	SPGT090408-M02			●					●					9.8	-	4.3	0.8	
	SPGT110408-M02			●					●					11.5	-	4.76	0.8	
	SPGT140512-M02			●					●					14.3	-	5.2	1.2	
	SPMT050204-M01	●	●											5	-	2.38	0.4	
	SPMT060204-M01	●	●											6	-	2.38	0.4	
	SPMT07T308-M01	●	●											7.94	-	3.97	0.8	
	SPMT090408-M01	●	●											9.8	-	4.3	0.8	
	SPMT110408-M01	●	●											11.5	-	4.76	0.8	
	SPMT140512-M01	●	●											14.3	-	5.2	1.2	

### SP\_05.06.07.09.11.14 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	進給率 (mm/rev)				
			ø13-ø15	ø16-ø22	ø23-ø33	ø34-ø41	ø42-ø50
P 低合金鋼 Low-Alloy Steels	RM4025	180~260	0.06~0.12	0.06~0.10	0.06~0.12	0.12~0.24	0.12~0.25
	RM4030	180~260	0.06~0.12	0.06~0.10	0.06~0.12	0.12~0.24	0.12~0.25
P 合金鋼 Alloyed Steels	RM4025	140~200	0.05~0.08	0.08~0.15	0.10~0.18	0.08~0.15	0.10~0.18
	RM4030	140~200	0.05~0.08	0.08~0.15	0.10~0.18	0.08~0.15	0.10~0.18
M 不鏽鋼 Stainless Steels	RM4030	120~180	0.05~0.10	0.06~0.12	0.08~0.15	0.10~0.17	0.12~0.20
K 鑄鐵 Cast Iron	RM3130	120~180	0.05~0.10	0.06~0.12	0.08~0.15	0.10~0.17	0.12~0.20
N 鋁合金 Aluminum&Al	RM5060	338~380	0.06~0.14	0.08~0.18	0.12~0.22	0.14~0.25	0.14~0.28

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

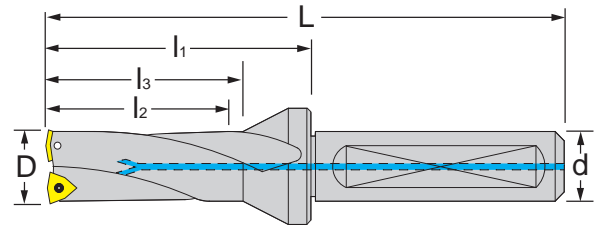
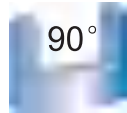
床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



# SD 捨棄式快速鑽頭 (2 倍長) SD SUPPLEMENTAL HIGH SPEED DRILL



Dx2



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C25-SD16-32L	119	63	32	35	16	25	WC..0302	0.38
C25-SD17-34L	120	64	34	37	17	25	WC..0302	0.38
C25-SD18-36L	122	66	36	39	18	25	WC..0302	0.39
C25-SD19-38L	124	68	38	41	19	25	WC..0302	0.40
C25-SD20-40L	126	70	40	43	20	25	WC..0302	0.41
C25-SD21-42L	128	72	42	45	21	25	WC..0402	0.43
C32-SD22-44L	136	76	44	47	22	32	WC..0402	0.62
C32-SD23-46L	138	78	46	49	23	32	WC..0402	0.64
C32-SD24-48L	141	81	48	51	24	32	WC..0402	0.66
C32-SD25-50L	142	82	50	53	25	32	WC..0402	0.66
C32-SD26-52L	144	84	52	55	26	32	WC..0503	0.68
C32-SD27-54L	146	86	54	57	27	32	WC..0503	0.69
C32-SD28-56L	148	88	56	59	28	32	WC..0503	0.72
C32-SD29-58L	150	90	58	61	29	32	WC..0503	0.73
C32-SD30-60L	152	92	60	63	30	32	WC..0503	0.75
C32-SD31-62L	154	94	62	65	31	32	WC..06T3	0.76
C32-SD32-64L	156	96	64	67	32	32	WC..06T3	0.78
C32-SD33-66L	159	99	66	70	33	32	WC..06T3	0.82
C32-SD34-68L	160	100	68	71	34	32	WC..06T3	0.83
C32-SD35-70L	162	102	70	73	35	32	WC..06T3	0.84
C32-SD36-72L	164	104	72	75	36	32	WC..06T3	0.88
C32-SD37-74L	166	106	74	77	37	32	WC..06T3	0.92
C32-SD38-76L	168	108	76	79	38	32	WC..06T3	0.94
C32-SD39-78L	170	110	78	81	39	32	WC..06T3	0.97
C40-SD40-80L	185	115	80	83	40	40	WC..06T3	1.47
C40-SD41-82L	187	117	82	85	41	40	WC..06T3	1.49
C40-SD42-84L	189	119	84	87	42	40	WC..0804	1.55
C40-SD43-86L	191	121	86	89	43	40	WC..0804	1.56
C40-SD44-88L	194	124	88	91	44	40	WC..0804	1.63
C40-SD45-90L	195	125	90	93	45	40	WC..0804	1.65
C40-SD46-92L	197	127	92	95	46	40	WC..0804	1.79
C40-SD47-94L	199	129	94	97	47	40	WC..0804	1.84
C40-SD48-96L	201	131	96	99	48	40	WC..0804	1.76
C40-SD49-98L	202	132	98	101	49	40	WC..0804	1.87
C40-SD50-100L	204	134	100	103	50	40	WC..0804	1.93
C40-SD51-102L	206	136	102	105	51	40	WC..0804	1.19
C40-SD52-104L	208	138	104	107	52	40	WC..0804	0.20
C40-SD53-106L	210	140	106	109	53	40	WC..0804	0.20
C40-SD54-108L	212	142	108	111	54	40	WC..0804	2.08
C40-SD55-110L	215	145	110	113	55	40	WC..0804	2.20
C40-SD56-112L	217	147	112	115	56	40	WC..0804	2.30
C40-SD57-114L	219	149	114	117	57	40	WC..0804	2.40
C40-SD58-116L	221	151	116	119	58	40	WC..0804	2.45
C40-SD59-118L	223	153	118	121	59	40	WC..0804	2.70

MILLING

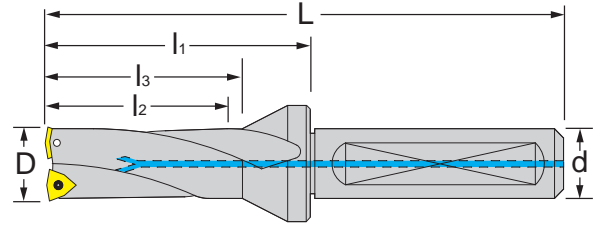
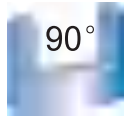


# SD 捨棄式快速鑽頭 (3 倍點數)

## SD SUPPLEMENTAL HIGH SPEED DRILL



Dx3 0.5 Type



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C25-SD16.5-48L	134	78	48	51	16.5	25	WC..0302	0.39
C25-SD17.5-51L	133	77	51	54	17.5	25	WC..0302	0.41
C25-SD18.5-54L	140	84	54	57	18.5	25	WC..0302	0.42
C25-SD19.5-57L	143	87	57	60	19.5	25	WC..0302	0.43
C25-SD20.5-60L	145	89	60	63	20.5	25	WC..0302	0.45
C25-SD21.5-63L	148	92	63	66	21.5	25	WC..0402	0.46
C32-SD22.5-66L	155	95	66	69	22.5	32	WC..0402	0.66
C32-SD23.5-69L	160	100	69	72	23.5	32	WC..0402	0.66
C32-SD24.5-72L	164	104	72	75	24.5	32	WC..0402	0.70
C32-SD25.5-75L	167	107	75	78	25.5	32	WC..0402	0.73

### 配件表 Accessories

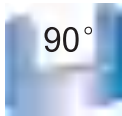
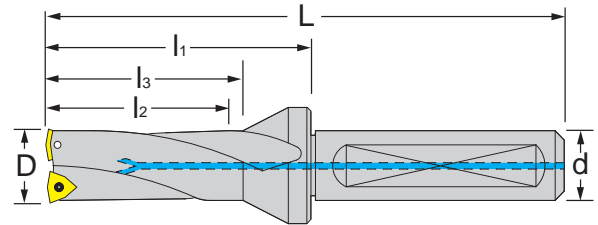
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
WC..0302	M2.5-5.5-3.35-60	T8	1.2
WC..0402	M2.5-6.0-3.5-60	T8	1.2
WC..0503	M3-8.0-4.4-60	T9	1.4
WC..06T3	M3.5-8.0-5.0-60	T15	3.0
WC..0804	M4-10-5.7-60	T15	3.0



# SD 捨棄式快速鑽頭 (3 倍長) SD SUPPLEMENTAL HIGH SPEED DRILL



Dx3



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C25-SD16-48L	134	78	48	51	16	25	WC..0302	0.39
C25-SD17-51L	137	81	51	54	17	25	WC..0302	0.40
C25-SD18-54L	140	84	54	57	18	25	WC..0302	0.41
C25-SD19-57L	143	87	57	60	19	25	WC..0302	0.43
C25-SD20-60L	146	90	60	63	20	25	WC..0302	0.44
C25-SD21-63L	149	93	63	66	21	25	WC..0402	0.45
C32-SD22-66L	158	98	66	69	22	32	WC..0402	0.66
C32-SD23-69L	161	101	69	72	23	32	WC..0402	0.69
C32-SD24-72L	164	104	72	75	24	32	WC..0402	0.69
C32-SD25-75L	167	107	75	78	25	32	WC..0402	0.72
C32-SD26-78L	170	110	78	81	26	32	WC..0503	0.73
C32-SD27-81L	173	113	81	84	27	32	WC..0503	0.76
C32-SD28-84L	176	116	84	87	28	32	WC..0503	0.79
C32-SD29-87L	179	119	87	90	29	32	WC..0503	0.81
C32-SD30-90L	182	122	90	93	30	32	WC..0503	0.82
C32-SD31-93L	185	125	93	96	31	32	WC..06T3	0.86
C32-SD32-96L	188	128	96	99	32	32	WC..06T3	0.88
C32-SD33-99L	191	131	99	102	33	32	WC..06T3	0.92
C32-SD34-102L	194	134	102	105	34	32	WC..06T3	0.95
C32-SD35-105L	197	137	105	108	35	32	WC..06T3	1.00
C32-SD36-108L	200	140	108	111	36	32	WC..06T3	1.04
C32-SD37-111L	203	143	111	114	37	32	WC..06T3	1.11
C32-SD38-114L	206	146	114	117	38	32	WC..06T3	1.12
C32-SD39-117L	209	149	117	120	39	32	WC..06T3	1.18

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
WC..0302	M2.5-5.5-3.35-60	T8	1.2
WC..0402	M2.5-6.0-3.5-60	T8	1.2
WC..0503	M3-8.0-4.4-60	T9	1.4
WC..06T3	M3.5-8.0-5.0-60	T15	3.0
WC..0804	M4-10-5.7-60	T15	3.0

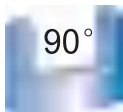
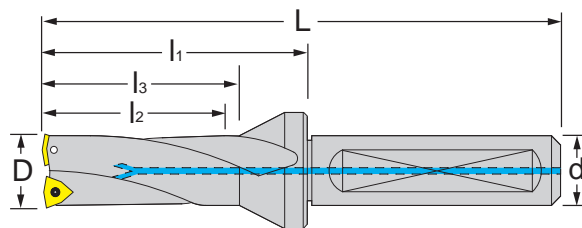
MILLING



# SD 捨棄式快速鑽頭 (3 倍長) SD SUPPLEMENTAL HIGH SPEED DRILL



Dx3



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C40-SD40-120L	225	155	120	123	40	40	WC..06T3	1.64
C40-SD41-123L	228	158	123	126	41	40	WC..06T3	1.73
C40-SD42-126L	231	161	126	129	42	40	WC..0804	1.78
C40-SD43-129L	234	164	129	132	43	40	WC..0804	1.82
C40-SD44-132L	238	168	132	135	44	40	WC..0804	1.84
C40-SD45-135L	240	170	135	138	45	40	WC..0804	1.96
C40-SD46-138L	243	173	138	141	46	40	WC..0804	1.97
C40-SD47-141L	246	176	141	144	47	40	WC..0804	2.38
C40-SD48-144L	249	179	144	147	48	40	WC..0804	2.11
C40-SD49-147L	252	182	147	150	49	40	WC..0804	2.25
C40-SD50-150L	254	184	150	153	50	40	WC..0804	2.28
C40-SD51-153L	257	187	153	156	51	40	WC..0804	2.40
C40-SD52-156L	260	190	156	159	52	40	WC..0804	2.42
C40-SD53-159L	263	193	159	162	53	40	WC..0804	2.49
C40-SD54-162L	266	196	162	165	54	40	WC..0804	2.63
C40-SD55-165L	270	200	165	168	55	40	WC..0804	2.85
C40-SD56-168L	273	203	168	171	56	40	WC..0804	2.92
C40-SD57-171L	275	205	171	174	57	40	WC..0804	3.01
C40-SD58-174L	279	209	174	177	58	40	WC..0804	3.19
C40-SD59-177L	282	212	177	180	59	40	WC..0804	3.21
C40-SD60-180L	285	215	180	183	60	40	WC..0804	3.41

## 配件表 Accessories

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





# SD 捨棄式快速鑽頭套裝組 (3 倍長) SD SUPPLEMENTAL HIGH SPEED DRILL SET



Dx3



規格 Spec.	內容物 Contents						重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	數量 Qty	
C25-SD16-48L-SET	C25-SD16-48L	WCKT030208 PTE30(10 片)	M2.5-5.5-3.35-60	T8K	1.2	1	0.93
C25-SD17-51L-SET	C25-SD17-51L						0.94
C25-SD18-54L-SET	C25-SD18-54L						0.95
C25-SD19-57L-SET	C25-SD19-57L						0.96
C25-SD20-60L-SET	C25-SD20-60L						0.97
C25-SD21-63L-SET	C25-SD21-63L	WCKT040208 PTE30(10 片)	M2.5-6.0-3.5-60	T9K	1.4	1	0.98
C32-SD22-66L-SET	C32-SD22-66L						1.21
C32-SD23-69L-SET	C32-SD23-69L						1.23
C32-SD24-72L-SET	C32-SD24-72L						1.24
C32-SD25-75L-SET	C32-SD25-75L						1.25
C32-SD26-78L-SET	C32-SD26-78L	WCKT050308 PTE30(10 片)	M3-8.0-4.4-60	T15K	3.0	1	1.27
C32-SD27-81L-SET	C32-SD27-81L						1.30
C32-SD28-84L-SET	C32-SD28-84L						1.33
C32-SD29-87L-SET	C32-SD29-87L						1.35
C32-SD30-90L-SET	C32-SD30-90L						1.37
C32-SD31-93L-SET	C32-SD31-93L	WCKT06T308 PTE30(10 片)	M3.5-8.0-5.0-60	T15K	3.0	1	1.40
C32-SD32-96L-SET	C32-SD32-96L						1.42
C32-SD33-99L-SET	C32-SD33-99L						1.46
C32-SD34-102L-SET	C32-SD34-102L						1.48
C32-SD35-105L-SET	C32-SD35-105L						1.53
C32-SD36-108L-SET	C32-SD36-108L						1.57
C32-SD37-111L-SET	C32-SD37-111L						1.65
C32-SD38-114L-SET	C32-SD38-114L						1.68
C32-SD39-117L-SET	C32-SD39-117L						1.70

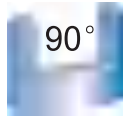
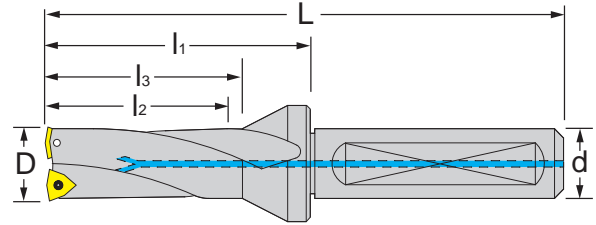
MILLING



# SD 捨棄式快速鑽頭 (4 倍長) SD SUPPLEMENTAL HIGH SPEED DRILL



Dx4



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	刀片 Insert	重量 (KGS) Weight
C25-SD16-64L	150	94	64	67	16	25	WC..0302	0.39
C25-SD17-68L	154	98	68	71	17	25	WC..0302	0.42
C25-SD18-72L	158	102	72	75	18	25	WC..0302	0.44
C25-SD19-76L	162	106	76	79	19	25	WC..0302	0.44
C25-SD20-80L	166	110	80	83	20	25	WC..0302	0.47
C25-SD21-84L	170	114	84	87	21	25	WC..0402	0.48
C32-SD22-88L	180	120	88	91	22	32	WC..0402	0.69
C32-SD23-92L	184	124	92	95	23	32	WC..0402	0.71
C32-SD24-96L	188	128	96	99	24	32	WC..0402	0.74
C32-SD25-100L	192	132	100	103	25	32	WC..0402	0.78
C32-SD26-104L	196	136	104	107	26	32	WC..0503	0.80
C32-SD27-108L	200	140	108	111	27	32	WC..0503	0.82
C32-SD28-112L	204	144	112	115	28	32	WC..0503	0.84
C32-SD29-116L	208	148	116	119	29	32	WC..0503	0.89
C32-SD30-120L	212	152	120	123	30	32	WC..0503	0.94
C32-SD31-124L	216	156	124	127	31	32	WC..06T3	0.95
C32-SD32-128L	220	160	128	131	32	32	WC..06T3	1.04
C32-SD33-132L	224	164	132	135	33	32	WC..06T3	1.07
C32-SD34-136L	228	168	136	139	34	32	WC..06T3	1.08
C32-SD35-140L	232	172	140	143	35	32	WC..06T3	1.18
C32-SD39-156L	248	188	156	159	39	32	WC..06T3	1.36
C40-SD41-164L	269	199	164	167	41	40	WC..06T3	1.89
C40-SD44-176L	282	212	176	179	44	40	WC..0804	2.18
C40-SD47-188L	293	223	188	191	47	40	WC..0804	2.28
C40-SD49-196L	301	231	196	199	49	40	WC..0804	2.63
C40-SD54-216L	320	250	216	219	54	40	WC..0804	3.22
C40-SD59-236L	341	271	236	239	59	40	WC..0804	3.75

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
WC..0302	M2.5-5.5-3.35-60	T8	1.2
WC..0402	M2.5-6.0-3.5-60	T8	1.2
WC..0503	M3-8.0-4.4-60	T9	1.4
WC..06T3	M3.5-8.0-5.0-60	T15	3.0
WC..0804	M4-10-5.7-60	T15	3.0

MILLING

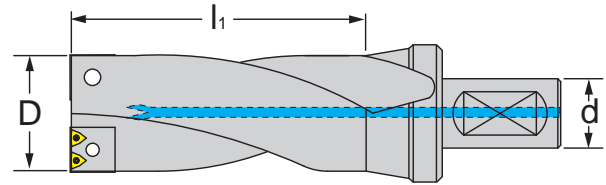
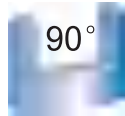


# CSD 大孔徑快速鑽頭

## CSD LARGE DIAMETER HIGH SPEED DRILL



加工直徑 Cutting Dia.: Ø61~Ø80



### 配件表 Accessories

- 可利用更換刀片座方式就可讓刀具直徑加大
- 有效降低購刀成本
- 鋼性的設計大幅提高了加工效率

- Replaceable insert holder for large diameter.
- Cost saving.
- Enhanced rigidity improves cutting efficiency.

規格 Spec.	l <sub>1</sub>	D	d	內刃 Inside Edge	外刃 Outside Edge	鑽孔範圍 Range	鎖固螺絲 Screw	刀片 Insert	重量 (KGS) Weight
C40-CSD6161-195L	195	61	40	ICSD6165	OCSD61	Ø 61 ~ Ø 65mm	BH-M8-20	WC..06T3	6.05
C40-CSD6162-195L	195	62	40	ICSD6165	OCSD62	Ø 61 ~ Ø 65mm	BH-M8-20	WC..06T3	6.09
C40-CSD6163-195L	195	63	40	ICSD6165	OCSD63	Ø 61 ~ Ø 65mm	BH-M8-20	WC..06T3	6.11
C40-CSD6164-195L	195	64	40	ICSD6165	OCSD64	Ø 61 ~ Ø 65mm	BH-M8-20	WC..06T3	6.13
C40-CSD6165-195L	195	65	40	ICSD6165	OCSD65	Ø 61 ~ Ø 65mm	BH-M8-20	WC..06T3	5.90
C40-CSD6666-210L	210	66	40	ICSD6670	OCSD66	Ø 66 ~ Ø 70mm	BH-M8-20	WC..06T3	7.42
C40-CSD6667-210L	210	67	40	ICSD6670	OCSD67	Ø 66 ~ Ø 70mm	BH-M8-20	WC..06T3	7.42
C40-CSD6668-210L	210	68	40	ICSD6670	OCSD68	Ø 66 ~ Ø 70mm	BH-M8-20	WC..06T3	7.44
C40-CSD6669-210L	210	69	40	ICSD6670	OCSD69	Ø 66 ~ Ø 70mm	BH-M8-20	WC..06T3	-
C40-CSD6670-210L	210	70	40	ICSD6670	OCSD70	Ø 66 ~ Ø 70mm	BH-M8-20	WC..06T3	7.50
C40-CSD7171-225L	225	71	40	ICSD7175	OCSD71	Ø 71 ~ Ø 75mm	BH-M8-20	WC..06T3	7.62
C40-CSD7172-225L	225	72	40	ICSD7175	OCSD72	Ø 71 ~ Ø 75mm	BH-M8-20	WC..06T3	7.62
C40-CSD7173-225L	225	73	40	ICSD7175	OCSD73	Ø 71 ~ Ø 75mm	BH-M8-20	WC..06T3	7.63
C40-CSD7174-225L	225	74	40	ICSD7175	OCSD74	Ø 71 ~ Ø 75mm	BH-M8-20	WC..06T3	7.64
C40-CSD7175-225L	225	75	40	ICSD7175	OCSD75	Ø 71 ~ Ø 75mm	BH-M8-20	WC..06T3	7.65
C40-CSD7676-240L	240	76	40	ICSD7680	OCSD76	Ø 76 ~ Ø 80mm	BH-M8-22	WC..06T3	6.49
C40-CSD7677-240L	240	77	40	ICSD7680	OCSD77	Ø 76 ~ Ø 80mm	BH-M8-22	WC..06T3	8.80
C40-CSD7678-240L	240	75	40	ICSD7680	OCSD78	Ø 76 ~ Ø 80mm	BH-M8-22	WC..06T3	8.82
C40-CSD7679-240L	240	79	40	ICSD7680	OCSD79	Ø 76 ~ Ø 80mm	BH-M8-22	WC..06T3	8.84
C40-CSD7680-240L	240	80	40	ICSD7680	OCSD80	Ø 76 ~ Ø 80mm	BH-M8-22	WC..06T3	8.84

### 配件表 Accessories

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

MILLING





# CSD 大孔徑快速鑽頭套裝 (含刀片)

## CSD LARGE DIAMETER HIGH SPEED DRILL

PAT.NO: M321819  
ZL 200720146338.3



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



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



刀座鎖固螺絲  
Insert holder screw

規格 Spec.	內刃 Inside Edge	外刃 Outside Edge	內容物 Contents						重量 (KGS) Weight
			刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 Torque (N.m)	扳手 Wrench	數量 Qty	
C40-CSD6161-195L-SET	ICSD6165	OCSD61	WCMT06T308-M01 PTE30 (10片)	M3.5-8.0-5.0-43	T15K	3.0	PT5	1	6.11
C40-CSD6162-195L-SET	ICSD6165	OCSD62							6.13
C40-CSD6163-195L-SET	ICSD6165	OCSD63							6.15
C40-CSD6164-195L-SET	ICSD6165	OCSD64							6.17
C40-CSD6165-195L-SET	ICSD6165	OCSD65							5.90
C40-CSD6666-210L-SET	ICSD6670	OCSD66							7.44
C40-CSD6667-210L-SET	ICSD6670	OCSD67							7.46
C40-CSD6668-210L-SET	ICSD6670	OCSD68							7.48
C40-CSD6669-210L-SET	ICSD6670	OCSD69							7.50
C40-CSD6670-210L-SET	ICSD6670	OCSD70							7.54
C40-CSD7171-225L-SET	ICSD7175	OCSD71							7.64
C40-CSD7172-225L-SET	ICSD7175	OCSD72							7.66
C40-CSD7173-225L-SET	ICSD7175	OCSD73							7.67
C40-CSD7174-225L-SET	ICSD7175	OCSD74							7.68
C40-CSD7175-225L-SET	ICSD7175	OCSD75							7.69
C40-CSD7676-240L-SET	ICSD7680	OCSD76							8.80
C40-CSD7677-240L-SET	ICSD7680	OCSD77							8.86
C40-CSD7678-240L-SET	ICSD7680	OCSD78							8.88
C40-CSD7679-240L-SET	ICSD7680	OCSD79							8.86
C40-CSD7680-240L-SET	ICSD7680	OCSD80							8.88



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



ISO 分類	P	合金鋼 Alloyed Steels	●	○										切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting		
	M	不鏽鋼 Stainless Steels	●	○												
	K	鑄鐵 Cast Iron	●													
	N	鋁及鋁合金 Aluminum&Al														
S	高溫合金 Refractory Alloys															
H	高硬度材 Hard Material															
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro			硬質合金 Hard alloy		超硬微粒 Ultra-hard microprogram		尺寸 (mm) Size				圖形 Drawing			
		CHF			HW		HF		Size							
		PTE30	RM4010		SP4034		GH05		d	i	s	r				
	WCKT030208							●				5.56	3.8	2.38	0.8	
	WCKT040208							●				6.35	4.3	2.38	0.8	
	WCKT050308							●				7.94	5.4	3.18	0.8	
	WCKT06T308							●				9.525	6.5	3.97	0.8	
	WCKT080408							●				12.7	8.7	4.76	0.8	
	WCMX030208-M01	●										5.56	3.8	2.38	0.8	
	WCMX080412-M01	●										12.7	8.7	4.76	1.2	
	WCMT040208-M01	●										6.35	4.3	2.38	0.8	
	WCMT050308-M01	●										7.94	5.4	3.18	0.8	
	WCMT06T308-M01	●										9.525	6.5	3.97	0.8	
	WCMX030208R-PG		●									5.56	3.8	2.38	0.8	
	WCMX040208R-PG		●									6.35	4.3	2.38	0.8	
	WCMX050308R-PG		●									7.94	5.4	3.18	0.8	
	WCMX06T308R-PG		●									9.525	6.5	3.97	0.8	
	WCMX080412R-PG		●									12.7	8.7	4.76	1.2	
	WCMX040204E-60							●				6.35	4.3	2.38	0.8	
	WCMX050308E-60							●				7.94	5.4	3.18	0.8	
	WCMX06T308E-60							●				9.52	6.5	3.97	0.8	

## WC\_03.04.05.06.08 切削條件數據表 Cutting Conditions

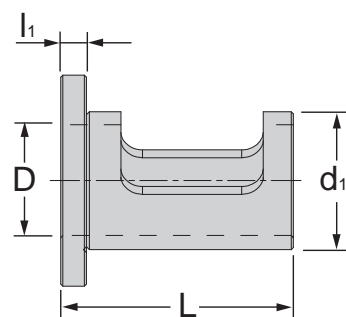
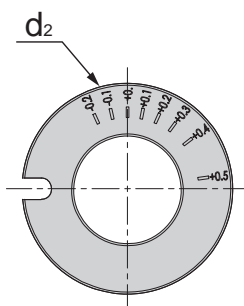
被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	進給率 (mm/rev)			
			ø20 以下	ø20~ø25 以下	ø25~ø45 以下	ø45 以下
P 低合金鋼 Low-Alloy Steels	RM4010	140~260	0.05~0.12	0.05~0.12	0.07~0.20	0.10~0.20
	PTE30	100~200	0.05~0.12	0.06~0.15	0.08~0.17	0.10~0.20
	SP4034	140~270	-	0.06~0.12	0.07~0.20	-
P 合金鋼 Alloy Steels	RM4010	120~200	0.05~0.12	0.05~0.08	0.06~0.20	0.10~0.20
	PTE30	80~160	0.05~0.12	0.06~0.15	0.08~0.17	0.10~0.20
	SP4034	120~220	-	0.05~0.08	0.06~0.20	-
M 不鏽鋼 Stainless Steels	RM4010	140~250	0.05~0.12	0.05~0.10	0.07~0.20	0.10~0.20
	PTE30	70~140	0.05~0.12	0.06~0.12	0.08~0.15	0.10~0.20
	SP4034	140~250	-	0.05~0.10	0.07~0.20	-
K 鑄鐵 Cast Iron	PTE30	70~180	0.06~0.10	0.08~0.15	0.08~0.20	0.10~0.30
	SP4034	150~300	-	0.10~0.17	0.15~0.25	-
N 鋁合金 Aluminum&Al	GH05	150~250	0.05~0.10	0.10~0.20	0.12~0.23	0.20~0.30

MILLING



# EC 偏心套筒

## EC CENTRIC COLLET



### 特點 Feature

- 通過調整直徑範圍來調整加工徑

- Set up the cutting diameter according to a range of adjustable diameter.

規格 Spec.	L	l <sub>1</sub>	D	d <sub>1</sub>	d <sub>2</sub>	銑床加工徑調整可能範圍 Milling Machine Adjustment	車床中心高調整範圍 Lathe Machine Adjustment	重量 (KGS) Weight
EC-2532-48	54	6	25	32	49	-0.2~+0.5	-0.15~+0.2	0.14
EC-3240-53	59	6	32	40	58	-0.2~+0.5	-0.15~+0.2	0.20

### 銑床鑽孔徑尺寸調整

Adjust the drill hole diameter for milling process

- 請自行註記一個基準點當作基準，對準偏心套筒外緣刻度做調整。(請參照圖1)  
Please mark an index as a datum by yourself and make an adjustment per the scale on the eccentric collet.(see diagram 1)
- 要擴大加工孔徑時，偏心套筒向(+)方向旋轉，要縮小加工孔徑時，偏心套筒向(-)方向旋轉。  
Rotate in direction of (+) to enlarge the diameter of cutting hole. Rotate in direction of (-) to smaller the diameter of cutting hole.
- 旋轉偏心套筒時，請使用Ø3~Ø5 mm 調整圓棒插入偏心套筒外緣上的切槽溝，即可旋轉調整偏心套筒。  
Please use adjustable round bar of Ø3~Ø5mm which inserted into the slot for rotating the eccentric collet.
- 使用側固刀桿的「A側固螺絲」，以偏心套筒的切槽開口處，對準螺絲鎖固。「B側固螺絲」則輕輕鎖緊及可。(請參照圖2)  
Set screw for side A of chuck: fasten screw at the slot opening area of eccentric collet. Set screw for side B of chuck: slightly screw is enough (see diagram 2)

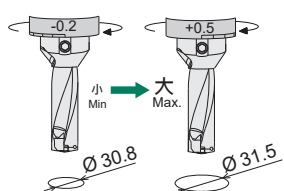
### 注意事項 Notice:

- 不可以使用筒夾固定軸把  
Do not use the fixed shaft of collet.
- 套筒上的刻度為標準值  
Take the scale on sleeve as a standard index.
- 調整後檢查實際加工徑  
Check the actual cutting diameter after adjustment.
- 根據中心高的調整，孔徑會改變  
Hole diameter varies per adjustment of center height.
- 建議調整中心高後，再檢查孔徑  
Double check the hole diameter per recommended adjustment of center height.

### 銑床加工徑調整

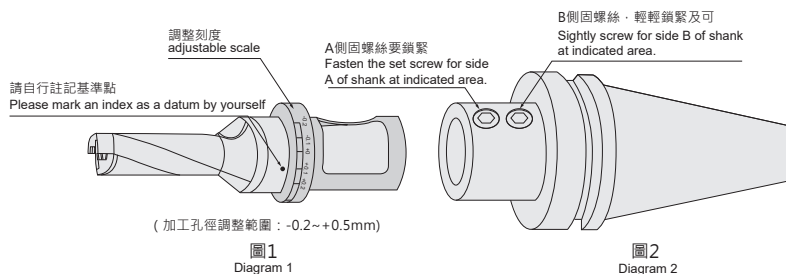
Adjust machining diameter for milling process

例：Ø31mm 鑽頭 Drill head



加工徑調整範圍(mm)  
Adjustable range for cutting diameter

調整範圍
-0.2~+0.5



### 車床中心高調整

Adjust lathe center height

車床的問題，大多是由中心高偏移引起的。  
若孔端面中心殘留有直徑約0.5mm的芯核，則中心高是合適的，以下情況中，有必要調整中心高：1. 沒有殘留芯核 2. 芯核直徑大於1mm。

The lathe issue is most caused by the center height is out of position.  
The center height is acceptable if there remains core of dia. 0.5mm on the end side of hole.  
Should adjust the center height if there are following condition  
1. No core remained 2. Diameter of core is more than 1mm

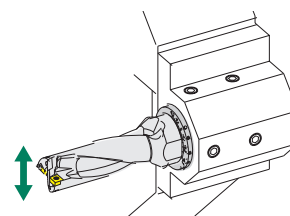
### 調整方法

Adjustment methods.

- 使偏心套筒外緣端面刻度(車床用)對準鑽頭外緣上的切液液孔插銷中央
  - 如沒有芯核，向(+)方向旋轉偏心套筒；當芯核直徑大於1mm時，向(-)方向旋轉偏心套筒
  - 旋轉偏心套筒時，請使用Ø3~Ø5 mm 調整圓棒插入偏心套筒外緣上的切槽溝，即可旋轉調整偏心套筒。
  - 用車床上的刀把固定螺絲時，以偏心套筒的切槽開口處，直接固定鑽頭
- (1) Let the scale of eccentric collet(for lathe use) be on the center of pin hole for coolant (drill head outside).  
(2) Rotate in direction of "+" if no core existed.  
Rotate in direction of "-" if the core diameter is more than 1mm.  
(3) Please use adjustable round bar of ψ3~ψ5mm which inserted into the slot for rotating the eccentric collet.  
(4) When using the shank to fix the set screw, directly lock the drill head on the slot opening of eccentric collet.

### 中心高調整-車床加工用

Center height adjustment for lathe machining use



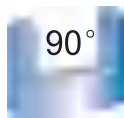
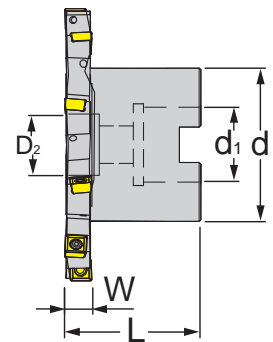
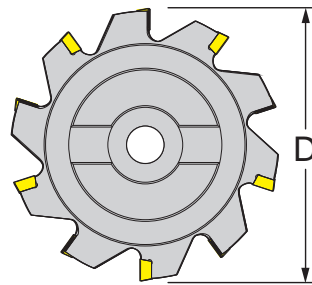
中心高調整範圍(mm)  
Adjustable range for center height

調整範圍
-0.15~+0.2



# FDC 捨棄式側銑刀

## FDC SUPPLEMENTAL SIDE DISC CUTTER



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後·再行精修·避免二次處理所產生應變
- 刀片使用四個刃口·可有效降低成本

- Made of vibration resistance tool steel.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.
- 4 edges usable, cost saving.

規格 Spec.	L	D	D <sub>2</sub>	d	d <sub>1</sub>	W	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
FDC-80×08B22	40	80	18	45	22	8	8	SP.0602	0.73
FDC-100×08B27	40	100	19	50	27	8	10	SP.0602	0.96
FDC-100×10B27	40	100	19	50	27	10	10	SP.0602	1.03
FDC-100×14B27	40	100	19	50	27	14	10	SP.0903	-
FDC-125×10B32	45	125	43	70	32	10	12	SP.0602	1.70
FDC-125×12B32	45	125	43	70	32	12	12	SP.0903	1.70
FDC-160×12B40	50	160	50	80	40	12	14	SP.0903	2.70
FDC-200×12B40	50	200	50	90	40	12	16	SP.0903	4.00
FDC-125×16B32	45	125	43	70	32	16	10	SP.1204	1.80
FDC-160×16B40	50	160	50	80	40	16	12	SP.1204	2.90
FDC-160×18B40	50	160	50	80	40	18	12	SP.1204	2.90
FDC-200×16B40	50	200	50	90	40	16	14	SP.1204	4.50
FDC-200×18B40	50	200	50	90	40	18	14	SP.1204	4.90
FDC-200×20B40	50	200	50	90	40	20	14	SP.1204	5.19

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SP.0602	M2.2-5.2-3.1-60-T7-TIN	T7	0.9
SP.0903	M4-10-5.7-60	T15	3.0
SP.1204	M5-11-6.4-43	T20	5.0

MILLING





# FDC 捨棄式側銑刀

## FDC SUPPLEMENTAL SIDE DISC CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○	○	○													切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○														
	K	鑄鐵 Cast Iron	○	○		○												
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro				超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing				
		CHF				HF				Size								
		OM4010	OM4025	RM4025	RM3130	OM5005					d	i	s		r			
	SPET120408-M02	●	●			●					12.7	-	4.76	0.8				
	SPMT060204-M01			●	●						6	-	2.38	0.4				
	SPMT120408-R01			●							12.7	-	4.76	0.8				
	SPMW090304	●	●								9.525	-	3.18	0.4				
	SPMT090308-M01			●							9.8	-	3.18	0.8				

### SP\_06.09.12 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P 低合金鋼 Low-Alloy Steels	OM4010	100~220	0.10~0.35	2.0~9.0
	OM4025	100~220	0.10~0.35	2.0~9.0
	RM4025	100~220	0.10~0.35	2.0~9.0
P 合金鋼 Alloyed Steels	OM4010	70~120	0.10~0.25	1.0~5.0
	OM4025	70~120	0.10~0.25	1.0~5.0
	RM4025	70~120	0.10~0.25	1.0~5.0
M 不鏽鋼 Stainless Steels	OM4010	130~200	0.12~0.30	3.0~8.0
	OM4025	130~200	0.12~0.30	3.0~8.0
K 鑄鐵 Cast Iron	OM4025	100~210	0.10~0.20	2.0~9.0
	RM3130	100~210	0.10~0.20	2.0~9.0
N 高溫合金 Aluminum&Al	OM5005	450(500~700)	1.2(1.2~1.8)	2.0~9.0

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed(mm/min) = Feed per teeth × Teeth × Spindle speed.

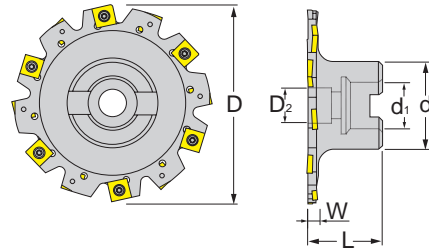
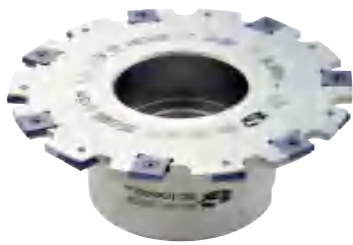
MILLING





# GDC 捨棄式側銑刀

## GDC SUPPLEMENTAL SIDE DISC CUTTER



規格 Spec.	L	D	D <sub>2</sub>	d	d <sub>1</sub>	W	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
GDC-80×04B22	40	80	28	45	22	4	10	SN..1102	0.50
GDC-80×05B22	40	80	28	45	22	5	10	SN..1103	0.50
GDC-80×06B22	40	80	28	45	22	6	8	SN..1203	0.55
GDC-80×07B22	40	80	28	45	22	7	9	SN..1203	0.57
GDC-80×08B22	40	80	28	45	22	8	9	SN..1203	0.70
GDC-80×09B22	40	80	28	45	22	9	8	SN..1205	0.60
GDC-80×10B22	40	80	28	45	22	10	8	SN..1205	0.62
GDC-80×12B22	40	80	28	45	22	12	8	SN..1207	0.66
GDC-80×14B22	40	80	28	45	22	14	9	SN..1207	0.70
GDC-100×04B27	40	100	33	50	27	4	12	SN..1102	0.74
GDC-100×05B27	40	100	33	50	27	5	12	SN..1103	0.70
GDC-100×06B27	40	100	33	50	27	6	10	SN..1203	0.73
GDC-100×07B27	40	100	33	50	27	7	9	SN..1203	0.76
● GDC-100×08B27	40	100	33	50	27	8	9	SN..1203	0.80
GDC-100×09B27	40	100	33	50	27	9	10	SN..1205	0.82
● GDC-100×10B27	40	100	33	50	27	10	10	SN..1205	0.86
● GDC-100×12B27	40	100	33	50	27	12	10	SN..1207	0.90
● GDC-100×14B27	40	100	33	50	27	14	9	SN..1207	0.98
● GDC-125×04B32	45	125	43	70	32	4	14	SN..1102	1.30
GDC-125×05B32	45	125	43	70	32	5	14	SN..1103	1.40
GDC-125×06B32	45	125	43	70	32	6	12	SN..1203	1.40
GDC-125×07B32	45	125	43	70	32	7	12	SN..1203	1.45
● GDC-125×08B32	45	125	43	70	32	8	12	SN..1203	1.45
GDC-125×09B32	45	125	43	70	32	9	12	SN..1205	1.58
● GDC-125×10B32	45	125	43	70	32	10	12	SN..1205	1.58
● GDC-125×12B32	45	125	43	70	32	12	12	SN..1207	1.65
GDC-125×14B32	45	125	43	70	32	14	12	SN..1207	1.76
GDC-160×06B40	50	160	50	90	40	6	16	SN..1203	2.60
GDC-160×07B40	50	160	50	90	40	7	15	SN..1203	2.60
GDC-160×08B40	50	160	50	90	40	8	15	SN..1203	2.80
GDC-160×09B40	50	160	50	90	40	9	16	SN..1205	2.80
GDC-160×10B40	50	160	50	90	40	10	16	SN..1205	2.90
GDC-160×12B40	50	160	50	90	40	12	16	SN..1207	3.08
GDC-160×14B40	50	160	50	90	40	14	15	SN..1207	0.23

●: 標準品 · 其餘規格按訂單生產 Standard item, other required specification is produced per order.

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SN..1102	M3-3.5-5.0-90	T7	0.9
SN..1103	M3-4.3-5.0-90	T7	0.9
SN..1203	M4-5.0-6.2-90	T15	3.0
SN..1205	M4-8.2-6.2-90	T15	3.0
SN..1207	M4-11-6.2-90-T15-TIN	T15	3.0





# FDC/GDC 捨棄式側銑刀套裝組

## FDC/GDC SUPPLEMENTAL SIDE DISC CUTTER SET



Fig.1 FDC-SET



Fig.2 GDC-SET

規格 Spec.	內容物 Contents					Fig.	重量 (KGS) Weight
	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 Torque (N.m)	數量 Qty		
FDC-80×08B22-SET						1	0.73
FDC-100×08B27-SET	SPMT060204-M01 RM4025 (20 片)	M2.2-5.2-3.1-60-T7-TIN	T7K	0.9	-		
FDC-100×10B27-SET					1.03		
FDC-125×10B32-SET					1.70		
FDC-125×12B32-SET					1.70		
FDC-125×16B32-SET	SPMT120408-R01 RM4025 (20 片)	M5-11-6.4-43	T20K	5.0	1.80		
FDC-160×12B40-SET	SPMT090308-M01 RM4025 (20 片)	M4-10-5.7-60	T15K	3.0	-		
FDC-160×16B40-SET	SPMT120408-R01 RM4025 (20 片)	M5-11-6.4-43	T20K	5.0	2.90		
FDC-160×18B40-SET					2.90		
FDC-200×12B40-SET	SPMT090308-M01 RM4025 (20 片)	M4-10-5.7-60	T15K	3.0	4.00		
FDC-200×16B40-SET	SPMT120408-R01 RM4025 (20 片)	M5-11-6.4-43	T20K	5.0	4.50		
FDC-200×18B40-SET					4.90		
FDC-200×20B40-SET					5.19		

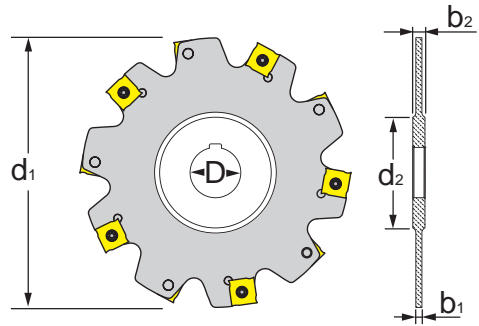
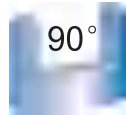
規格 Spec.	內容物 Contents					Fig.	重量 (KGS) Weight
	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 Torque (N.m)	數量 Qty		
GDC-100×08B27-SET	SNFX1203 OM4025(10 片)	M4-5.0-6.2-90	T15K	3.0	1	2	0.80
GDC-100×10B27-SET	SNFX1205 OM4025(10 片)	M4-8.2-6.2-90					0.86
GDC-100×12B27-SET	SNFX1207 OM4025(10 片)	M4-11-6.2-90-T15-TIN					0.92
GDC-125×04B32-SET	SNFX1102 OM4025(20 片)	M3-3.5-5.0-90	T7K	0.9			1.30
GDC-125×08B32-SET	SNFX1203 OM4025(20 片)	M4-5.0-6.2-90	T15K	3.0			1.45
GDC-125×10B32-SET	SNFX1205 OM4025(20 片)	M4-8.2-6.2-90					1.58
GDC-125×12B32-SET	SNFX1207 OM4025(20 片)	M4-11-6.2-90-T15-TIN					1.65

MILLING



# SDC 捨棄式側銑刀

## SDC SUPPLEMENTAL SIDE DISC CUTTER



規格 Spec.	D	d <sub>1</sub>	d <sub>2</sub>	b <sub>1</sub>	b <sub>2</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
SDC-100×04A25.4	25.4	100	41	4	12	12	SN..1102	0.38
SDC-100×05A25.4	25.4	100	41	5	12	12	SN..1103	0.44
SDC-100×06A25.4	25.4	100	41	6	12	10	SN..1203	0.45
SDC-100×07A25.4	25.4	100	41	7	12	9	SN..1203	0.49
SDC-100×08A25.4	25.4	100	41	8	12	9	SN..1203	0.54
SDC-100×10A25.4	25.4	100	41	10	12	10	SN..1205	0.59
SDC-100×11A25.4	25.4	100	41	11	12	10	SN..1207	0.62
SDC-100×12A25.4	25.4	100	41	12	12	10	SN..1207	0.66
SDC-100×14A25.4	25.4	100	41	14	16	9	SN..1207	0.77
SDC-125×04A25.4	25.4	125	41	4	12	14	SN..1102	0.58
SDC-125×05A25.4	25.4	125	41	5	12	14	SN..1103	0.63
SDC-125×06A25.4	25.4	125	41	6	12	12	SN..1203	0.69
SDC-125×07A25.4	25.4	125	41	7	12	12	SN..1203	0.75
SDC-125×08A25.4	25.4	125	41	8	12	12	SN..1203	0.81
SDC-125×09A25.4	25.4	125	41	9	12	12	SN..1205	0.86
SDC-125×10A25.4	25.4	125	41	10	12	12	SN..1205	0.94
SDC-125×12A25.4	25.4	125	41	12	12	12	SN..1207	1.05
SDC-125×14A25.4	25.4	125	41	14	16	12	SN..1207	1.20
SDC-160×06A25.4	25.4	160	41	6	12	16	SN..1203	1.04
SDC-160×07A25.4	25.4	160	41	7	12	15	SN..1203	0.17
SDC-160×08A25.4	25.4	160	41	8	12	15	SN..1203	1.26
SDC-160×09A25.4	25.4	160	41	9	12	16	SN..1205	1.35
SDC-160×10A25.4	25.4	160	41	10	12	16	SN..1205	1.48
SDC-160×12A25.4	25.4	160	41	12	12	16	SN..1207	1.74
SDC-160×14A25.4	25.4	160	41	14	16	15	SN..1207	1.99

### 配件表 Accessories

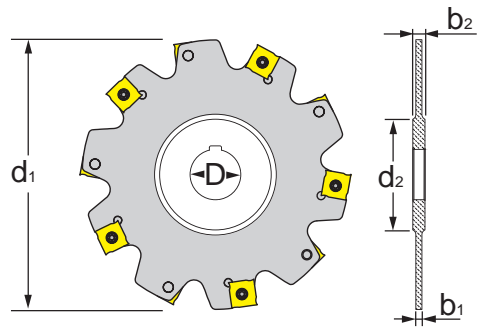
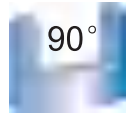
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SN..1102	M3-3.5-5.0-90	T7	0.9
SN..1103	M3-4.3-5.0-90	T7	0.9
SN..1203	M4-5.0-6.2-90	T15	3.0
SN..1205	M4-8.2-6.2-90	T15	3.0
SN..1207	M4-11-6.2-90-T15-TIN	T15	3.0





# SDC 捨棄式側銑刀

## SDC SUPPLEMENTAL SIDE DISC CUTTER



規格 Spec.	D	d <sub>1</sub>	d <sub>2</sub>	b <sub>1</sub>	b <sub>2</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
SDC-63×04B22	22	63	34	4	8	8	SN..1102	0.27
SDC-63×05B22	22	63	34	5	8	8	SN..1103	0.28
SDC-63×06B22	22	63	34	6	8	6	SN..1203	0.28
SDC-80×04B22	22	80	34	4	8	10	SN..1102	0.31
SDC-80×05B22	22	80	34	5	8	10	SN..1103	0.33
SDC-80×06B22	22	80	34	6	8	8	SN..1203	0.35
SDC-100×04B27	27	100	41	4	12	12	SN..1102	0.38
SDC-100×05B27	27	100	41	5	12	12	SN..1103	0.44
SDC-100×06B27	27	100	41	6	12	10	SN..1203	0.45
SDC-100×07B27	27	100	41	7	12	9	SN..1203	0.49
SDC-100×08B27	27	100	41	8	12	9	SN..1203	0.54
SDC-100×10B27	27	100	41	10	12	10	SN..1205	0.59
SDC-100×12B27	27	100	41	12	12	10	SN..1207	0.70
SDC-100×14B27	27	100	41	14	12	9	SN..1207	0.70
SDC-125×04B32	32	125	47	4	12	14	SN..1102	0.58
SDC-125×05B32	32	125	47	5	12	14	SN..1103	0.63
SDC-125×06B32	32	125	47	6	12	12	SN..1203	0.69
SDC-125×07B32	32	125	47	7	12	12	SN..1203	0.75
SDC-125×08B32	32	125	47	8	12	12	SN..1203	0.81
SDC-125×09B32	32	125	47	9	12	12	SN..1205	0.86
SDC-125×10B32	32	125	47	10	12	12	SN..1205	0.94
SDC-125×12B32	32	125	47	12	12	12	SN..1207	1.05
SDC-125×14B32	32	125	47	14	12	12	SN..1207	1.20

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SN..1102	M3-3.5-5.0-90	T7	0.9
SN..1103	M3-4.3-5.0-90	T7	0.9
SN..1203	M4-5.0-6.2-90	T15	3.0
SN..1205	M4-8.2-6.2-90	T15	3.0
SN..1207	M4-11-6.2-90-T15-TIN	T15	3.0

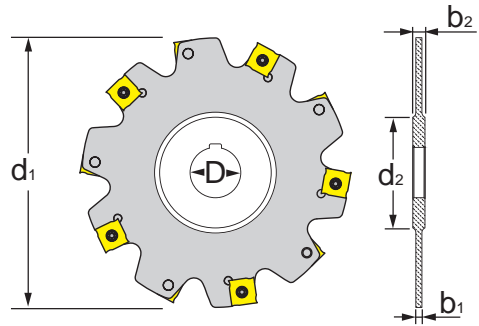
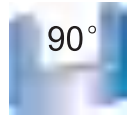
MILLING





# SDC 捨棄式側銑刀

## SDC SUPPLEMENTAL SIDE DISC CUTTER

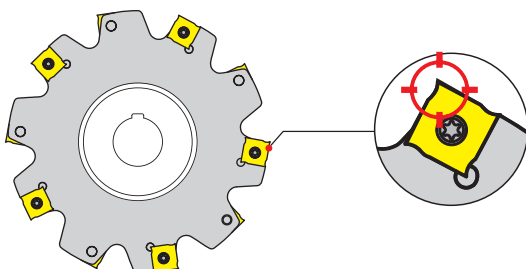


規格 Spec.	D	d <sub>1</sub>	d <sub>2</sub>	b <sub>1</sub>	b <sub>2</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
SDC-160×06B40	40	160	55	6	12	16	SN..1203	1.04
SDC-160×07B40	40	160	55	7	12	15	SN..1203	0.17
SDC-160×08B40	40	160	55	8	12	15	SN..1203	1.26
SDC-160×09B40	40	160	55	9	12	16	SN..1205	1.35
SDC-160×10B40	40	160	55	10	12	16	SN..1205	1.48
SDC-160×12B40	40	160	55	12	12	16	SN..1207	1.74
SDC-160×14B40	40	160	55	14	12	15	SN..1207	1.99
SDC-200×06B50	50	200	69	6	12	18	SN..1203	-
SDC-200×08B50	50	200	69	8	12	18	SN..1203	-
SDC-200×10B50	50	200	69	10	12	18	SN..1205	-
SDC-200×12B50	50	200	69	12	12	18	SN..1207	-
SDC-200×14B50	50	200	69	14	14	18	SN..1207	3.20
SDC-250×08B50	50	250	69	8	12	24	SN..1203	4.30
SDC-250×10B50	50	250	69	10	12	24	SN..1205	4.30
SDC-250×12B50	50	250	69	12	12	24	SN..1207	4.50
SDC-250×14B50	50	250	69	14	14	24	SN..1207	4.50

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SN..1203	M4-5.0-6.2-90	T15	3.0
SN..1205	M4-8.2-6.2-90	T15	3.0
SN..1207	M4-11-6.2-90-T15-TIN	T15	3.0

### ⚠ 注意事項 Tips



刀片安裝時，需留意刀尖方向 (如圖示)  
When installing inserts, need attention to the direction of the tool nose.(Illustration)





# SDC 捨棄式側銑刀

## SDC SUPPLEMENTAL SIDE DISC CUTTER



ISO 分類	P	合金鋼 Alloyed Steels	○	○													切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○													
	K	鑄鐵 Cast Iron	○	○													
	N	鋁及鋁合金 Aluminum&Al								■							
S	高溫合金 Refractory Alloys																
H	高硬度材 Hard Material	○															
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro						超硬微粒 Ultra-hard microprogram				尺寸 (mm) Size				圖形 Drawing	
		CHF						HF									
		OM4010	OM4025					OM5005					d	i	s		r
	SNFX1102	●	●					●					11	-	2.3	-	
	SNFX1103	●	●					●					11	-	2.7	-	
	SNFX1203	●	●					●					12.7	-	3.2	-	
	SNFX1205	●	●					●					12.7	-	5.4	-	
	SNFX1207	●	●					●					12.7	-	7	-	
	SNFX120516		●										12.7	-	5.4	1.6	

有效屑片厚度計算公式  
Average chip thickness

$$f_z = \sqrt{\frac{D}{A_p}} \times f \quad 0.11 = \sqrt{\frac{D}{A_p}} \times f \quad 0.31 = f$$

D= 有效外徑 effective outer diameter  
f= 每刃進給量 feed per flute  
A<sub>p</sub>= 切深 Depth of cut  
h<sub>m</sub>= 有效屑片厚度 effective chip thickness

### SN\_11.12 切削條件數據表 Cutting Conditions

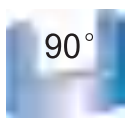
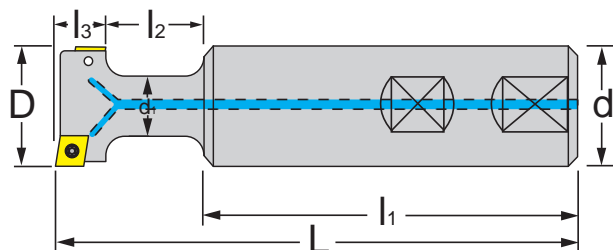
被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 (mm)
P 合金鋼 Alloyed Steels	OM4010	90~250	0.08(0.06~0.12)
	OM4025	90~230	0.08(0.06~0.12)
M 不鏽鋼 Stainless Steels	OM4010	55~110	0.06(0.06~0.12)
	OM4025	55~100	0.06(0.06~0.12)
K 鑄鐵 Cast Iron	OM4025	110~275	0.08(0.06~0.12)
N 鋁合金 Aluminum&Al	OM5005	500~700	0.15(0.15~0.17)

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



# ATS T 型槽端銑刀 ATS T-SLOTS END MILLS



## 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	D	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
ATS-25-11	112	80	21	11	25	25	12.5	2	CC..0602	0.35
ATS-32-14	120	77	30	14	32	32	16	4	CC..0803	0.55
ATS-40-18	130	80	32	18	40	32	20	4	CC..09T3	0.67
ATS-50-22	140	80	39	22	50	32	26	4	CC..1204	0.77

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
CC..0602	M2.5-6.0-3.5-60	T8	1.2
CC..0803	M3-8.0-4.0-43	T9	1.4
CC..09T3	M4-10-5.7-60	T15	3.0
CC..1204	M5-11-7.5-60	T20	5.0

JIS B 0952-1987  
JIS B 0953-1987

公稱尺寸 基準尺寸	A				B		C		H		參考		槽間隔 p	
	容許差				基準尺寸	容許差	基準尺寸	容許差	最大值	最小值	n 最大	f 最大		
	1級 H8	2級 H12	3級 H14	4級										
5	5	+0.018	+0.12	-	-	10	+1 0	3	+0.5 0	10	8	1	0.6	20、25、32
6	6	0	0	-	-	11	+1.5 0	5	+1 0	13	11			25、32、40
8	8	+0.022	+0.15	-	-	14.5	+2 0	7		18	15			32、40、50
10	10	0	0	-	-	16		+3 0	8	21	17			40、50、63
12	12	+0.027	+0.18	+0.43	+2.7	19	9			+2 0	25	20	50、63、80	
14	14					0			0		0	0	23	16
18	18	0	0	0	0	30	20		+2 0	36	30	80、100、125		
22	22	+0.033	+0.21	+0.52	+3.3	37		+4 0		16	45	38	1	1
28	28	0	0	0	0	46	+3 0		20		56	48		
36	36	+0.039	+0.25	+0.62	+0.39	56		32		+3 0	71	61	1.6	1.6
42	42					0	0		0		0	68		
48	48	+0.046	+0.30	+0.74	0	80	40	+4 0	95	84	2	2	250、320、400	
54	54					0			0	0			0	90

MILLING



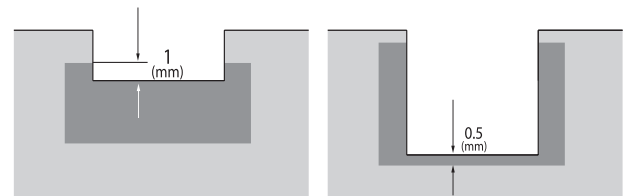
# ATS T 型槽端銑刀 ATS T-SLOTS END MILLS



ISO 分類	P	合金鋼 Alloyed Steels																切削狀態 Cutting Condition :			
	M	不鏽鋼 Stainless Steels																● 連續切削 Continuous Cutting	○ 一般切削 General Cutting	■ 斷續切削 Interrupted Cutting	
	K	鑄鐵 Cast Iron	○																		
N	鋁及鋁合金 Aluminum&Al																				
S	高溫合金 Refractory Alloys																				
H	高硬度材 Hard Material																				
形狀 Form	規格 Spec.	鍍層硬質合金 Layer coating carbide alloy										尺寸 (mm) Size				圖形 Drawing					
		CVD										Size									
		RM315	RM425									d	i	s	r						
	CCMT060204-HM	●	●											6.35	6.4	2.38	0.4				
	CCMT060208-HM	●	●											6.35	6.4	2.38	0.8				
	CCMT09T304-HM	●	●											9.525	9.7	3.97	0.4				
	CCMT09T308-HM	●	●											9.525	9.7	3.97	0.8				
	CCMT120404-HM	●	●											12.7	12.9	4.76	0.4				
	CCMT120408-HM	●	●											12.7	12.9	4.76	0.8				

## ※ 注意事項 Caution:

- 溝槽加工須注意排屑問題，必要時須以噴霧裝置排出切屑  
Removing the metal chips by mist cooler if necessary.
- 本 T 型刀附出水孔易於排屑。  
With coolant hole, benefit for chip release.
- 本 T 型設計為粗切削，如須要求尺寸精度，須另行精修。  
Designed for rough cutting. Additional fine cutting is required if necessary.
- 特殊規格可接受訂製。  
Customized products are available.



## CC\_06.08.09.12 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)
P 合金鋼 Alloy Steels	180~220	0.08~0.12
M 不鏽鋼 Stainless Steels	100~120	0.07~0.10
K 鑄鐵 Cast Iron	140~280	0.07~0.10

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

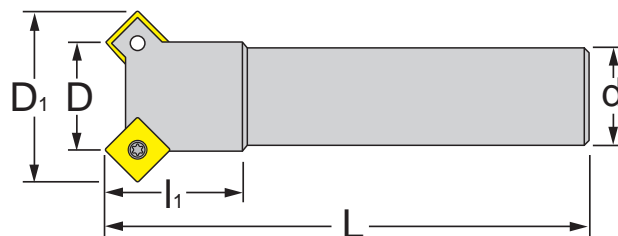
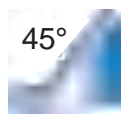
床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.





# SPK 45° 內外倒角刀

## SPK 45° INNER-OUTER CHAMFER END MILLS



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

規格 Spec.	L	l <sub>1</sub>	D	D <sub>1</sub>	d	角度 Angle	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
C20-SPK25-150L	150	38	25	37.6	20	45°	2	SP.0903	0.43
C20-SPK30-150L	150	38	30	42	20	45°	2	SP.0903	0.45

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SP.0903	M4-10-5.7-60	T15	3.0

ISO 分類	P	合金鋼 Alloyed Steels	○	○	○											切削狀態 Cutting Condition: ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting		
	M	不鏽鋼 Stainless Steels	○	○														
K	鑄鐵 Cast Iron	○	○															
N	鋁及鋁合金 Aluminum&Al																	
S	高溫合金 Refractory Alloys																	
H	高硬度材 Hard Material	○																
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro										尺寸 (mm) Size				圖形 Drawing		
		CHF										Size						
		OM4010	OM4025	RM4025										d	i	s	r	
	SPMW090304	●	●											9.525	-	3.18	0.4	
	SPMT090308-M01			●										9.8	-	3.18	0.8	

MILLING



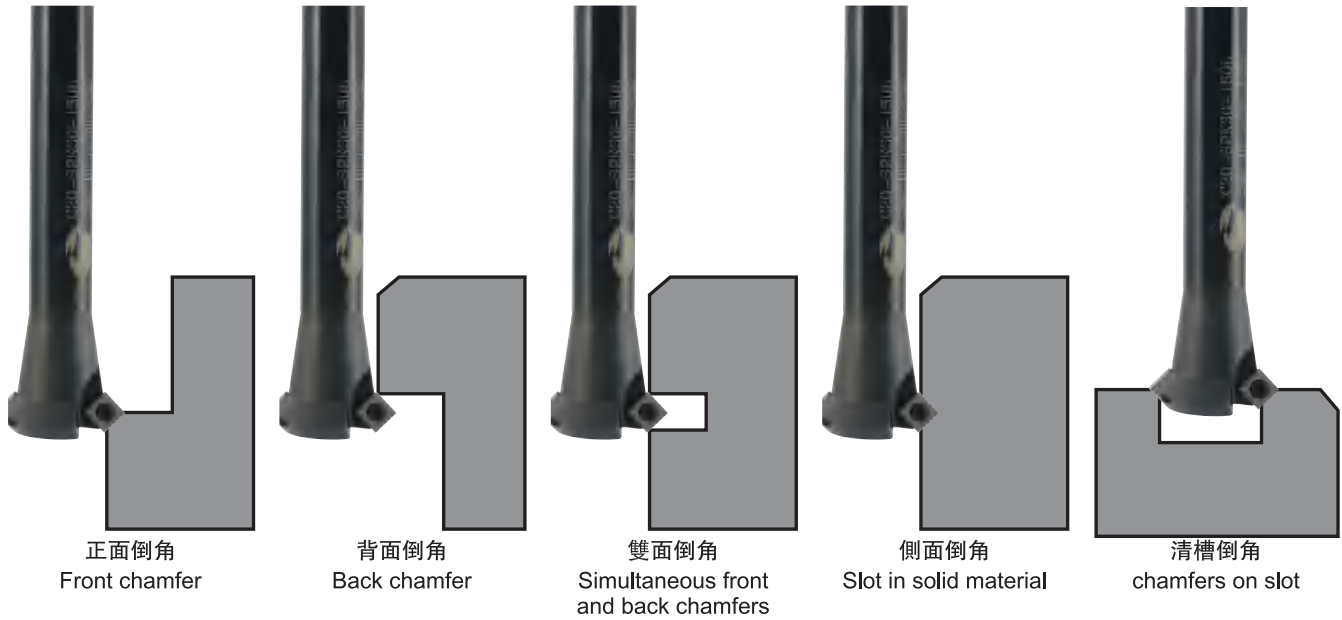
# SPK 45° 內外倒角刀

## SPK 45° INNER-OUTER CHAMFER END MILLS



倒角刀具 Chamfering Cutter: SPK

刀具柄徑 Diameter : Ø25.Ø30



### SP\_09 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials		刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P	低合金鋼 Low-Alloy Steels	OM4010	100~220	0.10~0.35	2.0~9.0
		OM4025	100~220	0.10~0.35	2.0~9.0
	合金鋼 Alloyed Steels	OM4010	70~120	0.10~0.25	1.0~5.0
		OM4025	70~120	0.10~0.25	1.0~5.0
M	不鏽鋼 Stainless Steels	OM4010	130~200	0.12~0.30	3.0~8.0
		OM4025	130~200	0.12~0.30	3.0~8.0
K	鑄鐵 Cast Iron	OM4025	100~210	0.10~0.20	2.0~9.0

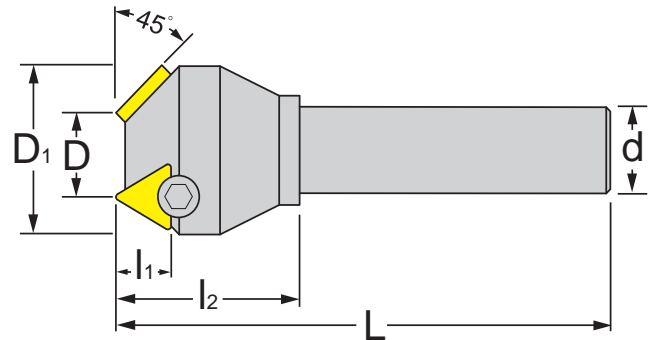
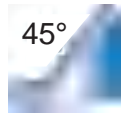
主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



# SSE 45° 倒角刀

## SSE 45° CHAMFER END MILLS



規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	D <sub>1</sub>	d	刃數 Teeth	角度 Angle	刀片 Insert	重量 (KGS) Weight
45°-SSE-32	115	10	40	12.2	32	20	2	45°	TP..1603	0.36
45°-SSE-50	125	15	50	22.9	50	32	3	45°	TP..2204	0.88
45°-SSE-63	145	15	50	36.5	63	32	3	45°	TP..2204	1.32

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
TP..1603	M6-0.75P	P4	5.0
TP..2204	M8-1.0P	P5	6.0

ISO 分類	P	合金鋼 Alloyed Steels	○	○																切削狀態 Cutting Condition: ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels																		
K	鑄鐵 Cast Iron																			
N	鋁及鋁合金 Aluminum&Al																			
S	高溫合金 Refractory Alloys																			
H	高硬度材 Hard Material																			

形狀 Form	規格 Spec.	硬質合金 Hard alloy										尺寸 (mm) Size				圖形 Drawing		
		HW										d	i	s	r			
		TSP20	TSP25	TSK10														
	TPKN1603PDR		●	●										9.525	-	3.18	-	
	TPKN2204PDR	●	●	●										12.7	-	4.76	-	
	TPMN160308		●	●										9.525	-	3.18	0.8	
	TPMN220412	●	●	●										12.7	-	4.76	1.2	

MILLING

# SSP倒角刀

- 可作倒角，V槽切削，45°定位倒角刀亦可作刻字及當定位鑽使用
- 刀具及刀片特殊設計，於定位鑽及V槽切削時刀片可避免干涉
- 使用一般銑床、CNC銑床、CNC車床
- Chamfering, v-grooving, the 45° spot drill can be used for carving and spot-drilling.
- Clearance angle negates interference between the insert/cutting tool and the workpiece during v-grooving and spot-drilling.
- Could be applied on milling machine, CNC milling machine and CNC lathe.



# Feature

## 5 in 1



內孔倒角  
Inner hole chamfering



V槽切削  
V-grooving



定位鑽  
Spotting



刻字  
Carving



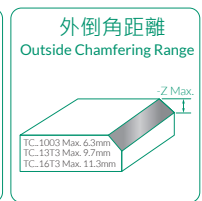
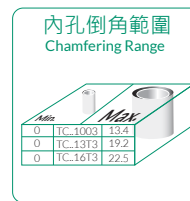
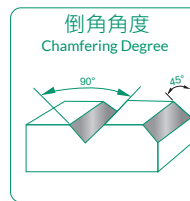
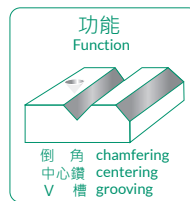
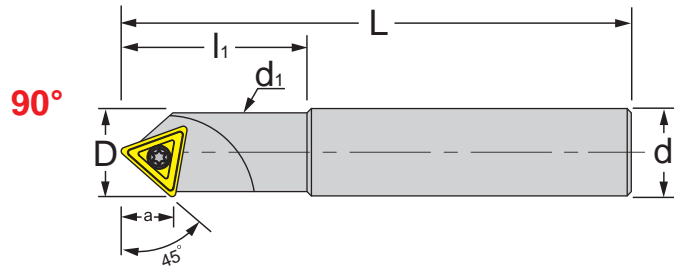
倒角  
Chamfering

# Chamfer Cutter



# SSP 45° 定位倒角刀

## SSP 45° SPOT&CHAMFERING CUTTER



規格 Spec.	L	l <sub>1</sub>	D	d	d <sub>1</sub>	a	功能 Function	刀片 Insert	重量 (KGS) Weight
SSP-1212-105L	105	26	13.4	12	11.8	6.05	倒角 / 定位 (04R 角)	TC..1003	0.31
SSP-1616-110L	110	30	19.2	16	14	9.7	倒角 / 定位 (04R 角)	TC..13T3	0.18
SSP-2012-100L	100	35	22.5	12	19	11.3	倒角 / 定位 (08R 角)	TC..16T3	0.14
SSP-2020-130L	130	50	22.5	20	19	11.3	倒角 / 定位 (08R 角)	TC..16T3	0.31

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
TC..1003	M2.5-5.0-3.7-43	T8	1.2
TC..13T3	M3.5-8.0-5.0-60	T15	3.0
TC..16T3	M4-10-5.0-43	T15	3.0

### ※ 定位鑽使用注意事項 Caution:

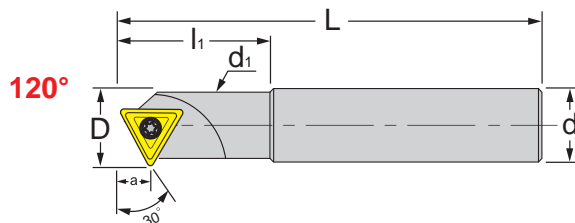
- 銑床加工：刀具偏擺精度不能過大 (0.02mm 以內) Milling: runout must be within 0.02mm.
- 車床加工：刀片須與刀塔上下進給平行 Turning: insert must be parallel to tool magazine vertical feeding.



MILLING



## SSP 30° 倒角刀 SSP 30° CHAMFERING CUTTER



功能  
Function

倒角 chamfering

內孔倒角範圍  
Chamfering Range

4	TC..1003	13.8
4	TC..13T3	19.2
8	TC..16T3	22.5

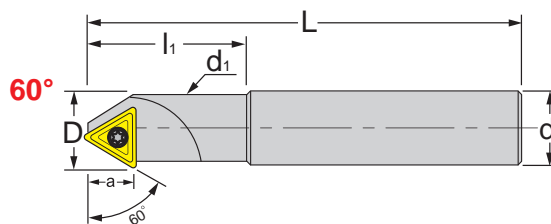
外倒角距離  
Outside Chamfering Range

TC..1003 Max. 4.9mm
TC..13T3 Max. 6.4mm
TC..16T3 Max. 6.3mm

規格 Spec.	L	l <sub>1</sub>	D	d	d <sub>1</sub>	a	功能 Function	刀片 Insert	重量 (KGS) Weight
SSP-1212-105L-TC10-30	105	26	13.8	12	11.8	4.6	倒角	TC..1003	0.12
SSP-1616-110L-TC13-30	110	30	19.2	16	14	6.5	倒角	TC..13T3	0.18
SSP-2020-130L-TC16-30	130	50	22.5	20	19	7.6	倒角	TC..16T3	0.32



## SSP 60° 倒角刀 SSP 60° CHAMFERING CUTTER



功能  
Function

倒角 chamfering

內孔倒角範圍  
Chamfering Range

5.1	TC..1003	13.8
7	TC..13T3	19.2
9	TC..16T3	22.5

外倒角距離  
Outside Chamfering Range

TC..1003 Max. 8.5mm
TC..13T3 Max. 11.1mm
TC..16T3 Max. 11.8mm

規格 Spec.	L	l <sub>1</sub>	D	d	d <sub>1</sub>	a	功能 Function	刀片 Insert	重量 (KGS) Weight
SSP-1212-105L-TC10-60	105	26	13.8	12	11.8	8.5	倒角	TC..1003	0.12
SSP-1616-110L-TC13-60	110	30	19.2	16	14	11.16	倒角	TC..13T3	0.18
SSP-2020-130L-TC16-60	130	50	22.5	20	19	11.83	倒角	TC..16T3	0.32

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
TC..1003	M2.5-5.0-3.7-43	T8	1.2
TC..13T3	M3.5-8.0-5.0-60	T15	3.0
TC..16T3	M4-10-5.0-43	T15	3.0











# SSP 倒角刀 ( 套裝一支組 )

## SSP CHAMFERING CUTTER(1PCS)



規格 Spec.	內容物 Contents					重量 (KGS) Weight
	刀片 Insert	螺絲  Screw	扳手  Wrench	扭力值 Torque (N.m)	數量 Qty	
SSP-1212-105L-SET	TCEX100304E-AR OM4025 (10 片)	M2.5-5.0-3.7-43	T8K	1.2	1	0.50
SSP-1616-110L-SET	TCEX13T304E-AR OM4025 (10 片)	M3.5-8.0-5.0-60	T15K	3.0		0.56
SSP-2012-100L-SET	TCMX16T308E-AR OM4025 (10 片)	M4-10-5.0-43				0.64
SSP-2020-130L-SET			0.7			

規格 Spec.	內容物 Contents					重量 (KGS) Weight
	刀片 Insert	螺絲  Screw	扳手  Wrench	扭力值 Torque (N.m)	數量 Qty	
SSP-1212-105L-TC10-30-SET	TCEX100304E-AR OM4025 (10 片)	M2.5-5.0-3.7-43	T8K	1.2	1	0.5
SSP-1616-110L-TC13-30-SET	TCEX13T304E-AR OM4025 (10 片)	M3.5-8.0-5.0-60	T15K	3.0		0.56
SSP-2020-130L-TC16-30-SET	TCMX16T308E-AR OM4025 (10 片)	M4-10-5.0-43				0.7

規格 Spec.	內容物 Contents					重量 (KGS) Weight
	刀片 Insert	螺絲  Screw	扳手  Wrench	扭力值 Torque (N.m)	數量 Qty	
SSP-1212-105L-TC10-60-SET	TCEX100304E-AR OM4025 (10 片)	M2.5-5.0-3.7-43	T8K	1.2	1	0.5
SSP-1616-110L-TC13-60-SET	TCEX13T304E-AR OM4025 (10 片)	M3.5-8.0-5.0-60	T15K	3.0		0.56
SSP-2020-130L-TC16-60-SET	TCMX16T308E-AR OM4025 (10 片)	M4-10-5.0-43				0.7



# SSP 倒角刀 ( 套裝三支組 )

## SSP DRILL CUTTER(3PCS)



規格 Spec.	內容物 Contents						重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 Torque (N.m)	數量 Qty	
SSP-3P-SET	SSP-1212-105L	TCEX100304E-AR OM4025 (10 片)	M2.5-5.0-3.7-43	T8K	1.2	1	1.82
	SSP-1616-110L	TCEX13T304E-AR OM4025 (10 片)	M3.5-8.0-5.0-60	T15K	3.0		
	SSP-2020-130L	TCMX16T308E-AR OM4025 (10 片)	M4-10-5.0-43				

規格 Spec.	內容物 Contents						重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 Torque (N.m)	數量 Qty	
SSP-3P-30-SET	SSP-1212-105L-TC10-30	TCEX100304E-AR OM4025 (10 片)	M2.5-5.0-3.7-43	T8K	1.2	1	1.82
	SSP-1616-110L-TC13-30	TCEX13T304E-AR OM4025 (10 片)	M3.5-8.0-5.0-60	T15K	3.0		
	SSP-2020-130L-TC16-30	TCMX16T308E-AR OM4025 (10 片)	M4-10-5.0-43				

規格 Spec.	內容物 Contents						重量 (KGS) Weight
	刀具 Tools	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 Torque (N.m)	數量 Qty	
SSP-3P-60-SET	SSP-1212-105L-TC10-60	TCEX100304E-AR OM4025 (10 片)	M2.5-5.0-3.7-43	T8K	1.2	1	1.82
	SSP-1616-110L-TC13-60	TCEX13T304E-AR OM4025 (10 片)	M3.5-8.0-5.0-60	T15K	3.0		
	SSP-2020-130L-TC16-60	TCMX16T308E-AR OM4025 (10 片)	M4-10-5.0-43				





# SSP 倒角刀 SSP DRILL CUTTER



ISO 分類	P 合金鋼 Alloyed Steels	○	○																
	M 不鏽鋼 Stainless Steels	○	○																
	K 鑄鐵 Cast Iron	○	○																
N 鋁及鋁合金 Aluminum&Al								■											
S 高溫合金 Refractory Alloys																			
H 高硬度材 Hard Material		○																	

形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro						超硬微粒 Ultra-hard microprogram						尺寸 (mm) Size				圖形 Drawing		
		CHF						HF												
		OM4010	OM4025					OM5005					d	i	s	r				
	TCEX100302E-FR							●								5.8	10	3.18	0.2	
	TCEX100304E-FR							●							5.8	10	3.18	0.4		
	TCEX100302E-AR	●	●												5.8	10	3.18	0.2		
	TCEX100304E-AR	●	●												5.8	10	3.18	0.4		
	TCEX13T302E-FR							●							7.94	13.4	3.97	0.2		
	TCEX13T304E-FR							●							7.94	13.4	3.97	0.4		
	TCEX13T302E-AR	●	●												7.94	13.4	3.97	0.2		
	TCEX13T304E-AR	●	●												7.94	13.4	3.97	0.4		
	TCEX16T304E-FR							●							9.52	16.5	3.97	0.4		
	TCEX16T308E-FR							●							9.52	16.5	3.97	0.8		
	TCMX16T304E-AR	●	●												9.52	16.5	3.97	0.4		
	TCMX16T308E-AR	●	●												9.52	16.5	3.97	0.8		

-TC..10/TC..13 · 02R 角刀片為「倒角功能」專用 TC..10 / TC..13, 0.2mm chamfering radius.

- 規格末編碼帶 FR 刀片為銳角刀片 Suffix FR model designates a sharp cutting edge insert.

MILLING



### TC\_10.13.16 切削條件數據表 Cutting Conditions

加工型態 Processing Type	被加工材質 Machining Materials	刀片材質 Materials	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
	P 低合金鋼 Low-Alloy Steels	OM4010	220~290	0.05~0.12	1.0~11.0
		OM4025	220~260	0.03~0.06	0.5~3.0
	M 合金鋼 Alloy Steels	OM4010	80~150	0.05~0.12	1.0~11.0
		OM4025	100~150	0.03~0.06	0.5~3.0
	K 不鏽鋼 Stainless Steels	OM4010	90~200	0.05~0.12	1.0~11.0
		OM4025	90~180	0.01~0.05	0.5~3.0
N 鑄鐵 Cast Iron	OM4025	70~130	0.05~0.12	1.0~11.0	
N 鋁合金 Aluminum&Al	OM5005	400~2000	0.06~0.08	0.5~3.0	

加工型態 Processing Type	被加工材質 Machining Materials	刀片材質 Materials	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
	P 低合金鋼 Low-Alloy Steels	OM4010	220~290	0.01~0.03	0.05~1.0
		OM4025	220~260	0.01~0.03	0.05~1.0
	M 合金鋼 Alloy Steels	OM4010	80~150	0.01~0.03	0.05~1.0
		OM4025	100~150	0.01~0.03	0.05~1.0
	K 不鏽鋼 Stainless Steels	OM4010	90~200	0.01~0.03	0.05~1.0
		OM4025	90~180	0.01~0.03	0.05~1.0
N 鑄鐵 Cast Iron	OM4025	70~130	0.03~0.06	0.05~2.0	
N 鋁合金 Aluminum&Al	OM5005	400~2000	0.03~0.06	0.05~3.0	

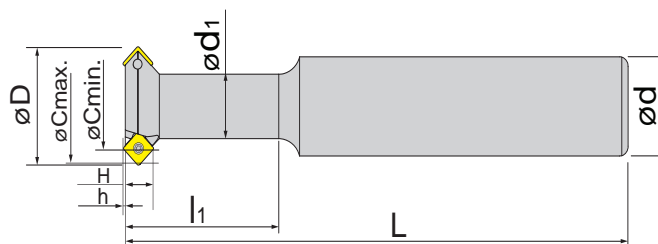
加工型態 Processing Type	被加工材質 Machining Materials	刀片材質 Materials	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
	P 低合金鋼 Low-Alloy Steels	OM4010	220~290	0.03~0.06	1.3~3.0
		OM4025	220~290	0.03~0.06	0.1~3.0
	M 合金鋼 Alloy Steels	OM4010	100~120	0.03~0.06	0.1~3.0
		OM4025	100~150	0.03~0.06	1.3~3.0
	K 不鏽鋼 Stainless Steels	OM4010	90~160	0.03~0.06	0.1~3.0
		OM4025	140~160	0.03~0.06	0.1~3.0
N 鑄鐵 Cast Iron	OM4025	70~160	0.05~0.08	0.1~5.0	
N 鋁合金 Aluminum&Al	OM5005	400~1200	0.05~0.1	0.1~6.0	

加工型態 Processing Type	被加工材質 Machining Materials	刀片材質 Materials	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
	P 低合金鋼 Low-Alloy Steels	OM4010	220~290	0.05~0.12	1.0~11.0
		OM4025	220~260	0.05~0.12	0.5~3.0
	M 合金鋼 Alloy Steels	OM4010	100~150	0.03~0.1	1.0~11.0
		OM4025	100~150	0.03~0.1	0.5~3.0
	K 不鏽鋼 Stainless Steels	OM4010	90~180	0.05~0.12	1.0~11.0
		OM4025	140~180	0.03~0.06	0.5~3.0
N 鑄鐵 Cast Iron	OM4025	70~120	0.05~0.12	1.0~11.0	
N 鋁合金 Aluminum&Al	OM5005	400~750	0.05~0.12	0.5~3.0	



# M405 內外倒角刀

## M405 INNER-OUTER CHAMFERING END MILLS



### 特點 Feature

- 多刃數的設計可增加進給率
- 倒角時，較不易起毛邊，並可作上下倒角加工

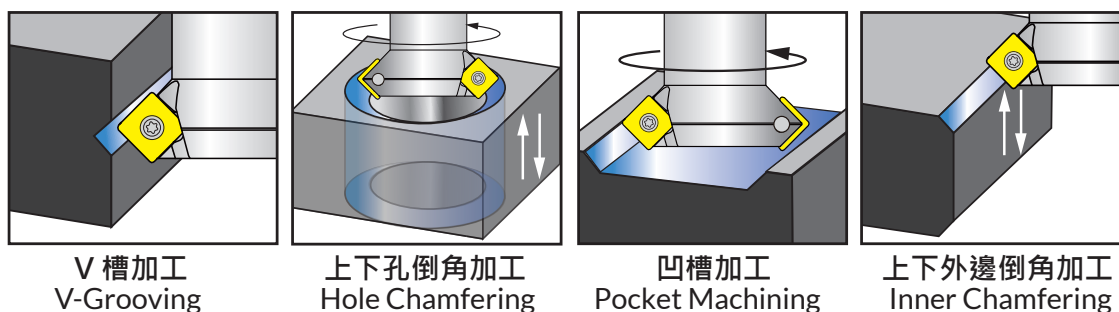
- Multi-edge for high feeding rate.
- Free of burrs when chamfering. Available for up and down chamfering.

規格 Spec.	L	l <sub>1</sub>	ØD	Ød	Ød <sub>1</sub>	ØC		H	h	角度 Angle	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
						Min.	Max.						
M405SP0545-091512-120-2T	120	20	15.7	12	8	9.9	15.3	6.57	0.12	45°	2	SP.0502	0.14
M405SP0545-131916-150-3T	150	30	19.7	16	12.8	13.6	19.3	6.66	0.12	45°	3	SP.0502	0.26
M405SP0545-172320-150-4T	150	35	23.7	20	13	17.7	23.3	5.98	0.12	45°	4	SP.0502	0.36
M405SP0745-202920-150-3T	150	40	29.9	20	17.2	20.3	29.6	10.4	0.15	45°	3	SP.07T3	0.38
M405SP0745-273625-150-3T	150	40	36.9	25	20	27.5	36.3	10.1	0.2	45°	3	SP.07T3	0.58
M405SP0745-344325-150-4T	150	40	43.9	25	20	34.5	43.5	10.1	0.2	45°	4	SP.07T3	0.60
M405SP0745-415025-150-4T	150	40	50.9	25	20	41.2	50.3	10.4	0.12	45°	4	SP.07T3	0.66

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SP.0502	M2-4.3-2.7-60-T6-TIN	T6	0.6
SP.07T3	M2.5-6.33-3.5-48-T8-TIN	T8	1.2

### 範例 Example



V 槽加工  
V-Grooving

上下孔倒角加工  
Hole Chamfering

凹槽加工  
Pocket Machining

上下外邊倒角加工  
Inner Chamfering

MILLING





# M405 內外倒角刀

## M405 INNER-OUTER CHAMFERING END MILLS



ISO 分類	P	合金鋼 Alloyed Steels	○		○											切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels			○											
	K	鑄鐵 Cast Iron			○											
	N	鋁及鋁合金 Aluminum&Al								■						
S	高溫合金 Refractory Alloys															
H	高硬度材 Hard Material															
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro					超硬微粒 Ultra-hard microprogram					尺寸 (mm) Size				圖形 Drawing
		CHF					HF					d	i	s	r	
		RM4025	RM3130	RM4030			RM5060									
	SPGT050204-M02			●			●					5	-	2.38	0.4	
	SPGT07T308-M02			●			●					7.94	-	3.97	0.8	
	SPMT050204-M01	●	●									5	-	2.38	0.4	
	SPMT07T308-M01	●	●									7.94	-	3.97	0.8	

### SP\_05.07 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	進給率 (mm/rev)				
			ø13-ø15	ø16-ø22	ø23-ø33	ø34-ø41	ø42-ø50
P 低合金鋼 Low-Alloy Steels	RM4025	180~260	0.06~0.12	0.06~0.10	0.06~0.12	0.12~0.24	0.12~0.25
	RM4030	180~260	0.06~0.12	0.06~0.10	0.06~0.12	0.12~0.24	0.12~0.25
P 合金鋼 Alloyed Steels	RM4025	140~200	0.05~0.08	0.08~0.15	0.10~0.18	0.08~0.15	0.10~0.18
	RM4030	140~200	0.05~0.08	0.08~0.15	0.10~0.18	0.08~0.15	0.10~0.18
M 不鏽鋼 Stainless Steels	RM4030	120~180	0.05~0.10	0.06~0.12	0.08~0.15	0.10~0.17	0.12~0.20
K 鑄鐵 Cast Iron	RM3130	120~180	0.05~0.10	0.06~0.12	0.08~0.15	0.10~0.17	0.12~0.20
N 鋁合金 Aluminum&Al	RM5060	338~380	0.06~0.14	0.08~0.18	0.12~0.22	0.14~0.25	0.14~0.28

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



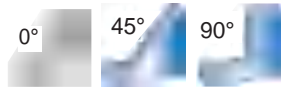
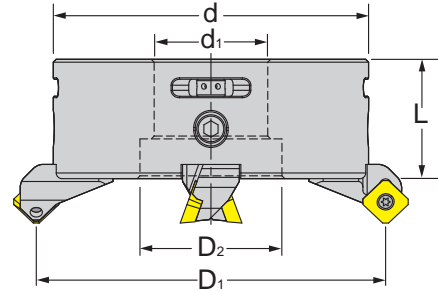
# ACM 鋁合金替換式刀頭

## ACM ALUMINUM CHANGE MILLING CUTTER

PAT.NO: M373784  
ZL 200920267811.2



台灣精品2010  
TAIWAN EXCELLENCE



### 特點 Feature

- 刀具結合方式採取內包覆式，可降低切削高速迴轉所產生的風阻現象，進而提高切削效率
- 刀具與刀頭定位方式為方型緊配，利於刀具定位
- 利用精密電腦程式計算，減少刀具與刀頭重量輕量化
- 刀頭材料採用特殊鋁合金，可提高剛性
- Insert-embedded design, wind resistance can be reduced.
- Close fit between cartridge and cutter. Cartridge can be well positioned.
- Light weight, reduced weight on insert holder and cutter.
- Cutters are made of specific aluminum alloy, high rigidity.

規格 Spec.	L	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth		刀座 Insert Seat	螺絲 Screw	淨重 (KGS) Weight	重量 (KGS) Weight
						標準 Standard	選配 Option				
ACM-80-FMB22-S	42	80	18	66	22	4	-	ACM-SE12 ACM-AP16 ACM-RP12	SH-M6-20	0.62	2.60
ACM-80-FMA25.4-S	42	80	20	66	25.4	4	-		SH-M6-20	0.64	2.90
ACM-100-FMB22-S	42	100	18	86	22	4	-		SH-M6-25	-	2.86
ACM-100-FMA25.4-S	42	100	20	86	25.4	4	-		SH-M6-25	0.90	2.80
ACM-125-FMB32-S	42	125	42	111	32	4	-		SH-M6-25	-	3.62
ACM-125-FMA31.75-S	42	125	42	111	31.75	4	-		SH-M6-25	1.16	3.15
ACM-160-FMB40-S	42	160	50	146	40	4	4		SH-M6-25	1.74	3.79
ACM-160-FMA38.1-S	42	160	46	146	38.1	4	4		SH-M6-25	1.76	3.60
ACM-200-FS60F-S	45	200	60	186	60	4	4		SH-M6-25	2.52	6.62
ACM-200-FMA38.1-S	45	200	48	186	38.1	4	4		SH-M6-25	2.50	7.03
ACM-200-FMA47.625-S	45	200	47.625	186	47.625	4	4		SH-M6-25	2.56	6.44
ACM-250-FS60F-S	47	250	60	236	60	4	8		SH-M6-25	3.86	8.40
ACM-250-FMA38.1-S	47	250	48	236	38.1	4	8		SH-M6-25	4.06	8.26
ACM-250-FMA47.625-S	47	250	47.625	236	47.625	4	8		SH-M6-25	4.00	7.92
ACM-315-FS60F-S	47	315	60	301	60	4	12		SH-M6-25	6.32	10.35
ACM-315-FMA38.1-S	47	315	48	301	38.1	4	12		SH-M6-25	-	10.24
ACM-315-FMA47.625-S	47	315	47.625	301	47.62	4	12	SH-M6-25	6.32	10.80	

● S- 為雙微調 S: dual micro-adjustment

### 配件表 Accessories

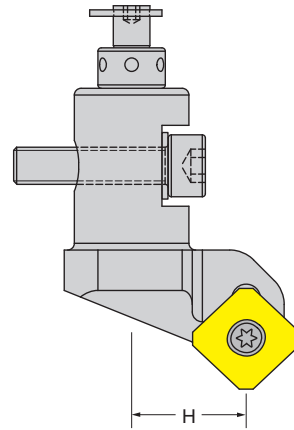
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..1204 SE..12T3 AP..1604 RP..1204	SH-M6-20	P5	6.0
	SH-M6-25	P5	6.0





# ACM 鋁合金替換式刀座 ACM ALUMINUM CHANGE INSERT HOLDER

PAT.NO: M366440  
ZL 200920155950.6



## 卡式刀座 Cartridges

規格 Spec.	H	刀片 Insert	重量 (KGS) Weight
ACM-SE12-S	-	SE..1204	0.11
● ACM-SE12-A-S	-3	SE..1204	0.11
● ACM-SE12-B-S	+3	SE..1204	0.11
● ACM-SE12-C-S	-2	SE..1204	0.11
● ACM-SE12-D-S	+2	SE..1204	0.11
● ACM-SE12-E-S	-1	SE..1204	0.11
● ACM-SE12-F-S	+1	SE..1204	0.11
ACM-SE12-L-S(左旋)	-	SE..1204	0.11
ACM-AP16-S	-	AP..1604	0.13
ACM-RP12-S	-	RP..1204	0.13
ACM-SE12T3-S	-	SE..12T3	-

● - 按訂單生產 -produced order by order.

## 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..1204	M5-11-7.0-55	T20	5.0
AP..1604	M4-10-5.7-60	T15	3.0
RP..1204	M4-10-5.0-43	T15	3.0
SE..12T3	M3.5-11.7-5.3-60	T15	3.0

## 標準配件 Standard package

圖示 Fig.	調整螺絲 Adjust Screw	側固螺絲 Fixed Screw	G型扣環 G-Type Ring	墊片 Shim	調整扳手 Adjust Wrench	PL型扳手 PL-Type Wrench	PL型扳手 PL-Type Wrench
名稱 Name	調整螺絲 Adjust Screw	側固螺絲 Fixed Screw	G型扣環 G-Type Ring	墊片 Shim	調整扳手 Adjust Wrench	PL型扳手 PL-Type Wrench	PL型扳手 PL-Type Wrench
規格 Spec.	AD-M6	M6x20	GTW-6.7	W-0.5	ADW-2	PL3	PL5
功能 Function	調整刀具高度 Adjust cutter height	鎖固卡式刀座 Fix cartridge	固定調整螺絲 Fix adjust screw	迫緊螺絲 Fasten screw	調整卡式刀座 Adjust cartridge	調整卡式刀座 Adjust cartridge	鎖固扳手 Fasten

## 選配特別附件 Optional

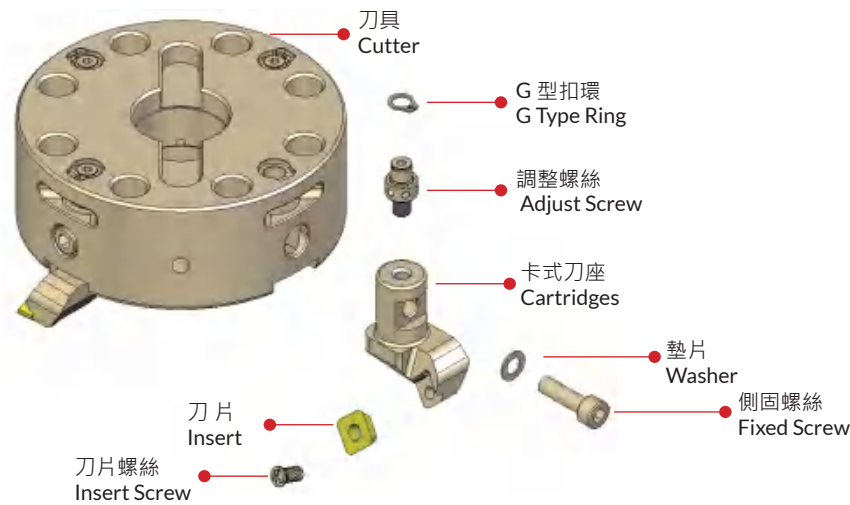
圖示 Fig.	彈簧鉗 Spring Pliers
名稱 Name	彈簧鉗 Spring Pliers
規格 Spec.	F-26
功能 Function	安裝 G 型扣環 Assemble G Type Ring

MILLING



# ACM 鋁合金替換式刀頭

## ACM ALUMINUM CHANGE MILLING CUTTER



### 範例 Example

加工型態:	精加工切削
加工機械:	立式 M/C
銼度種類:	BT40
加工材料:	si10~si12% 鋁合金
刀具規格:	ACM125-FMA31.75
刀片材質:	SEET1204AFFN-F01 PMG
線速度:	V=1500m/min
轉速:	S=3800rpm
床檯進給:	F=4000mm/min
每刃進給:	f=0.25rev
切深:	Ap=0.1mm
冷卻方式:	Water



**Rz(Max):0.61um Ra0.10um**

### 調整使用說明 Alignment Operation:

以最高刃為基準，將其餘刃微調高度同最高刃，可使切削加工表面粗糙度符合需求。步驟如下：

To let the roughness of machined surface meet the requirement, make a micro-adjustment for each blade at same height. Each step as follows:



1. 用量錶量測每刃高度，以最高刃為基準，將量錶歸零。Use dial indicator to measure each insert height. Zero the dial indicator at 12 on the basis of the highest insert.



2. 使用 P5 扳手，鬆開其他刃固定螺絲。Use the spanner of P5 to loosen the fixed screw for other insert.



3. 使用調整扳手往 ⊕ 的方向微調高度，若調整刃高過高，則使用調整扳手往 ⊖ 的方向微調高度。Use the spanner to make a micro-adjustment at the direction of ⊕. If adjust the insert height over then, please adjust at the direction of ⊖.



4. 待其刃高同最高刃，使用 P5 扳手鎖緊調整螺絲，須再量測一次刃高，查看量錶指針是否指向零，若指針沒有指向零，則重複上述動作。When all inserts are at the same height, use the spanner of P5 to lock tightly the screws. After that, measure again each insert height. And check if the dial indicator is zero. If no, please repeat above action.



5. 待刃高皆同高時，則調整完畢。Each blade at the same height represents the alignment is ok.



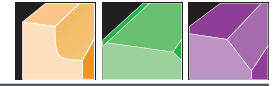
▲ 鋁合金替換式刀頭除了在側邊調整外，也可在上面進行調整，若刀具已上主軸，可不用將刀具從主軸拆卸，即可檢測調整。Except for side-alignment, you can also adjust from the top. No need to disassemble the cutter head from the machine spindle, just check the each insert.

MILLING



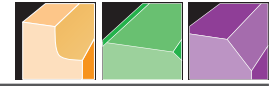
# ACM 鋁合金替換式刀頭

## ACM ALUMINUM CHANGE MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels			○	○	○											切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting	
	M	不鏽鋼 Stainless Steels			○	○	○												
	K	鑄鐵 Cast Iron			○	○	○												
	N	鋁及鋁合金 Aluminum&Al						○				■	■	■	○				
S	高溫合金 Refractory Alloys																		
H	高硬度材 Hard Material	○		○															
形狀 Form	規格 Spec.	氮化硼 BN		鍍層超微粒 Layer coating ultra-micro			聚晶鑽石 Polycrystalline diamond			超硬微粒 Ultra-hard microprogram				尺寸 (mm)				圖形 Drawing	
		BN		CHF			DP			HF				Size					
		CBN250	CBN500	OM4010	OM4025	RM4130	PCD	PCD020				GH1	GH05	OM5005	OM5060	d	i		s
	APEX1604PDFR-701											●			9.525	16.4	4.76	0.2	
	APEX1604PDFR-F01												●	●	9.525	16.4	4.76	-	
	APEX160400PDFR-F01												●	●	9.525	16.4	4.76	-	
	APEX160404PDFR-F01												●	●	9.525	16.4	4.76	0.4	
	APEX160408PDFR-F01												●	●	9.525	16.4	4.76	0.8	
	APKT160404						●								9.525	16.5	4.76	-	
	APKT1604PDER						●								9.525	16.5	4.76	-	
	APEW160404							●							9.525	16.5	4.76	-	
	APEW1604PDER							●							9.525	16.5	4.76	-	
	SEHT1204AFFN										●		●	12.7	-	4.76	-		
	SEHT1204APAN	●	●				●								12.7	-	4.76	-	
	SEHT120404						●								12.7	-	4.76	-	
	SEEW120404							●							12.7	-	4.76	-	
	SEEW1204APAN							●							12.7	-	4.76	-	
	SEKW1204AFN				●										12.7	-	4.76	-	
	RPET1204MOE-M01			●	●								●		12	-	4.76	6	
	RPMT1204MON					●									12	-	4.76	6	





### AP\_16 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
N 鋁及鋁合金 Aluminum&Al	GH05	300~800	0.04~0.20	3.0~8.0
	GH1	1200~2000	0.04~0.20	0.5~1.0
	OM5005	400~850	0.05~0.30	1.5~0.3
	OM5060	600~1200	0.05~0.30	1.5~0.3

### SE\_12 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
K 鑄鐵 Cast Iron	CBN500	700~1500	0.06~0.10	0.1~0.2
N 鋁及鋁合金 Aluminum&Al	OM5060	500~850	0.15~0.35	3.6~6.0
	GH1	275~450	0.15~0.35	3.0~6.0
	PCD	1000~2000	0.06~0.10	0.05~0.1
H 高硬度材 Hard Material	CBN250	700~1500	0.05~0.10	0.10~0.50

### RP\_12 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P 低合金鋼 Low-Alloy Steels	OM4010	220~300	0.08~0.16	0.1~6.0
	OM4025	180~220	0.08~0.16	0.1~6.0
	RM4130	200~240	0.08~0.16	0.1~6.0
合金鋼 Alloy Steels	OM4010	100~200	0.08~0.16	0.1~6.0
	OM4025	120~140	0.08~0.16	0.1~6.0
	RM4130	140~160	0.08~0.16	0.1~6.0
M 不鏽鋼 Stainless Steels	OM4010	80~140	0.08~0.14	0.1~3.0
	OM4025	80~120	0.08~0.14	0.1~3.0
	RM4130	100~140	0.08~0.14	0.1~3.0
K 鑄鐵 Cast Iron	OM4025	220~350	0.08~0.25	0.1~6.0
N 鋁合金 Aluminum&Al	OM5005	700~1000	0.06~0.12	0.1~6.0

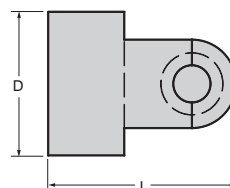
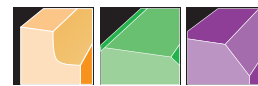
主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



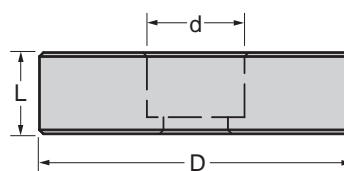
# ACM 鋁合金替換式刀頭

## ACM ALUMINUM CHANGE MILLING CUTTER



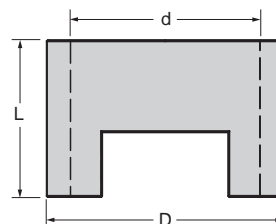
ACM 轉換鍵 Conversion Key

規格 Spec.	L	D	重量 (KGS) Weight
ACM-16.1-25.4	33.35	25.4	0.11



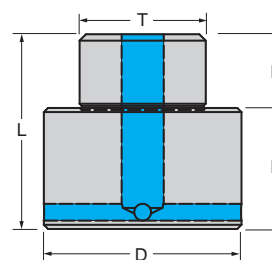
ACM 鋁合金墊圈 Aluminum Washers

規格 Spec.	L	D	d	重量 (KGS) Weight
ACM-AW80	20.5	80	25	0.25



ACM 轉換套 Conversion Kits

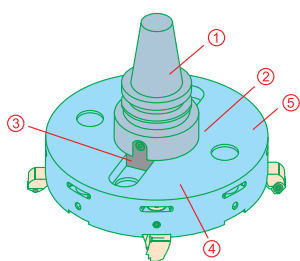
規格 Spec.	L	D	d	重量 (KGS) Weight
ACM-38.1-47.625	31.5	47.625	38.1	0.04



ACM 給水螺帽 Water Screw

規格 Spec.	L	l <sub>1</sub>	l <sub>2</sub>	D	T	重量 (KGS) Weight
ACM-WS47	46.4	18	29	47	M24×2.0	0.3

ACM 組合圖 Assembly Drawing

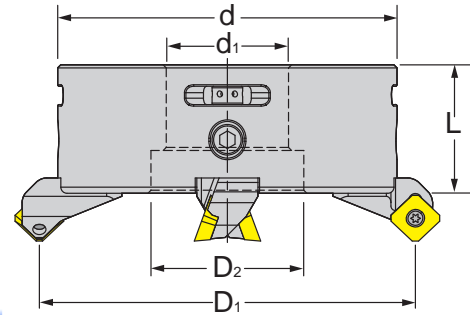
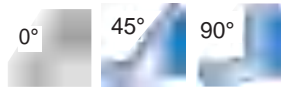
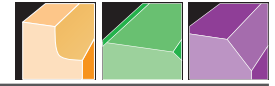


NO	零件 Part
1	BT40-FMA38.10-60
2	ACM-38.1-47.625
3	ACM-16.1-25.4
4	ACM-AW80
5	ACM-250-FMA47.625



# SCM 合金鋼替換式刀頭

## SCM ALLOY STEEL CHANGE MILLING CUTTER



### 特點 Feature

- 刀具結合方式採取內包覆式，可降低切削高速迴轉所產生的風阻現象，進而提高切削效率
- 刀具與刀頭定位方式為方型緊配，利於刀具定位
- 利用精密電腦程式計算，減少刀具與刀頭重量輕量化
- 刀頭材料採用特殊合金鋼，可提高剛性
- Insert-embedded design, wind resistance can be reduced.
- Close fit between cartridge and cutter. Cartridge can be well positioned.
- Light weight, reduced weight on cartridge and cutter.
- Cutters are made of specific alloy steel, high rigidity.

規格 Spec.	L	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth		刀座 Insert Seat	螺絲 Screw	淨量 (KGS) Weight	重量 (KGS) Weight
						標準 Standard	選配 Option				
SCM-80-FMB22-S	42	80	18	66	22	4	-	ACM-SE12 ACM-AP16 ACM-RP12	SH-M6-20	1.06	2.96
SCM-80-FMA25.4-S	42	80	20	66	25.4	4	-		SH-M6-20	1.02	3.00
SCM-100-FMB22-S	42	100	18	86	22	4	-		SH-M6-25	1.76	3.72
SCM-100-FMA25.4-S	42	100	20	86	25.4	4	-		SH-M6-25	1.74	4.15
SCM-125-FMB32-S	42	125	42	111	32	4	-		SH-M6-25	2.60	4.56
SCM-125-FMA31.75-S	42	125	42	111	31.75	4	-		SH-M6-25	2.52	4.86
SCM-160-FMB40-S	42	160	50	146	40	4	4		SH-M6-25	4.12	6.09
SCM-160-FMA38.1-S	42	160	46	146	38.1	4	4		SH-M6-25	4.20	6.45
SCM-200-FS60F-S	45	200	60	186	60	4	4		SH-M6-25	6.06	10.50
SCM-200-FMA38.1-S	45	200	48	186	38.1	4	4		SH-M6-25	6.46	10.40
SCM-200-FMA47.625-S	45	200	47.625	186	47.625	4	4		SH-M6-25	6.43	14.60
SCM-250-FS60F-S	47	250	60	236	60	4	8		SH-M6-25	10.54	14.50
SCM-250-FMA38.1-S	47	250	48	236	38.1	4	8		SH-M6-25	10.98	14.70
SCM-250-FMA47.625-S	47	250	47.625	236	47.625	4	8		SH-M6-25	10.70	14.66

● S- 為雙微調 S: dual micro-adjustment

### 配件表 Accessories

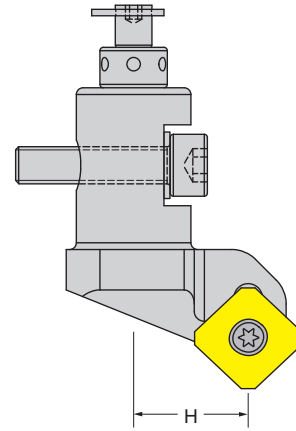
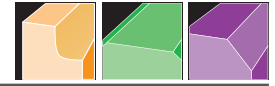
刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..1204 SE..12T3 AP..1604 RP..1204	SH-M6-20	P5	6.0
	SH-M6-25	P5	6.0





# SCM 合金鋼替換式刀頭

## SCM ALLOY STEEL CHANGE MILLING CUTTER



### 卡式刀座 Cartridges

規格 Spec.	H	刀片 Insert	重量 (KGS) Weight
ACM-SE12-S	-	SE..1204	0.11
● ACM-SE12-A-S	-3	SE..1204	0.11
● ACM-SE12-B-S	+3	SE..1204	0.11
● ACM-SE12-C-S	-2	SE..1204	0.11
● ACM-SE12-D-S	+2	SE..1204	0.11
● ACM-SE12-E-S	-1	SE..1204	0.11
● ACM-SE12-F-S	+1	SE..1204	0.11
ACM-SE12-L-S(左旋)	-	SE..1204	0.11
ACM-AP16-S	-	AP..1604	0.13
ACM-RP12-S	-	RP..1204	0.13
● ACM-SE12T3-S	-	SE..12T3	-

● - 按訂單生產 - produced order by order.

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SE..1204	M5-11-7.0-55	T20	5.0
AP..1604	M4-10-5.7-60	T15	3.0
RP..1204	M4-10-5.0-43	T15	3.0
SE..12T3	M3.5-11.7-5.3-60	T15	3.0

### 標準配件 Standard package

圖示 Fig.	調整螺絲 Adjust Screw	側固螺絲 Fixed Screw	G型扣環 G-Type Ring	墊片 Shim	調整扳手 Adjust Wrench	PL型扳手 PL-Type Wrench	PL型扳手 PL-Type Wrench
名稱 Name	調整螺絲 Adjust Screw	側固螺絲 Fixed Screw	G型扣環 G-Type Ring	墊片 Shim	調整扳手 Adjust Wrench	PL型扳手 PL-Type Wrench	PL型扳手 PL-Type Wrench
規格 Spec.	AD-M6	M6x20	GTW-6.7	W-0.5	ADW-2	PL3	PL5
功能 Function	調整刀具高度 Adjust cutter height	鎖固卡式刀座 Fix cartridge	固定調整螺絲 Fix adjust screw	迫緊螺絲 Fasten screw	調整卡式刀座 Adjust cartridge	調整卡式刀座 Adjust cartridge	鎖固扳手 Fasten

### 選配特別附件 Optional

圖示 Fig.	彈簧鉗 Spring Pliers
名稱 Name	彈簧鉗 Spring Pliers
規格 Spec.	F-26
功能 Function	安裝 G 型扣環 Assemble G Type Ring



# SCM 合金鋼替換式刀頭

## SCM ALLOY STEEL CHANGE MILLING CUTTER



### 調整使用說明 Alignment Operation:

以最高刃為基準，將其餘刃微調高度同最高刃，可使切削加工表面粗糙度符合需求。步驟如下：

To let the roughness of machined surface meet the requirement, make a micro-adjustment for each blade at same height. Each step as follows:



1. 用量錶量測每刃高度，以最高刃為基準，將量錶歸零。Use dial indicator to measure each insert height. Zero the dial indicator at 12 on the basis of the highest insert.



2. 使用 P5 扳手，鬆開其他刃固定螺絲。Use the spanner of P5 to loosen the fixed screw for other insert.



3. 使用調整扳手往 ⊕ 的方向微調高度，若調整刃高過高，則使用調整扳手往 ⊖ 的方向微調高度。Use the spanner to make a micro-adjustment at the direction of ⊕. If adjust the insert height over then, please adjust at the direction of ⊖.



4. 待其刃高同最高刃，使用 P5 扳手鎖緊調整螺絲，須再量測一次刃高，查看量錶指針是否指向零，若指針沒有指向零，則重覆上述動作。When all inserts are at the same height, use the spanner of P5 to lock tightly the screws. After that, measure again each insert height. And check if the dial indicator is zero. If no, please repeat above action.



5. 待刃高皆同高時，則調整完畢。Each blade at the same height represents the alignment is ok.

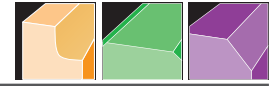


▲ 合金鋼替換式刀頭除了在側邊調整外，也可在上面進行調整，若刀具已上主軸，可不用將刀頭從主軸拆卸，即可檢測調整。Except for side-alignment, you can also adjust from the top. No need to disassemble the cutter head from the machine spindle, just check the each insert.

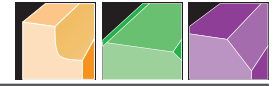


# SCM 合金鋼替換式刀頭

## SCM ALLOY STEEL CHANGE MILLING CUTTER



ISO 分類	P	合金鋼 Alloyed Steels			○	○	○											切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting	
	M	不鏽鋼 Stainless Steels			○	○	○												
	K	鑄鐵 Cast Iron			○	○	○												
	N	鋁及鋁合金 Aluminum&Al						○				■	■	■	○				
S	高溫合金 Refractory Alloys																		
H	高硬度材 Hard Material	○		○															
形狀 Form	規格 Spec.	氮化硼 BN		鍍層超微粒 Layer coating ultra-micro			聚晶鑽石 Polycrystalline diamond			超硬微粒 Ultra-hard microprogram				尺寸 (mm)				圖形 Drawing	
		BN		CHF			DP			HF				Size					
		CBN250	CBN500	OM4010	OM4025	RM4130	PCD	PCD020				GH1	GH05	OM5005	OM5060	d	i		s
	APEX1604PDFR-701											●			9.525	16.4	4.76	0.2	
	APEX1604PDFR-F01												●	●	9.525	16.4	4.76	-	
	APEX160400PDFR-F01												●	●	9.525	16.4	4.76	-	
	APEX160404PDFR-F01												●	●	9.525	16.4	4.76	0.4	
	APEX160408PDFR-F01												●	●	9.525	16.4	4.76	0.8	
	APKT160404							●							9.525	16.5	4.76	-	
	APKT1604PDER							●							9.525	16.5	4.76	-	
	APEW160404								●						9.525	16.5	4.76	-	
	APEW1604PDER								●						9.525	16.5	4.76	-	
	SEHT1204AFFN										●		●	12.7	-	4.76	-		
	SEHT1204APAN	●	●					●						12.7	-	4.76	-		
	SEHT120404							●						12.7	-	4.76	-		
	SEEW120404								●					12.7	-	4.76	-		
	SEEW1204APAN								●					12.7	-	4.76	-		
	SEKW1204AFN				●									12.7	-	4.76	-		
	RPET1204MOE-M01			●	●								●	12	-	4.76	6		
	RPMT1204MON					●								12	-	4.76	6		



## AP\_16 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
N 鋁及鋁合金 Aluminum&Al	GH05	300~800	0.04~0.20	3.0~8.0
	GH1	1200~2000	0.04~0.20	0.5~1.0
	OM5005	400~850	0.05~0.30	1.5~0.3
	OM5060	600~1200	0.05~0.30	1.5~0.3

## SE\_12 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
K 鑄鐵 Cast Iron	CBN500	700~1500	0.06~0.10	0.1~0.2
N 鋁及鋁合金 Aluminum&Al	OM5060	500~850	0.15~0.35	3.6~6.0
	GH1	275~450	0.15~0.35	3.0~6.0
	PCD	1000~2000	0.06~0.10	0.05~0.1
H 高硬度材 Hard Material	CBN250	700~1500	0.05~0.10	0.10~0.50

## RP\_12 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 fz(mm/rev)	切深 Ap(mm)
P 低合金鋼 Low-Alloy Steels	OM4010	220~300	0.08~0.16	0.1~6.0
	OM4025	180~220	0.08~0.16	0.1~6.0
	RM4130	200~240	0.08~0.16	0.1~6.0
合金鋼 Alloy Steels	OM4010	100~200	0.08~0.16	0.1~6.0
	OM4025	120~140	0.08~0.16	0.1~6.0
	RM4130	140~160	0.08~0.16	0.1~6.0
M 不鏽鋼 Stainless Steels	OM4010	80~140	0.08~0.14	0.1~3.0
	OM4025	80~120	0.08~0.14	0.1~3.0
	RM4130	100~140	0.08~0.14	0.1~3.0
K 鑄鐵 Cast Iron	OM4025	220~350	0.08~0.25	0.1~6.0
N 鋁合金 Aluminum&Al	OM5005	700~1000	0.06~0.12	0.1~6.0

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.

# HCMII 鋁合金密齒型銑刀頭

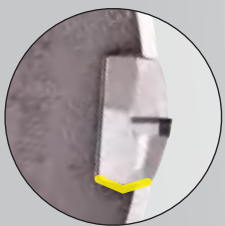
# Feature



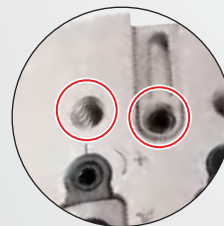
台灣精品 2018  
TAIWAN EXCELLENCE

- 輕量化鋁合金本體  
Lightweight aluminum body.
- 刀座V槽定位設計，讓加工更穩定  
V-groove positioning for superior stability.
- 軸向動平衡及出水結構設計  
Axial dynamic balance and through-tool coolant system.
- 可進行 $\mu$ 級調整  
Adjustable to the micrometer.

# Aluminum



刀座V槽定位設計，可避免高速切削下所產生的震動，讓加工更穩定  
V-groove positioning provide superior stability.



利用移動槽中的質量以改變質量所在的平面，藉以減少刀桿與刀頭結合處的力矩，提升刀頭動平衡等級  
Special radial and axial dynamic balance adjustments for improving the cutter's dynamic balance.



利用雙圓形的設計，有效吸收刀具切削時所產生的後推力，讓加工表面粗糙度更加細緻  
Adjustable wedge with circular arc design provide better surface finish.



免研磨 達鏡面 重環保 愛地球

Grind free Reach mirror Environmental & earth protection

# Milling Cutter





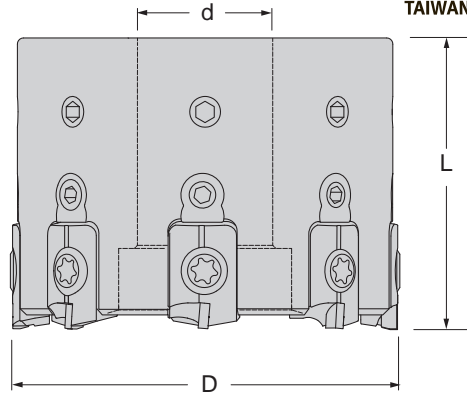
# HCM 鋁合金密齒型替換式刀頭

## HCM ALUMINUM CHANGE MILLING CUTTER

TW PAT. NO: M502518  
 TW PAT. NO: M502519  
 CN PAT. NO: ZL 2015 2 012 5603.4  
 CN PAT. NO: ZL 2015 2 012 5605.3  
 DE PAT. NO: Nr.20 2015 102 712  
 DE PAT. NO: Nr.20 2015 102 713



台灣精品 2016  
 TAIWAN EXCELLENCE



### 特點 Feature

- 輕量化鋁合金本體
- 刀座 V 槽定位設計，讓加工更穩定
- 可進行  $\mu$  級調整

- Lightweight aluminum body.
- V-groove positioning design and results to stable process.
- $\mu$  grade can be adjusted.

規格 Spec.	D	L	d	刃數 T	建議最高轉速 Spindle speed n max	淨重 (KGS) Weight	重量 (KGS) Weight
HCM-50-FMB16-6T	50	48	16	6	max. 33000rpm	0.19	1.26
HCM-63-FMB22-8T	63	48	22	8	max. 33000rpm	0.31	1.40
HCM-80-FMB27-10T	80	50	27	10	max. 33000rpm	0.49	1.60
HCM-100-FMB32-14T	100	50	32	14	max. 29500rpm	0.82	2.02
HCM-125-FMB40-18T	125	63	40	18	max. 25500rpm	1.63	3.68
HCM-160-FMB40-24T	160	63	40	24	max. 22200rpm	2.48	6.65
HCM-200-FS60F-28T	200	63	60	28	max. 18100rpm	3.42	7.56
HCM-250-FS60F-36T	250	63	60	36	max. 14500rpm	6.50	10.58
HCM-315-FS60F-46T	315	80	60	46	max. 11500rpm	12.44	16.60
HCM-400-FS60F-58T	400	80	60	58	max. 9000rpm	20.76	28.22

MILLING



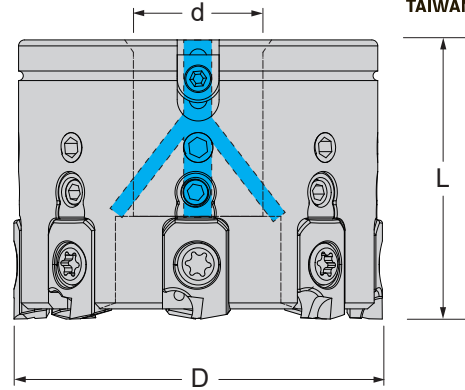


# HCM 鋁合金密齒型替換式刀頭 (動平衡及出水結構) HCM ALUMINUM CHANGE MILLING CUTTER

TW PAT. NO: 1573644



台灣精品 2018  
TAIWAN EXCELLENCE



## 特點 Feature

- 輕量化鋁合金本體
- 刀座 V 槽定位設計 · 讓加工更穩定
- 可進行  $\mu$  級調整
- 軸向動平衡及出水結構設計

- Lightweight aluminum body.
- V-groove positioning design and results to stable process.
- $\mu$  grade can be adjusted.
- Axial dynamic balance and through-tool coolant system.

規格 Spec.	D	L	d	刃數 T	建議最高轉速 Spindle speed n max	淨重 (KGS) Weight	重量 (KGS) Weight
HCM-50-FMB16-6T-AB-C	50	48	16	6	max. 33000rpm	0.20	1.26
HCM-63-FMB22-8T-AB-C	63	48	22	8	max. 33000rpm	0.30	1.40
HCM-80-FMB27-10T-AB-C	80	50	27	10	max. 33000rpm	0.48	1.60
HCM-100-FMB32-14T-AB-C	100	50	32	14	max. 29500rpm	0.81	2.02
HCM-125-FMB40-18T-AB-C	125	63	40	18	max. 25500rpm	1.88	3.68

MILLING



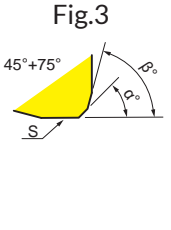
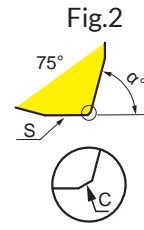
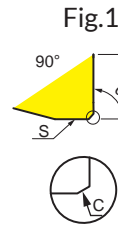
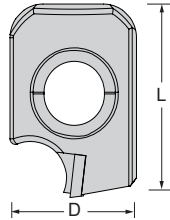


# HCM PCD 刀片座

## HCM PCD INSERT SEAT



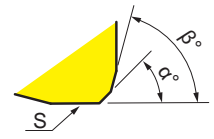
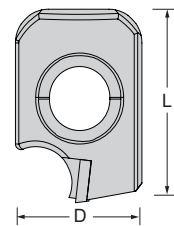
聚晶  
PCD



適合刀具 Cutting Tool	規格 Spec.	聚晶鑽石 Polycrystalline Diamond				尺寸 (mm)						最大切深 Cutting Max.	Fig.
		DP				Size						mm	
		PCD				L	D	$\alpha^\circ$	$\beta^\circ$	S	C	AP	
HCM	ACMQ1711PAFR	●				17	11	90°	-	1.2	0.15	2	1
	ACMQ1711EAFR	●				17	11	75°	-	1.2	0.15	2	2
	ACMQ1711AAFR	●				17	11	45°	75°	1.2	-	1.13	3

※ 如有特殊角度需求，請與我司聯繫 If have the special angle need, please contact us.

聚晶  
PCD

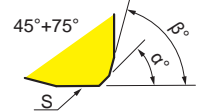
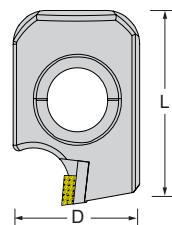


修光刀片 Wiper inserts:

適合刀具 Cutting Tool	規格 Spec.	聚晶鑽石 Polycrystalline Diamond				尺寸 (mm)						最大切深 Cutting Max.
		DP				Size						mm
		PCD				L	D	$\alpha^\circ$	$\beta^\circ$	r	C	AP
HCM	ACMQ1711AAFR-R300	●				17	11	45°	75°	300	-	2
	ACMQ1711AAFR-R500	●				17	11	45°	75°	500	-	1.13

※ 如有特殊角度需求，請與我司聯繫 If have the special angle need, please contact us.

單晶  
MD



單晶刀片 Single crystal diamond:

適合刀具 Cutting Tool	規格 Spec.	單晶鑽石 Single crystal diamond				尺寸 (mm)						最大切深 Cutting Max.
		MD				Size						mm
		MD100				L	D	$\alpha^\circ$	$\beta^\circ$	S	C	AP
HCM	ACMQ1711ACFR	●				17	11	45°	75°	1.2	-	1.13

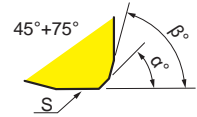
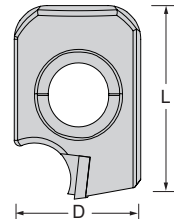
MILLING



## HCM 鎢鋼刀片座 HCM TUNGSTEN STEEL INSERT SEAT



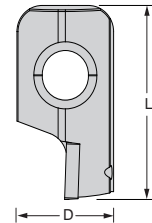
鎢鋼  
WC



規格 Spec.	L	D	$\alpha^\circ$	$\beta^\circ$	S	重量 (KGS) Weight
ACMQ1711AAFR-WC	17	11	45°	75°	1.2	0.02



## HCM 捨棄式刀片座 HCM SUPPLEMENTAL INSERT SEAT

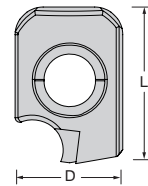


規格 Spec.	L	D	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
ACMQ1711-TB06	22.13	11	TB.0601	M2-5.0-2.7-60	T6	0.6	0.02

※ 可自行搭配刀片材質 Can collocation insert material.



## HCM 刀片基座 HCM INSERT BASE SEAT



規格 Spec.	L	D	重量 (KGS) Weight
ACMQ1711-AS	17	11	0.02

※ 可用於刀頭配重或自行焊接各項材質 Can be used for weight or self-welding head of the material.

### 標準配件 Standard Accessories:

圖示 Fig.					
規格 Spec.	HCM-AW-8L	M8-1.25P-M5-0.8P-10L	M5-15-7.0-60-T25	M5-0.5P-LH-RH-17-P2.5	M5-0.8P-10L
名稱 Name	調整楔塊 wedge adjustment	牙套 teeth sleeve	刀片座螺絲 insert holder screw	雙頭螺絲 both headed screw	動平衡螺絲 balance screw
功能 Function	調整尺寸精度 Dimension accuracy adjustment	調整尺寸精度 Dimension accuracy adjustment	鎖固刀座 fix the holder	固定調整楔塊 fix the wedge	平衡配重 mass-balance weight
圖示 Fig.					
規格 Spec.	TW-80-SB	BIT-T25-50L	PT2.5	T25	
名稱 Name	TW 扭力起子 TW torque driver	50mm 起子頭 50mm bits torx	T 型扳手 T-type wrench	L 型星型扳手 L-type wrench	
功能 Function			鎖固螺絲 lock screws		

MILLING



### 1 依工件寬度搭配面銑刀具直徑

According to the width of the workpiece with the face milling cutter diameter

形式 Form				
說明 Description				
零件材質 Part material	刀具直徑 Cutter Diameter		選擇適當刃數 Choice suitable teeth	
	E 建議的切入角 E The recommended cut-in angle	建議刀具直徑與工件寬度比 Recommended tool diameter to workpiece width ratio	按直徑 (mm) 計算 Calculated by diameter (mm)	結果 result
鋁合金 Aluminum	+40°以上	5:3	$(\frac{4}{100} \sim \frac{6}{100}) \times \varnothing D$	多則易變形；少則易起毛邊 More easily deformed; from less easy to flash

### 2 咬合角和刀具壽命

Bite angle and tool life

形式 Form		
<p>咬合角與銑刀尺寸的關係 Relation to Cutter Diameter</p> <p>銑刀直徑 (大)</p>	<p>咬合角與銑刀位置的關係 Relation to Cutter Position</p>	<p>與刀具壽命的關係 Relation to Tool Life</p> <p>SCM440</p>
<p>咬合角與銑刀尺寸的關係 Relation to Cutter Diameter</p> <p>銑刀直徑 (小)</p>	<p>咬合角與銑刀位置的關係 Relation to Cutter Position</p>	<p>與刀具壽命的關係 Relation to Tool Life</p> <p>FCD60</p>
說明 Description		
		<p>咬合角是銑刀中心與刀切進點的連線與進給方向所成的夾角。 E 越大刀具壽命越短。改變 E 的方法有：1. 加大銑刀直徑 2. 錯開位置 Engage angle denotes the angle by which the full length of the cutting edge comes in contact with the work material, with reference to the feed direction. The large E is, the shorter the tool life. To change the value of E: 1. increase the cutter size. 2. shift the position of the cutter.</p>



### 3 切削的刃數與切削力變動的關係 Relation between the number of simultaneously engaged cutting edges and cutting force

形式 Form										
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>						
同時參與切削刃數為 0 或者 1 時 0 or 1 edge in contact at same time.	常態為 1 片切削時 Only 1 edge in contact at any time.	1 片或 2 片切削時 1 or 2 edges in contact.	2 片切削時 2 edge in contact at any time.	2~3 片切削時 2 to 3 edge in contact.						
說明 Description										
<p>通常切削寬度如 D 的狀態，銑刀直徑在 70%~80% 較為適當，但由於受機台和工件的剛性、機台馬力的影響，無法一概而論 Normally, cutting width is considered to be appropriate with 70 to 80% of the cutter diameter engaged as shown in example D. However, this may not apply due to the actual rigidity of the machine or work piece, and machine horsepower.</p>										
建議使用刀具尺寸規格 Suggest used the cutter spec.										
規格 Spec.	HCM50	HCM63	HCM80	HCM100	HCM125	HCM160	HCM200	HCM250	HCM315	HCM400
工件寬度範圍 Workpiece width range	30~40mm	37~50mm	48~64mm	60~80mm	70~95mm	96~128mm	120~160mm	150~200mm	189~252mm	240~320mm

### 4 選擇刀片座種類 Choice the insert seat type

形式 Form					
<b>90°</b>	<b>75°</b>	<b>45°</b>	<b>12°</b>	$D_c=100 \quad f=0.05 \quad A_p=0.2$ $h = \frac{\sqrt{A_p \times (D_c - A_p)} \times f}{D_c}$	
適用： 1. 加工壁薄件 2. 加工夾持剛性差工件 3. 大切削 General: 1. Processing pi thin pieces. 2. Processing clamping rigid workpiece. 3. Large cutting.	適用： 1. 加工粗胚 2. 中大切削工件 General: 1. Processing rough embryos. 2. Large cutting parts.	適用： 1. 加工深腔體工件 2. 中切深 General: 1. Processing of deep cavity workpiece. 2. In the depth of cut.	適用： 1. 加工大量粗切削 2. 小切深、大進給 General: 1. Processing a large number of rough cutting. 2. Small depth of cut, large feed.	範例 Example: $h = \frac{\sqrt{0.2 \times (100 - 0.2)}}{100} \times 0.05$ $h = 2.23$	
說明 Description					
<p>外周切削刃角(主偏角的餘角)越大，則切屑厚度越大，切削阻力增加，刃口強度降低；反之則切屑厚度越薄，切削阻力減少，加工餘量受限。一般加工選用切削力，切屑厚度適中的 45°角。 The larger the chip angle is, the greater the chip thickness is, and the cutting resistance is increased. The cutting edge strength is reduced. General processing selection of cutting force, chip thickness of moderate 45° angle.</p>					



### 5 外周切削刃角與切削刃的關係 Relationship between cutting edge angle and cutting edge

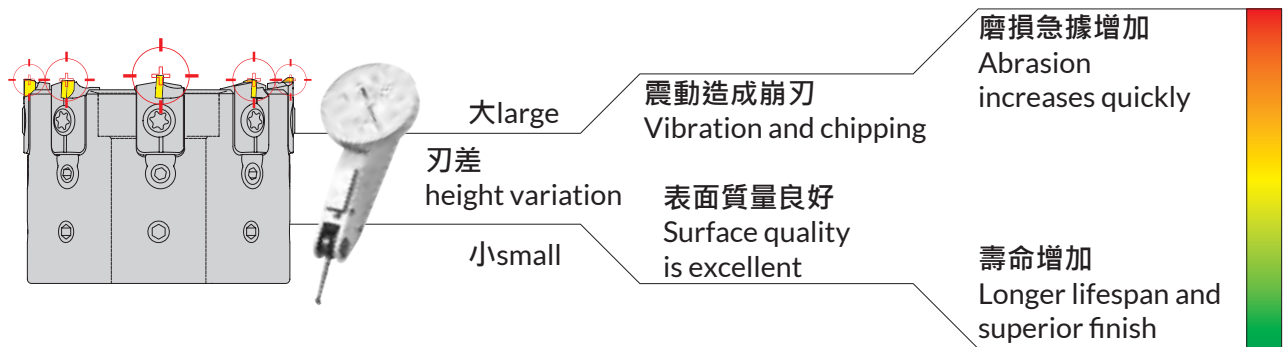
形式 Form	
<p>90°</p>	<p>主偏角 外周切削刃角</p>
<p>Fa: 切削力的軸向分力 Fr: 切削力的徑向分力</p> <p>Fa: Axial component of cutting force. Fr: Radial component of cutting force.</p>	
說明 Description	
<p>刀具外徑切削刃角越大·徑向分力越大；軸向分力越小·適合加工薄壁件·軸向剛性較差的零件加工。                      刀具外徑切削刃角越小·軸向分力越大；徑向分力越小·適應於大懸長加工。                      The greater the peripheral cutting edge angle, the greater the radial component; axial component of the smaller, to adapt to thin-walled parts, poor rigidity of the axial processing of parts.                      The smaller the peripheral cutting edge angle, the greater the axial component; radial component of the smaller, adapted to large long-length processing.</p>	

### 6 如何正確搭配刀片座類型 How to properly match the insert seat type

形式 Form	
<p>Ha : 不使用修光刀刀片的粗糙度 Ha: Don't used wiper insert</p>	<p>Hb : 使用修光刀刀片的粗糙度 Hb: Used wiper insert</p>
<p>切削數據：◆工件：Al7075 ◆刀頭 HCM-63 ◆Vc=700m/min ◆fz=0.1mm/t ◆Ap=0.1mm</p>	
<p>h: 修光刀刀片突出量 鋁合金(Al): 0.03mm</p>	<p>f: 每刃進給(mm/rev) Ha: 普通刀片的精加工粗糙度 Hb: 修光刀刀片的精加工粗糙度</p>
<p>一般捨棄式刀片</p>	<p>修光刀刀片</p>
說明 Description	
<p>- 帶修光刃的刀片：所有刀片帶有修光刃·相對刀片的跳動高度·利用高度最突出的刀片修光刃刮光表面的方法。                      - With wiper insert: All insert have a wiper edge, relative to the beating height of the insert, using the most prominent insert to wiper the surface of the wiper.                      - 加入修光刀刀片的方式：在一般刀片中·加入 1~2 片呈圓滑線型的修光刀刀片比其它刀片稍突出。                      - Wiper insert to join the way: in the general insert, add 1 to 2 was rounded linear wiper insert than other edge insert slightly prominent.</p>	



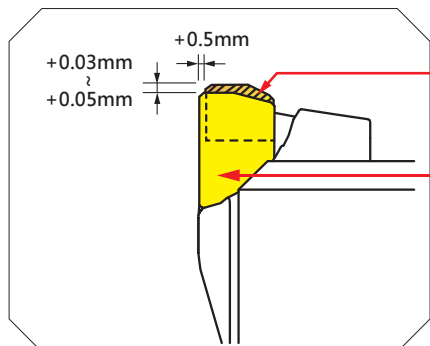
### 7 調整刀刃的差異性 Adjust the difference between the insert edge



### 8 切削數據 Cutting conditions

材料 Materials	材料編號 Materials examples	抗拉強度 Strength(N/mm <sup>2</sup> )	線速度 Vc(m/min)	每刃進給量 f(mm/rev)	
				Ap<1mm	Ap:1~2mm
鋁合金 (Aluminium)	鋁合金 (Al99)		max.6000	0.1~0.2mm/rev	0.05~0.1mm/rev
鋁合金 (Aluminium) 7% 矽 (Si)	鑄造鋁合金 (AlSi7)				
鋁合金 (Aluminium) 7-12% 矽 (Si)	鋁合金 (AlSi9) 鋁合金 (AlSi9Cu)				
鋁合金 (Aluminium) 12% 矽 (Si)	鋁合金 (AlSi12) 鋁合金 (AlSi17)		max.2000		
銅 (Copper) 非合金銅 (unalloyed)	銅合金 (SE-Cu)	< 300	max.6000		
銅 (Copper)	銅錫合金 (CuSn6)	> 300	max.2000		
黃銅 (Brass) 青銅 (bronze) 紅銅 (red brass)	銅錫合金 (CuZn33) 銅合金 (CuAl9Mn3)	< 1.200			
石墨 (Graphite)	-				
塑料 (Plastic) 熱可塑性樹脂 (Thermoplastics)	尼龍 (PA), 塑膠 (PE), 聚碳酸酯 (PC), 聚苯乙烯 (PS), 聚氯乙烯 (PVC), 聚丙烯 (PP), 聚四氟乙烯 (PTFE), 聚甲醛 (POM), 聚甲基丙烯酸甲酯 PMMA				
塑料 (Plastic) 熱固性塑膠 (Thermoset plastics)	聚氨酯 (PU), 電木粉 (PF), 環氧樹脂 (EP), 聚酯樹脂 (UP), 塑膠 (VE), 氯丁橡膠 (CR)				
塑料 (Plastic matrix) 碳纖維複合材料 (CFRP/GFRP)	聚酯 (IMS), 高溫合金 (HTA)		Max.100~500		
塑料 (Plastic matrix) 碳纖維複合材料 (CFRP/GFRP)	玻璃纖維 (GMT-PP), 聚醚醚酮 (PEEK)				
碳纖維複合材料 Carbon matrix 碳纖維強化碳基複合材料 carbon fibre reinforced (CFC)	碳纖維 (CF222, CF225, CF226, CF227, CF260)				

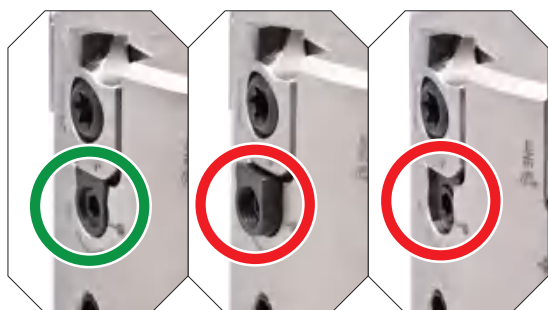




修光刃刀片座 Wiper insert

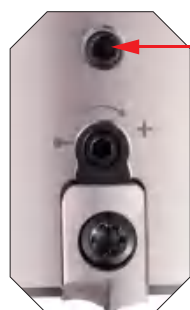
PCD刀片座 PCD insert

**⚠** 安裝修光刃刀片(R300、R500)時，應比PCD刀片高出+0.03mm~+0.05mm  
When installing wiper inserts (R300 or R500) be sure they are 0.03 ~ 0.05mm higher than the PCD insert.



請務必使調整楔塊與刀頭外徑平行  
Make sure the wedge and the insert are parallel.

一般精度：0.01mm  
精密精度：0.003mm ~ 0.005mm  
General accuracy: 0.01mm  
Precision accuracy: 0.003mm 0.005mm



每刃皆有一顆動平衡螺絲，可調整每刃不平衡量  
Each insert seat has a dedicated dynamic balance adjustment

轉速( $\text{min}^{-1}$ )	JIS等級 ISO 1940-1/8821 (JIS B0905)
~20,000	G16
~30,000	G6.3
30,000~	G2.5



在高速旋轉 (10,000  $\text{min}^{-1}$  以上) 使用時，刀具本體與刀桿的組合，請參考以下數值進行選配

When operating at high rotation speeds (10,000  $\text{min}^{-1}$  or more), perform balancing of the tool body and arbor combination according to the reference values listed here.

**⚠** 請不要超過建議的最高轉速加工數據，避免造成離心力影響而使刀片或零件的飛散，導致刀頭受損  
Do not use at rotation speeds exceeding the maximum rotation speed stated. Inserts and other parts may fly apart and cause bodily harm due to the high velocity of centrifugal force.

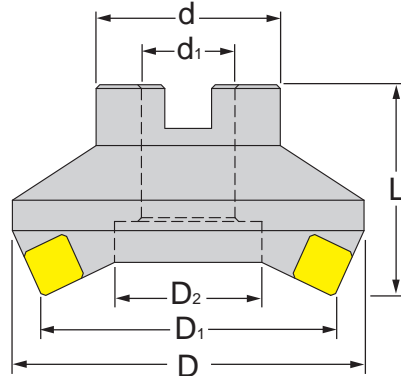
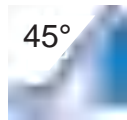


# ASP 45° 捨棄式平面銑刀

## ASP 45° SUPPLEMENTAL FACE MILLING CUTTER



445



規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
ASP-445-3	55	104	80	36	68	25.4	5	SE..1203	2.21
ASP-445-4	55	128	100	45	85	31.75	5	SE..1203	3.34
ASP-445-5	60	156	125	60	106	38.1	6	SE..1203	5.33
ASP-445-6	60	182	160	72	132	50.8	8	SE..1203	7.31
ASP-445-8	60	228	200	130	128	47.625	10	SE..1203	8.81
ASP-445-10	60	284	250	140	160	47.625	12	SE..1203	16.0
ASP-445-12	60	327	300	140	210	47.625	14	SE..1203	26.0

### 配件表 Accessories

刀片 Insert	雙頭螺絲 Screw	墊片螺絲 Shim Screw	壓板 Clamp	墊片 Shim	扳手 Wrench	扭力值 (N.m) Torque
SE..1203	ASP1	ASP2	ASP3	ASP4	PT4	5.0

ISO 分類	合金鋼 Alloyed Steels										切削狀態 Cutting Condition :				
	不鏽鋼 Stainless Steels														
	鑄鐵 Cast Iron														
ISO 分類	鋁及鋁合金 Aluminum&Al										● 連續切削 Continuous Cutting				
	高溫合金 Refractory Alloys														
ISO 分類	高硬度材 Hard Material										○ 一般切削 General Cutting				
	斷續切削 Interrupted Cutting														
形狀 Form	規格 Spec.	硬質合金 Hard alloy								尺寸 (mm) Size				圖形 Drawing	
		HW								d	i	s	r		
		TSP25	TSK10												
	SEKN1203AFR	●	●								12.7	-	3.18	-	

MILLING

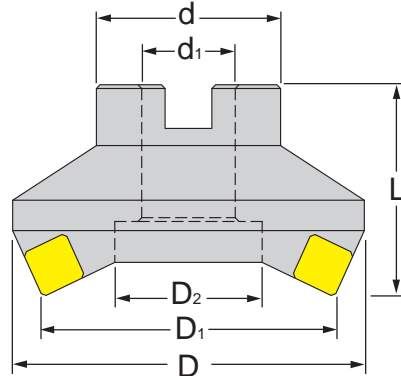
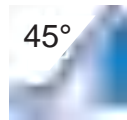


# ASP 45° 捨棄式平面銑刀

## ASP 45° SUPPLEMENTAL FACE MILLING CUTTER



545



規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
ASP-545-3	55	104	80	36	68	25.4	5	SE..1504	2.20
ASP-545-4	55	128	100	45	85	31.75	5	SE..1504	3.33
ASP-545-5	60	156	125	60	106	38.1	6	SE..1504	5.32
ASP-545-6	60	182	160	72	132	50.8	8	SE..1504	7.30
ASP-545-8	60	228	200	130	128	47.625	10	SE..1504	8.69
ASP-545-10	60	284	250	140	160	47.625	12	SE..1504	16.38
ASP-545-12	60	327	300	140	210	47.625	14	SE..1504	26.38

### 配件表 Accessories

刀片 Insert	雙頭螺絲 Screw	墊片螺絲 Shim Screw	壓板 Clamp	墊片 Shim	扳手 Wrench	扭力值 (N.m) Torque
SE..1504	ASP1	ASP2	ASP3	ASP4	PT4	5.0

ISO 分類	P	合金鋼 Alloyed Steels	○	○												切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting	
	M	不鏽鋼 Stainless Steels															
	K	鑄鐵 Cast Iron			○												
形狀 Form	N	鋁及鋁合金 Aluminum&Al														圖形 Drawing 	
	S	高溫合金 Refractory Alloys															
	H	高硬度材 Hard Material															
規格 Spec.	硬質合金 Hard alloy											尺寸 (mm) Size					
	HW											d	i	s	r		
	TSP20	TSP25	TSK10														
	SEKN1504AFR	●	●	●										15.875	-	4.76	-

MILLING

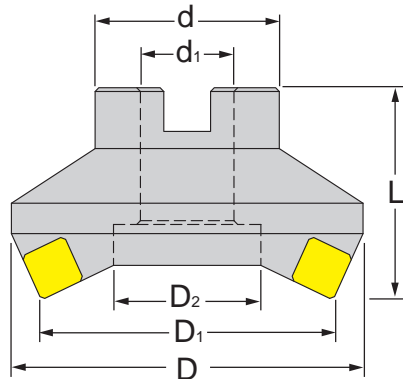
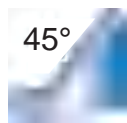


# ASP 45° 捨棄式平面銑刀

## ASP 45° SUPPLEMENTAL FACE MILLING CUTTER



545



FMB 為公制規格 (mm) FMB is mm size

規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
ASP-545-4-FMB32	55	128	100	45	85	32	5	SE..1504	3.33
ASP-545-5-FMB40	60	156	125	60	106	40	6	SE..1504	5.32
ASP-545-6-FMB40	60	182	160	72	132	40	8	SE..1504	7.30
ASP-545-8-FMB60	60	228	200	130	128	60	10	SE..1504	8.69
ASP-545-10-FMB60	60	284	250	140	160	60	12	SE..1504	16.93
ASP-545-12-FMB60	60	327	300	140	210	60	14	SE..1504	26.2

### 配件表 Accessories

刀片 Insert	雙頭螺絲 Screw	墊片螺絲 Shim Screw	壓板 Clamp	墊片 Shim	扳手 Wrench	扭力值 (N.m) Torque
SE..1504	ASP1	ASP2	ASP3	ASP4	PT4	5.0

ISO 分類	規格 Spec.	硬質合金 Hard alloy												尺寸 (mm) Size				圖形 Drawing	
		HW												d	i	s	r		
		TSP20	TSP25	TSK10															
<b>P</b> 合金鋼 Allied Steels <b>M</b> 不鏽鋼 Stainless Steels <b>K</b> 鑄鐵 Cast Iron <b>N</b> 鋁及鋁合金 Aluminum&Al <b>S</b> 高溫合金 Refractory Alloys <b>H</b> 高硬度材 Hard Material			○	○															切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	SEKN1504AFR	●	●	●										15.875	-	4.76	-		

MILLING

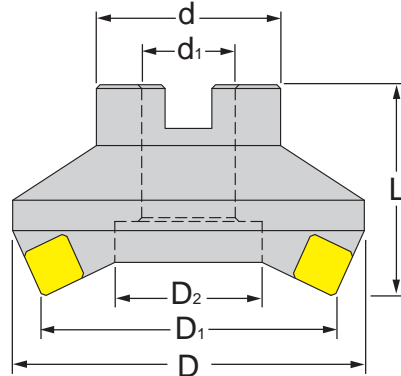
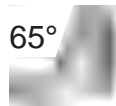


# ASP 65° 捨棄式平面銑刀

## ASP 65° SUPPLEMENTAL FACE MILLING CUTTER



435



規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
ASP-435-3	55	96	80	36	70	25.4	5	SPKN1204 (ISO) SPK43C2SR (英制)	2.16
ASP-435-4	55	118	100	45	80	31.75	5		2.96
ASP-435-5	60	142	125	55	96	38.1	6		4.80
ASP-435-6	60	177	160	72	128	50.8	8		7.24
ASP-435-8	60	218	200	130	128	47.625	10		8.90
ASP-435-10	60	273	250	130	200	47.625	12		19.0
ASP-435-12	60	320	300	130	210	47.625	14		25.0

### 配件表 Accessories

刀片 Insert	雙頭螺絲 Screw	墊片螺絲 Shim Screw	壓板 Clamp	墊片 Shim	扳手 Wrench	扭力值 (N.m) Torque
SPK43C2SR	ASP1	ASP2	ASP3	ASP4	PT4	5.0

ISO 分類	合金鋼 Alloyed Steels										切削狀態 Cutting Condition: ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting				
	不鏽鋼 Stainless Steels														
	鑄鐵 Cast Iron														
形狀 Form	鋁及鋁合金 Aluminum&Al										圖形 Drawing				
	高溫合金 Refractory Alloys														
	高硬度材 Hard Material														
規格 Spec.	硬質合金 Hard alloy										尺寸 (mm) Size				
	HW														
	TSP20	TSK10									d	i	s	r	
	●	●									12.7	-	4.76	-	

MILLING

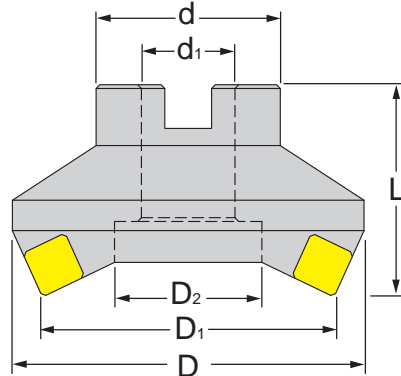
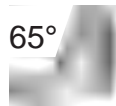


# ASP 65° 捨棄式平面銑刀

## ASP 65° SUPPLEMENTAL FACE MILLING CUTTER



535



規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
ASP-535-3	55	96	80	36	70	25.4	5	SPKN1504 (ISO) SPK53C2SR (英制)	2.05
ASP-535-4	55	118	100	45	80	31.75	5		2.90
ASP-535-5	60	142	125	55	96	38.1	6		4.64
ASP-535-6	60	177	160	72	128	50.8	8		7.14
ASP-535-8	60	218	200	130	128	47.625	10		8.87
ASP-535-10	60	273	250	130	200	47.625	12		18.4
ASP-535-12	60	320	300	130	210	47.625	14		26.9

### 配件表 Accessories

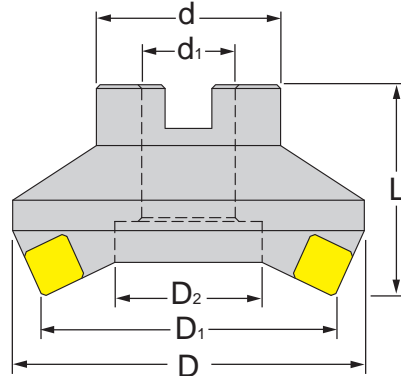
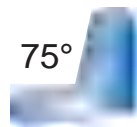
刀片 Insert	雙頭螺絲 Screw	墊片螺絲 Shim Screw	壓板 Clamp	墊片 Shim	扳手 Wrench	扭力值 (N.m) Torque
SPK53C2SR	ASP1	ASP2	ASP3	ASP4	PT4	5.0

ISO 分類	P 合金鋼 Alloyed Steels										M 不鏽鋼 Stainless Steels										K 鑄鐵 Cast Iron										N 鋁及鋁合金 Aluminum&Al										S 高溫合金 Refractory Alloys										H 高硬度材 Hard Material										切削狀態 Cutting Condition: ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	硬質合金 Hard alloy										尺寸 (mm) Size										圖形 Drawing																																								
	HW										d	i	s	r																																															
形狀 Form	規格 Spec.										TSP20	TSP25	TSK10								d	i	s	r																																					
	SPK53C2SR										●	●	●								15.88	-	4.76	-																																					

MILLING



# BFP 75° 捨棄式平面銑刀 BFP 75° SUPPLEMENTAL FACE MILLING CUTTER



規格 Spec.	L	D	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
BFP-3	55	87	80	36	65	25.4	5	SP.1203	1.84
BFP-4	55	108	100	45	78	31.75	6	SP.1203	2.61
BFP-5	60	138	125	55	90	38.1	8	SP.1203	4.45
BFP-6	60	167	160	73	117	50.8	10	SP.1203	6.45
BFP-8	60	208	200	128	127	47.625	12	SP.1203	8.61
BFP-10	60	262	250	140	150	47.625	16	SP.1203	14.2
BFP-12	60	312	300	140	210	47.625	20	SP.1203	26.7

## 配件表 Accessories

刀片 Insert	雙頭螺絲 Screw	墊片螺絲 Shim Screw	壓板 Clamp	墊片 Shim	扳手 Wrench	扭力值 (N.m) Torque
SP.1203	ASP1	ASP2	ASP3	ASP4	PT4	5.0

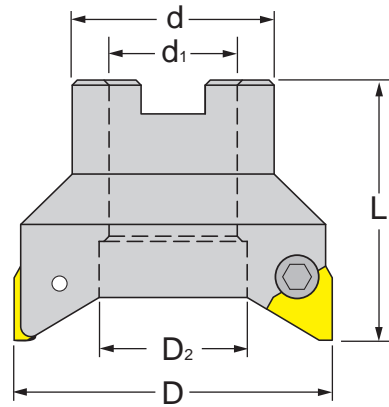
ISO 分類	合金鋼 Alloy Steels		不鏽鋼 Stainless Steels		鑄鐵 Cast Iron		鋁及鋁合金 Aluminum&Al		高溫合金 Refractory Alloys		高硬度材 Hard Material		切削狀態 Cutting Condition :		
	P	M	K	N	S	H	硬質合金 Hard alloy				尺寸 (mm) Size				
	HW		Size		圖形 Drawing										
形狀 Form	規格 Spec.	TSP25	TSK10								d	i	s	r	
	SPKN1203EDR	●	●								12.7	-	3.18	-	

MILLING



# TAP 90° 捨棄式平面銑刀

## TAP 90° SUPPLEMENTAL FACE MILLING CUTTER



規格 Spec.	L	D	D <sub>2</sub>	d	d <sub>1</sub>	刃數 Teeth	刀片 Insert	重量 (KGS) Weight
TAP-63	50	63	18.5	48	25.4	3	TP..2204	0.56
TAP-80	55	80	36	60	25.4	4	TP..2204	1.02
TAP-100	55	100	45	78	31.75	5	TP..2204	1.80
TAP-125	60	125	55	90	38.1	6	TP..2204	3.21
TAP-150	60	150	72	118	50.8	7	TP..2204	4.76
TAP-200	60	200	60	165	47.625	8	TP..2204	8.69
TAP-250	60	250	162	214	47.625	9	TP..2204	15.03
TAP-300	60	300	162	214	47.625	10	TP..2204	22.48

### 配件表 Accessories

刀片 Insert	傘型螺絲 Screw	墊片螺絲 Shim Screw	墊片 Shim	扳手 Wrench	扭力值 (N.m) Torque
TP..2204	M8-U5/16-24P	TAP2	TAP3	PT5	6.0

ISO 分類	規格 Spec.	硬質合金 Hard alloy										尺寸 (mm) Size				圖形 Drawing		
		HW										Size						
		TSP25	TSK10									d	i	s	r			
<b>P</b> 合金鋼 Alloyed Steels <b>M</b> 不鏽鋼 Stainless Steels <b>K</b> 鑄鐵 Cast Iron <b>N</b> 鋁及鋁合金 Aluminum&Al <b>S</b> 高溫合金 Refractory Alloys <b>H</b> 高硬度材 Hard Material	TPKN2204PDR	●	●											12.7	-	4.76	-	
	TPMN220412	●	●												12.7	-	4.76	1.2

切削狀態 Cutting Condition :

- 連續切削 Continuous Cutting
- 一般切削 General Cutting
- 斷續切削 Interrupted Cutting

MILLING





### SP\_12.43.53 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials		刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 (mm/rev)
P	低合金鋼	TSP20	125~200	0.1~0.3
		TSP25	125~200	0.1~0.3
P	合金鋼	TSP20	50~100	0.1~0.2
		TSP25	50~100	0.1~0.2
K	鑄鐵	TSK10	80~120	0.1~0.3

### SE\_12.15 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials		刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 (mm/rev)
P	低合金鋼	TSP20	125~200	0.1~0.3
		TSP25	125~200	0.1~0.3
P	合金鋼	TSP20	50~100	0.1~0.2
		TSP25	50~100	0.1~0.2
K	鑄鐵	TSK10	80~120	0.1~0.3

### TP\_22 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials		刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 (mm/rev)
P	低合金鋼	TSP25	125~200	0.1~0.3
P	合金鋼	TSP25	50~100	0.1~0.2
K	鑄鐵	TSK10	80~120	0.1~0.3

主軸轉速 = (1000 × 切削速度) ÷ (3.14 × 刀具外徑) Spindle Speed = (1000 × Cutting speed) ÷ (3.14 × Cutter diameter).

床檯進給 (mm/min) = 每刃進給 × 刀具刃數 × 主軸轉速 Feeding Speed (mm/min) = Feed per teeth × Teeth × Spindle speed.



S	T	F	C	R	12	C	A	-	16
①	②	③	④	⑤	⑥	⑦	⑧		⑨

① STFCR12CA - 16		
鎖固方式 Method of Mounting Insert		
Top Clamping C	Hole clamping P	Screw on S

② STFCR12CA - 16		
刀片形狀 Insert Shape		
C	P	S

③ STFCR12CA - 16		
進刀角度 Holder Style		
L	S	R
R	K	G
W	T	

④ STFCR12CA - 16		
離隙角 Relief Angle of Insert		
C	P	N

⑤ STFCR12CA - 16	
進刀方向 Hand of Tool	
R	L

⑥ STFCR12CA - 16
切削刃高度 Height of Cutting Edge

⑦ STFCR12CA - 16
刀具類型 Cartridge Code
C (Cartridge)

⑧ STFCR12CA - 16
設計類型 Type of Cartridge
A (ISO5611)

⑨ STFCR12CA - 16
切削刃長度 Length of Cutting Edge



# 卡式刀座 CARTRIDGES

	規格 Spec.	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	F	H	D <sub>min</sub>	R <sub>e</sub>	刀片 Insert
<b>STFCR</b> Kr=90° 	STFCR-08CA-09	32	-	15	10	8	25	0.4	TC..0902
	STFCR-10CA-11	50	-	30	14	10	40	0.4	TC..1102
	STFCR-12CA-16	55	-	35	20	12	50	0.8	TC..16T3
<b>STFPR</b> Kr=90° 	STFPR-08CA-09	32	-	15	10	8	25	0.4	TP.0902
	STFPR-10CA-11	50	-	30	14	10	40	0.4	TP.1103
	STFPR-12CA-16	55	-	35	20	12	50	0.8	TP.1603
<b>SCFCR</b> Kr=90° 	SCFCR-08CA-06	32	-	15	10	8	25	0.4	CC..0602
	SCFCR-10CA-09	50	-	30	14	10	40	0.4	CC..09T3
<b>STSPR</b> Kr=45° 	STSPR-08CA-09	28	34.1	11	10	8	25	0.4	TP.0902
	STSPR-10CA-11	44	51.0	24	14	10	40	0.4	TP.1103
	STSPR-12CA-16	47	57.0	27	20	12	50	0.8	TP.1603
<b>STSCR</b> Kr=45° 	STSCR-08CA-09	28	34.1	11	10	8	25	0.4	TC..0902
	STSCR-10CA-11	44	51.0	24	14	10	40	0.4	TC..1102
	STSCR-12CA-16	47	57.0	27	20	12	50	0.8	TC..16T3
<b>STGCL</b> Kr=90° 	STGCL-12CA-16	55	-	35	20	12	75	0.8	

MILLING

# DR 碳化鎢鋼出水鑽頭

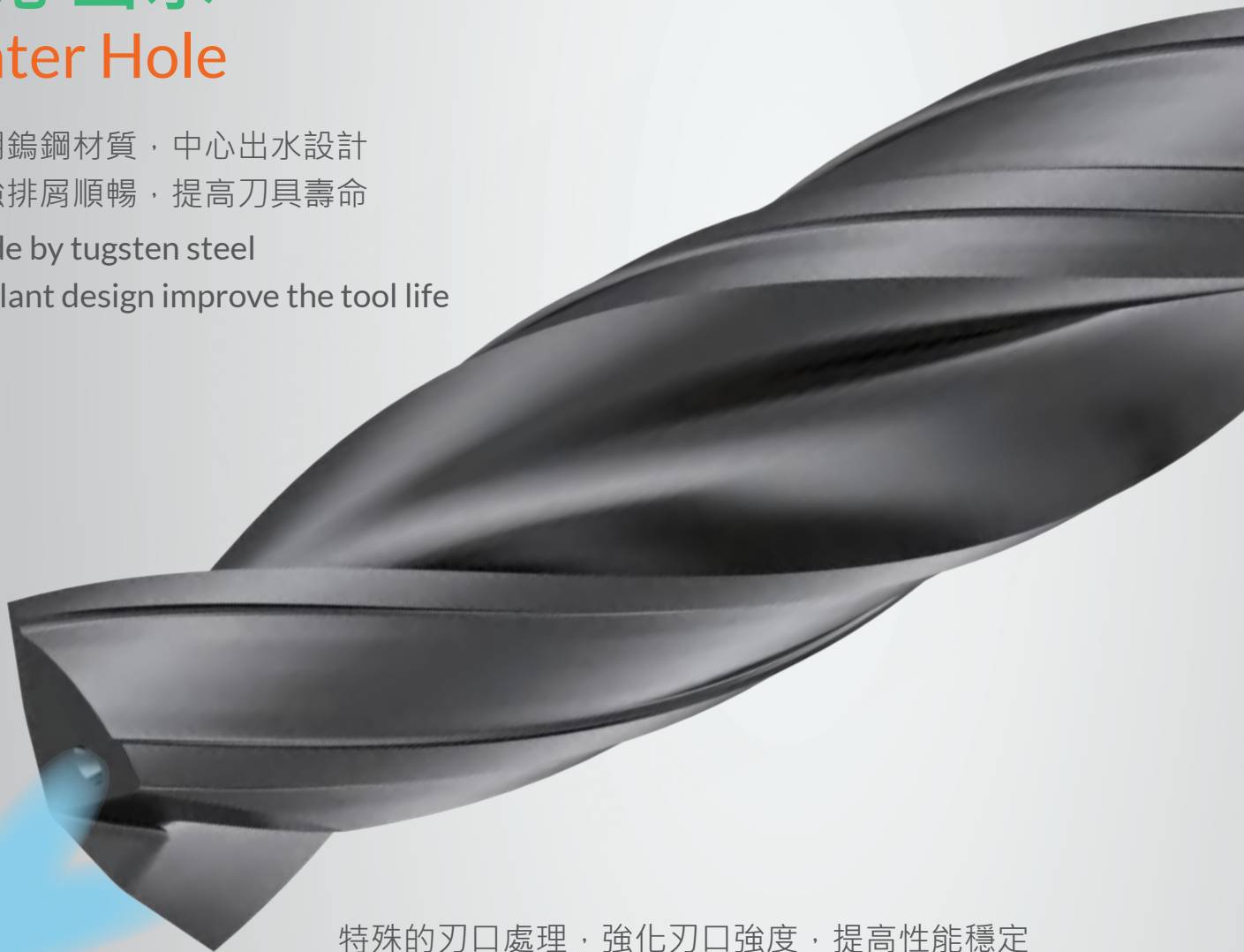
# Feature

## 中心出水 Water Hole

採用鎢鋼材質，中心出水設計  
加強排屑順暢，提高刀具壽命

Made by tungsten steel

Coolant design improve the tool life



特殊的刃口處理，強化刃口強度，提高性能穩定  
Special treated drill edge has high strength and stability.

採用TiAlN塗層，具有良好的抗氧化性，耐磨性高  
TiAlN coating prevent rust and act as a wear resistance.

獨特槽型設計，具有優良的排屑效果  
Unique design with excellent chip removal effect.

# Carbide Drill



# 碳化鎢鋼出水鑽頭編碼規範

## TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLNAT CODING KEY

記號	被加工材質
DR20P	一般鋼
DR30M	不鏽鋼
DR40K	鑄鐵
DR50N	非鐵合金
DR60S	高溫合金
DR70H	高硬度

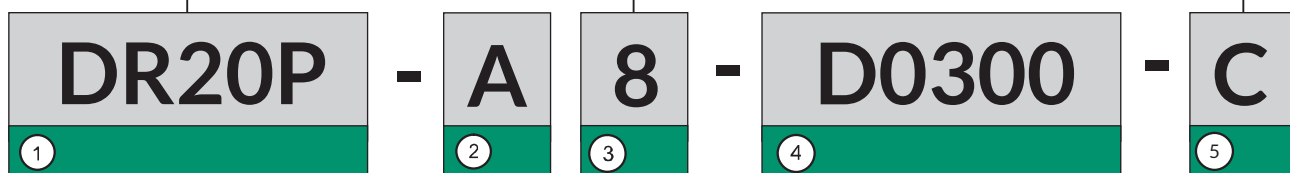
① 類別

記號	深度
3	$\leq 3xD$
5	$\leq 5xD$
8	$\leq 8xD$
12	$\leq 12xD$
15	$\leq 15xD$

③ 鑽孔深度

記號	功能
C	內部給水
N	外部給水

⑤ 冷卻方式



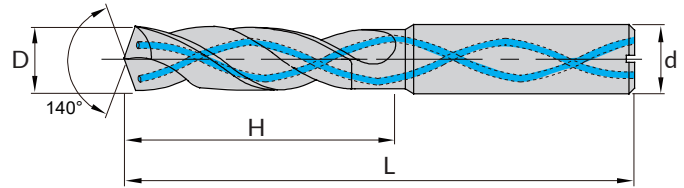
② 柄徑形式	
記號	形式
A	直柄 DIN-6535HA
B	削平柄 DIN-6535HB
E	斜削柄 DIN-6535HE
M	莫氏錐度 MT

④ 刃徑	
記號	刃徑
D	



# DR20P-A5-C 碳化鎢鋼出水鑽頭 (DX5) TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT

**NEW**



**先端角**  
**140°**  
Spiral Pointed Angle

**加工類型**  
**P M K**  
Cutting Material

規格 Spec.	L	D	d	H	T	重量 (KGS) Weight
DR20P-A5-D0300-C	66	3	6	28	2	-
DR20P-A5-D0310-C	66	3.1	6	28	2	-
● DR20P-A5-D0320-C	66	3.2	6	28	2	-
● DR20P-A5-D0330-C	66	3.3	6	28	2	-
● DR20P-A5-D0340-C	66	3.4	6	28	2	-
DR20P-A5-D0350-C	66	3.5	6	28	2	-
DR20P-A5-D0360-C	66	3.6	6	28	2	-
DR20P-A5-D0370-C	66	3.7	6	28	2	-
DR20P-A5-D0380-C	74	3.8	6	36	2	-
DR20P-A5-D0390-C	74	3.9	6	36	2	-
DR20P-A5-D0400-C	74	4	6	36	2	-
DR20P-A5-D0410-C	74	4.1	6	36	2	-
● DR20P-A5-D0420-C	74	4.2	6	36	2	-
● DR20P-A5-D0430-C	74	4.3	6	36	2	-
DR20P-A5-D0440-C	74	4.4	6	36	2	-
DR20P-A5-D0450-C	74	4.5	6	36	2	-
DR20P-A5-D0460-C	74	4.6	6	36	2	-
DR20P-A5-D0465-C	74	4.65	6	36	2	-
DR20P-A5-D0470-C	74	4.7	6	36	2	-
DR20P-A5-D0480-C	82	4.8	6	44	2	-
DR20P-A5-D0490-C	82	4.9	6	44	2	-
● DR20P-A5-D0500-C	82	5	6	44	2	-
● DR20P-A5-D0510-C	82	5.1	6	44	2	-
DR20P-A5-D0520-C	82	5.2	6	44	2	-
DR20P-A5-D0530-C	82	5.3	6	44	2	-
DR20P-A5-D0540-C	82	5.4	6	44	2	-
DR20P-A5-D0550-C	82	5.5	6	44	2	-
DR20P-A5-D0555-C	82	5.55	6	44	2	-
DR20P-A5-D0560-C	82	5.6	6	44	2	-
DR20P-A5-D0570-C	82	5.7	6	44	2	-
DR20P-A5-D0580-C	82	5.8	6	44	2	-
DR20P-A5-D0590-C	82	5.9	6	44	2	-
DR20P-A5-D0600-C	82	6	6	44	2	-
DR20P-A5-D0610-C	91	6.1	6	53	2	-
DR20P-A5-D0620-C	91	6.2	8	53	2	-

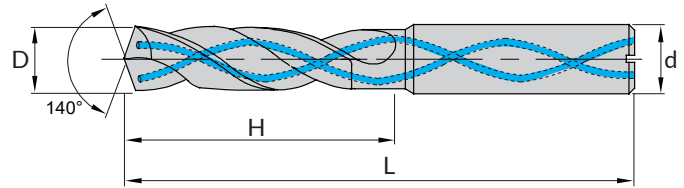
● - 標準庫存 Available stock

MILLING



# DR20P-A5-C 碳化鎢鋼出水鑽頭 (DX5) TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT

**NEW**



**先端角**  
**140°**  
Spiral Pointed Angle

**加工類型**  
**P M K**  
Cutting Material

規格 Spec.	L	D	d	H	T	重量 (KGS) Weight
DR20P-A5-D0630-C	91	6.3	8	53	2	-
DR20P-A5-D0640-C	91	6.4	8	53	2	-
DR20P-A5-D0650-C	91	6.5	8	53	2	-
DR20P-A5-D0660-C	91	6.6	8	53	2	-
DR20P-A5-D0670-C	91	6.7	8	53	2	-
● DR20P-A5-D0680-C	91	6.8	8	53	2	-
DR20P-A5-D0690-C	91	6.9	8	53	2	-
DR20P-A5-D0700-C	91	7	8	53	2	-
DR20P-A5-D0710-C	91	7.1	8	53	2	-
DR20P-A5-D0720-C	91	7.2	8	53	2	-
DR20P-A5-D0730-C	91	7.3	8	53	2	-
DR20P-A5-D0740-C	91	7.4	8	53	2	-
DR20P-A5-D0745-C	91	7.45	8	53	2	-
DR20P-A5-D0750-C	91	7.5	8	53	2	-
DR20P-A5-D0760-C	91	7.6	8	53	2	-
DR20P-A5-D0770-C	91	7.7	8	53	2	-
DR20P-A5-D0780-C	91	7.8	8	53	2	-
DR20P-A5-D0790-C	91	7.9	8	53	2	-
DR20P-A5-D0800-C	91	8	8	53	2	-
DR20P-A5-D0810-C	103	8.1	10	61	2	-
DR20P-A5-D0820-C	103	8.2	10	61	2	-
DR20P-A5-D0830-C	103	8.3	10	61	2	-
DR20P-A5-D0840-C	103	8.4	10	61	2	-
● DR20P-A5-D0850-C	103	8.5	10	61	2	-
● DR20P-A5-D0860-C	103	8.6	10	61	2	-
DR20P-A5-D0870-C	103	8.7	10	61	2	-
DR20P-A5-D0880-C	103	8.8	10	61	2	-
DR20P-A5-D0890-C	103	8.9	10	61	2	-
DR20P-A5-D0900-C	103	9	10	61	2	-
DR20P-A5-D0910-C	103	9.1	10	61	2	-
DR20P-A5-D0920-C	103	9.2	10	61	2	-
DR20P-A5-D0930-C	103	9.3	10	61	2	-
DR20P-A5-D0935-C	103	9.35	10	61	2	-
DR20P-A5-D0940-C	103	9.4	10	61	2	-

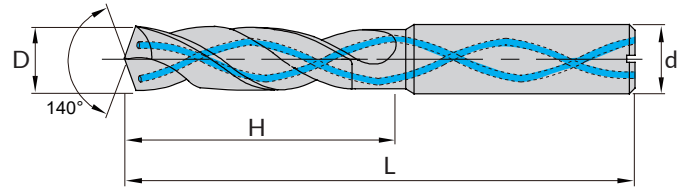
● - 標準庫存 Available stock

MILLING



# DR20P-A5-C 碳化鎢鋼出水鑽頭 (DX5) TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT

**NEW**



**先端角**  
**140°**  
Spiral Pointed Angle

**加工類型**

P
M
K

Cutting Material

規格 Spec.	L	D	d	H	T	重量 (KGS) Weight
DR20P-A5-D0950-C	103	9.5	10	61	2	-
DR20P-A5-D0960-C	103	9.6	10	61	2	-
DR20P-A5-D0970-C	103	9.7	10	61	2	-
DR20P-A5-D0980-C	103	9.8	10	61	2	-
DR20P-A5-D0990-C	103	9.9	10	61	2	-
DR20P-A5-D1000-C	103	10	10	61	2	-
DR20P-A5-D1010-C	118	10.1	12	71	2	-
DR20P-A5-D1020-C	118	10.2	12	71	2	-
● DR20P-A5-D1030-C	118	10.3	12	71	2	-
DR20P-A5-D1040-C	118	10.4	12	71	2	-
● DR20P-A5-D1050-C	118	10.5	12	71	2	-
DR20P-A5-D1060-C	118	10.6	12	71	2	-
DR20P-A5-D1070-C	118	10.7	12	71	2	-
DR20P-A5-D1080-C	118	10.8	12	71	2	-
DR20P-A5-D1090-C	118	10.9	12	71	2	-
DR20P-A5-D1100-C	118	11	12	71	2	-
DR20P-A5-D1110-C	118	11.1	12	71	2	-
DR20P-A5-D1120-C	118	11.2	12	71	2	-
DR20P-A5-D1130-C	118	11.3	12	71	2	-
DR20P-A5-D1140-C	118	11.4	12	71	2	-
DR20P-A5-D1150-C	118	11.5	12	71	2	-
DR20P-A5-D1160-C	118	11.6	12	71	2	-
DR20P-A5-D1170-C	118	11.7	12	71	2	-
DR20P-A5-D1180-C	118	11.8	12	71	2	-
DR20P-A5-D1190-C	118	11.9	12	71	2	-
DR20P-A5-D1200-C	118	12	12	71	2	-
DR20P-A5-D1250-C	124	12.5	14	77	2	-
DR20P-A5-D1300-C	124	13	14	77	2	-
DR20P-A5-D1350-C	124	13.5	14	77	2	-
DR20P-A5-D1400-C	124	14	14	77	2	-
DR20P-A5-D1450-C	133	14.5	16	83	2	-
DR20P-A5-D1500-C	133	15	16	83	2	-
DR20P-A5-D1550-C	133	15.5	16	83	2	-

● - 標準庫存 Available stock

MILLING

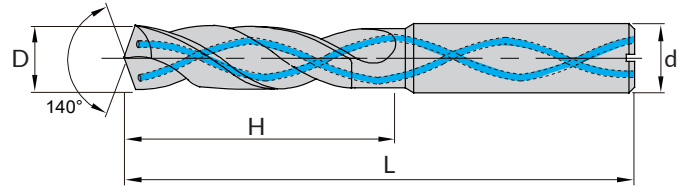




# DR20P-A8-C 碳化鎢鋼出水鑽頭 (DX8)

## TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT

**NEW**



**先端角**  
**140°**  
Spiral Pointed Angle

**加工類型**  
**P M K**  
Cutting Material

規格 Spec.	L	D	d	H	T	重量 (KGS) Weight
DR20P-A8-D0300-C	72	3	6	34	2	-
DR20P-A8-D0310-C	72	3.1	6	34	2	-
DR20P-A8-D0320-C	72	3.2	6	34	2	-
DR20P-A8-D0330-C	72	3.3	6	34	2	-
DR20P-A8-D0340-C	72	3.4	6	34	2	-
DR20P-A8-D0350-C	72	3.5	6	34	2	-
DR20P-A8-D0360-C	72	3.6	6	34	2	-
DR20P-A8-D0370-C	72	3.7	6	34	2	-
DR20P-A8-D0380-C	81	3.8	6	43	2	-
DR20P-A8-D0390-C	81	3.9	6	43	2	-
DR20P-A8-D0400-C	81	4	6	43	2	-
DR20P-A8-D0410-C	81	4.1	6	43	2	-
DR20P-A8-D0420-C	81	4.2	6	43	2	-
DR20P-A8-D0430-C	81	4.3	6	43	2	-
DR20P-A8-D0440-C	81	4.4	6	43	2	-
DR20P-A8-D0450-C	81	4.5	6	43	2	-
DR20P-A8-D0460-C	81	4.6	6	43	2	-
DR20P-A8-D0470-C	81	4.7	6	43	2	-
DR20P-A8-D0480-C	95	4.8	6	57	2	-
DR20P-A8-D0490-C	95	4.9	6	57	2	-
DR20P-A8-D0500-C	95	5	6	57	2	-
DR20P-A8-D0510-C	95	5.1	6	57	2	-
DR20P-A8-D0520-C	95	5.2	6	57	2	-
DR20P-A8-D0530-C	95	5.3	6	57	2	-
DR20P-A8-D0540-C	95	5.4	6	57	2	-
DR20P-A8-D0550-C	95	5.5	6	57	2	-
DR20P-A8-D0560-C	95	5.6	6	57	2	-
DR20P-A8-D0570-C	95	5.7	6	57	2	-
DR20P-A8-D0580-C	95	5.8	6	57	2	-
DR20P-A8-D0590-C	95	5.9	6	57	2	-
DR20P-A8-D0600-C	95	6	6	57	2	-
DR20P-A8-D0610-C	114	6.1	6	76	2	-
DR20P-A8-D0620-C	114	6.2	8	76	2	-

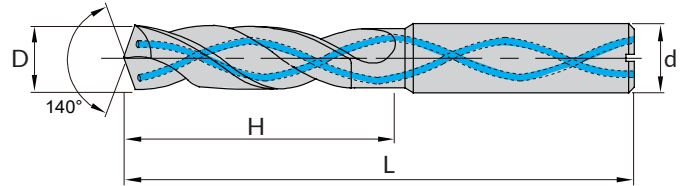
MILLING



# DR20P-A8-C 碳化鎢鋼出水鑽頭 (DX8)

## TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT

**NEW**



**先端角**  
**140°**  
Spiral Pointed Angle

**加工類型**  
P M K  
Cutting Material

規格 Spec.	L	D	d	H	T	重量 (KGS) Weight
DR20P-A8-D0630-C	114	6.3	8	76	2	-
DR20P-A8-D0640-C	114	6.4	8	76	2	-
DR20P-A8-D0650-C	114	6.5	8	76	2	-
DR20P-A8-D0660-C	114	6.6	8	76	2	-
DR20P-A8-D0670-C	114	6.7	8	76	2	-
DR20P-A8-D0680-C	114	6.8	8	76	2	-
DR20P-A8-D0690-C	114	6.9	8	76	2	-
DR20P-A8-D0700-C	114	7	8	76	2	-
DR20P-A8-D0710-C	114	7.1	8	76	2	-
DR20P-A8-D0720-C	114	7.2	8	76	2	-
DR20P-A8-D0730-C	114	7.3	8	76	2	-
DR20P-A8-D0740-C	114	7.4	8	76	2	-
DR20P-A8-D0750-C	114	7.5	8	76	2	-
DR20P-A8-D0760-C	114	7.6	8	76	2	-
DR20P-A8-D0770-C	114	7.7	8	76	2	-
DR20P-A8-D0780-C	114	7.8	8	76	2	-
DR20P-A8-D0790-C	114	7.9	8	76	2	-
DR20P-A8-D0800-C	114	8	8	76	2	-
DR20P-A8-D0810-C	142	8.1	10	95	2	-
DR20P-A8-D0820-C	142	8.2	10	95	2	-
DR20P-A8-D0830-C	142	8.3	10	95	2	-
DR20P-A8-D0840-C	142	8.4	10	95	2	-
DR20P-A8-D0850-C	142	8.5	10	95	2	-
DR20P-A8-D0860-C	142	8.6	10	95	2	-
DR20P-A8-D0870-C	142	8.7	10	95	2	-
DR20P-A8-D0880-C	142	8.8	10	95	2	-
DR20P-A8-D0890-C	142	8.9	10	95	2	-
DR20P-A8-D0900-C	142	9	10	95	2	-
DR20P-A8-D0910-C	142	9.1	10	95	2	-
DR20P-A8-D0920-C	142	9.2	10	95	2	-
DR20P-A8-D0930-C	142	9.3	10	95	2	-
DR20P-A8-D0935-C	142	9.35	10	95	2	-
DR20P-A8-D0940-C	142	9.4	10	95	2	-

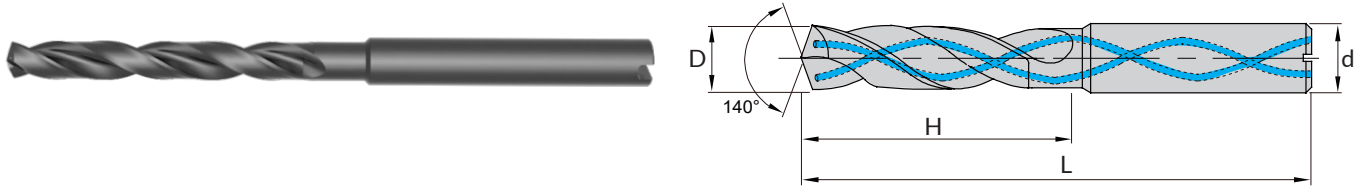
MILLING



# DR20P-A8-C 碳化鎢鋼出水鑽頭 (DX8)

## TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT

**NEW**



**先端角**  
**140°**  
Spiral Pointed Angle

**加工類型**

P
M
K

Cutting Material

規格 Spec.	L	D	d	H	T	重量 (KGS) Weight
DR20P-A8-D0950-C	142	9.5	10	95	2	-
DR20P-A8-D0960-C	142	9.6	10	95	2	-
DR20P-A8-D0970-C	142	9.7	10	95	2	-
DR20P-A8-D0980-C	142	9.8	10	95	2	-
DR20P-A8-D0990-C	142	9.9	10	95	2	-
DR20P-A8-D1000-C	142	10	10	95	2	-
DR20P-A8-D1010-C	162	10.1	12	114	2	-
DR20P-A8-D1020-C	162	10.2	12	114	2	-
DR20P-A8-D1030-C	162	10.3	12	114	2	-
DR20P-A8-D1050-C	162	10.5	12	114	2	-
DR20P-A8-D1080-C	162	10.8	12	114	2	-
DR20P-A8-D1100-C	162	11	12	114	2	-
DR20P-A8-D1120-C	162	11.2	12	114	2	-
DR20P-A8-D1150-C	162	11.5	12	114	2	-
DR20P-A8-D1160-C	162	11.6	12	114	2	-
DR20P-A8-D1180-C	162	11.8	12	114	2	-
DR20P-A8-D1200-C	162	12	12	114	2	-
DR20P-A8-D1250-C	182	12.5	14	133	2	-
DR20P-A8-D1300-C	182	13	14	133	2	-
DR20P-A8-D1350-C	182	13.5	14	133	2	-
DR20P-A8-D1400-C	182	14	14	133	2	-
DR20P-A8-D1450-C	203	14.5	16	152	2	-
DR20P-A8-D1500-C	203	15	16	152	2	-
DR20P-A8-D1550-C	203	15.5	16	152	2	-
DR20P-A8-D1600-C	203	16	16	152	2	-

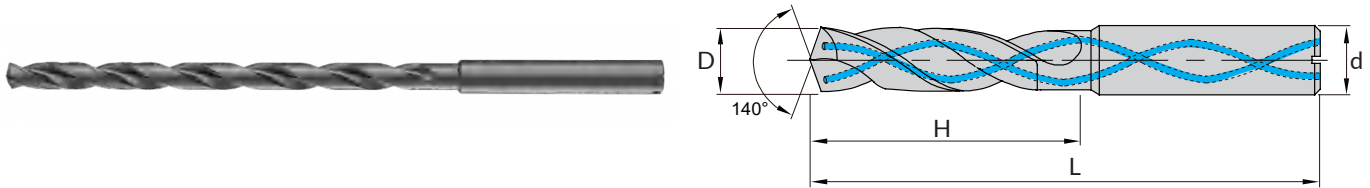
**MILLING**



# DR20P-A12-C 碳化鎢鋼出水鑽頭 (DX12)

## TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT

**NEW**



**先端角**  
**135°**  
Spiral Pointed Angle

**加工類型**  
**P M K**  
Cutting Material

規格 Spec.	L	D	d	H	T	重量 (KGS) Weight
DR20P-A12-D0300-C	90	3	6	50	2	-
DR20P-A12-D0350-C	92	3.5	6	54	2	-
DR20P-A12-D0400-C	102	4	6	64	2	-
DR20P-A12-D0450-C	102	4.5	6	64	2	-
DR20P-A12-D0500-C	121	5	6	83	2	-
DR20P-A12-D0550-C	121	5.5	6	83	2	-
DR20P-A12-D0600-C	121	6	6	83	2	-
DR20P-A12-D0620-C	148	6.2	8	110	2	-
DR20P-A12-D0650-C	148	6.5	8	110	2	-
DR20P-A12-D0700-C	148	7	8	110	2	-
DR20P-A12-D0750-C	148	7.5	8	110	2	-
DR20P-A12-D0800-C	148	8	8	110	2	-
DR20P-A12-D0830-C	180	8.3	10	138	2	-
DR20P-A12-D0850-C	180	8.5	10	138	2	-
DR20P-A12-D0900-C	180	9	10	138	2	-
DR20P-A12-D0950-C	180	9.5	10	138	2	-
DR20P-A12-D1000-C	180	10	10	138	2	-
DR20P-A12-D1100-C	206	11	12	158	2	-
DR20P-A12-D1200-C	206	12	12	158	2	-

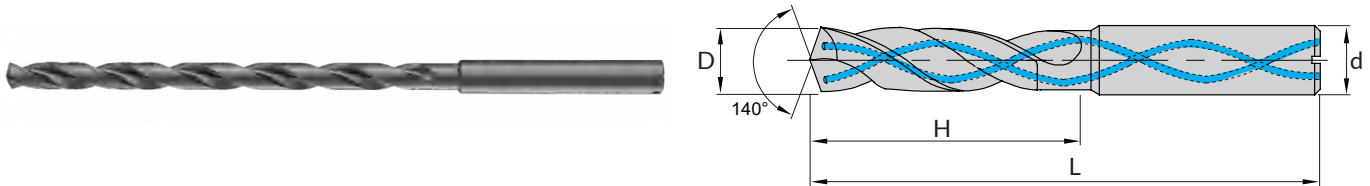
MILLING



# DR20P-A15-C 碳化鎢鋼出水鑽頭 (DX15)

## TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT

**NEW**



先端角  
**140°**  
Spiral Pointed Angle

加工類型  
**P M K**  
Cutting Material

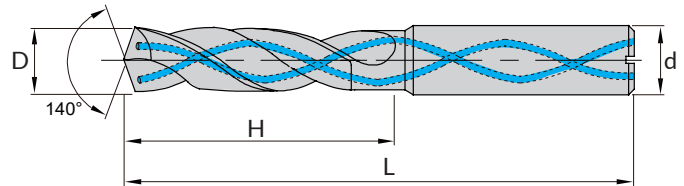
規格 Spec.	L	D	d	H	T	重量 (KGS) Weight
DR20P-A15-D0300-C	95	3	6	55	2	-
DR20P-A15-D0350-C	116	3.5	6	76	2	-
DR20P-A15-D0400-C	116	4	6	76	2	-
DR20P-A15-D0450-C	133	4.5	6	93	2	-
DR20P-A15-D0500-C	133	5	6	93	2	-
DR20P-A15-D0550-C	150	5.5	6	110	2	-
DR20P-A15-D0600-C	150	6	6	110	2	-
DR20P-A15-D0620-C	167	6.2	8	127	2	-
DR20P-A15-D0650-C	167	6.5	8	127	2	-
DR20P-A15-D0700-C	167	7	8	127	2	-
DR20P-A15-D0750-C	183	7.5	8	143	2	-
DR20P-A15-D0800-C	183	8	8	143	2	-
DR20P-A15-D0830-C	204	8.3	10	160	2	-
DR20P-A15-D0850-C	204	8.5	10	160	2	-
DR20P-A15-D0900-C	204	9	10	160	2	-
DR20P-A15-D0950-C	221	9.5	10	177	2	-
DR20P-A15-D1000-C	221	10	10	177	2	-
DR20P-A15-D1100-C	247	11	12	198	2	-
DR20P-A15-D1200-C	263	12	12	214	2	-

MILLING



# DR30M-A5-C 碳化鎢鋼出水鑽頭 (DX5) TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT

**NEW**



**先端角**  
**140°**  
Spiral Pointed Angle

**加工類型**  
**M S**  
Cutting Material

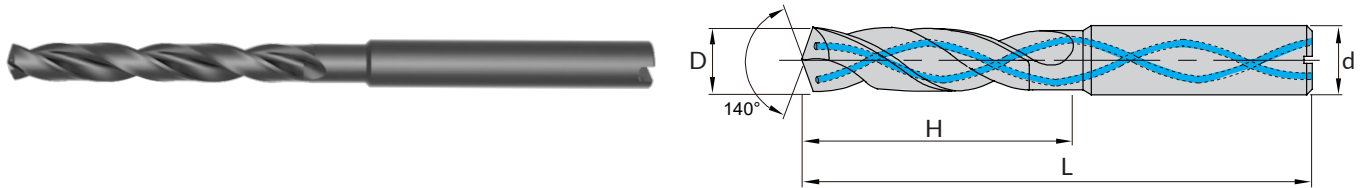
規格 Spec.	L	D	d	H	T	重量 (KGS) Weight
DR30M-A5-D0500-C	82	5	6	44	2	-
DR30M-A5-D0510-C	82	5.1	6	44	2	-
DR30M-A5-D0520-C	82	5.2	6	44	2	-
DR30M-A5-D0550-C	82	5.5	6	44	2	-
DR30M-A5-D0555-C	82	5.55	6	44	2	-
DR30M-A5-D0580-C	82	5.8	6	44	2	-
DR30M-A5-D0600-C	82	6	6	44	2	-
DR30M-A5-D0610-C	91	6.1	6	53	2	-
DR30M-A5-D0620-C	91	6.2	8	53	2	-
DR30M-A5-D0630-C	91	6.3	8	53	2	-
DR30M-A5-D0650-C	91	6.5	8	53	2	-
DR30M-A5-D0660-C	91	6.6	8	53	2	-
DR30M-A5-D0680-C	91	6.8	8	53	2	-
DR30M-A5-D0690-C	91	6.9	8	53	2	-
DR30M-A5-D0700-C	91	7	8	53	2	-
DR30M-A5-D0710-C	91	7.1	8	53	2	-
DR30M-A5-D0740-C	91	7.4	8	53	2	-
DR30M-A5-D0750-C	91	7.5	8	53	2	-
DR30M-A5-D0780-C	91	7.8	8	53	2	-
DR30M-A5-D0800-C	91	8	8	53	2	-
DR30M-A5-D0810-C	103	8.1	10	61	2	-
DR30M-A5-D0840-C	103	8.4	10	61	2	-
DR30M-A5-D0850-C	103	8.5	10	61	2	-
DR30M-A5-D0860-C	103	8.6	10	61	2	-
DR30M-A5-D0870-C	103	8.7	10	61	2	-
DR30M-A5-D0880-C	103	8.8	10	61	2	-
DR30M-A5-D0900-C	103	9	10	61	2	-

MILLING



# DR30M-A5-C 碳化鎢鋼出水鑽頭 (DX5) TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT

**NEW**



**先端角**  
**140°**  
Spiral Pointed Angle

**加工類型**  
**M S**  
Cutting Material

規格 Spec.	L	D	d	H	T	重量 (KGS) Weight
DR30M-A5-D0930-C	103	9.3	10	61	2	-
DR30M-A5-D0950-C	103	9.5	10	61	2	-
DR30M-A5-D0960-C	103	9.6	10	61	2	-
DR30M-A5-D0980-C	103	9.8	10	61	2	-
DR30M-A5-D1000-C	103	10	10	61	2	-
DR30M-A5-D1025-C	118	10.25	12	71	2	-
DR30M-A5-D1050-C	118	10.5	12	71	2	-
DR30M-A5-D1060-C	118	10.6	12	71	2	-
DR30M-A5-D1080-C	118	10.8	12	71	2	-
DR30M-A5-D1100-C	118	11	12	71	2	-
DR30M-A5-D1120-C	118	11.2	12	71	2	-
DR30M-A5-D1150-C	118	11.5	12	71	2	-
DR30M-A5-D1180-C	118	11.8	12	71	2	-
DR30M-A5-D1190-C	118	11.9	12	71	2	-
DR30M-A5-D1200-C	118	12	12	71	2	-
DR30M-A5-D1250-C	124	12.5	14	77	2	-
DR30M-A5-D1300-C	124	13	14	77	2	-
DR30M-A5-D1350-C	124	13.5	14	77	2	-
DR30M-A5-D1400-C	124	14	14	77	2	-
DR30M-A5-D1450-C	133	14.5	16	83	2	-
DR30M-A5-D1500-C	133	15	16	83	2	-
DR30M-A5-D1550-C	133	15.5	16	83	2	-

**MILLING**



# 碳化鎢鋼出水鑽頭切削數據

## TUNGSTEN CARBIDE DRILL WITH INTERNAL COOLANT CUTTING CONDITIONS

### DR20P-A5C

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

### DR20P-A8C

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

### DR20P-A12C/15C

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

### DR30M-A5C

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





鎢鋼銑刀

# Feature

- 原料採用德國進口碳化鎢材料  
German strength
- 對特定材料粗加工效率高  
精加工表面品質高  
Clean finishing
- 穩定的性能加工  
Stable processing

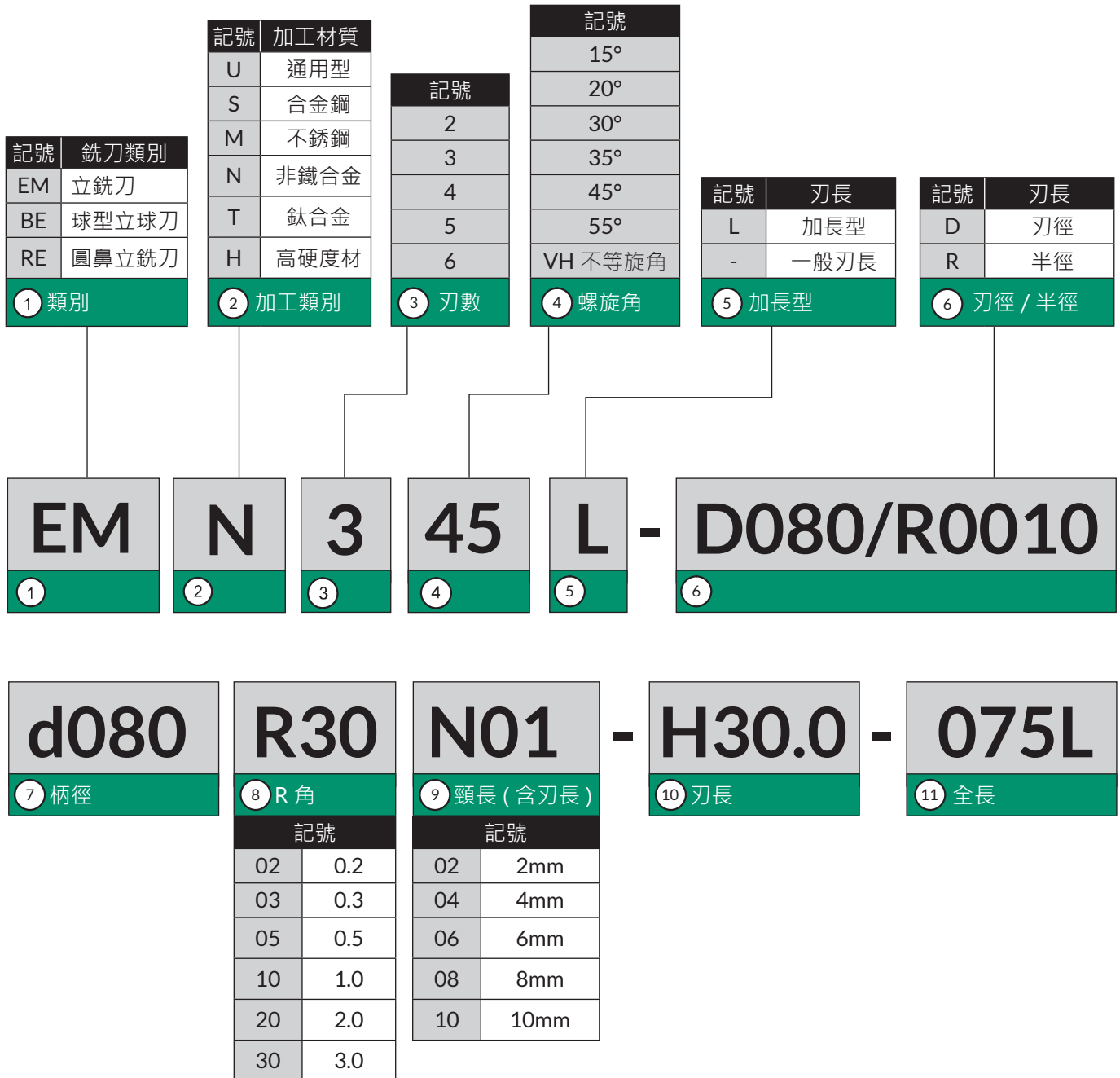


# Carbide End Mills



# 鎢鋼銑刀編碼規範

## CARBIDE END MILLS CODING KEY

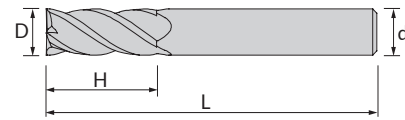




# EM 碳化鎢鋼立銑刀 TUNGSTEN CARBIDE END MILLS



NEW



規格 Spec.	L	D	d	H	刀數 T	螺旋角 Angle	重量 (KGS) Weight	工件材質 Workpiece Material	切削硬度 Cutting HRC
<b>碳化鎢鋼立銑刀微小徑高硬度專用 - 2 刃 TUNGSTEN CARBIDE END MILLS</b>									
EMH235-D002d030-H0.5-038L	38	0.2	3	0.5	2	35	-	P : ++ M : + K : ++ H : ++	HRC45°~62°
EMH235-D003d030-H0.6-038L	38	0.3	3	0.6	2	35	-		
EMH235-D004d030-H0.8-038L	38	0.4	3	0.8	2	35	-		
EMH235-D005d030-H1.0-038L	38	0.5	3	1.0	2	35	-		
EMH235-D006d030-H1.2-038L	38	0.6	3	1.2	2	35	-		
EMH235-D007d030-H1.4-038L	38	0.7	3	1.4	2	35	-		
EMH235-D008d030-H1.6-038L	38	0.8	3	1.6	2	35	-		
EMH235-D009d030-H1.8-038L	38	0.9	3	1.8	2	35	-		
EMH235-D010d030-H2.0-038L	38	1.0	3	2.0	2	35	-		
EMH235-D011d030-H2.0-038L	38	1.1	3	2.0	2	35	-		
EMH235-D012d030-H2.5-038L	38	1.2	3	2.5	2	35	-		
EMH235-D013d030-H2.5-038L	38	1.3	3	2.5	2	35	-		
EMH235-D014d030-H3.0-038L	38	1.4	3	3.0	2	35	-		
EMH235-D015d030-H3.0-038L	38	1.5	3	3.0	2	35	-		
EMH235-D016d030-H3.5-038L	38	1.6	3	3.5	2	35	-		
EMH235-D017d030-H3.5-038L	38	1.7	3	3.5	2	35	-		
EMH235-D018d030-H4.0-038L	38	1.8	3	4.0	2	35	-		
EMH235-D019d030-H4.0-038L	38	1.9	3	4.0	2	35	-		
EMH235-D020d030-H4.0-038L	38	2.0	3	4.0	2	35	-		
EMH235-D021d030-H4.0-038L	38	2.1	3	4.0	2	35	-		
EMH235-D022d030-H4.5-038L	38	2.2	3	4.5	2	35	-		
EMH235-D023d030-H4.5-038L	38	2.3	3	4.5	2	35	-		
EMH235-D024d030-H5.0-038L	38	2.4	3	5.0	2	35	-		
EMH235-D025d030-H5.0-038L	38	2.5	3	5.0	2	35	-		
EMH235-D026d030-H5.0-038L	38	2.6	3	5.0	2	35	-		
EMH235-D027d030-H5.5-038L	38	2.7	3	5.5	2	35	-		
EMH235-D028d030-H5.5-038L	38	2.8	3	5.5	2	35	-		
EMH235-D029d030-H6.0-038L	38	2.9	3	6.0	2	35	-		
EMH235-D030d030-H6.0-038L	38	3.0	3	6.0	2	35	-		
<b>碳化鎢鋼立銑刀微小徑高硬度專用 - 4 刃 TUNGSTEN CARBIDE END MILLS</b>									
EMH445-D030d040-H7.5-050L	50	3	4	7.5	4	45	-	P : ++ M : + K : ++ H : ++	HRC45°~62°
EMH445-D040d040-H10.0-050L	50	4	4	10	4	45	-		
EMH445-D050d060-H12.0-050L	50	5	6	12	4	45	-		
EMH445-D060d060-H15.0-060L	60	6	6	15	4	45	-		
EMH445-D080d080-H20.0-060L	60	8	8	20	4	45	-		
EMH445-D100d100-H25.0-075L	75	10	10	25	4	45	-		
EMH445-D120d120-H30.0-075L	75	12	12	30	4	45	-		
<b>碳化鎢鋼立銑刀微小徑專用 - 2 刃 TUNGSTEN CARBIDE END MILLS</b>									
EMS235-D002d030-H0.6-038L	38	0.2	3	0.6	2	35	-	P : ++ M : + K : ++	HRC15°~45°
EMS235-D003d030-H1.0-038L	38	0.3	3	1.0	2	35	-		
EMS235-D004d030-H1.0-038L	38	0.4	3	1.0	2	35	-		
EMS235-D005d030-H1.5-038L	38	0.5	3	1.5	2	35	-		
EMS235-D006d030-H1.5-038L	38	0.6	3	1.5	2	35	-		
EMS235-D007d030-H2.0-038L	38	0.7	3	2.0	2	35	-		
EMS235-D008d030-H2.0-038L	38	0.8	3	2.0	2	35	-		
EMS235-D009d030-H2.5-038L	38	0.9	3	2.5	2	35	-		

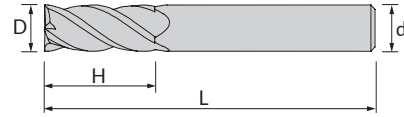
MILLING



# EM 碳化鎢鋼立銑刀 TUNGSTEN CARBIDE END MILLS



NEW



規格 Spec.	L	D	d	H	刀數 T	螺旋角 Angle	重量(KGS) Weight	工件材質 Workpiece Material	切削硬度 Cutting HRC
<b>碳化鎢鋼立銑刀 - 4 刃 TUNGSTEN CARBIDE END MILLS</b>									
EMS445-D010d040-H3.0-050L	50	1	4	3	4	45	-	<b>P</b> : ++ <b>M</b> : + <b>K</b> : ++	HRC15°~45°
EMS445-D020d040-H5.0-050L	50	2	4	5	4	45	-		
EMS445-D030d040-H7.5-050L	50	3	4	7.5	4	45	-		
EMS445-D040d040-H10.0-050L	50	4	4	10	4	45	-		
EMS445-D050d060-H12.0-050L	50	5	6	12	4	45	-		
EMS445-D060d060-H15.0-060L	60	6	6	15	4	45	-		
EMS445-D080d080-H20.0-060L	60	8	8	20	4	45	-		
EMS445-D100d100-H30.0-075L	75	10	10	30	4	45	-		
EMS445-D120d120-H30.0-075L	75	12	12	30	4	45	-		
<b>碳化鎢鋼立銑刀鋁合金專用 - 2 刃 / 3 刃 TUNGSTEN CARBIDE END MILLS FOR ALUMINUM</b>									
EMN245-D010d040-H3.0-050L	50	1	4	3	2	45	-	<b>N</b> : ++	HRC15°~45°
EMN245-D020d040-H6.0-050L	50	2	4	6	2	45	-		
EMN245-D030d040-H9.0-050L	50	3	4	9	2	45	-		
EMN345-D040d040-H12.0-050L	50	4	4	12	3	45	-		
EMN345-D050d060-H15.0-050L	50	5	6	15	3	45	-		
EMN345-D060d060-H18.0-060L	60	6	6	18	3	45	-		
EMN345-D080d080-H20.0-060L	60	8	8	20	3	45	-		
EMN345-D100d100-H26.0-075L	75	10	10	26	3	45	-		
EMN345-D120d120-H30.0-075L	75	12	12	30	3	45	-		
EMN245L-D010d040-H4.0-050L	50	1	4	4	2	45	-		
EMN245L-D020d040-H8.0-050L	50	2	4	8	2	45	-		
EMN245L-D030d040-H12.0-050L	50	3	4	12	2	45	-		
EMN345L-D040d040-H16.0-050L	50	4	4	16	3	45	-		
EMN345L-D050d060-H20.0-060L	60	5	6	20	3	45	-		
EMN345L-D060d060-H24.0-075L	75	6	6	24	3	45	-		
EMN345L-D080d080-H30.0-075L	75	8	8	30	3	45	-		
EMN345L-D100d100-H40.0-100L	100	10	10	40	3	45	-		
EMN345L-D120d120-H45.0-100L	100	12	12	45	3	45	-		
<b>碳化鎢鋼立銑刀不銹鋼專用 - 4 刃 TUNGSTEN CARBIDE END MILLS FOR STAINLESS STEEL</b>									
EMM445-D040d040-L10.0-050L	50	4	4	10	4	45	-	<b>P</b> : + <b>M</b> : ++ <b>K</b> : +	HRC25°~42°
EMM445-D060d060-H15.0-060L	60	6	6	15	4	45	-		
EMM445-D080d080-H20.0-060L	60	8	8	20	4	45	-		
EMM445-D100d100-H30.0-075L	75	10	10	30	4	45	-		
EMM445-D120d120-H30.0-075L	75	12	12	30	4	45	-		
<b>不等分割系列：碳化鎢鋼立銑刀高溫合金專用 - 抗震型 - 4 刃 TUNGSTEN CARBIDE END MILLS FOR REFRACTORY ALLOYS</b>									
EMT4VH-D030d060-H8.0-050L	50	3	6	8	4	38/41	-	<b>P</b> : + <b>M</b> : ++ <b>K</b> : + <b>H</b> : ++ <b>S</b> : ++	<HRC60°
EMT4VH-D040d060-H11.0-050L	50	4	6	11	4	38/41	-		
EMT4VH-D050d060-H14.0-050L	50	5	6	14	4	38/41	-		
EMT4VH-D060d060-H16.0-050L	50	6	6	16	4	38/41	-		
EMT4VH-D080d060-H20.0-060L	60	8	8	20	4	38/41	-		
EMT4VH-D100d060-H25.0-075L	75	10	10	25	4	38/41	-		
EMT4VH-D120d060-H30.0-075L	75	12	12	30	4	38/41	-		
<b>不等分割系列：碳化鎢鋼立銑刀鋁合金專用 - 抗震型 - 3 刃 TUNGSTEN CARBIDE END MILLS FOR REFRACTORY ALLOYS</b>									
EMN3VH-D030d060-H9.0-050L	50	3	6	9	3	38/41	-	<b>N</b> : ++	-
EMN3VH-D040d060-H12.0-050L	50	4	6	12	3	38/41	-		
EMN3VH-D050d060-H14.0-050L	50	5	6	14	3	38/41	-		
EMN3VH-D060d060-H16.0-050L	50	6	6	16	3	38/41	-		
EMN3VH-D080d060-H20.0-060L	60	8	8	20	3	38/41	-		
EMN3VH-D100d060-H25.0-075L	75	10	10	25	3	38/41	-		
EMN3VH-D120d060-H30.0-075L	75	12	12	30	3	38/41	-		

MILLING



# BE 碳化鎢鋼球型立銑刀 TUNGSTEN CARBIDE BALL END MILLS



**NEW**



規格 Spec.	L	R	D	d	H	刃數 T	螺旋角 Angle	重量 (KGS) Weight	工件材質 Workpiece Material	切削硬度 Cutting HRC
碳化鎢鋼球型立銑刀微小徑高硬度專用 - 2 刃 TUNGSTEN CARBIDE BALL END MILLS FOR HARD MATERIAL										
BEH230-R0020d0030-H0.5-038L	38	0.2	0.4	3	0.5	2	30	-	P : ++ M : + K : ++ H : ++	HRC45°~62°
BEH230-R0025d0030-H0.8-038L	38	0.25	0.5	3	0.8	2	30	-		
BEH230-R0030d0030-H0.9-038L	38	0.3	0.6	3	0.9	2	30	-		
BEH230-R0035d0030-H1.0-038L	38	0.35	0.7	3	1	2	30	-		
BEH230-R0040d0030-H1.2-038L	38	0.4	0.8	3	1.2	2	30	-		
BEH230-R0045d0030-H1.3-038L	38	0.45	0.9	3	1.3	2	30	-		
BEH230-R0050d0030-H1.5-038L	38	0.5	1	3	1.5	2	30	-		
BEH230-R0060d0030-H1.8-038L	38	0.6	1.2	3	1.8	2	30	-		
BEH230-R0070d0030-H2.0-038L	38	0.7	1.4	3	2	2	30	-		
BEH230-R0075d0030-H2.3-038L	38	0.75	1.5	3	2.3	2	30	-		
BEH230-R0080d0030-H2.5-038L	38	0.8	1.6	3	2.5	2	30	-		
BEH230-R0090d0030-H2.7-038L	38	0.9	1.8	3	2.7	2	30	-		
BEH230-R0100d0030-H3.0-038L	38	1	2	3	3	2	30	-		
碳化鎢鋼球型立銑刀高硬度專用 - 2 刃 TUNGSTEN CARBIDE BALL END MILLS FOR HARD MATERIAL										
BEH230-R0050d040-H1.5-050L	50	0.5	1	4	1.5	2	30	-	P : ++ M : + K : ++ H : ++	HRC45°~62°
BEH230-R0075d040-H2.0-050L	50	0.75	1.5	4	2	2	30	-		
BEH230-R0100d040-H3.0-050L	50	1	2	4	3	2	30	-		
BEH230-R0125d040-H4.0-050L	50	1.25	2.5	4	4	2	30	-		
BEH230-R0150d040-H5.0-050L	50	1.5	3	4	5	2	30	-		
BEH230-R0200d040-H6.0-050L	50	2	2	4	6	2	30	-		
BEH230-R0250d060-H8.0-060L	60	2.5	5	6	8	2	30	-		
BEH230-R0300d060-H9.0-060L	60	3	6	6	9	2	30	-		
BEH230-R0350d080-H14.0-060L	60	3.5	7	8	14	2	30	-		
BEH230-R0400d080-H16.0-060L	60	4	8	8	16	2	30	-		
BEH230-R0400d080-H16.0-075L	75	4	8	8	16	2	30	-		
BEH230-R0450d100-H18.0-075L	75	4.5	9	10	18	2	30	-		
BEH230-R0500d100-H20.0-075L	75	5	10	10	20	2	30	-		
BEH230-R0600d100-H20.0-075L	75	6	12	12	20	2	30	-		
碳化鎢鋼球型立銑刀高硬度專用 - 4 刃 TUNGSTEN CARBIDE BALL END MILLS FOR HARD MATERIAL										
BEH435-R0010d040-H3.0-050L	50	1	2	4	3	4	35	-	P : ++ M : + K : ++ H : ++	HRC45°~62°
BEH435-R0015d040-H4.5-050L	50	1.5	3	4	4.5	4	35	-		
BEH435-R0020d040-H6.0-050L	50	2	4	4	6	4	35	-		
BEH435-R0030d060-H9.0-060L	60	3	6	6	9	4	35	-		
BEH435-R0040d080-H16.0-060L	60	4	8	8	16	4	35	-		
BEH435-R0050d100-H20.0-075L	75	5	10	10	20	4	35	-		
BEH435-R0060d120-H20.0-075L	75	6	12	12	20	4	35	-		

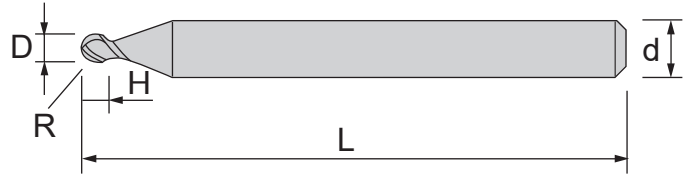
MILLING



# BE 碳化鎢鋼球型立銑刀 TUNGSTEN CARBIDE BALL END MILLS



**NEW**



規格 Spec.	L	R	D	d	H	刃數 T	螺旋角 Angle	重量 (KGS) Weight	工件材質 Workpiece Material	切削硬度 Cutting HRC
<b>碳化鎢鋼球型微小徑立銑刀 - 2 刃 TUNGSTEN CARBIDE BALL END MILLS</b>										
BES230-R0020d0030-H0.5-038L	38	0.2	0.4	3	0.5	2	30	-	<b>P</b> : ++ <b>M</b> : + <b>K</b> : ++	HRC15°~45°
BES230-R0025d0030-H0.8-038L	38	0.25	0.5	3	0.8	2	30	-		
BES230-R0030d0030-H0.9-038L	38	0.3	0.6	3	0.9	2	30	-		
BES230-R0035d0030-H1.0-038L	38	0.35	0.7	3	1	2	30	-		
BES230-R0040d0030-H1.2-038L	38	0.4	0.8	3	1.2	2	30	-		
BES230-R0045d0030-H1.3-038L	38	0.45	0.9	3	1.3	2	30	-		
BES230-R0050d0030-H1.5-038L	38	0.5	1	3	1.5	2	30	-		
BES230-R0060d0030-H1.8-038L	38	0.6	1.2	3	1.8	2	30	-		
BES230-R0070d0030-H2.0-038L	38	0.7	1.4	3	2	2	30	-		
BES230-R0075d0030-H2.3-038L	38	0.75	1.5	3	2.3	2	30	-		
BES230-R0080d0030-H2.5-038L	38	0.8	1.6	3	2.5	2	30	-		
BES230-R0090d0030-H2.7-038L	38	0.9	1.8	3	2.7	2	30	-		
BES230-R0100d0030-H3.0-038L	38	1	2	3	3	2	30	-		
<b>碳化鎢鋼球型立銑刀 - 2 刃 / 4 刃 TUNGSTEN CARBIDE BALL END MILLS</b>										
BES230-R0050d040-H2.0-050L	50	0.5	1	4	2	2	30	-	<b>P</b> : ++ <b>M</b> : + <b>K</b> : ++	HRC15°~45°
BES230-R0100d040-H4.0-050L	50	1	2	4	4	2	30	-		
BES230-R0150d040-H6.0-050L	50	1.5	3	4	6	2	30	-		
BES230-R0200d040-H8.0-050L	50	2	4	4	8	2	30	-		
BES230-R0250d060-H10.0-060L	60	2.5	5	6	10	2	30	-		
BES230-R0300d060-H12.0-060L	60	3	6	6	12	2	30	-		
BES230-R0350d080-H12.0-060L	60	3.5	7	8	12	2	30	-		
BES230-R0400d080-H16.0-060L	60	4	8	8	16	2	30	-		
BES230-R0400d080-H16.0-075L	75	4	8	8	16	2	30	-		
BES230-R0450d100-H18.0-075L	75	4.5	9	10	18	2	30	-		
BES230-R0500d100-H20.0-075L	75	5	10	10	20	2	30	-		
BES230-R0600d120-H20.0-075L	75	6	12	12	20	2	30	-		
BES230-R0700d140-H24.0-075L	75	7	14	14	24	2	30	-		
BES435-R0200d040-H8.0-050L	50	2	4	4	8	4	35	-		
BES435-R0300d060-H12.0-050L	60	3	6	6	12	4	35	-		
BES435-R0400d080-H16.0-075L	75	4	8	8	16	4	35	-		
BES435-R0500d100-H20.0-075L	75	5	10	10	20	4	35	-		
BES435-R0600d120-H20.0-100L	100	6	12	12	20	4	35	-		
<b>碳化鎢鋼球型立銑刀鋁合金專用 - 2 刃 TUNGSTEN CARBIDE BALL END MILLS FOR ALUMINUM</b>										
BEN230-R0100d060-H4.0-060L	60	1	2	6	4	2	30	-	<b>N</b> : ++	HRC15°~45°
BEN230-R0150d060-H6.0-060L	60	1.5	3	6	6	2	30	-		
BEN230-R0200d060-H8.0-060L	60	2	4	6	8	2	30	-		
BEN230-R0250d060-H10.0-060L	60	2.5	5	6	10	2	30	-		
BEN230-R0300d060-H12.0-060L	60	3	6	6	12	2	30	-		
BEN230-R0400d080-H16.0-075L	75	4	8	8	16	2	30	-		
BEN230-R0500d100-H20.0-075L	75	5	10	10	20	2	30	-		
BEN230-R0600d120-H20.0-100L	100	6	12	12	20	2	30	-		

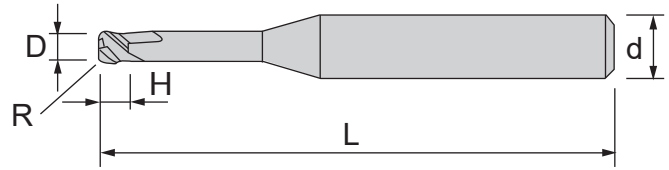
MILLING



# RE 碳化鎢鋼圓鼻立銑刀 TUNGSTEN CARBIDE CORNER-RADIUS END MILLS



**NEW**



規格 Spec.	L	R	D	d	H	刃數 T	螺旋角 Angle	重量 (KGS) Weight	工件材質 Workpiece Material	切削硬度 Cutting HRC
碳化鎢鋼圓鼻立銑刀高硬度專用 - 2 刃 / 4 刃 TUNGSTEN CARBIDE CORNER-RADIUS END MILLS FOR HARD MATERIAL										
REH235-D010d040R02-H2.0-050L	50	0.2	1	4	2	2	35	-	<p>P : ++</p> <p>M : +</p> <p>K : ++</p> <p>H : ++</p> <p>HRC45°~62°</p>	
REH235-D015d040R02-H3.0-050L	50	0.2	1.5	4	3	2	35	-		
REH235-D020d040R02-H5.0-050L	50	0.2	2	4	5	2	35	-		
REH235-D020d040R03-H5.0-050L	50	0.3	2	4	5	2	35	-		
REH235-D020d040R05-H5.0-050L	50	0.5	2	4	5	2	35	-		
REH235-D030d040R02-H6.0-050L	50	0.2	3	4	6	2	35	-		
REH235-D030d040R03-H6.0-050L	50	0.3	3	4	6	2	35	-		
REH235-D030d040R05-H6.0-050L	50	0.5	3	4	6	2	35	-		
REH235-D030d040R10-H6.0-050L	50	1	3	4	6	2	35	-		
REH235-D040d040R02-H8.0-050L	50	0.2	4	4	8	2	35	-		
REH235-D040d040R03-H8.0-050L	50	0.3	4	4	8	2	35	-		
REH235-D040d040R05-H8.0-050L	50	0.5	4	4	8	2	35	-		
REH235-D040d040R10-H8.0-050L	50	1	4	4	8	2	35	-		
REH435-D030d040R02-H7.0-050L	50	0.2	3	4	7	4	35	-		
REH435-D030d040R03-H7.0-050L	50	0.3	3	4	7	4	35	-		
REH435-D030d040R05-H7.0-050L	50	0.5	3	4	7	4	35	-		
REH435-D030d040R10-H7.0-050L	50	1	3	4	7	4	35	-		
REH435-D040d040R02-H10.0-050L	50	0.2	4	4	10	4	35	-		
REH435-D040d040R03-H10.0-050L	50	0.3	4	4	10	4	35	-		
REH435-D040d040R05-H10.0-050L	50	0.5	4	4	10	4	35	-		
REH435-D040d040R10-H10.0-050L	50	1	4	4	10	4	35	-		
REH435-D060d060R02-H15.0-050L	50	0.2	6	6	15	4	35	-		
REH435-D060d060R05-H15.0-050L	50	0.5	6	6	15	4	35	-		
REH435-D060d060R10-H15.0-050L	60	1	6	6	15	4	35	-		
REH435-D080d080R02-H20.0-060L	60	0.2	8	8	20	4	35	-		
REH435-D080d080R05-H20.0-060L	60	0.5	8	8	20	4	35	-		
REH435-D080d080R10-H20.0-060L	60	1	8	8	20	4	35	-		
REH435-D080d080R20-H20.0-075L	75	2	8	8	20	4	35	-		
REH435-D100d100R02-H25.0-075L	75	0.2	10	10	25	4	35	-		
REH435-D100d100R05-H25.0-075L	75	0.5	10	10	25	4	35	-		
REH435-D100d100R10-H25.0-075L	75	1	10	10	25	4	35	-		
REH435-D100d100R20-H25.0-075L	75	2	10	10	25	4	35	-		
REH435-D120d120R02-H30.0-075L	75	0.2	12	12	30	4	35	-		
REH435-D120d120R05-H30.0-075L	75	0.5	12	12	30	4	35	-		
REH435-D120d120R10-H30.0-075L	75	1	12	12	30	4	35	-		
REH435-D120d120R20-H30.0-075L	75	2	12	12	30	4	35	-		
REH435-D120d120R30-H30.0-075L	75	3	12	12	30	4	35	-		

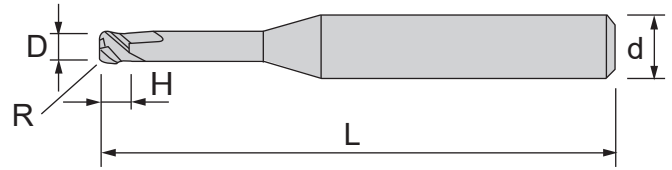
MILLING



# RE 碳化鎢鋼圓鼻立銑刀 TUNGSTEN CARBIDE CORNER-RADIUS END MILLS



**NEW**



規格 Spec.	L	R	D	d	H	刀數 T	螺旋角 Angle	重量 (KGS) Weight	工件材質 Workpiece Material	切削硬度 Cutting HRC
碳化鎢鋼圓鼻立銑刀 - 4 刃 TUNGSTEN CARBIDE CORNER-RADIUS END MILLS										
RES435-D030d040R02-H7.0-050L	50	0.2	3	4	7	4	35	-	<p><b>P</b> : ++</p> <p><b>M</b> : +</p> <p><b>K</b> : ++</p>	HRC15°~45°
RES435-D030d040R03-H7.0-050L	50	0.3	3	4	7	4	35	-		
RES435-D030d040R05-H7.0-050L	50	0.5	3	4	7	4	35	-		
RES435-D030d040R10-H7.0-050L	50	1	3	4	7	4	35	-		
RES435-D040d040R02-H10.0-050L	50	0.2	4	4	10	4	35	-		
RES435-D040d040R03-H10.0-050L	50	0.3	4	4	10	4	35	-		
RES435-D040d040R05-H10.0-050L	50	0.5	4	4	10	4	35	-		
RES435-D040d040R10-H10.0-050L	50	1	4	4	10	4	35	-		
RES435-D060d060R02-H15.0-060L	60	0.2	6	6	15	4	35	-		
RES435-D060d060R05-H15.0-060L	60	0.5	6	6	15	4	35	-		
RES435-D060d060R10-H15.0-060L	60	1	6	6	15	4	35	-		
RES435-D080d080R02-H20.0-060L	60	0.2	8	8	20	4	35	-		
RES435-D080d080R05-H20.0-060L	60	0.5	8	8	20	4	35	-		
RES435-D080d080R10-H20.0-060L	60	1	8	8	20	4	35	-		
RES435-D080d080R20-H20.0-075L	75	2	8	8	20	4	35	-		
RES435-D100d100R02-H25.0-075L	75	0.2	10	10	25	4	35	-		
RES435-D100d100R05-H25.0-075L	75	0.5	10	10	25	4	35	-		
RES435-D100d100R10-H25.0-075L	75	1	10	10	25	4	35	-		
RES435-D100d100R20-H25.0-075L	75	2	10	10	25	4	35	-		
RES435-D120d120R02-H30.0-075L	75	0.2	12	12	30	4	35	-		
RES435-D120d120R05-H30.0-075L	75	0.5	12	12	30	4	35	-		
RES435-D120d120R10-H30.0-075L	75	1	12	12	30	4	35	-		
RES435-D120d120R20-H30.0-075L	75	2	12	12	30	4	35	-		
RES435-D120d120R30-H30.0-075L	75	3	12	12	30	4	35	-		



# Turning

Precision Tool Systems





# 車刀刀具編碼規範

## TURNING TOOLS CODING STANDARDS

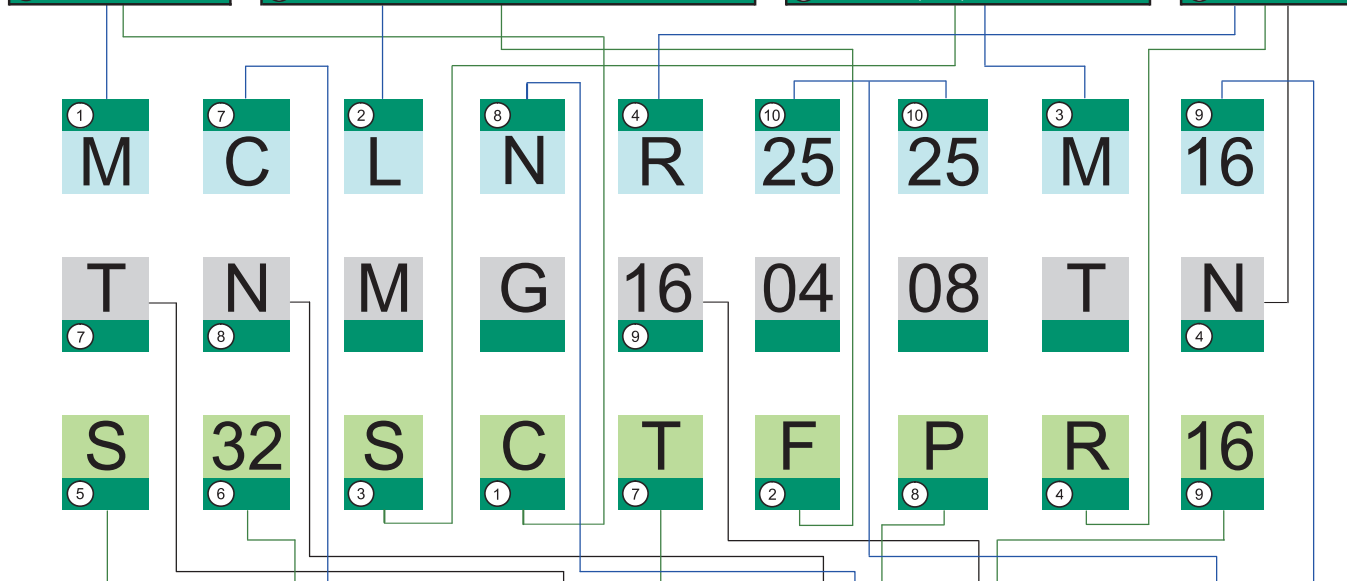
記號	名稱	圖形	記號	圖形	記號	圖形	記號	圖形	記號	圖形
C	上壓式		A		G		P			
M	螺銷上壓式		B		J		Q			
W	楔鉤式		C		K		V			
S	壓孔式		D		L		U			
P	側推式		E		L2		X			
			F		N		Y			
			G		N3		Z			

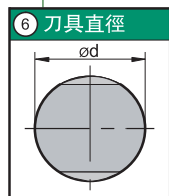
記號	長度	記號	長度	圖形
A	32	N	160	
B	40	P	170	
C	50	Q	180	
D	60	R	200	
E	70	S	250	
F	80	T	300	
G	90	U	350	
H	100	V	400	
J	110	W	450	
K	125	X	500	
L	140	Y	特殊	
M	150	X	特殊	

記號	圖形	記號	圖形	記號	圖形
L		N		R	



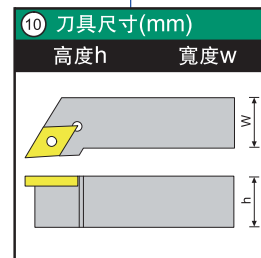
5 刀具材質記號	
記號	說明
S	合金鋼刀具
C	硬質合金刀具 (帶鋼刀頭)
A	有冷卻孔鋼刀具
H	高速鋼



7 刀片形狀			
記號	形狀	角度	圖形
C	菱形	80°	
D		55°	
E		75°	
V		35°	
K	平行四邊形	55°	
R	圓形	—	
S	正方形	90°	
T	正三角形	60°	
W	六角形	80°	

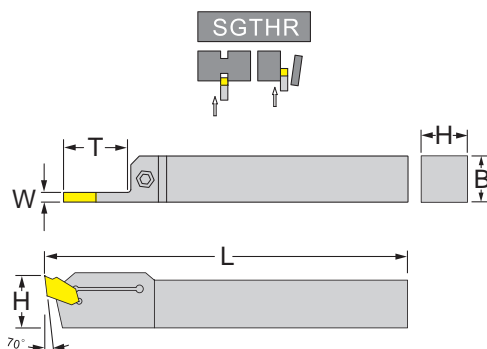
8 離隙角	
記號	離隙角
B	5°
C	7°
N	0°
P	11°

9 刀片邊寬	
記號	圖形
S	
T	
R	
L	
C	
D	
E	
V	
A	
B	
K	





## SGTHR 切斷刀架 SGTHR CUTTING BLOCKS



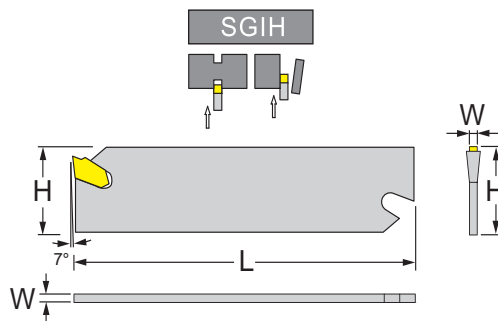
規格 Spec.	H	B	L	W	T	刀片 Insert	重量 (KGS) Weight
SGTHR-1616-2	16	16	110	2	16	TGTN2	0.24
SGTHR-2020-2	20	20	125	2	18	TGTN2	0.41
SGTHR-2020-3	20	20	125	3	20	TGTN3	0.41
SGTHR-2525-3	25	25	150	3	25	TGTN3	0.67
SGTHR-2525-4	25	25	150	4	30	TGTN4	0.67

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
TGTN2	SH-M5-21	PL4	5.0
TGTN3	SH-M6-25	PL5	6.0
TGTN4	SH-M6-25	PL5	6.0

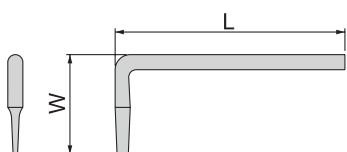


## SGIH 切斷刀板 SGIH CUTTING BLOCKS



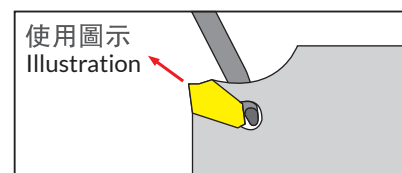
規格 Spec.	L	W	H	刀片 Insert	重量 (KGS) Weight
SGIH-26.3PS-HD	110	2.5	26	TGTN3	0.08
● SGIH-26.4PS-HD	110	3.5	26	TGTN4	-
● SGIH-32.3PS-HD	150	2.5	32	TGTN3	0.12
● SGIH-32.4PS-HD	150	3.5	32	TGTN4	-

● : 進口 Import



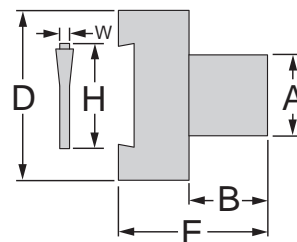
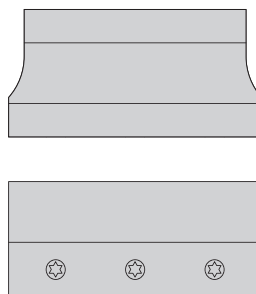
規格 Spec.	L	W	重量 (KGS) Weight
DW-70	70	27	0.02

使用方式：使用拆卸扳手卸下刀片，以免損壞切斷刀具  
Instruction: Dismantle insert with a spanner to protect cutters.





# COH 切斷刀板座 COH CUTTING BLOCKS



規格 Spec.	A	B	D	E	H	W	適用刀板	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
COH-26×20	20	20	42	38	26	-	SGIH-26.3PS-HD SGIH-26.4PS-HD	PL5	6.0	0.66
COH-32×20	20	25	48	42	32	-	SGIH-32.3PS-HD	PL5	6.0	0.99
COH-32×25	25	25	48	42	32	-	SGIH-32.4PS-HD	PL5	6.0	1.06

ISO 分類	P	合金鋼 Alloyed Steels	○	○											切削狀態 Cutting Condition : ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○	○											
	K	鑄鐵 Cast Iron	○	○											
N	鋁及鋁合金 Aluminum&Al							■							
S	高溫合金 Refractory Alloys														
H	高硬度材 Hard Material		○												
形狀 Form	規格 Spec.	鍍層超微粒				超硬微粒				尺寸 (mm)				圖形 Drawing	
		CHF				HF				Size					
		OM4010	OM4025			OM5005					d	i	s		r
	TGTN3	●	●			●				-	11.3	3.1	0.2		
	TGTN4	●	●			●				-	11.3	4.1	0.25		

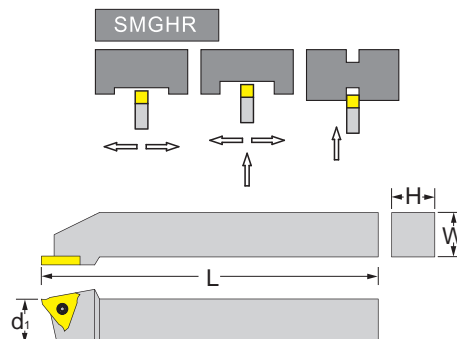
## TGTN\_3.4 切削條件數據表 Cutting Conditions

被加工材質 Machining Materials	刀片材質 Grade	切削速度 Vc(m/min)	每刃進給 (mm)
P 合金鋼 Alloy Steels	OM4010	90~250	0.08(0.06~0.12)
	OM4025	90~230	0.08(0.06~0.12)
M 不鏽鋼 Stainless Steels	OM4010	55~110	0.06(0.06~0.12)
	OM4025	55~100	0.06(0.06~0.12)
K 鑄鐵 Cast Iron	OM4025	110~275	0.08(0.06~0.12)
N 鋁合金 Aluminum&Al	OM5005	500~700	0.15(0.15~0.17)

TURNING



## SMGHR 截溝車牙刀架 SMGHR THREADING TURNING TOOLS



### 特點 Feature

- 採用抗震性工具鋼材質
- 整體預硬後，再行精修，避免二次處理所產生應變

- Anti-vibration tool steel applied.
- To be free of stress changing, the tool is pre-hardened prior to final finishing.

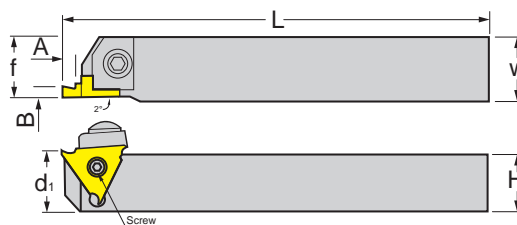
規格 Spec.	L	d <sub>1</sub>	W	H	刀片 Insert	重量 (KGS) Weight
SMGHR 2020K16	125	20	20	20	SMGTR16X2( 截溝 Grooving)	0.43
SMGHR 2525M16	150	25	25	25	SMTTR160360( 車牙 Threading)	0.74

### 配件表 Accessories

刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque
SMGTR16X2( 截溝 Grooving)	M4-8.2-6.2-90	T15	3.0
SMTTR160360( 車牙 Threading)	M4-8.2-6.2-90	T15	3.0



## WGHR 外徑開槽刀架 WGHR EXTERNAL GROOVE TURNING TOOLS



規格 Spec.	H	W	L	f	d <sub>1</sub>	A	B	刀片 Insert	重量 (KGS) Weight
WGHR-1616K-4315	16	16	125	20	16	3	1.5~2.3	MGTR	-
WGHR-1616K-4323	16	16	125	20	16	4.5	2.3~4.7		-
WGHR-2020K-4315	20	20	125	25	20	3	1.5~2.3	43150	0.42
WGHR-2020K-4323	20	20	125	25	20	4.5	2.3~4.7	I	0.42
WGHR-2525M-4315	25	25	150	32	25	3	1.5~2.3	43470	0.75
WGHR-2525M-4323	25	25	150	32	25	4.5	2.3~4.7		0.75

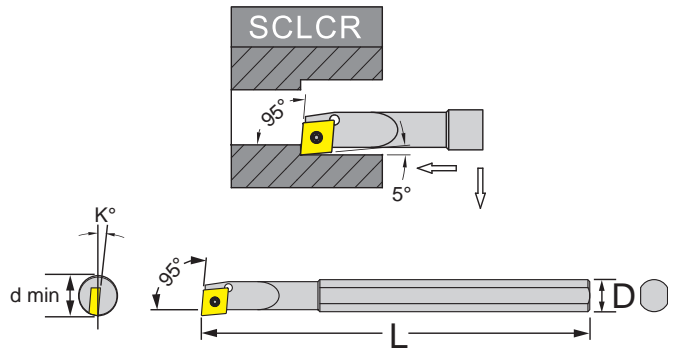
### 配件表 Accessories

刀片 Insert	彈簧 Spring	壓板 Clamp	壓板螺絲 Clamp Screw	扳手 Wrench	扭力值 (N.m) Torque
MGTR 43150   43470	MES3	MTK1R	HTR623	PL4	5.0

※ 可適用刀片：TGAR/TGER/GB43R ※Application inserts:TGAR/TGER/GB43R



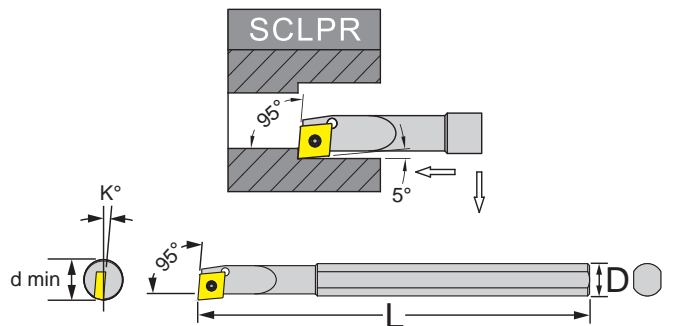
## SCLCR 內徑車刀架 SCLCR INTERNAL TURNING TOOLS



規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S08K-SCLCR-06	125	8	10	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.06
S10K-SCLCR-06	125	10	12	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.09
S12M-SCLCR-06	150	12	16	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.14
S16Q-SCLCR-09T	180	16	20	CC..09T3	M4-8.0-5.7-60	T15	3.0	0.30
S20R-SCLCR-09T	200	20	25	CC..09T3	M4-10-5.7-60	T15	3.0	0.50
S25S-SCLCR-09T	250	25	32	CC..09T3	M4-10-5.7-60	T15	3.0	0.86



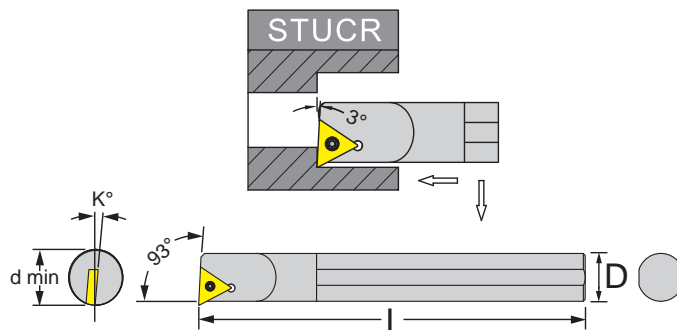
## SCLPR 內徑車刀架 SCLPR INTERNAL TURNING TOOLS



規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S08H-SCLPR-06	100	8	10	CP..0602	M2.5-6.0-3.5-60	T8	1.2	0.06
S10K-SCLPR-06	125	10	12	CP..0602	M2.5-6.0-3.5-60	T8	1.2	0.09
S12M-SCLPR-06	150	12	16	CP..0602	M2.5-6.0-3.5-60	T8	1.2	0.15
S16Q-SCLPR-09	180	16	20	CP..0903	M4-10-5.7-60	T15	3.0	0.30
S20R-SCLPR-09	200	20	25	CP..0903	M4-10-5.7-60	T15	3.0	0.49
S25R-SCLPR-09	200	25	30	CP..0903	M4-10-5.7-60	T15	3.0	0.93



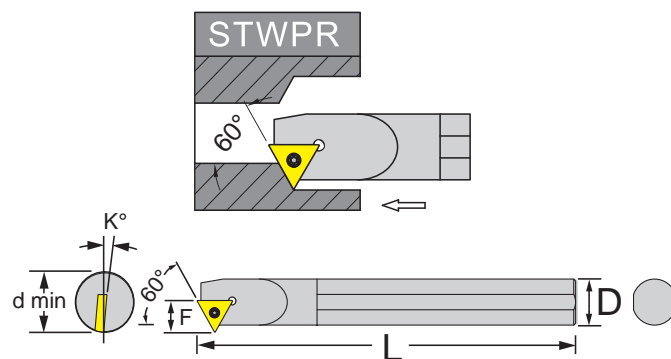
## STUCR 內徑車刀架 STUCR INTERNAL TURNING TOOLS



規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S08H-STUCR-09	100	8	10	TC..0902	M2.2-5.5-3.4-60	T7	0.9	0.05
S10K-STUCR-11	125	10	12	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.09
S12M-STUCR-11	150	12	16	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.14
S16Q-STUCR-11	180	16	20	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.28
S20R-STUCR-16	200	20	25	TC..16T3	M4-10-5.0-43	T15	3.0	0.48
S25R-STUCR-16	200	25	30	TC..16T3	M4-10-5.0-43	T15	3.0	0.86



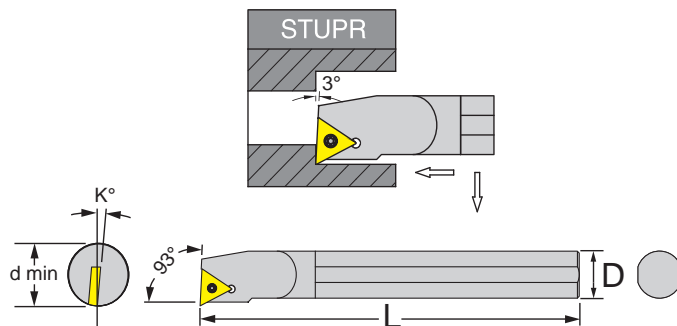
## STWPR/STWCR 內徑車刀架 STWPR/STWCR INTERNAL TURNING TOOLS



規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S08K-STWPR-09	125	8	11	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.06
S10K-STWCR-09	125	10	10	TC..0902	M2.2-5.5-3.4-60	T7	0.9	0.08
S10K-STWCR-11	125	10	13	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.09
S12M-STWCR-11	150	12	16	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.12
S16M-STWPR-09	150	16	16	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.22
S16Q-STWCR-11	180	16	20	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.29
S20R-STWCR-11	200	20	25	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.47



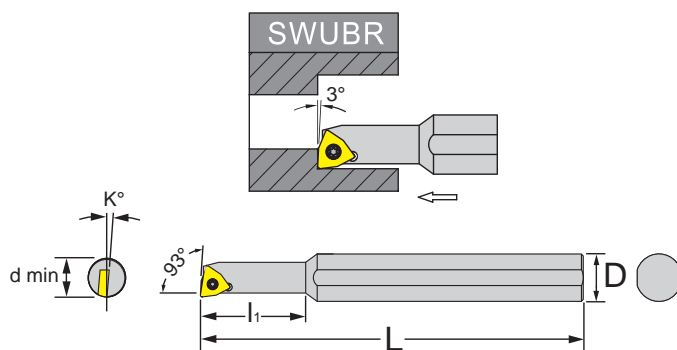
## STUBR/STUPR 內徑車刀架 STUBR/STUPR INTERNAL TURNING TOOLS



規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S0806H-STUBR-06	100	8	8	TB..0601	M2-3.8-2.68-43	T6	0.6	0.05
S08H-STUPR-09	100	8	10	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.05
S10K-STUPR-09	125	10	12	TP.0902	M2.5-6.0-3.5-60	T8	1.2	0.11
S10K-STUPR-11	125	10	12	TP.1103	M3-8.0-4.0-43	T9	1.4	0.09
S12M-STUPR-11	150	12	16	TP.1103	M3-8.0-4.0-43	T9	1.4	0.14
S16Q-STUPR-11	180	16	20	TP.1103	M3-8.0-4.0-43	T9	1.4	0.30
S20R-STUPR-11	200	20	25	TP.1103	M3-8.0-4.0-43	T9	1.4	0.49
S20R-STUPR-1603	200	20	25	TP.1603	M4-10-5.7-60	T15	3.0	0.48
S25S-STUPR-1603	250	25	32	TP.1603	M4-10-5.7-60	T15	3.0	0.85



## SWUBR 內徑車刀架 SWUBR INTERNAL TURNING TOOLS

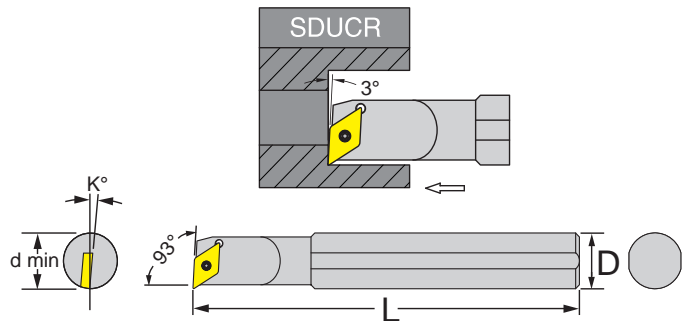


規格 Spec.	L	l <sub>1</sub>	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S1005H-SWUBR-06	100	15	10	6	WB..0601	M2-3.8-2.68-43	T6	0.6	0.08
S1006H-SWUBR-06	100	18	10	7	WB..0601	M2-3.8-2.68-43	T6	0.6	0.09





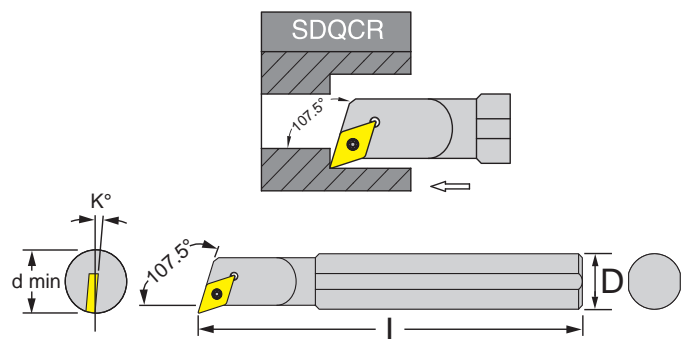
## SDUCR 內徑車刀架 SDUCR INTERNAL TURNING TOOLS



規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S10K-SDUCR-07	125	10	13	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.09
S12M-SDUCR-07	150	12	16	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.15
S16Q-SDUCR-11	180	16	20	DC..11T3	M4-10-5.7-60	T15	3.0	0.30
S20R-SDUCR-11	200	20	25	DC..11T3	M4-10-5.7-60	T15	3.0	0.49
S25R-SDUCR-11	200	25	32	DC..11T3	M4-10-5.7-60	T15	3.0	0.87



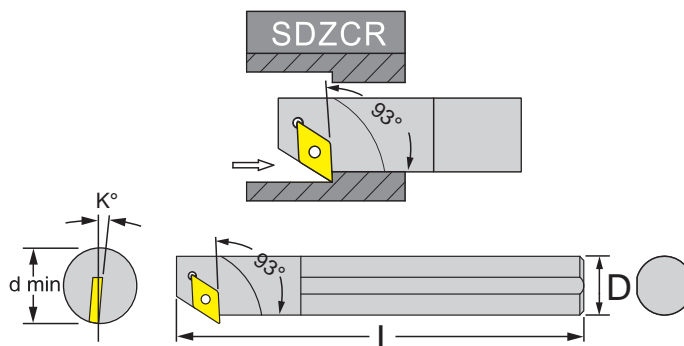
## SDQCR 內徑車刀架 SDQCR INTERNAL TURNING TOOLS



規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S10K-SDQCR-07	125	10	13	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.09
S12M-SDQCR-07	150	12	16	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.14
S16Q-SDQCR-07	180	16	20	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.28
S20R-SDQCR-11	200	20	25	DC..11T3	M4-10-5.7-60	T15	3.0	0.48
S25R-SDQCR-11	200	25	32	DC..11T3	M4-10-5.7-60	T15	3.0	0.84



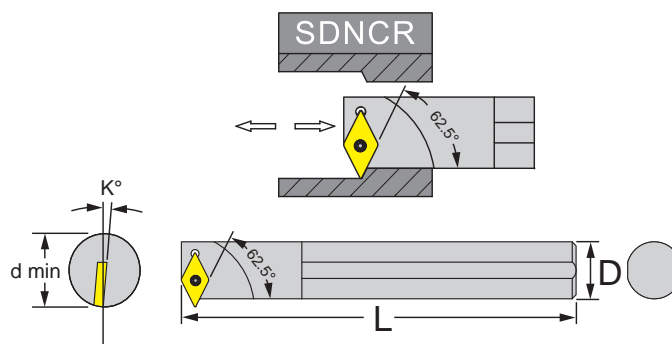
## SDZCR 內徑車刀架 SDZCR INTERNAL TURNING TOOLS



規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S10M-SDZCR-07	150	10	14	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.10
S12M-SDZCR-07	150	12	17	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.15
S16Q-SDZCR-07	180	16	21	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.29
S20R-SDZCR-11	200	20	26	DC..11T3	M4-10-5.7-60	T15	3.0	0.48
S25R-SDZCR-11	200	25	33	DC..11T3	M4-10-5.7-60	T15	3.0	0.74



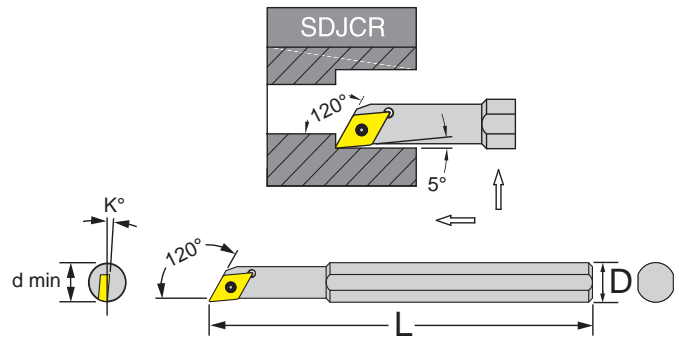
## SDNCR 內徑車刀架 SDNCR INTERNAL TURNING TOOLS



規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S16Q-SDNCR-07	180	16	20	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.28
S20R-SDNCR-11	200	20	25	DC..11T3	M4-10-5.7-60	T15	3.0	0.49
S25R-SDNCR-11	200	25	32	DC..11T3	M4-10-5.7-60	T15	3.0	0.86



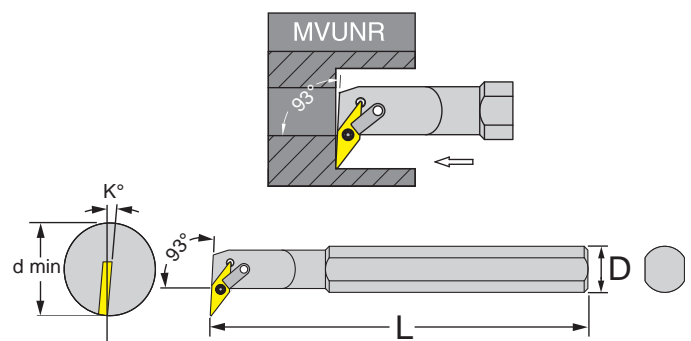
## SDJCR 內徑車刀架 SDJCR INTERNAL TURNING TOOLS



規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S08H-SDJCR-07	100	8	10	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.07
S10K-SDJCR-07	125	10	12	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.10
S12M-SDJCR-07	150	12	14	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.15
S16Q-SDJCR-07	180	16	19	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.28
S16Q-SDJCR-11	180	16	19	DC..11T3	M4-10-5.7-60	T15	3.0	0.29
S20R-SDJCR-11	200	20	23	DC..11T3	M4-10-5.7-60	T15	3.0	0.48
S25R-SDJCR-11	200	25	28	DC..11T3	M4-10-5.7-60	T15	3.0	0.85



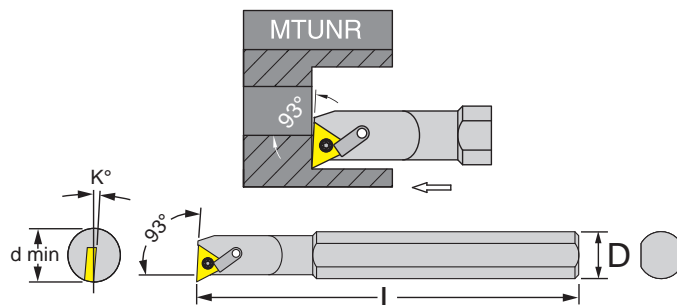
## MVUNR 內徑車刀架 MVUNR INTERNAL TURNING TOOLS



規格 Spec.	L	D	d	刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S25R-MVUNR-16	200	25	32	VN..1604	-	MLP33L	PL2	3.0	MC515	MS520	PL2.5	5.0	0.86
S32S-MVUNR-16	250	32	40		VMS322	MLP34L			MC620	MS625	PL3		1.56



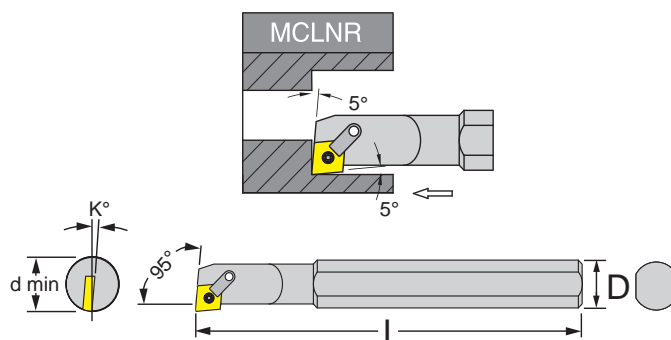
## MTUNR 內徑車刀架 MTUNR INTERNAL TURNING TOOLS



規格 Spec.	L	D	d	刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S20R-MTUNR-16	200	20	25	TN..1604	-	MLP33L	PL2	3.0	MC515	MS520	PL2.5	5.0	0.48
S25R-MTUNR-16	200	25	30	TN..1604	-	MLP33L	PL2	3.0	MC515	MS520	PL2.5	5.0	0.94
S32S-MTUNR-16	250	32	40	TN..1604	TMS322	MLP34L	PL2	3.0	MC620	MS625	PL3	5.0	1.56



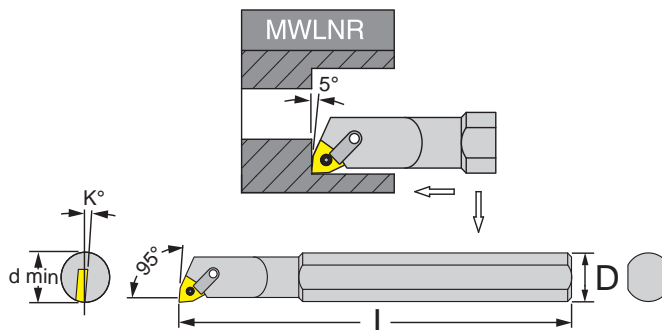
## MCLNR 內徑車刀架 MCLNR INTERNAL TURNING TOOLS



規格 Spec.	L	D	d	刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S20R-MCLNR-12	200	20	25	CN..1204	-	MLP44	PL2.5	5.0	MC620	MS620	PL3	5.0	0.48
S25R-MCLNR-12	200	25	30	CN..1204	-	MLP44	PL2.5	5.0	MC620	MS620	PL3	5.0	0.94
S32S-MCLNR-12	250	32	40	CN..1204	CMS432	MLP46	PL2.5	5.0	MC620	MS625	PL3	5.0	1.56



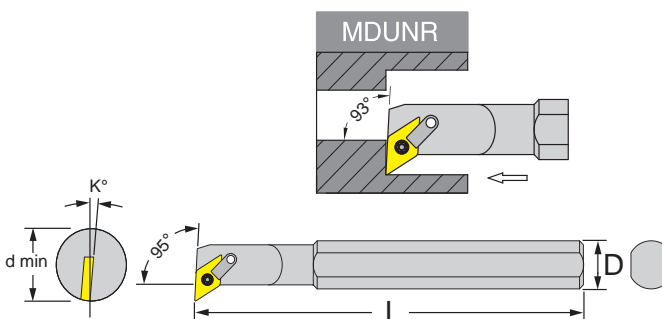
## MWLNR 內徑車刀架 MWLNR INTERNAL TURNING TOOLS



規格 Spec.	L	D	d	刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S20R-MWLNR-08	200	20	25	WN..0804	-	MLP44	PL2.5	5.0	MC515	MS520	PL2.5	5.0	0.47
S25R-MWLNR-08	200	25	30	WN..0804	-	MLP44	PL2.5	5.0	MC515	MS520	PL2.5	5.0	0.85
S32S-MWLNR-08	250	32	40	WN..0804	WMS432	MLP46	PL2.5	5.0	MC515	MS520	PL2.5	5.0	1.54



## MDUNR 內徑車刀架 MDUNR INTERNAL TURNING TOOLS

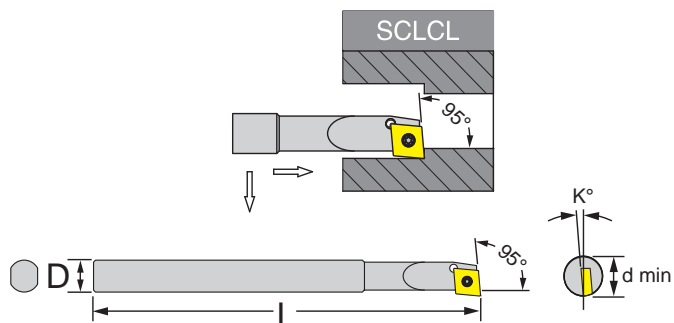


規格 Spec.	L	D	d	刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S25R-MDUNR-15	200	25	32	DN..1504	-	MLP44	PL2.5	5.0	MC620	MS620	PL3	5.0	0.86
S32S-MDUNR-15	250	32	40	DN..1504	-	MLP46	PL2.5	5.0	MC620	MS625	PL3	5.0	-



## SCLCL 內徑車刀架 SCLCL INTERNAL TURNING TOOLS

左旋  
Counterclockwise

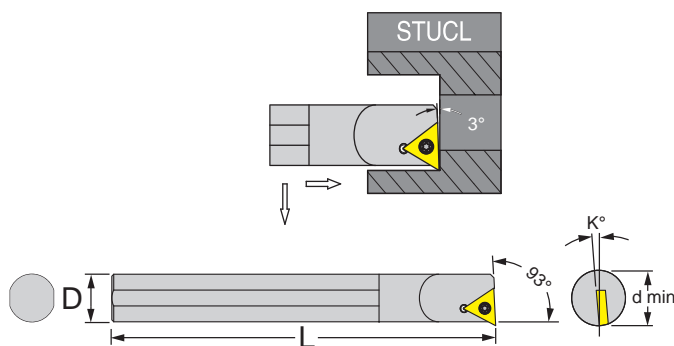


規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S08K-SCLCL-06	100	8	10	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.07
S10K-SCLCL-06	125	10	12	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.01
S12M-SCLCL-06	150	12	16	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.14
S16Q-SCLCL-09T	180	16	20	CC..09T3	M4-10-5.7-60	T15	3.0	0.30
S20R-SCLCL-09T	200	20	25	CC..09T3	M4-10-5.7-60	T15	3.0	0.49
S25R-SCLCL-09T	200	25	30	CC..09T3	M4-10-5.7-60	T15	3.0	-



## STUCL 內徑車刀架 STUCL INTERNAL TURNING TOOLS

左旋  
Counterclockwise

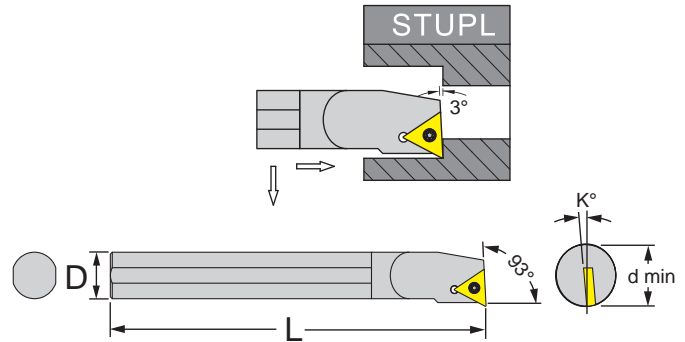


規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S08H-STUCL-09	100	8	10	TC..0902	M2.5-6.0-3.5-60	T8	1.2	0.07
S10K-STUCL-11	125	10	12	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.09
S12M-STUCL-11	150	12	16	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.15
S16Q-STUCL-11	180	16	20	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.29
S20R-STUCL-16	200	20	25	TC..16T3	M4-10-5.0-43	T15	3.0	0.49
S25R-STUCL-16	200	25	30	TC..16T3	M4-10-5.0-43	T15	3.0	-



## STUBL/STUPL 內徑車刀架 STUBL/STUPL INTERNAL TURNING TOOLS

左旋  
Counterclockwise

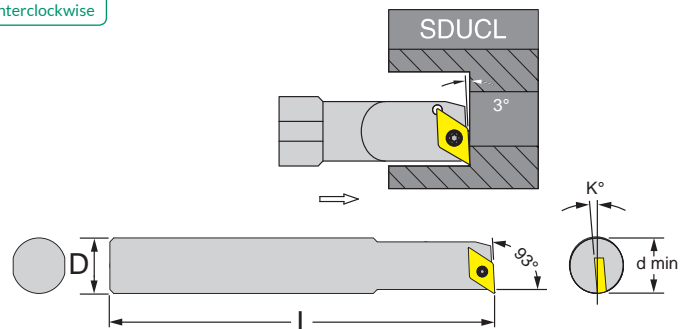


規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S0806H-STUBL-06	100	8	8	TB..0601	M2-3.8-2.68-43	T6	0.6	0.06
S08H-STUPL-09	125	8	10	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.06
S10K-STUPL-09	125	10	12	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.06
S10K-STUPL-11	125	10	12	TP..1103	M3-8.0-4.0-43	T9	1.4	0.10
S12M-STUPL-11	150	12	16	TP..1103	M3-8.0-4.0-43	T9	1.4	0.14
S16Q-STUPL-11	180	16	20	TP..1103	M3-8.0-4.0-43	T9	1.4	0.28
S20R-STUPL-11	200	20	25	TP..1103	M3-8.0-4.0-43	T9	1.4	0.50
S20R-STUPL-1603	200	20	25	TP..1603	M4-10-5.7-60	T15	3.0	0.48
S25R-STUPL-1603	200	25	30	TP..1603	M4-10-5.7-60	T15	3.0	-



## SDUCL 內徑車刀架 SDUCL INTERNAL TURNING TOOLS

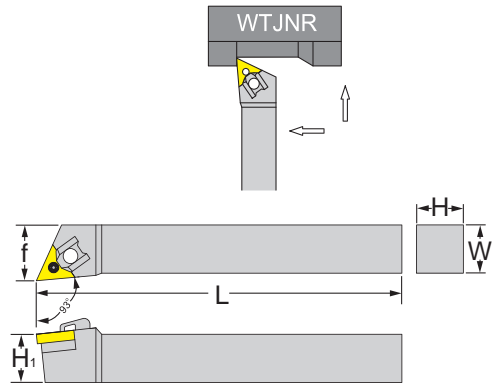
左旋  
Counterclockwise



規格 Spec.	L	D	有效孔徑 d	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S10K-SDUCL-07	125	10	13	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.09
S12M-SDUCL-07	150	12	16	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.09
S16Q-SDUCL-11	180	16	20	DC..11T3	M4-10-5.7-60	T15	3.0	0.30
S20R-SDUCL-11	200	20	25	DC..11T3	M4-10-5.7-60	T15	3.0	-
S25R-SDUCL-11	200	25	32	DC..11T3	M4-10-5.7-60	T15	3.0	-



## WTJNR/WTJNL 外徑車刀架 WTJNR/WTJNL EXTERNAL TURNING TOOLS



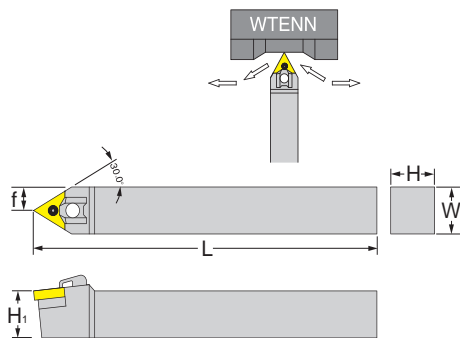
規格 Spec.	L	H	W	H <sub>1</sub>	f	刀片 Insert	重量 (KGS) Weight
WTJNR-1616K-16	125	16	16	16	21	TN..1604	0.31
WTJNL-1616K-16	125	16	16	16	21	TN..1604	0.25
WTJNR-2020K-16	125	20	20	20	25	TN..1604	0.44
WTJNL-2020K-16	125	20	20	20	25	TN..1604	0.45
WTJNR-2525M-16	150	25	25	25	32	TN..1604	0.78
WTJNL-2525M-16	150	25	25	25	32	TN..1604	0.77

### 配件表 Accessories

刀片 Insert	螺絲 Screw	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque	C 扣 C Ring	墊圈 Shin
TN..1604	MCS3S-11	TWS322	MCP3	PL3	5.0	MCW3	MCS3	PL4	5.0	E4	E5



## WTENN 外徑車刀架 WTENN EXTERNAL TURNING TOOLS



規格 Spec.	L	H	W	H <sub>1</sub>	f	刀片 Insert	重量 (KGS) Weight
WTENN-2020K-16	125	20	20	20	10	TN..1604	0.42
WTENN-2525M-16	150	25	25	25	12.5	TN..1604	0.75

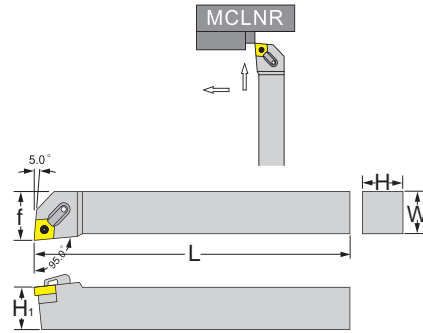
### 配件表 Accessories

刀片 Insert	螺絲 Screw	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque	C 扣 C Ring	墊圈 Shin
TN..1604	MCS3S-09	TWS322	MCP3	PL3	5.0	MCW3	MCS3	PL4	5.0	E4	E5





## MCLNR/MCLNL 外徑車刀架 MCLNR/MCLNL EXTERNAL TURNING TOOLS



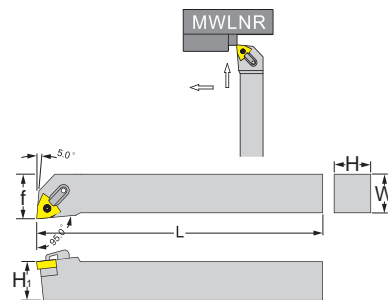
規格 Spec.	L	H	W	H <sub>1</sub>	f	刀片 Insert	重量 (KGS) Weight
MCLNR-2020K-12	125	20	20	20	25	CN..1204	0.45
MCLNL-2020K-12	125	20	20	20	25	CN..1204	0.44
MCLNR-2525M-12	150	25	25	25	32	CN..1204	0.82
MCLNL-2525M-12	150	25	25	25	32	CN..1204	0.79

### 配件表 Accessories

規格 Spec.	刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
MCLNR-2020K-12	CN..1204	CMS432	MLP46	PL2.5	5.0	MC620	MS625	PL3	5.0
MCLNL-2020K-12	CN..1204	CMS432	MLP46	PL2.5	5.0	MC620	MS625	PL3	5.0
MCLNR-2525M-12	CN..1204	CMS432	MLP46	PL2.5	5.0	MC620	MS630	PL3	5.0
MCLNL-2525M-12	CN..1204	CMS432	MLP46	PL2.5	5.0	MC620	MS630	PL3	5.0



## MWLNR/MWLNL 外徑車刀架 MWLNR/MWLNL EXTERNAL TURNING TOOLS



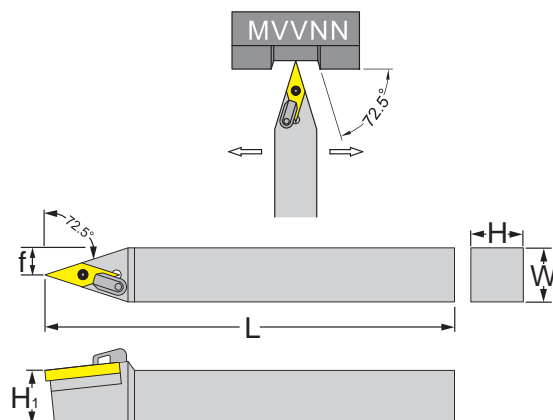
規格 Spec.	L	H	W	H <sub>1</sub>	f	刀片 Insert	重量 (KGS) Weight
MWLNR-2020K-08	125	20	20	20	25	WN..0804	0.45
MWLNL-2020K-08	125	20	20	20	25	WN..0804	0.44
MWLNR-2525M-08	150	25	25	25	32	WN..0804	0.80
MWLNL-2525M-08	150	25	25	25	32	WN..0804	0.79

### 配件表 Accessories

規格 Spec.	刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
MWLNR-2020K-08	WN..0804	WMS432	MLP46	PL2.5	5.0	MC620	MS625	PL3	5.0
MWLNL-2020K-08	WN..0804	WMS432	MLP46	PL2.5	5.0	MC620	MS625	PL3	5.0
MWLNR-2525M-08	WN..0804	WMS432	MLP46	PL2.5	5.0	MC620	MS630	PL3	5.0
MWLNL-2525M-08	WN..0804	WMS432	MLP46	PL2.5	5.0	MC620	MS630	PL3	5.0



## MVVNN 外徑車刀架 MVVNN EXTERNAL TURNING TOOLS



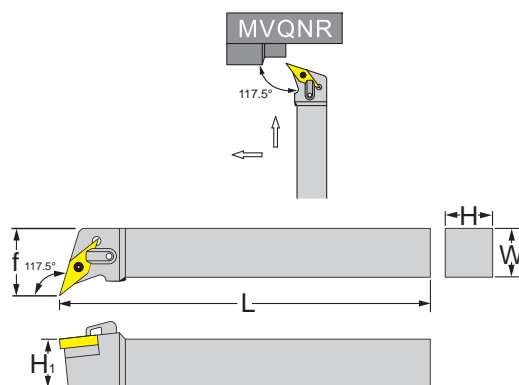
規格 Spec.	L	H	W	H <sub>1</sub>	f	刀片 Insert	重量 (KGS) Weight
MVVNN-2020K-16	125	20	20	20	10	VN..1604	0.43
MVVNN-2525M-16	150	25	25	25	12.5	VN..1604	0.75

### 配件表 Accessories

規格 Spec.	刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
MVVNN-2020K-16	VN..1604	VMS322	MLP34L	PL2	3.0	MC622	MS625	PL3	5.0
MVVNN-2525M-16	VN..1604	VMS322	MLP34L	PL2	3.0	MC622	MS630	PL3	5.0



## MVQNR 外徑車刀架 MVQNR EXTERNAL TURNING TOOLS



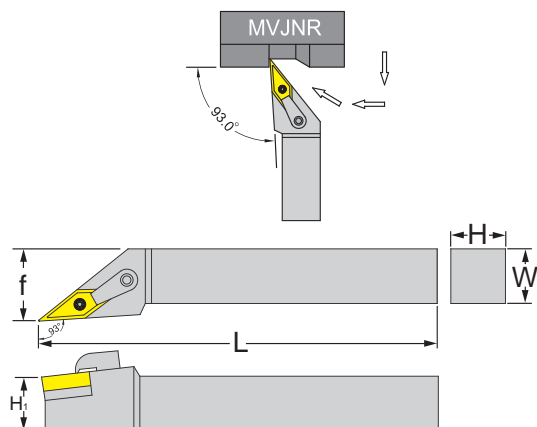
規格 Spec.	L	H	W	H <sub>1</sub>	f	刀片 Insert	重量 (KGS) Weight
MVQNR-2020K-16	125	20	20	20	25	VN..1604	0.45
MVQNR-2525M-16	150	25	25	25	32	VN..1604	0.79

### 配件表 Accessories

規格 Spec.	刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
MVQNR-2020K-16	VN..1604	VMS322	MLP34L	PL2	3.0	MC622	MS625	PL3	5.0
MVQNR-2525M-16	VN..1604	VMS322	MLP34L	PL2	3.0	MC622	MS630	PL3	5.0



## MVJNR 外徑車刀架 MVJNR EXTERNAL TURNING TOOLS



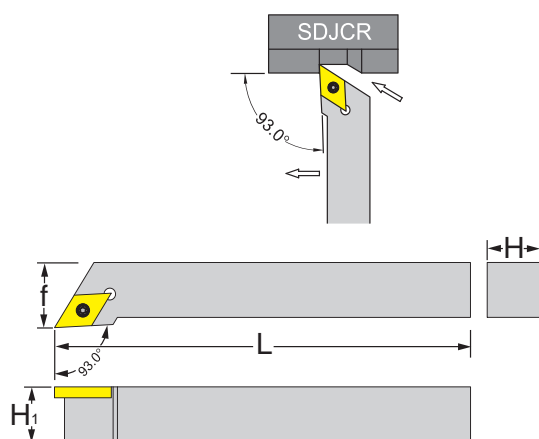
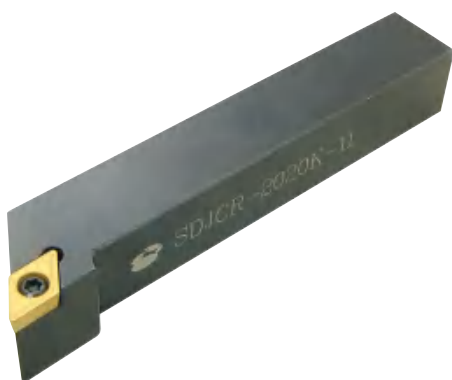
規格 Spec.	L	H	W	H <sub>1</sub>	f	刀片 Insert	重量 (KGS) Weight
MVJNR-2020K-16	125	20	20	20	25	VN..1604	0.44
MVJNR-2525M-16	150	25	25	25	32	VN..1604	0.76

### 配件表 Accessories

規格 Spec.	刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板 Clamp	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
MVJNR-2020K-16	VN..1604	VMS322	MLP34L	PL2	3.0	MC622	MS625	PL3	5.0
MVJNR-2525M-16	VN..1604	VMS322	MLP34L	PL2	3.0	MC622	MS630	PL3	5.0



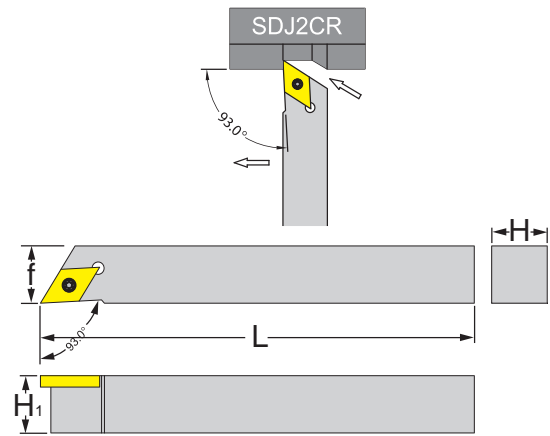
## SDJCR 外徑車刀架 SDJCR EXTERNAL TURNING TOOLS



規格 Spec.	L	H	H <sub>1</sub>	f	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SDJCR-1616K-11	120	16	16	20	DC..11T3	M4-10-5.7-60	T15	3.0	0.28
SDJCR-2020K-11	125	20	20	25	DC..11T3	M4-10-5.7-60	T15	3.0	0.41



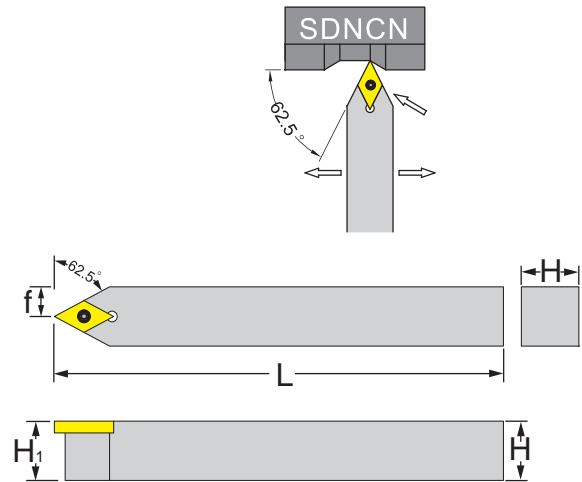
## SDJ2CR 外徑車刀架 SDJ2CR EXTERNAL TURNING TOOLS



規格 Spec.	L	H	H <sub>1</sub>	f	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SDJ2CR-1212H-11	100	12	12	12	DC..11T3	M4-10-5.7-60	T15	3.0	0.13
SDJ2CR-1616K-11	125	16	16	16	DC..11T3	M4-10-5.7-60	T15	3.0	0.26



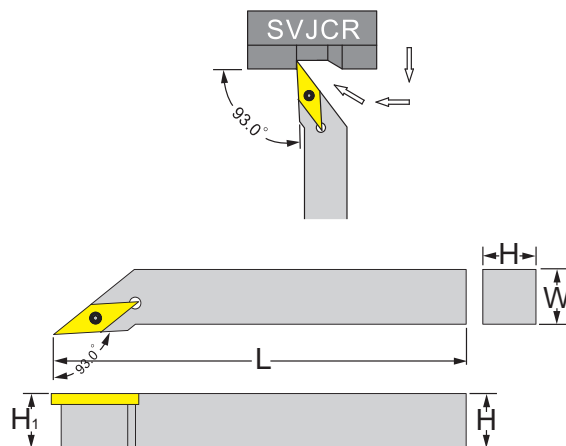
## SDNCN 外徑車刀架 SDNCN EXTERNAL TURNING TOOLS



規格 Spec.	L	H	H <sub>1</sub>	f	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SDNCN-1212H-11	100	12	12	6	DC..11T3	M4-10-5.7-60	T15	3.0	0.12
SDNCN-1616K-11	125	16	16	8	DC..11T3	M4-10-5.7-60	T15	3.0	0.25
SDNCN-2020K-11	125	20	20	10	DC..11T3	M4-10-5.7-60	T15	3.0	0.40
SDNCN-2525M-11	150	25	25	12.5	DC..11T3	M4-10-5.7-60	T15	3.0	0.72



## SVJCR 外徑車刀架 SVJCR EXTERNAL TURNING TOOLS



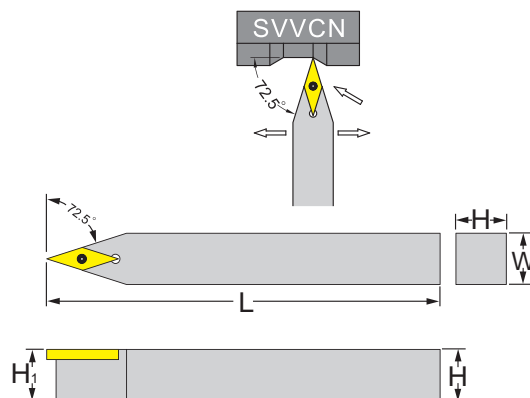
規格 Spec.	L	H	H <sub>1</sub>	W	刀片 Insert	重量 (KGS) Weight
SVJCR-2020K-16	125	20	20	20	VC..1604	0.40
SVJCR-2525M-16	150	25	25	25	VC..1604	0.70

### 配件表 Accessories

刀片 Insert	墊片 Shim	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
VC..1604	VSS322	M3.5-12-5.3-60	T15	3.0	MDS05035	PL3.5	5.0



## SVVCN 外徑車刀架 SVVCN EXTERNAL TURNING TOOLS



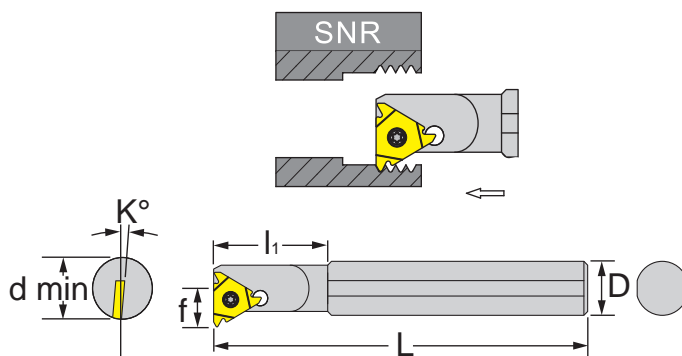
規格 Spec.	L	H	H <sub>1</sub>	W	刀片 Insert	重量 (KGS) Weight
SVVCN-2020K-16	125	20	20	20	VC..1604	0.39
SVVCN-2525M-16	150	25	25	25	VC..1604	0.69

### 配件表 Accessories

刀片 Insert	墊片 Shim	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque
VC..1604	VSS322	M3.5-11.7-5.3-60	T15	3.0	MDS05035	PL3.5	5.0



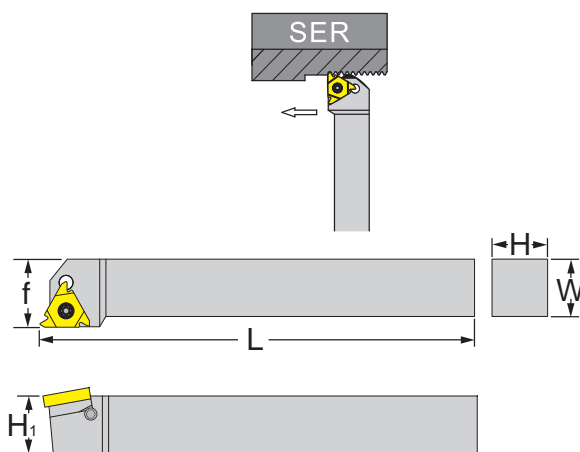
## SNR 內徑牙刀架 SNR INTERNAL THREADING TURNING TOOLS



規格 Spec.	L	l <sub>1</sub>	D	d	f	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	墊片 Shim	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SNR-0008K-08	125	21	16	11	5.5	08IR	M2.2-5.5-3.4-60	T7	0.9	-	-	-	-	0.18
SNR-0010K-11	125	25	16	13	6.5	11IR	M2.5-7.0-4.5-60	T8	1.2	-	-	-	-	0.19
SNR-0013M-11	150	32	16	16	8	11IR	M2.5-7.0-4.5-60	T8	1.2	-	-	-	-	0.22
SNR-0013M-16	150	32	16	17	8.5	16IR	M3.5-9.0-5.3-60	T15	3.0	-	-	-	-	0.24
SNR-0016Q-16	180	36	16	19	10	16IR	M3.5-9.0-5.3-60	T15	3.0	-	-	-	-	0.30
SNR-0020R-16	200	40	20	24	12	16IR	M3.5-11.7-5.3-60	T15	3.0	GXN16	HTM309	PL2.5	5.0	0.50
SNR-0025R-16	200	45	25	29	14.5	16IR	M3.5-11.7-5.3-60	T15	3.0	GXN16	HTM309	PL2.5	5.0	0.76
SNR-0032S-16	250	45	32	36	18.5	16IR	M3.5-11.7-5.3-60	T15	3.0	GXN16	HTM309	PL2.5	5.0	1.60



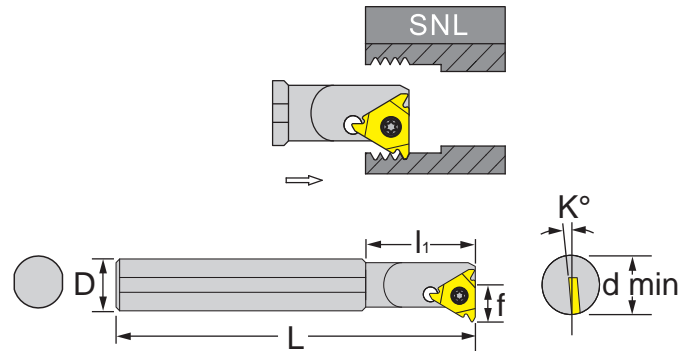
## SER 外徑牙刀架 SER EXTERNAL THREADING TURNING TOOLS



規格 Spec.	L	H	H <sub>1</sub>	W	f	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	墊片 Shim	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SER-1616K-16	125	16	16	16	20	16ER	M3.5-11.7-5.3-60	T15	3.0	GXE16	HTM309	PL2.5	5.0	0.31
SER-2020K-16	125	20	20	20	25	16ER	M3.5-11.7-5.3-60	T15	3.0	GXE16	HTM309	PL2.5	5.0	0.45
SER-2525M-16	150	25	25	25	32	16ER	M3.5-11.7-5.3-60	T15	3.0	GXE16	HTM309	PL2.5	5.0	0.82



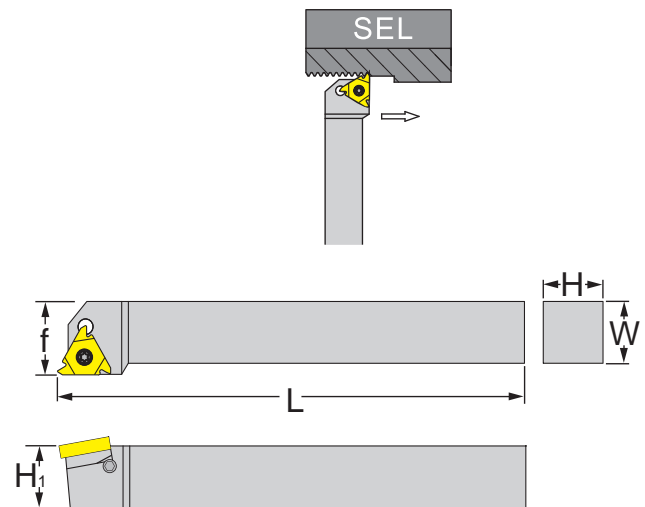
## SNL 內徑牙刀架 SNL INTERNAL THREADING TURNING TOOLS



規格 Spec.	L	l <sub>1</sub>	D	d	f	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	墊片 Shim	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SNL-0008K-08	125	21	16	11	5.5	08ER	M2.2-5.5-3.4-60	T7	0.9	-	-	-	-	0.19
SNL-0010K-11	125	25	16	13	6.5	11ER	M2.5-7.0-4.5-60	T8	1.2	-	-	-	-	0.19
SNL-0013M-11	150	32	16	16	8	11ER	M2.5-7.0-4.5-60	T8	1.2	-	-	-	-	0.24
SNL-0013M-16	150	32	16	17	8.5	16ER	M3.5-9.0-5.3-60	T15	3.0	-	-	-	-	0.24
SNL-0016Q-16	180	36	16	19	10	16ER	M3.5-9.0-5.3-60	T15	3.0	-	-	-	-	0.30
SNL-0020R-16	200	40	20	24	12	16ER	M3.5-11.7-5.3-60	T15	3.0	GXE16	HTM309	PL2.5	5.0	0.51
SNL-0025R-16	200	45	25	29	14.5	16ER	M3.5-11.7-5.3-60	T15	3.0	GXE16	HTM309	PL2.5	5.0	0.77
SNL-0032S-16	250	45	32	36	18.5	16ER	M3.5-11.7-5.3-60	T15	3.0	GXE16	HTM309	PL2.5	5.0	-



## SEL 外徑牙刀架 SEL EXTERNAL THREADING TURNING TOOLS



規格 Spec.	L	H	H <sub>1</sub>	W	f	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	墊片 Shim	壓板螺絲 Clamp Screw	壓板扳手 Clamp Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SEL-1616K-16	125	16	16	16	20	161R	M3.5-11.7-5.3-60	T15	3.0	GXE16	HTM309	PL2.5	5.0	0.31
SEL-2020K-16	125	20	20	20	25	161R	M3.5-11.7-5.3-60	T15	3.0	GXE16	HTM309	PL2.5	5.0	0.45
SEL-2525M-16	150	25	25	25	32	161R	M3.5-11.7-5.3-60	T15	3.0	GXE16	HTM309	PL2.5	5.0	0.81

# 鎢鋼抗震刀具

TUNGSTEN CARBIDE SHANK

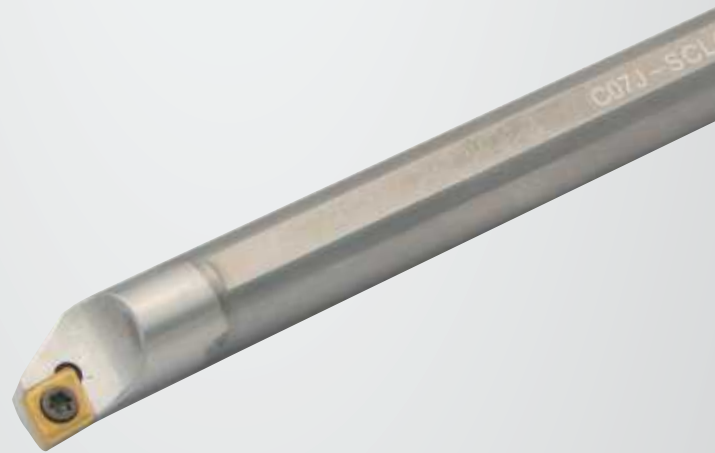
# Feature



- 高剛性
- 加工倍率深
- 提高近給率
- 良好的加工面
- 延長刀片壽命
- High rigidity.
- Great Multiplied rate of cutting.
- Improved feed rate.
- Good machined surface.
- Extend insert life.

## TUNGSTEN CARBIDE SHANK

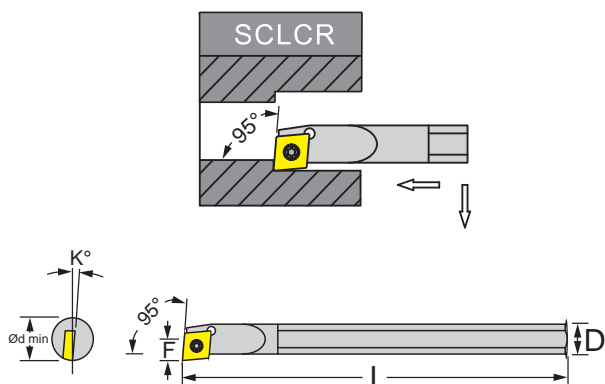
- 使用碳化鎢鋼刀桿伸長量為直徑的6倍，仍不動如山
- 使用鋼值刀桿伸長量為直徑的4倍時產生難控制的震動率
- If the extension length for tungsten carbide shank is 6 times of diameter, it is still stable.
- If the extension length for steel shank is 4 times of diameter, it is hard to control the vibration.







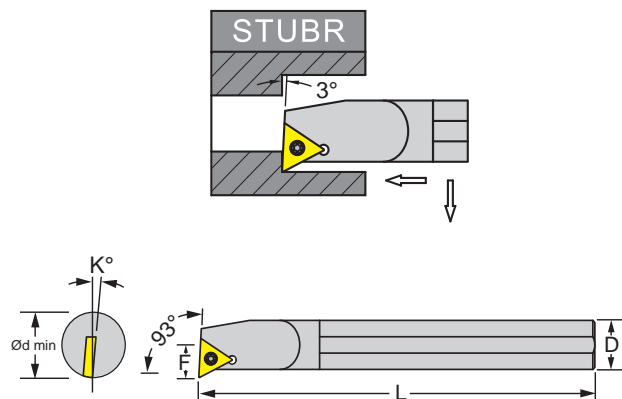
## SCLCR 碳化鎢鋼微小徑內徑車刀架 SCLCR TUNGSTEN CARBIDE MICRO-DIA. INTERNAL TURNING TOOLS



規格 Spec.	L	D	最小加工徑 $\varnothing d_{min}$	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
C04G-SCLCR03-05	90	4	5	2.5	CC..03S1	M1.8-4.0-2.5-54	T6	0.6	0.06
C05H-SCLCR03-06	100	5	6	3	CC..03S1	M1.8-4.0-2.5-54	T6	0.6	0.08
C05H-SCLCR04-06	100	5	6	3	CC..04T0	M2.2-4.7-3.1-60	T7	0.9	0.06
C06J-SCLCR04-07	110	6	7	3.5	CC..04T0	M2.2-4.7-3.1-60	T7	0.9	0.07
C07J-SCLCR04-08	110	7	8	4	CC..04T0	M2.2-4.7-3.1-60	T7	0.9	0.09



## STUBR 碳化鎢鋼微小徑內徑車刀架 STUBR TUNGSTEN CARBIDE MICRO-DIA. INTERNAL TURNING TOOLS

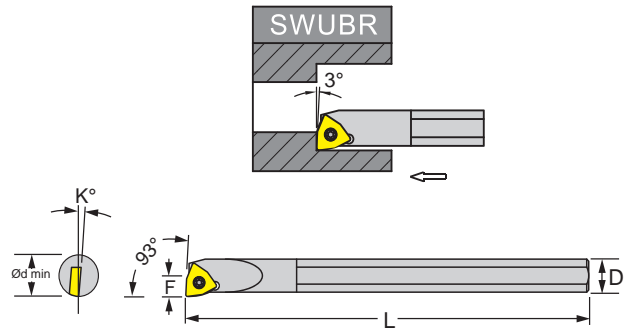


規格 Spec.	L	D	最小加工徑 $\varnothing d_{min}$	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
C06J-STUBR06-07	110	6	7	3.5	TB..0601	M2-5.0-2.7-60	T6	0.6	0.07
C08K-STUBR06-09	125	8	9	4.5	TB..0601	M2-5.0-2.7-60	T6	0.6	0.13



# SWUBR 碳化鎢鋼微小徑內徑車刀架

## SWUBR TUNGSTEN CARBIDE MICRO-DIA. INTERNAL TURNING TOOLS

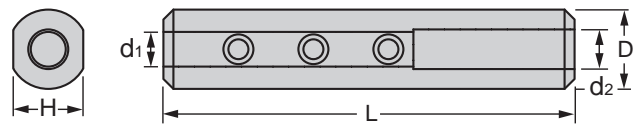


規格 Spec.	L	D	最小加工徑 Ø d min	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
C04G-SWUBR06-5.5	90	4	5.5	2.75	WB..0601	M2-3.8-2.68-43	T6	0.6	0.05
C05H-SWUBR06-06	100	5	6	3	WB..0601	M2-3.8-2.68-43	T6	0.6	0.07
C06J-SWUBR06-07	110	6	7	3.5	WB..0601	M2-5.0-2.7-60	T6	0.6	0.09
C07J-SWUBR06-08	110	7	8	4	WB..0601	M2-5.0-2.7-60	T6	0.6	0.11
C08K-SWUBR08-10	125	8	10	5	WB..0802	M2-5.0-2.7-60	T6	0.6	0.13



# SH 小徑套筒

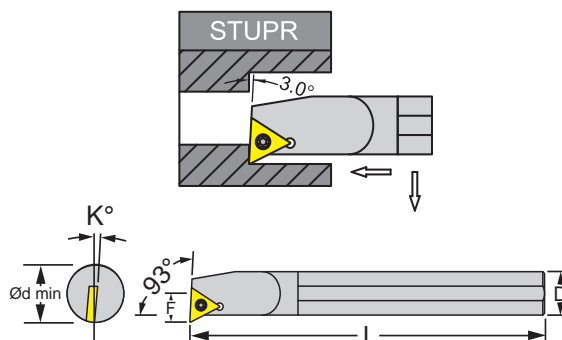
## SH MINI COLLET



規格 Spec.	L	D	d <sub>1</sub>	d <sub>2</sub>	H	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
SH-0416-100	100	16	4	5	14	HS4×4	PL2	3.0	-
SH-0516-100	100	16	5	6	14	HS5×5.5	PL2.5	5.0	0.13
SH-0616-100	100	16	6	7	14	HS6×4	PL3	5.0	-
SH-0716-100	100	16	7	8	14	HS6×4	PL3	5.0	0.13



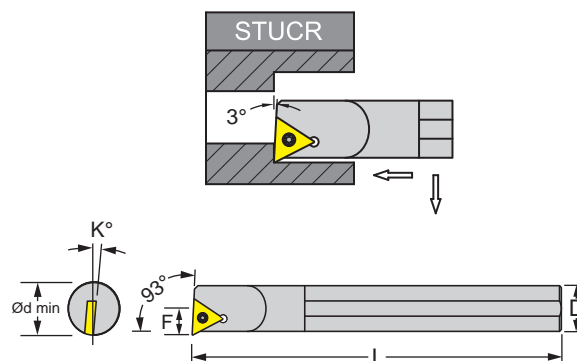
## STUPR 碳化鎢鋼內徑車刀架 STUPR TUNGSTEN CARBIDE INTERNAL TURNING TOOLS



規格 Spec.	L	D	最小加工徑 Ø d min	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
C08K-STUPR08-10	125	8	10	5.5	TP..0802	M2.2-4.7-3.1-60	T7	0.9	0.13
C08K-STUPR09-10	125	8	10	5.5	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.11
C10M-STUPR09-12	150	10	12	6.5	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.19
C12M-STUPR09-14	150	12	14	7.5	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.25
C12Q-STUPR09-14	180	12	14	7.5	TP..0902	M2.5-6.0-3.5-60	T8	1.2	0.32
C10M-STUPR11-12	150	10	12	6.5	TP..1103	M3-8.0-4.0-43	T9	1.4	0.19
C12M-STUPR11-14	150	12	14	7.5	TP..1103	M3-8.0-4.0-43	T9	1.4	0.26
C12Q-STUPR11-14	180	12	14	7.5	TP..1103	M3-8.0-4.0-43	T9	1.4	0.32
C16R-STUPR11-18	200	16	18	9.5	TP..1103	M3-8.0-4.0-43	T9	1.4	0.56
C20S-STUPR11-22	250	20	22	11.5	TP..1103	M3-8.0-4.0-43	T9	1.4	1.09
C20S-STUPR16-25	250	20	25	12.5	TP..1603	M4-8.0-5.7-60	T15	3.0	1.10



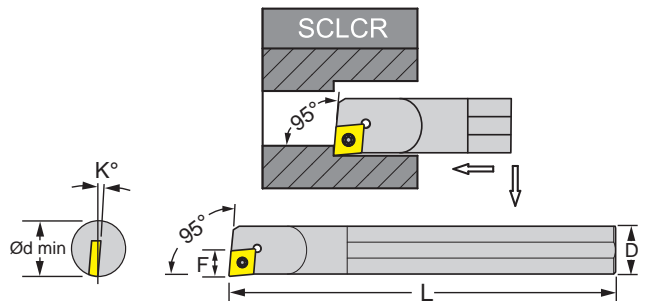
## STUCR 碳化鎢鋼內徑車刀架 STUCR TUNGSTEN CARBIDE INTERNAL TURNING TOOLS



規格 Spec.	L	D	最小加工徑 Ø d min	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
C08K-STUCR09-10	125	8	10	5	TC..0902	M2.2-4.7-3.1-60	T7	0.9	0.11
C10M-STUCR09-12	150	10	12	6	TC..0902	M2.2-4.7-3.1-60	T7	0.9	0.19
C12M-STUCR09-14	150	12	14	7	TC..0902	M2.2-4.7-3.1-60	T7	0.9	0.19
C12Q-STUCR09-14	180	12	14	7	TC..0902	M2.2-4.7-3.1-60	T7	0.9	0.16
C10M-STUCR11-12	150	10	12	6	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.19
C12M-STUCR11-14	150	12	14	7	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.25
C12Q-STUCR11-14	180	12	14	7	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.32
C16R-STUCR11-18	200	16	18	9	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.56
C20S-STUCR11-22	250	20	22	11	TC..1102	M2.5-6.0-3.5-60	T8	1.2	1.10



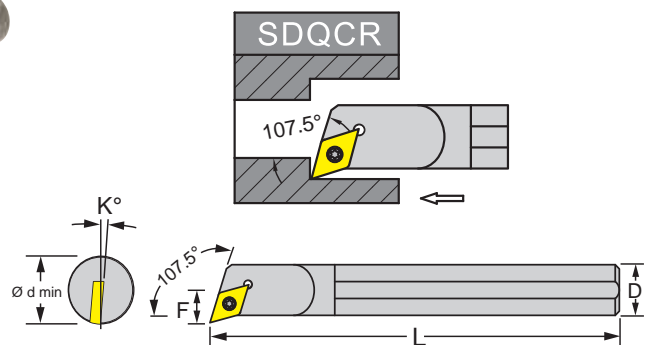
## SCLCR 碳化鎢鋼內徑車刀架 SCLCR TUNGSTEN CARBIDE INTERNAL TURNING TOOLS



規格 Spec.	L	D	最小加工徑 $\varnothing d \text{ min}$	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
C08K-SCLCR06-10	125	8	10	5	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.11
C10M-SCLCR06-12	150	10	12	6	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.19
C12M-SCLCR06-14	150	12	14	7	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.26
C12Q-SCLCR06-14	180	12	14	7	CC..0602	M2.5-6.0-3.5-60	T8	1.2	0.32
C12M-SCLCR09-14	150	12	14	7	CC..09T3	M4-8.0-5.7-60	T15	3.0	0.26
C12Q-SCLCR09-14	180	12	14	7	CC..09T3	M4-8.0-5.7-60	T15	3.0	0.32
C16R-SCLCR09-18	200	16	18	9	CC..09T3	M4-8.0-5.7-60	T15	3.0	0.57
C20S-SCLCR09-22	250	20	22	11	CC..09T3	M4-8.0-5.7-60	T15	3.0	1.04



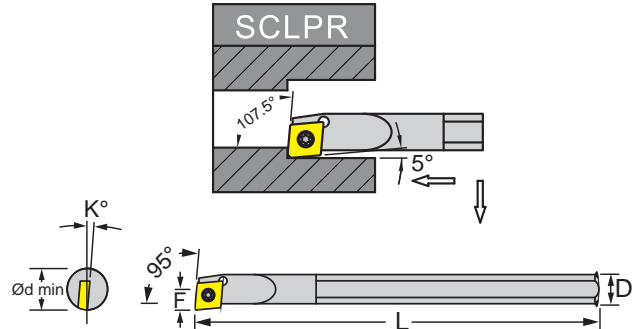
## SDQCR 碳化鎢鋼內徑車刀架 SDQCR TUNGSTEN CARBIDE INTERNAL TURNING TOOLS



規格 Spec.	L	D	最小加工徑 $\varnothing d \text{ min}$	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
C10M-SDQCR07-13	150	10	13	7	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.20
C12M-SDQCR07-16	150	12	16	9	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.25
C12Q-SDQCR07-16	180	12	16	9	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.30
C16R-SDQCR07-20	200	16	20	11	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.57
C20S-SDQCR11-25	250	20	25	13	DC..11T3	M4-8.0-5.7-60	T15	3.0	1.08



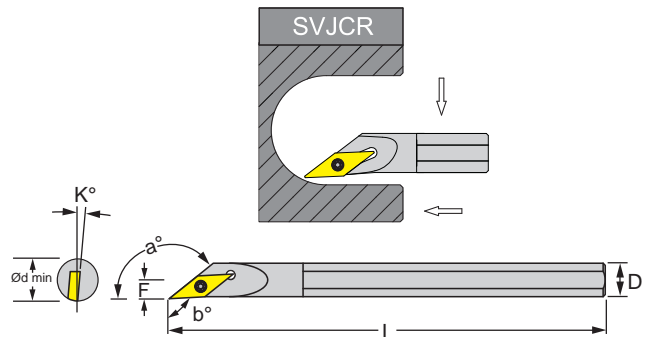
## SCLPR 碳化鎢鋼內徑車刀架 SCLPR TUNGSTEN CARBIDE INTERNAL TURNING TOOLS



規格 Spec.	L	D	最小加工徑 $\phi d_{min}$	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
C10M-SCLPR08-12	150	10	12	6	CP.0802	M3-8.0-4.0-43	T9	1.4	0.19
C12M-SCLPR08-14	150	12	14	7	CP.0802	M3-8.0-4.0-43	T9	1.4	0.26
C12Q-SCLPR08-14	180	12	14	7	CP.0802	M3-8.0-4.0-43	T9	1.4	-
C12M-SCLPR09-14	150	12	14	7	CP.0903	M4-8.0-5.7-60	T15	3.0	0.25
C12Q-SCLPR09-14	180	12	14	7	CP.0903	M4-8.0-5.7-60	T15	3.0	0.31
C16R-SCLPR09-18	200	16	18	9	CP.0903	M4-8.0-5.7-60	T15	3.0	0.57
C20S-SCLPR09-22	250	20	22	11	CP.0903	M4-8.0-5.7-60	T15	3.0	1.08



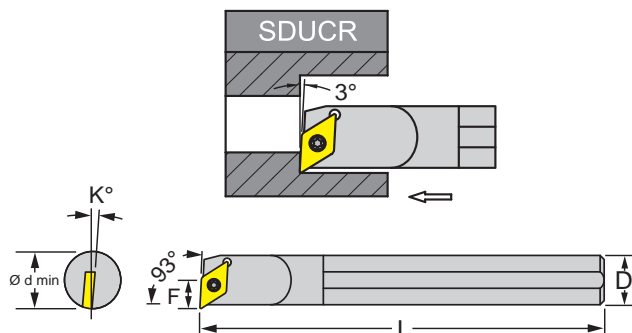
## SVJCR 碳化鎢鋼內徑車刀架 SVJCR TUNGSTEN CARBIDE INTERNAL TURNING TOOLS



規格 Spec.	L	D	最小加工徑 $\phi d_{min}$	F	$a^\circ$	$b^\circ$	刀片 Insert	車圓弧 最小加工徑	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
C06J-SVJCR08-8.5	110	6	8.5	3.25	143°	92°	VC..0802	12.5	M2-5.0-2.7-60	T6	0.6	0.08
C08K-SVJCR08-10	125	8	10	5	142°	93°	VC..0802	19	M2-5.0-2.7-60	T6	0.6	1.13
C10M-SVJCR08-12	150	10	12	6	142°	93°	VC..0802	23	M2-5.0-2.7-60	T6	0.6	0.20
C12M-SVJCR11-14	150	12	14	7	142°	93°	VC..1103	27	M2.5-6.0-3.5-60	T8	1.2	0.26
C12Q-SVJCR11-14	180	12	14	7	142°	93°	VC..1103	27	M2.5-6.0-3.5-60	T8	1.2	-
C16R-SVJCR11-18	200	16	18	9	142°	93°	VC..1103	35	M2.5-6.0-3.5-60	T8	1.2	0.56
C20S-SVJCR11-22	250	20	22	11	142°	93°	VC..1103	43	M2.5-6.0-3.5-60	T8	1.2	1.08



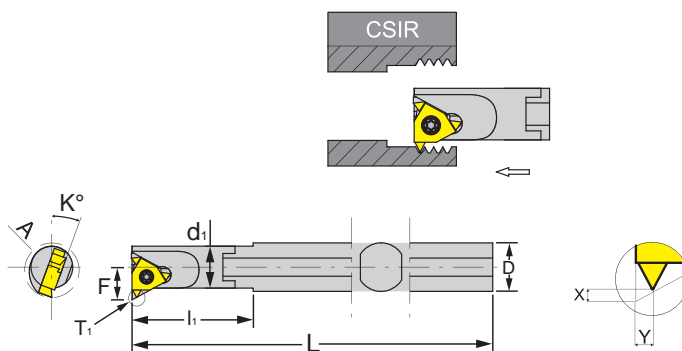
## SDUCR 碳化鎢鋼內徑車刀架 SDUCR TUNGSTEN CARBIDE INTERNAL TURNING TOOLS



規格 Spec.	L	D	最小加工徑 Ø d min	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
C10M-SDUCR07-13	150	10	13	7	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.19
C12M-SDUCR07-16	150	12	16	9	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.26
C12Q-SDUCR07-16	180	12	16	9	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.32
C16R-SDUCR07-20	200	16	20	11	DC..0702	M2.5-6.0-3.5-60	T8	1.2	0.51
C16R-SDUCR11-20	200	16	20	11	DC..11T3	M4-8.0-5.7-60	T15	3.0	0.58
C20S-SDUCR11-23	250	20	23	12.5	DC..11T3	M4-8.0-5.7-60	T15	3.0	1.08



## CSIR 碳化鎢鋼內孔牙刀 CSIR TUNGSTEN CARBIDE INTERNAL THREADING



T1 部 .X.Y 尺寸參考刀片規格

規格 Spec.	L	l <sub>1</sub>	D	d <sub>1</sub>	最小加工徑 A	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
CSIR-0005H-06C-6.4	100	-	5	-	6.4	4.3	06IR	M2-5.0-2.6-60	T6	0.6	0.05
CSIR-0008K-08C-09-20	125	20	8	6.4	9	5	08IR	M2.2-4.7-3.1-60	T7	0.9	0.10
CSIR-0008K-08C-10-20	125	20	8	7.4	10	5.5	08IR	M2.2-4.7-3.1-60	T7	0.9	1.08
CSIR-0010M-11C-12	150	-	10	-	12	7.4	11IR	M2.5-6.0-3.5-60	T8	1.2	0.18
CSIR-0012M-11C-15	150	-	12	-	15	8.5	11IR	M2.5-6.0-3.5-60	T8	1.2	0.26
CSIR-0016M-16C-19	150	-	16	-	19	11.7	16IR	M3.5-7.6-5.1-60	T15	3.0	-



# NC 內徑車刀套筒

## NC INTERNAL TURNING TOOLS SLEEVES WITH COOLANT HOLE



Fig.1

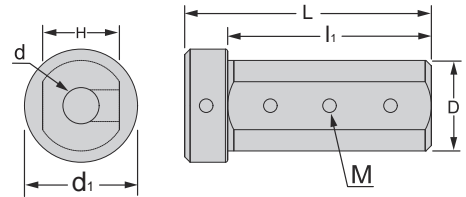
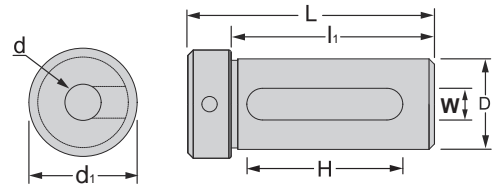


Fig.2

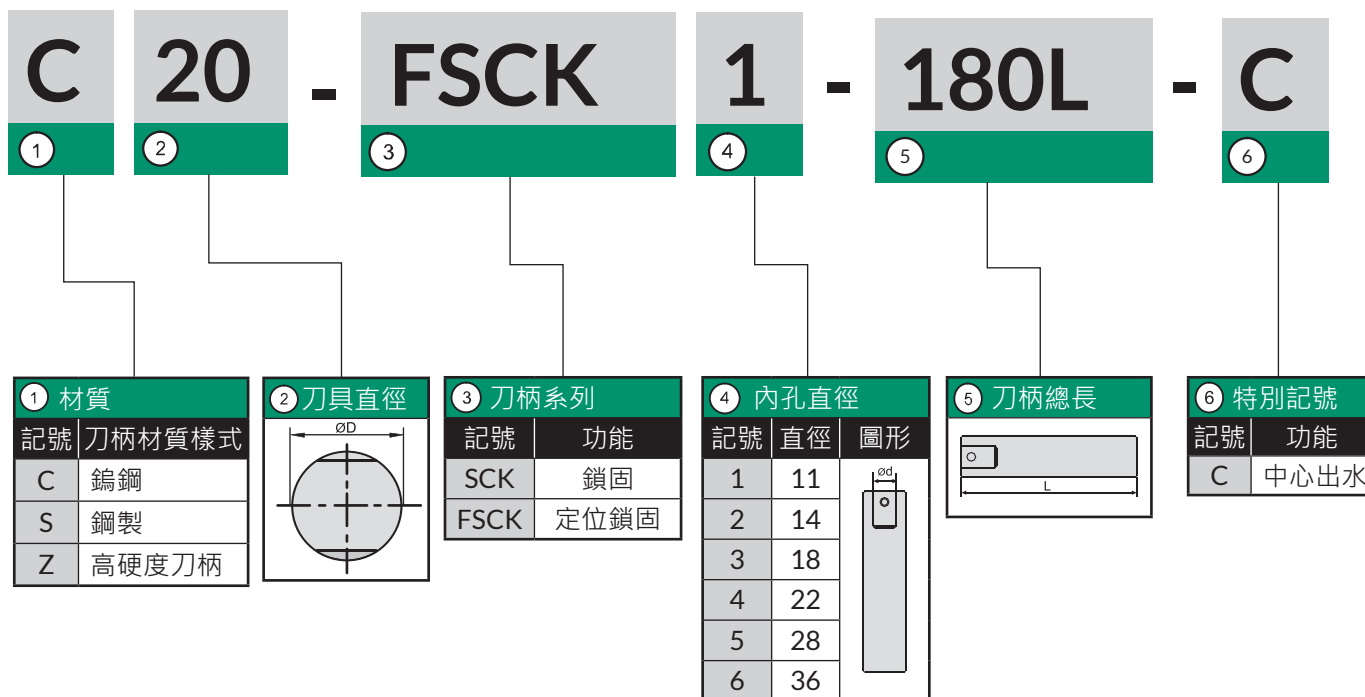


規格 Spec.	L	l <sub>1</sub>	D	d	d <sub>1</sub>	H	M	W	Fig	重量 (KGS) Weight
NC16-06	62	55	16	6	19	14.5	M5	-	1	0.08
NC16-08	62	55	16	8	19	14.5	M6	-	1	0.08
NC16-10	62	55	16	10	19	14.5	M6	-	1	-
NC16-12	62	55	16	12	19	14.5	-	9	2	-
NC20-06	67	60	20	6	27	17.5	M6	-	1	0.16
NC20-08	67	60	20	8	27	17.5	M6	-	1	0.14
NC20-10	67	60	20	10	27	17.5	M6	-	1	0.14
NC20-12	67	60	20	12	27	17.5	M6	-	1	0.12
NC20-16	67	60	20	16	27	55	-	13	2	0.08
NC25-06	64	58	25	6	35	23.5	M6	-	1	0.22
NC25-08	64	58	25	8	35	23.5	M6	-	1	0.20
NC25-10	64	58	25	10	35	23.5	M6	-	1	0.20
NC25-12	64	58	25	12	35	23.5	M6	-	1	0.20
NC25-16	64	58	25	16	35	51	-	12	2	0.16
NC25-20	64	58	25	20	35	51	-	12	2	0.11
NC32-06	85	70	32	6	38	29.5	M6	-	1	0.55
NC32-08	85	70	32	8	38	29.5	M6	-	1	0.50
NC32-10	100	85	32	10	38	29.5	M8	-	1	0.58
NC32-12	100	85	32	12	38	29.5	M8	-	1	0.58
NC32-16	100	85	32	16	38	29.5	M8	-	1	0.48
NC32-18	100	85	32	18	38	77	-	14	2	0.47
NC32-20	100	85	32	20	38	77	-	14	2	0.40
NC32-25	100	85	32	25	38	77	-	14	2	0.27
NC40-06	100	85	40	6	46	38	M8	-	1	1.01
NC40-08	100	85	40	8	46	38	M8	-	1	0.99
NC40-10	100	85	40	10	46	38	M8	-	1	0.98
NC40-12	100	85	40	12	46	38	M8	-	1	0.94
NC40-16	100	85	40	16	46	38	M8	-	1	0.88
NC40-18	100	85	40	18	46	77	-	14	2	0.84
NC40-20	100	85	40	20	46	77	-	14	2	0.72
NC40-25	100	85	40	25	46	77	-	14	2	0.60
NC40-32	100	85	40	32	46	77	-	14	2	0.39

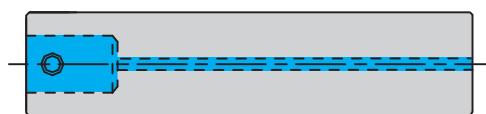


# FSCK 模組化內徑車刀規格介紹

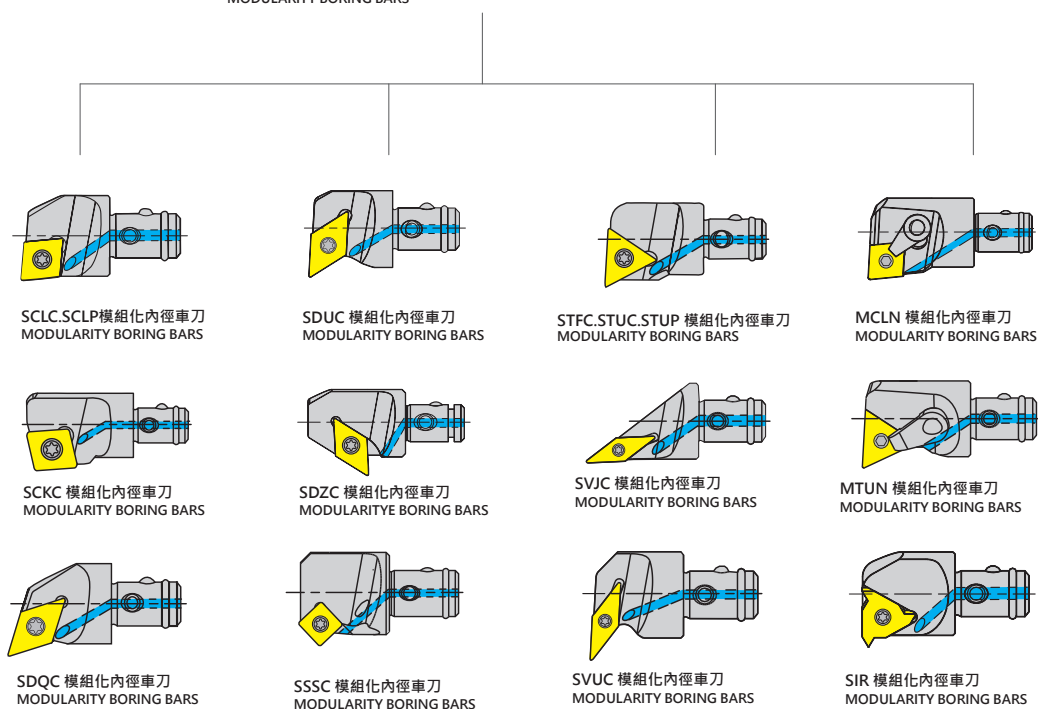
## FSCK DESIGNATION OF MODULAR TURNING TOOLS



### FSCK 組合圖 Combination Icon



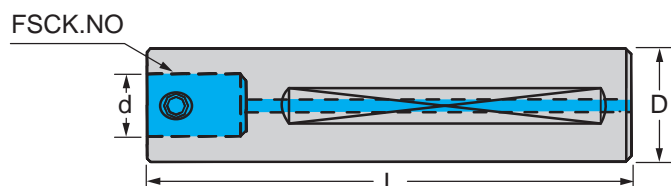
FSCK 模組化內徑車刀  
MODULARITY BORING BARS







## FSCK 定位高硬度內徑車刀柄 FSCK FIXED STRAIGHT TURNING TOOLS



### 特點 Feature

- 抗震係數 4~5 倍

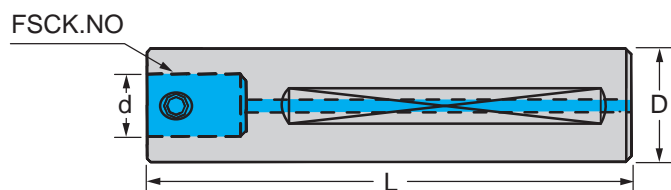
-Vibration resistance ratio: 4~5.

規格 Spec.	組合刀柄 NO.	L	D	d	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
● Z20-FSCK1-180L-C	FSCK1	180	20	11	M5-0.8P-8L	PL2.5	5.0	0.43
● Z25-FSCK2-175L-C	FSCK2	175	25	14	M6-1.0P-8L	PL3	5.0	0.66
● Z25-FSCK2-225L-C	FSCK2	225	25	14	M6-1.0P-8L	PL3	5.0	0.84
Z32-FSCK3-220L-C	FSCK3	220	32	18	M6-1.0P-10L	PL3	5.0	1.30
Z32-FSCK3-270L-C	FSCK3	270	32	18	M6-1.0P-10L	PL3	5.0	2.90
Z40-FSCK4-267L-C	FSCK4	267	40	22	M8-1.25P-16L	PL4	5.0	-
Z50-FSCK5-320L-C	FSCK5	320	50	28	M10-1.5P-16L	PL5	6.0	-

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



## FSCK 定位鎢鋼內徑車刀柄 FSCK FIXED TUNGSTEN TURNING TOOLS



### 特點 Feature

- 抗震係數 5~6 倍

-Vibration resistance ratio: 5~6

規格 Spec.	組合刀柄 NO.	L	D	d	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
● C20-FSCK1-180L-C	FSCK1	180	20	11	M5-0.8P-8L	PL2.5	5.0	0.8
● C20-FSCK1-230L-C	FSCK1	230	20	11	M5-0.8P-8L	PL2.5	5.0	0.98
● C25-FSCK2-175L-C	FSCK2	175	25	14	M6-1.0P-8L	PL3	5.0	1.18
● C25-FSCK2-225L-C	FSCK2	225	25	14	M6-1.0P-8L	PL3	5.0	1.50
C32-FSCK3-170L-C	FSCK3	170	32	18	M6-1.0P-10L	PL3	5.0	1.80
C32-FSCK3-220L-C	FSCK3	220	32	18	M6-1.0P-10L	PL3	5.0	2.33
C32-FSCK3-270L-C	FSCK3	270	32	18	M6-1.0P-10L	PL3	5.0	2.86

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



# FSCK 定位內徑車刀柄規格介紹

## FSCK DESIGNATION FIXED STRAIGHT BORING HAND SHANK

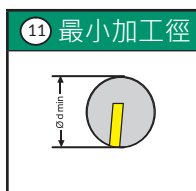
1 材質	
記號	刀柄材質樣式
C	鎢鋼
S	鋼製
Z	高硬度刀柄
SC	鎢鋼焊接式

3 刀柄系列	
記號	功能
SCK	鎖固
FSCK	定位鎖固

6 刀片形狀			
記號	形狀	角度	圖形
C	菱形	80°	
D		55°	
J		70°	
V		35°	
R	圓形	-	
S	正方形	90°	
T	正三角形	60°	
W	六角形	80°	

8 離隙角	
記號	離隙角
B	5°
C	7°
D	15°
E	20°
N	0°
P	11°

9 切削方向	
記號	圖形
L	
N	
R	



**S** **20** - **FSCK** **1** - **S** **T** **L** **C** **R** **09** - **16** - **C**

2 刀具直徑	
	$\varnothing D$

4 內孔直徑		
記號	直徑	圖形
1	11	
2	14	
3	18	
4	22	
5	28	
6	36	

5 壓板鎖固方式		
記號	名稱	圖形
C	上壓式	
M	螺銷上壓式	
W	楔鉤式	
S	壓孔式	
P	側推式	

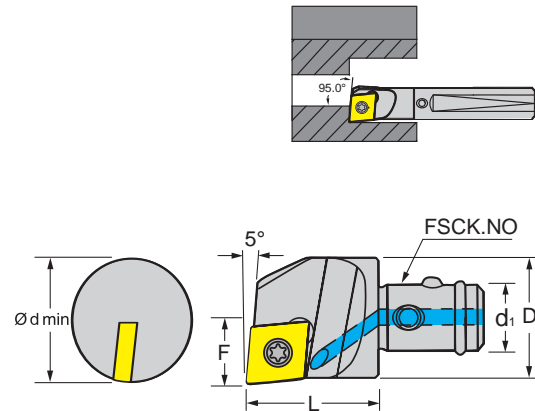
7 切刃形狀			
記號	圖形	記號	圖形
A		L2	
B		N	
C		N3	
D		P	
E		Q	
F		S	
G		V	
G		U	
J		X	
J2		Y	
K		Z	
L			

10 刀片邊寬	
記號	圖形
S	
T	
R	
L	
CD	
EV	
A	
BK	

12 特別記號	
記號	功能
C	中心出水



## SCLC 模組化內徑車刀 SCLC MODULAR TURNING TOOLS

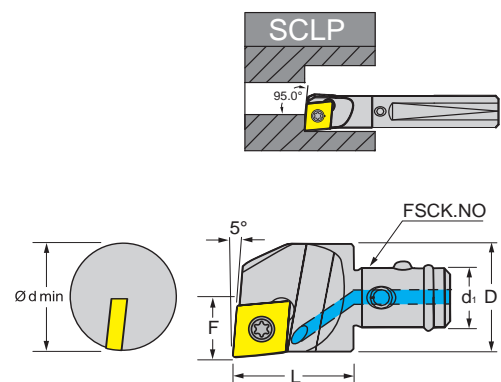


規格 Spec.	L	D	最小加工徑 d	$d_1$	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
● S20-FSCK1-SCLCR09-22-C	22	20	22	11	11	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.08
S20-FSCK1-SCLCL09-22-C	22	20	22	11	11	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.08
● S25-FSCK2-SCLCR09-28-C	25	25	28	14	14.5	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.12
S25-FSCK2-SCLCL09-28-C	25	25	28	14	14.5	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.12
● S32-FSCK3-SCLCR09-38-C	30	32	38	18	17.5	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.20
S32-FSCK3-SCLCL09-38-C	30	32	38	18	17.5	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.20
S40-FSCK4-SCLCR09-50-C	33	40	50	22	21	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.38
S40-FSCK4-SCLCL09-50-C	33	40	50	22	21	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.38
S50-FSCK5-SCLCR09-60-C	35	50	60	28	30	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.54
S50-FSCK5-SCLCL09-60-C	35	50	60	28	30	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.54

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



## SCLP 模組化內徑車刀 SCLP MODULAR TURNING TOOLS

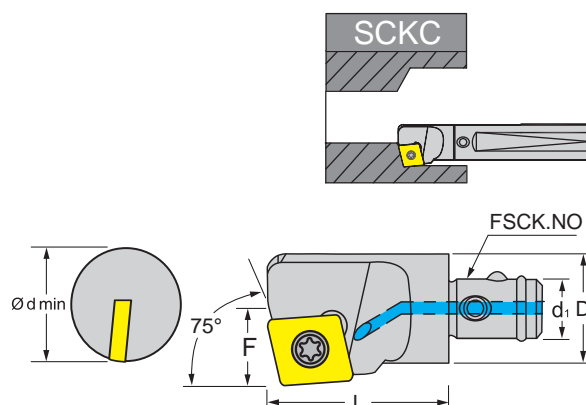


規格 Spec.	L	D	最小加工徑 d	$d_1$	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
● S20-FSCK1-SCLPR09-22-C	22	20	22	11	11	CP.0903	M4-7.8-5.6-60	T15	3.0	0.08
S20-FSCK1-SCLPL09-22-C	22	20	22	11	11	CP.0903	M4-7.8-5.6-60	T15	3.0	0.08
S25-FSCK2-SCLPR09-28-C	25	25	28	14	14	CP.0903	M4-7.8-5.6-60	T15	3.0	0.12
S25-FSCK2-SCLPL09-28-C	25	25	28	14	14	CP.0903	M4-7.8-5.6-60	T15	3.0	0.12
S32-FSCK3-SCLPR09-38-C	24	32	38	18	17.5	CP.0903	M4-7.8-5.6-60	T15	3.0	0.22
S32-FSCK3-SCLPL09-38-C	24	32	38	18	17.5	CP.0903	M4-7.8-5.6-60	T15	3.0	0.22

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



## SCKC 模組化內徑車刀 SCKC MODULAR TURNING TOOLS

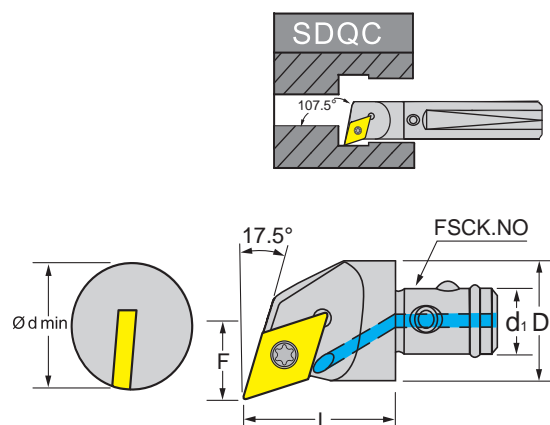


規格 Spec.	L	D	最小加工徑 d	d <sub>1</sub>	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S20-FSCK1-SCKCR09-24-C	22	20	24	11	11.5	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.08
S20-FSCK1-SCKCL09-24-C	22	20	24	11	11.5	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.08
S25-FSCK2-SCKCR09-30-C	25	25	30	14	15	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.12
S25-FSCK2-SCKCL09-30-C	25	25	30	14	15	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.12
S32-FSCK3-SCKCR09-38-C	30	32	38	18	17.5	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.22
S32-FSCK3-SCKCL09-38-C	30	32	38	18	17.5	CC..09T3	M4-7.8-5.6-60	T15	3.0	0.22

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



## SDQC 模組化內徑車刀 SDQC MODULAR TURNING TOOLS

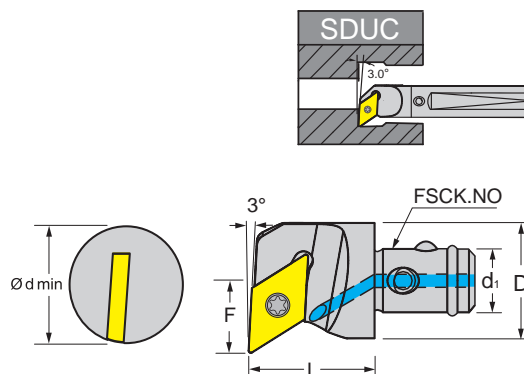


規格 Spec.	L	D	最小加工徑 d	d <sub>1</sub>	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S20-FSCK1-SDQCR11-25-C	22	20	25	11	13	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.08
S20-FSCK1-SDQCL11-25-C	22	20	25	11	13	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.08
S25-FSCK2-SDQCR11-32-C	27	25	31	14	17	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.12
S25-FSCK2-SDQCL11-32-C	27	25	31	14	17	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.12
S32-FSCK3-SDQCR11-40-C	30	32	40	18	20	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.22
S32-FSCK3-SDQCL11-40-C	30	32	40	18	20	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.22
S40-FSCK4-SDQCR11-50-C	33	40	50	22	25	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.38
S40-FSCK4-SDQCL11-50-C	33	40	50	22	25	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.38
S50-FSCK5-SDQCR11-56-C	35	50	56	28	30	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.50
S50-FSCK5-SDQCL11-56-C	35	50	56	28	30	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.50

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



## SDUC 模組化內徑車刀 SDUC MODULAR TURNING TOOLS

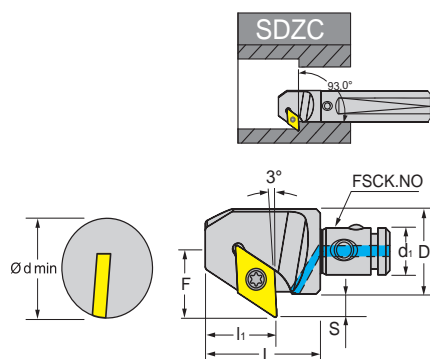


規格 Spec.	L	D	最小加工徑 d	d <sub>1</sub>	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
● S20-FSCK1-SDUCR11-23-C	22	20	23	11	12.5	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.07
S20-FSCK1-SDUCL11-23-C	22	20	23	11	12.5	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.08
● S20-FSCK1-SDUCR11-25-C	22	20	25	11	13	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.08
S20-FSCK1-SDUCL11-25-C	22	20	25	11	13	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.08
● S25-FSCK2-SDUCR11-32-C	25	25	32	14	17	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.12
S25-FSCK2-SDUCL11-32-C	25	25	32	14	17	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.12
● S32-FSCK3-SDUCR11-40-C	30	32	40	18	20	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.20
S32-FSCK3-SDUCL11-40-C	30	32	40	18	20	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.22
S40-FSCK4-SDUCR11-50-C	33	40	50	22	25	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.38
S40-FSCK4-SDUCL11-50-C	33	40	50	22	25	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.38
S50-FSCK5-SDUCR11-56-C	35	50	56	28	30	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.50
S50-FSCK5-SDUCL11-56-C	35	50	56	28	30	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.50

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



## SDZC 模組化內徑車刀 SDZC MODULAR TURNING TOOLS

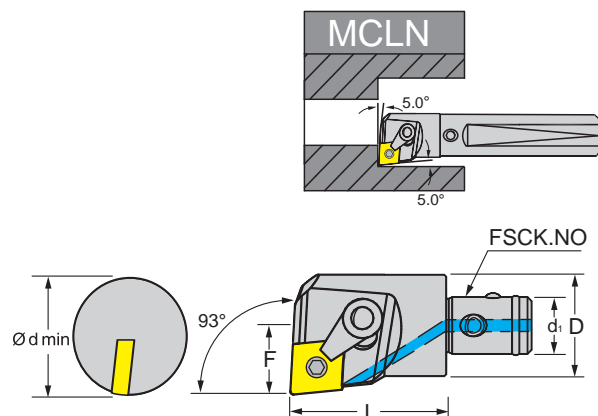


規格 Spec.	L	l <sub>1</sub>	D	最小加工徑 d	d <sub>1</sub>	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
● S20-FSCK1-SDZCR11-26-C	29	18	20	26	11	15.5	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.10
S20-FSCK1-SDZCL11-26-C	29	18	20	26	11	15.5	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.08
● S25-FSCK2-SDZCR11-33-C	34	18	25	33	14	18	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.14
S25-FSCK2-SDZCL11-33-C	34	18	25	33	14	18	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.12
S32-FSCK3-SDZCR11-40-C	35	18	32	40	18	21.5	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.22
S32-FSCK3-SDZCL11-40-C	35	18	32	40	18	21.5	DC..11T3	M4-7.8-5.6-60	T15	3.0	0.22

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



## MCLN 模組化內徑車刀 MCLN MODULAR TURNING TOOLS

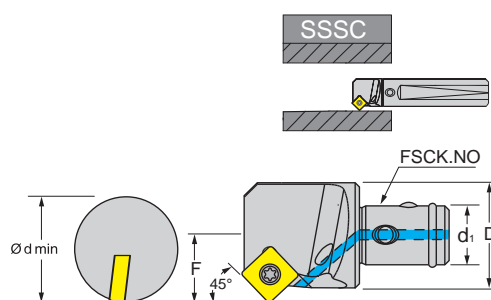


規格 Spec.	L	D	最小加工徑 d	d <sub>1</sub>	F	刀片 Insert	墊片 Shim	墊片螺絲 Screw	扳手 Wrench	壓板 Clamp	壓板螺絲 Screw	扳手 Wrench	重量 (KGS) Weight
● S20-FSCK1-MCLNR12-25-C	33	20	25	11	13	CN..1204	-	MLP44	PL2.5	MC515	MS520	P2.5	0.08
S20-FSCK1-MCLNL12-25-C	33	20	25	11	13	CN..1204	-	MLP44	PL2.5	MC515	MS520	P2.5	0.08
● S25-FSCK2-MCLNR12-32-C	34	25	32	14	15	CN..1204	-	MLP44	PL2.5	MC620	MS620	P3.0	0.12
S25-FSCK2-MCLNL12-32-C	34	25	32	14	15	CN..1204	-	MLP44	PL2.5	MC620	MS620	P3.0	0.12
S32-FSCK3-MCLNR12-40-C	35	32	40	18	20	CN..1204	CMS432	MLP46	PL2.5	MC620	MS620	P3.0	0.22
S32-FSCK3-MCLNL12-40-C	35	32	40	18	20	CN..1204	CMS432	MLP46	PL2.5	MC620	MS620	P3.0	0.22
S40-FSCK4-MCLNR12-50-C	35	40	50	22	25	CN..1204	CMS432	MLP46	PL2.5	MC620	MS625	P3.0	0.38
S40-FSCK4-MCLNL12-50-C	35	40	50	22	25	CN..1204	CMS432	MLP46	PL2.5	MC620	MS625	P3.0	0.38
S50-FSCK5-MCLNR12-63-C	36	50	63	28	30	CN..1204	CMS432	MLP46	PL2.5	MC620	MS625	P3.0	0.50
S50-FSCK5-MCLNL12-63-C	36	50	63	28	30	CN..1204	CMS432	MLP46	PL2.5	MC620	MS625	P3.0	0.50

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



## SSSC 模組化內徑車刀 SSSC MODULAR TURNING TOOLS

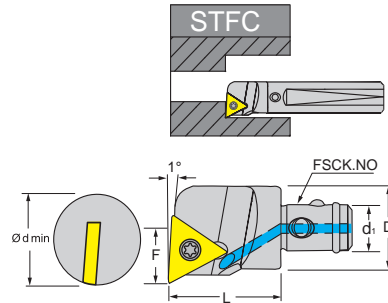


規格 Spec.	L	D	最小加工徑 d	d <sub>1</sub>	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
● S20-FSCK1-SSSCR09-26-C	22	20	26	11	13.5	SC..09T3	M4-7.8-5.6-60	T15	3.0	0.08
S20-FSCK1-SSSCL09-26-C	22	20	26	11	13.5	SC..09T3	M4-7.8-5.6-60	T15	3.0	0.08
● S25-FSCK2-SSSCR09-31-C	27	25	31	14	16	SC..09T3	M4-7.8-5.6-60	T15	3.0	0.12
S25-FSCK2-SSSCL09-31-C	27	25	31	14	16	SC..09T3	M4-7.8-5.6-60	T15	3.0	0.12
● S32-FSCK3-SSSCR09-40-C	30	32	40	18	19.5	SC..09T3	M4-7.8-5.6-60	T15	3.0	0.22
S32-FSCK3-SSSCL09-40-C	30	32	40	18	19.5	SC..09T3	M4-7.8-5.6-60	T15	3.0	0.22

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



## STFC 模組化內徑車刀 STFC MODULAR TURNING TOOLS

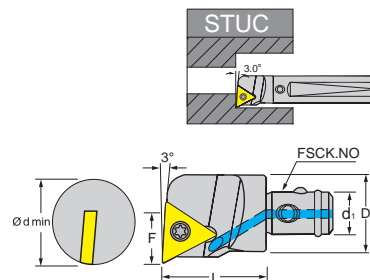


規格 Spec.	L	D	最小加工徑 d	d <sub>1</sub>	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S20-FSCK1-STFCR11-22-C	22	20	22	11	11	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.08
S20-FSCK1-STFCL11-22-C	22	20	22	11	11	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.08
S20-FSCK1-STFCR16-22-C	22	20	22	11	11.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.08
S20-FSCK1-STFCL16-22-C	22	20	22	11	11.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.08
S25-FSCK2-STFCR11-28-C	25	25	28	14	14	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.12
S25-FSCK2-STFCL11-28-C	25	25	28	14	14	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.12
S25-FSCK2-STFCR16-28-C	27	32	28	14	14	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.12
S25-FSCK2-STFCL16-28-C	27	32	28	14	14	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.12
S32-FSCK3-STFCR16-38-C	30	32	38	18	17.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.22
S32-FSCK3-STFCL16-38-C	30	32	38	18	17.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.22
S40-FSCK4-STFCR16-50-C	33	40	50	22	21.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.38
S40-FSCK4-STFCL16-50-C	33	40	50	22	21.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.38
S50-FSCK5-STFCR16-60-C	35	50	60	28	26.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.50
S50-FSCK5-STFCL16-60-C	35	50	60	28	26.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.50

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



## STUC 模組化內徑車刀 STUC MODULAR TURNING TOOLS



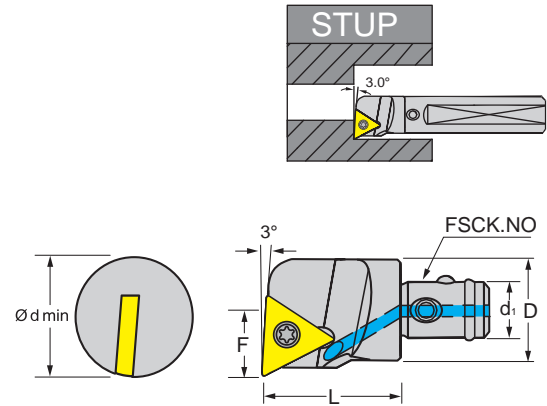
規格 Spec.	L	D	最小加工徑 d	d <sub>1</sub>	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S20-FSCK1-STUCR11-22-C	22	20	22	11	11	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.08
S20-FSCK1-STUCL11-22-C	22	20	22	11	11	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.08
S25-FSCK2-STUCR11-28-C	25	25	28	14	14	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.12
S25-FSCK2-STUCL11-28-C	25	25	28	14	14	TC..1102	M2.5-6.0-3.5-60	T8	1.2	0.12
S20-FSCK1-STUCR16-22-C	22	20	22	11	11	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.08
S20-FSCK1-STUCL16-22-C	22	20	22	11	11	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.08
S25-FSCK2-STUCR16-28-C	27	25	28	14	14	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.12
S25-FSCK2-STUCL16-28-C	27	25	28	14	14	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.12
S32-FSCK3-STUCR16-38-C	30	32	38	18	17.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.22
S32-FSCK3-STUCL16-38-C	30	32	38	18	17.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.22
S40-FSCK4-STUCR16-50-C	33	40	50	22	21.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.38
S40-FSCK4-STUCL16-50-C	33	40	50	22	21.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.38
S50-FSCK5-STUCR16-60-C	35	50	60	28	26.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.50
S50-FSCK5-STUCL16-60-C	35	50	60	28	26.5	TC..16T3	M4-7.8-5.6-60	T15	3.0	0.50

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



# STUP 模組化內徑車刀

## STUP MODULAR TURNING TOOLS



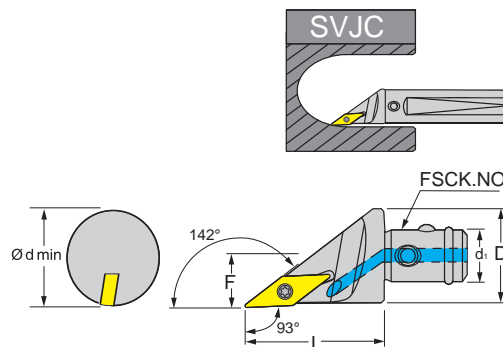
規格 Spec.	L	D	最小加工徑 d	$d_1$	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
● S20-FSCK1-STUPR11-22-C	22	20	22	11	11.5	TP.1103	M3-8.0-4.0-43	T9	1.4	0.08
S20-FSCK1-STUPL11-22-C	22	20	22	11	11.5	TP.1103	M3-8.0-4.0-43	T9	1.4	0.08
● S25-FSCK2-STUPR11-30-C	25	25	30	14	15	TP.1103	M3-8.0-4.0-43	T9	1.4	0.12
S25-FSCK2-STUPL11-30-C	25	25	30	14	15	TP.1103	M3-8.0-4.0-43	T9	1.4	0.12
● S20-FSCK1-STUPR1603-25-C	22	20	25	11	13	TP.1603	M4-7.8-5.6-60	T15	3.0	0.08
S20-FSCK1-STUPL1603-25-C	22	20	25	11	13	TP.1603	M4-7.8-5.6-60	T15	3.0	0.08
● S25-FSCK2-STUPR1603-28-C	27	25	28	14	14	TP.1603	M4-7.8-5.6-60	T15	3.0	0.12
S25-FSCK2-STUPL1603-28-C	27	25	28	14	14	TP.1603	M4-7.8-5.6-60	T15	3.0	0.12
S32-FSCK3-STUPR1603-38-C	30	32	38	18	17.5	TP.1603	M4-7.8-5.6-60	T15	3.0	0.22
S32-FSCK3-STUPL1603-38-C	30	32	38	18	17.5	TP.1603	M4-7.8-5.6-60	T15	3.0	0.22
S40-FSCK4-STUPR1603-50-C	33	40	50	22	21.5	TP.1603	M4-7.8-5.6-60	T15	3.0	0.38
S40-FSCK4-STUPL1603-50-C	33	40	50	22	21.5	TP.1603	M4-7.8-5.6-60	T15	3.0	0.38
S50-FSCK5-STUPR1603-60-C	35	50	60	28	26.5	TP.1603	M4-7.8-5.6-60	T15	3.0	0.50
S50-FSCK5-STUPL1603-60-C	35	50	60	28	26.5	TP.1603	M4-7.8-5.6-60	T15	3.0	0.50
S20-FSCK1-STUPR16-25-C	22	20	25	11	13	TP.16T3	M4-7.8-5.6-60	T15	3.0	0.08
S20-FSCK1-STUPL16-25-C	22	20	25	11	13	TP.16T3	M4-7.8-5.6-60	T15	3.0	0.08
● S25-FSCK2-STUPR16-28-C	27	25	28	14	14	TP.16T3	M4-7.8-5.6-60	T15	3.0	0.12
S25-FSCK2-STUPL16-28-C	27	25	28	14	14	TP.16T3	M4-7.8-5.6-60	T15	3.0	0.12
S32-FSCK3-STUPR16-38-C	30	32	38	18	17.5	TP.16T3	M4-7.8-5.6-60	T15	3.0	0.22
S32-FSCK3-STUPL16-38-C	30	32	38	18	17.5	TP.16T3	M4-7.8-5.6-60	T15	3.0	0.22
S40-FSCK4-STUPR16-50-C	33	40	50	22	21.5	TP.16T3	M4-7.8-5.6-60	T15	3.0	0.38
S40-FSCK4-STUPL16-50-C	33	40	50	22	21.5	TP.16T3	M4-7.8-5.6-60	T15	3.0	0.38
S50-FSCK5-STUPR16-60-C	35	50	60	28	26.5	TP.16T3	M4-7.8-5.6-60	T15	3.0	0.50
S50-FSCK5-STUPL16-60-C	35	50	60	28	26.5	TP.16T3	M4-7.8-5.6-60	T15	3.0	0.50
● S20-FSCK1-STUPR1604-25-C	22	20	25	11	13	TP.1604	M4-7.8-5.6-60	T15	3.0	0.08
S20-FSCK1-STUPL1604-25-C	22	20	25	11	13	TP.1604	M4-7.8-5.6-60	T15	3.0	0.08
● S25-FSCK2-STUPR1604-28-C	27	25	28	14	14	TP.1604	M4-7.8-5.6-60	T15	3.0	0.12
S25-FSCK2-STUPL1604-28-C	27	25	28	14	14	TP.1604	M4-7.8-5.6-60	T15	3.0	0.12
S32-FSCK3-STUPR1604-38-C	30	32	38	18	17.5	TP.1604	M4-7.8-5.6-60	T15	3.0	0.22
S32-FSCK3-STUPL1604-38-C	30	32	38	18	17.5	TP.1604	M4-7.8-5.6-60	T15	3.0	0.22
S40-FSCK4-STUPR1604-50-C	33	40	50	22	21.5	TP.1604	M4-7.8-5.6-60	T15	3.0	0.38
S40-FSCK4-STUPL1604-50-C	33	40	50	22	21.5	TP.1604	M4-7.8-5.6-60	T15	3.0	0.38
S50-FSCK5-STUPR1604-60-C	35	50	60	28	26.5	TP.1604	M4-7.8-5.6-60	T15	3.0	0.50
S50-FSCK5-STUPL1604-60-C	35	50	60	28	26.5	TP.1604	M4-7.8-5.6-60	T15	3.0	0.50

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.





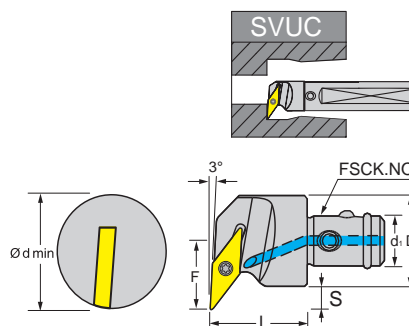
## SVJC 模組化內徑車刀 SVJC MODULAR TURNING TOOLS



規格 Spec.	L	D	最小加工徑 d	d <sub>1</sub>	F	車圓弧 最小加工徑	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S20-FSCK1-SVJCR11-22-C	29	C	22	11	11	43	VC..1103	M2.5-6.0-3.5-60	T8	1.2	0.08
S20-FSCK1-SVJCL11-22-C	29	C	22	11	11	43	VC..1103	M2.5-6.0-3.5-60	T8	1.2	0.08
S20-FSCK1-SVJCR16-23-C	33	11	23	11	11.5	43	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.08
S20-FSCK1-SVJCL16-23-C	33	11	23	11	11.5	43	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.08
S25-FSCK2-SVJCR16-28-C	35	25	28	14	14	49	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.12
S25-FSCK2-SVJCL16-28-C	35	25	28	14	14	49	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.12
S32-FSCK3-SVJCR16-35-C	39	32	35	18	17.5	67	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.22
S32-FSCK3-SVJCL16-35-C	39	32	35	18	17.5	67	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.22



## SVUC 模組化內徑車刀 SVUC MODULAR TURNING TOOLS

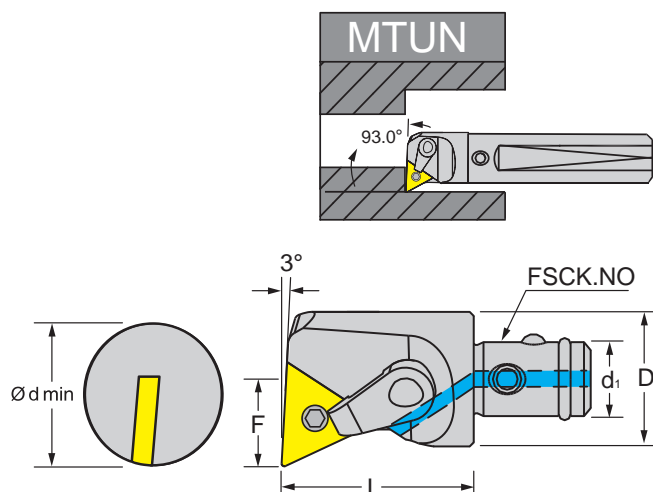


規格 Spec.	L	D	最小加工徑 d	d <sub>1</sub>	F	S	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
● S20-FSCK1-SVUCR11-27-C	22	20	27	11	15	5	VC..1103	M2.5-6.0-3.5-60	T8	1.2	0.08
S20-FSCK1-SVUCL11-27-C	22	20	27	11	15	5	VC..1103	M2.5-6.0-3.5-60	T8	1.2	0.08
S25-FSCK2-SVUCR11-30-C	25	25	30	14	17	4.5	VC..1103	M2.5-6.0-3.5-60	T8	1.2	0.12
S25-FSCK2-SVUCL11-30-C	25	25	30	14	17	4.5	VC..1103	M2.5-6.0-3.5-60	T8	1.2	0.12
S20-FSCK1-SVUCR16-31-C	27	20	31	11	19	9	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.08
S20-FSCK1-SVUCL16-31-C	27	20	31	11	19	9	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.08
S25-FSCK2-SVUCR16-33-C	27	25	33	14	18	5.5	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.12
S25-FSCK2-SVUCL16-33-C	27	25	33	14	18	5.5	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.12
S32-FSCK3-SVUCR16-40-C	30	32	40	18	22	6	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.22
S32-FSCK3-SVUCL16-40-C	30	32	40	18	22	6	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.22
S40-FSCK4-SVUCR16-50-C	33	40	50	22	27	7	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.38
S40-FSCK4-SVUCL16-50-C	33	40	50	22	27	7	VC..1604	M3.5-7.6-5.1-60	T15	3.0	0.38

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



## MTUN 模組化內徑車刀 MTUN MODULAR TURNING TOOLS

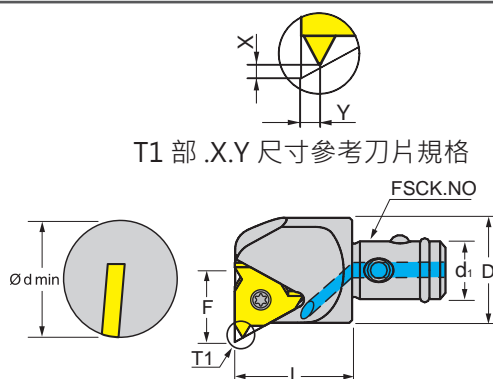


規格 Spec.	L	D	最小加工徑 d	d <sub>1</sub>	F	刀片 Insert	墊片 Shim	墊片螺絲 Shim Screw	扳手 Wrench	壓板 Clamp	壓板螺絲 Screw	扳手 Wrench	重量 (KGS) Weight
● S20-FSCK1-MTUNR16-25-C	29	20	25	11	13	TN..1604	-	MLP33L	PL2	MC515	MS520	PL2.5	0.08
S20-FSCK1-MTUNL16-25-C	29	20	25	11	13	TN..1604	-	MLP33L	PL2	MC515	MS520	PL2.5	0.08
● S25-FSCK2-MTUNR16-32-C	30	25	32	14	17	TN..1604	-	MLP33L	PL2	MC620	MS620	PL3	0.12
S25-FSCK2-MTUNL16-32-C	30	25	32	14	17	TN..1604	-	MLP33L	PL2	MC620	MS620	PL3	0.12
● S32-FSCK3-MTUNR16-40-C	34	32	40	18	20	TN..1604	TMS322	MLP34L	PL2	MC620	MS625	PL3	0.22
S32-FSCK3-MTUNL16-40-C	34	32	40	18	20	TN..1604	TMS322	MLP34L	PL2	MC620	MS625	PL3	0.22
S40-FSCK4-MTUNR16-50-C	35	40	50	22	26	TN..1604	TMS322	MLP34L	PL2	MC620	MS625	PL3	0.38
S40-FSCK4-MTUNL16-50-C	35	40	50	22	26	TN..1604	TMS322	MLP34L	PL2	MC620	MS625	PL3	0.38
S50-FSCK5-MTUNR16-60-C	36	50	60	28	31	TN..1604	TMS322	MLP34L	PL2	MC620	MS625	PL3	0.50
S50-FSCK5-MTUNL16-60-C	36	50	60	28	31	TN..1604	TMS322	MLP34L	PL2	MC620	MS625	PL3	0.50

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



## SIR 模組化內徑車刀 SIR MODULAR TURNING TOOLS



T1 部 .X.Y 尺寸參考刀片規格

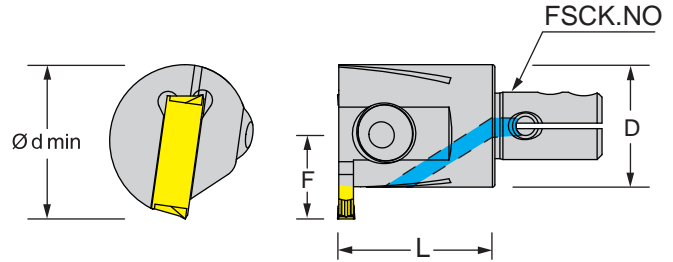
規格 Spec.	L	D	d	d <sub>1</sub>	F	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	墊片 Shim	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
● S20-FSCK1-SIR16-24-C	22	20	24	11	13.7	16IR	M3.5-7.55-5.1-60	T15	3.0	-	-	-	-	0.78
S25-FSCK2-SIR16-29-C	27	25	29	14	16.2	16IR	M3.5-10.5-5.2-60	T15	3.0	GXN16	HTM3	P2.5	5.0	0.14

● : 標準品 · 其餘規格按訂單生產 Standard products. Others to be produced by order.



# DGIR 模組化內徑切槽刀

## DGIR MODULAR TURNING TOOLS



規格 Spec.	L	D	最小加工徑 d	F	最大切深 Ap	刀片 Insert	螺絲 Screw	扳手 Wrench	扭力值 (N.m) Torque	重量 (KGS) Weight
S20-FSCK1-DGIR2-26-C	25	20	26	15.2	5	DGN2	M5-0.8P-16L	PL3	5.0	-
S20-FSCK1-DGIR2-31-C	25	20	31	20.2	10	DGN2	M5-0.8P-16L	PL3	5.0	-
S20-FSCK1-DGIR2-36-C	25	20	36	25.2	15	DGN2	M5-0.8P-16L	PL3	5.0	-
S20-FSCK1-DGIR3-26-C	25	20	26	15.2	5	DGN3	M5-0.8P-16L	PL3	5.0	-
S20-FSCK1-DGIR3-31-C	25	20	31	20.2	10	DGN3	M5-0.8P-16L	PL3	5.0	-
S20-FSCK1-DGIR3-36-C	25	20	36	25.2	15	DGN3	M5-0.8P-16L	PL3	5.0	-
S25-FSCK2-DGIR2-31-C	25	25	31	17.7	5	DGN2	M5-0.8P-16L	PL4	5.0	-
S25-FSCK2-DGIR2-36-C	25	25	36	22.7	10	DGN2	M5-0.8P-16L	PL4	5.0	-
S25-FSCK2-DGIR2-41-C	25	25	41	27.7	15	DGN2	M5-0.8P-16L	PL4	5.0	-
S25-FSCK2-DGIR3-31-C	25	25	31	17.7	5	DGN3	M5-0.8P-16L	PL4	5.0	-
S25-FSCK2-DGIR3-36-C	25	25	36	22.7	10	DGN3	M5-0.8P-16L	PL4	5.0	-
S25-FSCK2-DGIR3-41-C	25	25	41	27.7	15	DGN3	M5-0.8P-16L	PL4	5.0	-

ISO 分類	P	合金鋼 Alloyed Steels	○																	切削狀態 Cutting Condition: ● 連續切削 Continuous Cutting ○ 一般切削 General Cutting ■ 斷續切削 Interrupted Cutting
	M	不鏽鋼 Stainless Steels	○																	
	K	鑄鐵 Cast Iron	○																	
N	鋁及鋁合金 Aluminum&Al																			
S	高溫合金 Refractory Alloys																			
H	高硬度材 Hard Material																			
形狀 Form	規格 Spec.	鍍層超微粒 Layer coating ultra-micro										尺寸 (mm) Size				圖形 Drawing				
		CHF										Size								
		RM4025														d	i	s	r	
	DGN2202-J1	●														19.8	2.2	-	0.2	
	DGN3102-J1	●														20.1	3.1	-	0.2	



# FSCK 模組化內徑車刀套裝三支組 ( 不含刀片 )

## FSCK MODULAR TURNING TOOLS 3 PCS SET(EXCLUDING INSERT)



規格 Spec.	內容物 Contents		
	刀柄 Hand Shank	刀具 Cutting Tool	刀片 Insert
C20-FSCK1-3P-SET	C20-FSCK1-180L-C	S20-FSCK1-SCLCR09-22-C	CC..09T3
		S20-FSCK1-STUCR11-22-C	TC..1102
		S20-FSCK1-STUPR11-22-C	TP..1103
C25-FSCK2-3P-SET	C25-FSCK2-175L-C	S25-FSCK2-SCLCR09-28-C	CC..09T3
		S25-FSCK2-STUCR11-28-C	TC..1102
		S25-FSCK2-STUPR11-30-C	TP..1103
C32-FSCK3-3P-SET	C32-FSCK3-220L-C	S32-FSCK3-SCLCR09-38-C	CC..09T3
		S32-FSCK3-SDQCR11-40-C	DC..11T3
		S32-FSCK3-SDUCR11-40-C	DC..11T3

規格 Spec.	內容物 Contents					數量 Qty	重量 (KGS) Weight
	螺絲 Screw	扳手 Wrench	扳手 Wrench	扭力起子 Wrench	起子頭 Bit		
C20-FSCK1-3P-SET	M4-7.8-5.6-60 (2 只)	PL2.5	T8 T9 T15	TW-30	BIT-T15-25L	1	-
	M2.5-6.0-3.5-60 (2 只)						
	M3-8.0-4.0-43 (2 只)						
C25-FSCK2-3P-SET	M4-7.8-5.6-60 (2 只)	PL3	T8 T9 T15	TW-30	BIT-T15-25L	1	-
	M2.5-6.0-3.5-60 (2 只)						
	M3-8.0-4.0-43 (2 只)						
C32-FSCK3-3P-SET	M4-7.8-5.6-60 (4 只)		T15	TW-30	BIT-T15-25L		-



# FSCK 模組化內徑車刀套裝三支組 ( 不含刀片 )

## FSCK MODULAR TURNING TOOLS 3 PCS SET(EXCLUDING INSERT)



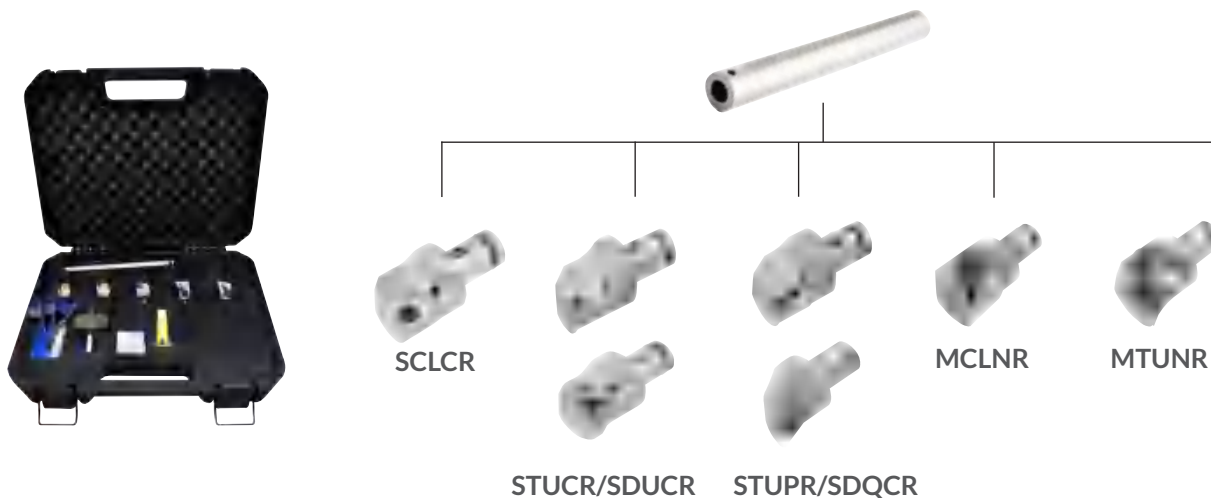
規格 Spec.	內容物 Contents		
	刀柄 Hand Shank	刀具 Cutting Tool	刀片 Insert
Z20-FSCK1-3P-SET	Z20-FSCK1-180L-C	S20-FSCK1-SCLCR09-22-C	CC..09T3
		S20-FSCK1-STUCR11-22-C	TC..1102
		S20-FSCK1-STUPR11-22-C	TP..1103
Z25-FSCK2-3P-SET	Z25-FSCK2-175L-C	S25-FSCK2-SCLCR09-28-C	CC..09T3
		S25-FSCK2-STUCR11-28-C	TC..1102
		S25-FSCK2-STUPR11-30-C	TP..1103
Z32-FSCK3-3P-SET	Z32-FSCK3-220L-C	S32-FSCK3-SCLCR09-38-C	CC..09T3
		S32-FSCK3-SDQCR11-40-C	DC..11T3
		S32-FSCK3-SDUCR11-40-C	

規格 Spec.	內容物 Contents					數量 Qty	重量 (KGS) Weight
	螺絲 Screw	扳手 Wrench	扳手 Wrench	扭力起子 Wrench	起子頭 Bit		
Z20-FSCK1-3P-SET	M4-7.8-5.6-60 (2 只)	PL2.5	T8 T9 T15	TW-30	BIT-T15-25L	1	-
	M2.5-6.0-3.5-60 (2 只)						
	M3-8.0-4.0-43 (2 只)						
Z25-FSCK2-3P-SET	M4-7.8-5.6-60 (2 只)	PL3	T8 T9 T15	TW-30	BIT-T15-25L	1	-
	M2.5-6.0-3.5-60 (2 只)						
	M3-8.0-4.0-43 (2 只)						
Z32-FSCK3-3P-SET	M4-7.8-5.6-60 (4 只)		T15	TW-30	BIT-T15-25L	1	-



# FSCK 模組化內徑車刀套裝五支組 ( 不含刀片 )

## FSCK MODULAR TURNING TOOLS 5 PCS SET(EXCLUDING INSERT)



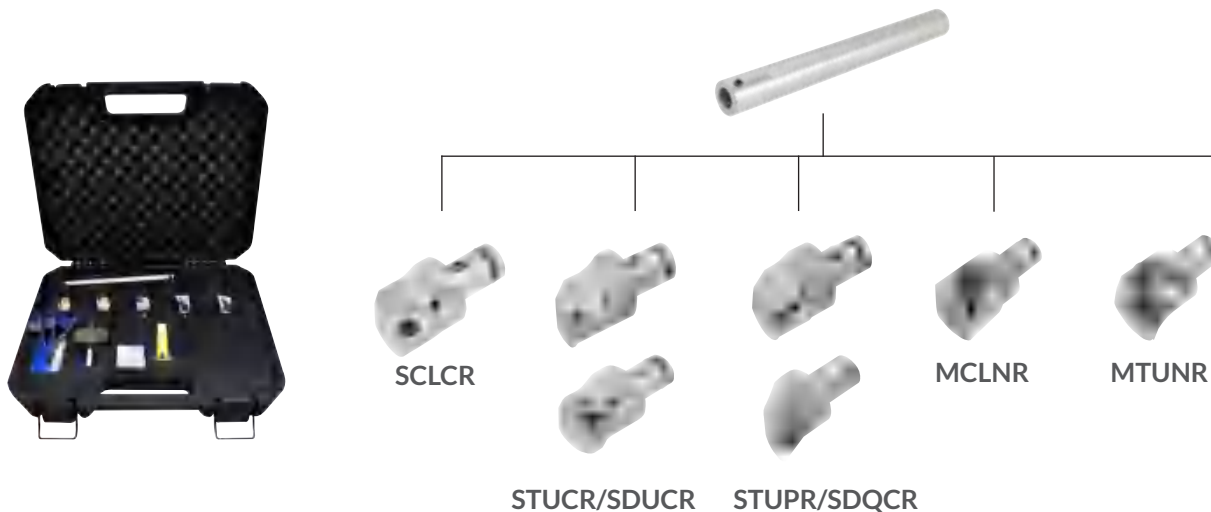
規格 Spec.	內容物 Contents			
	刀柄 Hand Shank	刀具 Cutting Tool	刀片 Insert	螺絲 Screw
C20-FSCK1-5P-SET	C20-FSCK1-180L-C	S20-FSCK1-SCLCR09-22-C	CC..09T3	M4-7.8-5.6-60 (2 只)
		S20-FSCK1-STUCR11-22-C	TC..1102	M2.5-6.0-3.5-60 (2 只)
		S20-FSCK1-STUPR11-22-C	TP..1103	M3-8.0-4.0-43 (2 只)
		S20-FSCK1-MCLNR12-25-C	CN..1204	MLP44
		S20-FSCK1-MTUNR16-25-C	TN..1604	MLP33L
C25-FSCK2-5P-SET	C25-FSCK2-175L-C	S25-FSCK2-SCLCR09-28-C	CC..09T3	M4-7.8-5.6-60 (2 只)
		S25-FSCK2-STUCR11-28-C	TC..1102	M2.5-6.0-3.5-60 (2 只)
		S25-FSCK2-STUPR11-30-C	TP..1103	M3-8.0-4.0-43 (2 只)
		S25-FSCK2-MCLNR12-32-C	CN..1204	MLP44
		S25-FSCK2-MTUNR16-32-C	TN..1604	MLP33L
C32-FSCK3-5P-SET	C32-FSCK3-220L-C	S32-FSCK3-SCLCR09-38-C	CC..09T3	M4-7.8-5.6-60 (4 只)
		S32-FSCK3-SDQCR11-40-C	DC..11T3	
		S32-FSCK3-SDUCR11-40-C	DC..11T3	
		S32-FSCK3-MCLNR12-40-C	CN..1204	MLP46
		S32-FSCK3-MTUNR16-40-C	TN..1604	MLP34L

規格 Spec.	內容物 Contents							數量 Qty	重量 (KGS) Weight
	墊片 Shim	扳手 Wrench	扳手 Wrench	扭力起子 Wrench	起子頭 Bit	壓板 Clamp	壓板螺絲 Clamp Screw		
C20-FSCK1-5P-SET	-	PL2 PL2.5	T8 T9 T15	TW-30	BIT-T15-25L	- MC515 (2 只)	- MS520 (2 只)	1	-
C25-FSCK2-5P-SET	-	PL2 PL2.5 PL3	T8 T9 T15	TW-30	BIT-T15-25L	- MC620 (2 只)	- MS620 (2 只)		-
C32-FSCK3-5P-SET	- CMS432 TMS322	PL2 PL2.5 PL3	T15	TW-30	BIT-T15-25L	- MC620 (2 只)	- MS620 MS625		-



# FSCK 模組化內徑車刀套裝五支組 ( 不含刀片 )

## FSCK MODULAR TURNING TOOLS 5 PCS SET(EXCLUDING INSERT)



規格 Spec.	內容物 Contents			
	刀柄 Hand Shank	刀具 Cutting Tool	刀片 Insert	螺絲 Screw
Z20-FSCK1-5P-SET	Z20-FSCK1-180L-C	S20-FSCK1-SCLCR09-22-C	CC..09T3	M4-7.8-5.6-60 (2 只)
		S20-FSCK1-STUCR11-22-C	TC..1102	M2.5-6.0-3.5-60 (2 只)
		S20-FSCK1-STUPR11-22-C	TP..1103	M3-8.0-4.0-43 (2 只)
		S20-FSCK1-MCLNR12-25-C	CN..1204	MLP44
		S20-FSCK1-MTUNR16-25-C	TN..1604	MLP33L
Z25-FSCK2-5P-SET	Z25-FSCK2-175L-C	S25-FSCK2-SCLCR09-28-C	CC..09T3	M4-7.8-5.6-60 (2 只)
		S25-FSCK2-STUCR11-28-C	TC..1102	M2.5-6.0-3.5-60 (2 只)
		S25-FSCK2-STUPR11-30-C	TP..1103	M3-8.0-4.0-43 (2 只)
		S25-FSCK2-MCLNR12-32-C	CN..1204	MLP44
		S25-FSCK2-MTUNR16-32-C	TN..1604	MLP33L
Z32-FSCK3-5P-SET	Z32-FSCK3-220L-C	S32-FSCK3-SCLCR09-38-C	CC..09T3	M4-7.8-5.6-60 (4 只)
		S32-FSCK3-SDQCR11-40-C	DC..11T3	
		S32-FSCK3-SDUCR11-40-C	DC..11T3	
		S32-FSCK3-MCLNR12-40-C	CN..1204	MLP46
		S32-FSCK3-MTUNR16-40-C	TN..1604	MLP34L

規格 Spec.	內容物 Contents								重量 (KGS) Weight
	墊片 Shim	扳手 Wrench	扳手 Wrench	扭力起子 Wrench	起子頭 Bit	壓板 Clamp	壓板螺絲 Clamp Screw	數量 Qty	
Z20-FSCK1-5P-SET	-	PL2 PL2.5	T8 T9 T15	TW-30	BIT-T15-25L	- MC515 (2 只)	- MS520 (2 只)	1	-
Z25-FSCK2-5P-SET	-	PL2 PL2.5 PL3	T8 T9 T15	TW-30	BIT-T15-25L	- MC620 (2 只)	- MS620 (2 只)		-
Z32-FSCK3-5P-SET	- CMS432 TMS322	PL2 PL2.5 PL3	T15	TW-30	BIT-T15-25L	- MC620 (2 只)	- MS620 MS625		-

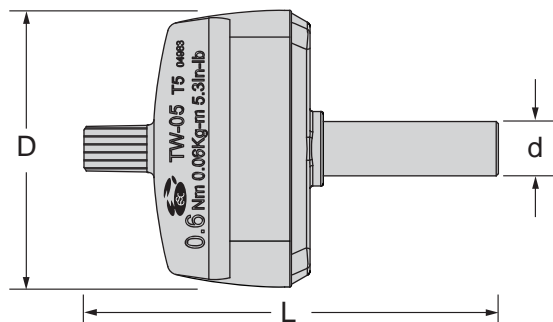
TURNING



# TW 扭力起子 TW TORQUE SCREWDRIVER



TW 扭力起子 1PC 套裝組  
Torque Screwdriver 1PC Set

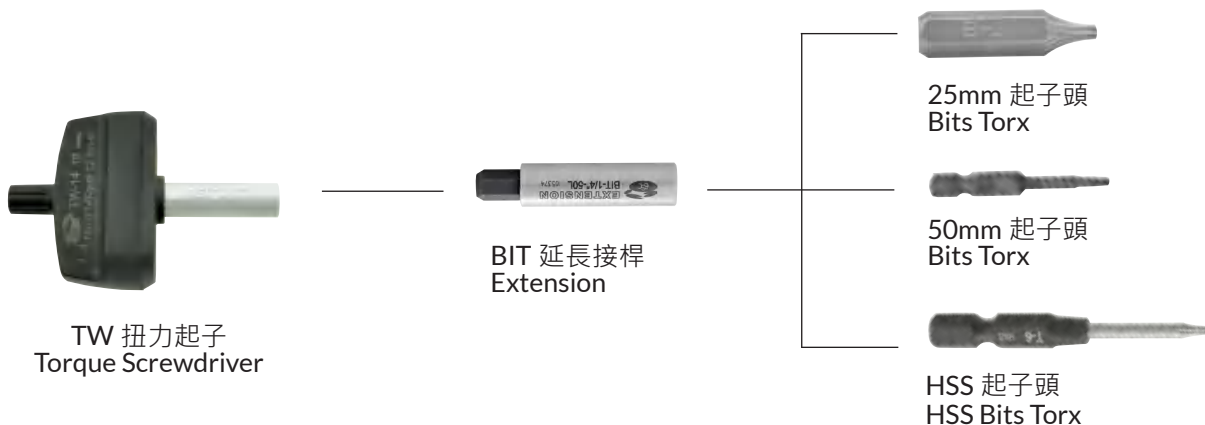


## 特點 Feature

- 適用於需要固定扭力設定要求的工業和工作
- 符合人體工學的 T 型握把設計 · 操作容易 · 使用安全
- 更換式接桿 · 方便使用者依不同使用場合而調整
- 當施力到達固定扭力時 · 握把會有一回轉力及 "喀擦" 聲來提醒使用者 · 以避免超過扭力值而造成物件損壞

- Ideal for tasks required specific torque.
- Ergonomic T-Handle. Easy and safe to operate.
- Indexable, can be used under different occasions.
- There will be a "Clicking sound" when reach the specific torque as a reminder to user from damaging workpiece.

規格 Spec.	L	D	d	建議使用起子頭 Suggested Bit	扭力值 Torque		重量 (KGS) Weight
					N.m	In-lb	
TW-05	76.25	52	10	T5	0.6	5.3	0.05
TW-06	76.25	52	10	T6	0.6	5.3	0.05
TW-09	76.25	52	10	T7	0.9	8.0	0.05
TW-12	76.25	52	10	T8	1.2	10.6	0.05
TW-14	76.25	52	10	T9	1.4	12.4	0.05
TW-20	76.25	52	10	T10	2.0	17.7	0.05
TW-30	76.25	52	10	T15	3.0	26.6	0.05
TW-50	76.25	52	10	T20	5.0	44.3	0.05
TW-60-SB	64.5	80.5	12	P5	6.0	53	-
TW-80-SB	64.5	80.5	12	T25/P6	8.0	70.8	-
TW-120-SB	64.5	80.5	12	P8	12.0	106.2	-







## TW 扭力起子使用說明 TW TORQUE USER INSTRUCTIONS

- 此扭力起子除了可接各種標準型的起子頭 (Fig. 1) · 亦可接上延長接桿增加長度 (Fig. 2) · 而延長接桿也可接各種標準型起子頭 (Fig. 3) ·
- In addition to connecting various standard bits(as in Fig. 1), the torque screwdriver can be connected with an extension to increase its length.(as in Fig. 2) The extension can be connected with various standard bits (as in Fig. 3).



(Fig. 1)



(Fig. 2)



(Fig. 3)

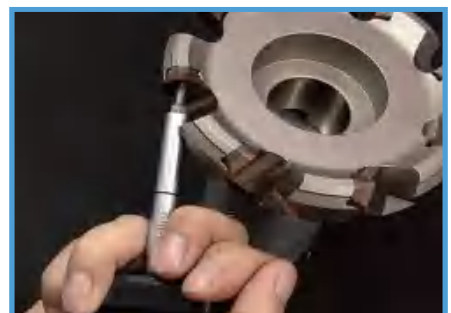
- 順時鐘旋轉扳手起子握把 (Fig. 4) · 扭力達到最大值時會有 " 喀擦 " 聲來提醒使用者 · 以避免超過扭力值 · 而造成物件損壞 · 握法分別有低扭力握法 (Fig. 5) 以及高扭力握法 (Fig. 6) 兩種 ·
- Turn the wrench clockwise ( as in Fig. 4), when the torque reaches its maximum it clicks to remind the users not to exceed the torque limit that may cause damage to the screwdriver or to the screw. value (as in Fig. 5) and high torque value (as in Fig. 6).



(Fig. 4)



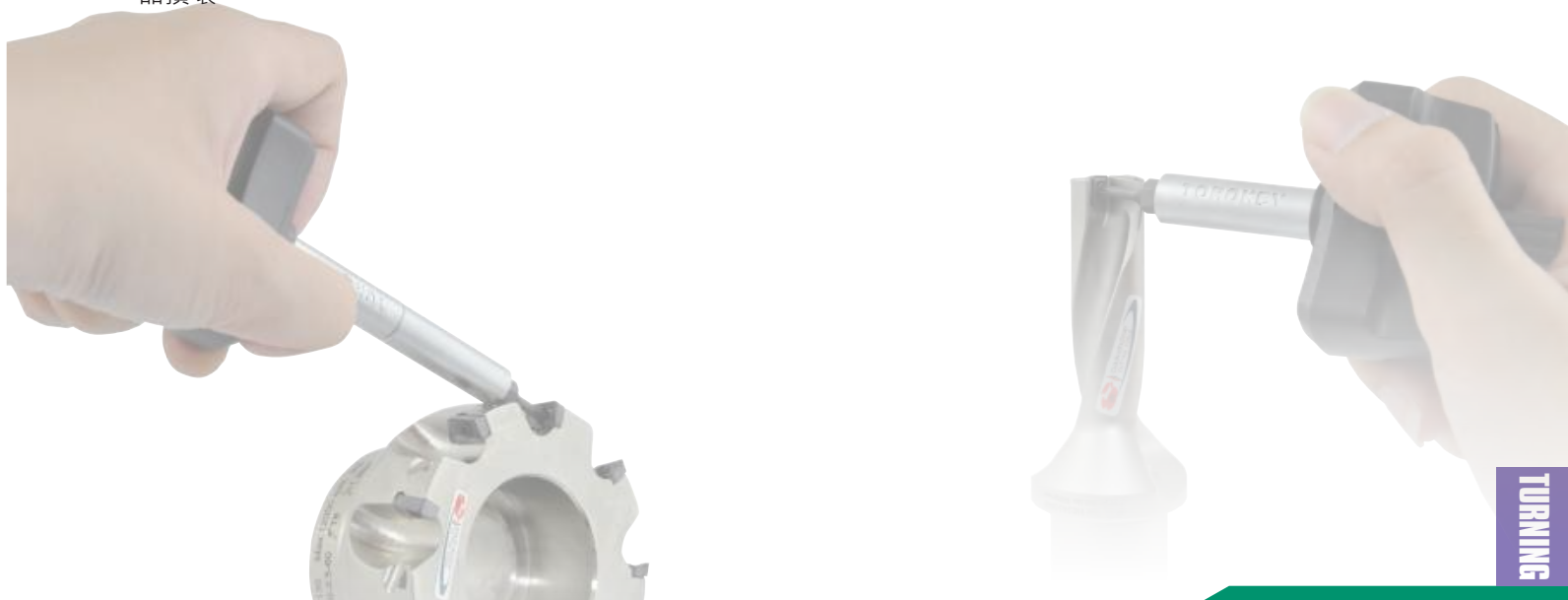
(Fig. 5)



(Fig. 6)

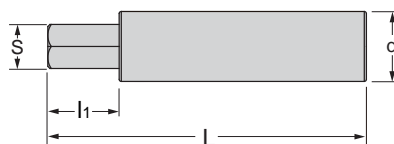
### 注意事項 Notice

- 為了避免產品零件及握把的損壞 · 請勿超過扭力上限使用
- 產品不可重擊、重摔及異常的使用方式 · 以避免造成產品損壞
- In order to avoid damage to product parts and handle, do not exceed the torque limit.
- Do not hit, drop, or use differently Form recommended usage so as not to cause damage to the product.





## BIT 延長桿 BIT EXTENSION



### 特點 Feature

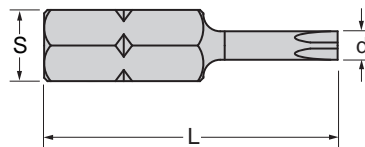
- DIN 7427 Form D
- 六方驅動 E6.3(1/4") · 符合 DIN3126 · 磁性 · 及內方驅動 D6.3(1/4") 符合 DIN3126

- DIN 7427 Form D.
- Hexagon driver E6.3(1/4"), conforming to DIN3126 standard, magnetic; Square drive D6.3(1/4"), conforming to DIN3126.

規格 Spec.	L	l <sub>1</sub>	d	S	重量 (KGS) Weight
BIT-1/4"-50L	45	10	10	1/4"	0.02



## 25mm、50 起子頭 25mm、50mm BITS TORX

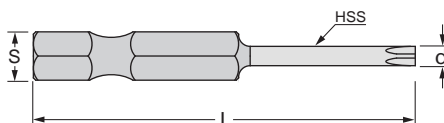


規格 Spec.	L	d	S	重量 (KGS) Weight
BIT-T5-25L	25	T5	1/4"	0.004
BIT-T6-25L	25	T6	1/4"	0.004
BIT-T7-25L	25	T7	1/4"	0.004
BIT-T8-25L	25	T8	1/4"	0.004
BIT-T9-25L	25	T9	1/4"	0.004
BIT-T10-25L	25	T10	1/4"	0.004
BIT-T15-25L	25	T15	1/4"	0.004
BIT-T20-25L	25	T20	1/4"	0.004

規格 Spec.	L	d	S	重量 (KGS) Weight
BIT-T5-50L	50	T5	1/4"	0.01
BIT-T6-50L	50	T6	1/4"	0.01
BIT-T7-50L	50	T7	1/4"	0.01
BIT-T8-50L	50	T8	1/4"	0.01
BIT-T9-50L	50	T9	1/4"	0.01
BIT-T10-50L	50	T10	1/4"	0.01
BIT-T15-50L	50	T15	1/4"	0.01
BIT-T20-50L	50	T20	1/4"	0.01



## HSS 起子頭 HSS BITS TORX



規格 Spec.	L	d	S	重量 (KGS) Weight
BIT-T5-55L-HSS	55	T5	1/4"	0.01
BIT-T6-55L-HSS	55	T6	1/4"	0.01
BIT-T7-55L-HSS	55	T7	1/4"	0.01
BIT-T8-55L-HSS	55	T8	1/4"	0.01
BIT-T9-55L-HSS	55	T9	1/4"	0.01
BIT-T10-56L-HSS	56	T10	1/4"	0.01
BIT-T15-56L-HSS	56	T15	1/4"	0.01
BIT-T20-56L-HSS	56	T20	1/4"	0.01



# 100mm 起子頭

## 100mm BITS TORX

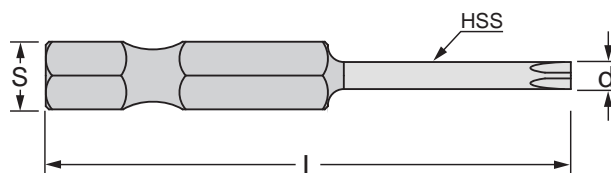


規格 Spec.	L	d	S	重量 (KGS) Weight
BIT-T10-100L	100	T10	1/4"	0.2
BIT-T15-100L	100	T15	1/4"	0.2
BIT-T20-100L	100	T20	1/4"	0.2
BIT-P4-100L	100	P4	1/4"	0.2
BIT-P5-100L	100	P5	1/4"	0.2
BIT-P6-100L	100	P6	1/4"	0.2
BIT-P8-100L	100	P8	1/4"	0.2
BIT-P10-100L	100	P10	1/4"	0.2



# HSS 起子頭套裝組

## HSS BITS TORX SET



規格 Spec.	內容物 Contents		重量 (KGS) Weight
	起子頭 Bits	數量 Qty	
BIT-HSS-8P-SET	BIT-T5-55L-HSS	1	0.08
	BIT-T6-55L-HSS		
	BIT-T7-55L-HSS		
	BIT-T8-55L-HSS		
	BIT-T9-55L-HSS		
	BIT-T10-56L-HSS		
	BIT-T15-56L-HSS		
	BIT-T20-56L-HSS		



# TW 扭力起子 / 國旗扳手收納架 TW TORQUE SCREWDRIVER / WRENCH STORAGE RACK

## 範例 Example



Fig.1

Fig.2



## 特點 Feature

- 收納方便

- A smart way to storage all the screw drivers.

規格 Spec.	L	W	H	Fig.	重量 (KGS) Weight
TW-SR-225	225	100	89	1	0.56
T-SR-100	100	60	58	2	0.15



# TW 扭力起子 / 國旗扳手收納架套裝組 TW TORQUE SCREWDRIVER/WRENCH STORAGE RACK SET



Fig.1



Fig.2

規格 Spec.	內容物 Contents					Fig.	重量 (KGS) Weight
	收納架 Storage Rack	扭力起子 Torque	延長接桿 Bit Holder	起子頭 Bits	數量 Qty		
TW-SR-225-8P-SET	TW-SR-225	TW-05	BIT-1/4"-50L	BIT-T5-25L	1	1	1.00
		TW-06		BIT-T6-25L			
		TW-09		BIT-T7-25L			
		TW-12		BIT-T8-25L			
		TW-14		BIT-T9-25L			
		TW-20		BIT-T10-25L			
		TW-30		BIT-T15-25L			
		TW-50		BIT-T20-25L			

規格 Spec.	內容物 Contents			Fig.	重量 (KGS) Weight
	收納架 Storage Rack	國旗扳手 Wrench	數量 Qty.		
T-SR-100-SET	T-SR-100	T5	1	2	-
		T6			
		T7			
		T8			
		T9			
		T10			
		T15			
T20					



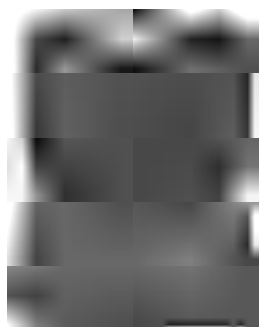
## TW 扭力起子套裝組 TW TORQUE SCREWDRIVER SET



規格 Spec.	內容物 Contents				重量 (KGS) Weight
	扭力起子 Torque	延長接桿 Bit Holder	起子頭 Bits	數量 Qty	
TW-7P-SET	TW-06	BIT-1/4"-50L	BIT-T5-25L	1	0.81
	TW-06		BIT-T6-25L		
	TW-09		BIT-T7-25L		
	TW-12		BIT-T8-25L		
	TW-14		BIT-T9-25L		
	TW-20		BIT-T10-25L		
	TW-30		BIT-T15-25L		
	TW-50		BIT-T20-25L		



## TORX-8PCS 扳手套裝組 TORX-8PCS WRENCH SET

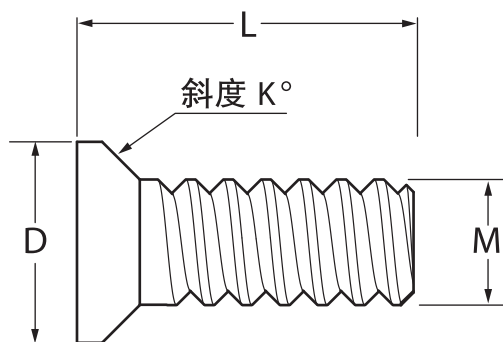


規格 Spec.	內容物 Contents			重量 (KGS) Weight
	扳手 Wrench	扭力值 Torque (N.m)	數量 Qty	
TORX 8P-SET	T5K	0.6	1	0.82
	T6K	0.6		
	T7K	0.9		
	T8K	1.2		
	T9K	1.4		
	T10K	2.0		
	T15K	3.0		
	T20K	5.0		



## 螺絲規格示意圖

### SCREW TYPE SCHEMATIC DRAWING



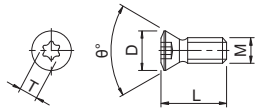
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本公司螺絲採用特殊鋼製造強化螺絲鋼性，螺絲斜度 W 採用車加工，穩定刀片及刀具鎖緊。  
PS. 採用本公司專用螺絲，刀片壽命增加。



# 刀具零件尺寸表 CUTTING TOOL SPARE PARTS

圖型 Drawing	規格 Spec.	尺寸 (mm)					適合刀具 & 刀片 Cutting Tool & Insert
		M	L	D	θ	T	
	M1.8-3.8-2.4-60	M1.8	3.8	2.4	60	T6	SD - XO..04T1
	M1.8-4.0-2.5-54	M1.8	4.0	2.5	54	T6	SCLCR - CC..03S1
	M1.8-4.2-2.5-54	M1.8	4.2	2.5	54	T6	CBJ、CSBJ、CCBJ - CC..03S1
	M2-3.8-2.68-43	M2	3.8	2.68	43	T6	STR、CSTR - RD..0501
							BR、SBJ-16、SWUBR - WB..0601 SBJ-16、STUBR/STUPR - TB..0601 STUBL - TB..0601
	M2-4.3-2.7-60-T6-TIN	M2	4.3	2.7	60	T6	TSD - SP.0502
	M2-5.0-2.6-60	M2	5.0	2.6	60	T6	CSIR - 061R
	M2-5.0-2.7-60	M2	5.0	2.7	60	T6	BR、SBJ、CSBJ - TB..0601
							STUBR - TB..0601 SWUBR - WB..0802 SVJCR - VC..0802
	M2.2-4.7-3.1-60	M2.2	4.7	3.1	60	T7	CBJ、SCLCR - CC..04T0
							STUPR - TP.0802 STUCR - TC..0902 CSIR - 081R
	M2.2-5.2-3.1-60-T7-TIN	M2.2	5.2	3.1	60	T7	TSD、FDC - SP.0602
	M2.2-5.5-3.4-60	M2.2	5.5	3.4	60	T7	STUCR、STWPR、STWCR - TC..0902
							SNR - 081R SNL - 08ER
	M2.5-5.0-3.7-43	M2.5	5.0	3.7	43	T8	MAS - AP..1003
							SSP - TC..1003
	M2.5-5.5-3.35-60	M2.5	5.5	3.35	60	T8	DDM - CC..0602、CP.0802
							SD - WC..0302
	M2.5-6.0-3.5-60	M2.5	6.0	3.5	60	T8	HR - RP.0602
							ASSM、BAP - AP..1135 SAS - AP..1035 CBS、CBJ、CSBJ、CCBJ - CC..0602 ATS、SCLCR、SCLCL - CC..0602 SBS、BR、SBJ、CSBJ - TP..0902 STWPR、STWCR - TP..0902 STUBR、STUPR、STUPL - TP..0902 SD - WC..0402 SCLPR - CP.0602 STUCR、STWPR、STWCR - TC..1102 STFCR/L、STUCR/L - TC..1102 SDUCR、SDQCR、SDZCR - DC..0702 SDNCR、SDJCR、SDUCL - DC..0702 STUCL - TC..0902、TC..1102 SVJCR/L、SVUCR/L - VC..1103 CSIR - 111R
	M2.5-6.3-3.7-43-T8-TIN	M2.5	6.3	3.7	43	T8	BGP - AP..1003
							HAS - SP.0603
	M2.5-6.33-3.5-48-T8-TIN	M2.5	6.33	3.5	48	T8	TSD - SP.07T3

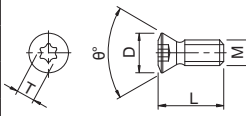


BT  
SBT  
DAT  
CAT  
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ISO  
HSK  
HSK-T  
VDI  
PSC  
SAF  
TAP  
ACCESSORIES  
BORING  
AID  
INSERT  
MILLING  
TURNING



# 刀具零件尺寸表

## CUTTING TOOL SPARE PARTS

圖型 Drawing	規格 Spec.	尺寸 (mm)					適合刀具 & 刀片 Cutting Tool & Insert
		M	L	D	θ	T	
	M2.5-6.45-3.7-43	M2.5	6.45	3.7	43	T8	BT/MAS、MAS、APE-AP..1003
							BT/STR、STR、CSTR-RD..0702 DM-EP..0602 DDM、ATB-CC..0602
	M2.5-7.0-4.5-60	M2.5	7.0	4.5	60	T8	SNR-11IR
	M2.5-8.0-3.5-60	M2.5	8.0	3.5	60	T8	SNL-11ER
	M3-3.5-5.0-90	M3	3.5	5.0	90	T7	GDC、SDC-SN..1102
	M3-4.3-5.0-90	M3	4.3	5.0	90	T7	GDC、SDC-SN..1103
	M3-6.0-3.7-43	M3	6.0	3.7	43	T10	GR-RD..0802
	M3-8.0-4.0-43	M3	8.0	4.0	43	T9	SBS、BR、SBJ、CSBJ-TP..1103
							STUBR、STUPR/L-TP..1103 ATS-CC..0803 SCLPR-CP..0802
	M3-8.0-4.4-60	M3	8.0	4.4	60	T9	HR-RP..0803
							SD-WC..0503
	M3.5-6.0-5.0-60	M3.5	6.0	5.0	43	T15	ASS-AP..1202 DDM-CP..0902
	M3.5-7.5-5.1-60	M3.5	7.5	5.1	60	T15	SVJCR/L
	M3.5-7.6-5.1-60	M3.5	7.6	5.1	60	T15	CSIR、SIR-16IR SVUCR/L-VC..1604
	M3.5-8.0-5.0-60	M3.5	8.0	5.0	60	T15	BT/STR、STR-RD..0702(壓板螺絲) BT/STR、STR、CSTR-RD..1003 SD-WC..06T3 SSP-TC..13T3
	M3.5-8.0-5.5-60	M3.5	8.0	5.5	60	T15	HR、GR-RP..10T3(壓板螺絲) GR-RD..0802
	M3.5-8.4-5.0-60-T10-TIN	M3.5	8.4	5.0	60	T10	TSD-SP..0904
	M3.5-9.0-5.3-60	M3.5	9.0	5.3	60	T15	SNR-16IR SNL-16ER
	M3.5-10-5.2-43-T15-TIN	M3.5	10	5.2	43	T15	HAS-SD..0904
	M3.5-11.7-5.3-60	M3.5	11.7	5.3	60	T15	SFM-SE..13T3 ACM-SE12(卡式刀座)-SE..12T3 SVJCR、SVVCN-VC..1604 SER、SNL-16ER SEL-16IR
	M4-5.0-6.2-90	M4	5.0	6.2	90	T15	GDC、SDC-SN..1203
	M4-7.8-5.6-60	M4	7.8	5.6	60	T15	SCLCR/L、SCKCR/L-CC..09T3 SCLPR/L-CP..0903 SDQCR/L、SDUCR/L-DC..11T3 SDZCR/L-DC..11T3 SSSCR/L-SC..09T3 STFCR/L、STUCR/L-TC..16T3
	M4-8.0-5.0-43	M4	8.0	5.0	43	T15	DM-EP..08M3
	M4-8.0-5.7-60	M4	8.0	5.7	60	T15	BT/STR、STR-RD..1003(壓板螺絲) ASS、SSK-AD..1603 CBJ、CCBJ、CSBJ-CC..09T3 SCLCR-CC..09T3 STUPR-TP..1603





# 刀具零件尺寸表 CUTTING TOOL SPARE PARTS

圖型 Drawing	規格 Spec.	尺寸 (mm)					適合刀具 & 刀片 Cutting Tool & Insert
		M	L	D	θ	T	
	M4-8.0-5.7-60	M4	8.0	5.7	60	T15	SCLPR - CP.0903
							SDQCR - SDUCR - DC..11T3
	M4-8.2-6.2-90	M4	8.2	6.2	90	T15	GDC - SDC - SN..1205
							SMGHR - SMGTR16X2
							SMGHR - SMTR160360
	M4-8.75-5.6-60	M4	8.75	5.6	60	T15	DDM - CP.0903、CP.1203
	M4-9.35-5.65-60-T15-TIN	M4	9.35	5.65	60	T15	TSD - SP.1104
	M4-9.5-5.5-55	M4	9.5	5.5	55	T15	GR - RD..1204
	M4-10-5.0-43	M4	10	5.0	43	T15	HR - RP..10T3、RP..1204
							GR - RD..10T3
							SHR - RP..1204
							SBS - TP..1603
							SPE - AP..1503
							SPE - SD..0903
							SSP - STUCR - STUCL - TC..16T3
							ACM-RP12(卡式刀座) - RP..1204
	M4-10-5.7-60	M4	10	5.7	60	T15	BT/MAS、MAS、BGP - AP..1604
							IFM - ASSM - AMC - AP..1604
							FR - RP..1003、RP..1203
							MSAE - CN..1206
							SKM - OD..0404
							SAS - AP..1605
							ATB - CBS - ATS - CC..09T3
							SCLCR - SCLCL - CC..09T3
							SD - WC..0804
							FDC - SP.1204
							SPK - SP.0903
							ACM-AP16(卡式刀座) - AP..1604
							SCLPR - CP.0903
							STUBR / STUPR - STUPL - TP.1603
						SDUCR - SDQCR - DC..11T3	
						SDZCR - SDNCR - SDUCL - DC..11T3	
						SDJCR - SDJ2CR - SDNCN - DC..11T3	
M4-11-6.2-90-T15-TIN	M4	11	6.2	90	T15	GDC - SDC - SN..1207	
M4-13-5.2-43-T15-TIN	M4	13	5.2	43	T15	HGP - SD..1205	
M5-10-6.3-43	M5	10	6.3	43	T20	SGP - CBMC - SP.1204	
M5-11-6.4-43	M5	11	6.4	43	T20	PMC - BMC - LP..1504、SP.1204	
						SPE - LP..1504	
						SPE - FDC - SP.1204	
M5-11-7.0-55	M5	11	7.0	55	T20	KE - KM - KFM - SE..1204	
						ACM-SE12(卡式刀座) - SE..1204	
M5-11-7.5-60	M5	11	7.5	60	T20	HR - RP..1204(壓板螺絲)	
						GR - RD..1604	
						DDM - CP..1204、CP.1604	
						CBS - ATS - CC..1204	
M5-12.8-7.0-60-T20-TIN	M5	12.8	7.0	60	T20	TSD - SP.1405	
M5-14-7.0-43	M5	14	7.0	43	T20	MSAE - CN..1508	
M6-12-8.4-60	M6	12	8.4	60	T25	DDM - CP..1904	

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# 刀具零件尺寸表

## CUTTING TOOL SPARE PARTS

圖型 Drawing	規格 Spec.	尺寸 (mm)					適合刀具 & 刀片 Cutting Tool & Insert
		M	L	D	θ	T	
	M3-7.0-4.0(BR4)	M3	7	4	-	T8	BR4-P3200D8
	M4-8.5-6.0(BR5)	M4	8.5	6	-	T15	BR5-P3200D10
	M5-9.0-6.7(BR6)	M5	9	6.7	-	T20	BR6-P3200D12
	M5-12.5-7.5(BR8)	M5	12.5	7.5	-	T20	BR8-P3200D16
	M5-15.4-8(BR10)	M5	15.4	8	-	T20	BR10-P3200D20
	M6-20-9.5(BR12.5)	M6	20	9.5	-	T30	BR12.5-P3200D25
	M8-24.5-12(BR16)	M8	24.5	12	-	T30	BR16-P3200D32
	M2-6.5-3.1(RG-M8)	M2	4.5	3.1	-	T6	RG-08
	M2.5-7.3-4.0(RG-M10)	M2.5	7.3	4	-	T7	RG-10
	M3.5-9.0-5.3(RG-M12)	M3.5	9	5.3	-	T10	RG-12
	M4-12-6.5(RG-M16)	M4	12	6.5	-	T15	RG-16
	M5-15-7.5(RG-M20)	M5	15	7.5	-	T20	RG-20
	M5-19.9-7.5(RG-M25)	M5	19.9	7.5	-	T20	RG-25
	M5-0.8P	M5	13	9.5	-	T15	SKE - TP.1103 FR5R - RP.1003 FR6R - RP.1203
	M5-0.8P-16L	M5	16	9.3	-	PL3.5	DGIR
	M6-0.75P	M6	17.2	13	-	P4	SSE - TP.1603 SKE - TP.1603
	M6-U1/4-28P	M6	17.3	13	-	P4	TP.1603
	M8-1.0P	M8	21.2	17	-	P5	SSE - TP.1603
	M8-U5/16-24P	M8	21.2	17	-	P5	TAP - TP.2204
		BH-M8-20	M8	20	13.7	-	P5
BH-M8-22		M8	22	13.7	-	P5	CSD
	HR-5R	-	10.2	3.8	-	-	HR5R-RP.10T3
	HR-6R	-	13	5.3	-	-	HR6R-RP.1204
	GR-5R	-	10.2	3.8	-	-	GR5R-RD.10T3
	GR-6R	-	13	5.3	-	-	GR8R-RD.1604
	HTM309	M3	8.9	5.4	-	P2.5	SER/SNR - 16ER
	SH-M5-21	M5	21	8.5	-	P4	SGTHR -TGTN
	SH-M6-20	M6	20	10	-	P5	ACM
	SH-M6-25	M6	25	10	-	P5	ACM
	ASP2	M4	10	5	-	P2.5	ASP/BFP
	TAP2	M4	8	7	-	#1	TAP - TP.2204



# 刀具零件尺寸表 CUTTING TOOL SPARE PARTS

圖型 Drawing	規格 Spec.	尺寸 (mm)					適合刀具 & 刀片 Cutting Tool & Insert
		M	L	D	θ	T	
	MS520	M5	20	-	-	T10	MVUNR/MWLNR
	MS620	M6	20	-	-	P3	MCLNR/MDUNR
	MS625	M6	25	-	-	P3	MTUNR/MCLNR/MVVNN
	MS630	M6	30	-	-	P3	MCLNR/MWLNR/MVQNR
	ASP1	M8	17	-	-	P4	ASP/BFP
	MC515	M5	14.7	4	-	-	MTUNR/MWLNR
	MC620	M6	18.6	4	-	-	MTUNR/MCLNR/MDUNR
	MCW3	-	10	13.7	-	-	WTJNR/WTENN
	ASP3	M8	15	9.7	-	-	ASP/BFP
	MCS3	M5	24.5	10	-	P4	WTJNR
	MCS3S-09	M6	9	-	-	P3	WTENN
	MCS3S-11	M6	11	-	-	P3	WTJNR
	MLP33L	M5	10.4	-	-	P2	MVUNR/MTUNR
	MLP34L	M5	13.1	-	-	P2	MVVNN/MVQNR/MTUNR
	MLP44	M6.3	13.2	-	-	P2.5	MCLNR/MDUNR/MWLNR
	MLP46	M6.3	17.2	-	-	P2.5	MCLNR/MWLNR
	MCP3	5	15	3.7	-	-	WTJNR
	MDS053512	M5	8.65	6.3	-	P3.5	HKM/SVJCR/SVVCN
	FMA-1231-CB	-	31.75	-	-	-	FMA25.4、FMA31.75
	FMA-5838-CB	-	38.1	-	-	-	FMA38.1
	FMB-1035-CB	-	35	-	-	-	FMB22
	FMB-1230-CB	-	30	-	-	-	FMB27
	FMB-1240-CB	-	40	-	-	-	FMB32
	FMB-1645-CB	-	45	-	-	-	FMB40

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# 刀具零件尺寸表

## CUTTING TOOL SPARE PARTS

圖型 Drawing	規格 Spec.	尺寸 (mm)				適合刀具 & 刀片 Cutting Tool & Insert
		d	i	s	r	
	SSS445N	10.7	1.5	3	-	HKM-12T3
	SSS446N	10.7	1.6	3	-	HKM-13T3
	CMS432	12.5	12.5	4.8	-	MCLNR
	WMS432	12.2	15	4.8	-	MWLNR
	TMS322	9.1	12.9	3.2	-	MTUNR
	TWS322	8.9	12.4	3.2	-	MTJNR
	VSS322	8.4	8.4	3.2	-	SVVCN
	VMS322	9.2	9.2	3.2	-	MVVNN
	GXE16	9.5	13.1	3.2	-	SER
	GXN16	9.5	13.1	3.2	-	SNR
	ASP4	14.6	15.2	5.8	-	ASP/BFP
	E5	11	-	0.5	-	WTJNR
	E4	7.4	-	0.5	-	WTJNR



# 刀具零件尺寸表 CUTTING TOOL SPARE PARTS

圖型 Drawing	規格 Spec.	尺寸 (mm)					適合刀具 & 刀片 Cutting Tool & Insert
		L	D	d	S	T	
	BIT-T5-25L	25	-	-	1/4"	T5	
	BIT-T6-25L		-	-		T6	
	BIT-T7-25L		-	-		T7	
	BIT-T8-25L		-	-		T8	
	BIT-T9-25L		-	-		T9	
	BIT-T10-25L		-	-		T10	
	BIT-T15-25L		-	-		T15	
	BIT-T20-25L		-	-		T20	
	BIT-T5-50L	50	-	-	1/4"	T5	
	BIT-T6-50L		-	-		T6	
	BIT-T7-50L		-	-		T7	
	BIT-T8-50L		-	-		T8	
	BIT-T9-50L		-	-		T9	
	BIT-T10-50L		-	-		T10	
	BIT-T15-50L		-	-		T15	
	BIT-T20-50L		-	-		T20	
	BIT-T10-100L	100	-	-	1/4"	T10	
	BIT-T15-100L		-	-	-	T15	
	BIT-T20-100L		-	-	-	T20	
	BIT-P4-100L		-	-	-	P4	
	BIT-P5-100L		-	-	-	P5	
	BIT-P6-100L		-	-	-	P6	
	BIT-P8-100L		-	-	-	P8	
	BIT-P10-100L		-	-	-	P10	
	BIT-1/4"-50L	45	-	10	1/4"	-	
	BIT-T5-55L-HSS	55	-	-	1/4"	T5	
	BIT-T6-55L-HSS		-	-		T6	
	BIT-T7-55L-HSS		-	-		T7	
	BIT-T8-55L-HSS		-	-		T8	
	BIT-T9-55L-HSS		-	-		T9	
	BIT-T10-56L-HSS	56	-	-		T10	
	BIT-T15-56L-HSS		-	-		T15	
	BIT-T20-56L-HSS		-	-		T20	
	TW-05	76.25	52	10	-	-	
	TW-06						
	TW-09						
	TW-12						
	TW-14						
	TW-20						
	TW-30						
	TW-50						
	TW-60-SB						
	TW-100-SB						
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# 刀具零件尺寸表

## CUTTING TOOL SPARE PARTS

圖型 Drawing	規格 Spec.	尺寸 (mm)					適合刀具 & 刀片 Cutting Tool & Insert
		L	D	d	W	T	
	T6	83	-	-	-	T6	
	T7		-	-	-	T7	
	T8		-	-	-	T8	
	T9		-	-	-	T9	
	T10	86.5	-	-	-	T10	
	T15		-	-	-	T15	
	T20		-	-	-	T20	
	T5K	120	-	-	-	T5	
	T6K	130	-	-	-	T6	
	T7K	140	-	-	-	T7	
	T8K	150	-	-	-	T8	
	T9K	165	-	-	-	T9	
	T10K		-	-	-	T10	
	T15K	190	-	-	-	T15	
	T20K	195	-	-	-	T20	
	PL1.5	46	-	-	-	P1.5	
	PL2	50	-	-	-	P2	
	PL2.5	56	-	-	-	P2.5	
	PL3	63	-	-	-	P3	
	PL3.5	70	-	-	-	P3.5	
	PL4		-	-	-	P4	
	PL5	80	-	-	-	P5	
	PL6	90	-	-	-	P6	
	PL8		-	-	-	P8	
	PT1.5	99	-	-	-	P1.5	
	PT2		-	-	-	P2	
	PT2.5		-	-	-	P2.5	
	PT3		-	-	-	P3	
	PT3.5		-	-	-	P3.5	
	PT4		-	-	-	P4	
	PT5		-	-	-	P5	
	PT6		-	-	-	P6	
	PT8	107	-	-	-	P8	
	DW-70	70	-	-	27	-	



螺絲車削分刀對照建議表

	Threads Per Inch 每英制牙數 (T.P.I) Pitch 節距 (mm)	24	20	16	14	12	10	8	
		1	1.25	1.5	1.75	2	2.5	3	
ISO 分類	Material 加工材質	Material Strength 工件抗拉強度		分刀量					
P	Unalloyed Steels 非合金鋼類	<600N/mm2	4-5	5-6	6-7	7-8	7-8	8-9	10-11
		<950N/mm2	4-6	5-7	7-8	7-9	7-9	9-10	11-12
	Alloyed Steels 合金鋼類	700~950N/mm2	4-6	5-7	7-8	7-9	7-9	9-10	11-12
		950~1200N/mm2 1200~1400N/mm2	5-6	6-9	7-10	8-10	8-10	10-12	12-14
M	Stainless Steels 不鏽鋼類	沃斯系 + 肥粒系	4-6	5-7	7-8	8-9	8-9	10-13	12-15
		麻田散系	5-6	6-9	7-10	8-10	8-10	9-11	9-12
		析出強化系	5-8	6-10	7-12	8-11	8-11	9-12	10-14
K	Cast Iron 鑄鐵類	灰鑄鐵	4-6	5-7	7-8	8-11	8-11	10-14	12-16
		延性鑄鐵 展性鑄鐵	4-8	5-9	7-10	8-11	8-11	8-14	10-16
N	Aluminum & Al 鋁及鋁合金	<16% 含矽量 >16% 含矽量	4-6	5-7	7-10	8-11	8-11	8-14	10-16
S	Superalloy 高溫合金	鐵基合金 鈷基合金	4-6	5-7	7-8	8-10	8-10	9-11	9-12
		鎳基合金 鈦基合金	5-6	6-9	7-10	8-11	8-11	9-12	10-14
H	Hard Material 高硬度材	HRC 48~52	6-8	6-10	7-12	9-12	9-12	12-14	14-16
		HRC 52~56	6-8	6-10	7-12	9-12	9-12	12-14	14-16

Recommended Number of Passes		
Threading Pitch(mm)	Threading T.P.I	Recommended NO:of Passes
0,5	48	4-6
1,0	24	4-8
1,25	20	5-10
1,5	16	6-12
2	12	7-12
3	8	9-16
4	6	11-18
5	5	12-20
6	4	12-22
8	3	15-24



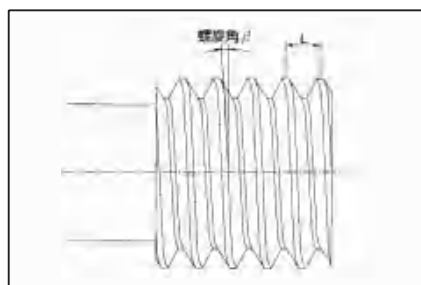
### 螺紋的切削方式

徑向進刀法	Radial In-Feed	A	適合螺距 1.5mm 或是 16T.P.I 以內使用
		B	因切入方向問題會有切屑排除不易的情形
		C	刀片的前緣與後沿的磨耗較一致性
		D	適用於加工硬度高或短屑片的材質
		E	加工面後沿可以得到較好的表面光滑
		斜向進刀法	Modified Flank In-feed
		B	切削第 2 刀開始只有單邊切削
		C	刀片磨耗集中在有切削的一端
		D	屑片會從切邊遠離
		E	此法可降低切削噪音
		雙向進刀法	Alternating Flank In-feed
		B	用於易生加工硬化的材質
		C	工作屑片長或不易斷屑的情形使用
		D	切削所生阻力較小
		E	磨耗會集中於刀片前緣

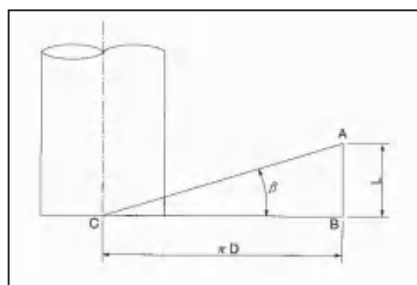
螺紋的螺旋角：螺紋的螺旋角  $\beta$  是由被加工件的節徑、導程來決定

$$\tan \beta = \frac{L}{\pi D} = \frac{nP}{\pi D}$$

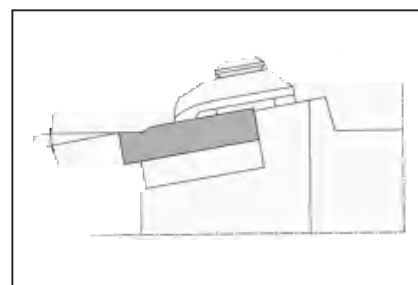
$\beta$ : 螺旋角     $D$ : 節徑     $n$ : 牙數     $P$ : 節距  
 $L$ : 導程(1牙螺紋等於節距、 $n$ 牙螺紋等於 $n \times p$ )



(圖1)



(圖2)



(圖3)

### 牙刀片的區分

泛稱	備註	刀片實體	加工狀態圖	特點
專用牙	附倒角刃			1 加工件表面較光滑 2 需考慮倒角刃的預留量 3 牙頂有倒角精修 4 牙的節距決定刀片規格
通用牙	無倒角刃			1 加工件表面易生毛邊 2 公稱直徑需修到一定值 3 牙頂無法倒角精修 4 刀片可加工範圍較廣





# 攻牙下孔徑加工尺寸表

## DRILL HOLE SIZE OF CUTTING TAPS DIMENSION

公制標準螺紋				公制細螺紋				英制粗螺紋							
螺紋尺寸	標準徑	2級螺紋內徑		螺紋尺寸	標準徑	2級螺紋內徑		螺紋尺寸	標準徑	2級螺紋內徑		螺紋尺寸	標準徑	2級螺紋內徑	
		D <sub>1</sub> 上限	D <sub>1</sub> 下限			D <sub>1</sub> 上限	D <sub>1</sub> 下限			D <sub>1</sub> 上限	D <sub>1</sub> 下限			D <sub>1</sub> 上限	D <sub>1</sub> 下限
M1 ×0.25	0.75	0.729	—	M2.5×0.35	2.15	2.121	2.221	M1 ×0.25	0.75	0.729	—	No.1 -64	1.50	1.435	1.582
M1.1×0.25	0.85	0.829	—	M3 ×0.35	2.65	2.621	2.271	M1.1×0.25	0.85	0.829	—	No.2 -64	1.85	1.694	1.872
M1.2×0.25	0.95	0.929	—	M3 ×0.35	3.15	3.121	3.221	M1.2×0.25	0.95	0.929	—	No.3 -64	2.10	1.941	2.146
M1.4×0.3	1.10	1.075	—	M4 ×0.5	3.50	3.459	3.599	M1.4×0.3	1.10	1.075	—	No.4 -64	2.35	2.385	2.156
M1.6×0.35	1.25	1.221	1.321	M4.5×0.5	4.00	3.959	4.099	M1.6×0.35	1.25	1.221	1.321	No.5 -64	2.65	2.697	2.487
M1.8×0.35	1.45	1.421	1.521	M5 ×0.5	4.50	4.459	4.599	M1.8×0.35	1.45	1.421	1.521	No.6 -64	2.85	2.642	2.896
M2 ×0.4	1.60	1.567	1.679	M5.5×0.5	5.00	4.959	5.099	M2 ×0.4	1.60	1.567	1.679	No.8 -64	3.50	3.302	3.531
M2.2×0.45	1.75	1.713	1.838	M6 ×0.75	5.20	5.188	5.378	M2.2×0.45	1.75	1.713	1.838	No.10-64	3.90	3.683	3.962
M2.5×0.45	2.05	2.013	2.138	M7 ×0.75	6.20	6.188	6.378	M2.5×0.45	2.05	2.013	2.138	No.12-64	4.50	4.343	4.597
M3 ×0.5	2.50	2.459	2.599	M8 ×0.75	7.20	7.188	7.378	M3 ×0.5	2.50	2.459	2.599	1/4 -64	5.10	4.976	5.268
M3.5×0.6	2.90	2.850	3.010	M8 ×1	7.00	6.917	7.153	M3.5×0.6	2.90	2.850	3.010	5/16 -64	6.60	6.411	6.734
M4 ×0.7	3.30	3.242	3.422	M9 ×0.75	8.20	8.188	8.378	M4 ×0.7	3.30	3.242	3.422	3/8 -64	8.00	7.805	8.164
M4.5×0.75	3.70	3.688	3.878	M9 ×1	8.00	7.917	8.153	M4.5×0.75	3.70	3.688	3.878	7/16 -64	9.40	9.149	8.550
M5 ×0.8	4.20	4.134	4.334	M10×0.75	9.20	9.188	9.378	M5 ×0.8	4.20	4.134	4.334	1/2 -64	10.80	10.584	11.013
M6 ×1	5.00	4.917	5.153	M10×1	9.00	8.917	9.153	M6 ×1	5.00	4.917	5.153	9/16 -64	12.20	11.996	12.456
M7 ×1	6.00	5.917	6.153	M10×1.25	8.80	8.647	8.912	M7 ×1	6.00	5.917	6.153	5/8 -64	13.50	13.376	13.868
M8 ×1.25	6.80	6.647	6.912	M11×0.75	10.20	10.188	10.378	M8 ×1.25	6.80	6.647	6.912	3/4 -64	16.50	16.299	16.833
M9 ×1.25	7.80	7.647	7.912	M11×1	10.00	9.917	10.153	M9 ×1.25	7.80	7.647	7.912	7/8 -64	19.50	19.169	19.748
M10×1.5	8.50	8.376	8.676	M12×1	11.00	10.917	11.153	M10×1.5	8.50	8.376	8.676	1 -64	22.25	21.963	22.598
M11×1.5	9.50	9.376	9.676	M12×1.25	10.80	10.647	10.192	M11×1.5	9.50	9.376	9.676	1 1/8 -64	25.00	24.648	25.349
M12×1.75	10.20	10.106	10.441	M12×1.5	10.50	10.376	10.676	M12×1.75	10.20	10.106	10.441	1 1/4 -64	28.00	27.823	28.514
M14×2	12.00	11.835	12.210	M14×1	13.00	12.917	13.153	M14×2	12.00	11.835	12.210	1 3/8 -64	30.75	30.343	31.120
M16×2	14.00	13.835	14.210	M14×1.25	12.80	12.647	12.912	M16×2	14.00	13.835	14.210	1 1/2 -64	34.00	33.518	34.295
M18×2.5	15.50	15.294	15.744	M14×1.5	12.50	12.376	12.676	M18×2.5	15.50	15.294	15.744	1 3/4 -64	39.50	38.951	39.814
M20×2.5	17.50	17.294	17.744	M15×1	14.00	13.917	14.153	M20×2.5	17.50	17.294	17.744	2 -4.5	45.00	44.689	45.598
M22×2.5	19.50	19.294	19.744	M15×1.5	13.50	13.376	13.676	M22×2.5	19.50	19.294	19.744				
M24×3	21.00	20.752	21.252	M16×1	15.00	14.197	15.153	M24×3	21.00	20.752	21.252				
M27×3	24.00	23.752	24.252	M16×1.5	14.50	14.376	14.676	M27×3	24.00	23.752	24.252				
M30×3.5	26.50	26.211	26.711	M17×1	16.00	15.917	16.153	M30×3.5	26.50	26.211	26.711				
M33×3.5	29.50	29.211	29.711	M17×1.5	15.50	15.376	15.676	M33×3.5	29.50	29.211	29.711				
M36×4	32.00	31.670	32.270	M18×1	17.00	15.917	17.153	M36×4	32.00	31.670	32.270				
M39×4	35.00	34.670	35.270	M18×1.5	16.50	16.376	16.676	M39×4	35.00	34.670	35.270				
M42×4.5	37.50	37.129	37.799	M18×2	16.00	15.835	16.210	M42×4.5	37.50	37.129	37.799				
M45×4.5	40.50	40.129	40.799	M20×1	19.00	18.917	19.153	M45×4.5	40.50	40.129	40.799				
M48×5	43.00	42.587	43.297	M20×1.5	18.50	18.376	18.678	M48×5	43.00	42.587	43.297				
M52×5	47.00	46.587	47.287	M20×2	18.00	17.835	18.210	M52×5	47.00	46.587	47.287				
M56×5.5	50.50	50.046	50.796	M22×1	21.00	20.917	21.153	M56×5.5	50.50	50.046	50.796				
				M22×1.5	20.50	20.376	20.676								
				M22×2	20.00	19.835	20.210								
				M24×1	23.00	22.917	23.153								

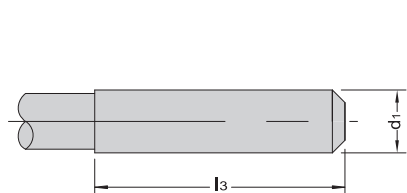
公制粗螺紋		公制粗螺紋		公制粗螺紋		公制粗螺紋	
螺紋尺寸	標準徑	螺紋尺寸	標準徑	螺紋尺寸	標準徑	螺紋尺寸	標準徑
M1 ×0.25	0.88	M4.5 ×0.75	4.15	M5 ×0.5	4.75	M12 ×1.5	11.30
M1.1 ×0.25	0.98	M5 ×0.8	4.65	M5.5 ×0.5	5.25	M14 ×1	13.55
M1.2 ×0.25	1.08	M6 ×1	5.55	M6 ×0.75	5.65	M14 ×1.25	13.40
M1.4 ×0.3	1.25	M7 ×1	6.55	M7 ×0.75	6.65	M14 ×1.5	13.30
M1.6 ×0.35	1.45	M8 ×1.25	7.40	M8 ×0.75	7.65	M15 ×1	13.55
M1.7 ×0.35	1.55	M9 ×1.25	8.40	M8 ×0.1	7.55	M15 ×1.5	14.30
M1.8 ×0.35	1.65	M10 ×1.5	9.25	M9 ×0.75	8.65	M16 ×1	15.55
M2 ×0.4	1.80	M11 ×1.5	10.25	M9 ×0.1	8.55	M16 ×1.5	15.30
M2.2 ×0.45	2.00	M12 ×1.75	11.20	M10 ×0.75	9.65	M17 ×1	16.55
M2.3 ×0.4	2.10	M14 ×2	13.10	M10 ×0.1	9.55	M17 ×1.5	16.30
M2.5 ×0.45	2.30	M16 ×2	15.10	M10 ×0.25	9.40	M18 ×1	17.55
M2.6 ×0.45	2.40	M18 ×2.5	16.90	M10 ×0.75	10.65	M18 ×1.5	17.30
M3 ×0.5	2.80	M20 ×2.5	18.90	M11 ×1	10.55	M18 ×2	17.10
M3.5 ×0.6	3.25			M12 ×1	11.55	M20 ×1	19.55
M4 ×0.4	3.70			M12 ×1.25	11.40		

BT  
SBT  
DAT  
CAT  
NT  
ISO  
HSK  
HSK-T  
VDI  
PSC  
SAF  
TAP  
ACCESSORIES  
BORING  
AID  
INSERT  
MILLING  
TURNING



# 直柄削平相關資料 FLATTED STRAIGHT SHANK DIMENSIONS

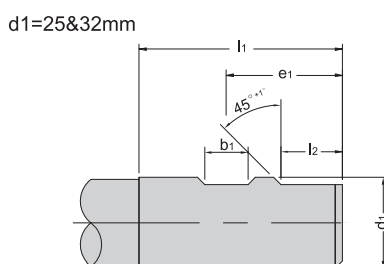
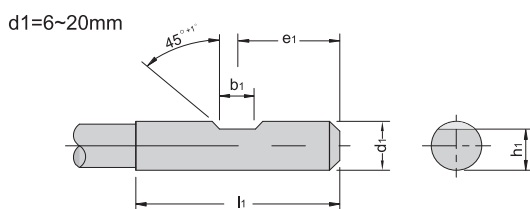
## Form HA



(單位: mm)

d <sub>1</sub>	l <sub>3</sub>
h6	+2 0
2	28
3	
4	
5	
6	36
8	
10	40
12	
14	45
16	
18	48
20	
25	56
32	60

## Form HB

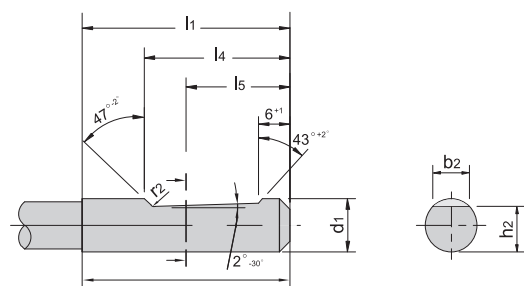


(單位: mm)

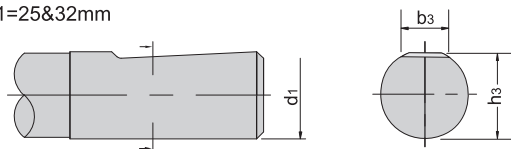
d <sub>1</sub>	b <sub>1</sub>	e <sub>1</sub>	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>
h6	+0.05 0	0 -1	h11	+2 0	+1 0
6	4.2	18	5.1	36	-
8	5.5		6.9		
10	7	20	8.5	40	
12	8	22.5	10.4	45	
14			12.7		
16	10	24	14.2	48	
18			16.2		
20	11	25	18.2	50	
25	12	32	23	56	17
32	14	36	30	60	19

## Form HE

d1=6~20mm



d1=25&32mm



d <sub>1</sub>	(b <sub>2</sub> )	(b <sub>3</sub> )	h <sub>2</sub>	(h <sub>3</sub> )	l <sub>1</sub>	l <sub>4</sub>	l <sub>5</sub>	r <sub>2</sub>
h6	=		h11		+2 0	0 -1		min.
6	4.3	-	5.1	-	36	25	18	1.2
8	5.5		6.9					
10	7.1		8.5		45	33	22.5	
12	8.2		10.4					
14	8.1		12.7		48	36	24	
16	10.1		14.2					
18	10.8	16.2	50	38	25			
20	11.4	18.2						
25	13.6	9.3	23.0	24.1	56	44	32	1.6
32	15.5	9.9	30.0	31.2	60	48	35	



# 表面粗糙度 SURFACE ROUGHNESS

種類	代號	計算方法	計算方法 例 (圖)
中心線平均粗度	Ra	從粗度曲線往中心線方向抽取測定長度 L 的部分。此抽取部分的中心線為 X 軸，以 Y=f(x) 表示時依下式計算之，所得值以微米 (μm) 表示之。 $Ra = 1/L \int_0^L  f(x)  dx$	
最大高度	Rmax	從断面曲線抽取基準長度部分的平均線以平行 2 直線包含上抽取部分時，以 2 線的間接為曲線縱倍率，方向測定此值即為最大高度，以微米 (μm) 表示之。 Rmax: 應對基準長度 L 的抽取部分最大高度。	
十點平均粗度	Rz	在断面曲線只抽取基準長對平均線平行且不橫越断面曲線直線往縱倍率方向測定最高至第 5 螺紋頂標高的平均值與最深至第 5 齒根標高的平均值的差值，以微米 (μm) 表示之。 $Rz = (R_1 + R_3 + R_5 + R_7 + R_9) / 5 - (R_2 + R_4 + R_6 + R_8 + R_{10}) / 5$	

中心線平均粗度 Ra	最大高度 Rmax	十點平均粗度 Rz	粗糙度 N	三角記號
0.0013a	0.05S	0.05Z	—	
0.025a	0.1S	0.1Z	N1	
0.05a	0.2S	0.2Z	N2	▽▽▽▽
0.10a	0.4S	0.4Z	N3	
0.20a	0.8S	0.8Z	N4	
0.40a	1.6S	1.6Z	N5	
0.80a	3.2S	3.2Z	N6	▽▽▽
1.6a	6.3S	6.3Z	N7	
3.2a	12.5S	12.5Z	N8	▽▽
6.3a	25S	25Z	N9	▽
12.5a	50S	50Z	N10	
25a	100S	100Z	N11	
50a	200S	200Z	N12	
100a	400S	400Z	—	

表示方法  
例：  
1.Ra 為 1.6μm 時 → 1.6μmRa  
2.Ry 為 6.3μm 時 → 6.3μmRa  
3.Rz 為 6.3μm 時 → 6.3μmRa

## 銑削表面粗糙度 (理論值)

● 有刀尖R角時

$$h = \frac{f^2}{8R} \times 1000 (\mu m)$$

● 無刀尖R角時

$$h = f \left( \frac{\tan \alpha \cdot \tan \beta}{\tan \alpha + \tan \beta} \right) \times 1000 (\mu m)$$

例：  
f=0.2mm/rev. R=0.4 代入公式  $h = \frac{0.2^2}{8 \times 0.4} \times 1000 = 12.5 \mu m$   
理論加工面粗度為約 12μ

例：  
f=0.25mm/rev. tanα=45°. tanβ=45° 代入公式  $h = f \cdot \left( \frac{\tan 45^\circ \cdot \tan 45^\circ}{\tan 45^\circ + \tan 45^\circ} \right) \times 1000 = 125 \mu m$   
理論加工面粗度為約 125μ

h : 理論粗糙度 (μm)  
f : 每刃進給 (mm/rev)  
R : 刀尖圓弧半徑 (mm)  
α : 餘偏角  
β : 副偏角

## 幾何公差符號

公差種類	公差性質	符號
形狀公差	真直度	—
	真平面度	▭
	真圓度	○
	圓柱度	∅
	曲線輪廓度	⤿
方向公差	平行度	//
	垂直度	⊥
	傾斜度	∠
定位公差	位置度	⊕
	同心度 / 同軸度	◎
	對稱度	≡
偏移度公差	圓偏轉度	↗
	總偏轉度	↗↗

BT  
 SBT  
 DAT  
 CAT  
 NT  
 ISO  
 HSK  
 HSK-T  
 VDI  
 PSC  
 SAF  
 TAP  
 ACCESSORIES  
 BORING  
 AID  
 INSERT  
 MILLING  
 TURNING



**(1) 切削速度**

車削加工及銑削加工之切削速度，可由下式計算：

$$V = \frac{\pi \times D \times S}{1000} \text{ (m/min)}$$

$$S = \frac{1000 \times V}{\pi \times D} \text{ (rpm)}$$

**(2) 銑床抬 (TABLE) 進給及每刃進給**

$$F = f \times z \times s \text{ (mm/min)}$$

**(3) 加工時間的求法**

(A) 一般外徑加工之場合

$$T = \frac{60l}{f \times N}$$

(B) 端面加工及切斷加工之場合

$$T = \frac{60l}{f \times Z \times N}$$

(C) 銑削加工之場合

$$T = \frac{30D}{f \times N}$$

**(4) 消耗動力**

(a) 車削加工

$$P_{KW} = \frac{ks \times Ae \times Ap \times F}{6120 \times \eta} \text{ (KW)}$$

$$P_{HP} = \frac{ks \times Ae \times Ap}{F \times 4500 \times \eta} \text{ (HP)}$$

(b) 銑削加工

$$P_{KW} = \frac{ks \times Ae \times Ap \times F}{6120000 \times \eta} \text{ (KW)}$$

V: 切削速度 (m/min)

$\pi$ : 圓周率

D: 被削材的直徑 (mm) 亦即銑刀盤直徑 (mm)

N: 被削材的回轉數 (rpm) 亦即主軸的回轉數

f: 每刃之進給率 (mm/ 刃)

F: 床檯進給率 (m/min)

Z: 銑刀盤上之刀刃數

N: 主軸回轉數

T: 切削之時間

l: 加工長度

D: 加工物的直徑

f: 每一回之進給量或每一分之進給量

N: 主軸回轉數

Z: 銑刀盤上之刀刃數

V: 切削速度 (mm/min)

d: 切深 (mm)

f: 進給率 (mm/rev)

$\eta$ : 機械效率 (0.7-0.8)

ks: 切削抵抗值 (Kg/mm<sup>2</sup>)

Ae: 切削寬 (mm)

Ap: 切深 (mm)

F: 床檯 (TABLE) 進給 (mm/min)

$\eta$ : 機械效率 (0.7-0.8)

ks: 切削抵抗值 (Kg/mm<sup>2</sup>)

Ks 概略值	
軟鋼	190
中炭素鋼	210
高炭素鋼	240
低合金鋼	190
高合金鋼	245
鑄鐵	93
可鍛鑄鐵	120
青銅、黃銅	70



# 車削測試報告表

## TEST REPORT FOR TURNING

客戶名稱 Company name :

填表日期 Date: 年 Year/ 月 Month/ 日 Day  
填表人 Name:

公司名稱 CUSTOMER				電話 TEL			備註 REMARK
機械型式 MACHINE TYPE				馬力 HP			
加工材質 WORKPIECE MATERIAL							
刀柄規格 TOOL HOLDER							
刀片規格 INSERT							
原使用刀片廠牌規格 ORIGINAL USE INSERT							
刀片材質 INSERT GARDE					使用效果 EFFECT		
工件直徑 DIA					崩裂 CRACKING		
工件長度 LANGTH					熱熔著 MELTING		
轉速·轉 / 分 RPM					刃口積屑 BUILD-UP EDGE		
線速·米 / 分 CUTTING SPEED MM					耐磨耗 ABRASION RESISTANCE		
切深·MM D.O.C·MM					熱裂 HEAT TEARING		
進給·MM/轉 FEED·MM/REV					刃邊磨耗 EDGE WEAR		
床檯進給·MM/分 TABLE FEED							
刀具壽命 TOOL LIFE							
圖形 WORKPIECE DWG							

BT  
SBT  
DAT  
CAT  
NT  
ISO  
HSK  
HSK-T  
VDI  
PSC  
SAF  
TAP  
ACCESSORIES  
BORING  
AID  
INSERT  
MILLING  
TURNING



# 銑削測試報告表

## TEST REPORT FOR MILLING

客戶名稱 Company name : \_\_\_\_\_ 填表日期 Date: \_\_\_\_\_ 年 Year/ \_\_\_\_\_ 月 Month/ \_\_\_\_\_ 日 Day  
 填表人 Name: \_\_\_\_\_

1. 機械型號 ( 廠牌 ) Machine Model		主軸錐度 Spindle Tapper	
2. 刀具型號 Cutter Model		3. 刀具直徑 Cutter Diameter	
4. 刀具刃數 Cutter Teeth		5. 刀具材質 Cutter Material	
6. 加工材質 Cutting Material		工件硬度 Workpiece Hardness	
7. 加工型態 Cutting process Type		備註 ( 加工圖面 ) Remark (Drawing)	
<input type="checkbox"/> 凹槽加工 Grooving <input type="checkbox"/> 精銑 Finishing <input type="checkbox"/> 鑽銑 Drilling <input type="checkbox"/> 精銑 Finishing <input type="checkbox"/> 肩銑 Shoulder Milling <input type="checkbox"/> 面銑 Face Milling			
8. 主軸轉速 RPM		9. 線速度 ( 米速 ) Linier Speed	
10. 機械工作台進給 Table Feed		11. 進給 (mm/ 齒) Feed	
12. 切深速度 cut speed of depth		13. 切幅寬 width of cutting	
14. 加工壽命 Tool Life	工作數量 / 角 Working Piece	工作長 / 角 Length	加工時間 / 角 Time
15. 使用效果 Effect		<input type="checkbox"/> 非常良好 Superior <input type="checkbox"/> 良好 Good <input type="checkbox"/> 普通 Normal <input type="checkbox"/> 非常不良 Bad	
16. 目前使用之刀片 Current Use Insert		品 牌 Brand _____ 規 格 Spec. _____ 材 質 Material _____ 斷屑槽 Chipbreaker _____	
17. 刀片損壞原因 Reason of breaking insert		屑片 Chip	
18. 是否有冷卻液 Coolant Used		<input type="checkbox"/> 是 Yes <input type="checkbox"/> 否 No <input type="checkbox"/> 氣冷 Air Cooling	
19. 加工狀況 Cutting Condition		<input type="checkbox"/> 斷續切削 Interrupted <input type="checkbox"/> 連續切削 Continuous	
20. 採取對策 Action plan			



# 搪孔切削測試報告表

## TEST REPORT FOR BORING

客戶名稱 Company name :

填表日期 Date: 年 Year/ 月 Month/ 日 Day

填表人 Name: 主管 Director:

機械條件 Machining condition	廠牌型號 Machine Model		主軸內孔錐度 Spindle Tapper of inside hole	
	控制器 Controller		主軸驅動方式 Spindle driver	
刀具條件 Cutter feature				
搪孔刀具規格 Boring cutter spec.	搪孔刀柄 Boring holder		搪孔頭 Boring head	小搪孔桿 Small boring bar
搪孔刀片規格 Boring insert spec.			待加工圖面 rough drawing	
搪孔刀具刃數 Number of teeth for boring cutter				
切削條件 Cutting process				
搪孔型式 Boring process	<input type="checkbox"/> 粗搪 rough boring	<input type="checkbox"/> 中搪 medium boring	<input type="checkbox"/> 精搪 fine boring	
線速度 Linier Speed			m/min	
主軸轉速 RPM			rpm	
床檯進給 Table speed			mm/min	
每刃進給 feed per tooth			mm/t	
搪孔切屑量 Chip amount of boring			mm/min	
搪孔直徑 Diameter of boring			mm/min	
搪孔深度 Depth of boring			mm/min	
搪孔狀況 Boring process	<input type="checkbox"/> 連續切削 continuous		<input type="checkbox"/> 斷續切削 interrupted	
				鐵屑現況 Iron chip status
相關配套 Relevant Supporting data				
加工材質 Cutting material				
工件硬度 Workpiece hardness			HRC	HB
加工時間 Cutting time			sec/min	
使用切削液 Coolant usage	<input type="checkbox"/> 有 Yes	<input type="checkbox"/> 沒有 No	<input type="checkbox"/> 氣冷 Air Cooling	
出水方式 coolant way	<input type="checkbox"/> 中心出水 Coolant from center		<input type="checkbox"/> 端面出水 Coolant from face-end	
			<input type="checkbox"/> 側邊出水 Coolant from side-end	
夾持工件方式 Method of clamping workpiece	<input type="checkbox"/> 治具鎖定 ( 螺絲 ) Fixture screwed in (screw)		<input type="checkbox"/> 治具固定 ( 空、油壓方式 ) Fixture fixed ( by air / hydraulic)	
			<input type="checkbox"/> 虎鉗夾持 Vise clamping	
排屑情況 Chip status	<input type="checkbox"/> 長屑 Long chip		<input type="checkbox"/> 短屑 Short chip	
			<input type="checkbox"/> 卷屑 Coil chip	
採取對策方式 Action plan				

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