

# 多功能倒角 銑刀桿系列

Multipurpose Chamfering Toolholders Series

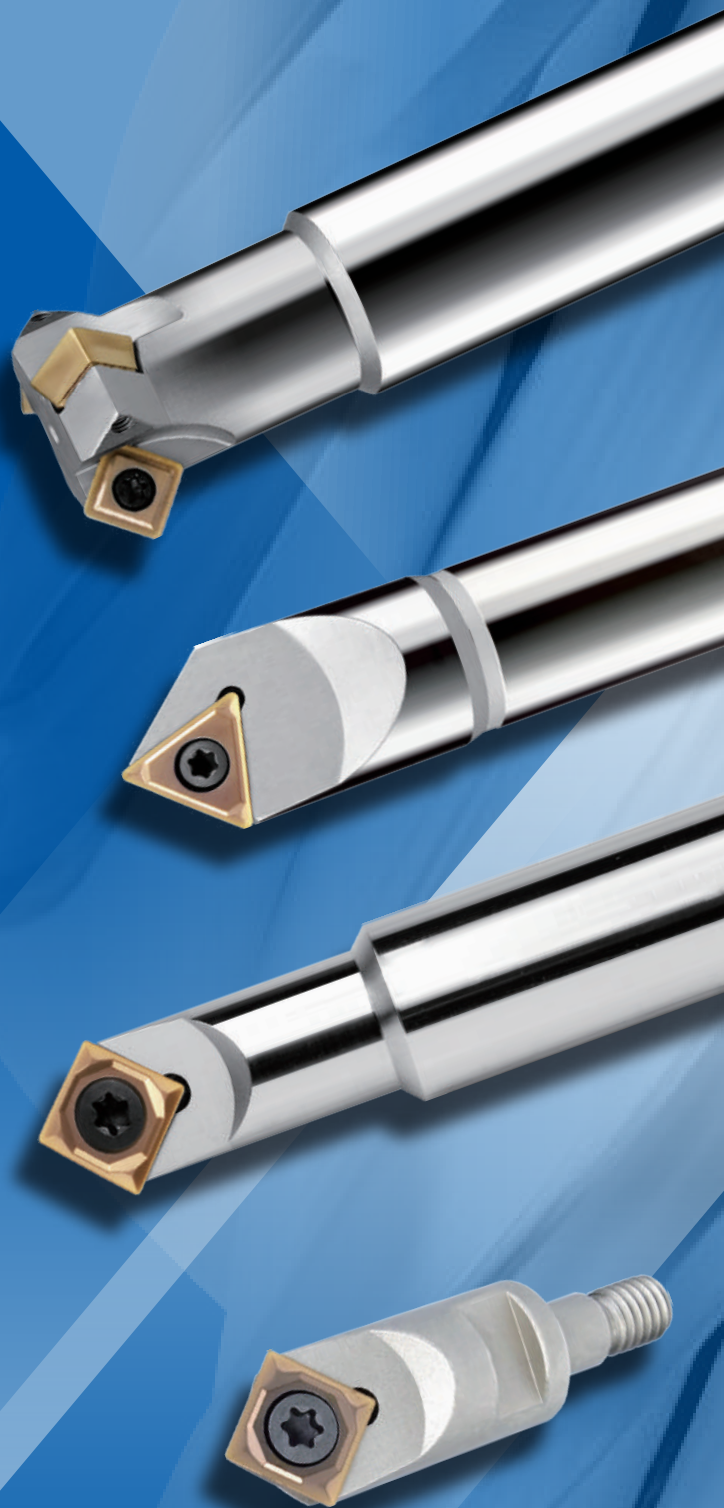
泛用鋼材  $\leq 50\text{HRC}$

不銹鋼

鋁合金 / 銅合金

鑄鐵

For general steel ( $\leq 50\text{HRC}$ ), stainless steel, cast iron and aluminum/copper alloy machining.



# 產品選擇表 Product Selection Table

## 鎢鋼倒角銑刀片 Carbide Chamfering Inserts

刀片單面使用 Single-Sided Inserts	 <p><b>SDMX</b> <span style="color:red">NEW</span></p> <p>P.344 0.4r</p>	 <p><b>SCGX</b></p> <p>P.344 0.4r (鋁用)</p>	 <p><b>SCGX</b></p> <p>P.344 0.4r</p>	 <p><b>SCMX</b></p> <p>P.344 0.4r</p>
	 <p><b>TCGX</b></p> <p>P.344 0.8r (鋁用)</p>	 <p><b>TCGX</b></p> <p>P.344 0.8r</p>	 <p><b>TCMX</b></p> <p>P.344 0.8r</p>	 <p><b>DCEX</b></p> <p>P.344 0.1~0.4r</p>
	 <p><b>DCEX</b></p> <p>P.344 0.1~0.8r</p>	 <p><b>SPMG</b></p> <p>P.345 0.4~0.8r</p>		

## 多功能倒角加工 Multipurpose Chamfering

刀片單面使用 Single-Sided Inserts	 <p><b>ECSD</b> <span style="color:red">NEW</span></p> <p>P.346 <math>\phi</math> 5.5</p>	 <p><b>ECSC</b></p> <p>P.347 <math>\phi</math> 13</p>	 <p><b>HCSC</b></p> <p>P.347 <math>\phi</math> 13</p>	 <p><b>ECTCX</b></p> <p>P.348 <math>\phi</math> 20</p>
	 <p><b>ECDC</b></p> <p>P.349 <math>\phi</math> 12</p>			

# 產品選擇表 Product Selection Table

## 倒角加工 Chamfering

刀片單面使用  
Single-Sided  
Inserts



## 鎢鋼抗震刀桿 Carbide Vibration Holder



計算倒角加工  
寬度 Ae  
How to calculate  
Chamfering  
width(Ae)

P.353

# 鎢鋼倒角銑刀片

## CARBIDE CHAMFERING INSERTS

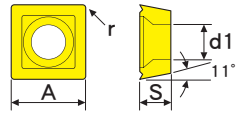
加工材質	P	鋼材 Alloy Steels	-			○	◎	◎	◎：第一推薦 First Recommend ○：第二推薦 Second Recommend -：不推薦 NO Recommend					
	M	不銹鋼 Stainless Steels	-			○	◎	◎						
	K	鑄鐵 Cast Iron	-			○	◎	◎						
加工材質	N	鋁合金 Aluminum Alloys	◎			-	-	-	F：精加工 Finishing S：半精加工 Semi Finishing M：中加工 Medium R：粗加工 Roughing					
	S	高溫合金 High Temp Alloys	-			○	◎	◎						
	H	調質鋼 Hardened Steels	-			◎	◎	◎						
刀片 Insert	訂購編號 Order No.	材質碼 Grade						尺寸 Dimension (mm)					刀片 2D 圖 Drawing	刀桿頁數 Tool Page
		CVD		PVD				A	B	S	r	d1		
CM110	CM6337	CM6347	CM6213	CM6223	CM6032	CM6233	CM6243							
應用於倒角加工、定點加工、開 V 槽加工、雕刻加工【刀片單面使用】。 Chamfering & Countersinking, Spotting, V-Grooving, Engraving【Single-Sided Inserts】.														
	SDMX05T104-FG				●		●	-	-	-	-	-		346
F	S	M	R											
	SCGX09T304-AG	●						9.53	9.53	3.97	0.4	4.4		347
F	S	M	R											
	SCGX09T304-FG				●			9.53	9.53	3.97	0.4	4.4		
F	S	M	R											
	SCMX09T304-SM						●	9.53	9.53	3.97	0.4	4.4		348
F	S	M	R											
	TCGX16T308-AG	●						16.5	-	3.97	0.8	-		
F	S	M	R											
	TCGX16T308-FG						●	16.5	-	3.97	0.8	-		349
F	S	M	R											
	TCMX16T308-SM						●	16.5	-	3.97	0.8	-		
F	S	M	R											
	DCEX11T301-FX						●	-	-	3.97	0.1	-		349
F	S	M	R											
	DCEX11T302-FX						●	-	-	3.97	0.2	-		
F	S	M	R											
	DCEX11T304-FX						●	-	-	3.97	0.4	-		
F	S	M	R											
	DCEX11T301						●	-	-	3.97	0.1	-		349
F	S	M	R											
	DCEX11T302						●	-	-	3.97	0.2	-		
F	S	M	R											
	DCEX11T304						●	-	-	3.97	0.4	-		
F	S	M	R											
	DCEX11T308						●	-	-	3.97	0.8	-		
F	S	M	R											

→ 切削條件表 Cutting Condition P.608, 618

# 鎢鋼倒角銑刀片

## CARBIDE CHAMFERING INSERTS

加工材質	P	鋼材 Alloy Steels						◎	◎	◎	◎：第一推薦 First Recommend ○：第二推薦 Second Recommend -：不推薦 NO Recommend				
	M	不銹鋼 Stainless Steels						◎	◎	◎					
	K	鑄鐵 Cast Iron						◎	◎	◎					
加工材質	N	鋁合金 Aluminum Alloys						-	-	-	F：精加工 Finishing S：半精加工 Semi Finishing M：中加工 Medium R：粗加工 Roughing				
	S	高溫合金 High Temp Alloys						◎	◎	◎					
	H	調質鋼 Hardened Steels						◎	◎	-					
刀片 Insert	訂購編號 Order No.	材質碼 Grade						尺寸 Dimension (mm)					刀片 2D 圖 Drawing	刀桿頁數 Tool Page	
		CVD			PVD			A	B	S	r	d1			
		CM110	CM6337	CM6347	CM6213	CM6223	CM6032	CM6233	CM6243						
應用於倒角加工【刀片單面使用】。 Chamfering【Single-Sided Inserts】。															
	T	SPMG050204-MG					●	●	●	5.00	-	2.38	0.4	2.30	
F	S	M	R												
	T	SPMG060204-MG					●	●	●	6.00	-	2.38	0.4	2.65	
F	S	M	R												
	T	SPMG07T308-MG					●	●	●	7.94	-	3.97	0.8	2.85	
F	S	M	R												
	T	SPMG090408-MG					●	●	●	9.80	-	4.30	0.8	4.05	
F	S	M	R												
	T	SPMG090408-RG					●	●	●	9.80	-	4.30	0.8	4.05	
F	S	M	R												
	T	SPMG110408-MG					●	●	●	11.5	-	4.80	0.8	4.45	
F	S	M	R												
	T	SPMG110408-RG					●	●	●	11.5	-	4.80	0.8	4.45	
F	S	M	R												



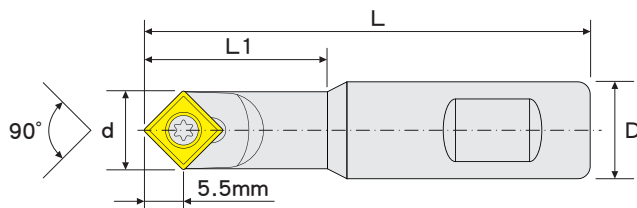
350

→ 切削條件表 Cutting Condition P.609



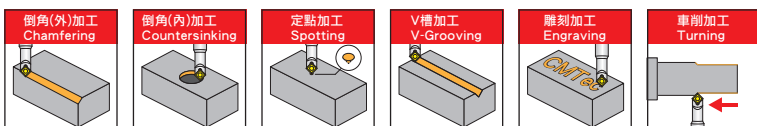
# ECSC 多功能倒角型銑刀桿

## MULTIPURPOSE- CHAMFERING TOOLHOLDERS- ECSC



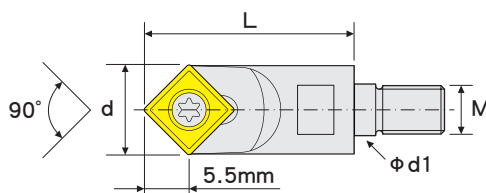
181

訂購編號 Order No.	尺寸 Dimensions (mm)				刀片 數量 Teeth	搭配刀片 Insert	Screw	Wrench
	d	L1	L	D				
ECSC09-01013-100L	13	29	100	10	1	SCGX09T3.. SCMX09T3..	TS3520	ETF15
ECSC09-01013-100L-12	13	29	100	12	1			
ECSC09-01013-100L-16	13	29	100	16	1			
ECSC09-01013-150L-16	13	29	150	16	1			



→ 搭配刀片  
Insert P.344

→ 切削條件表  
Cutting Condition P.608



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訂購編號 Order No.	尺寸 Dimensions (mm)				刀片 數量 Teeth	搭配刀片 Insert	Wrench	Screw	Wrench
	d	L1	d1	M					
HCSC09-01013	13	30	6.5	M6	1	SCGX09T3.. SCMX09T3..	TC08	TS3520	ETF15



→ 搭配刀片  
Insert P.344

→ 切削條件表  
Cutting Condition P.608

→ 搭配刀桿  
Holder P.351, 352

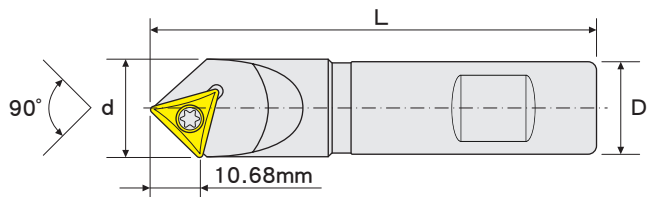
※ 型號後端 -C 為出水孔設計。 Product number end in -C are coolant-through design.

應用材質 Work Material	碳素鋼 Carbon Steels	合金鋼 Alloy Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels	鑄鐵 Cast Iron	鋁合金 Aluminum Alloys	高溫合金 High-Temp Alloys
	HRC<20	HRC20~30	HRC30~45	HRC45~55	HRC55~63		HRC<30		HRC<30
	◎	◎	◎	○	—	◎	◎	◎	○

◎：第一推薦 First Recommend ○：第二推薦 Second Recommend —：不推薦 NO Recommend

# ECTCX 多功能倒角型銑刀桿

## MULTIPURPOSE- CHAMFERING TOOLHOLDERS- ECTCX

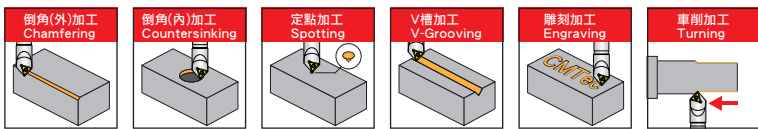


181

訂購編號 Order No.	尺寸 Dimensions (mm)				刀片 數量 Teeth	搭配刀片 Insert	Screw 	Wrench 
	d	—	L	D				
ECTCX16-01020-120L	20	—	120	20	1	TCGX16T3..	TS3521	ETF15
ECTCX16-01020-150L	20	—	150	20	1	TCMX16T3..		

MILLING Chamfering Toolholders

倒角銑刀桿



→ 搭配刀片 Insert P.344     → 切削條件表 Cutting Condition P.608

※ 型號後端 -C 為出水孔設計。 Product number end in -C are coolant-through design.

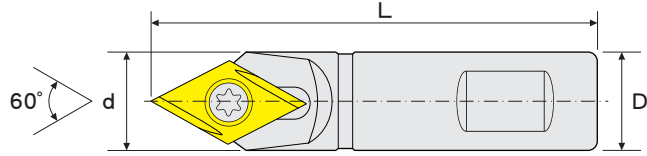
應用材質 Work Material	碳素鋼 Carbon Steels	合金鋼 Alloy Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels	鑄鐵 Cast Iron	鋁合金 Aluminum Alloys	高溫合金 High-Temp Alloys
	HRC<20	HRC20~30	HRC30~45	HRC45~55	HRC55~63		HRC<30		HRC<30
	◎	◎	◎	○	—	○	◎	◎	○

◎ : 第一推薦 First Recommend    ○ : 第二推薦 Second Recommend    — : 不推薦 NO Recommend



# ECDC 多功能倒角型銑刀桿

## MULTIPURPOSE- CHAMFERING TOOLHOLDERS- ECDC



181

訂購編號 Order No.	尺寸 Dimensions (mm)				刀片 數量 Teeth	搭配刀片 Insert	Screw	Wrench
	d	—	L	D				
ECDC11-01012-060L	12	—	60	10	1	DCEX11T3..	TS3520	ETF15
ECDC11-01012-100L	12	—	100	12	1			

倒角(外)加工  
Chamfering

倒角(內)加工  
Countersinking

定點加工  
Spotting

V槽加工  
V-Grooving

雕刻加工  
Engraving

車削加工  
Turning

→ 搭配刀片  
Insert P.344

→ 切削條件表  
Cutting Condition P.608

※ 型號後端 -C 為出水孔設計。 Product number end in -C are coolant-through design.

應用材質 Work Material	碳素鋼 Carbon Steels	合金鋼 Alloy Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels	鑄鐵 Cast Iron	鋁合金 Aluminum Alloys	高溫合金 High-Temp Alloys
	HRC<20	HRC20~30	HRC30~45	HRC45~55	HRC55~63		HRC<30		HRC<30
	◎	◎	◎	○	—	○	◎	—	○

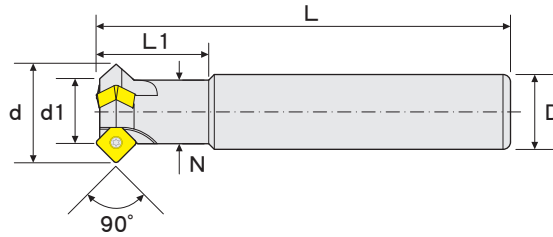
◎ : 第一推薦 First Recommend    ○ : 第二推薦 Second Recommend    — : 不推薦 NO Recommend

MILLING  
Chamfering Toolholders

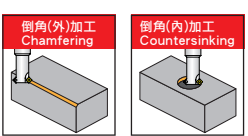
倒角銑刀桿

# ECSP 倒角型銑刀桿

## CHAMFERING TOOLHOLDERS- ECSP



訂購編號 Order No.	尺寸 Dimensions (mm)						刀片 數量 Teeth	搭配刀片 Insert	Screw	Wrench
	d	d1	L1	N	L	D				
ECSP05-02015-120L	15	8.26	20	10	120	12	2	SPMG0502..	TS2003	ETF06
ECSP05-03017-150L	17	10.26	25	11	150	16	3			
ECSP05-03019-150L	19	12.26	30	13	150	16	3			
ECSP05-04024-150L	24	17.26	35	18	150	20	4			
ECSP06-03022-120L	22	13.85	30	16	120	16	3	SPMG0602..	TS2205	ETF06
ECSP07-03027-120L	27	16.44	30	17	120	20	3	SPMG07T3..	TS2511	ETF08
ECSP09-02030-150L	30	16.80	40	19	150	20	2	SPMG0904..	TS3504	ETF15
ECSP09-03040-150L	40	26.80	40	29	150	25	3			
ECSP09-04050-150L	50	36.80	40	39	150	25	4			



→ 搭配刀片 P.345 Insert      → 切削條件表 P.609 Cutting Condition

※ 型號後端 -C 為出水孔設計。 Product number end in -C are coolant-through design.

應用材質 Work Material	碳素鋼 Carbon Steels	合金鋼 Alloy Steels		調質鋼 Hardened Steels		不銹鋼 Stainless Steels	鑄鐵 Cast Iron	鋁合金 Aluminum Alloys	高溫合金 High-Temp Alloys
	HRC<20	HRC20~30	HRC30~45	HRC45~55	HRC55~63		HRC<30		HRC<30
	◎	◎	◎	○	—	◎	◎	—	○

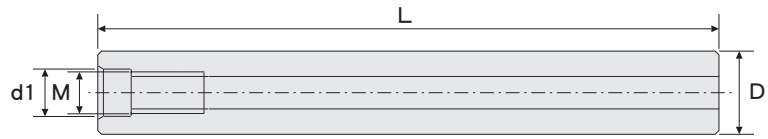
◎：第一推薦 First Recommend    ○：第二推薦 Second Recommend    —：不推薦 NO Recommend

MILLING Chamfering Toolholders

倒角銑刀桿

# 鎢鋼抗震刀桿

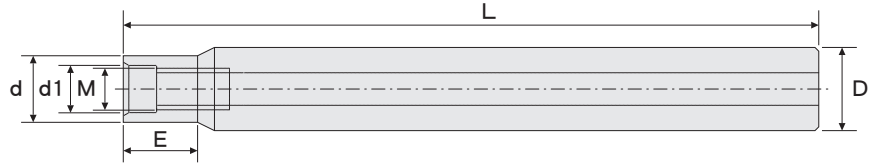
## CARBIDE ANTI-VIBRATION HOLDER



訂購編號 Order No.	尺寸 Dimensions (mm)			
	螺紋 Thread	柄徑 D	d1	全長 L
LCL008-060L	M4 × 0.7	8	4.5	60
LCL008-100L	M4 × 0.7	8	4.5	100
LCL008-120L	M4 × 0.7	8	4.5	120
LCL010-075L	M5 × 0.8	10	5.5	75
LCL010-100L	M5 × 0.8	10	5.5	100
LCL010-150L	M5 × 0.8	10	5.5	150
LCL012-075L	M6 × 1.0	12	6.5	75
LCL012-100L	M6 × 1.0	12	6.5	100
LCL012-150L	M6 × 1.0	12	6.5	150
LCL012-200L	M6 × 1.0	12	6.5	200
LCL016-100L	M8 × 1.25	16	8.5	100
LCL016-150L	M8 × 1.25	16	8.5	150
LCL016-200L	M8 × 1.25	16	8.5	200
LCL016-250L	M8 × 1.25	16	8.5	250
LCL020-100L	M10 × 1.5	20	10.5	100
LCL020-150L	M10 × 1.5	20	10.5	150
LCL020-200L	M10 × 1.5	20	10.5	200
LCL020-250L	M10 × 1.5	20	10.5	250
LCL020-300L	M10 × 1.5	20	10.5	300
LCL025-100L	M12 × 1.75	25	12.5	100
LCL025-150L	M12 × 1.75	25	12.5	150
LCL025-200L	M12 × 1.75	25	12.5	200
LCL025-250L	M12 × 1.75	25	12.5	250
LCL025-300L	M12 × 1.75	25	12.5	300
LCL032-100L	M16 × 2.0	32	17.0	100
LCL032-150L	M16 × 2.0	32	17.0	150
LCL032-200L	M16 × 2.0	32	17.0	200
LCL032-250L	M16 × 2.0	32	17.0	250
LCL032-300L	M16 × 2.0	32	17.0	300

# 鎢鋼抗震刀桿 - 頸型

## CARBIDE ANTI-VIBRATION HOLDER- NECK



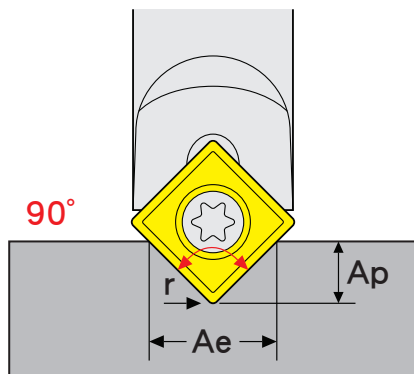
訂購編號 Order No.	尺寸 Dimensions (mm)					
	螺紋 Thread	刃徑 d	d1	有效長 E	全長 L	柄徑 D
LCN011-075L-030E	M6 × 1.0	11.7	6.5	30	75	12
LCN011-100L-040E	M6 × 1.0	11.7	6.5	40	100	12
LCN011-150L-050E	M6 × 1.0	11.7	6.5	50	150	12
LCN015-100L-040E	M8 × 1.25	15.7	8.5	40	100	16
LCN015-150L-050E	M8 × 1.25	15.7	8.5	50	150	16
LCN019-100L-040E	M10 × 1.5	19.5	10.5	40	100	20
LCN019-150L-050E	M10 × 1.5	19.5	10.5	50	150	20
LCN019-200L-060E	M10 × 1.5	19.5	10.5	60	200	20
LCN024-100L-040E	M12 × 1.75	24.5	12.5	40	100	25
LCN024-150L-050E	M12 × 1.75	24.5	12.5	50	150	25
LCN024-200L-060E	M12 × 1.75	24.5	12.5	60	200	25
LCN024-250L-080E	M12 × 1.75	24.5	12.5	80	250	25
LCN031-100L-040E	M16 × 2.0	31.5	17.0	40	100	32
LCN031-150L-050E	M16 × 2.0	31.5	17.0	50	150	32
LCN031-200L-060E	M16 × 2.0	31.5	17.0	60	200	32
LCN031-250L-080E	M16 × 2.0	31.5	17.0	80	250	32

MILLING Chamfering Toolholders

倒角銑刀桿

# 計算倒角加工寬度 Ae

## How to calculate Chamfering width(Ae)



倒角角度 90°

Chamfering Angle 90°

Formula :

$$\text{公式 : } Ae \cong 2 \times (Ap + 0.4r)$$

範例 1.

倒角角度 = 90°

加工深度 Ap = 1mm

刀尖 r 角 = 0.4mm

求加工寬度 Ae?

$$\begin{aligned} Ae &\cong 2 \times (Ap + 0.4r) \\ &\cong 2 \times (1 + (0.4 \times 0.4)) \\ &\cong 2 \times 1.16 \\ &\cong \mathbf{2.32mm} \end{aligned}$$

範例 2.

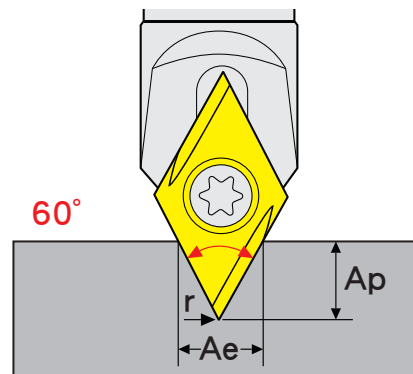
倒角角度 = 90°

加工深度 Ap = 3mm

刀尖 r 角 = 0.4mm

求加工寬度 Ae?

$$\begin{aligned} Ae &\cong 2 \times (Ap + 0.4r) \\ &\cong 2 \times (3 + (0.4 \times 0.4)) \\ &\cong 2 \times 3.16 \\ &\cong \mathbf{6.32mm} \end{aligned}$$



倒角角度 60°

Chamfering Angle 60°

Formula :

$$\text{公式 : } Ae \cong 0.58 \times (Ap + r) \times 2$$

範例 3.

倒角角度 = 60°

加工深度 Ap = 1mm

刀尖 r 角 = 0.1mm

求加工寬度 Ae?

$$\begin{aligned} Ae &\cong 0.58 \times (Ap + r) \times 2 \\ &\cong 0.58 \times (1 + 0.1) \times 2 \\ &\cong 0.58 \times 1.1 \times 2 \\ &\cong \mathbf{1.27mm} \end{aligned}$$

範例 4.

倒角角度 = 60°

加工深度 Ap = 3mm

刀尖 r 角 = 0.4mm

求加工寬度 Ae?

$$\begin{aligned} Ae &\cong 0.58 \times (Ap + r) \times 2 \\ &\cong 0.58 \times (3 + 0.4) \times 2 \\ &\cong 0.58 \times 3.4 \times 2 \\ &\cong \mathbf{3.94mm} \end{aligned}$$

MEMO



Lined area for writing notes, consisting of 25 horizontal lines.

MILLING

Chamfering Toolholders

倒角銑刀桿