

2025



Threading

螺紋刀具



• Index	• 索引 E002
• Thread Milling Tools	• 螺紋銑削刀具
- Solid Carbide Thread Mills	- 全鎢鋼螺紋銑刀
ETS Series (ISO M · 1 Thread)	ETS 系列 (ISO M · 單牙)..... E008
ETT Series (ISO M / UN · 3 Threads)	ETT 系列 (ISO M / UN · 三牙)... E009
ETL Multifunctional (ISO M / UN · 3 Threads)	ETL 多功能 (ISO M / UN · 三牙)... E013
ETM Series (ISO M / UN · Multi-Threads)	ETM 系列 (ISO M / UN · 多牙)... E015
ETM□PT Series (BSPT · Multi-Threads)	ETM□PT 系列 (BSPT · 多牙)... E018
ETM□NT Series (NPT · Multi-Threads)	ETM□NT 系列 (NPT · 多牙).... E019
ETD Series Drill&Thread Mills (ISO M)	ETD 螺紋鑽銑刀 (ISO M)..... E020
- Modular Carbide Thread Mills	- 模組化螺紋銑刀
ETMMM Modular Thread Mills (ISO M)	ETMMM 模組化螺紋銑刀 (ISO M)... E022
- Indexable Thread Milling Tools	- 捨棄式螺紋銑刀
CXMT Indexable Thread Milling Holders	CXMT 捨棄式螺紋銑刀桿 E023
LNEX Thread Milling Inserts (ISO M / UN)	LNEX 螺紋銑刀片 (ISO M / UN) ... E025
LNEX Thread Milling Inserts (BSPT / NPT)	LNEX 螺紋銑刀片 (BSPT / NPT) ... E027
• Thread Turning Tools	• 螺紋車削刀具
- Solid Carbide Thread Boring Bars	- 鎢鋼內徑螺紋車刀 E028
- Thread Turning Inserts (ISO M / UN)	- 螺紋車刀片 (ISO M / UN)..... E032
- Thread Turning Holders	- 螺紋車刀桿 E048
• Tapping Tools	• 絲攻
- TKS Solid Carbide Spiral Fluted Taps	- TKS 全鎢鋼螺旋絲攻 E055
- TKT Solid Carbide Straight Fluted Taps	- TKT 全鎢鋼直刃絲攻 E057
- THT Solid Carbide Straight Fluted Taps	- THT 全鎢鋼直刃絲攻 E059
- TNF Solid Carbide Forming Taps	- TNF 全鎢鋼無屑絲攻 E061

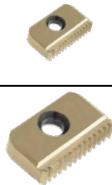
Solid Carbide Thread Mills 全鎢鋼螺紋銑刀

Code No.	Appearance	Pitch	No. of Threads	 Thread milling	 Chamfering	 Helical drilling	 Drilling	P	M	K	N	S	H	Page
ETS	 ETSN	TP 0.25~1.75	1	✓				●	●	●		○	○	E008
ETT	 ETTN	TP 0.35~2.5	3	✓				●	●	●		○	○	E009
		TPI 36~10												E010
	 ETTC	TP 0.45~2.5	3	✓				●	●	●		○	○	E009
		TPI 36~10												E010
ETTR	 ETTRN	TP 0.35~2.5	3	✓				○	●	○		●	●	E011
		TPI 36~10												E012
	 ETTRC	TP 0.45~2.5	3	✓				○	●	○		●	●	E011
		TPI 36~10												E012
ETL (Left hand cutting)	 ETLN	TP 0.7~2.0	3	✓	✓	✓		●	●	●		○	○	E013
		TPI 40~11												E014
	 ETLC	TP 0.5~2.0	3	✓	✓	✓		●	●	●		○	○	E013
		TPI 36~13												E014
ETM	 ETMN	TP 1~2.5	12~24	✓				●	●	●		○	○	E015
		TPI 36~8												E017
	 ETMC	TP 1~1.5	12~24	✓				●	●	●		○	○	E016
ETM□PT (BSPT)	 ETMNPT	TPI 28~11	18~25	✓				●	●	●		○	○	E018
	 ETMCPT	TPI 28~11	18~25	✓				●	●	●		○	○	E018
ETM□NT (NPT)	 ETMNNT	TPI 27~8	10~15	✓				●	●	●		○	○	E019
	 ETMCNT	TPI 27~8	10~15	✓				●	●	●		○	○	E019
ETD	 ETDN	TP 0.8~1.5	11~12	✓	✓		✓			●	●			E020

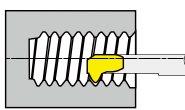
Modular Carbide Thread Mills 模組化螺紋銑刀

Code No.	Appearance	Name	Pitch		No. of Threads	P	M	K	N	S	H	Page
ETMMM		Modular Thread Mills - ISO M 模組化螺紋銑刀 - ISO M	TP	0.5~3	5 ~ 16	●	●	●	○	●	●	E022

Indexable Thread Milling Tools 捨棄式螺紋銑刀

Code No.	Appearance	Name	Type	Pitch	P	M	K	N	S	H	Page
ICXMT		Thread Milling Tools 捨棄式螺紋銑刀	1 Flute	Use Insert : LNEX14 / LNEX21 / LNHT14 / LNHT21							E023
	2 Flute										
ILNEX		Thread Milling Insert 螺紋銑刀片	LNEX14 - ISO M	TP	0.75~2.5	●	○	●	○	●	E025
			LNEX14 - UN	TPI	10~32	●	○	●	○	●	E026
			LNEX21 - ISO M	TP	1~3	●	○	●	○	●	E025
			LNEX21- UN	TPI	10~24	●	○	●	○	●	E026
ILNHT			LNHT14 - BSPT	TPI	14~19	●	○	●	○	●	E027
			LNHT14 - NPT	TPI	14~18	●	○	●	○	●	
			LNHT21- BSPT	TPI	11~14	●	○	●	○	●	
			LNHT21 - NPT	TPI	11.5~14	●	○	●	○	●	

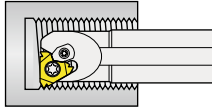
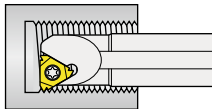
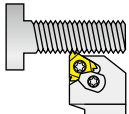
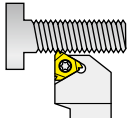
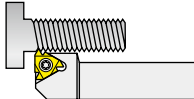
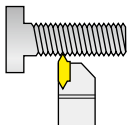
Solid Carbide Thread Turning Bars 全鎢鋼內徑螺紋車刀

Code No.	Appearance		Name	Min. Bore Dia.	Page
DLTSR			Carbide Internal Thread (ISO Metric 60°) 全鎢鋼內徑螺紋車刀 (ISO Metric 60°)	3.2 ~ 6.1	E028
DLTMR			Carbide Internal Thread (Partial Profile 60°) 全鎢鋼內徑螺紋車刀 (泛用牙 60°)	2.6 ~ 10.0	E029
DLS			Sleeves 內徑搪刀套筒	—	E030

Thread Turning Inserts 螺紋車刀片

Code No.	Thread Standard	Insert Sharp	Thread Pitch	Applicable Holder	Page															
I11 I16 I22	Partial Profile 60°	 Regular Type	<table><tr><td></td><td>TP (mm)</td><td>TPI</td></tr><tr><td>A</td><td>0.5 ~ 1.5</td><td>48 ~ 16</td></tr><tr><td>AG</td><td>0.5 ~ 3.0</td><td>48 ~ 8</td></tr><tr><td>G</td><td>1.75 ~ 3.0</td><td>14 ~ 8</td></tr><tr><td>N</td><td>3.5 ~ 5.0</td><td>7 ~ 5</td></tr></table>		TP (mm)	TPI	A	0.5 ~ 1.5	48 ~ 16	AG	0.5 ~ 3.0	48 ~ 8	G	1.75 ~ 3.0	14 ~ 8	N	3.5 ~ 5.0	7 ~ 5	SN... SE... SKE...	E032
		TP (mm)	TPI																	
A		0.5 ~ 1.5	48 ~ 16																	
AG	0.5 ~ 3.0	48 ~ 8																		
G	1.75 ~ 3.0	14 ~ 8																		
N	3.5 ~ 5.0	7 ~ 5																		
I22	 U Type	<table><tr><td></td><td>TP (mm)</td><td>TPI</td></tr><tr><td>U</td><td>5.5 ~ 8.0</td><td>4.5 ~ 3.25</td></tr></table>		TP (mm)	TPI	U	5.5 ~ 8.0	4.5 ~ 3.25	—											
	TP (mm)	TPI																		
U	5.5 ~ 8.0	4.5 ~ 3.25																		
I16		 Vertical Type	<table><tr><td></td><td>TP (mm)</td><td>TPI</td></tr><tr><td>A</td><td>0.5 ~ 1.5</td><td>48 ~ 16</td></tr><tr><td>AG</td><td>0.5 ~ 2.5</td><td>48 ~ 10</td></tr><tr><td>G</td><td>1.75 ~ 2.5</td><td>14 ~ 10</td></tr></table>		TP (mm)	TPI	A	0.5 ~ 1.5	48 ~ 16	AG	0.5 ~ 2.5	48 ~ 10	G	1.75 ~ 2.5	14 ~ 10	KTTX...	E034			
	TP (mm)	TPI																		
A	0.5 ~ 1.5	48 ~ 16																		
AG	0.5 ~ 2.5	48 ~ 10																		
G	1.75 ~ 2.5	14 ~ 10																		
I11 I16 I22	Partial Profile 55°	 Regular Type	<table><tr><td></td><td>TP (mm)</td><td>TPI</td></tr><tr><td>A</td><td>0.5 ~ 1.5</td><td>48 ~ 16</td></tr><tr><td>AG</td><td>0.5 ~ 3.0</td><td>48 ~ 8</td></tr><tr><td>G</td><td>1.75 ~ 3.0</td><td>14 ~ 8</td></tr><tr><td>N</td><td>3.5 ~ 5.0</td><td>7 ~ 5</td></tr></table>		TP (mm)	TPI	A	0.5 ~ 1.5	48 ~ 16	AG	0.5 ~ 3.0	48 ~ 8	G	1.75 ~ 3.0	14 ~ 8	N	3.5 ~ 5.0	7 ~ 5	SN... SE... SKE...	E035
		TP (mm)	TPI																	
A		0.5 ~ 1.5	48 ~ 16																	
AG	0.5 ~ 3.0	48 ~ 8																		
G	1.75 ~ 3.0	14 ~ 8																		
N	3.5 ~ 5.0	7 ~ 5																		
I22	 U Type	<table><tr><td></td><td>TP (mm)</td><td>TPI</td></tr><tr><td>U</td><td>5.5 ~ 8.0</td><td>4.5 ~ 3.25</td></tr></table>		TP (mm)	TPI	U	5.5 ~ 8.0	4.5 ~ 3.25	—											
	TP (mm)	TPI																		
U	5.5 ~ 8.0	4.5 ~ 3.25																		
I16		 Vertical Type	<table><tr><td></td><td>TP (mm)</td><td>TPI</td></tr><tr><td>A</td><td>0.5 ~ 1.5</td><td>48 ~ 16</td></tr><tr><td>AG</td><td>0.5 ~ 2.5</td><td>48 ~ 10</td></tr><tr><td>G</td><td>1.75 ~ 2.5</td><td>14 ~ 10</td></tr></table>		TP (mm)	TPI	A	0.5 ~ 1.5	48 ~ 16	AG	0.5 ~ 2.5	48 ~ 10	G	1.75 ~ 2.5	14 ~ 10	KTTX...	E037			
	TP (mm)	TPI																		
A	0.5 ~ 1.5	48 ~ 16																		
AG	0.5 ~ 2.5	48 ~ 10																		
G	1.75 ~ 2.5	14 ~ 10																		
I11 I16 I22	ISO 60°	 Regular Type	<table><tr><td>TP (mm)</td></tr><tr><td>0.35 ~ 5.0</td></tr></table>	TP (mm)	0.35 ~ 5.0	SN... SE... SKE...	E038													
TP (mm)																				
0.35 ~ 5.0																				
I22	 U Type	<table><tr><td>TP (mm)</td></tr><tr><td>5.5 ~ 6.0</td></tr></table>	TP (mm)	5.5 ~ 6.0	—															
TP (mm)																				
5.5 ~ 6.0																				
I16		 Vertical Type	<table><tr><td>TP (mm)</td></tr><tr><td>0.5 ~ 2.5</td></tr></table>	TP (mm)	0.5 ~ 2.5	KTTX...	E042													
TP (mm)																				
0.5 ~ 2.5																				
I11 I16 I22	UN 60°	 Regular Type	<table><tr><td>TPI</td></tr><tr><td>32 ~ 5</td></tr></table>	TPI	32 ~ 5	SN... SE... SKE...	E043													
TPI																				
32 ~ 5																				
I22		 Vertical Type	<table><tr><td>TPI</td></tr><tr><td>32 ~ 10</td></tr></table>	TPI	32 ~ 10	KTTX...	E047													
TPI																				
32 ~ 10																				

Thread Turning Holders 螺紋車刀桿

Code No.	Holder Sharp	Type	Applicable Insert	Min. Bore Dia.	Page
SN ^R / _L ...CL		Internal	16I ^R / _L 22I ^R / _L (Regular Type Insert)	24mm~40mm	E048
SN ^R / _L ...			16I ^R / _L 22I ^R / _L (Regular Type Insert)	13mm~40mm	E049
SE ^R / _L ...CL		External	16E ^R / _L (Regular Type Insert)	10mm~32mm	E050
SE ^R / _L ...			16E ^R / _L 22E ^R / _L (Regular Type Insert)	12mm~32mm	E050
SKE ^R / _L ...			16E ^R / _L (Regular Type Insert)	12mm~25mm	E051
KTTX ^R / _L ...			16VE ^R / _L (Vertical Type Insert)	10mm~25mm	E051

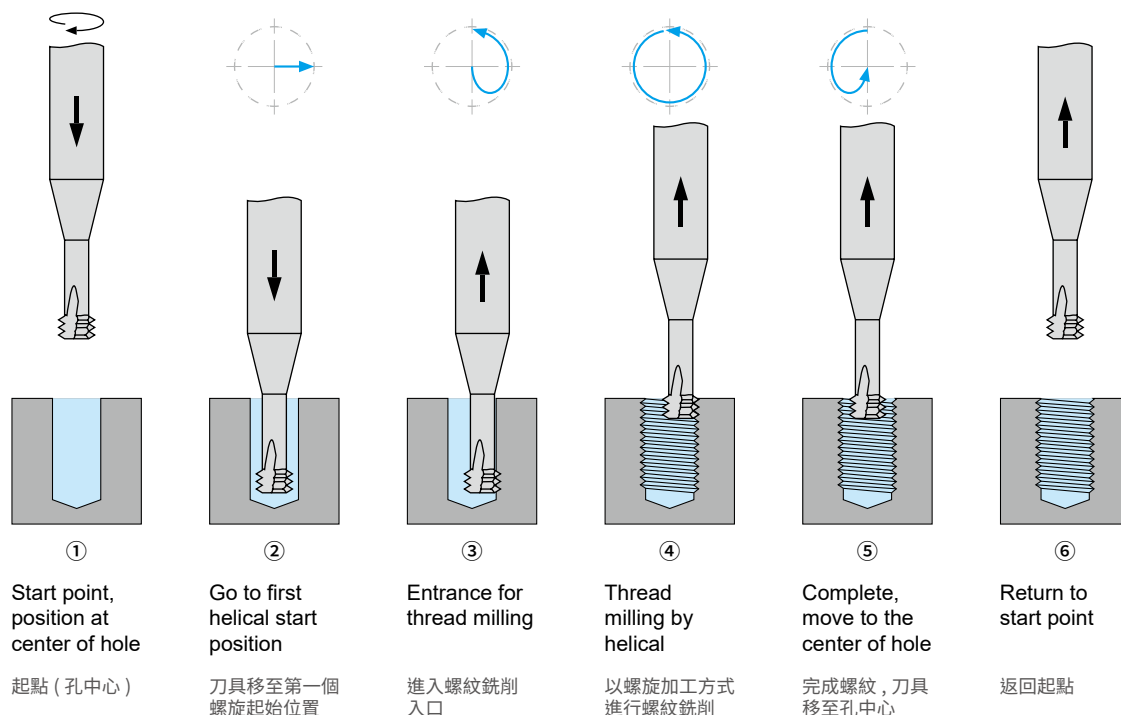
Tapping Tools 絲攻

Code No.	Appearance	Name	Thread Size	P	M	K	N	S	H	Page
TKSNM		Solid Carbide Spiral Fluted Taps 全鎢鋼螺旋絲攻	M5 ~ M12	○		●	●			E055
TKSCM		Solid Carbide Spiral Fluted Taps with Internal Coolant 全鎢鋼內冷螺旋絲攻	M5 ~ M12	○		●	●			E056
TKTNM		Solid Carbide Straight Fluted Taps 全鎢鋼直刃絲攻	M3 ~ M16			●	●			E057
TKTCM		Solid Carbide Straight Fluted Taps with Internal Coolant 全鎢鋼內冷直刃絲攻	M3 ~ M16			●	●			E058
THTNM		Solid Carbide Straight Fluted Taps 全鎢鋼直刃絲攻	M3 ~ M16						●	E059
THTCM		Solid Carbide Straight Fluted Taps with Internal Coolant 全鎢鋼內冷直刃絲攻	M3 ~ M16						●	E060
TNFM		Solid Carbide Forming Taps 全鎢鋼無屑絲攻	M1 ~ M6				●			E061

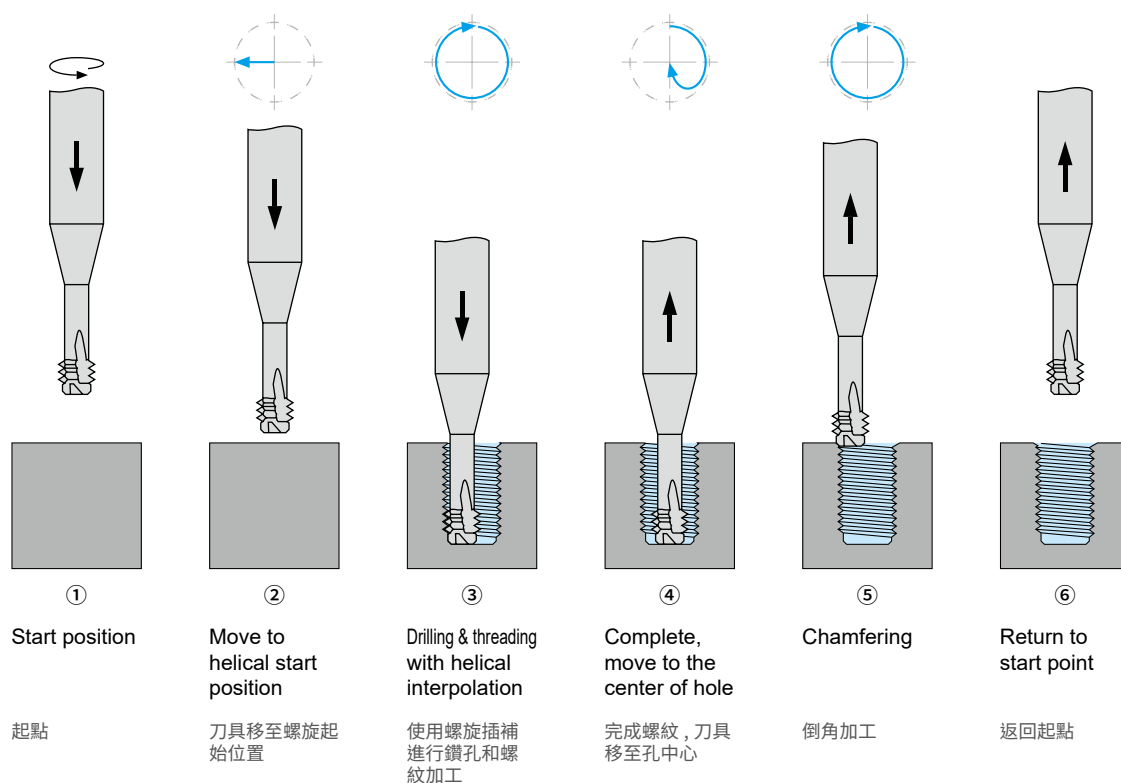
Thread Mill Cutting Method

加工方法

ETS, ETT, ETTR, ETM Cutting Method



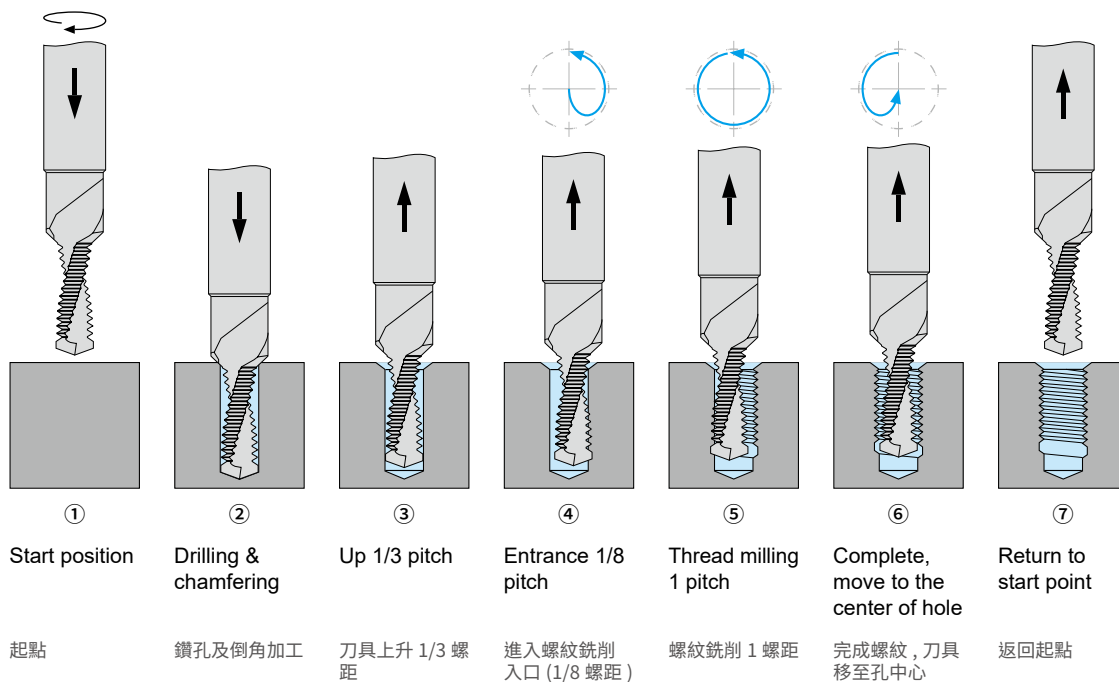
ETL Cutting Method



Thread Mill Cutting Method

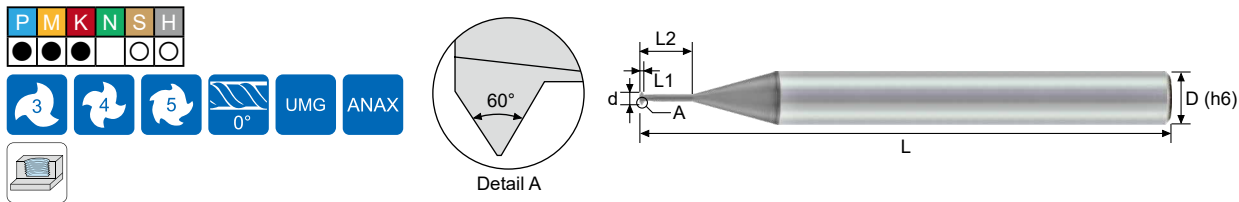
加工方法

ETD Cutting Method



Solid Carbide Thread Mills - ISO M 全鎢鋼螺紋銑刀 - ISO M

ETSNM (ISO M)



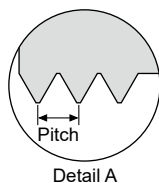
Order No.	Thread Size	Dia. (d)	Pitch	CL (L1)	No. of Threads	EFF-L (L2)	OAL (L)	Shank (D)	Flutes (z)
ETSNM30072025A	M1 × 0.25	0.72	0.25	0.25	1	2.75	42	4	3
ETSNM30091025A	M1.2 × 0.25	0.91	0.25	0.25	1	3.25	42	4	3
ETSNM30105030A	M1.4 × 0.3	1.05	0.30	0.30	1	3.80	42	4	3
ETSNM30120035A	M1.6 × 0.35	1.20	0.35	0.35	1	4.35	42	4	3
ETSNM30130035A	M1.7~M1.8 × 0.35	1.30	0.35	0.35	1	4.85	42	4	3
ETSNM30152040A	M2 × 0.4	1.52	0.40	0.40	1	6	42	4	3
ETSNM30240050A	M3 × 0.5	2.40	0.50	0.50	1	9	42	4	3
ETSNM30315070A	M4 × 0.7	3.15	0.70	0.70	1	12	50	4	3
ETSNM40480100A	M6 × 1	4.80	1.00	1.00	1	18	60	6	4
ETSNM40590125A	M8 × 1.25	5.90	1.25	1.25	1	25	75	6	4
ETSNM50820150A	M10 × 1.5	8.20	1.50	1.50	1	32	75	10	5
ETSNM50990175A	M12 × 1.75	9.90	1.75	1.75	1	38	75	10	5

※Customized specification available.

Solid Carbide Thread Mills - ISO M

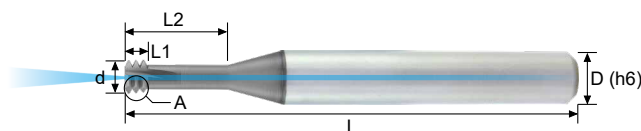
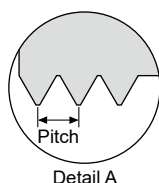
全鎢鋼螺紋銑刀 - ISO M

ETTNM (ISO M)



Order No.	Thread Size	Dia. (d)	Pitch	CL (L1)	No. of Threads	EFF-L (L2)	OAL (L)	Shank (D)	Flutes (z)
ETTNM30135035A	M1.8 × 0.35	1.35	0.35	1.05	3	4.0	50	6	3
ETTNM30150040A	M2 × 0.4	1.5	0.40	1.20	3	4.4	50	6	3
ETTNM30190045A	M2.5 × 0.45	1.9	0.45	1.35	3	5.6	50	6	3
ETTNM30240050A	M3 × 0.5	2.4	0.50	1.50	3	6.5	50	6	3
ETTNM30310070A	M4 × 0.7	3.1	0.70	2.10	3	8.7	50	6	3
ETTNM30400080A	M5 × 0.8	4.0	0.80	2.40	3	10.8	50	6	3
ETTNM30480100A	M6 × 1	4.8	1.00	3.00	3	12.5	50	6	3
ETTNM40650125A	M8 × 1.25	6.5	1.25	3.75	3	16.6	60	8	4
ETTNM40820150A	M10 × 1.5	8.2	1.50	4.50	3	20.8	75	10	4
ETTNM40990175A	M12 × 1.75	9.9	1.75	5.25	3	25.0	75	10	4
ETTNM41190200A	M16 × 2	11.9	2.00	6.00	3	33.0	75	12	4
ETTNM41590250A	M20 × 2.5	15.9	2.50	7.50	3	41.3	100	16	4

ETTCM (ISO M with Internal Coolant)

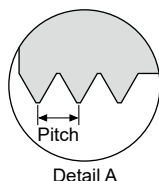


Order No.	Thread Size	Dia. (d)	Pitch	CL (L1)	No. of Threads	EFF-L (L2)	OAL (L)	Shank (D)	Flutes (z)
ETTCM30190045A	M2.5 × 0.45	1.9	0.45	1.35	3	5.6	50	6	3
ETTCM30240050A	M3 × 0.5	2.4	0.50	1.50	3	6.5	50	6	3
ETTCM30310070A	M4 × 0.7	3.1	0.70	2.10	3	8.7	50	6	3
ETTCM30400080A	M5 × 0.8	4.0	0.80	2.40	3	10.8	50	6	3
ETTCM30480100A	M6 × 1	4.8	1.00	3.00	3	12.5	50	6	3
ETTCM40650125A	M8 × 1.25	6.5	1.25	3.75	3	16.6	60	8	4
ETTCM40820150A	M10 × 1.5	8.2	1.50	4.50	3	20.8	75	10	4
ETTCM40990175A	M12 × 1.75	9.9	1.75	5.25	3	25.0	75	10	4
ETTCM41190200A	M16 × 2	11.9	2.00	6.00	3	33.0	75	12	4
ETTCM41590250A	M20 × 2.5	15.9	2.50	7.50	3	41.3	100	16	4

Solid Carbide Thread Mills - UN

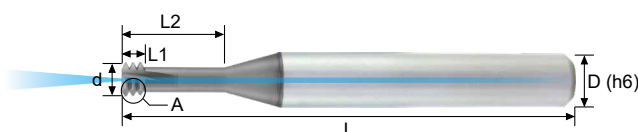
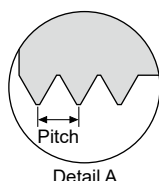
全鎢鋼螺紋銑刀 - UN

ETTNU (UN)



Order No.	Thread Size		Dia. (d)	TPI	CL (L1)	No. of Threads	EFF-L (L2)	OAL (L)	Shank (D)	Flutes (z)
	UNC	UNF								
ETTNU30331036A		8-36UNF	3.31	36	2.12	3	8.8	50	4	3
ETTNU30257032A	6-32UNC		2.57	32	2.38	3	7.3	50	4	3
ETTNU30322032A	8-32UNC	10-32UNF	3.22	32	2.38	3	10.1	60	6	3
ETTNU30520028A		1/4-28UNF	5.2	28	2.72	3	14	60	6	3
ETTNU40355024A	10-24UNC		3.55	24	3.18	3	10.4	60	6	4
ETTNU40665024A		5/16-24UNF	6.65	24	3.18	3	16.7	60	8	4
ETTNU40485020A	1/4-20UNC	7/16-20UNF	4.85	20	3.81	3	13.7	60	6	4
ETTNU40795020A		7/16-20UNF	7.95	20	3.81	3	24	60	8	4
ETTNU40595018A	5/16-18UNC		5.95	18	4.23	3	16.5	60	6	4
ETTNU40690016A	3/8-16UNC		6.9	16	4.76	3	21	60	8	4
ETTNU40795014A	7/16-14UNC		7.95	14	5.44	3	23.5	60	8	4
ETTNU40930013A	1/2-13UNC		9.3	13	5.86	3	27	80	10	4
ETTNU40995012A	9/16-12UNC		9.95	12	6.35	3	29	80	10	4
ETTNU41150011A	5/8-11UNC		11.5	11	6.93	3	33	80	12	4
ETTNU41440010A	3/4-10UNC		14.4	10	7.62	3	42	110	16	4

ETTCU (UN with Internal Coolant)



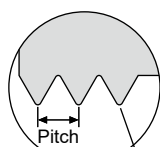
Order No.	Thread Size		Dia. (d)	TPI	CL (L1)	No. of Threads	EFF-L (L2)	OAL (L)	Shank (D)	Flutes (z)
	UNC	UNF								
ETTCU30331036A		8-36UNF	3.31	36	2.12	3	8.8	50	4	3
ETTCU30257032A	6-32UNC		2.57	32	2.38	3	7.3	50	4	3
ETTCU30322032A	8-32UNC	10-32UNF	3.22	32	2.38	3	10.1	60	6	3
ETTCU30520028A		1/4-28UNF	5.2	28	2.72	3	14	60	6	3
ETTCU40355024A	10-24UNC		3.55	24	3.18	3	10.4	60	6	4
ETTCU40665024A		5/16-24UNF	6.65	24	3.18	3	16.7	60	8	4
ETTCU40485020A	1/4-20UNC	7/16-20UNF	4.85	20	3.81	3	13.7	60	6	4
ETTCU40795020A		7/16-20UNF	7.95	20	3.81	3	24	60	8	4
ETTCU40595018A	5/16-18UNC		5.95	18	4.23	3	16.5	60	6	4
ETTCU40690016A	3/8-16UNC		6.9	16	4.76	3	21	60	8	4
ETTCU40795014A	7/16-14UNC		7.95	14	5.44	3	23.5	60	8	4
ETTCU40930013A	1/2-13UNC		9.3	13	5.86	3	27	80	10	4
ETTCU40995012A	9/16-12UNC		9.95	12	6.35	3	29	80	10	4
ETTCU41150011A	5/8-11UNC		11.5	11	6.93	3	33	80	12	4
ETTCU41440010A	3/4-10UNC		14.4	10	7.62	3	42	110	16	4

※Customized specification available.

Solid Carbide Thread Mills - ISO M

全鎢鋼螺紋銑刀 - ISO M

ETTRNM (ISO M)

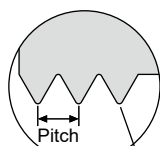


Detail A
Tip protection
R design

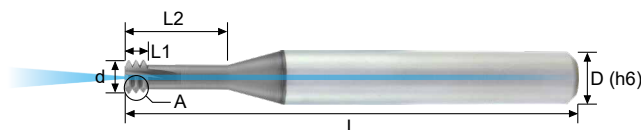


Order No.	Thread Size	Dia. (d)	Pitch	CL (L1)	No. of Threads	EFF-L (L2)	OAL (L)	Shank (D)	Flutes (z)
ETTRNM30135035A	M1.8 × 0.35	1.35	0.35	1.05	3	4.0	50	6	3
ETTRNM30150040A	M2 × 0.4	1.5	0.40	1.20	3	4.4	50	6	3
ETTRNM30190045A	M2.5 × 0.45	1.9	0.45	1.35	3	5.6	50	6	3
ETTRNM30240050A	M3 × 0.5	2.4	0.50	1.50	3	6.5	50	6	3
ETTRNM30310070A	M4 × 0.7	3.1	0.70	2.10	3	8.7	50	6	3
ETTRNM30400080A	M5 × 0.8	4.0	0.80	2.40	3	10.8	50	6	3
ETTRNM30480100A	M6 × 1	4.8	1.00	3.00	3	12.5	50	6	3
ETTRNM40650125A	M8 × 1.25	6.5	1.25	3.75	3	16.6	60	8	4
ETTRNM40820150A	M10 × 1.5	8.2	1.50	4.50	3	20.8	75	10	4
ETTRNM40990175A	M12 × 1.75	9.9	1.75	5.25	3	25.0	75	10	4
ETTRNM41190200A	M16 × 2	11.9	2.00	6.00	3	33.0	75	12	4
ETTRNM41590250A	M20 × 2.5	15.9	2.50	7.50	3	41.3	100	16	4

ETTRCM (ISO M with Internal Coolant)



Detail A
Tip protection
R design



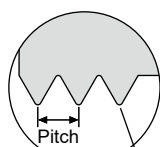
Order No.	Thread Size	Dia. (d)	Pitch	CL (L1)	No. of Threads	EFF-L (L2)	OAL (L)	Shank (D)	Flutes (z)
ETTRCM30190045A	M2.5 × 0.45	1.9	0.45	1.35	3	5.6	50	6	3
ETTRCM30240050A	M3 × 0.5	2.4	0.50	1.50	3	6.5	50	6	3
ETTRCM30310070A	M4 × 0.7	3.1	0.70	2.10	3	8.7	50	6	3
ETTRCM30400080A	M5 × 0.8	4.0	0.80	2.40	3	10.8	50	6	3
ETTRCM30480100A	M6 × 1	4.8	1.00	3.00	3	12.5	50	6	3
ETTRCM40650125A	M8 × 1.25	6.5	1.25	3.75	3	16.6	60	8	4
ETTRCM40820150A	M10 × 1.5	8.2	1.50	4.50	3	20.8	75	10	4
ETTRCM40990175A	M12 × 1.75	9.9	1.75	5.25	3	25.0	75	10	4
ETTRCM41190200A	M16 × 2	11.9	2.00	6.00	3	33.0	75	12	4
ETTRCM41590250A	M20 × 2.5	15.9	2.50	7.50	3	41.3	100	16	4

※Customized specification available.

Solid Carbide Thread Mills - UN

全鎢鋼螺紋銑刀 - UN

ETTRNU (UN)

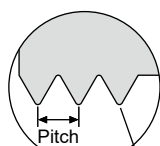


Detail A
Tip protection
R design

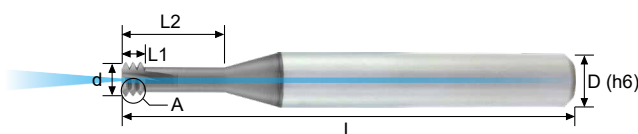


Order No.	Thread Size		Dia. (d)	TPI	CL (L1)	No. of Threads	EFF-L (L2)	OAL (L)	Shank (D)	Flutes (z)
	UNC	UNF								
ETTRNU30331036A		8-36UNF	3.31	36	2.12	3	8.8	50	4	3
ETTRNU30257032A	6-32UNC		2.57	32	2.38	3	7.3	50	4	3
ETTRNU30322032A	8-32UNC	10-32UNF	3.22	32	2.38	3	10.1	60	6	3
ETTRNU30520028A		1/4-28UNF	5.2	28	2.72	3	14	60	6	3
ETTRNU40355024A	10-24UNC		3.55	24	3.18	3	10.4	60	6	4
ETTRNU40665024A		5/16-24UNF	6.65	24	3.18	3	16.7	60	8	4
ETTRNU40485020A	1/4-20UNC	7/16-20UNF	4.85	20	3.81	3	13.7	60	6	4
ETTRNU40795020A		7/16-20UNF	7.95	20	3.81	3	24	60	8	4
ETTRNU40595018A	5/16-18UNC		5.95	18	4.23	3	16.5	60	6	4
ETTRNU40690016A	3/8-16UNC		6.9	16	4.76	3	21	60	8	4
ETTRNU40795014A	7/16-14UNC		7.95	14	5.44	3	23.5	60	8	4
ETTRNU40930013A	1/2-13UNC		9.3	13	5.86	3	27	80	10	4
ETTRNU40995012A	9/16-12UNC		9.95	12	6.35	3	29	80	10	4
ETTRNU41150011A	5/8-11UNC		11.5	11	6.93	3	33	80	12	4
ETTRNU41440010A	3/4-10UNC		14.4	10	7.62	3	42	110	16	4

ETTRCU (UN with Internal Coolant)



Detail A
Tip protection
R design



Order No.	Thread Size		Dia. (d)	TPI	CL (L1)	No. of Threads	EFF-L (L2)	OAL (L)	Shank (D)	Flutes (z)
	UNC	UNF								
ETTRCU30331036A		8-36UNF	3.31	36	2.12	3	8.8	50	4	3
ETTRCU30257032A	6-32UNC		2.57	32	2.38	3	7.3	50	4	3
ETTRCU30322032A	8-32UNC	10-32UNF	3.22	32	2.38	3	10.1	60	6	3
ETTRCU30520028A		1/4-28UNF	5.2	28	2.72	3	14	60	6	3
ETTRCU40355024A	10-24UNC		3.55	24	3.18	3	10.4	60	6	4
ETTRCU40665024A		5/16-24UNF	6.65	24	3.18	3	16.7	60	8	4
ETTRCU40485020A	1/4-20UNC	7/16-20UNF	4.85	20	3.81	3	13.7	60	6	4
ETTRCU40795020A		7/16-20UNF	7.95	20	3.81	3	24	60	8	4
ETTRCU40595018A	5/16-18UNC		5.95	18	4.23	3	16.5	60	6	4
ETTRCU40690016A	3/8-16UNC		6.9	16	4.76	3	21	60	8	4
ETTRCU40795014A	7/16-14UNC		7.95	14	5.44	3	23.5	60	8	4
ETTRCU40930013A	1/2-13UNC		9.3	13	5.86	3	27	80	10	4
ETTRCU40995012A	9/16-12UNC		9.95	12	6.35	3	29	80	10	4
ETTRCU41150011A	5/8-11UNC		11.5	11	6.93	3	33	80	12	4
ETTRCU41440010A	3/4-10UNC		14.4	10	7.62	3	42	110	16	4

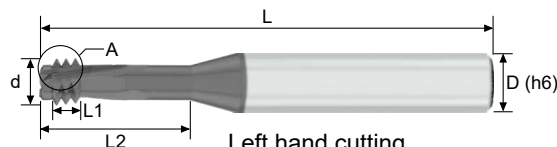
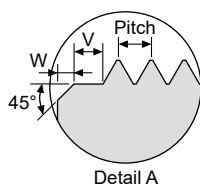
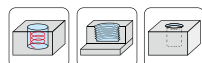
※ Customized specification available.

Solid Carbide Chamfer Thread Mills - ISO M

全鋁鋼倒角螺紋銑刀 - ISO M

ETLNM (ISO M)

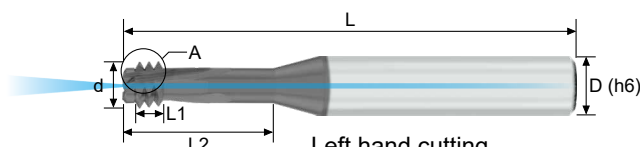
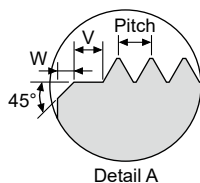
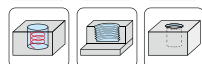
Suitable for : 1. Thread milling
2. Chamfering
3. Helical drilling



Left hand cutting
(For CNC use M04 code)

Order No.	Thread Size	Dia. (d)	Pitch	CL (L1)	No. of Threads	EFF-L (L2)	W	V	OAL (L)	Shank (D)	Flutes (z)
ETLNM30315070A	M4 × 0.7	3.15	0.7	2.10	3	11.6	0.2	0.7	58	6	3
ETLNM30400080A	M5 × 0.8	4.00	0.8	2.40	3	14.4	0.3	0.8	58	6	3
ETLNM30470100A	M6 × 1	4.70	1.0	3.00	3	14.4	0.4	1.0	64	8	3
ETLNM40610120A	M8 × 1.25	6.10	1.25	3.75	3	19.0	0.5	1.25	64	8	4
ETLNM40780150A	M10 × 1.5	7.80	1.5	4.50	3	23.6	0.6	1.5	64	8	4
ETLNM40900170A	M12 × 1.75	9.00	1.75	5.25	3	28.1	0.6	1.75	73	10	4
ETLNM41180200A	M16 × 2	11.80	2.0	6.00	3	36.6	0.6	2.0	84	12	4

ETLCM (ISO M with Internal Coolant)



Left hand cutting
(For CNC use M04 code)

Order No.	Thread Size	Dia. (d)	Pitch	CL (L1)	No. of Threads	EFF-L (L2)	W	V	OAL (L)	Shank (D)	Flutes (z)
ETLCM30240050A	M3 × 0.5	2.4	0.50	1.50	3	7.2	0.2	0.5	58	6	3
ETLCM30315070A	M4 × 0.7	3.15	0.70	2.10	3	11.6	0.2	0.7	58	6	3
ETLCM30400080A	M5 × 0.8	4.0	0.80	2.40	3	14.4	0.3	0.8	58	6	3
ETLCM30470100A	M6 × 1	4.7	1.00	3.00	3	14	0.4	1.0	64	8	3
ETLCM30470101A	M6 × 1	4.7	1.00	3.00	3	20.4	0.4	1.0	64	8	3
ETLCM40610120A	M8 × 1.25	6.1	1.25	3.75	3	18	0.5	1.25	64	8	4
ETLCM40610121A	M8 × 1.25	6.1	1.25	3.75	3	27	0.5	1.25	64	8	4
ETLCM40780150A	M10 × 1.5	7.8	1.50	4.50	3	23	0.6	1.5	64	8	4
ETLCM40900170A	M12 × 1.75	9.0	1.75	5.25	3	26	0.6	1.75	73	10	4
ETLCM41180200A	M16 × 2	11.8	2.00	6.00	3	35	0.6	2.0	84	12	4

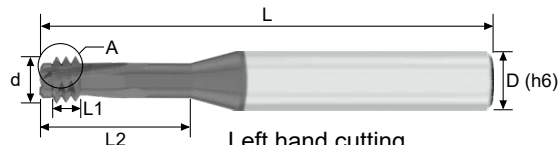
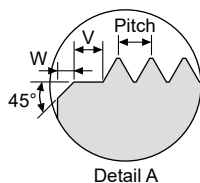
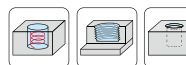
※Customized specification available.

Solid Carbide Chamfer Thread Mills - UN

全鋁鋼倒角螺紋銑刀 - UN

ETLNU (UN)

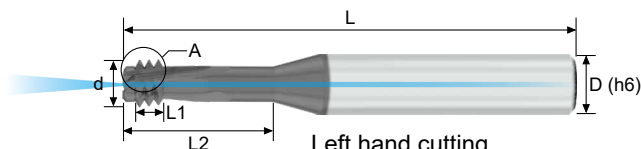
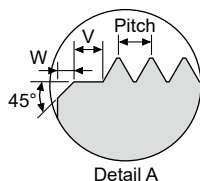
Suitable for : 1. Thread milling
2. Chamfering
3. Helical drilling



Left hand cutting
(For CNC use M04 code)

Order No.	Thread Size		Dia. (d)	TPI	CL (L1)	No. of Threads	EFF-L (L2)	W	V	OAL (L)	Shank (D)	Flutes (z)
	UNC	UNF										
ETLNU30210040A	4-40UNC	6-40UNF	2.10	40	1.91	3	7.0	0.1	0.6	58	6	3
ETLNU30260032A	6-32UNC		2.60	32	2.38	3	8.7	0.1	0.8	58	6	3
ETLNU30500028A		1/4-28UNF	5.00	28	2.72	3	14.9	0.4	0.9	64	8	3
ETLNU40650024A		5/16-24UNF	6.50	24	3.18	3	18.5	0.5	1.05	64	8	4
ETLNU40480020A	1/4-20UNC		4.80	20	3.81	3	15.6	0.4	1.25	64	8	4
ETLNU40600018A	5/16-18UNC		6.00	18	4.23	3	19.2	0.5	1.4	64	8	4
ETLNU40670016A	3/8-16UNC		6.70	16	4.76	3	22.8	0.5	1.6	64	8	4
ETLNU40920013A	1/2-13UNC		9.20	13	5.86	3	30.0	0.6	2.0	73	10	4
ETLNU41140011A	5/8-11UNC		11.40	11	6.93	3	37.0	0.6	2.3	84	12	4

ETLCU (UN with Internal Coolant)



Left hand cutting
(For CNC use M04 code)

Order No.	Thread Size		Dia. (d)	TPI	CL (L1)	No. of Threads	EFF-L (L2)	W	V	OAL (L)	Shank (D)	Flutes (z)
	UNC	UNF										
ETLCU30330036A		8-36UNF	3.3	36	2.12	3	12	0.2	0.7	58	6	3
ETLCU30260032A	6-32UNC		2.6	32	2.38	3	8.7	0.2	0.8	58	6	3
ETLCU30320032A	8-32UNC		3.2	32	2.38	3	12.3	0.3	0.8	58	6	3
ETLCU30380032A		10-32UNF	3.8	32	2.38	3	14	0.3	0.8	58	6	3
ETLCU30500028A		1/4-28UNF	5	28	2.72	3	14.5	0.4	0.9	64	8	3
ETLCU30350024A	10-24UNC		3.5	24	3.18	3	12.1	0.3	1.05	58	6	3
ETLCU40650024A		5/16-24UNF	6.5	24	3.18	3	17	0.5	1.05	64	8	4
ETLCU40480020A	1/4-20UNC		4.8	20	3.81	3	14	0.4	1.25	64	8	4
ETLCU40600018A	5/16-18UNC		6	18	4.23	3	17	0.5	1.4	64	8	4
ETLCU40670016A	3/8-16UNC		6.7	16	4.76	3	22	0.5	1.6	64	8	4
ETLCU40800014A	7/16-14UNC		8	14	5.44	3	26.5	0.6	1.8	64	8	4
ETLCU40100013A	1/2-13UNC		10	13	5.86	3	29.8	0.6	2.0	73	10	4

※Customized specification available.

Solid Carbide Thread Mills - ISO M 全鋇鋼螺紋銑刀 - ISO M

ETMNM (ISO M)

P M K N S H

●●●○

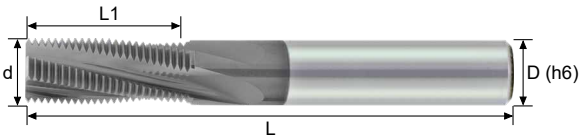
○

3 4 5

10~15°

UMG

ANAX



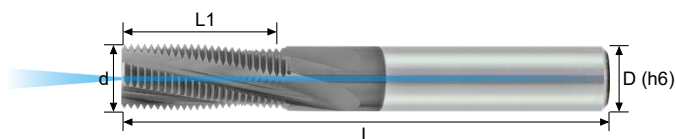
Order No.	Thread Size	Dia. (d)	Pitch	CL (L1)	No. of Threads	OAL (L)	Shank (D)	Flutes (z)
ETMNM30390075A	M6 × 0.75	3.90	0.75	12.00 *	16	50	6	3
ETMNM30390100A	M6 × 1	3.90	1.00	12.00 *	12	50	6	3
ETMNM30590100A	M8 × 1	5.90	1.00	16.00	16	60	6	3
ETMNM30580125A	M8 × 1.25	5.80	1.25	16.25	13	60	6	3
ETMNM30790100A	M10 × 1	7.90	1.00	20.00	20	60	8	3
ETMNM30770125A	M10 × 1.25	7.70	1.25	20.00	16	60	8	3
ETMNM30770150A	M10 × 1.5	7.70	1.50	21.00	14	60	8	3
ETMNM40990100A	M12 × 1	9.90	1.00	24.00	24	75	10	4
ETMNM40940150A	M12 × 1.5	9.40	1.50	24.00	16	75	10	4
ETMNM40870175A	M12 × 1.75	8.70	1.75	24.50 *	14	75	10	4
ETMNM41120150A	M14 × 1.5	11.20	1.50	28.50	19	75	12	4
ETMNM40990200A	M14 × 2	9.90	2.00	28.00	14	75	10	4
ETMNM41190150A	M16 × 1.5	11.90	1.50	33.00	22	100	12	4
ETMNM41190200A	M16 × 2	11.90	2.00	32.00	16	100	12	4
ETMNM51370250A	M20 × 2.5	13.70	2.50	45.00 *	18	133	16	5

* Increase neck length 2~5mm
※Customized specification available.

Solid Carbide Thread Mills - ISO M

全鎢鋼螺紋銑刀 - ISO M

ETMCM (ISO M with Internal Coolant)



Order No.	Thread Size	Dia. (d)	Pitch	CL (L1)	No. of Threads	OAL (L)	Shank (D)	Flutes (z)
ETMCM30390075A	M6 × 0.75	3.90	0.75	12.00 *	16	50	6	3
ETMCM30390100A	M6 × 1	3.90	1.00	12.00 *	12	50	6	3
ETMCM30590100A	M8 × 1	5.90	1.00	16.00	16	60	6	3
ETMCM30580125A	M8 × 1.25	5.80	1.25	16.25	13	60	6	3
ETMCM30790100A	M10 × 1	7.90	1.00	20.00	20	60	8	3
ETMCM30770125A	M10 × 1.25	7.70	1.25	20.00	16	60	8	3
ETMCM30770150A	M10 × 1.5	7.70	1.50	21.00	14	60	8	3
ETMCM40990100A	M12 × 1	9.90	1.00	24.00	24	75	10	4
ETMCM40940150A	M12 × 1.5	9.40	1.50	24.00	16	75	10	4
ETMCM40870175A	M12 × 1.75	8.70	1.75	24.50 *	14	75	10	4
ETMCM41120150A	M14 × 1.5	11.20	1.50	28.50	19	75	12	4
ETMCM40990200A	M14 × 2	9.90	2.00	28.00	14	75	10	4
ETMCM41190150A	M16 × 1.5	11.90	1.50	33.00	22	100	12	4
ETMCM41190200A	M16 × 2	11.90	2.00	32.00	16	100	12	4

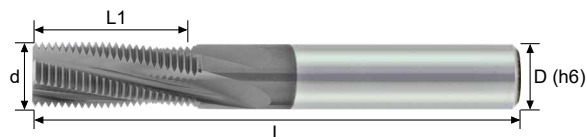
* Increase neck length 2~5mm

※Customized specification available.

Solid Carbide Thread Mills - UN

全鎢鋼螺紋銑刀 - UN

ETMNU (UN)



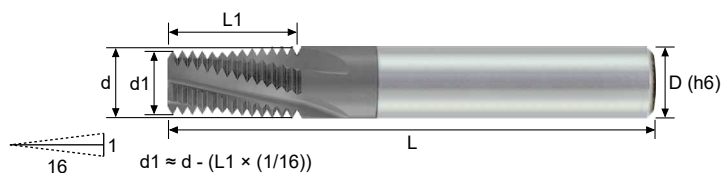
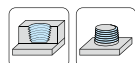
Order No.	Thread Size			Dia. (d)	TPI	CL (L1)	No. of Threads	OAL (L)	Shank (D)	Flutes (z)
	UNC	UNF	UNEF							
ETMNU30300036A		No.8		3.0	36	8.5	12	50	4	3
ETMNU30330032A		No.10	No.12-3/8"	3.3	32	11.1	14	50	4	3
ETMNU30380028A		No.12, 1/4"	7/16", 1/2"	3.8	28	11.8	13	50	4	3
ETMNU30460028A		1/4"	7/16, 1/2"	4.6	28	12.7 *	14	60	6	3
ETMNU40920028A			7/16", 1/2"	9.2	28	22.7	25	75	10	4
ETMNU30290024A	No.10	5/16", 3/8"	9/16"-11/16"	2.9	24	10.6 *	10	50	4	3
ETMNU30350024A	No.12	5/16", 3/8"	9/16"-11/16"	3.5	24	11.6	11	50	4	3
ETMNU30570024A		5/16", 3/8"	9/16"-11/16"	5.7	24	15.9	15	60	6	3
ETMNU30740024A		3/8"	9/16"-11/16"	7.4	24	19.1	18	60	8	3
ETMNU41190024A			9/16"-11/16"	11.9	24	28.6	27	100	12	4
ETMNU30390020A	1/4"	7/16", 1/2"	3/4"-1"	3.9	20	12.7	10	50	4	3
ETMNU40850020A		7/16", 1/2"	3/4"-1"	8.5	20	22.9 *	18	75	10	4
ETMNU40990020A		1/2"	3/4"-1"	9.9	20	25.4	20	75	10	4
ETMNU51590020A			3/4"-1"	15.9	20	38.1	30	100	16	5
ETMNU30520018A	5/16"	9/16", 5/8"	11/16"-1 11/16"	5.2	18	16.9	12	60	6	3
ETMNU41130018A		9/16", 5/8"	11/16"-1 11/16"	11.3	18	29.6	21	100	12	4
ETMNU41190018A		5/8"	11/16"-1 11/16"	11.9	18	32.5	23	100	12	4
ETMNU30670016A	3/8"	3/4"		6.7	16	19.1 *	12	60	8	3
ETMNU41590016A		3/4"		15.9	16	38.1	24	100	16	4
ETMNU40760014A	7/16"	7/8"		7.6	14	23.6	13	60	8	4
ETMNU41870014A		7/8"		18.7	14	44.4 *	24	100	20	4
ETMNU40890013A	1/2"			8.9	13	25.4	13	75	10	4
ETMNU41030012A	9/16"	1"-1 1/2"		10.3	12	29.6 *	14	100	12	4
ETMNU51990012A		1"-1 1/2"		19.9	12	50.8	24	100	20	5
ETMNU41100011A	5/8"			11.0	11	32.3	14	100	12	4
ETMNU51350010A	3/4"			13.5	10	38.1 *	15	100	16	5
ETMNU41520009A	7/8"			15.2	9	45.2	16	100	16	4
ETMNU41700008A	1"			17.0	8	50.8 *	16	100	20	4

* Increase neck length 2~5mm

Solid Carbide Pipe Thread Mills - BSPT

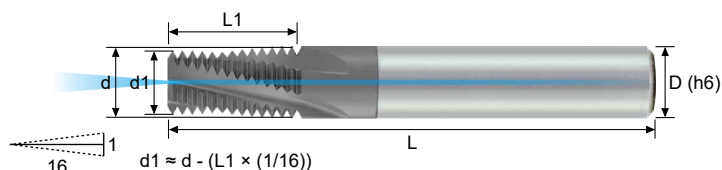
全鋁鋼管用錐形螺紋銑刀 - BSPT

ETMNPT (BSPT)



Order No.	Thread Size	Dia. (d)	TPI	CL (L1)	No. of Threads	OAL (L)	Shank (D)	Flutes (z)	Working dia.
ETMNPT305828A	1/16"×28	5.8	28	16.3	18	60	6	3	6.7
ETMNPT307728A	1/8"×28	7.7	28	20	22	60	8	3	8.7
ETMNPT409919A	1/4"×19	9.9	19	26.7	20	75	10	4	11.8
ETMNPT413419A	3/8"×19	13.4	19	33.4	25	100	16	4	15.2
ETMNPT415714A	1/2"×14, 3/4"×14	15.7	14	43.5	24	100	16	4	19.0
ETMNPT419911A	1"×11, 1 1/2"×11, 2"×11, 2 1/2"×11	19.9	11	41.6	18	100	20	4	30.7

ETMCPT (BSPT with Internal Coolant)

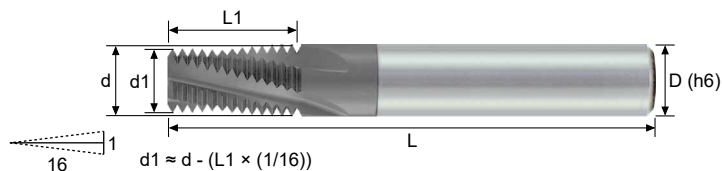
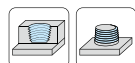


Order No.	Thread Size	Dia. (d)	TPI	CL (L1)	No. of Threads	OAL (L)	Shank (D)	Flutes (z)	Working dia.
ETMCPT305828A	1/16"×28	5.8	28	16.3	18	60	6	3	6.7
ETMCPT307728A	1/8"×28	7.7	28	20	22	60	8	3	8.7
ETMCPT409919A	1/4"×19	9.9	19	26.7	20	75	10	4	11.8
ETMCPT413419A	3/8"×19	13.4	19	33.4	25	100	16	4	15.2
ETMCPT415714A	1/2"×14, 3/4"×14	15.7	14	43.5	24	100	16	4	19.0
ETMCPT419911A	1"×11, 1 1/2"×11, 2"×11, 2 1/2"×11	19.9	11	41.6	18	100	20	4	30.7

Solid Carbide Pipe Thread Mills - NPT

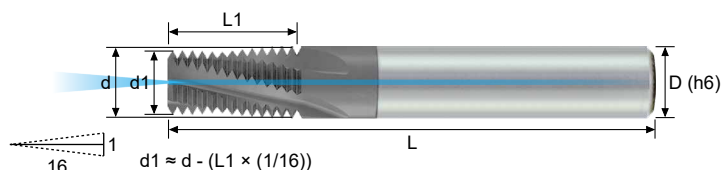
全鋁鋼管用錐形螺紋銑刀 - NPT

ETMNNT (NPT)



Order No.	Thread Size	Dia. (d)	TPI	CL (L1)	No. of Threads	OAL (L)	Shank (D)	Flutes (z)	Working dia.
ETMNNT305327A	1/16"×27	5.3	27	9.4	10	60	6	3	6.3
ETMNNT407527A	1/8"×27	7.5	27	9.4	10	60	8	4	8.5
ETMNNT409418A	1/4"×18	9.4	18	14.1	10	75	10	4	11.1
ETMNNT411918A	3/8"×18	11.9	18	14.1	10	75	12	4	14.5
ETMNNT410714A	1/2"×14	10.7	14	21.7	12	75	12	4	17.7
ETMNNT415514A	1/2"×14, 3/4"×14	15.5	14	25.4	14	100	16	4	17.7~23
ETMNNT419911A	1-2"×11.5	19.9	11.5	33.1	15	100	20	4	29~56
ETMNNT419908A	2 1/2"×8, 3"×8	19.9	8	38.1	12	100	20	4	66.5

ETMCNT (NPT with Internal Coolant)



Order No.	Thread Size	Dia. (d)	TPI	CL (L1)	No. of Threads	OAL (L)	Shank (D)	Flutes (z)	Working dia.
ETMNCT305327A	1/16"×27	5.3	27	9.4	10	60	6	3	6.3
ETMNCT407527A	1/8"×27	7.5	27	9.4	10	60	8	4	8.5
ETMNCT409418A	1/4"×18	9.4	18	14.1	10	75	10	4	11.1
ETMNCT411918A	3/8"×18	11.9	18	14.1	10	75	12	4	14.5
ETMNCT410714A	1/2"×14	10.7	14	21.7	12	75	12	4	17.7
ETMNCT415514A	1/2"×14, 3/4"×14	15.5	14	25.4	14	100	16	4	17.7~23
ETMNCT419911A	1-2"×11.5	19.9	11.5	33.1	15	100	20	4	29~56
ETMNCT419908A	2 1/2"×8, 3"×8	19.9	8	38.1	12	100	20	4	66.5

Solid Carbide Drill&Thread Mills - ETDN · 2F 全鎢鋼螺紋鑽銑刀 · 2刃

ETDNM (ISO M with Internal Coolant)

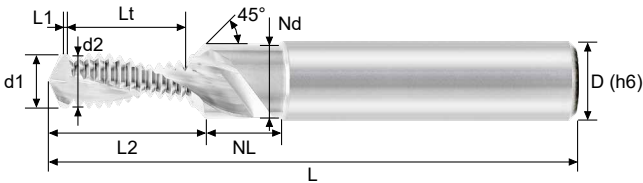
P M K N S H

2

26°

UMG

UNICO



Order No.	Thread Size	d1	Pitch	d2	Lt	L1	L2	No. of Threads	Nd	NL	L	D	h	Coating
ETDNM20420080	M5 × 0.8	4.2	0.80	4.00	9.60	0.8	11.9	12	5.7	6.1	55	6	0.46	
ETDNM20500100	M6 × 1	5.0	1.00	4.85	11.00	1.0	13.7	11	6.6	9.5	60	8	0.58	
ETDNM20680125	M8 × 1.25	6.8	1.25	6.45	13.75	1.3	17.1	11	9.0	16.8	75	10	0.72	
ETDNM20850150	M10 × 1.5	8.5	1.50	8.08	18.00	1.5	22.1	12	11.0	11.6	80	12	0.87	
ETDNM20420080U	M5 × 0.8	4.2	0.80	4.00	9.60	0.8	11.9	12	5.7	6.1	55	6	0.46	•
ETDNM20500100U	M6 × 1	5.0	1.00	4.85	11.00	1.0	13.7	11	6.6	9.5	60	8	0.58	•
ETDNM20680125U	M8 × 1.25	6.8	1.25	6.45	13.75	1.3	17.1	11	9.0	16.8	75	10	0.72	•
ETDNM20850150U	M10 × 1.5	8.5	1.50	8.08	18.00	1.5	22.1	12	11.0	11.6	80	12	0.87	•

* Maximum chamfering depth = (Nd - d1) × 0.5

Recommended Cutting Conditions

建議切削數據

Recommended Cutting Conditions 建議切削數據

For ETS, ETT, ETC, ETL

Work Material	Vc (m/min)	Feed (mm/t)
Carbon Steel / Alloy Steel	60 ~ 90	0.02 ~ 0.08
Stainless Steel	60 ~ 90	0.02 ~ 0.08
Cast Iron	50 ~ 100	0.03 ~ 0.10
Aluminum Alloy	50 ~ 100	0.02 ~ 0.06
Super Alloy	20 ~ 60	0.01 ~ 0.03
Hardened Steel	30 ~ 60	0.01 ~ 0.03

For ETM

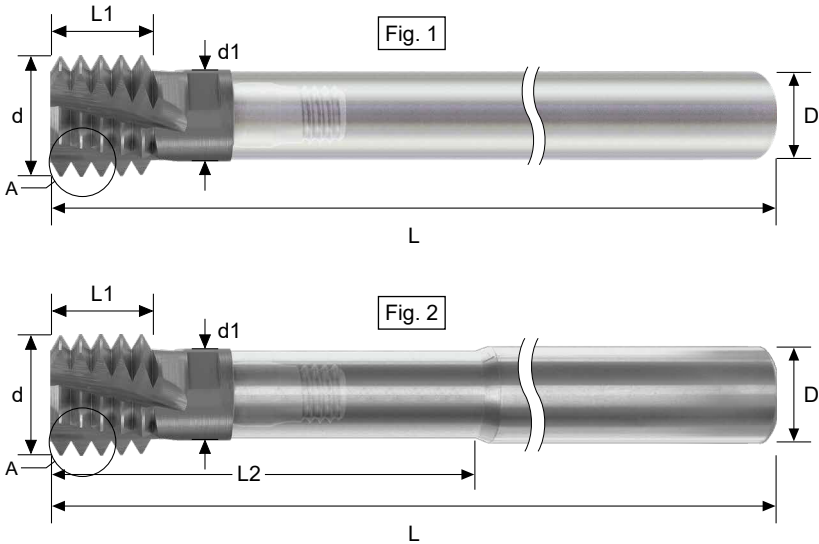
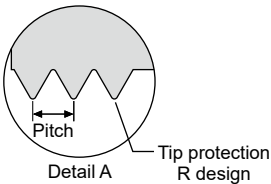
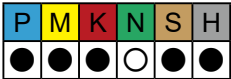
Work Material	Vc (m/min)	Feed (mm/t)
Carbon Steel / Alloy Steel	50 ~ 70	0.02 ~ 0.07
Stainless Steel	50 ~ 70	0.02 ~ 0.07
Cast Iron	50 ~ 100	0.03 ~ 0.10
Aluminum Alloy	50 ~ 70	0.03 ~ 0.10
Super Alloy	20 ~ 60	0.01 ~ 0.03
Hardened Steel	25 ~ 50	0.01 ~ 0.05

For ETD

	Work Material	Vc (m/min)	Drilling f (mm/rev)		Thread milling fz (mm)	
			≤ 6mm	≤ 12mm	≤ 6mm	≤ 12mm
K	Grey Cast Iron	55 ~ 85	0.07 ~ 0.105	0.105 ~ 0.154	0.014 ~ 0.035	0.035 ~ 0.07
	Grey Cast Iron (Heat Treated)	55 ~ 85	0.07 ~ 0.105	0.105 ~ 0.154	0.014 ~ 0.035	0.035 ~ 0.07
N	Short Chips, Brass, Bronze	70 ~ 280	0.07 ~ 0.210	0.042 ~ 0.070	0.021 ~ 0.042	0.042 ~ 0.07
	Aluminium, Cast Alloy (Si<10%)	70 ~ 280	0.07 ~ 0.175	0.175 ~ 0.210	0.021 ~ 0.042	0.042 ~ 0.07
	Aluminium, Cast Alloy (Si≥10%)	70 ~ 280	0.07 ~ 0.175	0.175 ~ 0.210	0.021 ~ 0.042	0.042 ~ 0.07
	Thermoplastics	40 ~ 80	0.07 ~ 0.175	0.175 ~ 0.210	0.021 ~ 0.042	0.042 ~ 0.07

※ To choose uncoated tool for aluminum materials machining.

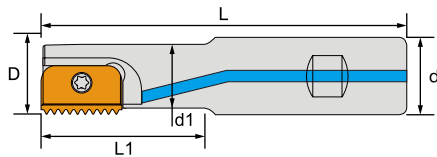
ETMMM (ISO M)



Order No.	Thread Size	Dia. (d)	Pitch	CL (L1)	No. of Threads	Neck (d1)	EFF-L (L2)	OAL (L)	Shank (D)	Flutes (Z)	Fig.	Specifications	
												Threading Head	Adapter
ETMMM410005010A	≥ M12	10	0.5	8	16	9.25	39	115	10	4	2	ETMWM41000050A	ISWMEB10100060
ETMMM410007510A	≥ M12	10	0.75	6.75	9	8.93	39	115	10	4	2	ETMWM41000075A	ISWMEB10100060
ETMMM410010010A	≥ M12	10	1	7	7	8.6	39	115	10	4	2	ETMWM41000100A	ISWMEB10100060
ETMMM512010010A	≥ M16	12	1	9	9	10.6	—	117	10	5	1	ETMWM51200100A	ISWMEA10100060
ETMMM512010015A	≥ M16	12	1	9	9	10.6	—	167	10	5	1	ETMWM51200100A	ISWMEA10150060
ETMMM412012510A	≥ M16	12	1.25	8.75	7	10.3	—	117	10	4	1	ETMWM41200125A	ISWMEA10100060
ETMMM412012515A	≥ M16	12	1.25	8.75	7	10.3	—	167	10	4	1	ETMWM41200125A	ISWMEA10150060
ETMMM412015010A	≥ M16	12	1.5	9	6	9.95	—	117	10	4	1	ETMWM41200150A	ISWMEA10100060
ETMMM412015015A	≥ M16	12	1.5	9	6	9.95	—	167	10	4	1	ETMWM41200150A	ISWMEA10150060
ETMMM616015010A	≥ M20	16	1.5	13.5	9	13.95	—	122	14	6	1	ETMWM61600150A	ISWMEA14100080
ETMMM616015015A	≥ M20	16	1.5	13.5	9	13.95	—	172	14	6	1	ETMWM61600150A	ISWMEA14150080
ETMMM616015020A	≥ M20	16	1.5	13.5	9	13.95	—	222	14	6	1	ETMWM61600150A	ISWMEA14200080
ETMMM516020010A	≥ M19	16	2	14	7	13.3	52	122	14	5	2	ETMWM51600200A	ISWMEB14100080
ETMMM516020015A	≥ M19	16	2	14	7	13.3	82	172	14	5	2	ETMWM51600200A	ISWMEB14150080
ETMMM516020020A	≥ M19	16	2	14	7	13.3	122	222	14	5	2	ETMWM51600200A	ISWMEB14200080
ETMMM515425010A	≥ M20	15.4	2.5	15	6	12.05	—	122	12	5	1	ETMWM51540250A	ISWMEA12100080
ETMMM515425015A	≥ M20	15.4	2.5	15	6	12.05	—	172	12	5	1	ETMWM51540250A	ISWMEA12150080
ETMMM515425020A	≥ M20	15.4	2.5	15	6	12.05	—	222	12	5	1	ETMWM51540250A	ISWMEA12200080
ETMMM420030010A	≥ M24	20	3	15	5	16	—	127	16	4	1	ETMWM42000300A	ISWMEA16100100

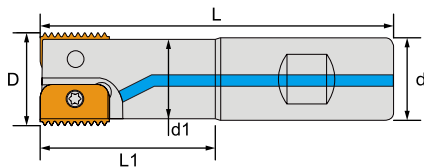
Indexable Thread Milling Tools - CXMT 捨棄式螺紋銑刀

Thread Milling Tools 螺紋銑刀



Order No.	D	L1	L	d	d1	T	Coolant Hole	Inserts	Screw	Wrench	Stock
ICXMTE141012071	12	20	75	20	8.9	1	✓	LNEX14 LNHT14	ITS3002	ITK09	●
ICXMTE141014081	14.5	25	85	20	11	1	✓				●
ICXMTE211021091	21	40	94	20	16.5	1	✓	LNEX21 LNHT21	ITS4020	ITK15	●
ICXMTE211025121	25	28	125	20	-	1	✓				●

● stock ○ by inquiry



Order No.	D	L1	L	d	d1	T	Coolant Hole	Inserts	Screw	Wrench	Stock
ICXMTE142020091	20	41	93	20	16	2	✓	LNEX14 LNHT14	ITS3002	ITK09	●
ICXMTE212030101	30	52	108	25	24	2	✓	LNEX21 LNHT21	ITS4020	ITK15	●

● stock ○ by inquiry

Recommended Cutting Conditions 建議切削數據

Working Material	Vc	fz
Carbon Steel / Alloy Steel	100 ~ 250	0.10 ~ 0.20
Stainless Steel	130 ~ 200	0.10 ~ 0.18
Cast Iron	100 ~ 200	0.12 ~ 0.20
Aluminum Alloy	110 ~ 400	0.15 ~ 0.24
Super Alloy	25 ~ 100	0.05 ~ 0.15
Hardened Steel	40 ~ 100	0.05 ~ 0.15

Thread Milling Tools - LNEX Inserts

螺紋銑削刀片

Designations for Thread Milling Insert 螺紋銑削刀片型號編碼

LNEX

21

E

100

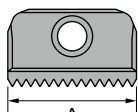
ISO

①

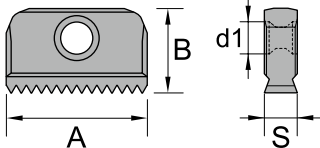
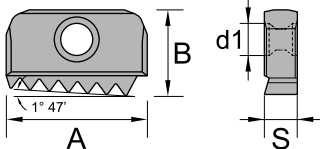
②

③

④

① Insert Size	② Type of Insert	③ Thread Pitch	④ Thread Standard																															
 <table><tr><th>A (mm)</th></tr><tr><td>14</td></tr><tr><td>21</td></tr></table>	A (mm)	14	21	<table><tr><td>E</td><td>External</td></tr><tr><td>I</td><td>Internal</td></tr><tr><td>None</td><td>External + Internal</td></tr></table>	E	External	I	Internal	None	External + Internal	<table><tr><td rowspan="2">TP (mm)</td><td>0.75</td><td>1.0</td><td>...</td><td>2.5</td></tr><tr><td>075</td><td>100</td><td>...</td><td>250</td></tr><tr><td rowspan="2">TPI</td><td>32</td><td>28</td><td>...</td><td>10</td></tr><tr><td>32</td><td>28</td><td>...</td><td>10</td></tr></table>	TP (mm)	0.75	1.0	...	2.5	075	100	...	250	TPI	32	28	...	10	32	28	...	10	<table><tr><td>ISO</td></tr><tr><td>UN</td></tr><tr><td>BSPT</td></tr><tr><td>NPT</td></tr></table>	ISO	UN	BSPT	NPT
A (mm)																																		
14																																		
21																																		
E	External																																	
I	Internal																																	
None	External + Internal																																	
TP (mm)	0.75	1.0	...	2.5																														
	075	100	...	250																														
TPI	32	28	...	10																														
	32	28	...	10																														
ISO																																		
UN																																		
BSPT																																		
NPT																																		

Insert Specifications 刀片規格

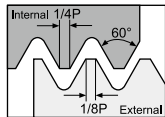
Insert	Dimensions (mm)				
	A	B	S	d1	
LNEX14	14	7.5	3.1	3.3	ISO, UN 
LNEX21	21	12	4.7	4.7	
LNHT14	14	7.5	3.1	3.3	BSPT, NPT 
LNHT21	21	12	4.7	4.7	

Insert Grade 刀片材質

Grade Type 刀片材質	Coating Color 塗層顏色	Properties 屬性	Application 加工特性	Working Material 加工材質						Industry Area 產業應用範圍
				P	M	K	N	S	H	
CX33TX		- PVD (AlTiSiN) - Wear resistance - Anti-corrosion	- Medium to roughing - General machining - Suitable for various materials	●	○	●		○	●	- Mold & Die - Automotive - Machinery - Aerospace
		- 耐磨性 - 抗腐蝕	- 適合中至粗加工 - 適合泛用加工 - 適用於各種材料加工							- 模具產業 - 汽車零件 - 機械零件 - 航太零件

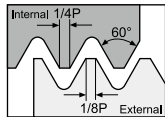
Indexable Thread Milling Inserts - ISO M 捨棄式螺絲銑削刀片 - ISO M

Insert Designation 刀片型號



ISO M
External 外徑

Insert	Order No.	Code-I/E-Pitch-Grade	Pitch	Working Material					
			TP(mm)	P	M	K	N	S	H
	ILNEX14E075ISO33TX	LNEX14E0.75ISO-CX33TX	0.75	●	○	●		○	●
	ILNEX14E100ISO33TX	LNEX14E1.00ISO-CX33TX	1.0	●	○	●		○	●
	ILNEX14E125ISO33TX	LNEX14E1.25ISO-CX33TX	1.25	●	○	●		○	●
	ILNEX14E150ISO33TX	LNEX14E1.50ISO-CX33TX	1.5	●	○	●		○	●
	ILNEX14E175ISO33TX	LNEX14E1.75ISO-CX33TX	1.75	●	○	●		○	●
	ILNEX14E200ISO33TX	LNEX14E2.00ISO-CX33TX	2.0	●	○	●		○	●
	ILNEX14E250ISO33TX	LNEX14E2.50ISO-CX33TX	2.5	●	○	●		○	●
	ILNEX21E100ISO33TX	LNEX21E1.00ISO-CX33TX	1.0	●	○	●		○	●
	ILNEX21E125ISO33TX	LNEX21E1.25ISO-CX33TX	1.25	●	○	●		○	●
	ILNEX21E150ISO33TX	LNEX21E1.50ISO-CX33TX	1.5	●	○	●		○	●
	ILNEX21E175ISO33TX	LNEX21E1.75ISO-CX33TX	1.75	●	○	●		○	●
	ILNEX21E200ISO33TX	LNEX21E2.00ISO-CX33TX	2.0	●	○	●		○	●
	ILNEX21E250ISO33TX	LNEX21E2.50ISO-CX33TX	2.5	●	○	●		○	●
	ILNEX21E300ISO33TX	LNEX21E3.00ISO-CX33TX	3.0	●	○	●		○	●



ISO M
Internal 內徑

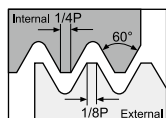
Insert	Order No.	Code-I/E-Pitch-Grade	Pitch	Working Material					
			TP(mm)	P	M	K	N	S	H
	ILNEX14I075ISO33TX	LNEX14I0.75ISO-CX33TX	0.75	●	○	●		○	●
	ILNEX14I100ISO33TX	LNEX14I1.00ISO-CX33TX	1.0	●	○	●		○	●
	ILNEX14I125ISO33TX	LNEX14I1.25ISO-CX33TX	1.25	●	○	●		○	●
	ILNEX14I150ISO33TX	LNEX14I1.50ISO-CX33TX	1.5	●	○	●		○	●
	ILNEX14I175ISO33TX	LNEX14I1.75ISO-CX33TX	1.75	●	○	●		○	●
	ILNEX14I200ISO33TX	LNEX14I2.00ISO-CX33TX	2.0	●	○	●		○	●
	ILNEX14I250ISO33TX	LNEX14I2.50ISO-CX33TX	2.5	●	○	●		○	●
	ILNEX21I100ISO33TX	LNEX21I1.00ISO-CX33TX	1.0	●	○	●		○	●
	ILNEX21I125ISO33TX	LNEX21I1.25ISO-CX33TX	1.25	●	○	●		○	●
	ILNEX21I150ISO33TX	LNEX21I1.50ISO-CX33TX	1.5	●	○	●		○	●
	ILNEX21I175ISO33TX	LNEX21I1.75ISO-CX33TX	1.75	●	○	●		○	●
	ILNEX21I200ISO33TX	LNEX21I2.00ISO-CX33TX	2.0	●	○	●		○	●
	ILNEX21I250ISO33TX	LNEX21I2.50ISO-CX33TX	2.5	●	○	●		○	●
	ILNEX21I300ISO33TX	LNEX21I3.00ISO-CX33TX	3.0	●	○	●		○	●

Threading

Indexable Thread Milling Inserts - UN

捨棄式螺絲銑削刀片 - UN

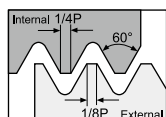
Insert Designation 刀片型號



UN

External 外徑

Insert	Order No.	Code-I/E-Pitch-Grade	Pitch	Working Material					
			TPI	P	M	K	N	S	H
	ILNEX14E32UN33TX	LNEX14E32UN-CX33TX	32	●	○	●		○	●
	ILNEX14E28UN33TX	LNEX14E28UN-CX33TX	28	●	○	●		○	●
	ILNEX14E24UN33TX	LNEX14E24UN-CX33TX	24	●	○	●		○	●
	ILNEX14E20UN33TX	LNEX14E20UN-CX33TX	20	●	○	●		○	●
	ILNEX14E18UN33TX	LNEX14E18UN-CX33TX	18	●	○	●		○	●
	ILNEX14E16UN33TX	LNEX14E16UN-CX33TX	16	●	○	●		○	●
	ILNEX14E14UN33TX	LNEX14E14UN-CX33TX	14	●	○	●		○	●
	ILNEX14E12UN33TX	LNEX14E12UN-CX33TX	12	●	○	●		○	●
	ILNEX21E24UN33TX	LNEX21E24UN-CX33TX	24	●	○	●		○	●
	ILNEX21E20UN33TX	LNEX21E20UN-CX33TX	20	●	○	●		○	●
	ILNEX21E18UN33TX	LNEX21E18UN-CX33TX	18	●	○	●		○	●
	ILNEX21E16UN33TX	LNEX21E16UN-CX33TX	16	●	○	●		○	●
	ILNEX21E14UN33TX	LNEX21E14UN-CX33TX	14	●	○	●		○	●
	ILNEX21E12UN33TX	LNEX21E12UN-CX33TX	12	●	○	●		○	●
	ILNEX21E10UN33TX	LNEX21E10UN-CX33TX	10	●	○	●		○	●



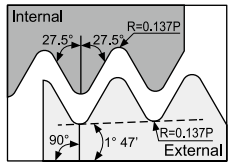
UN

Internal 內徑

Insert	Order No.	Code-I/E-Pitch-Grade	Pitch	Working Material					
			TPI	P	M	K	N	S	H
	ILNEX14I32UN33TX	LNEX14I32UN-CX33TX	32	●	○	●		○	●
	ILNEX14I28UN33TX	LNEX14I28UN-CX33TX	28	●	○	●		○	●
	ILNEX14I24UN33TX	LNEX14I24UN-CX33TX	24	●	○	●		○	●
	ILNEX14I20UN33TX	LNEX14I20UN-CX33TX	20	●	○	●		○	●
	ILNEX14I18UN33TX	LNEX14I18UN-CX33TX	18	●	○	●		○	●
	ILNEX14I16UN33TX	LNEX14I16UN-CX33TX	16	●	○	●		○	●
	ILNEX14I14UN33TX	LNEX14I14UN-CX33TX	14	●	○	●		○	●
	ILNEX14I12UN33TX	LNEX14I12UN-CX33TX	12	●	○	●		○	●
	ILNEX21I24UN33TX	LNEX21I24UN-CX33TX	24	●	○	●		○	●
	ILNEX21I20UN33TX	LNEX21I20UN-CX33TX	20	●	○	●		○	●
	ILNEX21I18UN33TX	LNEX21I18UN-CX33TX	18	●	○	●		○	●
	ILNEX21I16UN33TX	LNEX21I16UN-CX33TX	16	●	○	●		○	●
	ILNEX21I14UN33TX	LNEX21I14UN-CX33TX	14	●	○	●		○	●
	ILNEX21I12UN33TX	LNEX21I12UN-CX33TX	12	●	○	●		○	●
	ILNEX21I10UN33TX	LNEX21I10UN-CX33TX	10	●	○	●		○	●

Indexable Pipe Thread Milling Inserts - BSPT, NPT 捨棄式管用錐形銑牙刀片 - BSPT, NPT

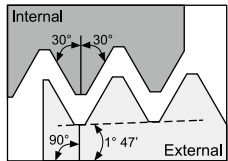
Insert Designation 刀片型號



BSPT

External and Internal 外徑和內徑

Insert	Order No.	Serie-Pitch-Grade	Pitch	Working Material					
			TPI	P	M	K	N	S	H
	ILNHT1419BSPT33TX	LNHT1419BSPT-CX33TX	19	●	○	●		○	●
	ILNHT1414BSPT33TX	LNHT1414BSPT-CX33TX	14	●	○	●		○	●
	ILNHT2114BSPT33TX	LNHT2114BSPT-CX33TX	14	●	○	●		○	●
	ILNHT2111BSPT33TX	LNHT2111BSPT-CX33TX	11	●	○	●		○	●

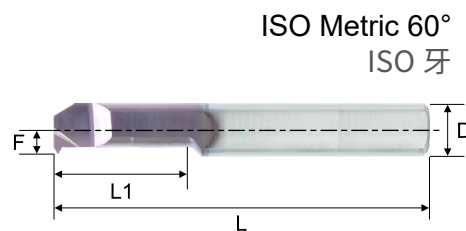


NPT

External and Internal 外徑和內徑

Insert	Order No.	Code-Pitch-Grade	Pitch	Working Material					
			TPI	P	M	K	N	S	H
	ILNHT1418NPT33TX	LNHT1418NPT-CX33TX	18	●	○	●		○	●
	ILNHT1414NPT33TX	LNHT1414NPT-CX33TX	14	●	○	●		○	●
	ILNHT2114NPT33TX	LNHT2114NPT-CX33TX	14	●	○	●		○	●
	ILNHT2111NPT33TX	LNHT2111NPT-CX33TX	11.5	●	○	●		○	●

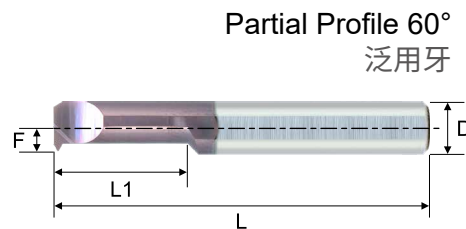
全鎢鋼內徑螺紋車刀



ISO Metric 60°
ISO 牙

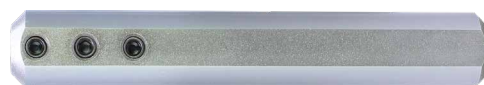
* For left hand tools specify DLTSL instead of DLTSR.

全鎢鋼內徑螺紋車刀

Partial Profile 60°
泛用牙[illegible]

Threading

迷你鎢鋼內徑搪刀套筒

E030

Designations for Thread Turning Insert

螺紋車刀片型號編碼

16

①

E

②

R

③

④

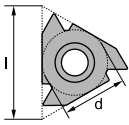
A

⑤

60

⑥

① Insert Size



l (mm)	d (inch)
11	1/4
16	3/8
22	1/2

② Application

E	Regular Type, External
I	Regular Type, Internal
UE	U Type, External
UI	U Type, Internal
UEI	U Type, External and internal
VE	Vertical Type, External
VI	Vertical Type, Internal

 Regular Type U Type Vertical Type

③ Hand of Tool

R	Right Hand
L	Left Hand
RL	Right and left-hand

④ Type

M	Press to size with a chipbreaker
B	Peripherally ground & chipbreaker

⑤ Thread Pitch or TPI

Partial Profile

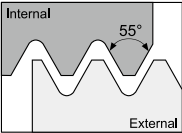
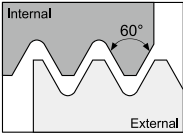
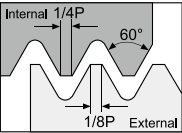
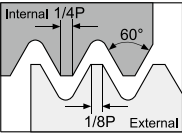
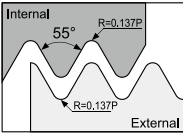
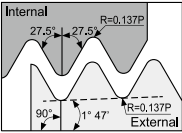
	TP (mm)	TPI
A	0.5 ~ 1.5	48 ~ 16
AG	0.5 ~ 3.0	48 ~ 8
G	1.75 ~ 3.0	14 ~ 8
N	3.5 ~ 5.0	7 ~ 5
U	5.5 ~ 8.0	4.5 ~ 4

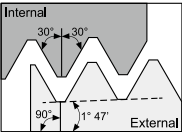
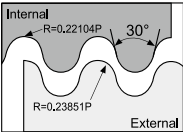
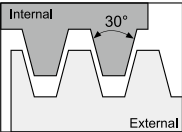
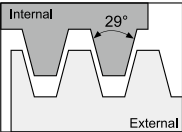
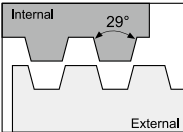
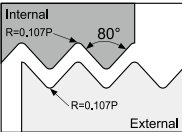
Full Profile
Value by number

TP (mm)	TPI
0.75	34
⋮	⋮
6.00	5

⑥ Thread Standard

55	Partial Profile 55°
60	Partial Profile 60°
ISO	ISO Metric 60°
UN	American UN 60°
W	Whitworth 55°
BSPT	British Standard Pipe Thread
NPT	NPT
RD	Round DIN 405
TR	Trapeze DIN 103
ACME	ACME
STACME	Stub ACME
PG	Pg DIN 40430
UNJ	UNJ
MJ	MJ ISO 5855
⋮	⋮

 Partial Profile 55° Partial Profile 60° ISO Metric 60° American UN 60° Whitworth 55° BSPT 55°

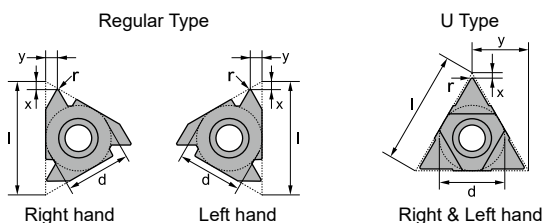
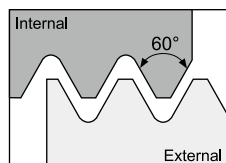
 NPT 60° Round (DIN 405) Trapeze (DIN 103) ACME Stub ACME PG (DIM 40430)

Threading

Thread Turning Inserts - Partial Profile 60°

螺紋車刀片 - 60° 泛牙型

External 外徑



Insert	Order No.	Designation	Pitch		Dimensions (mm)					Working Material					
			TP (mm)	TPI	d	l	r	x	y	P	M	K	N	S	H
 Regular Type	I11ERA606025	11ER-A60-CP6025	0.5 ~ 1.5	48 ~ 16	1/4"	11	0.05	0.8	0.9	●	●	●		○	○
	I11ELA606025	11EL-A60-CP6025	0.5 ~ 1.5	48 ~ 16	1/4"	11	0.05	0.8	0.9	●	●	●		○	○
	I16ERA606025	16ER-A60-CP6025	0.5 ~ 1.5	48 ~ 16	3/8"	16	0.05	0.8	0.9	●	●	●		○	○
	I16ELA606025	16EL-A60-CP6025	0.5 ~ 1.5	48 ~ 16	3/8"	16	0.05	0.8	0.9	●	●	●		○	○
	I16ERAG606025	16ER-AG60-CP6025	0.5 ~ 3.0	48 ~ 8	3/8"	16	0.05	1.2	1.7	●	●	●		○	○
	* I16ERMAG606025	16ERM-AG60-CP6025	0.5 ~ 3.0	48 ~ 8	3/8"	16	0.12	1.2	1.7	●	●	●		○	○
	I16ELAG606025	16EL-AG60-CP6025	0.5 ~ 3.0	48 ~ 8	3/8"	16	0.05	1.2	1.7	●	●	●		○	○
	I16ERG606025	16ER-G60-CP6025	1.75 ~ 3.0	14 ~ 8	3/8"	16	0.17	1.2	1.7	●	●	●		○	○
	I16ELG606025	16EL-G60-CP6025	1.75 ~ 3.0	14 ~ 8	3/8"	16	0.17	1.2	1.7	●	●	●		○	○
	I22ERN606025	22ER-N60-CP6025	3.5 ~ 5.0	7 ~ 5	1/2"	22	0.32	1.7	2.5	●	●	●		○	○
	I22ELN606025	22EL-N60-CP6025	3.5 ~ 5.0	7 ~ 5	1/2"	22	0.32	1.7	2.5	●	●	●		○	○
 U Type	** I22UEIRLU606025	22UEIRL-U60-CP6025	5.5 ~ 8.0	4.5 ~ 3.25	1/2"	22	0.28	0.6	11.0	●	●	●		○	○

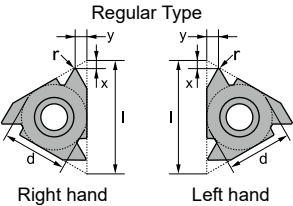
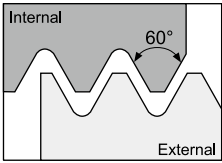
* Press to size with a chip breaker.

** For external and internal application.

Thread Turning Inserts - Partial Profile 60°

螺紋車刀片 - 60° 泛牙型

Internal 內徑



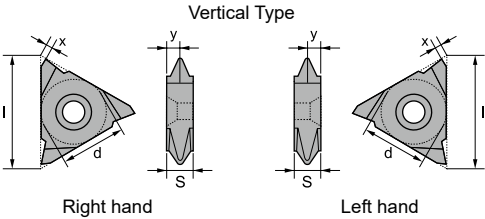
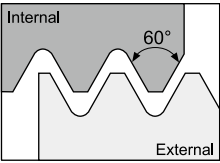
Insert	Order No.	Designation	Pitch		Dimensions (mm)					Working Material					
			TP (mm)	TPI	d	l	r	x	y	P	M	K	N	S	H
 Regular Type	I11IRA606025	11IR-A60-CP6025	0.5 ~ 1.5	48 ~ 16	1/4"	11	0.05	0.8	0.9	●	●	●		○	○
	I11ILA606025	11IL-A60-CP6025	0.5 ~ 1.5	48 ~ 16	1/4"	11	0.05	0.8	0.9	●	●	●		○	○
	I16IRA606025	16IR-A60-CP6025	0.5 ~ 1.5	48 ~ 16	3/8"	16	0.05	0.8	0.9	●	●	●		○	○
	I16ILA606025	16IL-A60-CP6025	0.5 ~ 1.5	48 ~ 16	3/8"	16	0.05	0.8	0.9	●	●	●		○	○
	I16IRAG606025	16IR-AG60-CP6025	0.5 ~ 3.0	48 ~ 8	3/8"	16	0.05	1.2	1.7	●	●	●		○	○
	* I16IRMAG606025	16IRM-AG60-CP6025	0.5 ~ 3.0	48 ~ 8	3/8"	16	0.12	1.2	1.7	●	●	●		○	○
	I16ILAG606025	16IL-AG60-CP6025	0.5 ~ 3.0	48 ~ 8	3/8"	16	0.05	1.2	1.7	●	●	●		○	○
	I16IRG606025	16IR-G60-CP6025	1.75 ~ 3.0	14 ~ 8	3/8"	16	0.12	1.2	1.7	●	●	●		○	○
	I16ILG606025	16IL-G60-CP6025	1.75 ~ 3.0	14 ~ 8	3/8"	16	0.12	1.2	1.7	●	●	●		○	○
	I22IRN606025	22IR-N60-CP6025	3.5 ~ 5.0	7 ~ 5	1/2"	22	0.22	1.7	2.5	●	●	●		○	○
	I22ILN606025	22IL-N60-CP6025	3.5 ~ 5.0	7 ~ 5	1/2"	22	0.22	1.7	2.5	●	●	●		○	○

* Press to size with a chip breaker.

Thread Turning Inserts - Partial Profile 60° Vertical

立式螺紋車刀片 - 60° 泛牙型

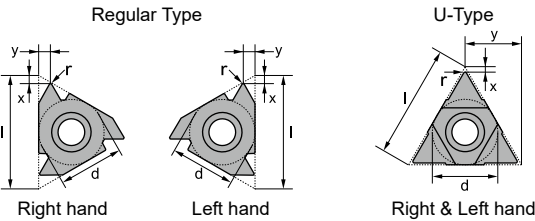
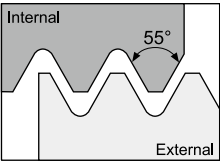
External 外徑



Insert	Order No.	Designation	Pitch		Dimensions (mm)					Working Material					
			TP (mm)	TPI	d	l	x	y	S	P	M	K	N	S	H
 Vertical Type	I16VERA606025	16VER-A60-CP6025	0.5 ~ 1.5	48 ~ 16	3/8"	16	1.0	0.9	3.18	●	●	●		○	○
	I16VELA606025	16VEL-A60-CP6025	0.5 ~ 1.5	48 ~ 16	3/8"	16	1.0	0.9	3.18	●	●	●		○	○
	I16VERAG606025	16VER-AG60-CP6025	0.5 ~ 2.5	48 ~ 10	3/8"	16	1.0	1.5	3.18	●	●	●		○	○
	I16VELAG606025	16VEL-AG60-CP6025	0.5 ~ 2.5	48 ~ 10	3/8"	16	1.0	1.5	3.18	●	●	●		○	○
	I16VERG606025	16VER-G60-CP6025	1.75 ~ 2.5	14 ~ 10	3/8"	16	1.0	1.5	3.18	●	●	●		○	○
	I16VELG606025	16VEL-G60-CP6025	1.75 ~ 2.5	14 ~ 10	3/8"	16	1.0	1.5	3.18	●	●	●		○	○

Thread Turning Inserts - Partial Profile 55° 螺紋車刀片 - 55° 泛牙型

External 外徑



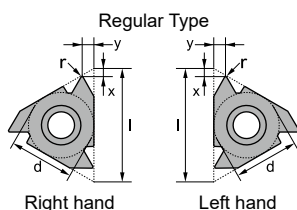
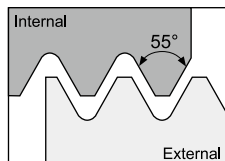
Insert	Order No.	Designation	Pitch		Dimensions (mm)					Working Material					
			TP (mm)	TPI	d	l	r	x	y	P	M	K	N	S	H
 Regular Type	I11ERA556025	11ER-A55-CP6025	0.5 ~ 1.5	48 ~ 16	1/4"	11	0.05	0.8	0.9	●	●	●		○	○
	I11ELA556025	11EL-A55-CP6025	0.5 ~ 1.5	48 ~ 16	1/4"	11	0.05	0.8	0.9	●	●	●		○	○
	I16ERA556025	16ER-A55-CP6025	0.5 ~ 1.5	48 ~ 16	3/8"	16	0.05	0.8	0.9	●	●	●		○	○
	I16ELA556025	16EL-A55-CP6025	0.5 ~ 1.5	48 ~ 16	3/8"	16	0.05	0.8	0.9	●	●	●		○	○
	I16ERAG556025	16ER-AG55-CP6025	0.5 ~ 3.0	48 ~ 8	3/8"	16	0.05	1.2	1.7	●	●	●		○	○
	* I16ERMAG556025	16ERM-AG55-CP6025	0.5 ~ 3.0	48 ~ 8	3/8"	16	0.12	1.2	1.7	●	●	●		○	○
	I16ELAG556025	16EL-AG55-CP6025	0.5 ~ 3.0	48 ~ 8	3/8"	16	0.05	1.2	1.7	●	●	●		○	○
	I16ERG556025	16ER-G55-CP6025	1.75 ~ 3.0	14 ~ 8	3/8"	16	0.17	1.2	1.7	●	●	●		○	○
	I16ELG556025	16EL-G55-CP6025	1.75 ~ 3.0	14 ~ 8	3/8"	16	0.17	1.2	1.7	●	●	●		○	○
	I22ERN556025	22ER-N55-CP6025	3.5 ~ 5.0	7 ~ 5	1/2"	22	0.42	1.7	2.5	●	●	●		○	○
	I22ELN556025	22EL-N55-CP6025	3.5 ~ 5.0	7 ~ 5	1/2"	22	0.42	1.7	2.5	●	●	●		○	○
 U Type	** I22UEIRLU556025	22UEIRL-U55-CP6025	5.5 ~ 8.0	4.5 ~ 3.25	1/2"	22	0.60	0.9	11.0	●	●	●		○	○

* Press to size with a chip breaker.
** For external and internal application.

Thread Turning Inserts - Partial Profile 55°

螺紋車刀片 - 55° 泛牙型

Internal 內徑



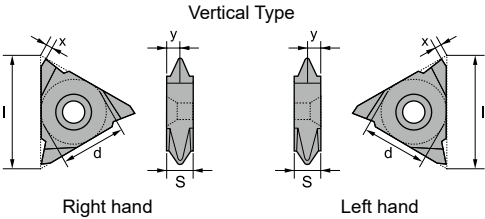
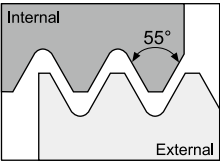
Insert	Order No.	Designation	Pitch		Dimensions (mm)					Working Material					
			TP (mm)	TPI	d	l	r	x	y	P	M	K	N	S	H
 Regular Type	I11IRA556025	11IR-A55-CP6025	0.5 ~ 1.5	48 ~ 16	1/4"	11	0.05	0.8	0.9	●	●	●		○	○
	I11ILA556025	11IL-A55-CP6025	0.5 ~ 1.5	48 ~ 16	1/4"	11	0.05	0.8	0.9	●	●	●		○	○
	I16IRA556025	16IR-A55-CP6025	0.5 ~ 1.5	48 ~ 16	3/8"	16	0.05	0.8	0.9	●	●	●		○	○
	I16ILA556025	16IL-A55-CP6025	0.5 ~ 1.5	48 ~ 16	3/8"	16	0.05	0.8	0.9	●	●	●		○	○
	I16IRAG556025	16IR-AG55-CP6025	0.5 ~ 3.0	48 ~ 8	3/8"	16	0.05	1.2	1.7	●	●	●		○	○
	* I16IRMAG556025	16IRM-AG55-CP6025	0.5 ~ 3.0	48 ~ 8	3/8"	16	0.12	1.2	1.7	●	●	●		○	○
	I16ILAG556025	16IL-AG55-CP6025	0.5 ~ 3.0	48 ~ 8	3/8"	16	0.05	1.2	1.7	●	●	●		○	○
	I16IRG556025	16IR-G55-CP6025	1.75 ~ 3.0	14 ~ 8	3/8"	16	0.12	1.2	1.7	●	●	●		○	○
	I16ILG556025	16IL-G55-CP6025	1.75 ~ 3.0	14 ~ 8	3/8"	16	0.12	1.2	1.7	●	●	●		○	○
	I22IRN556025	22IR-N55-CP6025	3.5 ~ 5.0	7 ~ 5	1/2"	22	0.42	1.7	2.5	●	●	●		○	○
	I22ILN556025	22IL-N55-CP6025	3.5 ~ 5.0	7 ~ 5	1/2"	22	0.42	1.7	2.5	●	●	●		○	○

* Press to size with a chip breaker.

Thread Turning Inserts - Partial Profile 55° Vertical

立式螺紋車刀片 - 55° 泛牙型

External 外徑

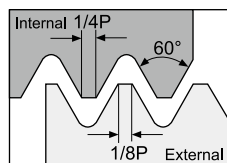


Insert	Order No.	Designation	Pitch		Dimensions (mm)					Working Material					
			TP (mm)	TPI	d	l	x	y	S	P	M	K	N	S	H
 Vertical Type	I16VERA556025	16VER-A55-CP6025	0.5 ~ 1.5	48 ~ 16	3/8"	16	1.0	0.9	3.18	●	●	●		○	○
	I16VELA556025	16VEL-A55-CP6025	0.5 ~ 1.5	48 ~ 16	3/8"	16	1.0	0.9	3.18	●	●	●		○	○
	I16VERAG556025	16VER-AG55-CP6025	0.5 ~ 2.5	48 ~ 10	3/8"	16	1.0	1.5	3.18	●	●	●		○	○
	I16VELAG556025	16VEL-AG55-CP6025	0.5 ~ 2.5	48 ~ 10	3/8"	16	1.0	1.5	3.18	●	●	●		○	○
	I16VERG556025	16VER-G55-CP6025	1.75 ~ 2.5	14 ~ 10	3/8"	16	1.0	1.5	3.18	●	●	●		○	○
	I16VELG556025	16VEL-G55-CP6025	1.75 ~ 2.5	14 ~ 10	3/8"	16	1.0	1.5	3.18	●	●	●		○	○

Thread Turning Inserts - ISO Metric 60°

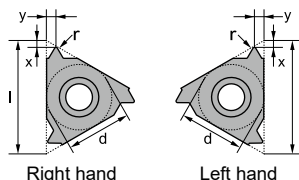
螺紋車刀片 - ISO 公制 60° 螺紋

External 外徑



Tolerance Class : 6g/6H

Regular Type



Right hand

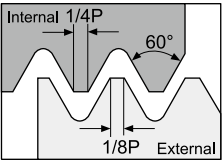
Left hand

Insert	Order No.	Designation	Pitch	Dimensions (mm)					Working Material					
			TP (mm)	d	l	r	x	y	P	M	K	N	S	H
 Regular Type	I16ER035IS06025	16ER-0.35ISO-CP6025	0.35	3/8"	16	0.04	0.8	0.4	●	●	●		○	○
	I16EL035IS06025	16EL-0.35ISO-CP6025	0.35	3/8"	16	0.04	0.8	0.4	●	●	●		○	○
	I16ER040IS06025	16ER-0.40ISO-CP6025	0.40	3/8"	16	0.04	0.7	0.4	●	●	●		○	○
	I16ER045IS06025	16ER-0.45ISO-CP6025	0.45	3/8"	16	0.05	0.7	0.4	●	●	●		○	○
	I16ER050IS06025	16ER-0.50ISO-CP6025	0.50	3/8"	16	0.05	0.6	0.6	●	●	●		○	○
	I16EL050IS06025	16EL-0.50ISO-CP6025	0.50	3/8"	16	0.05	0.6	0.6	●	●	●		○	○
	I16ER060IS06025	16ER-0.60ISO-CP6025	0.60	3/8"	16	0.07	0.6	0.6	●	●	●		○	○
	I16ER070IS06025	16ER-0.70ISO-CP6025	0.70	3/8"	16	0.07	0.6	0.6	●	●	●		○	○
	I16ER075IS06025	16ER-0.75ISO-CP6025	0.75	3/8"	16	0.08	0.6	0.6	●	●	●		○	○
	I16EL075IS06025	16EL-0.75ISO-CP6025	0.75	3/8"	16	0.08	0.6	0.6	●	●	●		○	○
	I16ER080IS06025	16ER-0.80ISO-CP6025	0.80	3/8"	16	0.09	0.6	0.6	●	●	●		○	○
	I16EL080IS06025	16EL-0.80ISO-CP6025	0.80	3/8"	16	0.09	0.6	0.6	●	●	●		○	○
	I16ER100IS06025	16ER-1.00ISO-CP6025	1.00	3/8"	16	0.12	0.7	0.7	●	●	●		○	○
	I16EL100IS06025	16EL-1.00ISO-CP6025	1.00	3/8"	16	0.12	0.7	0.7	●	●	●		○	○
	I16ER125IS06025	16ER-1.25ISO-CP6025	1.25	3/8"	16	0.15	0.8	0.9	●	●	●		○	○
	I16EL125IS06025	16EL-1.25ISO-CP6025	1.25	3/8"	16	0.15	0.8	0.9	●	●	●		○	○
	I16ER150IS06025	16ER-1.50ISO-CP6025	1.50	3/8"	16	0.18	0.8	1.0	●	●	●		○	○
	I16EL150IS06025	16EL-1.50ISO-CP6025	1.50	3/8"	16	0.18	0.8	1.0	●	●	●		○	○
	I16ER175IS06025	16ER-1.75ISO-CP6025	1.75	3/8"	16	0.21	0.9	1.2	●	●	●		○	○
	I16EL175IS06025	16EL-1.75ISO-CP6025	1.75	3/8"	16	0.21	0.9	1.2	●	●	●		○	○
	I16ER200IS06025	16ER-2.00ISO-CP6025	2.00	3/8"	16	0.25	1.0	1.3	●	●	●		○	○
	I16EL200IS06025	16EL-2.00ISO-CP6025	2.00	3/8"	16	0.25	1.0	1.3	●	●	●		○	○
	I16ER250IS06025	16ER-2.50ISO-CP6025	2.50	3/8"	16	0.31	1.1	1.5	●	●	●		○	○
	I16EL250IS06025	16EL-2.50ISO-CP6025	2.50	3/8"	16	0.31	1.1	1.5	●	●	●		○	○
	I16ER300IS06025	16ER-3.00ISO-CP6025	3.00	3/8"	16	0.38	1.2	1.6	●	●	●		○	○
	I16EL300IS06025	16EL-3.00ISO-CP6025	3.00	3/8"	16	0.38	1.2	1.6	●	●	●		○	○

(continued)

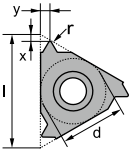
Thread Turning Inserts - ISO Metric 60° 螺紋車刀片 - ISO 公制 60° 螺紋

External 外徑

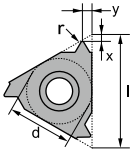


Tolerance Class : 6g/6H

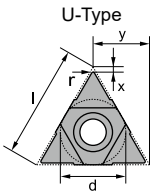
Regular Type



Right hand



Left hand



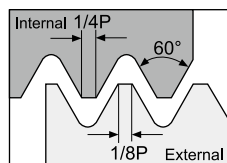
Right & Left hand

Insert	Order No.	Designation	Pitch	Dimensions (mm)					Working Material					
			TP (mm)	d	l	r	x	y	P	M	K	N	S	H
 Regular Type	I22ER350ISO6025	22ER-3.50ISO-CP6025	3.50	1/2"	22	0.44	1.6	2.3	●	●	●		○	○
	I22EL350ISO6025	22EL-3.50ISO-CP6025	3.50	1/2"	22	0.44	1.6	2.3	●	●	●		○	○
	I22ER400ISO6025	22ER-4.00ISO-CP6025	4.00	1/2"	22	0.52	1.6	2.3	●	●	●		○	○
	I22EL400ISO6025	22EL-4.00ISO-CP6025	4.00	1/2"	22	0.52	1.6	2.3	●	●	●		○	○
	I22ER450ISO6025	22ER-4.50ISO-CP6025	4.50	1/2"	22	0.58	1.7	2.4	●	●	●		○	○
	I22EL450ISO6025	22EL-4.50ISO-CP6025	4.50	1/2"	22	0.58	1.7	2.4	●	●	●		○	○
	I22ER500ISO6025	22ER-5.00ISO-CP6025	5.00	1/2"	22	0.64	1.7	2.5	●	●	●		○	○
	I22EL500ISO6025	22EL-5.00ISO-CP6025	5.00	1/2"	22	0.64	1.7	2.5	●	●	●		○	○
 U Type	I22UERL550ISO6025	22UERL-5.50ISO-CP6025	5.50	1/2"	22	0.70	2.3	11.0	●	●	●		○	○
	I22UERL600ISO6025	22UERL-6.00ISO-CP6025	6.00	1/2"	22	0.78	2.6	11.0	●	●	●		○	○

Thread Turning Inserts - ISO Metric 60°

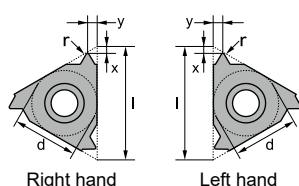
螺紋車刀片 - ISO 公制 60° 螺紋

Internal 內徑



Tolerance Class : 6g/6H

Regular Type



Right hand

Left hand

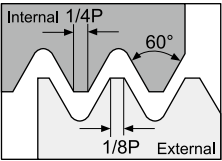
Insert	Order No.	Designation	Pitch	Dimensions (mm)					Working Material					
			TP (mm)	d	l	r	x	y	P	M	K	N	S	H
 Regular Type	I11IR035IS06025	11IR-0.35ISO-CP6025	0.35	1/4"	11	0.02	0.8	0.3	●	●	●		○	○
	I11IL035IS06025	11IL-0.35ISO-CP6025	0.35	1/4"	11	0.02	0.8	0.3	●	●	●		○	○
	I11IR040IS06025	11IR-0.40ISO-CP6025	0.40	1/4"	11	0.02	0.8	0.4	●	●	●		○	○
	I11IR050IS06025	11IR-0.50ISO-CP6025	0.50	1/4"	11	0.03	0.6	0.6	●	●	●		○	○
	I11IL050IS06025	11IL-0.50ISO-CP6025	0.50	1/4"	11	0.03	0.6	0.6	●	●	●		○	○
	I11IR070IS06025	11IR-0.70ISO-CP6025	0.70	1/4"	11	0.04	0.6	0.6	●	●	●		○	○
	I11IR075IS06025	11IR-0.75ISO-CP6025	0.75	1/4"	11	0.04	0.6	0.6	●	●	●		○	○
	I11IL075IS06025	11IL-0.75ISO-CP6025	0.75	1/4"	11	0.04	0.6	0.6	●	●	●		○	○
	I11IR080IS06025	11IR-0.80ISO-CP6025	0.80	1/4"	11	0.04	0.6	0.6	●	●	●		○	○
	I11IR100IS06025	11IR-1.00ISO-CP6025	1.00	1/4"	11	0.05	0.6	0.7	●	●	●		○	○
	I11IL100IS06025	11IL-1.00ISO-CP6025	1.00	1/4"	11	0.05	0.6	0.7	●	●	●		○	○
	I11IR125IS06025	11IR-1.25ISO-CP6025	1.25	1/4"	11	0.07	0.8	0.8	●	●	●		○	○
	I11IL125IS06025	11IL-1.25ISO-CP6025	1.25	1/4"	11	0.07	0.8	0.8	●	●	●		○	○
	I11IR150IS06025	11IR-1.50ISO-CP6025	1.50	1/4"	11	0.08	0.8	1.0	●	●	●		○	○
	I11IL150IS06025	11IL-1.50ISO-CP6025	1.50	1/4"	11	0.08	0.8	1.0	●	●	●		○	○
	I16IR075IS06025	16IR-0.75ISO-CP6025	0.75	3/8"	16	0.04	0.6	0.6	●	●	●		○	○
	I16IL075IS06025	16IL-0.75ISO-CP6025	0.75	3/8"	16	0.04	0.6	0.6	●	●	●		○	○
	I16IR080IS06025	16IR-0.80ISO-CP6025	0.80	3/8"	16	0.04	0.6	0.6	●	●	●		○	○
	I16IL080IS06025	16IL-0.80ISO-CP6025	0.80	3/8"	16	0.04	0.6	0.6	●	●	●		○	○
	I16IR100IS06025	16IR-1.00ISO-CP6025	1.00	3/8"	16	0.05	0.6	0.7	●	●	●		○	○
	I16IL100IS06025	16IL-1.00ISO-CP6025	1.00	3/8"	16	0.05	0.6	0.7	●	●	●		○	○
	I16IR125IS06025	16IR-1.25ISO-CP6025	1.25	3/8"	16	0.07	0.8	0.9	●	●	●		○	○
	I16IL125IS06025	16IL-1.25ISO-CP6025	1.25	3/8"	16	0.07	0.8	0.9	●	●	●		○	○
	I16IR150IS06025	16IR-1.50ISO-CP6025	1.50	3/8"	16	0.10	0.8	1.0	●	●	●		○	○
	I16IL150IS06025	16IL-1.50ISO-CP6025	1.50	3/8"	16	0.10	0.8	1.0	●	●	●		○	○
	I16IR175IS06025	16IR-1.75ISO-CP6025	1.75	3/8"	16	0.12	0.9	1.2	●	●	●		○	○
	I16IL175IS06025	16IL-1.75ISO-CP6025	1.75	3/8"	16	0.12	0.9	1.2	●	●	●		○	○

(continued)

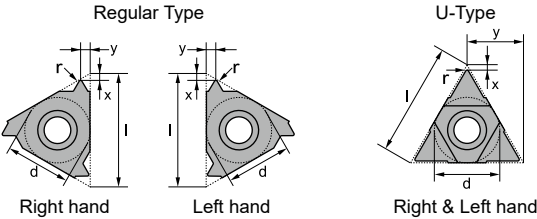
Thread Turning Inserts - ISO Metric 60°

螺紋車刀片 - ISO 公制 60° 螺紋

Internal 內徑



Tolerance Class : 6g/6H

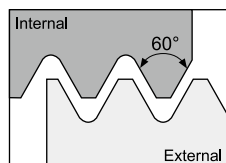


Insert	Order No.	Designation	Pitch	Dimensions (mm)					Working Material					
			TP (mm)	d	l	r	x	y	P	M	K	N	S	H
 Regular Type	I16IR200ISO6025	16IR-2.00ISO-CP6025	2.00	3/8"	16	0.13	1.0	1.3	●	●	●		○	○
	I16IL200ISO6025	16IL-2.00ISO-CP6025	2.00	3/8"	16	0.13	1.0	1.3	●	●	●		○	○
	I16IR250ISO6025	16IR-2.50ISO-CP6025	2.50	3/8"	16	0.15	1.1	1.5	●	●	●		○	○
	I16IL250ISO6025	16IL-2.50ISO-CP6025	2.50	3/8"	16	0.15	1.1	1.5	●	●	●		○	○
	I16IR300ISO6025	16IR-3.00ISO-CP6025	3.00	3/8"	16	0.18	1.1	1.5	●	●	●		○	○
	I16IL300ISO6025	16IL-3.00ISO-CP6025	3.00	3/8"	16	0.18	1.1	1.5	●	●	●		○	○
	I22IR350ISO6025	22IR-3.50ISO-CP6025	3.50	1/2"	22	0.22	1.6	2.3	●	●	●		○	○
	I22IL350ISO6025	22IL-3.50ISO-CP6025	3.50	1/2"	22	0.22	1.6	2.3	●	●	●		○	○
	I22IR400ISO6025	22IR-4.00ISO-CP6025	4.00	1/2"	22	0.25	1.6	2.3	●	●	●		○	○
	I22IL400ISO6025	22IL-4.00ISO-CP6025	4.00	1/2"	22	0.25	1.6	2.3	●	●	●		○	○
	I22IR450ISO6025	22IR-4.50ISO-CP6025	4.50	1/2"	22	0.29	1.6	2.4	●	●	●		○	○
	I22IL450ISO6025	22IL-4.50ISO-CP6025	4.50	1/2"	22	0.29	1.6	2.4	●	●	●		○	○
	I22IR500ISO6025	22IR-5.00ISO-CP6025	5.00	1/2"	22	0.32	1.6	2.3	●	●	●		○	○
	I22IL500ISO6025	22IL-5.00ISO-CP6025	5.00	1/2"	22	0.32	1.6	2.3	●	●	●		○	○
 U Type	I22UIRL550ISO6025	22UIRL-5.50ISO-CP6025	5.50	1/2"	22	0.35	2.4	11.0	●	●	●		○	○
	I22UIRL600ISO6025	22UIRL-6.00ISO-CP6025	6.00	1/2"	22	0.39	2.1	11.0	●	●	●		○	○

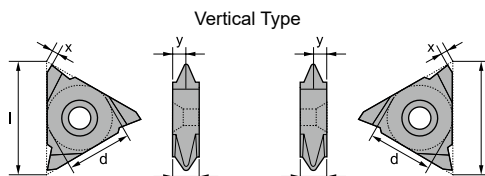
Thread Turning Inserts - ISO Metric 60° Vertical

立式螺紋車刀片 - ISO 公制 60° 螺紋

External 外徑



Tolerance Class : 6g/6H



Right hand

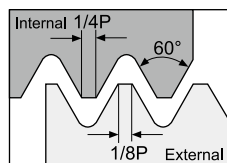
Left hand

Insert	Order No.	Designation	Pitch	Dimensions (mm)					Working Material					
			TP (mm)	d	l	x	y	S	P	M	K	N	S	H
 Vertical Type	I16VER050ISO6025	16VER-0.50ISO-CP6025	0.50	3/8"	16	1.0	0.6	3.18	●	●	●		○	○
	I16VEL050ISO6025	16VEL-0.50ISO-CP6025	0.50	3/8"	16	1.0	0.6	3.18	●	●	●		○	○
	I16VER075ISO6025	16VER-0.75ISO-CP6025	0.75	3/8"	16	1.0	0.6	3.18	●	●	●		○	○
	I16VEL075ISO6025	16VEL-0.75ISO-CP6025	0.75	3/8"	16	1.0	0.6	3.18	●	●	●		○	○
	I16VER080ISO6025	16VER-0.80ISO-CP6025	0.80	3/8"	16	1.0	0.6	3.18	●	●	●		○	○
	I16VEL080ISO6025	16VEL-0.80ISO-CP6025	0.80	3/8"	16	1.0	0.6	3.18	●	●	●		○	○
	I16VER100ISO6025	16VER-1.00ISO-CP6025	1.00	3/8"	16	1.0	0.7	3.18	●	●	●		○	○
	I16VEL100ISO6025	16VEL-1.00ISO-CP6025	1.00	3/8"	16	1.0	0.7	3.18	●	●	●		○	○
	I16VER125ISO6025	16VER-1.25ISO-CP6025	1.25	3/8"	16	1.0	0.9	3.18	●	●	●		○	○
	I16VEL125ISO6025	16VEL-1.25ISO-CP6025	1.25	3/8"	16	1.0	0.9	3.18	●	●	●		○	○
	I16VER150ISO6025	16VER-1.50ISO-CP6025	1.50	3/8"	16	1.0	0.9	3.18	●	●	●		○	○
	I16VEL150ISO6025	16VEL-1.50ISO-CP6025	1.50	3/8"	16	1.0	0.9	3.18	●	●	●		○	○
	I16VER175ISO6025	16VER-1.75ISO-CP6025	1.75	3/8"	16	1.0	1.2	3.18	●	●	●		○	○
	I16VEL175ISO6025	16VEL-1.75ISO-CP6025	1.75	3/8"	16	1.0	1.2	3.18	●	●	●		○	○
	I16VER200ISO6025	16VER-2.00ISO-CP6025	2.00	3/8"	16	1.0	1.3	3.18	●	●	●		○	○
	I16VEL200ISO6025	16VEL-2.00ISO-CP6025	2.00	3/8"	16	1.0	1.3	3.18	●	●	●		○	○
	I16VER250ISO6025	16VER-2.50ISO-CP6025	2.50	3/8"	16	1.0	1.5	3.18	●	●	●		○	○
	I16VEL250ISO6025	16VEL-2.50ISO-CP6025	2.50	3/8"	16	1.0	1.5	3.18	●	●	●		○	○

Thread Turning Inserts - American UN 60°

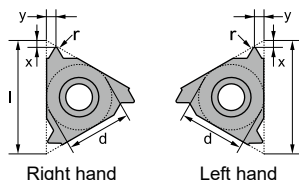
螺紋車刀片 - 美制 UN 60° 螺紋

External 外徑



Tolerance Class : 2A/2B

Regular Type



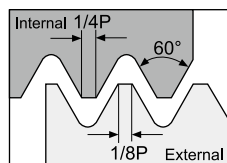
Right hand

Left hand

Insert	Order No.	Designation	Pitch	Dimensions (mm)					Working Material					
			TPI	d	l	r	x	y	P	M	K	N	S	H
 Regular Type	I11ER32UN6025	11ER-32UN-CP6025	32	1/4"	11	0.09	0.6	0.6	●	●	●		○	○
	I11ER28UN6025	11ER-28UN-CP6025	28	1/4"	11	0.10	0.6	0.7	●	●	●		○	○
	I11EL28UN6025	11EL-28UN-CP6025	28	1/4"	11	0.10	0.6	0.7	●	●	●		○	○
	I11ER18UN6025	11ER-18UN-CP6025	18	1/4"	11	0.17	0.8	1.0	●	●	●		○	○
	I11ER16UN6025	11ER-16UN-CP6025	16	1/4"	11	0.18	0.9	1.1	●	●	●		○	○
	I16ER40UN6025	16ER-40UN-CP6025	40	3/8"	16	0.06	0.6	0.6	●	●	●		○	○
	I16EL40UN6025	16EL-40UN-CP6025	40	3/8"	16	0.06	0.6	0.6	●	●	●		○	○
	I16ER36UN6025	16ER-36UN-CP6025	36	3/8"	16	0.07	0.6	0.6	●	●	●		○	○
	I16EL36UN6025	16EL-36UN-CP6025	36	3/8"	16	0.07	0.6	0.6	●	●	●		○	○
	I16ER32UN6025	16ER-32UN-CP6025	32	3/8"	16	0.09	0.6	0.6	●	●	●		○	○
	I16EL32UN6025	16EL-32UN-CP6025	32	3/8"	16	0.09	0.6	0.6	●	●	●		○	○
	I16ER28UN6025	16ER-28UN-CP6025	28	3/8"	16	0.10	0.6	0.7	●	●	●		○	○
	I16EL28UN6025	16EL-28UN-CP6025	28	3/8"	16	0.10	0.6	0.7	●	●	●		○	○
	I16ER26UN6025	16ER-26UN-CP6025	26	3/8"	16	0.11	0.7	0.8	●	●	●		○	○
	I16EL26UN6025	16EL-26UN-CP6025	26	3/8"	16	0.11	0.7	0.8	●	●	●		○	○
	I16ER24UN6025	16ER-24UN-CP6025	24	3/8"	16	0.12	0.7	0.8	●	●	●		○	○
	I16EL24UN6025	16EL-24UN-CP6025	24	3/8"	16	0.12	0.7	0.8	●	●	●		○	○
	I16ER20UN6025	16ER-20UN-CP6025	20	3/8"	16	0.15	0.8	0.9	●	●	●		○	○
	I16EL20UN6025	16EL-20UN-CP6025	20	3/8"	16	0.15	0.8	0.9	●	●	●		○	○
	I16ER18UN6025	16ER-18UN-CP6025	18	3/8"	16	0.17	0.8	1.0	●	●	●		○	○
	I16EL18UN6025	16EL-18UN-CP6025	18	3/8"	16	0.17	0.8	1.0	●	●	●		○	○
	I16ER16UN6025	16ER-16UN-CP6025	16	3/8"	16	0.18	0.9	1.1	●	●	●		○	○
	I16EL16UN6025	16EL-16UN-CP6025	16	3/8"	16	0.18	0.9	1.1	●	●	●		○	○

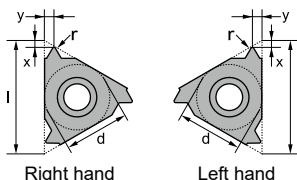
(continued)

External 外徑



Tolerance Class : 2A/2B

Regular Type

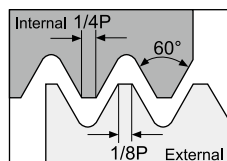


Right hand

Left hand

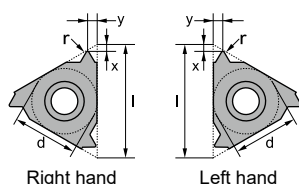
Insert	Order No.	Designation	Pitch	Dimensions (mm)					Working Material					
			TPI	d	l	r	x	y	P	M	K	N	S	H
 Regular Type	I16ER14UN6025	16ER-14UN-CP6025	14	3/8"	16	0.22	1.0	1.2	●	●	●		○	○
	I16EL14UN6025	16EL-14UN-CP6025	14	3/8"	16	0.22	1.0	1.2	●	●	●		○	○
	I16ER13UN6025	16ER-13UN-CP6025	13	3/8"	16	0.24	1.0	1.3	●	●	●		○	○
	I16EL13UN6025	16EL-13UN-CP6025	13	3/8"	16	0.24	1.0	1.3	●	●	●		○	○
	I16ER12UN6025	16ER-12UN-CP6025	12	3/8"	16	0.26	1.1	1.4	●	●	●		○	○
	I16EL12UN6025	16EL-12UN-CP6025	12	3/8"	16	0.26	1.1	1.4	●	●	●		○	○
	I16ER11.5UN6025	16ER-11.5UN-CP6025	11.5	3/8"	16	0.27	1.1	1.5	●	●	●		○	○
	I16EL11.5UN6025	16EL-11.5UN-CP6025	11.5	3/8"	16	0.27	1.1	1.5	●	●	●		○	○
	I16ER11UN6025	16ER-11UN-CP6025	11	3/8"	16	0.28	1.1	1.5	●	●	●		○	○
	I16EL11UN6025	16EL-11UN-CP6025	11	3/8"	16	0.28	1.1	1.5	●	●	●		○	○
	I16ER10UN6025	16ER-10UN-CP6025	10	3/8"	16	0.32	1.1	1.5	●	●	●		○	○
	I16EL10UN6025	16EL-10UN-CP6025	10	3/8"	16	0.32	1.1	1.5	●	●	●		○	○
	I16ER9UN6025	16ER-9UN-CP6025	9	3/8"	16	0.36	1.2	1.7	●	●	●		○	○
	I16EL9UN6025	16EL-9UN-CP6025	9	3/8"	16	0.36	1.2	1.7	●	●	●		○	○
	I16ER8UN6025	16ER-8UN-CP6025	8	3/8"	16	0.41	1.2	1.6	●	●	●		○	○
	I16EL8UN6025	16EL-8UN-CP6025	8	3/8"	16	0.41	1.2	1.6	●	●	●		○	○
	I22ER7UN6025	22ER-7UN-CP6025	7	1/2"	22	0.47	1.6	2.3	●	●	●		○	○
	I22ER6UN6025	22ER-6UN-CP6025	6	1/2"	22	0.67	1.6	2.3	●	●	●		○	○
	I22EL6UN6025	22EL-6UN-CP6025	6	1/2"	22	0.67	1.6	2.3	●	●	●		○	○
	I22ER5UN6025	22ER-5UN-CP6025	5	1/2"	22	0.67	1.7	2.5	●	●	●		○	○

Internal 內徑



Tolerance Class : 2A/2B

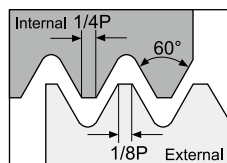
Regular Type



Insert	Order No.	Designation	Pitch	Dimensions (mm)					Working Material					
			TPI	d	l	r	x	y	P	M	K	N	S	H
	I11IR32UN6025	11IR-32UN-CP6025	32	1/4"	11	0.04	0.6	0.6	●	●	●		○	○
	I11IL32UN6025	11IL-32UN-CP6025	32	1/4"	11	0.04	0.6	0.6	●	●	●		○	○
	I11IR28UN6025	11IR-28UN-CP6025	28	1/4"	11	0.04	0.6	0.7	●	●	●		○	○
	I11IL28UN6025	11IL-28UN-CP6025	28	1/4"	11	0.04	0.6	0.7	●	●	●		○	○
	I11IR24UN6025	11IR-24UN-CP6025	24	1/4"	11	0.05	0.7	0.8	●	●	●		○	○
	I11IL24UN6025	11IL-24UN-CP6025	24	1/4"	11	0.05	0.7	0.8	●	●	●		○	○
	I11IR20UN6025	11IR-20UN-CP6025	20	1/4"	11	0.06	0.8	0.9	●	●	●		○	○
	I11IL20UN6025	11IL-20UN-CP6025	20	1/4"	11	0.06	0.8	0.9	●	●	●		○	○
	I11IR18UN6025	11IR-18UN-CP6025	18	1/4"	11	0.07	0.8	1.0	●	●	●		○	○
	I11IL18UN6025	11IL-18UN-CP6025	18	1/4"	11	0.07	0.8	1.0	●	●	●		○	○
	I11IR16UN6025	11IR-16UN-CP6025	16	1/4"	11	0.09	0.9	1.1	●	●	●		○	○
	I11IL16UN6025	11IL-16UN-CP6025	16	1/4"	11	0.09	0.9	1.1	●	●	●		○	○
	I16IR40UN6025	16IR-40UN-CP6025	40	3/8"	16	0.03	0.6	0.6	●	●	●		○	○
	I16IL40UN6025	16IL-40UN-CP6025	40	3/8"	16	0.03	0.6	0.6	●	●	●		○	○
	I16IR36UN6025	16IR-36UN-CP6025	36	3/8"	16	0.03	0.6	0.6	●	●	●		○	○
	I16IL36UN6025	16IL-36UN-CP6025	36	3/8"	16	0.03	0.6	0.6	●	●	●		○	○
	I16IR32UN6025	16IR-32UN-CP6025	32	3/8"	16	0.04	0.6	0.6	●	●	●		○	○
	I16IL32UN6025	16IL-32UN-CP6025	32	3/8"	16	0.04	0.6	0.6	●	●	●		○	○
	I16IR28UN6025	16IR-28UN-CP6025	28	3/8"	16	0.04	0.6	0.7	●	●	●		○	○
	I16IL28UN6025	16IL-28UN-CP6025	28	3/8"	16	0.04	0.6	0.7	●	●	●		○	○
	I16IR26UN6025	16IR-26UN-CP6025	26	3/8"	16	0.04	0.7	0.8	●	●	●		○	○
	I16IL26UN6025	16IL-26UN-CP6025	26	3/8"	16	0.04	0.7	0.8	●	●	●		○	○
	I16IR24UN6025	16IR-24UN-CP6025	24	3/8"	16	0.05	0.7	0.8	●	●	●		○	○
	I16IL24UN6025	16IL-24UN-CP6025	24	3/8"	16	0.05	0.7	0.8	●	●	●		○	○
	I16IR20UN6025	16IR-20UN-CP6025	20	3/8"	16	0.06	0.8	0.9	●	●	●		○	○
	I16IL20UN6025	16IL-20UN-CP6025	20	3/8"	16	0.06	0.8	0.9	●	●	●		○	○

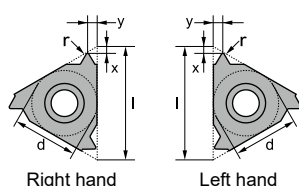
(continued)

Internal 內徑



Tolerance Class : 2A/2B

Regular Type



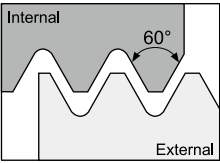
Right hand

Left hand

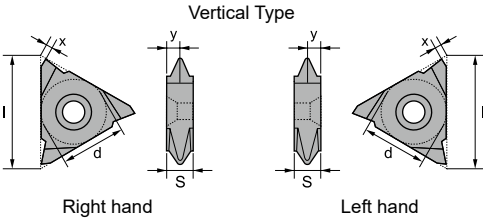
Insert	Order No.	Designation	Pitch	Dimensions (mm)					Working Material					
			TPI	d	l	r	x	y	P	M	K	N	S	H
 Regular Type	I16IR18UN6025	16IR-18UN-CP6025	18	3/8"	16	0.07	0.8	1.0	●	●	●		○	○
	I16IL18UN6025	16IL-18UN-CP6025	18	3/8"	16	0.07	0.8	1.0	●	●	●		○	○
	I16IR16UN6025	16IR-16UN-CP6025	16	3/8"	16	0.09	0.9	1.1	●	●	●		○	○
	I16IL16UN6025	16IL-16UN-CP6025	16	3/8"	16	0.09	0.9	1.1	●	●	●		○	○
	I16IR14UN6025	16IR-14UN-CP6025	14	3/8"	16	0.10	0.9	1.2	●	●	●		○	○
	I16IL14UN6025	16IL-14UN-CP6025	14	3/8"	16	0.10	0.9	1.2	●	●	●		○	○
	I16IR13UN6025	16IR-13UN-CP6025	13	3/8"	16	0.11	1.0	1.3	●	●	●		○	○
	I16IL13UN6025	16IL-13UN-CP6025	13	3/8"	16	0.11	1.0	1.3	●	●	●		○	○
	I16IR12UN6025	16IR-12UN-CP6025	12	3/8"	16	0.12	1.1	1.4	●	●	●		○	○
	I16IL12UN6025	16IL-12UN-CP6025	12	3/8"	16	0.12	1.1	1.4	●	●	●		○	○
	I16IR11.5UN6025	16IR-11.5UN-CP6025	11.5	3/8"	16	0.13	1.1	1.5	●	●	●		○	○
	I16IL11.5UN6025	16IL-11.5UN-CP6025	11.5	3/8"	16	0.13	1.1	1.5	●	●	●		○	○
	I16IR11UN6025	16IR-11UN-CP6025	11	3/8"	16	0.14	1.1	1.5	●	●	●		○	○
	I16IL11UN6025	16IL-11UN-CP6025	11	3/8"	16	0.14	1.1	1.5	●	●	●		○	○
	I16IR10UN6025	16IR-10UN-CP6025	10	3/8"	16	0.15	1.1	1.5	●	●	●		○	○
	I16IL10UN6025	16IL-10UN-CP6025	10	3/8"	16	0.15	1.1	1.5	●	●	●		○	○
	I16IR9UN6025	16IR-9UN-CP6025	9	3/8"	16	0.17	1.2	1.7	●	●	●		○	○
	I16IL9UN6025	16IL-9UN-CP6025	9	3/8"	16	0.17	1.2	1.7	●	●	●		○	○
	I16IR8UN6025	16IR-8UN-CP6025	8	3/8"	16	0.19	1.1	1.5	●	●	●		○	○
	I16IL8UN6025	16IL-8UN-CP6025	8	3/8"	16	0.19	1.1	1.5	●	●	●		○	○
	I22IR7UN6025	22IR-7UN-CP6025	7	1/2"	22	0.22	1.6	2.3	●	●	●		○	○
	I22IR6UN6025	22IR-6UN-CP6025	6	1/2"	22	0.26	1.6	2.3	●	●	●		○	○
	I22IL6UN6025	22IL-6UN-CP6025	6	1/2"	22	0.26	1.6	2.3	●	●	●		○	○
	I22IR5UN6025	22IR-5UN-CP6025	5	1/2"	22	0.32	1.6	2.3	●	●	●		○	○

Thread Turning Inserts - American UN 60° Vertical 立式螺紋車刀片 - 美制 UN 60° 螺紋

External 外徑



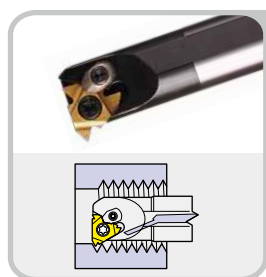
Tolerance Class : 6g/6H



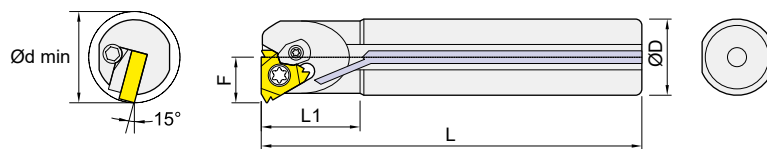
Insert	Order No.	Designation	Pitch	Dimensions (mm)					Working Material					
			TPI	d	l	x	y	S	P	M	K	N	S	H
 Vertical Type	I16VER32UN6025	16VER-32UN-CP6025	32	3/8"	16	1.0	0.6	3.18	●	●	●		○	○
	I16VEL32UN6025	16VEL-32UN-CP6025	32	3/8"	16	1.0	0.6	3.18	●	●	●		○	○
	I16VER28UN6025	16VER-28UN-CP6025	28	3/8"	16	1.0	0.7	3.18	●	●	●		○	○
	I16VEL28UN6025	16VEL-28UN-CP6025	28	3/8"	16	1.0	0.7	3.18	●	●	●		○	○
	I16VER24UN6025	16VER-24UN-CP6025	24	3/8"	16	1.0	0.8	3.18	●	●	●		○	○
	I16VEL24UN6025	16VEL-24UN-CP6025	24	3/8"	16	1.0	0.8	3.18	●	●	●		○	○
	I16VER20UN6025	16VER-20UN-CP6025	20	3/8"	16	1.0	0.9	3.18	●	●	●		○	○
	I16VEL20UN6025	16VEL-20UN-CP6025	20	3/8"	16	1.0	0.9	3.18	●	●	●		○	○
	I16VER18UN6025	16VER-18UN-CP6025	18	3/8"	16	1.0	1.0	3.18	●	●	●		○	○
	I16VEL18UN6025	16VEL-18UN-CP6025	18	3/8"	16	1.0	1.0	3.18	●	●	●		○	○
	I16VER16UN6025	16VER-16UN-CP6025	16	3/8"	16	1.0	1.1	3.18	●	●	●		○	○
	I16VEL16UN6025	16VEL-16UN-CP6025	16	3/8"	16	1.0	1.1	3.18	●	●	●		○	○
	I16VER14UN6025	16VER-14UN-CP6025	14	3/8"	16	1.0	1.2	3.18	●	●	●		○	○
	I16VEL14UN6025	16VEL-14UN-CP6025	14	3/8"	16	1.0	1.2	3.18	●	●	●		○	○
	I16VER12UN6025	16VER-12UN-CP6025	12	3/8"	16	1.0	1.4	3.18	●	●	●		○	○
	I16VEL12UN6025	16VEL-12UN-CP6025	12	3/8"	16	1.0	1.4	3.18	●	●	●		○	○
	I16VER10UN6025	16VER-10UN-CP6025	10	3/8"	16	1.0	1.5	3.18	●	●	●		○	○
	I16VEL10UN6025	16VEL-10UN-CP6025	10	3/8"	16	1.0	1.5	3.18	●	●	●		○	○

Internal Thread Turning Tool Holders

內徑螺紋車刀桿



SN..CL



Right-hand shown

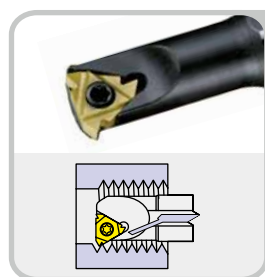
Order No.	Dimensions (mm)					Coolant	Insert	Spare parts
	D	L	L1	F	d min			
ISN ^R / _L 0020R16CL	20	200	40	12	24		16IR 16IL	①
ISN ^R / _L 0025R16CL	25	200	45	14.5	29			
ISN ^R / _L 0032S16CL	32	250	45	18.5	36			
ISN ^R / _L A0020R16CL	20	200	40	12	24	●		
ISN ^R / _L A0025R16CL	25	200	45	14.5	29	●		
ISN ^R / _L A0032S16CL	32	250	45	18.5	36	●		
ISN ^R / _L 0020R22CL	20	200	40	14	28		22IR 22IL	②
ISN ^R / _L 0025R22CL	25	200	45	16.5	32			③
ISN ^R / _L 0032S22CL	32	250	45	20	40			②
ISN ^R / _L A0020R22CL	20	200	40	14	28	●		③
ISN ^R / _L A0025R22CL	25	200	45	16.5	32	●		
ISN ^R / _L A0032S22CL	32	250	45	20	40	●		

Spare parts	Screw	Wrench	Shim	Screw	Wrench	Clamp	Wrench
①	IMS3512A	—	IGXN16 or IGXE16	IHTM309	IPL25	IMC353V	ITK15
②	IMS4511A	ITK20	—	—	—	IMC353V	ITK15
③	IMS4516A	ITK20	IGXN22 or IGXE22	IHTM412	IPL30	IMC353V	ITK15

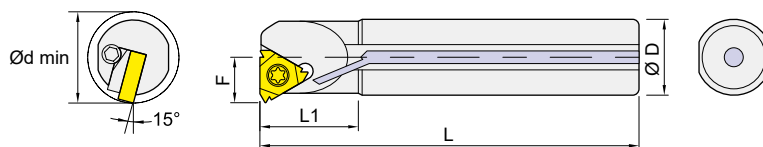
※ SNR right hand tools shim is IGXN..., SNL left hand tools shim is IGXE...

Internal Thread Turning Tool Holders

內徑螺紋車刀桿



SN



Right-hand shown

Order No.	Dimensions (mm)					Coolant	Insert	Spare parts
	D	L	L1	F	d min			
ISN ^R /L0010K11S10	10	125	22	6.5	13		11IR 11IL	①
ISN ^R /L0012M11S12	12	150	26	8	16			
ISN ^R /LA0010K11S10	10	125	22	6.5	13	●		
ISN ^R /LA0012M11S12	12	150	26	8	16	●		
ISN ^R /L0016Q16	16	180	36	10	19		16IR 16IL	②
ISN ^R /L0020R16	20	200	40	12	24			③
ISN ^R /L0025R16	25	200	45	14.5	29			
ISN ^R /L0032S16	32	250	45	18.5	36			②
ISN ^R /LA0016Q16	16	180	36	10	19	●		
ISN ^R /LA0020R16	20	200	40	12	24	●		
ISN ^R /LA0025R16	25	200	45	14.5	29	●		③
ISN ^R /LA0032S16	32	250	45	18.5	36	●		
ISN ^R /L0020R22	20	200	40	14	28		22IR 22IL	④
ISN ^R /L0025R22	25	200	45	16.5	32			⑤
ISN ^R /L0025S22	25	250	45	16.5	32			
ISN ^R /L0032S22	32	250	45	20	40			
ISN ^R /LA0020R22	20	200	40	14	28	●		④
ISN ^R /LA0025R22	25	200	45	16.5	32	●		
ISN ^R /LA0025S22	25	250	45	16.5	32	●		⑤
ISN ^R /LA0032S22	32	250	45	20	40	●		

Spare parts	Screw 	Shim 	Screw 	Wrench 	Wrench
①	IMS2507G	—	—	—	ITK08
②	IMS3509A	—	—	—	ITK15
③	IMS3512A	IGXN16 or IGXE16	IHTM309	IPL25	ITK15
④	IMS4511A	—	—	—	ITK20
⑤	IMS4516A	IGXN22 or IGXE22	IHTM412	IPL30	ITK20

※ SNR right hand tools shim is IGXN..., SNL left hand tools shim is IGXE...

External Thread Turning Tool Holders

外徑螺紋車刀桿



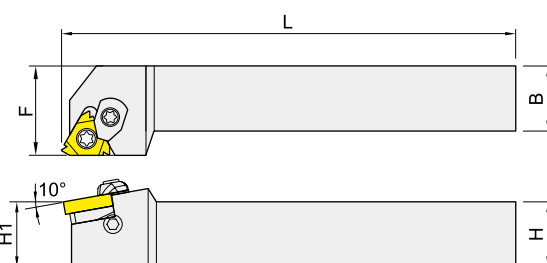
SE..CL



SER1010K16HC
SER1212K16HC

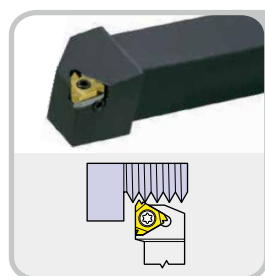


SER1216K16HC
SER1616K16HC



Right-hand shown

Order No.	Dimensions (mm)				Insert	Spare parts
	H(H1)	B	L	F		
ISE ^R _L 1010K16HC	10	10	125	10	16ER 16EL	①
ISE ^R _L 1212K16HC	12	12	125	12		
ISE ^R _L 1216K16HC	12	16	125	16		
ISE ^R _L 1616K16HC	16	16	125	16		②
ISE ^R _L 1616K16CL	16	16	125	20		
ISE ^R _L 2020K16CL	20	20	125	25		
ISE ^R _L 2525M16CL	25	25	150	32		
ISE ^R _L 3232P16CL	32	32	170	40		



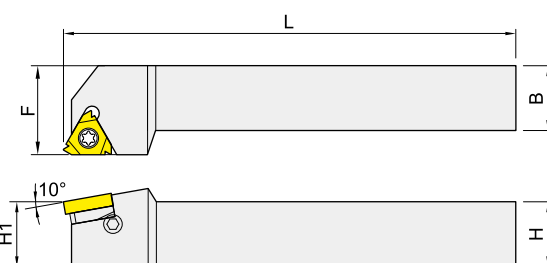
SE



SER1010K16
SER1212K16



SER1216K16
SER1616K16H



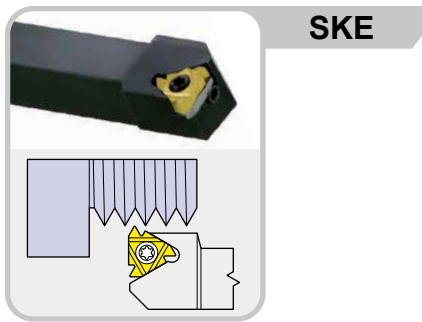
Right-hand shown

Order No.	Dimensions (mm)				Insert	Spare parts
	H(H1)	B	L	F		
ISE ^R _L 1216K16	12	16	125	16	16ER 16EL	③
ISE ^R _L 1010K16H	10	10	125	10		
ISE ^R _L 1212K16H	12	12	125	12		
ISE ^R _L 1616K16H	16	16	125	16		④
ISE ^R _L 1616K16	16	16	125	20		
ISE ^R _L 2020K16	20	20	125	25		
ISE ^R _L 2525M16	25	25	150	32		
ISE ^R _L 3232P16	32	32	170	40	22ER 22IR	⑤
ISE ^R _L 2020K22	20	20	125	25		
ISE ^R _L 2525M22	25	25	150	32		
ISE ^R _L 3232P22	32	32	170	40		

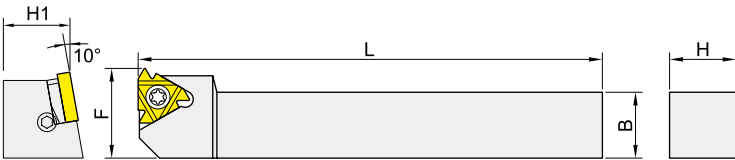
Spare parts	Screw	Wrench	Shim	Screw	Wrench	Clamp	Wrench
①	MS3509A	—	—	—	—	IMC353V	ITK15
②	MS3512A	—	IGXN16 or IGXE16	IHTM309	IPL25	IMC353V	ITK15
③	MS3509A	ITK15	—	—	—	—	—
④	MS3512A	ITK15	IGXN16 or IGXE16	IHTM309	IPL25	—	—
⑤	MS4516A	ITK20	IGXN22 or IGXE22	IHTM412	IPL30	—	—

※ SER right hand tools shim is IGXE..., SEL left hand tools shim is IGXN...

External Thread Turning Tool Holders 外徑螺紋車刀桿



SKE

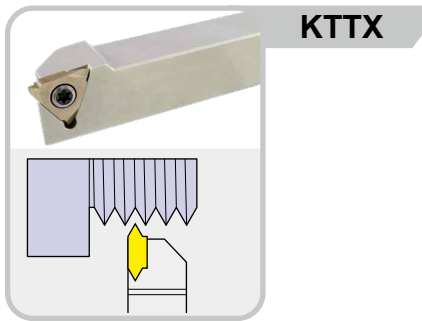


Right-hand shown

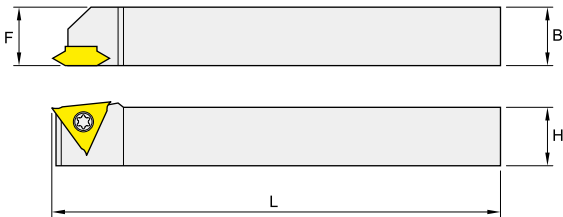
Order No.	Dimensions (mm)				Insert	Spare parts
	H(H1)	B	L	F		
ISKE ^R / _L 1212K16	12	12	125	18	16ER 16EL	①
ISKE ^R / _L 1616K16	16	16	125	22		②
ISKE ^R / _L 2020K16	20	20	125	27		
ISKE ^R / _L 2525M16	25	25	150	34		

Spare parts	Screw	Shim	Screw	Wrench	Wrench
①	IMS3509A	-	-	-	ITK15
②	IMS3512A	IGXN16 or IGXE16	IHTM309	IPL25	ITK15

※ SKER right hand tools shim is IGXE16, SKEL left hand tools shim is IGXN16.



KTTX



Right-hand shown

Order No.	Dimensions (mm)				Insert	Screw	Wrench
	H	B	L	F			
IKTTX ^R / _L 1010K16F	10	10	125	10	16VER 16VEL	IBFTX0407	ITK15
IKTTX ^R / _L 1212K16F	12	12	125	12			
IKTTX ^R / _L 1616K16F	16	16	125	16			
IKTTX ^R / _L 2020K16F	20	20	125	20			
IKTTX ^R / _L 2525K16F	25	25	150	25			

Thread Turning Tools

螺紋車刀具

Depth of Cut And Number of Passes 切深與加工步數

ISO Metric 60° External 外徑

No. of Passes	Pitch (mm)															
	0.5	0.75	0.8	1.0	1.25	1.5	1.75	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
	Radial infeed per pass (mm)															
1	0.102	0.178	0.178	0.178	0.178	0.229	0.229	0.254	0.279	0.279	0.330	0.330	0.381	0.406	0.432	0.457
2	0.102	0.152	0.152	0.178	0.178	0.203	0.203	0.229	0.254	0.254	0.305	0.330	0.330	0.381	0.406	0.432
3	0.076	0.102	0.127	0.127	0.152	0.178	0.152	0.178	0.203	0.203	0.254	0.254	0.279	0.330	0.330	0.356
4	0.076	0.076	0.076	0.102	0.127	0.152	0.152	0.152	0.178	0.178	0.203	0.229	0.229	0.279	0.279	0.305
5	0.356	0.508	0.533	0.076	0.102	0.127	0.127	0.152	0.152	0.178	0.178	0.229	0.229	0.229	0.229	0.279
6			0.660	0.076	0.076	0.102	0.127	0.127	0.152	0.178	0.178	0.203	0.229	0.229	0.229	0.229
7				0.813	0.965	0.102	0.102	0.127	0.127	0.152	0.152	0.178	0.203	0.203	0.203	0.229
8						0.076	0.076	0.102	0.127	0.152	0.152	0.178	0.178	0.178	0.178	0.203
9							1.143	1.270	0.102	0.127	0.152	0.152	0.152	0.178	0.178	0.203
10									0.076	0.102	0.127	0.127	0.152	0.178	0.178	0.178
11									1.600	0.102	0.102	0.127	0.152	0.152	0.152	0.178
12										0.076	0.076	0.127	0.127	0.152	0.152	0.152
13										1.880	2.210	0.102	0.127	0.127	0.127	0.152
14												0.076	0.102	0.102	0.127	0.152
15												2.515	2.819	3.124	0.127	0.127
16															0.102	0.102
															3.429	3.734

Last pass equals total depth of thread.

ISO Metric 60° Internal 內徑

No. of Passes	Pitch (mm)														
	0.5	0.75	1.0	1.25	1.5	1.75	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
	Radial infeed per pass (mm)														
1	0.102	0.178	0.178	0.203	0.254	0.229	0.254	0.279	0.279	0.305	0.330	0.356	0.381	0.381	0.406
2	0.102	0.127	0.152	0.178	0.203	0.203	0.229	0.229	0.229	0.279	0.305	0.330	0.356	0.356	0.406
3	0.076	0.102	0.102	0.127	0.152	0.152	0.178	0.178	0.203	0.229	0.229	0.279	0.305	0.305	0.356
4	0.076	0.076	0.102	0.102	0.102	0.127	0.152	0.152	0.152	0.203	0.203	0.229	0.254	0.254	0.279
5	0.356	0.483	0.076	0.102	0.102	0.102	0.127	0.152	0.152	0.178	0.178	0.203	0.229	0.229	0.229
6			0.610	0.076	0.076	0.102	0.102	0.127	0.152	0.152	0.152	0.178	0.203	0.203	0.229
7				0.787	0.889	0.102	0.102	0.102	0.127	0.152	0.152	0.152	0.178	0.178	0.203
8						0.076	0.076	0.102	0.102	0.152	0.152	0.152	0.152	0.178	0.178
9						1.092	1.219	0.102	0.102	0.127	0.127	0.152	0.152	0.152	0.178
10								0.076	0.102	0.102	0.127	0.152	0.152	0.152	0.152
11								1.499	0.102	0.102	0.102	0.127	0.152	0.152	0.152
12									0.076	0.076	0.102	0.127	0.152	0.152	0.152
13									1.778	2.057	0.102	0.102	0.127	0.152	0.152
14											0.076	0.102	0.102	0.127	0.152
15											2.337	2.642	2.896	0.127	0.127
16														0.102	0.102
															3.200 3.454

Last pass equals total depth of thread.

Thread Turning Tools

螺紋車刀具

Depth of Cut And Number of Passes 切深與加工步數

Unified(UN) 60° External 外徑

No. of Passes	TPI												
	32	28	24	20	18	16	14	13	12	11	10	9	8
	Radial infeed per pass (mm)												
1	0.178	0.178	0.178	0.203	0.229	0.229	0.229	0.254	0.279	0.279	0.279	0.279	0.305
2	0.152	0.152	0.178	0.178	0.203	0.203	0.229	0.229	0.229	0.254	0.229	0.229	0.254
3	0.127	0.127	0.152	0.152	0.152	0.152	0.178	0.178	0.203	0.203	0.203	0.203	0.229
4	0.076	0.102	0.127	0.127	0.152	0.152	0.152	0.152	0.152	0.178	0.178	0.178	0.178
5	0.533	0.076	0.076	0.102	0.127	0.127	0.127	0.152	0.152	0.152	0.152	0.152	0.178
6		0.635	0.711	0.076	0.076	0.102	0.102	0.127	0.152	0.152	0.152	0.152	0.152
7				0.838	0.940	0.076	0.102	0.102	0.127	0.127	0.152	0.152	0.152
8						1.041	0.076	0.076	0.076	0.102	0.127	0.127	0.152
9							1.194	1.270	1.372	0.076	0.102	0.127	0.127
10										1.499	0.076	0.102	0.127
11											1.651	0.076	0.102
12												1.778	0.076
13													2.032

Last pass equals total depth of thread.

Unified(UN) 60° Internal 內徑

No. of Passes	TPI												
	32	28	24	20	18	16	14	13	12	11	10	9	8
	Radial infeed per pass (mm)												
1	0.178	0.178	0.178	0.203	0.229	0.229	0.229	0.254	0.279	0.279	0.279	0.279	0.305
2	0.152	0.152	0.152	0.178	0.178	0.178	0.203	0.229	0.229	0.229	0.229	0.229	0.279
3	0.102	0.102	0.152	0.127	0.152	0.152	0.152	0.152	0.178	0.178	0.152	0.178	0.203
4	0.076	0.102	0.102	0.102	0.127	0.127	0.152	0.152	0.152	0.152	0.152	0.152	0.178
5	0.508	0.076	0.076	0.102	0.102	0.102	0.102	0.127	0.127	0.152	0.152	0.152	0.152
6		0.610	0.660	0.076	0.076	0.102	0.102	0.102	0.102	0.127	0.127	0.152	0.152
7				0.787	0.864	0.076	0.102	0.102	0.102	0.102	0.102	0.127	0.127
8						0.940	0.076	0.076	0.076	0.102	0.102	0.102	0.102
9							1.118	1.194	1.245	0.076	0.102	0.102	0.102
10										1.397	0.076	0.102	0.102
11											1.499	0.076	0.102
12												1.651	0.076
13													1.880

Last pass equals total depth of thread.

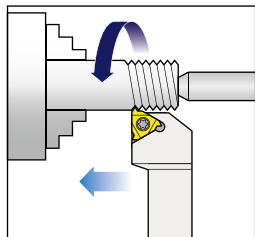
Recommended Cutting Conditions 建議切削數據

Working Material	Vc (m/min)
Carbon Steel (HB85-225)	60 -100 -140
Stainless 300 Series	40 - 80 - 120
Cast Iron (HB140-220)	60 - 90 -120
Super Alloy	25 - 45 - 65
Hardened Steel	20 - 40 -60

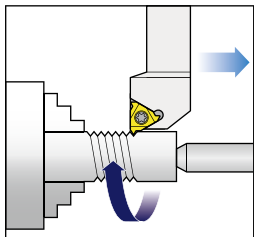
Thread Turning Tools 螺紋車刀具

Thread Methods 進刀方法

External Right Hand Thread

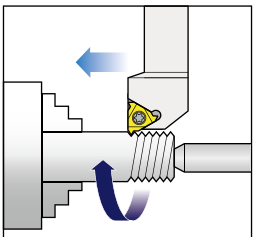


Spindle : Clockwise
Tool : right hand

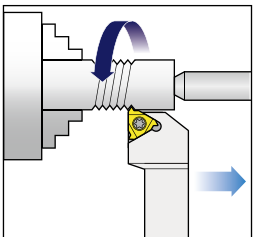


Spindle : Counterclockwise
Tool : left hand

External Left Hand Thread

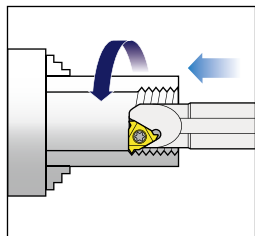


Spindle : Counterclockwise
Tool : left hand

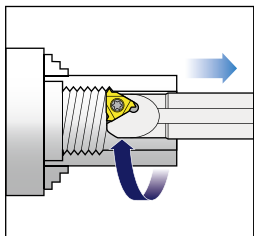


Spindle : Clockwise
Tool : right hand

Internal Right Hand Thread

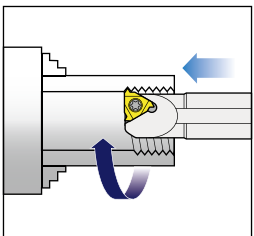


Spindle : Clockwise
Tool : right hand

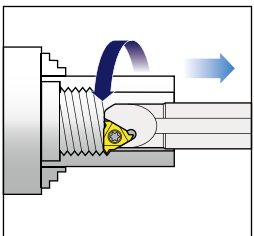


Spindle : Counterclockwise
Tool : left hand

Internal Left Hand Thread

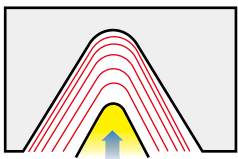
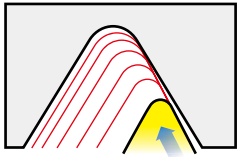
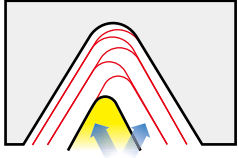


Spindle : Counterclockwise
Tool : left hand



Spindle : Clockwise
Tool : right hand

Infeed Methods 螺紋加工方法

Infeed Methods	Features
 Radial Infeed	• For pitches of less than 1.5mm or 16 T.P.I. • Most commonly used method on manual lathes. • Equal wear on leading and trailing edge. • Good surface finish on trailing edge. • Use on work hardening materials. • Use on short chipping materials.
 Modified Flank Infeed	• For threads greater than 1.5mm or 16 T.P.I. • Reduced cutting pressure on larger pitches. • Reduced chatter. • Directs chip away from the cutting edge. • Displaced in-feed angle improves surface finish. • First choice for internal threading.
 Alternating Flank Infeed	• Recommended for large pitches. • Recommended for long chipping materials. • Method divides the work between both flanks. • Results in equal wear. • Less cutting pressure. • Not available on all lathes.

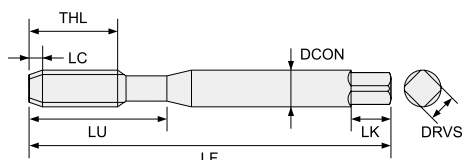
TKS - Spiral Fluted Taps

全鎢鋼螺旋絲攻

P	M	K	N	S	H
○		●	●		

Specification

- Thread type : ISO M
- ANAX Smooth Coating
- For cast iron, brass casting, aluminum casting and steel.
- Vc = 5~15 m/min
- Recommend for through hole.



JIS

Unit:mm

Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Flutes	TAP Limit	Drill Hole
TKSNM306010031A	M6×1.00	2~3P	19	29	70	6	7	4.5	3	OH3	5.0
TKSNM308012531A	M8×1.25		22	-	75	6.2	8	5	3		6.75
TKSNM310012531A	M10×1.25		24	-	75	7	8	5.5	3		8.5
TKSNM310015031A	M10×1.50		24	-	75	7	8	5.5	3	OH4	8.5
TKSNM312012531A	M12×1.25		29	-	95	8.5	9	6.5	3		10.25
TKSNM312017531A	M12×1.75		29	-	95	8.5	9	6.5	3		10.25

DIN 371

Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Flutes	TAP Limit	Drill Hole
TKSNM305008033A	M5×0.80	Form C (2~3P)	16	24	70	6	8	4.9	3	6HX	4.2
TKSNM306010033A	M6×1.00		19	29	70	6	8	4.9	3		5.0
TKSNM308012533A	M8×1.25		22	32	75	8	9	6.2	3		6.75
TKSNM310015033A	M10×1.50		24	40	75	10	11	8	3		8.5

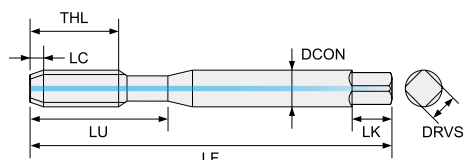
TKS - Spiral Fluted Taps with Internal Coolant

全鎢鋼內冷螺旋絲攻

P	M	K	N	S	H
○		●	●		

Specification

- Thread type : ISO M
- ANAX Smooth Coating
- For cast iron, brass casting, aluminum casting and steel.
- Vc = 10~50 m/min
- Recommend for blind hole.



JIS

Unit:mm

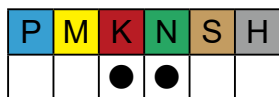
Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Flutes	TAP Limit	Drill Hole
TKSCM306010031A	M6×1.00		19	29	70	6	7	4.5	3	OH3	5.0
TKSCM308012531A	M8×1.25		22	-	75	6.2	8	5	3		6.75
TKSCM310012531A	M10×1.25		24	-	75	7	8	5.5	3		8.5
TKSCM310015031A	M10×1.50	2~3P	24	-	75	7	8	5.5	3	OH4	8.5
TKSCM312012531A	M12×1.25		29	-	95	8.5	9	6.5	3		10.25
TKSCM312017531A	M12×1.75		29	-	95	8.5	9	6.5	3		10.25

DIN 371

Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Flutes	TAP Limit	Drill Hole
TKSCM305008033A	M5×0.80		16	24	70	6	8	4.9	3		4.2
TKSCM306010033A	M6×1.00	Form C (2~3P)	19	29	70	6	8	4.9	3	6HX	5.0
TKSCM308012533A	M8×1.25		22	32	75	8	9	6.2	3		6.75
TKSCM310015033A	M10×1.50		24	40	75	10	11	8	3		8.5

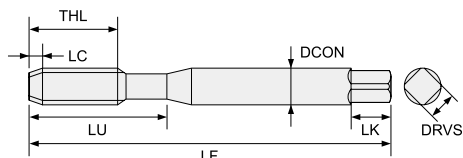
TKT - Straight Fluted Taps

全鎢鋼直刃絲攻



Specification

- Thread type : ISO M
- For cast iron, brass casting and aluminum casting.
- Recommend for through hole.
- ANAX Smooth Coating
- Vc = 5~15 m/min



JIS

Unit:mm

Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Flutes	TAP Limit	Drill Hole
TKTNM403005031A	M3×0.50		11	19	65	4	6	3.2	4		2.5
TKTNM404007031A	M4×0.70		13	21	65	5	7	4	4		3.3
TKTNM405008031A	M5×0.80		16	24	70	5.5	7	4.5	4		4.2
TKTNM506010031A	M6×1.00		19	29	70	6	7	4.5	5		5.0
TKTNM508010031A	M8×1.00		22	-	75	6.2	8	5	5	OH3	7.0
TKTNM508012531A	M8×1.25	3P	22	-	75	6.2	8	5	5		6.75
TKTNM510010031A	M10×1.00		24	-	75	7	8	5.5	5		9.0
TKTNM510015031A	M10×1.50		24	-	75	7	8	5.5	5		8.5
TKTNM512015031A	M12×1.50		29	-	95	8.5	9	6.5	5		10.5
TKTNM512017531A	M12×1.75		29	-	95	8.5	9	6.5	5		10.25
TKTNM616020031A	M16×2.00		32	-	95	12.5	13	10	6	OH4	14

DIN 371

Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Flutes	TAP Limit	Drill Hole
TKTNM403005053A	M3×0.50		11	19	65	4.5	6	3.4	4		2.5
TKTNM404007053A	M4×0.70		13	21	65	4.5	6	3.4	4		3.3
TKTNM405008053A	M5×0.80		16	24	70	6	8	4.9	4		4.2
TKTNM406010053A	M6×1.00		19	29	70	6	8	4.9	4		5.0
TKTNM508010053A	M8×1.00		22	32	75	8	9	6.2	5		7.0
TKTNM508012553A	M8×1.25	Form D (3.5~5P)	22	32	75	8	9	6.2	5	6H	6.75
TKTNM510010053A	M10×1.00		24	40	75	10	11	8	5		9.0
TKTNM510015053A	M10×1.50		24	40	75	10	11	8	5		8.5
TKTNM512015053A	M12×1.50		29	48	85	12	12	9	5		10.5
TKTNM512017553A	M12×1.75		29	48	85	12	12	9	5		10.25
TKTNM516020053A	M16×2.00		32	48	95	16	15	12	5		14

Threading

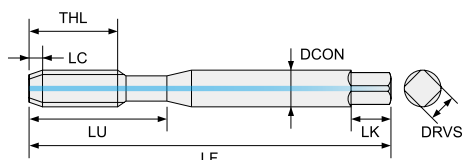
TKT - Straight Fluted Taps with Internal Coolant

全鎢鋼內冷直刃絲攻

P	M	K	N	S	H
		●	●		

Specification

- Thread type : ISO M
- For cast iron, brass casting and aluminum casting.
- Recommend for blind hole.
- ANAX Smooth Coating
- Vc = 10~50 m/min



											Unit:mm
Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Flutes	TAP Limit	Drill Hole
TKTCM403005031A	M3×0.50		11	19	65	4	6	3.2	4		2.5
TKTCM404007031A	M4×0.70		13	21	65	5	7	4	4		3.3
TKTCM405008031A	M5×0.80		16	24	70	5.5	7	4.5	4		4.2
TKTCM506010031A	M6×1.00		19	29	70	6	7	4.5	5		5.0
TKTCM508010031A	M8×1.00		22	-	75	6.2	8	5	5	OH3	7.0
TKTCM508012531A	M8×1.25	3P	22	-	75	6.2	8	5	5		6.75
TKTCM510010031A	M10×1.00		24	-	75	7	8	5.5	5		9.0
TKTCM510015031A	M10×1.50		24	-	75	7	8	5.5	5		8.5
TKTCM512015031A	M12×1.50		29	-	95	8.5	9	6.5	5		10.5
TKTCM512017531A	M12×1.75		29	-	95	8.5	9	6.5	5		10.25
TKTCM616020031A	M16×2.00		32	-	95	12.5	13	10	6	OH4	14

DIN 371

Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Flutes	TAP Limit	Drill Hole
TKTCM403005053A	M3×0.50		11	19	65	4.5	6	3.4	4		2.5
TKTCM404007053A	M4×0.70		13	21	65	4.5	6	3.4	4		3.3
TKTCM405008053A	M5×0.80		16	24	70	6	8	4.9	4		4.2
TKTCM406010053A	M6×1.00		19	29	70	6	8	4.9	4		5.0
TKTCM508010053A	M8×1.00		22	32	75	8	9	6.2	5		7.0
TKTCM508012553A	M8×1.25	Form D (3.5~5P)	22	32	75	8	9	6.2	5	6H	6.75
TKTCM510010053A	M10×1.00		24	40	75	10	11	8	5		9.0
TKTCM510015053A	M10×1.50		24	40	75	10	11	8	5		8.5
TKTCM512015053A	M12×1.50		29	48	85	12	12	9	5		10.5
TKTCM512017553A	M12×1.75		29	48	85	12	12	9	5		10.25
TKTCM516020053A	M16×2.00		32	48	95	16	15	12	5		14

THT - Straight Fluted Taps

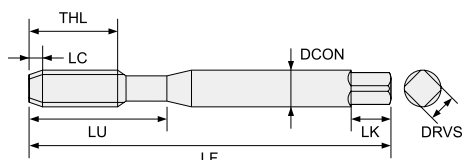
全鎢鋼直刃絲攻



Specification

- Thread type : ISO M
- For hardened steel (HRC 40 ~ 55)
- Recommend for through hole.

- ANAX Smooth Coating
- Vc = 2~4 m/min



JIS

Unit:mm

Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Flutes	TAP Limit	Drill Hole
THTNM403005031A	M3×0.50		11	19	65	4	6	3.2	4		2.5
THTNM404007031A	M4×0.70		13	21	65	5	7	4	4		3.3
THTNM405008031A	M5×0.80		16	24	70	5.5	7	4.5	4		4.2
THTNM506010031A	M6×1.00		19	29	70	6	7	4.5	5		5.0
THTNM508010031A	M8×1.00		22	-	75	6.2	8	5	5		7.0
THTNM508012531A	M8×1.25	3P	22	-	75	6.2	8	5	5	OH3	6.75
THTNM510010031A	M10×1.00		24	-	75	7	8	5.5	5		9.0
THTNM510015031A	M10×1.50		24	-	75	7	8	5.5	5		8.5
THTNM512015031A	M12×1.50		29	-	95	8.5	9	6.5	5		10.5
THTNM512017531A	M12×1.75		29	-	95	8.5	9	6.5	5		10.25
THTNM616020031A	M16×2.00		32	-	95	12.5	13	10	6	OH4	14

DIN 371

Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Flutes	TAP Limit	Drill Hole
THTNM403005053A	M3×0.50		11	19	65	4.5	6	3.4	4		2.5
THTNM404007053A	M4×0.70		13	21	65	4.5	6	3.4	4		3.3
THTNM405008053A	M5×0.80		16	24	70	6	8	4.9	4		4.2
THTNM406010053A	M6×1.00		19	29	70	6	8	4.9	4		5.0
THTNM508010053A	M8×1.00		22	32	75	8	9	6.2	5		7.0
THTNM508012553A	M8×1.25	Form D (3.5~5P)	22	32	75	8	9	6.2	5	6H	6.75
THTNM510010053A	M10×1.00		24	40	75	10	11	8	5		9.0
THTNM510015053A	M10×1.50		24	40	75	10	11	8	5		8.5
THTNM512015053A	M12×1.50		29	48	85	12	12	9	5		10.5
THTNM512017553A	M12×1.75		29	48	85	12	12	9	5		10.25
THTNM516020053A	M16×2.00		32	48	95	16	15	12	5		14

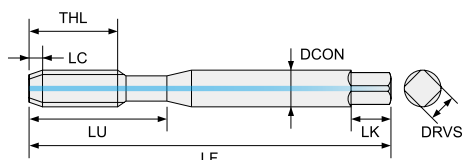
THT - Straight Fluted Taps with Internal Coolant

全鎢鋼內冷直刃絲攻



Specification

- Thread type : ISO M
- For hardened steel (HRC 40 ~ 55)
- Recommend for blind hole.
- ANAX Smooth Coating
- Vc = 2~4 m/min



JIS

Unit:mm

Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Flutes	TAP Limit	Drill Hole
THTCM403005031A	M3×0.50		11	19	65	4	6	3.2	4		2.5
THTCM404007031A	M4×0.70		13	21	65	5	7	4	4		3.3
THTCM405008031A	M5×0.80		16	24	70	5.5	7	4.5	4		4.2
THTCM506010031A	M6×1.00		19	29	70	6	7	4.5	5		5.0
THTCM508010031A	M8×1.00		22	-	75	6.2	8	5	5		7.0
THTCM508012531A	M8×1.25	3P	22	-	75	6.2	8	5	5	OH3	6.75
THTCM510010031A	M10×1.00		24	-	75	7	8	5.5	5		9.0
THTCM510015031A	M10×1.50		24	-	75	7	8	5.5	5		8.5
THTCM512015031A	M12×1.50		29	-	95	8.5	9	6.5	5		10.5
THTCM512017531A	M12×1.75		29	-	95	8.5	9	6.5	5		10.25
THTCM616020031A	M16×2.00		32	-	95	12.5	13	10	6	OH4	14

DIN 371

Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Flutes	TAP Limit	Drill Hole
THTCM403005053A	M3×0.50		11	19	65	4.5	6	3.4	4		2.5
THTCM404007053A	M4×0.70		13	21	65	4.5	6	3.4	4		3.3
THTCM405008053A	M5×0.80		16	24	70	6	8	4.9	4		4.2
THTCM406010053A	M6×1.00		19	29	70	6	8	4.9	4		5.0
THTCM508010053A	M8×1.00		22	32	75	8	9	6.2	5		7.0
THTCM508012553A	M8×1.25	Form D (3.5~5P)	22	32	75	8	9	6.2	5	6H	6.75
THTCM510010053A	M10×1.00		24	40	75	10	11	8	5		9.0
THTCM510015053A	M10×1.50		24	40	75	10	11	8	5		8.5
THTCM512015053A	M12×1.50		29	48	85	12	12	9	5		10.5
THTCM512017553A	M12×1.75		29	48	85	12	12	9	5		10.25
THTCM516020053A	M16×2.00		32	48	95	16	15	12	5		14

TNF - Forming Taps

全鎢鋼無屑絲攻

P	M	K	N	S	H
			●		

Specification

- Thread type : ISO M
- For aluminum alloy and copper.
- Chamfer Length(LC) 4P for through holes, 2P for blind holes
- $V_c = 15 \sim 30$ m/min
- Suitable for through or blind hole.



Fig. 1

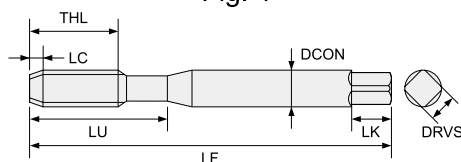
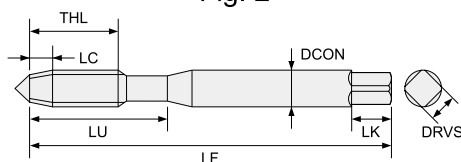


Fig. 2



Unit:mm

Order No.	Thread	LC	THL	LU	LF	DCON	LK	DRVS	Cutting Edges	Fig	TAP Limit	Drill Hole
TNFM401002541	M1×0.25	4P	6	-	50	3	5	2.5	4	2	RH4	0.92
TNFM401202541	M1.2×0.25	4P	6	-	50	3	5	2.5	4	2	RH4	1.12
TNFM401403041	M1.4×0.30	4P	6	-	50	3	5	2.5	4	2	RH4	1.29
TNFM402004021	M2×0.40	2P	8	-	50	3	5	2.5	4	1	RH4	1.85
TNFM402004041	M2×0.40	4P	8	-	50	3	5	2.5	4	2	RH4	1.85
TNFM403005021	M3×0.50	2P	11	19	50	4	6	3.2	4	1	RH5	2.8
TNFM403005041	M3×0.50	4P	11	19	50	4	6	3.2	4	2	RH5	2.8
TNFM404007021	M4×0.70	2P	13	21	50	5	7	4	4	1	RH6	3.7
TNFM404007041	M4×0.70	4P	13	21	50	5	7	4	4	2	RH6	3.7
TNFM405008021	M5×0.80	2P	16	24	60	6	7	4.5	4	1	RH7	4.65
TNFM405008041	M5×0.80	4P	16	24	60	6	7	4.5	4	2	RH7	4.65
TNFM406010021	M6×1.00	2P	19	29	60	6	7	4.5	4	1	RH7	5.55
TNFM406010041	M6×1.00	4P	19	29	60	6	7	4.5	4	2	RH7	5.55

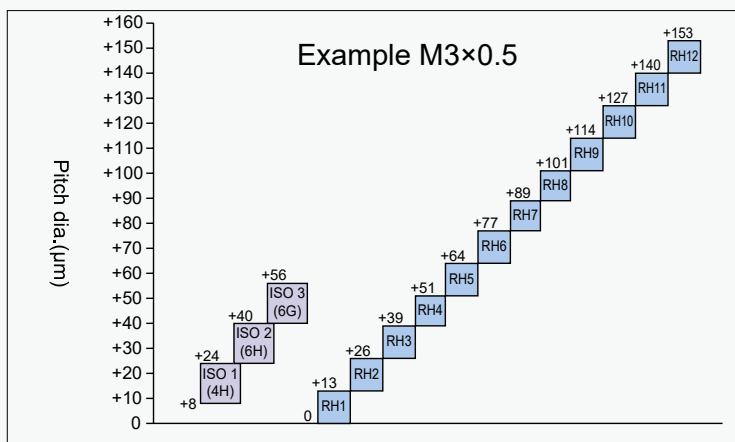
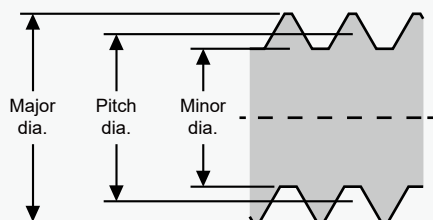
Tap Limit

絲攻精度

RH Limit 精度

Upper limit : $0.0127 \times n$
Lower limit : $0.0127 \times n - 0.0127$

(n=RH number, Unit:mm)

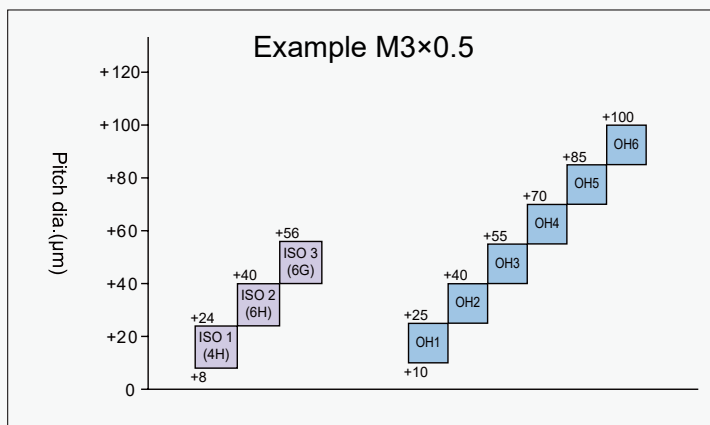


OH Limit 精度

Pitch ≤ 0.6

Upper limit : $0.010 + 0.015 \times n$
Lower limit : (upper limit) - 0.015

(n=OH number, Unit:mm)



Pitch ≥ 0.7

Upper limit : $0.020 \times n$
Lower limit : (upper limit) - 0.020

(n=OH number, Unit:mm)

