

2025



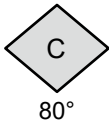
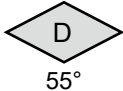
Turning

車削刀具

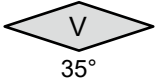


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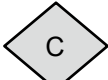
Carbide Turning Inserts 鎢鋼車刀片

Insert Shape	Insert Type	Inserts	Chipbreaker	Page
 80°	Negative	CN□□ 120404 120408 120412	FP, SM, SP, MP, MK, RP, RK, RK1, RK2, Flat	D027
	Positive	CC□□ 060202 060204 09T304 09T308 120404 120408	FA, FB, MP, MK	D033
		CP□□ 05T104	SG	D034
 55°	Negative	DN□□ 110401 110402 110408 150404 150408 150604 150608	FP, SP, MP, RK	D028
	Positive	DC□□ 070201 070202 070204 11T301 11T302 11T304 11T308	FX, FY, FA, FB, MP, MK, Flat	D035
 R	Positive	RC□□ 1204	FB	D036
 90°	Negative	SN□□ 120404 120408 120412	SM, MP, RK, Flat	D029
	Positive	SC□□ 09T304 09T308	FA, FB, SP, MP, MK	D037
 60°	Negative	TN□□ 160404 160408 160412 220408	FP, SM, SP, ME, MP, RK, RK1, Flat	D030
	Positive	TB□□ 060101 060102 060104	FY	D038
		TC□□ 090204 110204 16T304 16T308	FA, FB, SP, MP, MK	D039
		TP□□ 160304	MP	D040

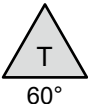
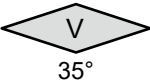
Carbide Turning Inserts 鎢鋼車刀片

Insert Shape	Insert Type	Inserts	Chipbreaker	Page
 V 35°	Negative	VN□□ 12T304 160404 160408	FP, MP, RK	D031
	Positive	VB□□ 110301 110302 110304 160404 160408	FX, FY, MK, Flat	D041
		VC□□ 110301 110302 110304 160402 160404 160408	FX, FY, FA, FB, SP, Flat	D042
 W 80°	Negative	WN□□ 080404 080408 080412	FP, SP, MP, RK, RK2, Flat	D032

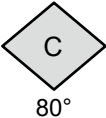
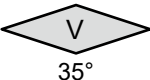
CBN Turning Inserts 立方氮化硼車刀片

Insert Shape	Insert Type	Inserts	Edge Specification	Page
 C 80°	Positive	CC□□ 060202 09T302 09T304 09T308	SM, MM	D047
	Negative	CN□□ 120404 120408 120412	SM, MM, RM	D048
 D 55°	Positive	DC□□ 070202 070204 11T302 11T304 11T308	SM, MM	D047
	Negative	DN□□ 150404 150408 150412	SM, MM, RM	D048

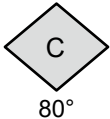
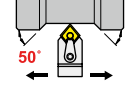
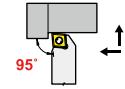
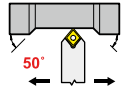
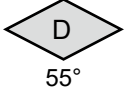
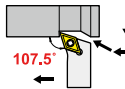
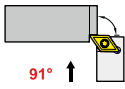
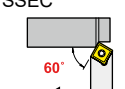
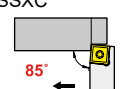
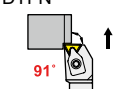
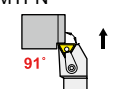
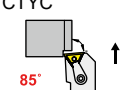
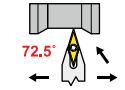
CBN Turning Inserts 立方氮化硼車刀片

Insert Shape	Insert Type	Inserts	Edge Specification	Page
 T 60°	Positive	TP□□ 090202 090204 110304 110308	SM	D047
	Negative	TN□□ 160404 160408 160412	SM, MM, RM	D048
 V 35°	Positive	VB□□ 110304 110308 160404 160408	SM	D047
	Negative	VN□□ 160404 160408	SM	D048
 W 80°	Negative	WN□□ 080408	SM, MM, RM	D048

PCD Turning Inserts 聚晶鑽石車刀片

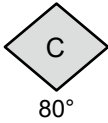
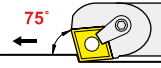
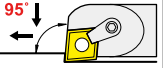
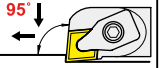
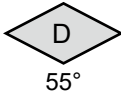
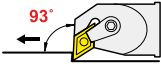
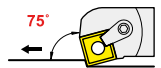
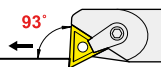
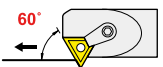
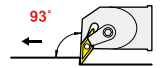
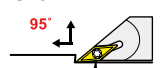
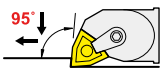
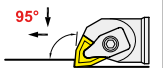
Insert Shape	Insert Type	Inserts	Edge Specification	Page
 C 80°	Positive	CC□□ 060201 060202 060204 09T301 09T302 09T304 09T308	Standard	D049
 D 55°	Positive	DC□□ 070201 070202 070204 11T301 11T302 11T304 11T308	Standard	D049
 V 35°	Positive	VC□□ 110301 110302 110304 160404 160408	Standard	D049

External Turning Holders 外徑車刀桿

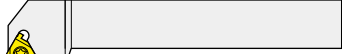
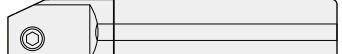
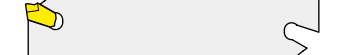
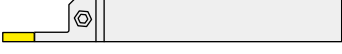
Insert Shape	Insert Type	Holders				
 C 80°	Negative	MCBN  75° ▶D052	MCKN  75° ▶D052	MCLN  95° ▶D052	MCNN  50° ▶D053	
	Positive	SCBC  75° ▶D053	SCKC  75° ▶D053	SCLC  95° ▶D054	SCL2C  95° ▶D054	SCNC  50° ▶D055
 D 55°	Negative	MDJN  93° ▶D055				
	Positive	SDJC  93° ▶D056	SDJ2C  93° ▶D056	SDNC  62.5° ▶D057	SDQC  107.5° ▶D057	SDFC  91° ▶D057
 S 90°	Negative	MSDN  45° ▶D058	MSSN  45° ▶D058			
	Positive	SSAC  90° ▶D058	SSBC  75° ▶D059	SSDC  45° ▶D059	SSEC  60° ▶D059	SSXC  85° ▶D060
 T 60°	Negative	MTQN  105° ▶D060	MTJN  93° ▶D060	MTEN  60° ▶D061	DTFN  91° ▶D061	MTFN  91° ▶D061
	Positive	STAC  90° ▶D062	STFC  90° ▶D062	STGC  90° ▶D062	CTYC  85° ▶D063	
 V 35°	Negative	MVJN  93° ▶D063	MVQN  117.5° ▶D063	MVVN  72.5° ▶D064		
	Positive	SVJB  93° ▶D064	SVJ2B  93° ▶D064	SVQB  117.5° ▶D065	SVVB  72.5° ▶D065	
 W 80°	Negative	WWLN  95° ▶D066	MWLN  95° ▶D066	MWLN-L  95° ▶D066		

Turning

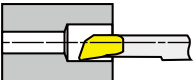
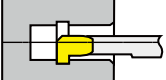
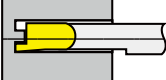
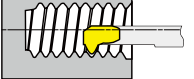
Internal Turning Holders 内径车刀杆

Insert Shape	Insert Type	Holders				
 C 80°	Negative	MCKN  ▶D067	MCLN  ▶D067	DCLN  ▶D068		
	Positive	SCKC  ▶D068	SCLC  ▶D069			
 D 55°	Negative	MDUN  ▶D071				
	Positive	SDJC  ▶D071	SDNC  ▶D072	SDZC  ▶D072	SDQC  ▶D73	SDUC  ▶D074
 S 90°	Negative	MSKN  ▶D075				
 T 60°	Negative	MTUN  ▶D075	WTUN  ▶D076	DTUN  ▶D076	MTWN  ▶D077	
	Positive	STUC  ▶D077	STWC  ▶D078	STUP  ▶D078		
 V 35°	Negative	MVUN  ▶D079				
	Positive	SVJB  ▶D079	SVQB  ▶D080	SVUB  ▶D080	SVJC  ▶D081	SVVB  ▶D081
 W 80°	Negative	MWLN  ▶D082	DWLN  ▶D082			

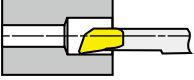
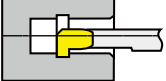
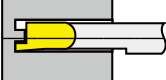
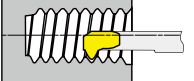
Grooving & Parting Tools 切槽及切斷刀具

Product Series	Cutting Depth	Holders	Inserts	Page
TGF	< 2.5mm	 KTGF - External holder	TGF32R TGF32L	D083
		 KTGF - External holder		D083
		 KTGF - Internal holder		D084
TGL	< 2.5mm	 SE - External holder	TGL16ER TGL16EL	D087
		 SKE - External holder		D088
		 SN - Internal holder	TGL11IR TGL11IL TGL16IR TGL16IL	D089
MGEH	< 20mm	 MGEH - External holder	MGMN200 MRMN200 MGMN300 MRMG300 MGMN400 MRMN400	D092
	< 15mm	 MGIV - Internal holder		D093
KGM	< 20mm	 KGM - External holder	GMM2020 GMM2520 GMM3020	D095
	< 9mm	 KIGM - Internal holder	GMM3020	D096
SGIH	< 40mm	 SGIH - External holder	TGTN0220 TGTN0310 TGTN0410	D098
	< 40mm	 SGTHR - External holder		D098

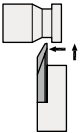
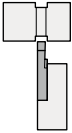
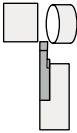
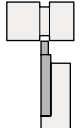
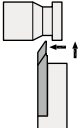
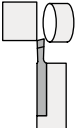
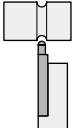
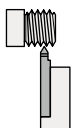
Solid Carbide Boring Bars 鎢鋼搪孔刀

Appearance		Name	Code No.	Min. Bore Dia.	Page
DL Series Solid Carbide Boring Bars 鎢鋼搪孔刀					
		Carbide Internal Boring Bars (7°) 鎢鋼內徑搪刀 (7°)	DLBSR	2.4 ~ 6.1	D100
		Carbide Internal Boring Bars (22°) 鎢鋼內徑搪刀 (22°)	DLBSR	1.0 ~ 6.0	D101
		Carbide Internal Grooving Bars 鎢鋼內徑開槽刀	DLGSR	4.1 ~ 8.1	D102
		Carbide Internal Grooving R Bars 鎢鋼內徑 R 開槽刀	DLGBR	4.1 ~ 6.1	D103
		Carbide Internal Face Grooving Bars 鎢鋼內徑端面開槽刀	DLFSR	4.0 ~ 6.0	D104
		Carbide Internal Face R Grooving Bars 鎢鋼內徑端面 R 開槽刀	DLFBR	4.0 ~ 6.0	D105
		Carbide Internal Thread (ISO Metric 60°) 鎢鋼內徑螺紋搪刀 (ISO Metric 60°)	DLTSR	3.2 ~ 6.1	D106
		Carbide Internal Thread (Partial Profile 60°) 鎢鋼內徑螺紋搪刀 (泛用牙 60°)	DLTMR	2.6 ~ 10.0	D107
		Sleeves 內徑搪刀套筒	DLS	—	D108

DE Series Solid Carbide Modular Boring Bars 模組化鎢鋼搪孔刀

		Carbide Modular Internal Boring Bars (7°) 模組化鎢鋼內徑搪刀 (7°)	DEBSR	2.4 ~ 6.1	D109
		Carbide Modular Internal Boring Bars (22°) 模組化鎢鋼內徑搪刀 (22°)	DEBSR	1.0 ~ 6.0	D110
		Carbide Modular Internal Grooving Bars 模組化鎢鋼內徑開槽刀	DEGSR	4.1 ~ 6.1	D111
		Carbide Modular Internal Grooving R Bars 模組化鎢鋼內徑 R 開槽刀	DEGBR	4.1 ~ 6.1	D112
		Carbide Modular Internal Face Grooving Bars 模組化鎢鋼內徑端面開槽刀	DEFSR	4.0 ~ 6.0	D113
		Carbide Modular Internal Face R Grooving Bars 模組化鎢鋼內徑端面 R 開槽刀	DEFBR	4.0 ~ 6.0	D114
		Carbide Modular Internal Thread (ISO Metric 60°) 模組化鎢鋼內徑螺紋搪刀 (ISO Metric 60°)	DETSR	3.2 ~ 6.1	D115
		Carbide Modular Internal Thread (Partial Profile 60°) 模組化鎢鋼內徑螺紋搪刀 (泛用牙 60°)	DETMR	2.6 ~ 6.0	D116
		Double Sizes Sleeves 內徑搪刀雙柄套筒	DES	—	D117

Auto Lathe Tools 自動車床刀具

Product Series	Application	Inserts	Page
BTAH	 Back Turning	 BTAT...R/L	D118
CTAH	  Grooving Parting off	 CTAT...R/L	D119
SAKG	     Grooving Back Turning Parting off Profiling Threading	 SAK...R/L	D122

Product Series	Appearance	Name	Code No.	Cutting Dia.	Shank Dia.	Page
ETU		Carbide Endmills (Short Total Length) 全鎢鋼銑刀 (短全長)	ETSSC	Ø1~Ø3	Ø6	D126
			ETSSC	Ø4~Ø12	Ø6	

Product Series	Appearance	Name	Code No.	Size	Teeth	Inner Dia.	Page
ETW		Carbide Slitting Saws 全鎢鋼小徑鋸片	ETWSF	Ø15	40	Ø5	D127
				Ø20	56	5Ø	
				Ø25	40	Ø6	
				Ø25	72	Ø6	
		Arbors 鋸片柄	ETWSA	—	—	—	D130

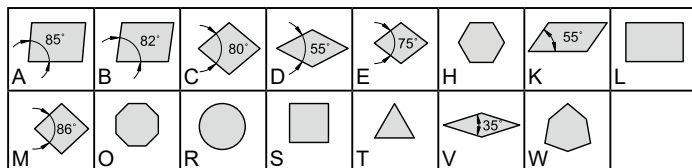
Turning

Designations for Turning Insert

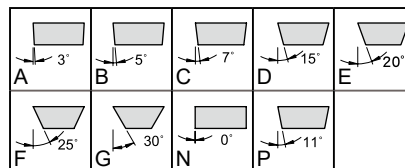
車刀片型號編碼

C	N	M	G	12	04	08	(L)	-	MG
①	②	③	④	⑤	⑥	⑦	⑧		⑨

① Insert Shape



② Relief Angle



③ Tolerance Class

Tolerance	Range of tolerance	A	F	C	H	E	G	J	K	L	M	N	U
		d±	0.025	0.013	0.025	0.013	0.025	0.025	0.05~0.15	0.05~0.15	0.05~0.15	0.05~0.15	0.08~0.25
		m±	0.005	0.005	0.013	0.013	0.025	0.025	0.005	0.013	0.025	0.08~0.2	0.13~0.38
		s±	0.025	0.025	0.025	0.025	0.025	0.05~0.13	0.025	0.025	0.025	0.05~0.13	0.13

④ Insert Features

A	C	F	G	H	J	M	N	Q	R	T	U	W	X
													Special shape

⑤ Edge Length

C	D	S	T	R	V	W	I.C.
Metric							mm
03	04	03	06	03	-	02	3.97
04	05	04	08	04	08	S3	4.76
05	06	05	09	05	09	03	5.56
-	-	-	-	06	-	-	6.00
06	07	06	11	06	11	04	6.35
08	09	07	13	07	13	05	7.94
-	-	-	-	08	-	-	8.00
09	11	09	16	09	16	06	9.525
-	-	-	-	10	-	-	10.00
11	13	11	19	11	19	07	11.11
-	-	-	-	12	-	-	12.00
12	15	12	22	12	22	08	12.70
14	17	14	24	14	24	09	14.29
16	19	15	27	15	27	10	15.875
-	-	-	-	16	-	-	16.00
17	21	17	30	17	30	11	17.46
19	23	19	33	19	33	13	19.05
-	-	-	-	20	-	-	20.00
22	27	22	38	22	38	15	22.225
-	-	-	-	25	-	-	25.00
25	31	25	44	25	44	17	25.40
32	38	31	54	31	54	21	31.75
-	-	-	-	32	-	-	32.00

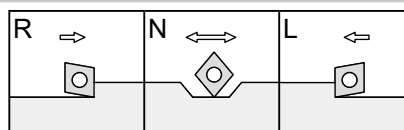
⑥ Thickness

Symbol	01	T1	02	03	T3	04	05	06	07	09
S(mm)	1.59	1.98	2.38	3.18	3.97	4.76	5.56	6.35	7.94	9.52

⑦ Corner Radius

Symbol	01	02	04	08	12	16	20	24	28	32
r(mm)	0.1	0.2	0.4	0.8	1.2	1.6	2.0	2.4	2.8	3.2

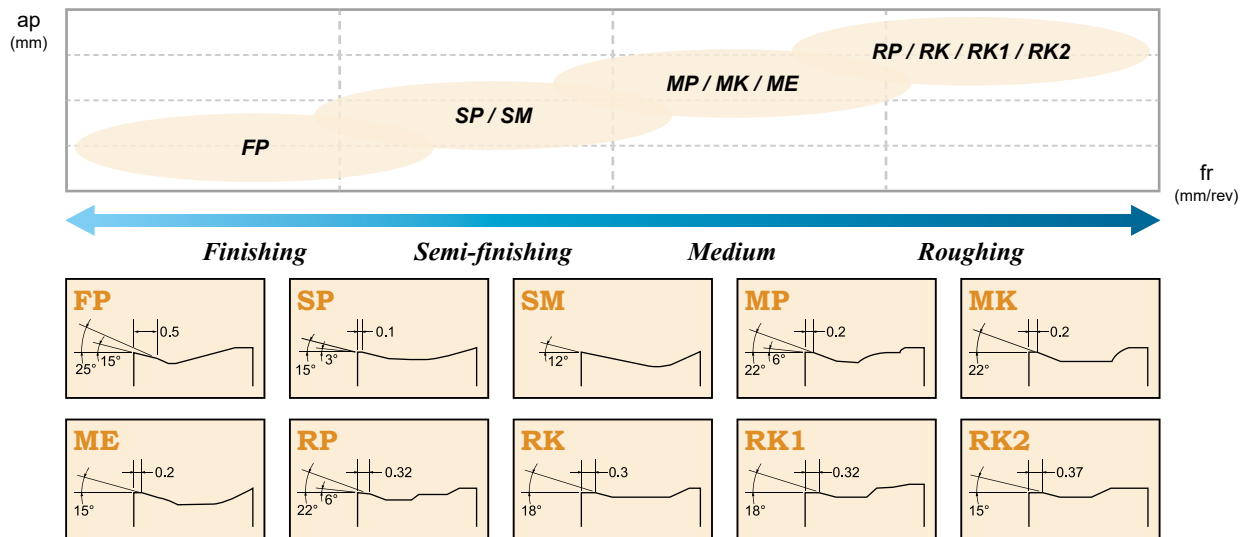
⑧ Cutting Direction



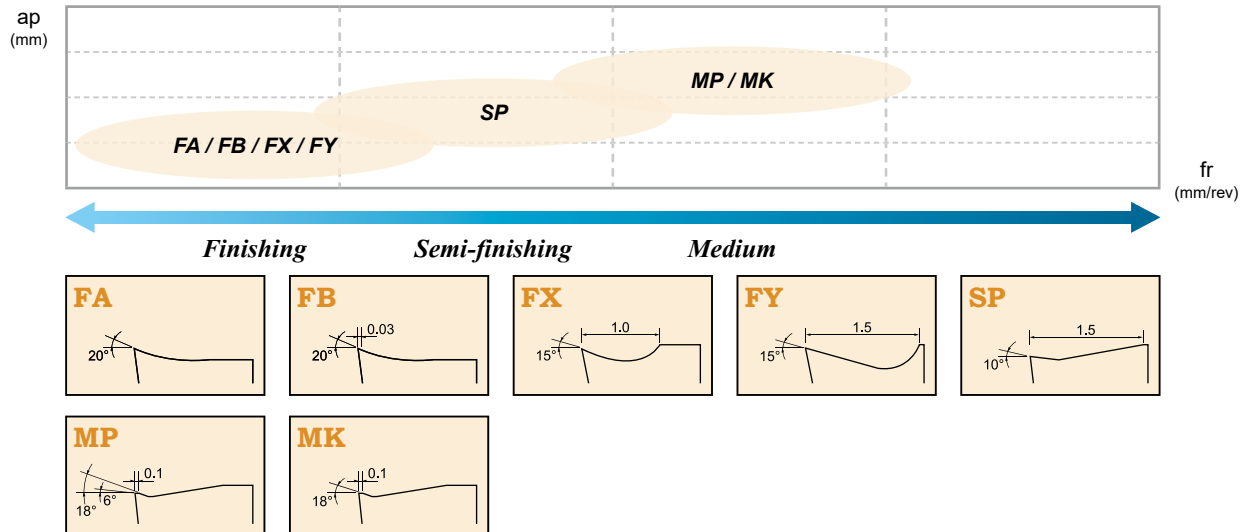
⑨ Chipbreaker Geometry

Positive Type	Negative Type
FA, FB, FX, FY, SP, MP, MK	FP, SP, SM, MP, MK, ME, RP, RK, RK1, RK2

Negative Insert



Positive Insert



Turning Insert Grades

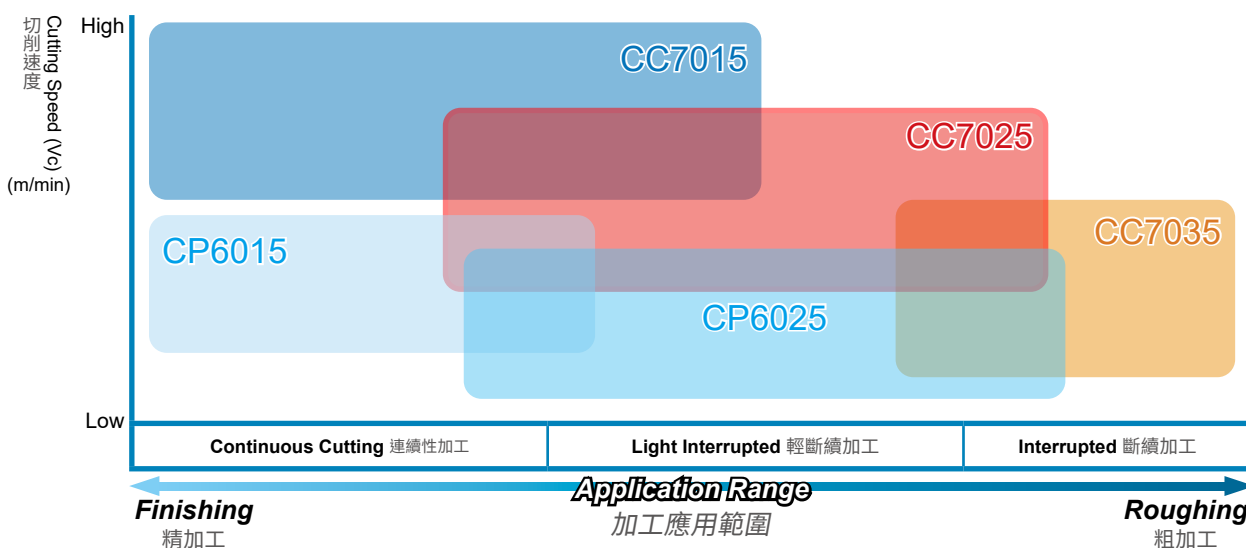
車刀片材質介紹

Grade Type 刀片材質	Color 刀片顏色	Properties 屬性	Application 加工特性	Working Material 加工材質							Industry Area 產業應用範圍	Previous Grade 以前的材質
				P	M	K	N	S	H			
CC7015		● CVD (TiCN-Al₂O₃-TiN) ● High wear resistance ● Heat resistance ● 高耐磨性 ● 耐熱性	● Finishing and semi-finishing dry or wet machining ● Continuous cutting ● Wear resistance grade for cast iron is 1st recommended ● 適用於乾式及濕式精加工和半精加工 ● 適用連續加工 ● 適合鑄鐵的第一推薦耐磨材質	○	○	●				○	● Auto parts ● Machinery ● 汽車零件 ● 機械零件	CX2565 CX2575
CC7025		● CVD (TiCN-Al₂O₃-TiN) ● Wear resistance ● Heat resistance ● Impact resistance ● 耐磨性 ● 耐熱性 ● 抗衝擊性	● Semi-finishing and medium dry or wet machining ● Light interrupted cutting ● General purpose grade for alloy steel is 1st recommended ● 適用於乾式及濕式半精加工和中加工 ● 適用輕斷續加工 ● 適合合金鋼的第一推薦泛用材質	●	●	●					● Auto parts ● Machinery ● 汽車零件 ● 機械零件	CX3565 CX3575
CC7035		● CVD (TiCN-Al₂O₃-TiN) ● High impact resistance ● Heat resistance ● High toughness ● 高抗衝擊性 ● 耐熱性 ● 高韌性	● Medium and roughing dry or wet machining ● Interrupted cutting ● Tough grade for stainless steel is 1st recommended ● 適用於乾式及濕式中加工和粗加工 ● 適用斷續加工 ● 適合不鏽鋼的第一推薦韌性材質	●	●	○					● Energy ● Oil & Gas ● Medical ● 能源產業 ● 石化產業 ● 醫療產業	—
CP6015		● PVD (AlTiSiN) ● High wear resistance ● Anti-corrosion ● 高耐磨性 ● 抗腐蝕	● Finishing cutting ● Continuous cutting ● Wear resistance grade for metal working ● 適用於精加工 ● 適用連續加工 ● 適合大部份金屬加工的耐磨材質	●	○	●		●	○		● Auto small parts ● Machinery parts ● Aircraft parts ● 汽車小零件 ● 機械零件 ● 航太零件	CX1060
CP6025		● PVD (AlTiSiN) ● Wear resistance ● Anti-corrosion ● 耐磨性 ● 抗腐蝕	● Semi-finishing and medium ● Light interrupted cutting ● General purpose grade for carbon steel and alloy steel ● 適用於半精加工和中加工 ● 適用輕斷續加工 ● 適合碳鋼及合金鋼的泛用材質	●	●	●		●			● Auto small parts ● Machinery parts ● Aircraft parts ● 汽車小零件 ● 機械零件 ● 航太零件	CX2561
CP6035		● PVD (AlTiSiN) ● High impact resistance ● Anti-corrosion ● 高抗衝擊性 ● 抗腐蝕	● Medium to roughing ● Interrupted cutting ● General purpose grade for alloy steel and stainless steel ● 適用於中加工和粗加工 ● 適用斷續加工 ● 適合合金鋼及不鏽鋼的泛用材質	●	●	●		●			● Auto small parts ● Machinery parts ● Aircraft parts ● 汽車小零件 ● 機械零件 ● 航太零件	—

Turning Insert Grades

車刀片材質介紹

Grade Type 刀片材質	Color 刀片顏色	Properties 屬性	Application 加工特性	Working Material 加工材質						Industry Area 產業應用範圍	Previous Grade 以前的材質
				P	M	K	N	S	H		
CP4025		- PVD (AlTiXN+ZrN) - Wear resistance - Anti-corrosion - Anti-sticky - 耐磨性 - 抗腐蝕 - 抗沾黏	- Semi-finishing and medium wet machining - Light interrupted cutting - General purpose grade for exotic materials. - 適用於溼式半精加工和中加工 - 適用輕斷續加工 - 適合不鏽鋼及高溫合金的泛用材質	○	●	○		●		- Auto small parts - Machinery parts - Aircraft parts - 汽車小零件 - 機械零件 - 航太零件	CX2545
CC1010		- CVD (Diamond-like) - Wear resistance - 耐磨性	- Finishing and medium cutting - Continuous cutting - For aluminum alloy - 適用於精加工和中加工 - 適用連續加工 - 適合鋁合金				●			- Bike parts - Auto small parts - Aluminum wheel - 自行車小零件 - 汽車小零件 - 鋁合金鋼圈	CX1010
CU1000	—	- Uncoated - Wear resistance - 耐磨性	- Finishing and medium cutting - Continuous cutting - For non-ferrous materials - 適用於精加工和中加工 - 適用連續加工 - 適合非鐵金屬					●		- Bike parts - Auto small parts - Electronic parts - 自行車小零件 - 汽車小零件 - 電子零件	CX10



Turning

Carbide Turning Inserts Chipbreaker Comparison Chart

鎢鋼車刀片斷屑槽比較表

Negative Inserts 負角車刀片

Work Material	Applications	WINSTAR 萬事達	Mitsubishi 三菱	Hitachi 日立	Sumitomo 住友	Kyocera 京瓷	Tungaloy 泰珂洛	TaeguTec 特固克
P Steel	Fine Cutting		FH, FP, FS, FY	FE	FA, FL, FB	GP, XP, XF, VF, VC, SK	TF, NS, ZF	FA
	Finishing	FP	SA, SY, SH	BE, CE, B, BH	LU, FE, SU	PP, XQ, CQ, HQ	MM, TS, TSF	FG, FC
	Finishing to Light	SP, SM	LP	AB, CT	SE, SX	CJ, XS	AS, ZM	
	Medium	MP, MK, ME	MA, MV, MH, MP	AH, AE, AY	GU, GE, UX	HS, PS, PQ, GS, PT, PG	TM, TQ, DM, AM	ML, MP, MC, PC, MT
	Roughing	RP, RK, RK1	RP, GH, HAS, MT	RE, AR	MU, ME, MX, MP	HT, GT, PH	TH, S, CH	RT
	Heavy Cutting	RK2	HZ, HX, HL, HH, HXD, HR, HV, HCS	TE, UE, H, HX, HE	HG, HP, HU, HW, HF	PX, Standard	THS, TRS, 65, TUS	RX, RH, HT, HD, HY, HZ
M Stainless Steel	Finishing	FP	LM, SH	SE, MP, AB	SU, EF	MQ, GU	SS	EA, SF
	Light to Medium	SP, SM	GM, MS	PV	EX, EG	MS, MU	SF, SA	EM
	Medium	MP, MK, ME	MM	DE	GU		SM	ET
	Roughing	RP, RK, RK1	ES, 1M, 2M, HL, RM, GH, HM	AE	HM, EM, MU	TK	S, SH	VF, SU
K Cast Iron	Light Cutting	SP, SM	LK, MA, MK	V, VA	UZ	Standard, C, KQ	CM, CF	MT
	Medium	MP, MK, ME	GK, RK, GH	Y, RE	GZ, ME	ZS, GC, KG, KH	Standard, CH 33	RT
N Non-Ferrous Metal	Finishing	FP		AH	AX	AH	P	
S Superalloys	Finishing	SP, SM	LS, FJ		EF		HRF	
	Medium	MP, MK, ME	MS, MJ	VI	EG, EX	SQ	HMM, SA, HRM	
	Roughing	RP, RK, RK1	RS, GJ		MU, EM	SG, SX		
H Hardened Steel	Finishing				GH, FV		HP	
	Light Cutting		BF		LV	HH, HL	HF	
	Carburised Layer Removal		BM		SV	HD	HM	

The above table is selected from a publication for reference only, which is not obtained approval from each brand. 此斷屑槽比照表僅供參考

Carbide Turning Inserts Chipbreaker Comparison Chart

鎢鋼車刀片斷屑槽比較表

Negative Inserts 負角車刀片

Work Material	Applications	WINSTAR 萬事達	Sandvik 山特維克	Iscar 伊斯卡	Kennametal 肯納	SECO 山高	Walter 瓦爾特
P Steel	Fine Cutting		QF	SF	FF	FF1, FF2	FP5
	Finishing	FP	LC, XF, MF		FN, CT	MF2	NF3
	Finishing to Light	SP, SM	PF, KF	F3P, TF	LF, 33		MP3, NS6
	Medium	MP, MK, ME	XM, QM, PMC, PM, SM, KM, HM	GN, RF, LF	P, MG, MN, MP1	M3	MU5, MP5, NM4, NM6
	Roughing	RP, RK, RK1	PR, XMR, KR	M3P, NR	RP, RN	M5, MR7, R4, R5, M6	RP5, NM9, RP7
	Heavy Cutting	RK2	HR, SR, MR	NM, TNM, R3P	RM, MR, RH	R7, MR7, RR9	NR6, NRF, NR8, NRR
M Stainless Steel	Finishing	FP	MF	F3M	FP, FS, LF	MF2	NF4, FM5
	Light to Medium	SP, SM	23	TF, VL	MS	MF1, M1	MM5
	Medium	MP, MK, ME	MM, MMC, SMR	M3M, PP	MP	MF3, M3	NM4, MS3, MU5
	Roughing	RP, RK, RK1	MR, MRR	MR, R3M, M4MW	UP	MF4, MF5, M5, MR3, MR4	NR4, RM5, HU5
K Cast Iron	Light Cutting	SP, SM	KF	GN	UN	M4	NM5
	Medium	MP, MK, ME	KM, KR, KRR			MR7	RK5, RK7
N Non-Ferrous Metal	Finishing	FP			MS		
S Superalloys	Finishing	SP, SM	SF, SGF	F3S			NFT
	Medium	MP, MK, ME	SM, SMC	VL		M1	NMT, NMS
	Roughing	RP, RK, RK1	SMR			MR3, MR4	NRT, HU5, NRS
H Hardened Steel	Finishing						
	Light Cutting						
	Carburised Layer Removal						

The above table is selected from a publication for reference only, which is not obtained approval from each brand. 此斷屑槽比照表僅供參考

Carbide Turning Inserts Chipbreaker Comparison Chart

鎢鋼車刀片 斷屑槽比較表

Positive Inserts 正角車刀片

Work Material	Applications	WINSTAR 萬事達	Mitsubishi 三菱	Hitachi 日立	Sumitomo 住友	Kyocera 京瓷	Tungaloy 泰珂洛	TaeguTec 特固克
P Steel	Finishing	FB, FX, FY	FJ, AM, FP, FM, FV, SQ	JQ, MP	FC, FB, LU, FP, FK	CF, GF, VF, P, PF, GP, XP, PP, MQ, DP	01, JRP, JTS, PSF, PF, 23, SS, JSS	FA, FX
	Finishing to Light	SP	SMG, LP, LM		SI, LB	CK, SKS, XQ	JS, CM, PSS	SA
	Light to Medium		SV, MQ	JE	SC, SU, GU, SK, SF	GQ, SK, Standard, HQ, XQ, GK	PS, TSF, TM	FG, PC
	Medium	MP, MK	MP, MM, MK, MV		MU		PM	MT, PMR
M Stainless Steel	Finishing	FB, FX, FY	FM, FV		FC		PSF, PF, SS, JSS	FA, FX
	Finishing to Light	SP, SM	SMG, LM		SI, LB	MQ		FG
	Light to Medium		SV		SU, GU	HG		PC
	Medium	MP, MK	MM, MV, Blank		MU		PM	MT, PMR
K Cast Iron	Finishing	FB			FC		CF	
	Light to Medium	MP, MK	MK		MU			MT
N Non-Ferrous Metal	Finishing	FA	AZ		AG, AW, AY	AH, AP	AL, PP	FL
	Finishing to Light	FB			LD, GD			SA
S Superalloys	Finishing	FB, FX, FY	FS		FC, SI	PP, MQ	PSS	
	Light to Medium		LS, MS		SU, GU	HQ, GK	PS, PM	
H Hardened Steel	Finishing				FV		HP	
	Light Cutting		BF		LV			

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Carbide Turning Inserts Chipbreaker Comparison Chart

鎢鋼車刀片斷屑槽比較表

Positive Inserts 正角車刀片

Work Material	Applications	WINSTAR 萬事達	Sandvik 山特維克	Iscar 伊斯卡	Kennametal 肯納	SECO 山高	Walter 瓦爾特
P Steel	Finishing	FB, FX, FY	UM, PF, UF, MF, XF	PF	11, UF, MF, KF, XF	GT-F1, FF1	FM4, FP4
	Finishing to Light	SP			LF		
	Light to Medium		PM, UM, XM	SM, 14	MP	MF2, F1	MP4, MM4, FP6, PM5
	Medium	MP, MK	PR, UR, MMC, MPC, XR	19	MF	F2, M3, M5	RP4, RM4
M Stainless Steel	Finishing	FB, FX, FY	MF, XF	PF	11, UF	FF1	FM4
	Finishing to Light	SP, SM	UF		LF, FP	F1	
	Light to Medium		MM	SM	MP	MF2	MM4, PS5
	Medium	MP, MK	UM, MR, XR, UR		MF	F2, M3, M5	PM5, RM4
K Cast Iron	Finishing	FB	KF, XF		11, UF		FK6
	Light to Medium	MP, MK	KM, UM, XR		FP, LF, MF, MP	M5	MK4, RK4
N Non-Ferrous Metal	Finishing	FA	AL	AS, AF	HP	AL	PM2
	Finishing to Light	FB					
S Superalloys	Finishing	FB, FX, FY	WF, MF				
	Light to Medium		UM, PM			MF2, R2, R3	FV4, MV4
H Hardened Steel	Finishing						
	Light Cutting						

The above table is selected from a publication for reference only, which is not obtained approval from each brand. 此斷屑槽比照表僅供參考

Carbide Turning Inserts Grade Comparison - CVD

鎢鋼車刀片材質比較表 - CVD

ISO Code		WINSTAR 萬事達	Mitsubishi 三菱	Hitachi 日立	Sumitomo 住友	Kyocera 京瓷	Tungaloy 泰珂洛	Korloy 克勞伊	TaeguTec 特固克
P Steel	P10	CC7015	MC6015 UE6105 UE6110 UE6005 UE6010 UE6020	GM10 GM20 GM8015 HG8010	AC8020P AC8015P AC810P	CA510 CA515 CA5505 CA5515	T9005 T9105 T9015 T9115 T9215	NC3215	TT8105B
	P20	CC7025	MC6025 UC6010 UE6110 UE6020	GM20 GM8020 HG8025	AC8020P AC8025P AC820P	CA025P CA525 CA5515 CA5525 CR9025	T9015 T9115 T9025 T9125 T9225	NC3225	TT5100 TT8115B TT8125B
	P30	CC7035	MC6025 UE6020 MC6035 UE6035 UH6400	GM25 GM8035 HG8025	AC8035P AC830P AC6030M AC630M	CA025P CA525 CA5525 CA530 CA5535 CR9025	T9125 T9035 T9135 T3130	NC3120 NC3030 NC5330	TT5100 TT7100 TT8125B
	P40	CC7035	MC6035 UE6035 UH6400	GX30	AC8035P AC830P AC6030M AC630M	CA530 CA5535	T9035 T3130		TT5100 TT7100 TT8135B
M Stainless Steel S Super Alloy	M10 S10	CC7015	MC7015 US7020	GM10 HS9105	AC6020M AC610M	CA6515	T9015 T9115	NC9115	TT9215
	M20 S20	CC7025 CC7035	US7020 MC7025	GM8020 HG8025 HS9115	AC6020M AC6030M AC610M AC630M	CA6525	T6020 T6120 T9115 T9125	NC9115 NC9125	TT5100 TT9215
	M30	CC7035	MC7025 US735	GM25 GM8035	AC6030M AC630M AC8035P AC830P		T6030 T6130 T9125	NC9125 NC9135	TT5100 TT9235
	M40	CC7035	US735	GX30	AC6030M AC630M			NC9135	TT5100 TT9235
K Cast Iron	K01	CC7015	MC5005 UC5105 UC5015	HG3305 HG3315 HX3505 HX3515	AC405K AC410K AC300G AC4010K	CA310 CA4505 CA5505	T5105 T5010		TT7005
	K10	CC7015	UC5015 UC5105 UC5115 UE6010 MC5015	GM8015 HX3515 HG8010 HG3315	AC4010K AC4015K AC405K AC415K	CA310 CA315 CA4505 CA4515 CA5505	T515 T5105 T5115 T5010	NC6310	TT7005 TT7015
	K20	CC7015	MC5015 MY5015 UE6010 UC5115 UE6110	GM8020 HG8025	AC4015K AC415K AC420K AC425K AC8025P	CA315 CA320 CA4515	T515 T5115 T5125 T5020	NC6315	TT7015 TT7025
	K30		UE6110	GM25		CA320	T5125 T9125	NC5330	TT7025

The above table is selected from a publication for reference only, which is not obtained approval from each brand.

此材質比照表僅供參考

Carbide Turning Inserts Grade Comparison - CVD

鎢鋼車刀片材質比較表 - CVD

ISO Code		WINSTAR 萬事達	Sandvik 山特維克	Iscar 伊斯卡	Kennametal 肯納	SECO 山高	Walter 瓦爾特
P Steel	P10	CC7015	GC4205 GC4015 GC3115 GC4215 GC4315	IC8150 IC9150 IC9250	KCK05 KCP10B KCP10 KC9010 KC9110	TP1501 TP1000 TP1500 TP100	WPP01 WPP05
	P20	CC7025	GC4025 GC4215 GC4220 GC4225 GC4325	IC8250 IC9125 IC9250 IC9350	KCP25B KCP25 KC9125 KC9225 KC9325	TP2501 TP2000 TP2500 TP200	WPP10S WPP20S
	P30	CC7035	GC4225 GC4230 GC4235 GC2135 GC4335	IC635 IC8350 IC9350	KCP30B KCP30 KC9040 KC9140	TP2501 TP3501 TP2500 TP2000 TP3500 TP200	WPP30S
	P40	CC7035	GC4035 GC4235 GC4240 GC4335	IC635	KCP40B KCP40 KC9140 KC9240	TP40	
M Stainless Steel S Super Alloy	M10 S10	CC7015	GC2015 GC2220	IC8250 IC9250 IC9350 IC6015	KCM15B KCM15 KC9010 KC9110 KC9210	TP1500 TP100	WAM20
	M20 S20	CC7025 CC7035	GC1515 GC2015 GC2025 GC2220	IC8350 IC9250 IC9350 IC6025	KCM25B KCM25 KC9025 KC9125 KC9225	TM2000 TP200	
	M30	CC7035	GC2040 GC235	IC8350 IC9350 IC4050	KCM35B KCM35 KC9240	TM4000 TP3501 TP300	
	M40	CC7035		IC635	KC9045 KC9245	TP40	
K Cast Iron	K01	CC7015	GC3205 GC3210	IC5005 IC428 IC9007 IC9150	KCPK05 KC9315 KCK05B KCK05	TK0501 TK1000 TK1001	WAK10
	K10	CC7015	GC3205 GC3210 GC3215 GC3115	IC5010 IC418 IC428 IC9015 IC9007	KC9110 KC9120 KC9315 KCK15B KCK15	TK1000 TK2000 TK2001 MK1500	WAK20
	K20	CC7015	GC4225 GC3215 GC3220 GC3225	IC418 IC9015	KC9125 KC9320 KC9325 KCK20B KCK20	TK2000 TX150 TP200	WAK30
	K30		GC3040 GC4335		KCP25B KC9320	TP2500 TP200	

The above table is selected from a publication for reference only, which is not obtained approval from each brand.

此材質比照表僅供參考

Turning

Carbide Turning Inserts Grade Comparison - PVD

鎢鋼車刀片材質比較表 - PVD

ISO Code		WINSTAR 萬事達	Mitsubishi 三菱	Hitachi 日立	Sumitomo 住友	Kyocera 京瓷	Tungaloy 泰珂洛	Korloy 克勞伊	TaeguTec 特固克
P Steel	P10	CP6015	MS6015 VP10MF	CY15 CY150 IP2000	AC1030U ACZ150 AC5005S AC5015S AC5025S AC520U	PR1705 PR930 PR1025 PR1115 PR1215 PR1225 PR1725	AH710		TT4410
	P20	CP6015 CP6025	MS6015 VP10RT VP15TF VP20MF UP20M VP20RT	CY150 IP2000	AC1030U AC5025S AC520U AC530U	PR930 PR1025 PR1115 PR1215 PR1225 PR1625 PR1725	AH7025 AH710 AH725 AH730 SH725 SH730		TT4410 TT4430 TT9020 TT9080
	P30	CP6025	VP10RT VP15TF VP20MF UP20M	CY250 CY9020 HC844 IP3000	AC1030U AC530U	PR1025 PR1225 PR1535	GH330 AH120 AH740 AH9030	PC5300	TT4410 TT4430 TT8020 TT8080 TT9020 TT9080
	P40	CP6025		CY250 HC844	AC1030U	PR1535	AH140 AH740 J740	PC5300 PC5400	TT4430 TT8020 TT8080 TT9020 TT9080
M Stainless Steel	M10	CP6015	VP10MF VP10RT	IP050S JP9105	AC5005S AC5015S AC5025S AC510U AC520U ACZ150	PR1025 PR1215 PR1225	AH710	PC8110	TT4410 TT5080
	M20	CP4025 CP6025	VP10RT VP15TF VP20MF UP20M VP20RT	IP100S GX30 JP9115	AC5015S AC5025S AC1030U AC520U	PR930 PR1025 PR1125 PR1215 PR1725 PR1225 PR1515	AH630 AH725 AH730 GH330 GH730 SH75 SH730	PC8115	TT4410 TT4430 TT5080 TT9020 TT9080
	M30	CP4025 CP6025	VP15TF VP20MF UP20M MP7035	CY250 CY9020	AC5025S AC6040M AC1030U AC520U AC530U	PR1125 PR1535	AH6030 AH120 AH725	PC5300	TT4410 TT4430 TT5080 TT8020 TT8080 TT9020 TT9080
	M40	CP4025 CP6025	MP7035		AC6040M AC1030U AC530U	PR1535	J740 AH140 AH645	PC9030 PC5400	TT4430 TT8020 TT8080 TT9020 TT9080
K Cast Iron	K01						AH110		
	K10	CP6015	VP05RT	CY100H CY10H	AC1030U AC510U ACZ150 AC5015S	PR905 PR1215	GH110 AH110	PC8110	
	K20	CP6025	VP10RT VP15TF VP20RT	IP2000 CY9020	AC1030U AC510U ACZ150 AC5015S AC5025S	PR905 PR1215	AH120 AH725	PC8110	
	K30	CP6025	VP15TF VP20RT		AC1030U AC530U			PC5300 PC5400	
S Super Alloy	S01		MP9005 VP05RT			PR005S	AH8005 AH905	PC8105	
	S10	CP4025 CP6015 CP6025	MP9005 MP9015 VP10RT	JP9105	AC5005S AC5015S AC5025S AC510U AC520U ACZ150	PR005S PR015S	AH8015 AH905 SH730 AH110	PC8110	TT3010 TT3020 TT4410 TT5080
	S20	CP4025 CP6025	MP9015 MT9015 VP20RT MP9025	JP9115	AC5015S AC5025S AC1030U AC520U	PR015S PR1535	AH8015 AH120 AH725	PC8115	TT3010 TT3020 TT4410 TT4430 TT5080
	S30	CP4025 CP6025	MP9025		AC5025S AC6040M AC1030U AC520U AC530U	PR1535	AH725	PC5300 PC5400	TT8020 TT8080 TT3010 TT3020 TT4410 TT4430 TT5080

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此材質比照表僅供參考

Carbide Turning Inserts Grade Comparison - PVD

鎢鋼車刀片材質比較表 - PVD

ISO Code		WINSTAR 萬事達	Sandvik 山特維克	Iscar 伊斯卡	Kennametal 肯納	SECO 山高	Walter 瓦爾特
P Steel	P10	CP6015	GC1025	IC507 IC807 IC907	KC5010 KC5510 KU10T	CP200	
	P20	CP6015 CP6025	GC1020 GC1025 GC4125 GC1125	IC507 IC907 IC908	KC5025 KC5525 KC7215 KC7315 KU25T	CP250	
	P30	CP6025	GC1125 GC1145 GC1115 GC1105	IC328 IC928 IC3028	KC7015 KC7020 KC7235 KU25T	CP500	
	P40	CP6025	GC1145 GC2145	IC328 IC3028	KC7030 KC7040 KC7140	CP600	
M Stainless Steel	M10	CP6015	GC1005 GC1025 GC1105 GC15	IC507 IC520 IC807 IC907	KC5010 KC5510 KC6005 KCU10	TS2000 CP200 CP250	WSM20
	M20	CP4025 CP6025	H5D6 GC1025 GC1115 GC4125 GC1125 GC30	IC308 IC507 IC907 IC908 IC3028	KC5025 KC5525 KC7020 KC7025 KCU25	TTP2050 TS2500 CP200 CP250 CP500	WSM30
	M30	CP4025 CP6025	GC1020 GC2035 GC2030	IC908 IC1008 IC1028 IC3028	KC7030 KC7225	CP500	
	M40	CP4025 CP6025	GC2145 GC1145	IC228 IC928 IC328		CP600	
K Cast Iron	K01			IC910	KC5515		
	K10	CP6015	GC1010	IC807 IC910 IC507 IC908	KC5010 KC7210	TS2000 CP200	
	K20	CP6025	GC1020 GC1120	IC508 IC908	KC5025 KC5525 KC7015 KC7215 KC7315	TS2500 CP200 CP250	
	K30	CP6025	GC1030	IC508 IC908	KC7225	CP500	
S Super Alloy	S01			IC804 IC806			WSM10
	S10	CP4025 CP6015 CP6025	GC1105 GC1005 GC1025	IC807 IC808 IC907 IC908	KC5010 KC5510 KCU10 KCS10	CP200 TS2000	WSM20
	S20	CP4025 CP6025	GC1025 GC1125	IC806 IC808 IC908	KC5025 KC5525 KCU25	CP250 TS2500	WSM30
	S30	CP4025 CP6025	GC1125	IC3028			

The above table is selected from a publication for reference only, which is not obtained approval from each brand.

此材質比照表僅供參考

P Steel 鋼

For Negative Turning Insert 負角車刀片

Work Material 加工材質	Cutting Process 加工方式	Chipbreaker 斷屑槽	Grade 材質	ap (mm)	fr (mm/rev)	Vc (m/min)
Soft Steel / Low Carbon Steel 軟鋼 / 低碳鋼 (SS400, C15) ≤ HB180	Continuous (Finishing) 連續加工 (精)	FP, SP	CP6025	0.5-1.0-1.5	0.1-0.2-0.3	390-330-260
	General (Medium) 泛用加工 (中)	MP	CC7025	1.0-2.0-3.0	0.2-0.3-0.4	300-250-200
	Interrupted (Roughing) 斷續加工 (粗)	RP, RK, RK1, RK2	CC7035	1.5-3.0-4.5	0.3-0.4-0.5	210-180-140
Carbon Steel / Alloy Steel 碳鋼 / 合金鋼 (S45C, SCM435) HB180 ~ 350	Continuous (Finishing) 連續加工 (精)	FP, SP	CP6025	0.5-1.0-1.5	0.1-0.2-0.3	320-270-210
	General (Medium) 泛用加工 (中)	MP	CC7025	1.0-2.0-3.0	0.2-0.3-0.4	230-190-150
	Interrupted (Roughing) 斷續加工 (粗)	RP, RK, RK1, RK2	CC7035	1.5-3.0-4.5	0.3-0.4-0.5	170-140-110
Hard Steel / Alloy Steel 硬化鋼 / 合金鋼 (SCM440H) HRC35 ~ 45	Continuous (Finishing) 連續加工 (精)	FP, SP	CP6025	0.5-1.0-1.5	0.1-0.2-0.3	260-220-170
	General (Medium) 泛用加工 (中)	MP	CC7015	1.0-2.0-3.0	0.2-0.3-0.4	200-170-130
	Interrupted (Roughing) 斷續加工 (粗)	RP, RK, RK1, RK2	CC7025	1.5-3.0-4.5	0.3-0.4-0.5	140-120-90

For Positive Turning Insert 正角車刀片

Work Material 加工材質	Cutting Process 加工方式	Chipbreaker 斷屑槽	Grade 材質	ap (mm)	fr (mm/rev)	Vc (m/min)
Soft Steel / Low Carbon Steel 軟鋼 / 低碳鋼 (SS400, C15) ≤ HB180	Continuous (Finishing) 連續加工 (精)	FX, FY, FB, SP	CP6015	0.5-1.0-1.5	0.08-0.16-0.24	390-330-260
	General (Medium) 泛用加工 (中)	MP, MK	CC7025	1.0-2.0-3.0	0.16-0.24-0.32	300-250-200
Carbon Steel / Alloy Steel 碳鋼 / 合金鋼 (S45C, SCM435) HB180 ~ 350	Continuous (Finishing) 連續加工 (精)	FX, FY, FB, SP	CP6015	0.5-1.0-1.5	0.08-0.16-0.24	320-270-210
	General (Medium) 泛用加工 (中)	MP, MK	CC7025	1.0-2.0-3.0	0.16-0.24-0.32	230-190-150

※ ap & fr value : Min. - Suggestion - Max. Vc : Max. - Suggestion - Min.
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M Stainless Steel 不鏽鋼

For Negative Turning Insert 負角車刀片

Work Material 加工材質	Cutting Process 加工方式	Chipbreaker 斷屑槽	Grade 材質	ap (mm)	fr (mm/rev)	Vc (m/min)
Ferritic 鐵素體不鏽鋼 (SUS430) < HB200	Continuous (Finishing) 連續加工 (精)	FP	CP6025	0.5-1.0-1.5	0.05-0.10-0.15	260-220-170
	General (Medium) 泛用加工 (中)	SM, SP	CC7025	1.0-2.0-3.0	0.10-0.20-0.30	210-180-140
	Interrupted (Roughing) 斷續加工 (粗)	MP	CC7035	1.5-3.0-4.5	0.20-0.30-0.40	210-180-140
Martensitic / Austenitic 馬氏體 / 奧氏體不鏽鋼 (SUS410 / SUS304) ≤ HB200	Continuous (Finishing) 連續加工 (精)	FP	CP6025	0.5-1.0-1.5	0.05-0.10-0.15	180-150-120
	General (Medium) 泛用加工 (中)	SM, SP	CC7025	1.0-2.0-3.0	0.10-0.20-0.30	150-130-100
	Interrupted (Roughing) 斷續加工 (粗)	MP	CC7035	1.5-3.0-4.5	0.20-0.30-0.40	120-100-80
Duplex 雙相不鏽鋼 (SUS329) ≤ HB280	Continuous (Finishing) 連續加工 (精)	FP	CP6025	0.5-1.0-1.5	0.05-0.10-0.15	150-130-100
	General (Medium) 泛用加工 (中)	SM, SP	CC7015	1.0-2.0-3.0	0.10-0.20-0.30	120-100-80
	Interrupted (Roughing) 斷續加工 (粗)	MP	CC7025	1.5-3.0-4.5	0.20-0.30-0.40	110-90-70
Precipitation Hardening 析出硬化不鏽鋼 (SUS630) < HB450	Continuous (Finishing) 連續加工 (精)	FP	CP6025	0.5-1.0-1.5	0.05-0.10-0.15	140-120-90
	General (Medium) 泛用加工 (中)	MP	CC7025	1.0-2.0-3.0	0.10-0.20-0.30	110-90-70
	Interrupted (Roughing) 斷續加工 (粗)	RP, RK, RK1, RK2	CC7035	1.5-3.0-4.5	0.20-0.30-0.40	80-70-50

For Positive Turning Insert 正角車刀片

Work Material 加工材質	Cutting Process 加工方式	Chipbreaker 斷屑槽	Grade 材質	ap (mm)	fr (mm/rev)	Vc (m/min)
Ferritic 鐵素體不鏽鋼 (SUS430) < HB200	Continuous (Finishing) 連續加工 (精)	FX, FY, FB, SP	CC6015	0.5-1.0-1.5	0.04-0.08-0.12	260-220-170
	General (Medium) 泛用加工 (中)	MP, MK	CC7025	1.0-2.0-3.0	0.08-0.16-0.24	210-180-140
Martensitic / Austenitic 馬氏體 / 奧氏體不鏽鋼 (SUS410 / SUS304) ≤ HB200	Continuous (Finishing) 連續加工 (精)	FX, FY, FB, SP	CC6015	0.5-1.0-1.5	0.04-0.08-0.12	180-150-120
	General (Medium) 泛用加工 (中)	MP, MK	CC7025	1.0-2.0-3.0	0.08-0.16-0.24	150-130-100
Duplex 雙相不鏽鋼 (SUS329) ≤ HB280	Continuous (Finishing) 連續加工 (精)	FX, FY, FB, SP	CC6015	0.5-1.0-1.5	0.04-0.08-0.12	150-130-100
	General (Medium) 泛用加工 (中)	MP, MK	CC7025	1.0-2.0-3.0	0.08-0.16-0.24	120-100-80
Precipitation Hardening 析出硬化不鏽鋼 (SUS630) < HB450	Continuous (Finishing) 連續加工 (精)	FX, FY, FB, SP	CC6015	0.5-1.0-1.5	0.04-0.08-0.12	140-120-90
	General (Medium) 泛用加工 (中)	MP, MK	CC7025	1.0-2.0-3.0	0.08-0.16-0.24	110-90-70

※ ap & fr value : Min. - Suggestion - Max. Vc : Max. - Suggestion - Min.
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K Cast Iron 鑄鐵

For Negative Turning Insert 負角車刀片

Work Material 加工材質	Cutting Process 加工方式	Chipbreaker 斷屑槽	Grade 材質	ap (mm)	fr (mm/rev)	Vc (m/min)
Gray Cast Iron 灰鑄鐵 (GG-25) ≤ 350Mpa	Continuous (Finishing) 連續加工 (精)	SP	CC7015	0.5-2.0-2.0	0.10-0.20-0.30	400-300-200
	General (Medium) 泛用加工 (中)	Flat, MP	CC7015	0.5-2.0-4.0	0.10-0.25-0.40	360-270-180
	Interrupted (Roughing) 斷續加工 (粗)	Flat, RP, RK, RK1, RK2	CC7025	0.5-2.0-6.0	0.10-0.30-0.50	300-230-150
Ductile Cast Iron 球墨鑄鐵 (GGG-40.3) ≤ 450Mpa	Continuous (Finishing) 連續加工 (精)	SP	CC7015	0.5-2.0-2.0	0.10-0.20-0.30	360-270-180
	General (Medium) 泛用加工 (中)	Flat, MP	CC7015	0.5-2.0-4.0	0.10-0.25-0.40	320-240-160
	Interrupted (Roughing) 斷續加工 (粗)	Flat, RP, RK, RK1, RK2	CC7025	0.5-2.0-6.0	0.10-0.30-0.50	240-180-120
High-strength Ductile Cast Iron 高強度球墨鑄鐵 (GGG-70) ≤ 800Mpa	Continuous (Finishing) 連續加工 (精)	SP	CC7015	0.5-2.0-2.0	0.10-0.20-0.30	320-240-160
	General (Medium) 泛用加工 (中)	Flat, MP	CC7015	0.5-2.0-4.0	0.10-0.25-0.40	280-210-140
	Interrupted (Roughing) 斷續加工 (粗)	Flat, RP, RK, RK1, RK2	CC7025	0.5-2.0-6.0	0.10-0.30-0.50	160-120-80

For Positive Turning Insert 正角車刀片

Work Material 加工材質	Cutting Process 加工方式	Chipbreaker 斷屑槽	Grade 材質	ap (mm)	fr (mm/rev)	Vc (m/min)
Gray Cast Iron 灰鑄鐵 (GG-25) ≤ 350Mpa	Continuous (Finishing) 連續加工 (精)	FX, FY, FB, SP	CC6015	0.5-2.0-2.0	0.08-0.16-0.24	400-300-200
	General (Medium) 泛用加工 (中)	Flat, MP, MK	CC7025	0.5-2.0-4.0	0.08-0.20-0.32	360-270-180
Ductile Cast Iron 球墨鑄鐵 (GGG-40.3) ≤ 450Mpa	Continuous (Finishing) 連續加工 (精)	FX, FY, FB, SP	CC6015	0.5-2.0-2.0	0.08-0.16-0.24	360-270-180
	General (Medium) 泛用加工 (中)	Flat, MP, MK	CC7025	0.5-2.0-4.0	0.08-0.20-0.32	320-240-160
High-strength Ductile Cast Iron 高強度球墨鑄鐵 (GGG-70) ≤ 800Mpa	Continuous (Finishing) 連續加工 (精)	FX, FY, FB, SP	CC6015	0.5-2.0-2.0	0.08-0.16-0.24	320-240-160
	General (Medium) 泛用加工 (中)	Flat, MP, MK	CC7025	0.5-2.0-4.0	0.08-0.20-0.32	280-210-140

※ ap & fr value : Min. - Suggestion - Max. Vc : Max. - Suggestion - Min.
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S Super Alloy 高溫合金

For Negative Turning Insert 負角車刀片

Work Material 加工材質	Cutting Process 加工方式	Chipbreaker 斷屑槽	Grade 材質	ap (mm)	fr (mm/rev)	Vc (m/min)
Nickel Alloy / PH Stainless Steel 鎳合金 / 析出硬化不鏽鋼	Continuous (Finishing) 連續加工 (精)	FP	CP6015	0.2-0.50-0.8	0.10-0.15-0.20	100-75-50
	Continuous (Semi-finishing) 連續加工 (半精)	SM, SP	CP6025	0.2-0.85-1.5	0.10-0.15-0.20	90-65-40
	General (Medium) 泛用加工 (中)	MP	CP6025	0.5-1.75-3.0	0.15-0.20-0.25	80-55-30
Titanium Alloy 鈦合金	Continuous (Finishing) 連續加工 (精)	FP	CP6015	0.2-0.50-0.8	0.10-0.15-0.20	80-60-40
	Continuous (Semi-finishing) 連續加工 (半精)	SM, SP	CP6025	0.2-0.85-1.5	0.10-0.15-0.20	70-50-30
	General (Medium) 泛用加工 (中)	MP	CP6025	0.5-1.75-3.0	0.15-0.20-0.25	70-50-30

For Positive Turning Insert 正角車刀片

Work Material 加工材質	Cutting Process 加工方式	Chipbreaker 斷屑槽	Grade 材質	ap (mm)	fr (mm/rev)	Vc (m/min)
Nickel Alloy / PH Stainless Steel 鎳合金 / 析出硬化不鏽鋼	Continuous (Finishing) 連續加工 (精)	FB	CP6015	0.2-0.50-0.8	0.08-0.12-0.16	100-75-50
	Continuous (Semi-finishing) 連續加工 (半精)	SP	CP6025	0.2-0.85-1.5	0.08-0.12-0.16	90-65-40
	General (Medium) 泛用加工 (中)	MP, MK	CP6025	0.5-1.75-3.0	0.12-0.16-0.20	80-55-30
Titanium Alloy 鈦合金	Continuous (Finishing) 連續加工 (精)	FB	CP6015	0.2-0.50-0.8	0.08-0.12-0.16	80-60-40
	Continuous (Semi-finishing) 連續加工 (半精)	SP	CP6025	0.2-0.85-1.5	0.08-0.12-0.16	70-50-30
	General (Medium) 泛用加工 (中)	MP, MK	CP6025	0.5-1.75-3.0	0.12-0.16-0.20	70-50-30

※ ap & fr value : Min. - Suggestion - Max. Vc : Max. - Suggestion - Min.
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N Non-ferrous Metals 非鐵金屬

For Positive Turning Insert 正角車刀片

Work Material 加工材質	Cutting Process 加工方式	Chipbreaker 斷屑槽	Grade 材質	ap (mm)	fr (mm/rev)	Vc (m/min)
Non-ferrous Metals 非鐵金屬	Finishing 精加工	FA	CU1000	0.3-2.0-4.0	0.1-0.25-0.4	1000-650-300
	Medium 中加工	FA	CC1010	0.39-2.6-5.2	0.13-0.33-0.52	1300-845-390

H Hardened Steel 高硬度鋼

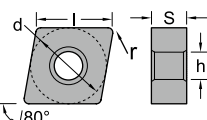
For Positive Turning Insert 正角車刀片

Work Material 加工材質	Cutting Process 加工方式	Chipbreaker 斷屑槽	Grade 材質	ap (mm)	fr (mm/rev)	Vc (m/min)
Hardened Steel 高硬度鋼 (HRC 45 ~ 65)	Finishing 精加工	FB	CP6015	0.03-0.25-0.5	0.02-0.05-0.1	80-60-40

※ ap & fr value : Min. - Suggestion - Max. Vc : Max. - Suggestion - Min.
 下限 - 推薦 - 上限 上限 - 推薦 - 下限

Carbide Turning Inserts · Negative - CN□□

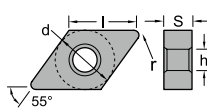
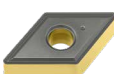
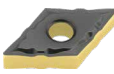
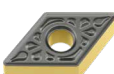
負角鎢鋼車刀片

Inserts		Designation	Grade No.						Dimensions (mm)					Drawing	
			CVD		PVD		CU1000	d	l	S	r	h			
			CC7015	CC7025	CC7035	CP6015							CP6025		CP4025
Finishing 精		CNMG 120404-FP	✓	✓			✓	✓		12.7	12.9	4.76	0.4	5.16	
		120408-FP	✓	✓			✓	✓		12.7	12.9	4.76	0.8	5.16	
Semi-finishing 半精		CNMG 120404-SM	✓	✓			✓	✓		12.7	12.9	4.76	0.4	5.16	
		120408-SM	✓	✓			✓	✓		12.7	12.9	4.76	0.8	5.16	
		CNMG 120404-SP	✓	✓			✓	✓		12.7	12.9	4.76	0.4	5.16	
		120408-SP	✓	✓			✓	✓		12.7	12.9	4.76	0.8	5.16	
Medium 中		CNMA 120404	✓							12.7	12.9	4.76	0.4	5.16	
		120408	✓							12.7	12.9	4.76	0.8	5.16	
		CNMG 120404-MP	✓	✓	✓		✓	✓		12.7	12.9	4.76	0.4	5.16	
		120408-MP	✓	✓	✓		✓	✓		12.7	12.9	4.76	0.8	5.16	
		120412-MP	✓	✓	✓		✓	✓		12.7	12.9	4.76	1.2	5.16	
	CNMG 120408-MK	✓	✓			✓			12.7	12.9	4.76	0.8	5.16		
Roughing 粗		CNMG 120408-RP	△	△			✓			12.7	12.9	4.76	0.8	5.16	
		CNMG 120408-RK	✓	△	✓		✓			12.7	12.9	4.76	0.8	5.16	
	120412-RK		✓						12.7	12.9	4.76	1.2	5.16		
		CNMG 120408-RK1	✓	✓			✓			12.7	12.9	4.76	0.8	5.16	
		CNMG 120408-RK2	✓	✓			✓			12.7	12.9	4.76	0.8	5.16	

✓ stock △ by inquiry

Carbide Turning Inserts · Negative - DN□□

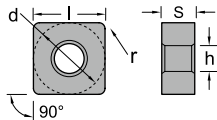
負角鎢鋼車刀片

Inserts		Designation	Grade No.						Dimensions (mm)					Drawing		
			CVD			PVD			d	l	S	r	h			
			CC7015	CC7025	CC7035	CP6015	CP6025	CP4025							CU1000	
Finishing 精		DNGX 110401-FP					✓				9.525	11.6	4.76	0.1	4.5	
		110402-FP					✓				9.525	11.6	4.76	0.2	4.5	
		DNMG 150408-FP	△	△			✓				12.7	15.5	4.76	0.8	5.16	
		150608-FP	△	△			✓				12.7	15.5	6.35	0.8	5.16	
Semi-finishing 半精		DNMG 150404-SP	✓	✓			✓				12.7	15.5	4.76	0.4	5.16	
		150408-SP	△				✓				12.7	15.5	4.76	0.8	5.16	
		150608-SP	△				✓				12.7	15.5	6.35	0.8	5.16	
Medium 中		DNMG 150404-MP	✓	✓	✓						12.7	15.5	4.76	0.4	5.16	
		150408-MP	✓	✓	✓		✓				12.7	15.5	4.76	0.8	5.16	
		150604-MP					✓	✓			12.7	15.5	6.35	0.4	5.16	
		150608-MP	✓	✓	✓		✓				12.7	15.5	6.35	0.8	5.16	
Roughing 粗		DNMG 110408-RK	△				✓				9.525	11.6	4.76	0.8	4.5	
		150408-RK	△	✓			✓				12.7	15.5	4.76	0.8	5.16	
		150608-RK	✓	✓			✓				12.7	15.5	6.35	0.8	5.16	

✓ stock △ by inquiry

Carbide Turning Inserts · Negative - SN□□

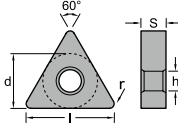
負角鎢鋼車刀片

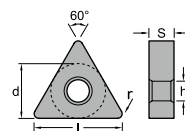
Inserts		Designation	Grade No.						Dimensions (mm)					Drawing		
			CVD			PVD			d	l	S	r	h			
			CC7015	CC7025	CC7035	CP6015	CP6025	CP4025							CU1000	
Semi-finishing 半精		SNMG 120404-SM		△			✓	✓			12.7	12.7	4.76	0.4	5.16	
Medium 中		SNMA 120408	✓								12.7	12.7	4.76	0.8	5.16	
		120412	✓								12.7	12.7	4.76	1.2	5.16	
		SNMG 120408-MP	✓	✓	✓						12.7	12.7	4.76	0.8	5.16	
		120412-MP		✓	✓						12.7	12.7	4.76	1.2	5.16	
Roughing 粗		SNMG 120408-RK	✓	✓	✓		✓				12.7	12.7	4.76	0.8	5.16	
		120412-RK	✓	✓	△		✓				12.7	12.7	4.76	1.2	5.16	

✓ stock △ by inquiry

Carbide Turning Inserts · Negative - TN□□

負角鎢鋼車刀片

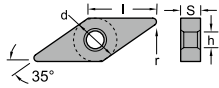
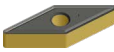
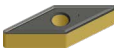
Inserts		Designation	Grade No.							Dimensions (mm)					Drawing
			CVD		PVD				d	l	S	r	h		
			CC7015	CC7025	CP6015	CP6025	CP4025	CU1000							
Finishing 精		TNMG 160404-FP	△			✓			9.525	16.5	4.76	0.4	3.81		
		160408-FP	✓	✓		✓	✓		9.525	16.5	4.76	0.8	3.81		
Semi-finishing 半精		TNMG 160408-SM	△	△		✓	✓		9.525	16.5	4.76	0.8	3.81		
		TNMG 160404-SP	✓	✓		✓	✓		9.525	16.5	4.76	0.4	3.81		
		160408-SP	△	✓		✓	✓		9.525	16.5	4.76	0.8	3.81		
Medium 中		TNMA 160404	✓						9.525	16.5	4.76	0.4	3.81		
		160408	✓						9.525	16.5	4.76	0.8	3.81		
		TNMG 160404R-ME	✓	✓	✓		✓	✓	9.525	16.5	4.76	0.4	3.81		
		160408R-ME	✓	✓	✓		✓	✓	9.525	16.5	4.76	0.8	3.81		
		TNMG 160404L-ME	✓	✓	✓		✓	✓	9.525	16.5	4.76	0.4	3.81		
		160408L-ME	✓	✓	✓		✓	✓	9.525	16.5	4.76	0.8	3.81		
		TNMG 160404-MP	✓	✓	✓		✓	✓	9.525	16.5	4.76	0.4	3.81		
		160408-MP	✓	✓	✓		✓	✓	9.525	16.5	4.76	0.8	3.81		
Roughing 粗		160412-MP	✓	✓			✓		9.525	16.5	4.76	1.2	3.81		
		TNMG 160408-RK	✓	✓			✓		9.525	16.5	4.76	0.8	3.81		
		160412-RK		✓					9.525	16.5	4.76	1.2	3.81		
		TNMG 220408-RK	✓	✓	✓		✓		12.7	22.0	4.76	0.8	5.16		
		TNMG 160404-RK1	△	△			✓		9.525	16.5	4.76	0.4	3.81		
															



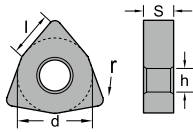
✓ stock △ by inquiry

Carbide Turning Inserts · Negative - VN□□

負角鎢鋼車刀片

Inserts		Designation	Grade No.						Dimensions (mm)					Drawing
			CVD			PVD			d	l	S	r	h	
			CC7015	CC7025	CC7035	CP6015	CP6025	CP4025						
Finishing 精		VNMG 12T304-FP				✓			7.15	12.4	3.97	0.4	3.5	
		VNMG 160404-FP	✓			✓			9.525	16.6	4.76	0.4	3.81	
		160408-FP	✓			✓	✓		9.525	16.6	4.76	0.8	3.81	
Medium 中		VNMG 160404-MP	✓	✓		✓	✓		9.525	16.6	4.76	0.4	3.81	
		160408-MP		✓		✓			9.525	16.6	4.76	0.8	3.81	
Roughing 粗		VNMG 160408-RK	△	✓		✓			9.525	16.6	4.76	0.8	3.81	

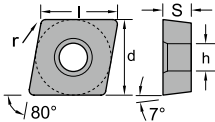
✓ stock △ by inquiry

Inserts		Designation	Grade No.							Dimensions (mm)					Drawing
			CVD		PVD					d	l	S	r	h	
			CC7015	CC7025	CC7035	CP6015	CP6025	CP4025	CU1000						
Finishing 精		WNMG 080404-FP	✓				✓			12.7	8.7	4.76	0.4	5.16	
		080408-FP	✓	✓			✓	✓		12.7	8.7	4.76	0.8	5.16	
Semi-finishing 半精		WNMG 080404-SP	✓				✓	✓		12.7	8.7	4.76	0.4	5.16	
		080408-SP	✓				✓	✓		12.7	8.7	4.76	0.8	5.16	
Medium 中		WNMA 080408	✓							12.7	8.7	4.76	0.8	5.16	
		080412	✓							12.7	8.7	4.76	1.2	5.16	
		WNMG 080404-MP	✓	✓	✓		✓	✓		12.7	8.7	4.76	0.4	5.16	
		080408-MP	✓	✓	✓		✓	✓		12.7	8.7	4.76	0.8	5.16	
		080412-MP	✓	✓			✓	✓		12.7	8.7	4.76	1.2	5.16	
		Roughing 粗		WNMG 080408-RK	✓	✓	✓		✓		12.7	8.7	4.76	0.8	
080412-RK				✓	✓		✓		12.7	8.7	4.76	1.2	5.16		
	WNMG 080408-RK2		✓	✓			✓			12.7	8.7	4.76	0.8	5.16	

✓ stock △ by inquiry

Carbide Turning Inserts · Positive - CC□□

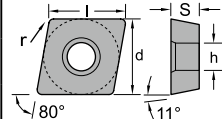
正角鎢鋼車刀片

Inserts		Designation	Grade No.							Dimensions (mm)					Drawing
			CVD			PVD			d	l	S	r	h		
			CC7015	CC7025	CC7035	CP6015	CP6025	CP4025						CU1000	
Finishing 精		CCGT 060202-FA						✓	6.35	6.4	2.38	0.2	2.8		
		060204-FA						✓	6.35	6.4	2.38	0.4	2.8		
		09T304-FA						✓	9.525	9.7	3.97	0.4	4.4		
		09T308-FA						✓	9.525	9.7	3.97	0.8	4.4		
		120404-FA						✓	12.7	12.9	4.76	0.4	5.5		
		CCGT 060202-FB				✓			6.35	6.4	2.38	0.2	2.8		
		060204-FB				✓			6.35	6.4	2.38	0.4	2.8		
		09T304-FB				✓			9.525	9.7	3.97	0.4	4.4		
		09T308-FB				✓			9.525	9.7	3.97	0.8	4.4		
		120404-FB				✓			12.7	12.9	4.76	0.4	5.5		
Medium 中		CCMT 060204-MP		✓			✓	✓	6.35	6.4	2.38	0.4	2.8		
		09T304-MP		✓			✓	✓	9.525	9.7	3.97	0.4	4.4		
		09T308-MP		✓			✓	✓	9.525	9.7	3.97	0.8	4.4		
		CCMT 060204-MK		✓			✓	✓	6.35	6.4	2.38	0.4	2.8		
		09T304-MK		✓			✓	✓	9.525	9.7	3.97	0.4	4.4		
		09T308-MK		✓			✓	✓	9.525	9.7	3.97	0.8	4.4		
		120408-MK		✓			✓	✓	12.7	12.9	4.76	0.8	5.5		

✓ stock △ by inquiry

Carbide Turning Inserts · Positive - CP□□

正角鎢鋼車刀片

Inserts		Designation	Grade No.						Dimensions (mm)					Drawing	
			CVD			PVD			d	l	S	r	h		
			CC7015	CC7025	CC7035	CP6015	CP6025	CP4025							CU1000
Finishing 精		CPMT 05T104-SG					✓			5.56	5.65	1.98	0.4	2.6	

✓ stock △ by inquiry

Carbide Turning Inserts · Positive - DC□□

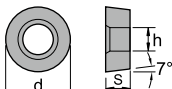
正角鎢鋼車刀片

Inserts		Designation	Grade No.						Dimensions (mm)					Drawing													
			CVD		PVD		CU1000	d	l	S	r	h															
			CC7015	CC7035	CP6015	CP6025							CP4025														
Finishing 精		DCET 070201R-FX			✓				6.35	7.7	2.38	0.1	2.8	                 	070202R-FX			✓				6.35	7.7	2.38	0.2	2.8	
	DCET 070201L-FX			✓				6.35	7.7	2.38	0.1	2.8															
	DCET 070202L-FX			✓				6.35	7.7	2.38	0.2	2.8															
	DCET 070201R-FY			✓				6.35	7.7	2.38	0.1	2.8															
	DCET 070202R-FY			✓				6.35	7.7	2.38	0.2	2.8															
	DCET 070204R-FY			✓				6.35	7.7	2.38	0.4	2.8															
	DCET 070201L-FY			✓				6.35	7.7	2.38	0.1	2.8															
	DCET 070202L-FY			✓				6.35	7.7	2.38	0.2	2.8															
	DCET 070204L-FY			✓				6.35	7.7	2.38	0.4	2.8															
	DCET 11T301R-FX			✓				9.525	11.6	3.97	0.1	4.4															
	DCET 11T302R-FX			✓				9.525	11.6	3.97	0.2	4.4															
	DCET 11T304R-FX			✓				9.525	11.6	3.97	0.4	4.4															
	DCET 11T301L-FX			✓				9.525	11.6	3.97	0.1	4.4															
	DCET 11T302L-FX			✓				9.525	11.6	3.97	0.2	4.4															
	DCET 11T304L-FX			✓				9.525	11.6	3.97	0.4	4.4															
	DCET 11T301R-FY			✓				9.525	11.6	3.97	0.1	4.4															
	DCET 11T302R-FY			✓				9.525	11.6	3.97	0.2	4.4															
	DCET 11T304R-FY			✓				9.525	11.6	3.97	0.4	4.4															
	DCET 11T301L-FY			✓				9.525	11.6	3.97	0.1	4.4															
	DCET 11T302L-FY			✓				9.525	11.6	3.97	0.2	4.4															
	DCET 11T304L-FY			✓				9.525	11.6	3.97	0.4	4.4															
	DCGT 070202-FA						✓	6.35	7.7	2.38	0.2	2.8															
	DCGT 070204-FA						✓	6.35	7.7	2.38	0.4	2.8															
	DCGT 11T302-FA						✓	9.53	11.6	3.97	0.2	4.4															
DCGT 11T304-FA						✓	9.525	11.6	3.97	0.4	4.4																
DCGT 11T308-FA						✓	9.525	11.6	3.97	0.8	4.4																
DCGT 070202-FB				✓			6.35	7.7	2.38	0.2	2.8																
DCGT 070204-FB				✓			6.35	7.7	2.38	0.4	2.8																
DCGT 11T302-FB				✓			9.525	11.6	3.97	0.2	4.4																
DCGT 11T304-FB				✓			9.525	11.6	3.97	0.4	4.4																
DCGT 11T308-FB				✓			9.525	11.6	3.97	0.8	4.4																
DCEW 11T301				✓			9.525	11.6	3.97	0.1	4.4																
DCEW 11T302				✓			9.525	11.6	3.97	0.2	4.4																
DCEW 11T304				✓			9.525	11.6	3.97	0.4	4.4																
DCMT 11T304-MP		✓		✓	✓		9.525	11.6	3.97	0.4	4.4																
DCMT 11T308-MP		✓		✓	✓		9.525	11.6	3.97	0.8	4.4																
DCMT 070204-MK		✓		✓	✓		6.35	7.7	2.38	0.4	2.8																
DCMT 11T304-MK	✓	✓		✓	✓		9.525	11.6	3.97	0.4	4.4																
DCMT 11T308-MK	✓	✓		✓	✓		9.525	11.6	3.97	0.8	4.4																

✓ stock △ by inquiry

Carbide Turning Inserts · Positive - RC□□

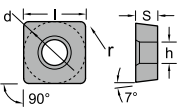
正角鎢鋼車刀片

Inserts		Designation	Grade No.							Dimensions (mm)					Drawing
			CVD			PVD			d	l	S	r	h		
			CC7015	CC7025	CC7035	CP6015	CP6025	CP4025						CU1000	
Finishing 精		RCMT 1204MOE-FB				✓			12	-	4.76	-	4.2		

✓ stock △ by inquiry

Carbide Turning Inserts · Positive - SC□□

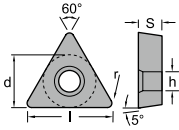
正角鎢鋼車刀片

Inserts		Designation	Grade No.						Dimensions (mm)					Drawing
			CVD		PVD		CU1000	d	l	S	r	h		
			CC7015	CC7025	CC7035	CP6015							CP6025	
Finishing 精		SCGT 09T304-FA						✓	9.525	9.525	3.97	0.4	4.4	
		09T308-FA						✓	9.525	9.525	3.97	0.8	4.4	
		SCGT 09T304-FB				✓			9.525	9.525	3.97	0.4	4.4	
		09T308-FB				✓			9.525	9.525	3.97	0.8	4.4	
Semi-finishing 半精		SCMT 09T304-SP		✓		✓			9.525	9.525	3.97	0.4	4.4	
		09T308-SP		△		✓			9.525	9.525	3.97	0.8	4.4	
Medium 中		SCMT 09T304-MP		✓		✓			9.525	9.525	3.97	0.4	4.4	
		09T308-MP		△		✓			9.525	9.525	3.97	0.8	4.4	
		SCMT 09T304-MK		✓		✓			9.525	9.525	3.97	0.4	4.4	
		09T308-MK		✓		✓			9.525	9.525	3.97	0.8	4.4	

✓ stock △ by inquiry

Carbide Turning Inserts · Positive - TB□□

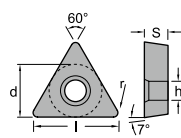
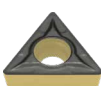
正角鎢鋼車刀片

Inserts		Designation	Grade No.						Dimensions (mm)					Drawing
			CVD			PVD			d	l	S	r	h	
			CG7015	CG7025	CG7035	CP6015	CP6025	CP4025						
Finishing 精		TBGT 060101R-FY				✓			3.97	6.9	1.59	0.1	2.2	
		060102R-FY				✓			3.97	6.9	1.59	0.2	2.2	
		060104R-FY				✓			3.97	6.9	1.59	0.4	2.2	
		TBGT 060101L-FY				✓			3.97	6.9	1.59	0.1	2.2	
		060102L-FY				✓			3.97	6.9	1.59	0.2	2.2	
		060104L-FY				✓			3.97	6.9	1.59	0.4	2.2	

✓ stock △ by inquiry

Carbide Turning Inserts · Positive - TC□□

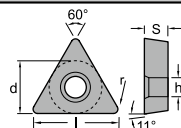
正角鎢鋼車刀片

Inserts		Designation	Grade No.						Dimensions (mm)					Drawing	
			CVD			PVD			d	l	S	r	h		
			CC7015	CC7025	CC7035	CP6015	CP6025	CP4025							CU1000
Finishing 精		TCGT 090204-FA						✓	5.56	9.6	2.38	0.4	2.5		
		110204-FA						✓	6.35	11.0	2.38	0.4	2.8		
		16T304-FA						✓	9.525	16.5	3.97	0.4	4.4		
		16T308-FA						✓	9.525	16.5	3.97	0.8	4.4		
		TCGT 090204-FB				✓			5.56	9.6	2.38	0.4	2.5		
		110204-FB				✓			6.35	11.0	2.38	0.4	2.8		
		16T304-FB				✓			9.525	16.5	3.97	0.4	4.4		
		16T308-FB				✓			9.525	16.5	3.97	0.8	4.4		
Semi-finishing 半精		TCMT 110204-SP		△			✓		6.35	11.0	2.38	0.4	2.8		
		16T308-SP		△			✓		9.525	16.5	3.97	0.8	4.4		
Medium 中		TCMT 110204-MP		✓			✓	✓		6.35	11.0	2.38	0.4		2.8
		TCMT 110204-MK		✓			✓	✓		6.35	11.0	2.38	0.4		2.8
		16T304-MK		✓			✓	✓		9.525	16.5	3.97	0.4	4.4	
		16T308-MK		✓			✓	✓		9.525	16.5	3.97	0.8	4.4	

✓ stock △ by inquiry

Carbide Turning Inserts · Positive - TP□□

正角鎢鋼車刀片

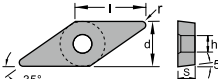
Inserts		Designation	Grade No.						Dimensions (mm)					Drawing
			CVD			PVD			d	l	S	r	h	
			CC7015	CC7025	CC7035	CP6015	CP6025	CP4025						
Medium #		TPMH 160304-MP		✓					9.525	16.5	3.18	0.4	4.4	

✓ stock △ by inquiry

Carbide Turning Inserts · Positive - VB□□

正角鎢鋼車刀片

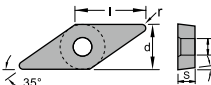
Inserts		Designation	Grade No.							Dimensions (mm)					Drawing
			CVD			PVD		CU1000	d	l	S	r	h		
			CC7015	CC7025	CC7035	CP6015	CP6025								
Finishing 精		VBET 110301R-FX				✓				6.35	11.1	3.18	0.1	2.8	
		110302R-FX				✓				6.35	11.1	3.18	0.2	2.8	
		110304R-FX				✓				6.35	11.1	3.18	0.4	2.8	
		VBET 110301L-FX				✓				6.35	11.1	3.18	0.1	2.8	
		110302L-FX				✓				6.35	11.1	3.18	0.2	2.8	
		110304L-FX				✓				6.35	11.1	3.18	0.4	2.8	
		VBET 110301R-FY				✓				6.35	11.1	3.18	0.1	2.8	
		110302R-FY				✓				6.35	11.1	3.18	0.2	2.8	
		110304R-FY				✓				6.35	11.1	3.18	0.4	2.8	
		VBET 110301L-FY				✓				6.35	11.1	3.18	0.1	2.8	
		110302L-FY				✓				6.35	11.1	3.18	0.2	2.8	
		110304L-FY				✓				6.35	11.1	3.18	0.4	2.8	
Medium 中		VBEW 110301				✓				6.35	11.1	3.18	0.1	2.8	
		110302				✓				6.35	11.1	3.18	0.2	2.8	
		110304				✓				6.35	11.1	3.18	0.4	2.8	
		VBMT 160404-MK		✓	✓		✓			9.525	16.6	4.76	0.4	4.4	
		160408-MK		✓	✓		✓			9.525	16.6	4.76	0.8	4.4	



✓ stock △ by inquiry

Carbide Turning Inserts · Positive - VC□□

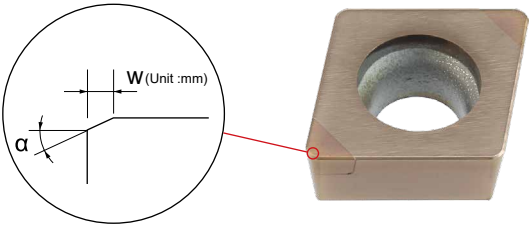
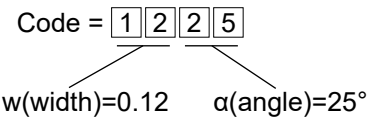
正角鎢鋼車刀片

Inserts		Designation		Grade No.						Dimensions (mm)					Drawing	
				CVD		PVD		CU1000	d	l	S	r	h			
				CC7015	CC7025	CC7035	CP6015							CP6025		
Finishing 精		VCET 110301R-FX				✓				6.35	11.1	3.18	0.1	2.8		
		110302R-FX				✓				6.35	11.1	3.18	0.2	2.8		
		110304R-FX				✓				6.35	11.1	3.18	0.4	2.8		
		VCET 110301L-FX				✓				6.35	11.1	3.18	0.1	2.8		
		110302L-FX				✓				6.35	11.1	3.18	0.2	2.8		
		110304L-FX				✓				6.35	11.1	3.18	0.4	2.8		
		VCET 110301R-FY				✓				6.35	11.1	3.18	0.1	2.8		
		110302R-FY				✓				6.35	11.1	3.18	0.2	2.8		
		110304R-FY				✓				6.35	11.1	3.18	0.4	2.8		
		VCET 110301L-FY				✓				6.35	11.1	3.18	0.1	2.8		
		110302L-FY				✓				6.35	11.1	3.18	0.2	2.8		
		110304L-FY				✓				6.35	11.1	3.18	0.4	2.8		
		VCGT 110302-FA							✓	6.35	11.1	3.18	0.2	2.8		
		110304-FA							✓	6.35	11.1	3.18	0.4	2.8		
		160402-FA							✓	9.525	16.6	4.76	0.2	4.4		
		160404-FA							✓	9.525	16.6	4.76	0.4	4.4		
		160408-FA							✓	9.525	16.6	4.76	0.8	4.4		
		VCGT 110302-FB				✓				6.35	11.1	3.18	0.2	2.8		
		110304-FB				✓				6.35	11.1	3.18	0.4	2.8		
		160402-FB				✓				9.525	16.6	4.76	0.2	4.4		
		160404-FB				✓				9.525	16.6	4.76	0.4	4.4		
		160408-FB				✓				9.525	16.6	4.76	0.8	4.4		
Semi-finish 半精		VCGT 110301-SP				✓			6.35	11.1	3.18	0.1	2.8			
		110302-SP				✓			6.35	11.1	3.18	0.2	2.8			
		110304-SP				✓			6.35	11.1	3.18	0.4	2.8			
Medium 中		VCEW 110301				✓			6.35	11.1	3.18	0.1	2.8			
		110302				✓			6.35	11.1	3.18	0.2	2.8			
		110304				✓			6.35	11.1	3.18	0.4	2.8			

✓ stock △ by inquiry

CBN Turning Insert Edge Specification CBN 車刀片刀尖規格

Edge specification code 刀尖規格碼規則



Edge specification code	Notation
1225	SM
1725	MM
2725	RM

PCD Turning Insert Edge Specification PCD 車刀片刀尖規格

Edge specification	
Standard	
With Chip Breaker (※ Made to Order)	

CBN Turning Insert Grades 立方氮化硼車刀片材質介紹

Grade Type 刀片材質	Color 刀片顏色	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		
BN6020		- PVD (AlTiSiN) - Wear resistance - Fracture resistance - 耐磨性 - 抗斷裂性	- For hardened steel is 1st recommended - Semi-finishing and rough cutting - Continuous to medium interrupted dry cutting - For high speed cutting - 適合高硬度鋼加工的第一推薦 - 適用於半精加工和粗加工 - 適用連續至中斷續乾式加工 - 適用高速加工				○			●	- Auto small parts - Machinery parts - Aircraft parts - 汽車小零件 - 機械零件 - 航太零件
BN20	—	- Uncoated - Wear resistance - Fracture resistance - 耐磨性 - 抗斷裂性	- For small parts cutting - Finishing and medium cutting - Continuous to medium interrupted dry cutting - For general cutting - 適合小零件加工 - 適用於精加工和中加工 - 適用連續至中斷續乾式加工 - 適用泛用加工				○			●	- Bike parts - Auto small parts - Electronic parts - 自行車小零件 - 汽車小零件 - 電子零件

PCD Turning Insert Grades 聚晶鑽石車刀片材質介紹

Grade Type 刀片材質	Color 刀片顏色	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	
DA20	—	● Uncoated ● Wear resistance ● Fracture resistance ● 耐磨性 ● 抗斷裂性	● Finishing and semi-finishing ● General cutting ● Good wear resistance ● 適用於精加工和半精加工 ● 泛用加工 ● 優良的耐磨材質				●			● Bike parts ● Auto small parts ● Electronic parts ● 自行車小零件 ● 汽車小零件 ● 電子零件

CBN Turning Inserts Grade Comparison

CBN 車刀片材質比較表

ISO Code		WINSTAR 萬事達	Mitsubishi 三菱	NTK	Sumitomo 住友	Kyocera 京瓷	Tungaloy 泰珂洛	Korloy 克勞伊	TaeguTec 特固克
H Hardened Steel	H01	BN4020 BN20	BC8105 BC8110 MBC010 MB810 MB8110	B5K B52	BNC2010 BNC2115 BN1000 BN2000	KBN05M KBN25M KBN510	BXA10 BXM10 BX310	DNC100 DB1000	TB610
	H10	BN4020 BN20	BC8110 BC8120 MBC020 MB8025 MB8110 MB825	B5K B6K B52 B36	BNC2010 BNC2020 BNC2115 BNC2125 BN2000	KBN05M KBN25M KBN525	BXA10 BXM10 BX330 BX530	DNC100 DNC250 DB1000 DB2000	TB610 TB650 TB2015
	H20	BN4020 BN20	BC8120 BC8020 MBC020 MB8025 MB8120	B36 B40 B6K	BNC2020 BNC2125 BNX20	KBN30M KBN35M KBN900	BXA20 BXM20 BX360	DNC400 DBNX20 DBN250 DBN400	TB650 TB670 TB2015
	H30	—	MB835 MB8130 BC8130	B40	BNC300 BN350 BNX25	KBN30M KBN35M KBN900	BXM20 BXA20 BXC50 BX380	DNC350	TB670 TB7015

ISO Code		WINSTAR 萬事達	Sandvik 山特維克	Iscar 伊斯卡	Kennametal 肯納	SECO 山高	Walter 瓦爾特
H Hardened Steel	H01	BN4020 BN20	CB7105	IB05H IB50 IB10HC	KB5610	CH0550 CBN10 CBN100 CBN60K	WCB30 WBH10 WBH10C
	H10	BN4020 BN20	CB7015 CB7115 CB20	IB10H IB55 IB25HA	KBH20 KB5610 KB5625	CBN10 CBN150 CBN100 CBN060K CBN160C	WCB50 WBH10
	H20	BN4020 BN20	CB7025 CB7125 CB50	IB20H IB20HC IB25H IB25HC	KBH20 KB5625 KB5630	CH2540 CBN150 CBN160C	WBH20 WBH20C
	H30	—	CB7525 CB7135	IB90	KB5630	CH3515	WBH30 WBK20 WBK30

Turning

The above table is selected from a publication for reference only, which is not obtained approval from each brand.

此材質比照表僅供參考

Recommended Cutting Conditions

建議切削數據

Recommended Cutting Conditions for CBN Turning Inserts 建議切削數據

H Hardened Steel 高硬度鋼

Work Material 加工材質	Cutting Process 加工方式	Grade 材質	ap (mm)	fr (mm/rev)	Vc (m/min)
Hardened Steel 高硬度鋼 (HRC 45 ~ 65)	Semi-finishing and rough cutting 半精加工和粗加工	BN6020	0.05-0.30-0.50	0.03-0.20-0.40	180-120-50
	Finishing and medium cutting 精加工和中加工	BN20	0.03-0.20-0.30	0.03-0.10-0.20	180-100-30

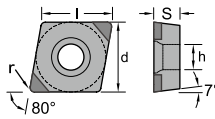
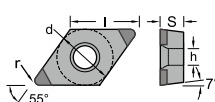
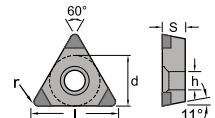
Recommended Cutting Conditions for PCD Turning Inserts 建議切削數據

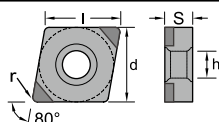
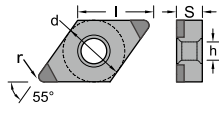
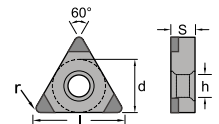
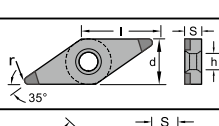
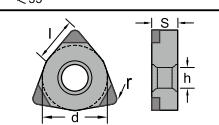
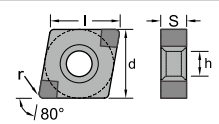
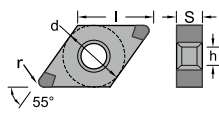
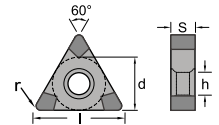
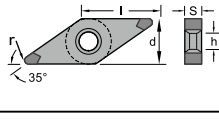
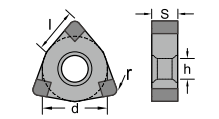
N Non-ferrous Metals 非鐵金屬

Work Material 加工材質	Cutting Process 加工方式	Grade 材質	ap (mm)	fr (mm/rev)	Vc (m/min)
Aluminum alloys (Si < 12%) 鋁合金	Finishing and Semi-finishing 精加工和半精加工	DA20	0.05-0.53-1.0	0.03-0.14-0.25	2700-1700-700
Aluminum alloys (Si > 12%) 鋁合金			0.05-0.53-1.0	0.03-0.11-0.18	800-540-270
Brass 黃銅			0.05-0.53-1.0	0.05-0.21-0.36	1300-950-600

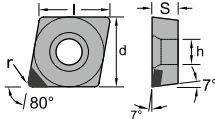
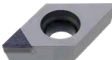
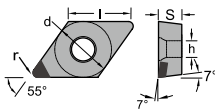
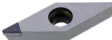
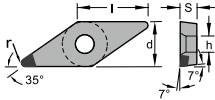
※ ap & fr value : Min. - Suggestion - Max.
下限 - 推薦 - 上限

Vc : Max. - Suggestion - Min.
上限 - 推薦 - 下限

Inserts	Designation	Grade No.						No. of Cutting Edges	Edge Spec.	Dimensions (mm)					Drawing
		PVD			Uncoated					d	l	S	r	h	
		BN6020			BN20										
	CCGW 060202C2-SM	✓			✓			2	1225	6.35	6.4	2.38	0.2	2.8	
	09T302C2-SM	✓			✓			2		9.525	9.7	3.97	0.2	4.4	
	09T304C2-SM	✓			✓			2		9.525	9.7	3.97	0.4	4.4	
	09T308C2-SM	✓			✓			2		9.525	9.7	3.97	0.8	4.4	
	CCGW 060202C2-MM	✓			✓			2	1725	6.35	6.4	2.38	0.2	2.8	
	09T308C2-MM	✓			✓			2		9.525	9.7	3.97	0.8	4.4	
	DCGW 070202C2-SM	✓			✓			2	1225	6.35	7.7	2.38	0.2	2.8	
	070204C2-SM	✓			✓			2		6.35	7.7	2.38	0.4	2.8	
	11T302C2-SM	✓			✓			2		9.525	11.6	3.97	0.2	4.4	
	11T304C2-SM	✓			✓			2		9.525	11.6	3.97	0.4	4.4	
	DCGW 11T308C2-MM	✓			✓			2	1725	9.525	11.6	3.97	0.8	4.4	
	TPGW 090202C3-SM	✓			✓			3	1225	5.56	9.6	2.38	0.2	2.8	
	090204C3-SM	✓			✓			3		5.56	9.6	2.38	0.4	2.8	
	110304C3-SM	✓			✓			3		6.35	11.0	3.18	0.4	3.4	
	110308C3-SM	✓			✓			3		6.35	11.0	3.18	0.8	3.4	
		VBGW 110304C2-SM	✓			✓			2	1225	6.35	11.1	3.18	0.4	
110308C2-SM		✓			✓			2	6.35		11.1	3.18	0.8	2.8	
160404C2-SM		✓			✓			2	9.525		16.6	4.76	0.4	4.4	
160408C2-SM		✓			✓			2	9.525		16.6	4.76	0.8	4.4	
VBGW 160408C2-MM		✓			✓			2	1725	9.525	16.6	4.76	0.8	4.4	

Inserts	Designation	Grade No.						No. of Cutting Edges	Edge Spec.	Dimensions (mm)					Drawing
		PVD			Uncoated					d	l	S	r	h	
		BN6020			BN20										
	CNGA 120404C2-SM	✓						2	1225	12.7	12.9	4.76	0.4	5.16	
	120408C2-SM	✓						2		12.7	12.9	4.76	0.8	5.16	
	120412C2-SM	✓						2		12.7	12.9	4.76	1.2	5.16	
	DNGA 150404C2-SM	✓						2	1225	12.7	15.5	4.76	0.4	5.16	
	150408C2-SM	✓						2		12.7	15.5	4.76	0.8	5.16	
	150412C2-SM	✓						2		12.7	15.5	4.76	1.2	5.16	
	DNGA 150408C2-MM	✓						2	1725	12.7	15.5	4.76	0.8	5.16	
	TNGA 160404C3-SM	✓						3	1225	9.525	16.5	4.76	0.4	3.81	
	160408C3-SM	✓						3		9.525	16.5	4.76	0.8	3.81	
	160412C3-SM	✓						3		9.525	16.5	4.76	1.2	3.81	
	TNGA 160408C3-MM	✓						3	1725	9.525	16.5	4.76	0.8	3.81	
	VNGA 160404C2-SM	✓						2	1225	9.525	16.6	4.76	0.4	3.81	
	160408C2-SM	✓						2		9.525	16.6	4.76	0.8	3.81	
	WNGA 080408C3-SM	✓						3	1225	12.7	8.7	4.76	0.8	5.16	
	CNGA 120408C4-MM	✓						4	1725	12.7	12.9	4.76	0.8	5.16	
	CNGA 120408C4-RM	✓						4	2725	12.7	12.9	4.76	0.8	5.16	
	DNGA 150408C4-MM	✓						4	1725	12.7	15.5	4.76	0.8	5.16	
	DNGA 150408C4-RM	✓						4	2725	12.7	15.5	4.76	0.8	5.16	
	TNGA 160408C6-MM	✓						6	1725	9.525	16.5	4.76	0.8	3.81	
	TNGA 160408C6-RM	✓						6	2725	9.525	16.5	4.76	0.8	3.81	
	VNGA 160408C4-SM	✓						4	1225	9.525	16.6	4.76	0.8	3.81	
	WNGA 080408C6-MM	✓						6	1725	12.7	8.7	4.76	0.8	5.16	
	WNGA 080408C6-RM	✓						6	2725	12.7	8.7	4.76	1.2	5.16	

Turning Inserts · PCD · Positive 正角 PCD 車刀片

Inserts		Designation	Grade No.								Dimensions (mm)					Drawing
			Uncoated								d	l	S	r	h	
			DA20													
Finishing to semi-finishing 精細半精		CCGT 060201	✓							6.35	6.4	2.38	0.1	2.8		
		060202	✓							6.35	6.4	2.38	0.2	2.8		
		060204	✓							6.35	6.4	2.38	0.4	2.8		
		09T301	✓							9.525	9.7	3.97	0.1	4.4		
		09T302	✓							9.525	9.7	3.97	0.2	4.4		
		09T304	✓							9.525	9.7	3.97	0.4	4.4		
		09T308	✓							9.525	9.7	3.97	0.8	4.4		
		DCGT 070201	✓							6.35	7.7	2.38	0.1	2.8		
		070202	✓							6.35	7.7	2.38	0.2	2.8		
		070204	✓							6.35	7.7	2.38	0.4	2.8		
		11T301	✓							9.525	11.6	3.97	0.1	4.4		
		11T302	✓							9.525	11.6	3.97	0.2	4.4		
		11T304	✓							9.525	11.6	3.97	0.4	4.4		
		11T308	✓							9.525	11.6	3.97	0.8	4.4		
		VCGT 110301	✓							6.35	11.1	3.18	0.1	2.8		
		110302	✓							6.35	11.1	3.18	0.2	2.8		
		110304	✓							6.35	11.1	3.18	0.4	2.8		
		160404	✓							9.525	16.6	4.76	0.4	4.4		
		160408	✓							9.525	16.6	4.76	0.8	4.4		

Turning

Tools Designations for External Turning 外徑車刀桿型號編碼

M

C

L

N

R

2

5

2

5

M

1

2

*

①

②

③

④

⑤

⑥

⑦

⑧

⑨

⑩

⑪

⑫

⑬

① Type of Locking

C

M

W

P

S

D

② Insert Shape

A

B

C

D

E

H

K

L

M

O

R

S

T

V

W

③ Type of Tool

A

B

C

D

E

F

G

H

J

K

L

M

N

P

Q

R

S

T

U

V

W

Y

X

④ Rake Angle

A

B

C

D

E

F

G

N

P

⑥/⑦ Shank Height

H

⑧/⑨ Shank Width

B

⑩ Tool Length

L

32

A

40

B

50

C

60

D

70

E

80

F

90

G

100

H

110

J

125

K

140

L

150

M

160

N

170

P

180

Q

200

R

250

S

300

T

350

U

400

V

450

W

500

Y

Special

X

⑤ Hand of Tool

R

N

L

⑪/⑫ Edge Length

A

B

C

D

E

H

K

L

M

O

R

S

T

V

W

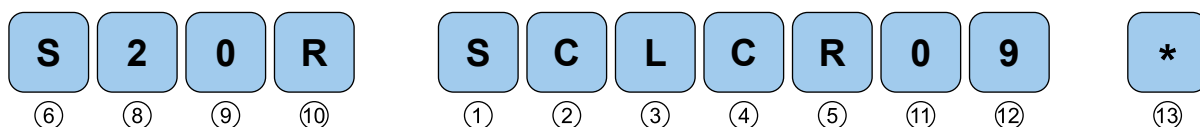
⑬ Optional Code

INSERTS

R-L

Tools Designations for Internal Turning

內徑車刀桿型號編碼



⑥ Shank

S = Steel shank

A = Steel shank + coolant hole

B = Steel shank + device anti-vibration

C = Cemented carbide shank with steel head

D = Steel shank + device anti-vibration + coolant hole

E = Cemented carbide shank with steel head + coolant hole

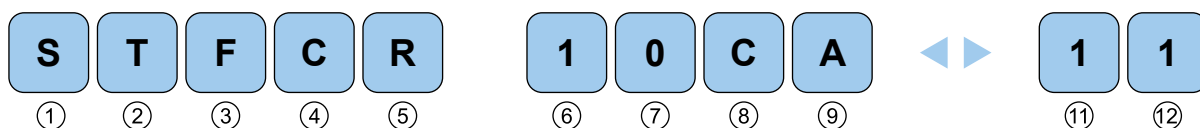
F = Cemented carbide shank with steel head + device anti-vibration

G = Cemented carbide shank with steel head + device anti-vibration + coolant hole

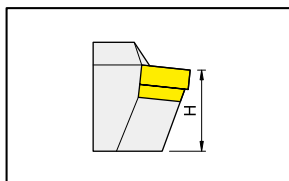
H = Heavy metal shank

J = Heavy metal shank + coolant hole

Cartridges Designation



⑥/⑦ Shank Height



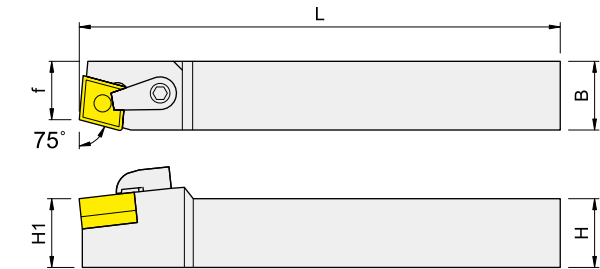
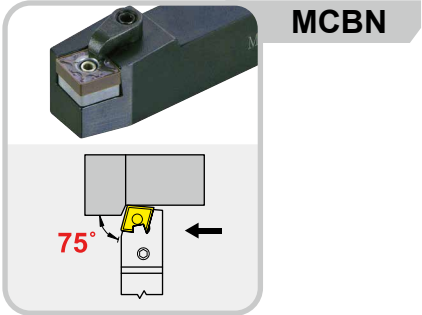
⑧ Type of Tool

C = Cartridge

⑨ Execution

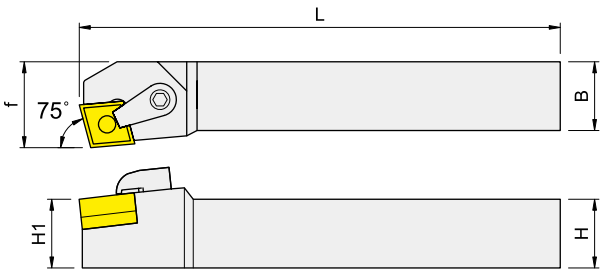
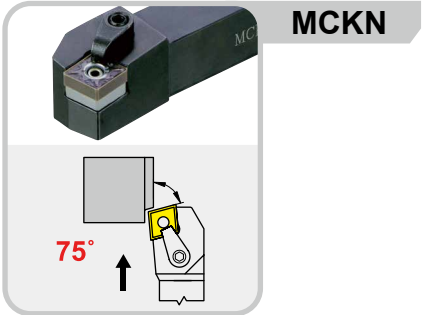
A = ISO 5611

External Turning Holders 外徑車刀桿



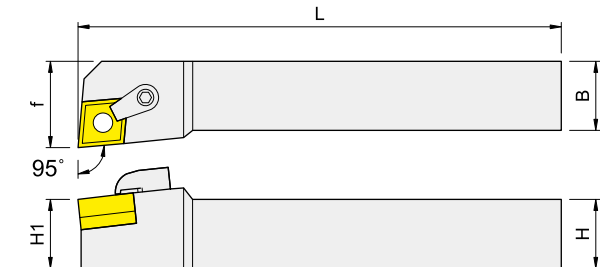
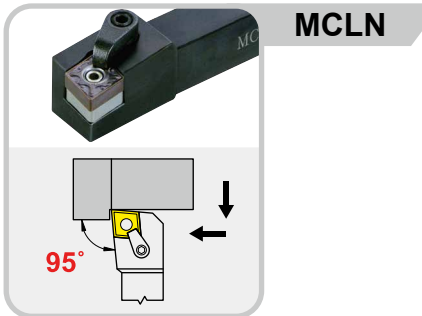
Right-hand shown

Order No.	Dimensions, mm					Insert	Pin	Shim	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f							
IMCBN ^R / _L -2020K-12	20	20	125	20	17	CN..1204..	IMLP46-A	ICMS432	IPL25	IMS625TX	IMC620	IETL15
IMCBN ^R / _L -2525M-12	25	25	150	25	22					IMS630TX		
IMCBN ^R / _L -3232P-12	32	32	170	32	29					IMS630TX		



Right-hand shown

Order No.	Dimensions, mm					Insert	Pin	Shim	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f							
IMCKN ^R / _L -1616K-12	16	16	125	16	20	CN..1204..	IMLP46-A	ICMS432	IPL25	IMS625TX	IMC620	IETL15
IMCKN ^R / _L -2020K-12	20	20	125	20	25					IMS625TX		
IMCKN ^R / _L -2525M-12	25	25	150	25	32					IMS630TX		
IMCKN ^R / _L -3232P-12	32	32	170	32	40					IMS630TX		

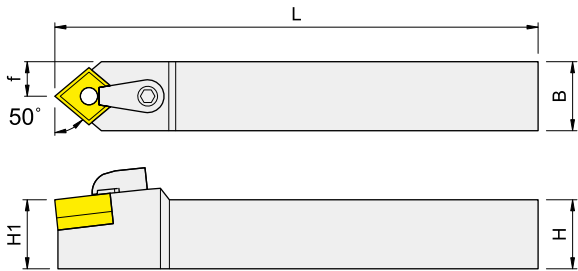
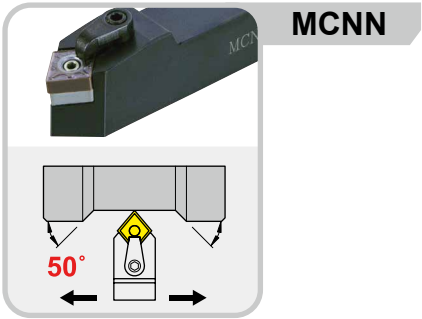


Right-hand shown

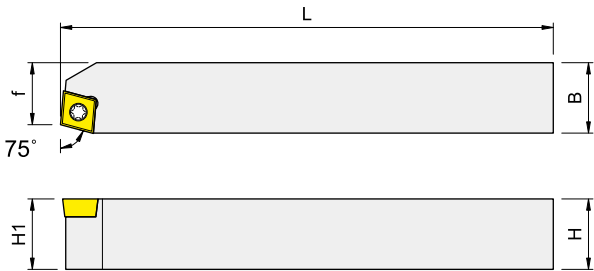
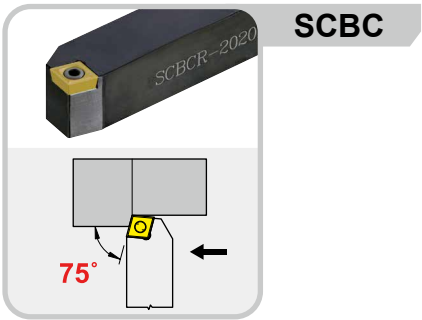
Order No.	Dimensions, mm					Insert	Pin	Shim	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f							
IMCLN ^R / _L -1616K-12	16	16	125	16	20	CN..1204..	IMLP46-A	ICMS432	IPL25	IMS625TX	IMC620	IETL15
IMCLN ^R / _L -2020K-12	20	20	125	20	25					IMS625TX		
IMCLN ^R / _L -2525M-12	25	25	150	25	32					IMS630TX		
IMCLN ^R / _L -3232P-12	32	32	170	32	40					IMS630TX		

External Turning Holders

外徑車刀桿

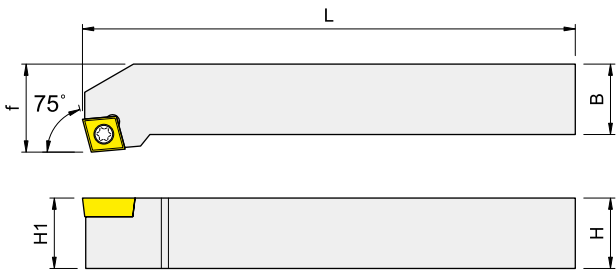
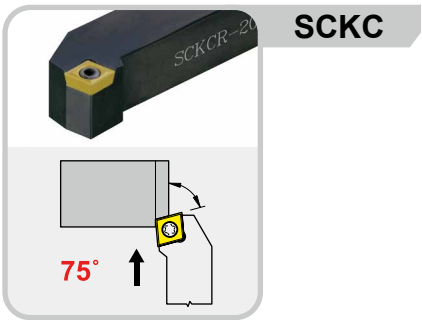


Order No.	Dimensions, mm					Insert	Pin 	Shim 	Wrench 	Screw 	Clamp 	Wrench 
	H	B	L	H1	f							
IMCNNN-1616K-12	16	16	125	16	8	CN..1204..	IMLP46-A	ICMS432	IPL25	IMS625TX	IMC620	IETL15
IMCNNN-2020K-12	20	20	125	20	10					IMS630TX		
IMCNNN-2525M-12	25	25	150	25	12.5							
IMCNNN-3232P-12	32	32	170	32	16							



Right-hand shown

Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISCBCL-2020K-09	20	20	125	20	17.5	CC..09T3..	IMS4011A	ITK15

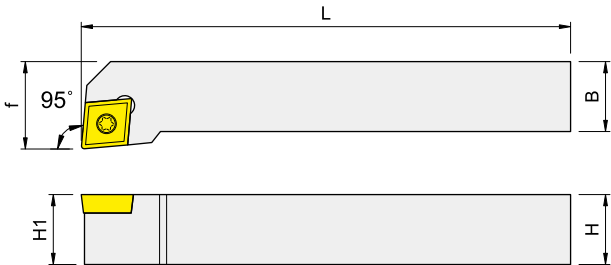
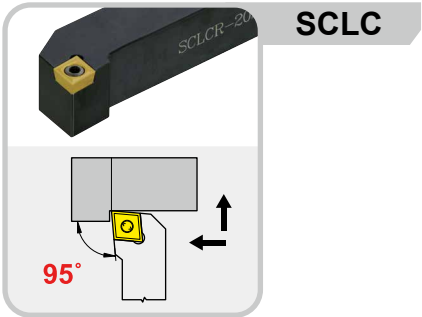


Right-hand shown

Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISCKC ^R _L -1212K-09	12	12	125	12	16	CC..09T3..	IMS4011A	ITK15
ISCKC ^R _L -1616K-09	16	16	125	16	20			
ISCKC ^R _L -2020K-09	20	20	125	20	25			
ISCKC ^R _L -2525M-09	25	25	150	25	32			

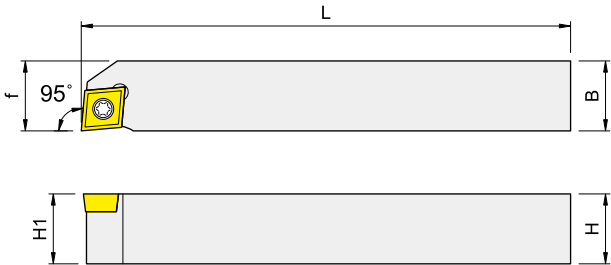
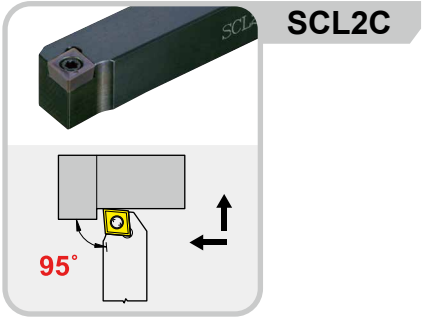
External Turning Holders

外徑車刀桿



Right-hand shown

Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISCLC ^R / _L -1010H-06	10	10	100	10	12	CC..0602..	IMS2506A	ITK09
ISCLC ^R / _L -1010K-06	10	10	125	10	12			
ISCLC ^R / _L -1212H-09	12	12	100	12	16	CC..09T3..	IMS4011A	ITK15
ISCLC ^R / _L -1212K-09	12	12	125	12	16			
ISCLC ^R / _L -1616K-09	16	16	125	16	20			
ISCLC ^R / _L -2020K-09	20	20	125	20	25			
ISCLC ^R / _L -2525M-09	25	25	150	25	32			
ISCLC ^R / _L -2020K-12	20	20	125	20	25	CC..1204..	IMS5011A	ITK20
ISCLC ^R / _L -2525M-12	25	25	150	25	32			

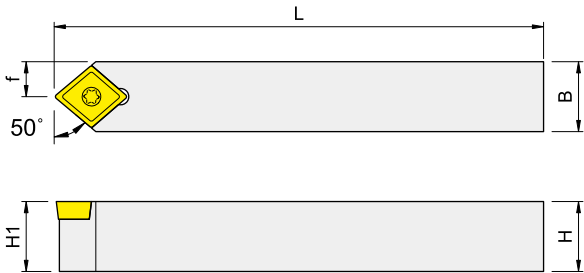
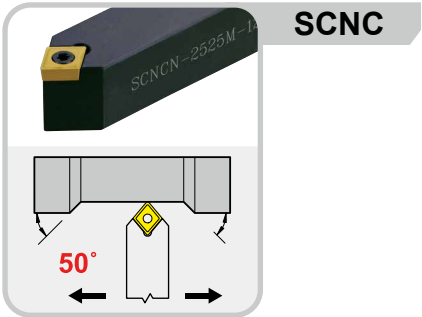


Right-hand shown

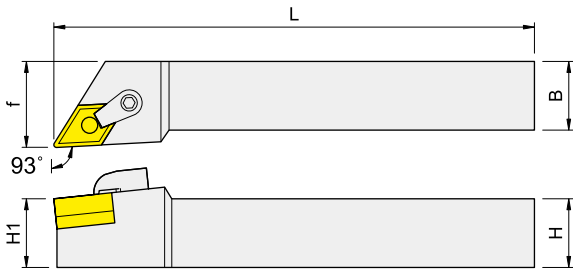
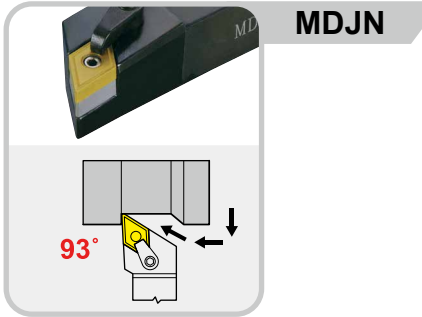
Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISCL2C ^R / _L -1010H-06	10	10	100	10	10	CC..0602..	IMS2506A	ITK09
ISCL2C ^R / _L -1212H-09	12	12	100	12	12			
ISCL2C ^R / _L -1616K-09	16	16	125	16	16	CC..09T3..	IMS4011A	ITK15
ISCL2C ^R / _L -2020K-09	20	20	125	20	25			

External Turning Holders

外徑車刀桿



Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISCNCN-1616K-06	16	16	125	16	8	CC..0602..	IMS2506A	ITK09
ISCNCN-1212K-09	12	12	125	12	6	CC..09T3..	IMS4011A	ITK15
ISCNCN-1616K-09	16	16	125	16	8			
ISCNCN-2020K-09	20	20	125	20	10			
ISCNCN-2525M-09	25	25	150	25	12.5			
ISCNCN-2020K-12	20	20	125	20	10	CC..1204..	IMS5011A	ITK20
ISCNCN-2525M-12	25	25	150	25	12.5			

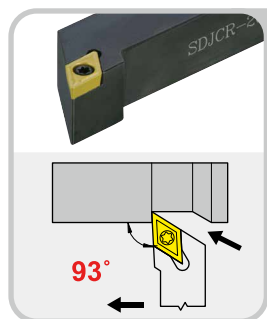


Right-hand shown

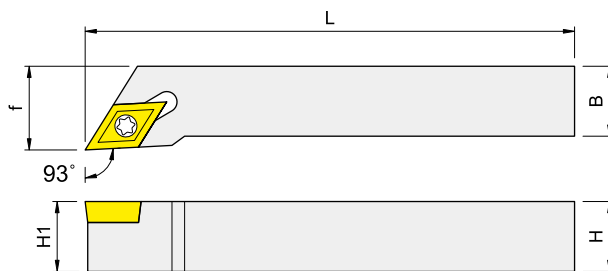
Order No.	Dimensions, mm					Insert	Pin	Shim	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f							
IMDJN ^R / _L -2020K-1504	20	20	125	20	25	DN..1504..	IMLP46L-A	IDMS442	IPL25	IMS625TX	IMC622	IETL15
IMDJN ^R / _L -2525M-1504	25	25	150	25	32					IMS630TX		
IMDJN ^R / _L -2020K-1506	20	20	125	20	25	DN..1506..	IMLP46L-A	IDMS432	IPL25	IMS625TX	IMC622	IETL15
IMDJN ^R / _L -2525M-1506	25	25	150	25	32					IMS630TX		

External Turning Holders

外徑車刀桿

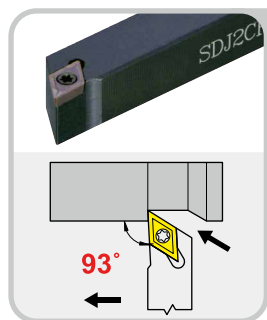


SDJC



Right-hand shown

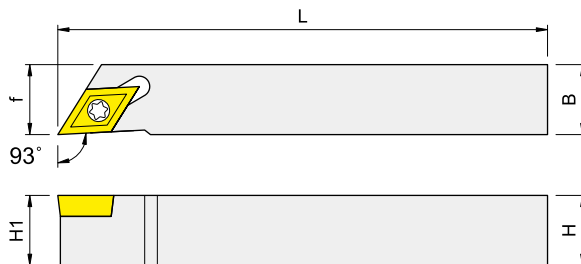
Order No.	Dimensions, mm					Insert	Clamp 	Wrench 
	H	B	L	H1	f			
ISDJC ^R / _L -1010H-07	10	10	100	10	12	DC..0702..	IMS2506B	ITK09
ISDJC ^R / _L -1212H-07	12	12	100	12	16			
ISDJC ^R / _L -1212K-07	12	12	125	12	16			
ISDJC ^R / _L -1616K-07	16	16	125	16	20			
ISDJC ^R / _L -2020K-07	20	20	125	20	25			
ISDJC ^R / _L -1212H-11	12	12	100	12	16	DC..11T3..	IMS4009A	ITK15
ISDJC ^R / _L -1212K-11	12	12	125	12	16			
ISDJC ^R / _L -1616K-11	16	16	125	16	20			
ISDJC ^R / _L -2020K-11	20	20	125	20	25			
ISDJC ^R / _L -2525M-11	25	25	150	25	32			



SDJ2C



SDJ2CR-1010H/K-11

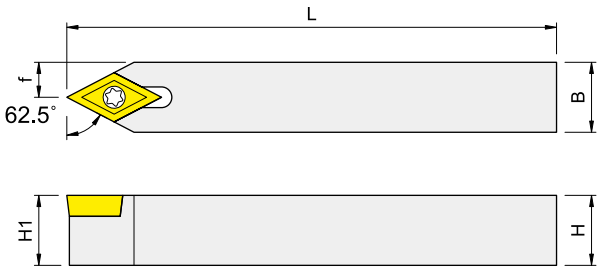
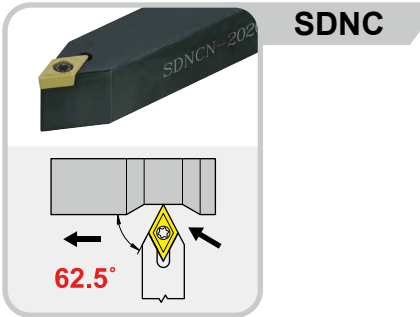


Right-hand shown

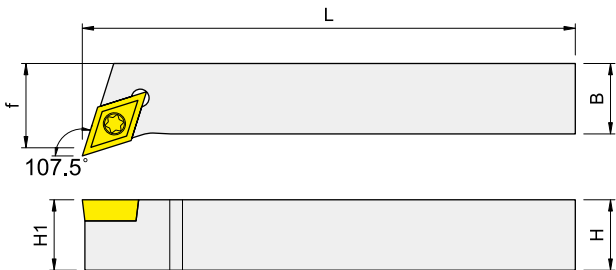
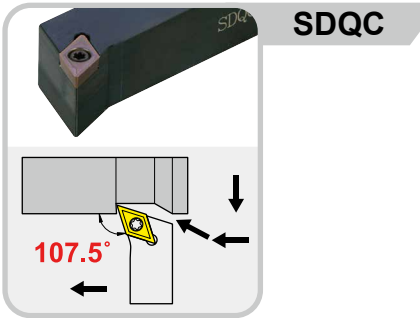
Order No.	Dimensions, mm					Insert	Clamp 	Wrench 
	H	B	L	H1	f			
ISDJ2C ^R / _L -1010H-07	10	10	100	10	10	DC..0702..	IMS2506B	ITK09
ISDJ2C ^R / _L -1212H-07	12	12	100	12	12			
ISDJ2C ^R / _L -1212K-07	12	12	125	12	12			
ISDJ2C ^R / _L -1616K-07	16	16	125	16	16			
ISDJ2C ^R / _L -2020K-07	20	20	125	20	20			
ISDJ2C ^R / _L -2525M-07	25	25	150	25	25	DC..11T3..	IMS4009A	ITK15
ISDJ2C ^R / _L -1010H-11	10	10	100	10	10			
ISDJ2C ^R / _L -1010K-11	10	10	125	10	10			
ISDJ2C ^R / _L -1212H-11	12	12	100	12	12			
ISDJ2C ^R / _L -1616K-11	16	16	125	16	16			
ISDJ2C ^R / _L -2020K-11	20	20	125	20	20			
ISDJ2C ^R / _L -2525M-11	25	25	150	25	25			
ISDJ2C ^R / _L -3232P-11	32	32	170	32	32			

External Turning Holders

外徑車刀桿

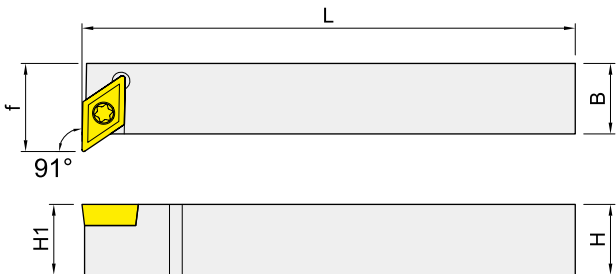
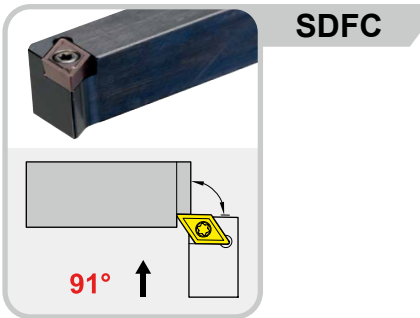


Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISDNCN-1010H-07	10	10	100	10	5	DC..0702..	IMS2506B	ITK09
ISDNCN-1212H-07	12	12	100	12	6			
ISDNCN-1616K-07	16	16	125	16	8			
ISDNCN-1212H-11	12	12	100	12	6	DC..11T3..	IMS4011A	ITK15
ISDNCN-1212K-11	12	12	125	12	6			
ISDNCN-1616K-11	16	16	125	16	8			
ISDNCN-2020K-11	20	20	125	20	10			
ISDNCN-2525M-11	25	25	150	25	12.5			



Right-hand shown

Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISDQC ^R _L -1212H-11	12	12	100	12	16	DC..11T3..	IMS4011A	ITK15
ISDQC ^R _L -1616K-11	16	16	125	16	20			
ISDQC ^R _L -2020K-11	20	20	125	20	25			
ISDQC ^R _L -2525M-11	25	25	150	25	32			



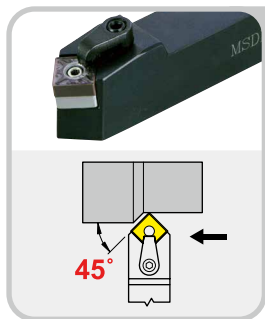
Right-hand shown

Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISDFC ^R _L -1212K-07	12	12	125	12	16	DC..0702..	IMS2506B	ITK09
ISDFC ^R _L -1212K-11	12	12	125	12	19	DC..11T3..	IMS4011A	ITK15
ISDFC ^R _L -1616K-11	16	16	125	16	20			

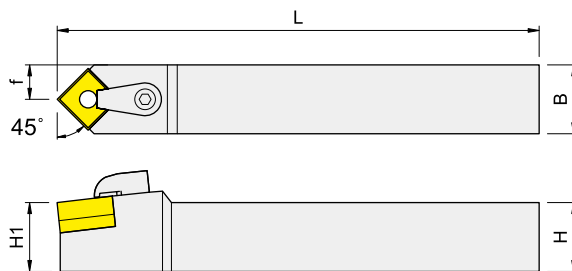
Turning

External Turning Holders

外徑車刀桿

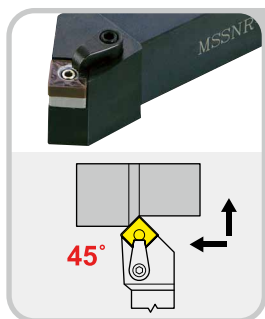


MSDN

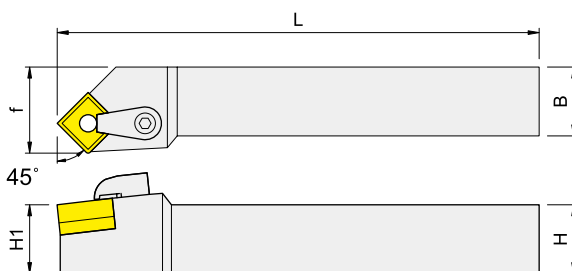


Right-hand shown

Order No.	Dimensions, mm					Insert	Pin	Shim	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f							
IMSDNN-2020K-12	20	20	125	20	10	SN..1204..	IMLP46-A	ISMS432	IPL25	IMS625TX	IMC620	IETL15
IMSDNN-2525M-12	25	25	150	25	12.5					IMS630TX		

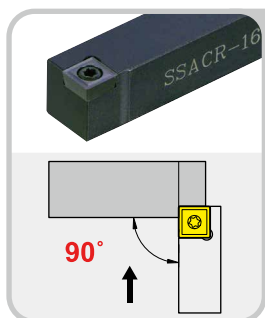


MSSN

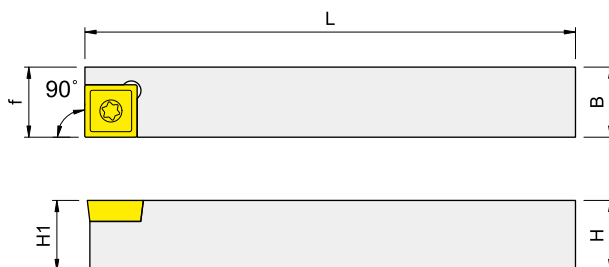


Right-hand shown

Order No.	Dimensions, mm					Insert	Pin	Shim	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f							
IMSSN ^R / _L -1616K-12	16	16	125	16	20	SN..1204..	IMLP46-A	ISMS432	IPL25	IMS625TX	IMC620	IETL15
IMSSN ^R / _L -2020K-12	20	20	125	20	25					IMS630TX		
IMSSN ^R / _L -2525M-12	25	25	150	25	32							



SSAC

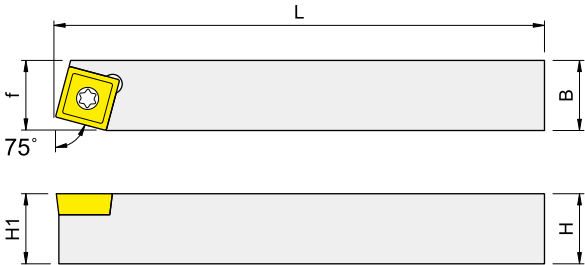
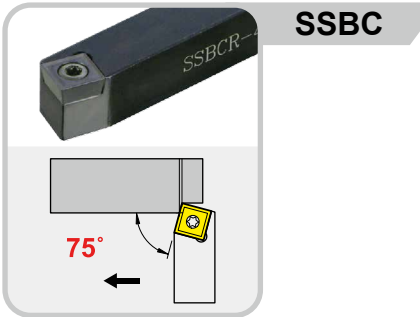


Right-hand shown

Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISSAC ^R / _L -3.4H-09	9.5	12.7	100	9.5	12.7	SC..09T3..	IMS4009A	ITK15
ISSAC ^R / _L -4.4H-09	12.7	12.7	100	12.7	12.7			
ISSACR-1212H-09	12	12	100	12	12		IMS4011A	ITK15
ISSAC ^R / _L -1616K-09	16	16	125	16	16			

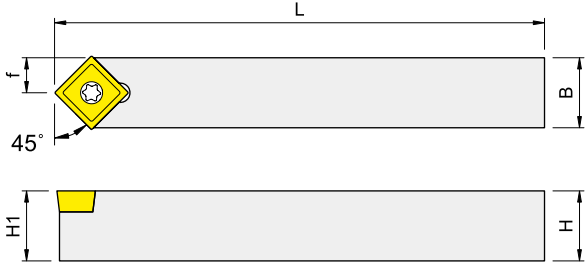
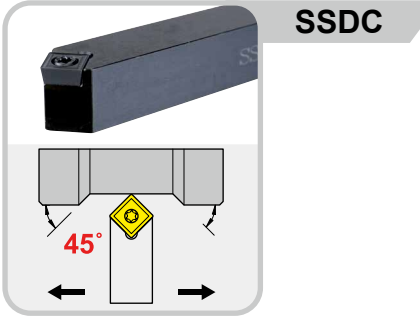
External Turning Holders

外徑車刀桿

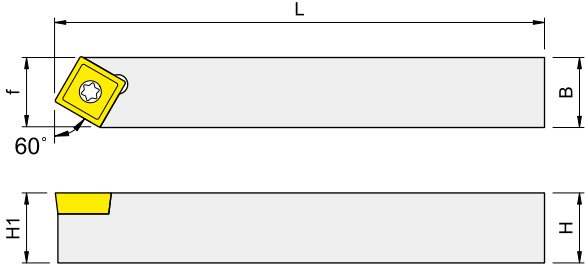
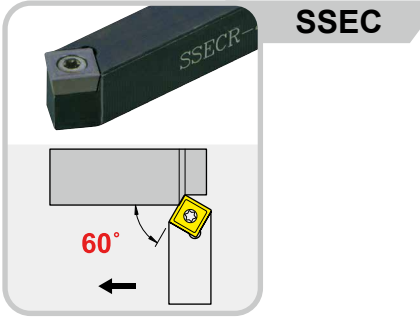


Right-hand shown

Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISSBC ^R / _L -3.4H-09	9.5	12.7	100	9.5	12.7	SC..09T3..	IMS4009A	ITK15
ISSBC ^R / _L -4.4H-09	12.7	12.7	100	12.7	12.7		IMS4011A	ITK15
ISSBC ^R / _L -1212H-09	12	12	100	12	12			



Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISSDCN-3.4H-09	9.5	12.7	100	9.5	6.35	SC..09T3..	IMS4009A	ITK15
ISSDCN-4.4H-09	12.7	12.7	100	12.7	6.35	SC..09T3..	IMS4011A	ITK15
ISSDCN-1212H-09	12	12	100	12	6			
ISSDCN-1616K-09	16	16	125	16	8			
ISSDCN-2020K-09	20	20	125	20	10			
ISSDCN-2525M-09	25	25	150	25	12.5			



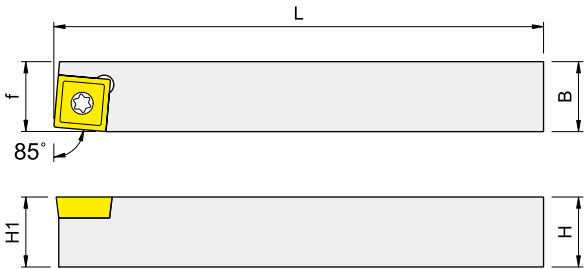
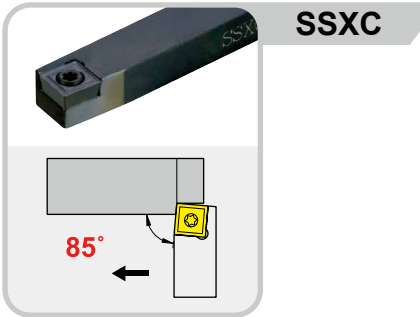
Right-hand shown

Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISSEC ^R / _L -3.4H-09	9.5	12.7	100	9.5	12.7	SC..09T3..	IMS4009A	ITK15
ISSEC ^R / _L -4.4H-09	12.7	12.7	100	12.7	12.7	SC..09T3..	IMS4011A	ITK15
ISSEC ^R / _L -1212H-09	12	12	100	12	12			

Turning

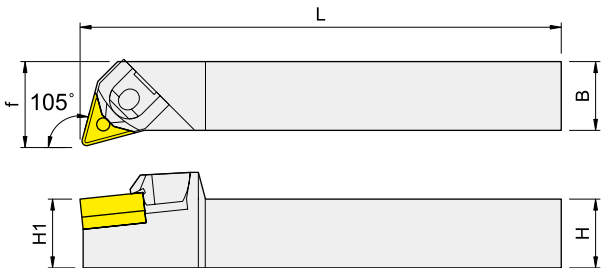
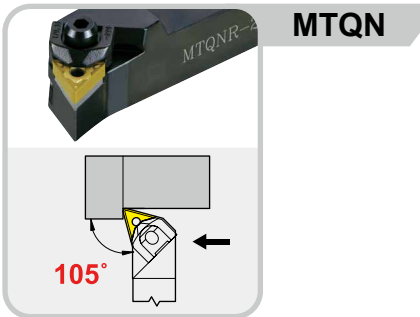
External Turning Holders

外徑車刀桿



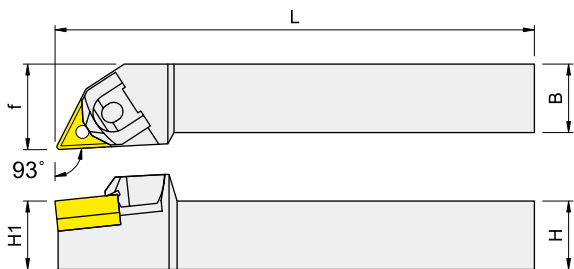
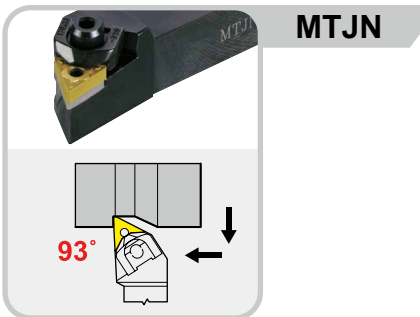
Right-hand shown

Order No.	Dimensions, mm					Insert	Clamp	Wrench
	H	B	L	H1	f			
ISSXCR-3.4H-09	9.5	12.7	100	9.5	12.7	SC..09T3..	IMS4009A	ITK15



Right-hand shown

Order No.	Dimensions, mm					Insert	Pin	Screw	Wrench	Shim	Clamp	Wrench
	H	B	L	H1	f							
IMTQN ^R /L-2020K-16	20	20	125	20	25	TN..1604..	IMCP3	IMCS3S-11	IPL30	ITWS322	IMCW3-P40	IPL40
IMTQN ^R /L-2525M-16	25	25	150	25	32							

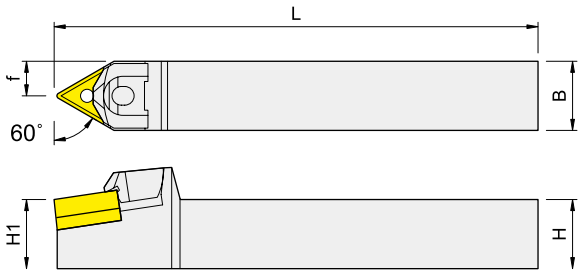
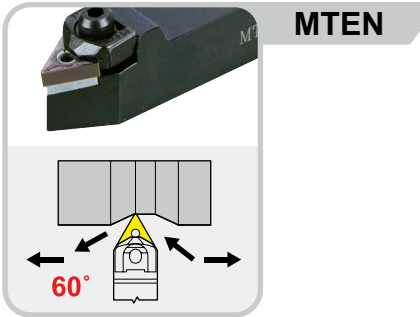


Right-hand shown

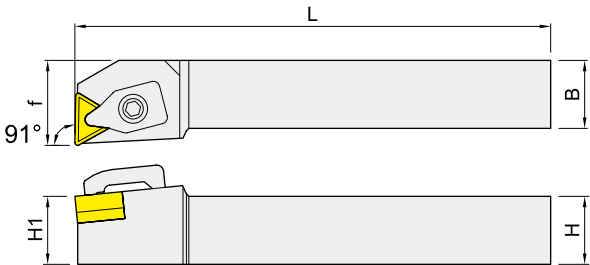
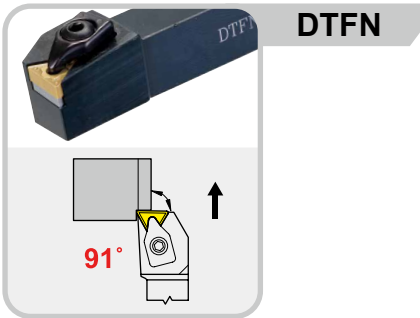
Order No.	Dimensions, mm					Insert	Pin	Screw	Wrench	Shim	Clamp	Wrench
	H	B	L	H1	f							
IMTJN ^R /L-1216K-16	12	16	125	16	21	TN..1604..	IMCP3	IMCS3S-11	IPL30	ITWS322	IMCW3-P40	IPL40
IMTJN ^R /L-1616K-16	16	16	125	16	21							
IMTJN ^R /L-2020K-16	20	20	125	20	25							
IMTJN ^R /L-2525M-16	25	25	150	25	32							
IMTJN ^R /L-3232P-16	32	32	170	32	40							

External Turning Holders

外徑車刀桿

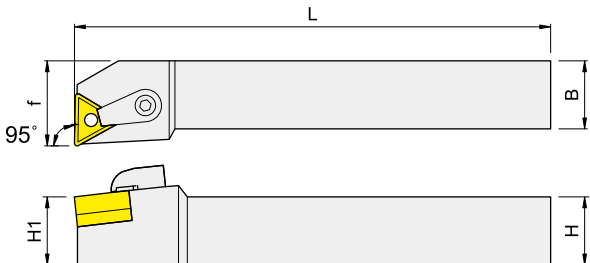
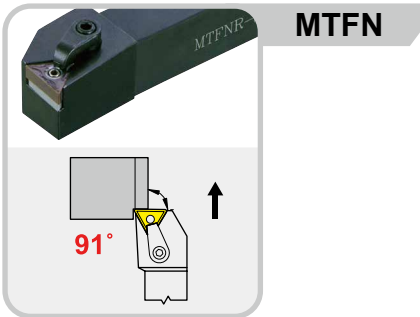


Order No.	Dimensions, mm					Insert	Pin	Screw	Wrench	Shim	Clamp	Wrench
	H	B	L	H1	f							
IMTENN-1216K-16	12	16	125	16	8	TN..1604..	IMCP3	IMCS3S-09	IPL30	ITWS322	IMCW3-P40	IPL40
IMTENN-1616K-16	16	16	125	16	8							
IMTENN-2020K-16	20	20	125	20	10							
IMTENN-2525M-16	25	25	150	25	12.5							



Right-hand shown

Order No.	Dimensions, mm					Insert	Shim	Screw	Wrench	Clamp	Wrench
	H	B	L	H1	f						
IDTFN ^R /L-1616K-16	16	16	125	16	20	TN..1604..	ITWS322	IMS4008H	IPL25	IMCD324B	IPL40
IDTFN ^R /L-2020K-16	20	20	125	20	25						
IDTFN ^R /L-2525M-16	25	25	150	25	32						

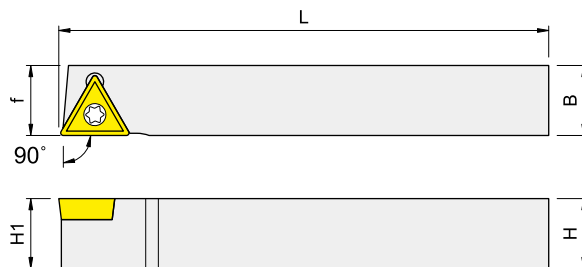
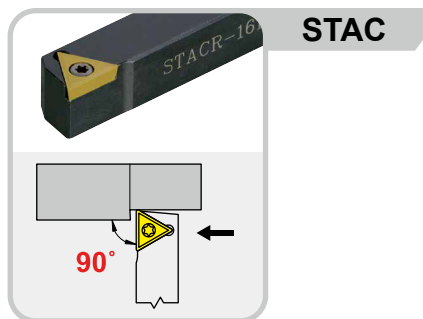


Right-hand shown

Order No.	Dimensions, mm					Insert	Pin	Shim	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f							
IMTFNR-1616K-16	16	16	125	16	20	TN..1604..	IMLP34L-A	ITMS322	IPL20	IMS625TX	IMC620	IETL15
IMTFNR-2020K-16	20	20	125	20	25					IMS630TX		
IMTFNR-2525M-16	25	25	150	25	32							

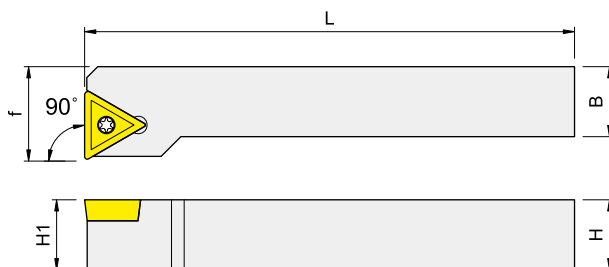
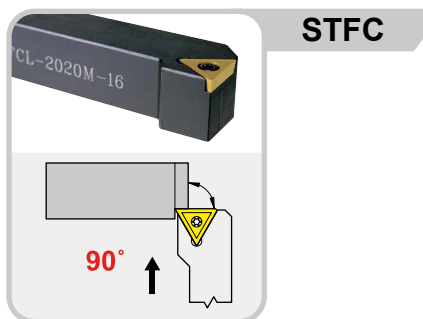
External Turning Holders

外徑車刀桿



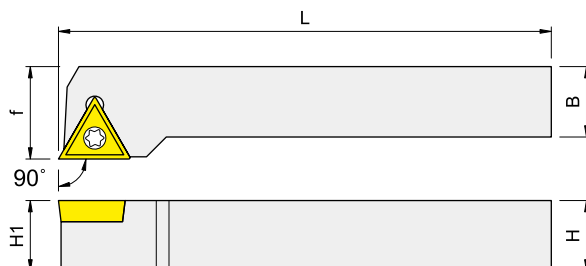
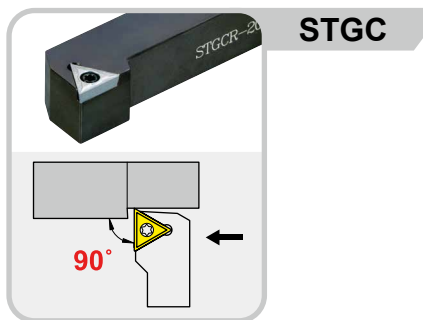
Right-hand shown

Order No.	Dimensions, mm					Insert	Clamp 	Wrench 
	H	B	L	H1	f			
ISTACR-1010H-11	10	10	100	10	10	TC..1102..	IMS2506A	ITK09
ISTACR-1212H-11	12	12	100	12	12			
ISTACR-1616K-11	16	16	125	16	16			
ISTACR-3.4H-11	9.5	12.7	100	9.5	12.7			
ISTACR-4.4H-11	12.7	12.7	100	12.7	12.7			
ISTACR-1616K-16	16	16	125	16	16	TC..16T3..	IMS4011A	ITK15



Right-hand shown

Order No.	Dimensions, mm					Insert	Clamp 	Wrench 
	H	B	L	H1	f			
ISTFC ^R /L-2020K-16	20	20	125	20	25	TC..16T3..	IMS4011A	ITK15
ISTFC ^R /L-2525M-16	25	25	150	25	32			

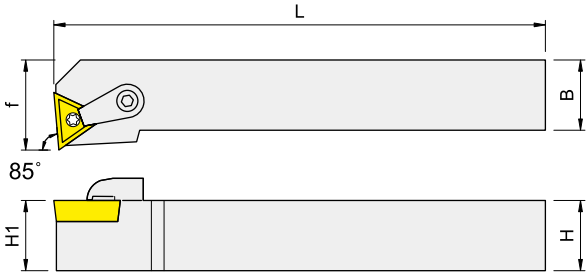
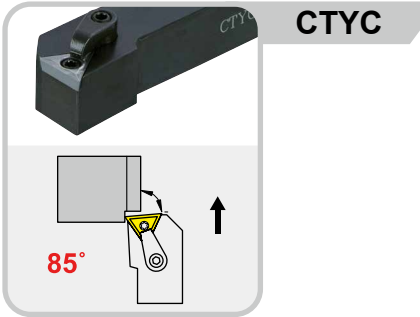


Right-hand shown

Order No.	Dimensions, mm					Insert	Clamp 	Wrench 
	H	B	L	H1	f			
ISTGC ^R /L-1212K-16	12	12	100	12	16	TC..16T3..	IMS4011A	ITK15
ISTGC ^R /L-1616K-16	16	16	125	16	20			
ISTGC ^R /L-2020K-16	20	20	125	20	25			
ISTGC ^R /L-2525M-16	25	25	150	25	32			

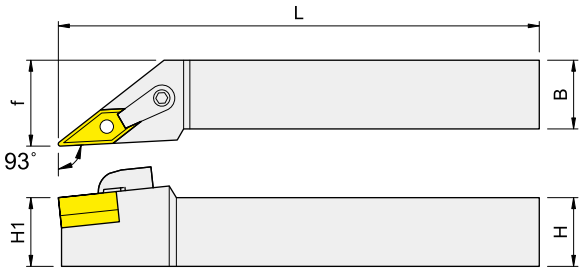
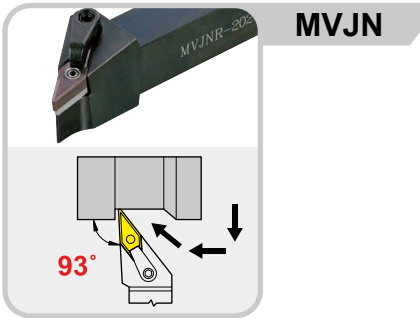
External Turning Holders

外徑車刀桿



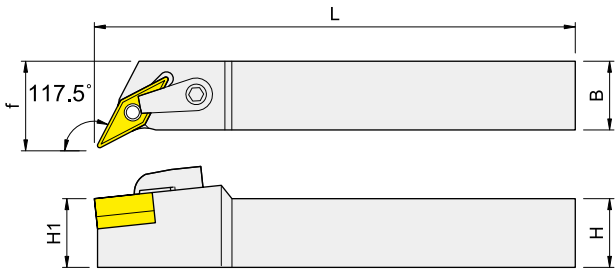
Right-hand shown

Order No.	Dimensions, mm					Insert	Screw	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f						
ICTYC ^R _L -2020K-16	20	20	125	20	25	TC..16T3..	IMS4011A	ITK15	IMS625TX	IMC620	IETL15



Right-hand shown

Order No.	Dimensions, mm					Insert	Pin	Shim	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f							
IMVJN ^R _L -1616K-16	16	16	125	16	21	VN..1604..	IMLP34L-A	IVMS322	IPL20	IMS625TX	IMC622	IETL15
IMVJN ^R _L -2020K-16	20	20	125	20	25					IMS625TX		
IMVJN ^R _L -2525M-16	25	25	150	25	32					IMS630TX		

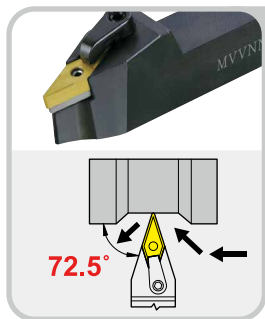


Right-hand shown

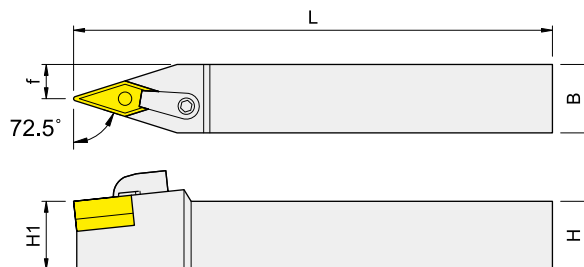
Order No.	Dimensions, mm					Insert	Pin	Shim	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f							
IMVQN ^R _L -2020K-16	20	20	125	20	25	VN..1604..	IMLP34L-A	IVMS322	IPL20	IMS625TX	IMC622	IETL15
IMVQN ^R _L -2525M-16	25	25	150	25	32					IMS630TX		

External Turning Holders

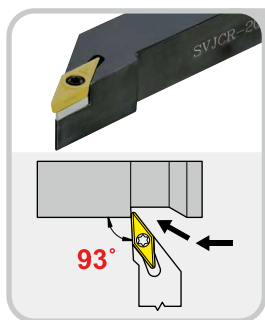
外徑車刀桿



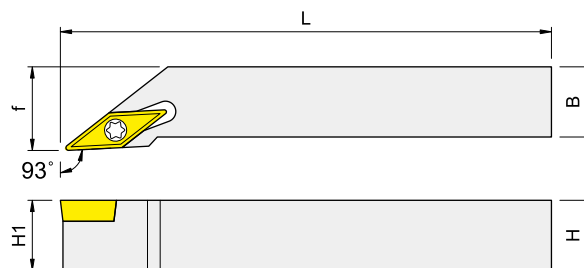
MVVN



Order No.	Dimensions, mm					Insert	Pin	Shim	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f							
IMVVNN-1616K-16	16	16	125	16	8	VN..1604..	IMLP34L-A	IVMS322	IPL20	IMS625TX	IMC622	IETL15
IMVVNN-2020K-16	20	20	125	20	10							
IMVVNN-2525M-16	25	25	150	25	12.5					IMS630TX		

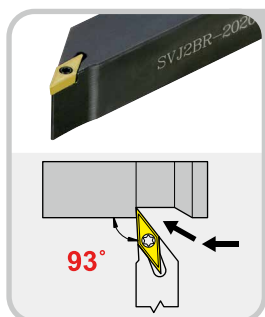


SVJB

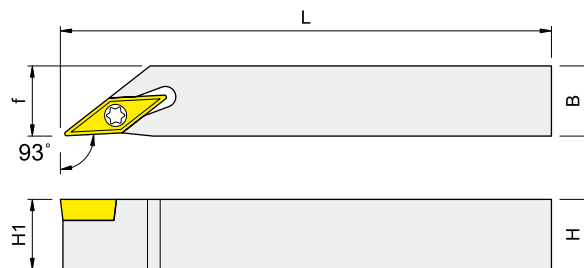


Right-hand shown

Order No.	Dimensions, mm					Insert	Shim	Screw	Wrench	Screw	Wrench
	H	B	L	H1	f						
ISVJB ^R / _L -1616K-16	16	16	125	16	20	VB..1604..	IVSS322	IMDS5035S	IPL35	IMS3512B	ITK15
ISVJB ^R / _L -2020K-16	20	20	125	20	25						
ISVJB ^R / _L -2525M-16	25	25	150	25	32						
ISVJC ^R / _L -1010H-11	10	10	100	10	12	VC..1103..	--	--	--	IMS2506A	ITK09
ISVJC ^R / _L -1212K-11	12	12	125	12	16						
ISVJC ^R / _L -1616K-11	16	16	125	16	20						
ISVJC ^R / _L -2020K-11	20	20	125	20	25						
ISVJC ^R / _L -2525M-11	25	25	150	25	32						



SVJ2B

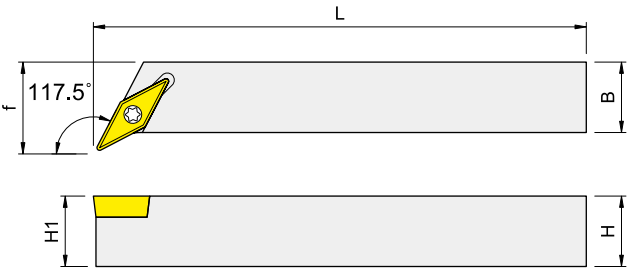
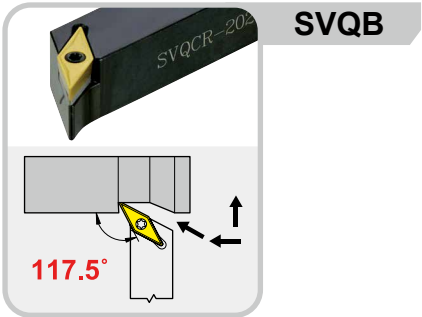


Right-hand shown

Order No.	Dimensions, mm					Insert	Screw	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f						
ISVJ2C ^R / _L -1010H-11	10	10	100	10	10	VC..1103..	--	--	--	IMS2506A	ITK09
ISVJ2C ^R / _L -1212H-11	12	12	100	12	12						
ISVJ2C ^R / _L -1616K-11	16	16	125	16	16						
ISVJ2C ^R / _L -2020K-11	20	20	125	20	20						

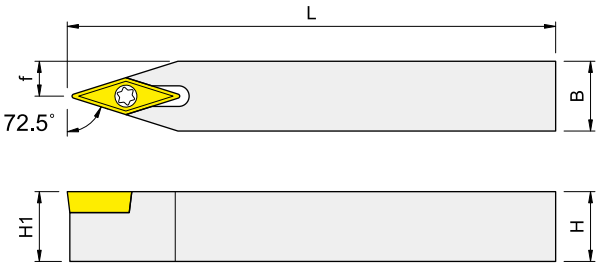
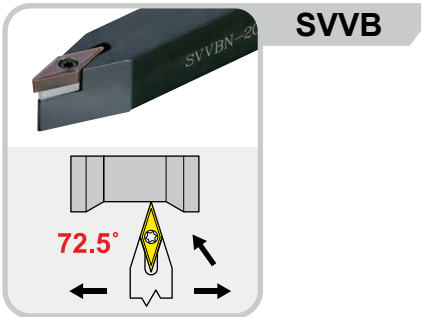
External Turning Holders

外徑車刀桿



Right-hand shown

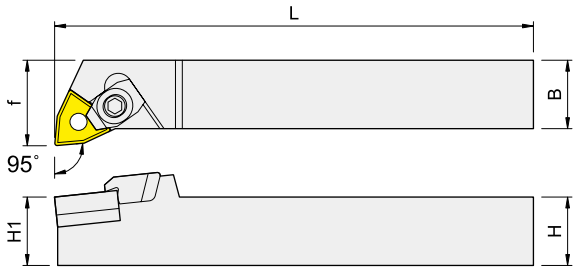
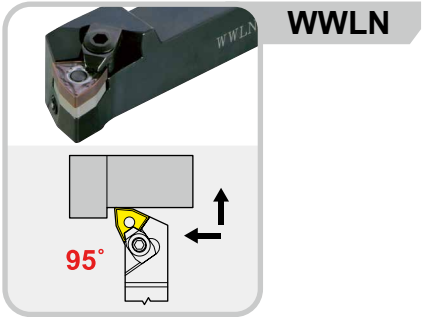
Order No.	Dimensions, mm					Insert	Shim	Screw	Wrench	Screw	Wrench
	H	B	L	H1	f						
ISVQB ^R _L -2020K-16	20	20	125	20	25	VB..1604..	IVSS322	IMDS5035S	IPL35	IMS3512B	ITK15
ISVQB ^R _L -2525M-16	25	25	150	25	32						
ISVQC ^R _L -1212H-11	12	12	100	12	16	VC..1103..	--	--	--	IMS2506A	ITK09
ISVQC ^R _L -1616K-11	16	16	125	16	20						
ISVQC ^R _L -2020K-11	20	20	125	20	25						



Order No.	Dimensions, mm					Insert	Screw	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f						
ISVVBN-1616K-16	16	16	125	16	8	VB..1604..	IVSS322	IMDS5035S	IPL35	IMS3512B	ITK15
ISVVBN-2020K-16	20	20	125	20	10						
ISVVBN-2525M-16	25	25	150	25	12.5						
ISVVCN-1010H-11	10	10	100	10	5	VC..1103..	--	--	--	IMS2506A	ITK09
ISVVCN-1212K-11	12	12	125	12	6						
ISVVCN-1616K-11	16	16	125	16	8						
ISVVCN-2020K-11	20	20	125	20	10						
ISVVCN-2525M-11	25	25	150	25	12.5						

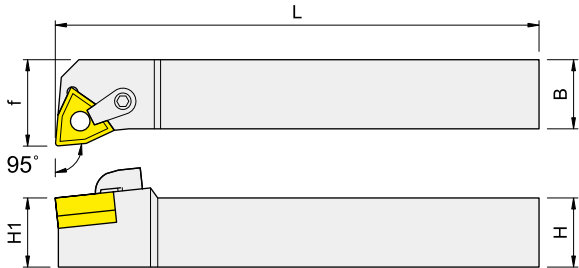
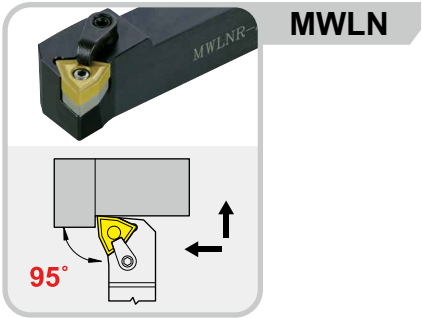
External Turning Holders

外徑車刀桿



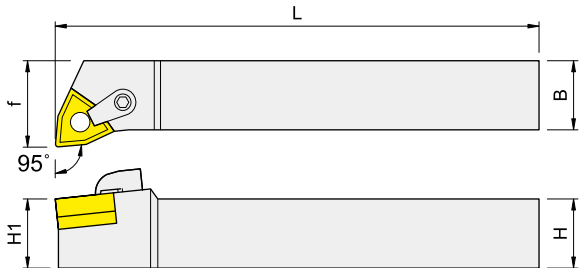
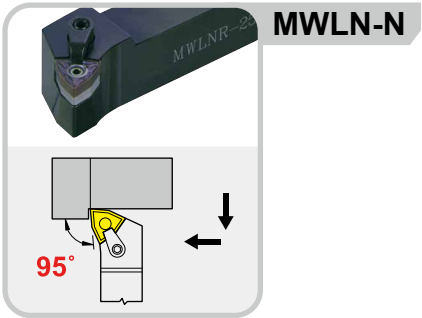
Right-hand shown

Order No.	Dimensions, mm					Insert	Pin	Screw	Wrench	Shim	Clamp	Wrench
	H	B	L	H1	f							
IWWLN ^R / _L -2020K-08	20	20	125	20	25	WN..0804..	IMCP4	IMCS3S-09	IPL30	IWMS432	IWCW6-P4	IPL40
IWWLN ^R / _L -2525M-08	25	25	150	25	32							



Right-hand shown

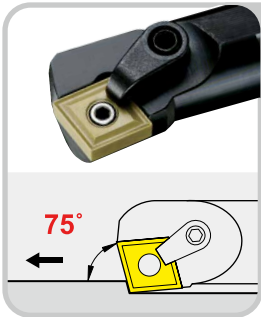
Order No.	Dimensions, mm					Insert	Pin	Shim	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f							
IMWLN ^R / _L -2020K-08	20	20	125	20	25	WN..0804..	IMLP46-A	IWMS432	IPL25	IMS625TX	IMC620	IETL15
IMWLN ^R / _L -2525M-08	25	25	150	25	32					IMS630TX		



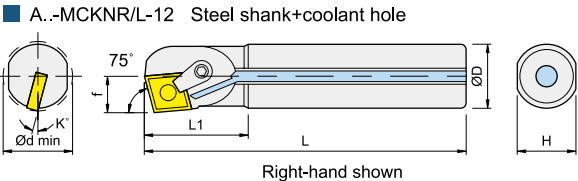
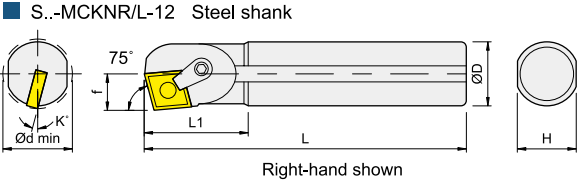
Right-hand shown

Order No.	Dimensions, mm					Insert	Pin	Shim	Wrench	Screw	Clamp	Wrench
	H	B	L	H1	f							
IMWLN ^R / _L -2020K-08N	20	20	125	20	25	WN..0804..	IMLP46-A	IWMS432	IPL25	IMS625TX	IMC620	IETL15
IMWLN ^R / _L -2525M-08N	25	25	150	25	32					IMS630TX		

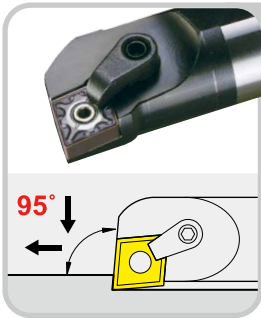
Internal Turning Holders 內徑車刀桿



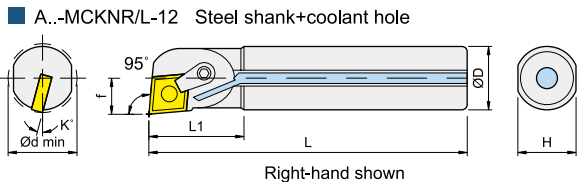
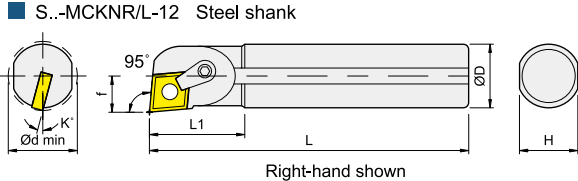
MCKN



Order No.	Dimensions, mm							Insert	Shim	Pin	Wrench	Clamp	Screw	Wrench
	D	L	L1	f	H	K	dmin							
IS20R-MCKN ^R / _L -12	20	200	40	13	18	15	25	CN..1204..	--	IMLP44-A	IPL25	IMC620	IMS620TX	IETL15
IS25R-MCKN ^R / _L -12	25	200	40	15.5	23	13	30							
IS32S-MCKN ^R / _L -12	32	250	48	19.5	30	13	40		ICMS432	IMLP46-A	IPL25		IMS625TX	
IS40T-MCKN ^R / _L -12	40	300	55	25.5	37	12	50							
IS50U-MCKN ^R / _L -12	50	350	60	30.5	47	10	60							
IS60V-MCKN ^R / _L -12	60	400	60	35.5	57	9	70							
IA20R-MCKN ^R / _L -12	20	200	40	13	18	15	25		--	IMLP44-A	IPL25		IMS620TX	
IA25R-MCKN ^R / _L -12	25	200	40	15.5	23	13	30							
IA32S-MCKN ^R / _L -12	32	250	48	19.5	30	13	40		ICMS432	IMLP46-A	IPL25		IMS625TX	
IA40T-MCKN ^R / _L -12	40	300	55	25.5	37	12	50							



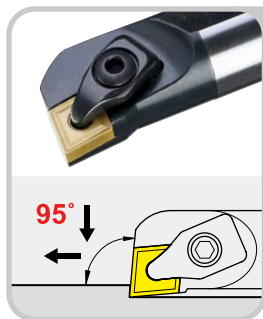
MCLN



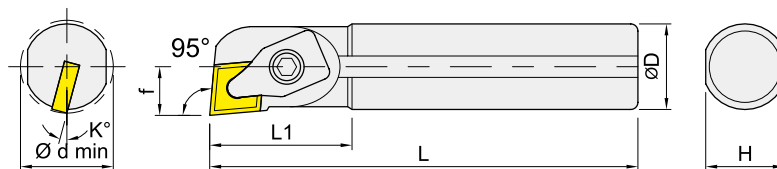
Order No.	Dimensions, mm							Insert	Shim	Pin	Wrench	Clamp	Screw	Wrench
	D	L	L1	f	H	K	dmin							
IS20R-MCLN ^R / _L -12	20	200	40	13	18	15	25	CN..1204..	--	IMLP44-A	IPL25	IMC620	IMS620TX	IETL15
IS25R-MCLN ^R / _L -12	25	200	40	15.5	23	13	30							
IS32S-MCLN ^R / _L -12	32	250	48	19.5	30	13	40		ICMS432	IMLP46-A	IPL25		IMS625TX	
IS40T-MCLN ^R / _L -12	40	300	55	25.5	37	12	50							
IS50U-MCLN ^R / _L -12	50	350	60	30.5	47	10	60							
IS60V-MCLN ^R / _L -12	60	400	60	35	57	9	70							
IA20R-MCLN ^R / _L -12	20	200	40	13	18	15	25		--	IMLP44-A	IPL25		IMS620TX	
IA25R-MCLN ^R / _L -12	25	200	40	15.5	23	13	30							
IA32S-MCLN ^R / _L -12	32	250	48	19.5	30	13	40		ICMS432	IMLP46-A	IPL25		IMS625TX	
IA40T-MCLN ^R / _L -12	40	300	55	25.5	37	12	50							

Internal Turning Holders

內徑車刀桿

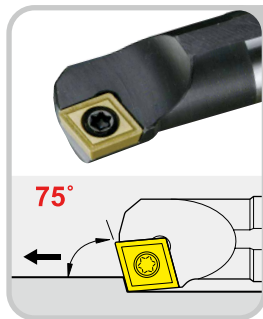


DCLN



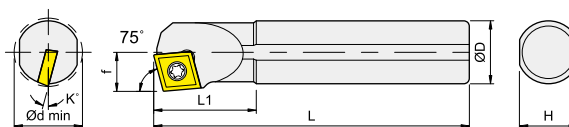
Right-hand shown

Order No.	Dimensions, mm							Insert	Shim	Screw	Wrench	Clamp	Wrench
	D	L	L1	f	H	K	dmin						
IS20R-DCLN ^R / _L -12	20	200	40	14	18	15	28	CN..1204..	--	--	--	IMCD425	IETL20
IS25R-DCLN ^R / _L -12	25	200	40	15	23	15	30						



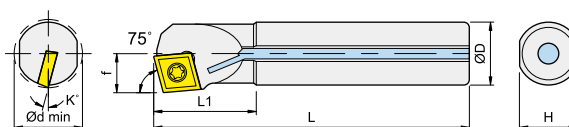
SCKC

■ S..-SCKC/PR/L... Steel shank



Right-hand shown

■ A..-SCKC/PR/L... Steel shank+coolant hole

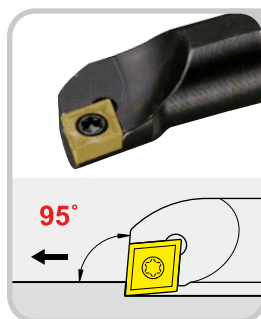


Right-hand shown

Order No.	Dimensions, mm							Insert	Screw 	Wrench 
	D	L	L1	f	H	K	dmin			
IS08K-SCKC ^R / _L -06	8	125	20	5	7	15	10	CC..0602..	IMS2506A	ITK09
IS10K-SCKC ^R / _L -06	10	125	22	6	9	13	12			
IS12M-SCKC ^R / _L -06	12	150	26	8	11	10	16			
IS16Q-SCKC ^R / _L -06	16	180	32	10	15	7	20			
IS12M-SCKC ^R / _L -09	12	150	28	8	11	11	16	CC..09T3..	IMS4008A	ITK15
IS16Q-SCKC ^R / _L -09	16	180	32	10	15	7	20		IMS4009A	
IS20R-SCKC ^R / _L -09	20	200	36	12.5	18	5	25			
IA08K-SCKC ^R / _L -06	8	125	20	5	7	15	10	CC..0602..	IMS2506A	ITK09
IA10K-SCKC ^R / _L -06	10	125	22	6	9	13	12			
IA12M-SCKC ^R / _L -06	12	150	26	8	11	10	16			
IA16Q-SCKC ^R / _L -06	16	180	32	10	15	7	20			
IA12M-SCKC ^R / _L -09	12	150	28	8	11	11	16	CC..09T3..	IMS4008A	ITK15
IA16Q-SCKC ^R / _L -09	16	180	32	10	15	7	20		IMS4009A	
IA20R-SCKC ^R / _L -09	20	200	36	12.5	18	5	25			

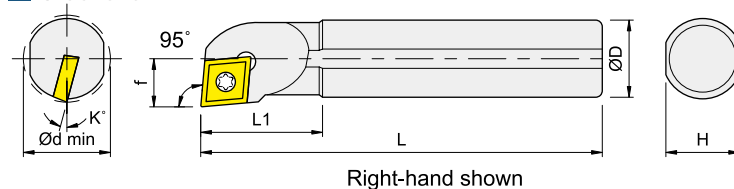
Internal Turning Holders

內徑車刀桿



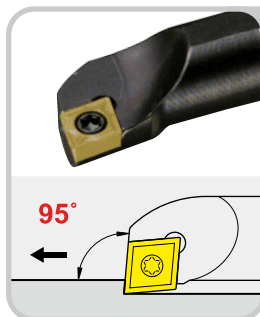
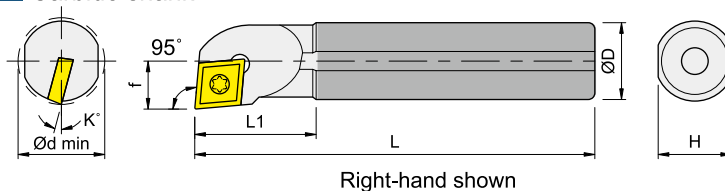
SCLC

Steel shank

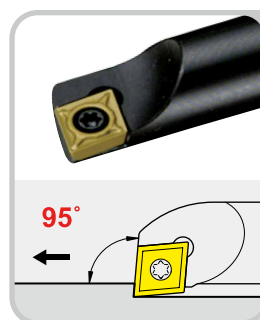
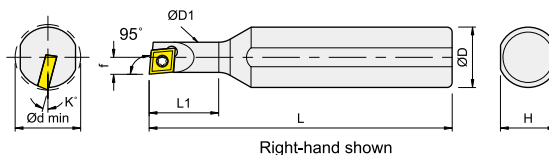
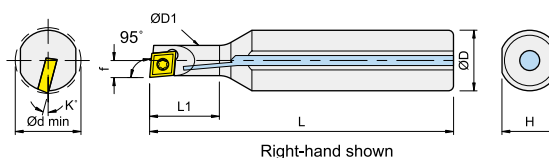


Order No.	Dimensions, mm							Insert	Screw 	Wrench 
	D	L	L1	f	H	K	dmin			
IS08K-SCLC ^R / _L -06	8	125	20	5	7	15	10	CC..0602..	IMS2506A	ITK09
IS08K-SCLC ^R / _L -06-D09	8	125	20	4.5	7	15	9			
IS10K-SCLC ^R / _L -06	10	125	22	6	9	13	12			
IS10K-SCLC ^R / _L -06-D11	10	125	22	5.5	9	13	11			
IS12M-SCLC ^R / _L -06	12	150	26	8	11	10	16			
IS12M-SCLC ^R / _L -06-D13	12	150	26	6.5	11	10	13			
IS14Q-SCLC ^R / _L -06	14	180	26	8	13	10	16			
IS16Q-SCLC ^R / _L -06	16	180	32	10	15	7	20	CC..09T3..	IMS4008A	ITK15
IS12M-SCLC ^R / _L -09	12	150	26	8	11	10	16			
IS14Q-SCLC ^R / _L -09	14	180	26	8	13	10	16			
IS15Q-SCLC ^R / _L -09	15	180	32	8.5	14	10	17			
IS16Q-SCLC ^R / _L -09	16	180	32	10	15	7	20			
IS16Q-SCLC ^R / _L -09-D18	16	180	32	9	15	7	18			
IS18Q-SCLC ^R / _L -09	18	180	32	10	17	7	20			
IS20R-SCLC ^R / _L -09	20	200	36	13	18	5	25	IMS4009A		
IS22R-SCLC ^R / _L -09	22	200	40	12.5	20	5	25			
IS25R-SCLC ^R / _L -09	25	200	40	15	23	5	30	CC..09T3..	IMS4011A	ITK15
IS32S-SCLC ^R / _L -12	32	250	48	20	30	5	38	CC..1204..	IMS5011A	ITK20
IS40T-SCLC ^R / _L -12	40	300	55	26	37	3	50			
IS40V-SCLC ^R / _L -12	40	400	55	26	37	3	50			

Steel Shank + Coolant										
IA08K-SCLC ^R / _L -06	8	125	20	5	7	15	10	CC..0602..	IMS2506A	ITK09
IA08K-SCLC ^R / _L -06-D09	8	125	20	4.5	7	15	9			
IA10K-SCLC ^R / _L -06	10	125	22	6	9	13	12			
IA10K-SCLC ^R / _L -06-D11	10	125	22	5.5	9	13	11			
IA12M-SCLC ^R / _L -06	12	150	26	8	11	10	16			
IA12M-SCLC ^R / _L -06-D13	12	150	26	6.5	11	10	13			
IA14Q-SCLC ^R / _L -06	14	180	26	8	13	10	16			
IA16Q-SCLC ^R / _L -06	16	180	32	10	15	7	20	CC..09T3..	IMS4008A	ITK15
IA12M-SCLC ^R / _L -09	12	150	26	8	11	10	16			
IA16Q-SCLC ^R / _L -09	16	180	32	10	15	7	20			
IA16Q-SCLC ^R / _L -09-D18	16	180	32	9	15	7	18			
IA20R-SCLC ^R / _L -09	20	200	40	13	18	5	25			
IA25R-SCLC ^R / _L -09	25	200	40	15	23	5	30			
IA32S-SCLC ^R / _L -12	32	250	48	20	30	5	38	CC..1204..	IMS5011A	ITK20

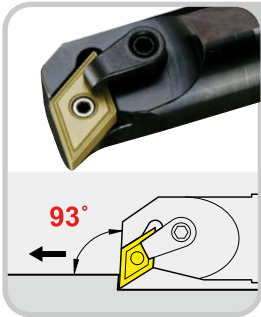
**SCLC****■ Carbide shank**

Order No.	Dimensions, mm							Insert	Screw 	Wrench 
	D	L	L1	f	H	K	dmin			
IC07J-SCLC ^R / _L -06	7	110	18	4	6.7	15	8	CC..0602..	IMS2506A	ITK09
IC08K-SCLC ^R / _L -06	8	125	20	5	7.2	15	10	CC..0602..	IMS2506A	ITK09
IC08K-SCLC ^R / _L -06-D09	8	125	20	4.5	7.2	15	9			
IC10K-SCLC ^R / _L -06	10	125	22	6	9.2	13	12			
IC10K-SCLC ^R / _L -06-D11	10	125	22	5.5	9.2	13	11			
IC12M-SCLC ^R / _L -06	12	150	26	8	11.2	10	16			
IC12M-SCLC ^R / _L -06-D13	12	150	26	6.5	11.2	10	13			
IC12Q-SCLC ^R / _L -09	12	150	26	8	11.2	10	16	CC..09T3..	IMS4008A	ITK15
IC16R-SCLC ^R / _L -09	16	200	32	10	15.2	7	20			
IC16R-SCLCR-09-D18	16	200	32	9	15.2	7	18			

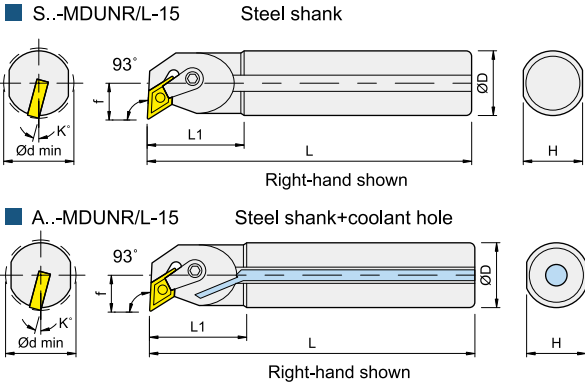
**SCLC****■ S...-SCLCR/L... Steel shank****■ A...-SCLCR/L... Steel shank+coolant hole**

Order No.	Dimensions, mm								Insert	Screw 	Wrench 
	D	D1	L	L1	f	H	K	dmin			
IS1607K-SCLC ^R / _L -06	16	7	125	20	4	15	13	8	CC..0602..	IMS2506A	ITK09
IS1608K-SCLC ^R / _L -06A	16	8	125	20	4.5	15	11	9			
IS1608K-SCLC ^R / _L -06	16	8	125	25	4.5	15	11	9			
IS1609K-SCLC ^R / _L -06	16	9	125	25	5	15	11	10			
IA1607K-SCLC ^R / _L -06	16	7	125	20	4	15	13	8	CC..0602..	IMS2506A	ITK09
IA1608K-SCLC ^R / _L -06A	16	8	125	20	4.5	15	11	9			
IA1608K-SCLCR-06	16	8	125	25	4.5	15	11	9			
IA1609K-SCLC ^R / _L -06	16	9	125	25	5	15	11	10			

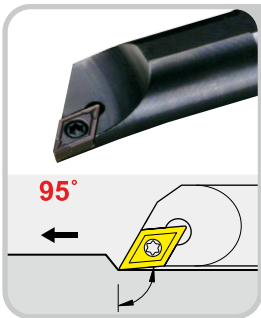
Internal Turning Holders 內徑車刀桿



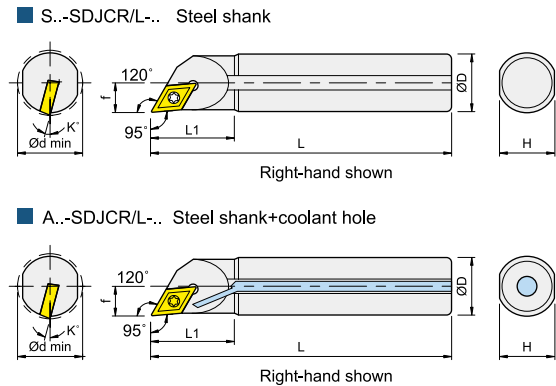
MDUN



Order No.	Dimensions, mm							Insert	Shim	Pin	Wrench	Clamp	Screw	Wrench
	D	L	L1	f	H	K	dmin							
IS25R-MDUN ^R / _L -15	25	200	40	17	23	13	32	DN..1504..	--	IMLP44-A	IPL25	IMC620	IMS620TX	IETL15
IS32S-MDUN ^R / _L -15	32	250	50	21	30	13	40		IDMS432	IMLP46-A			IMS625TX	
IA25R-MDUN ^R / _L -15	25	200	40	17	23	13	32		--	IMLP44-A			IMS620TX	
IA32S-MDUN ^R / _L -15	32	250	50	21	30	13	40		IDMS432	IMLP46-A			IMS625TX	



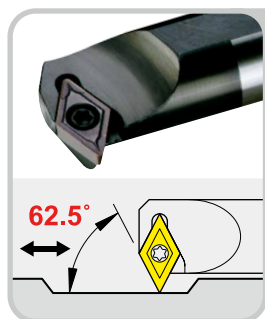
SDJC



Order No.	Dimensions, mm							Insert	Screw	Wrench
	D	L	L1	f	H	K	dmin			
IS08K-SDJC ^R / _L -07	8	125	22	5	7	15	10	DC..0702..	IMS2506B	ITK09
IS10K-SDJC ^R / _L -07	10	125	25	6	9	13	12			
IS12M-SDJC ^R / _L -07	12	150	30	7	11	10	14			
IS16Q-SDJC ^R / _L -07	16	180	38	9.5	15	7	19			
IS16Q-SDJC ^R / _L -11	16	180	38	9.5	15	7	19	DC..11T3..	IMS4009A	ITK15
IS20R-SDJC ^R / _L -11	20	200	42	11.5	18	7	23			
IS25R-SDJC ^R / _L -11	25	200	45	14	23	5	28			
IS32S-SDJC ^R / _L -11	32	250	48	17.5	30	5	35			
IA08K-SDJC ^R / _L -07	8	125	22	5	7	15	10	DC..0702..	IMS2506B	ITK09
IA10K-SDJC ^R / _L -07	10	125	25	6	9	13	12			
IA12M-SDJC ^R / _L -07	12	150	30	7	11	10	14			
IA16Q-SDJC ^R / _L -07	16	180	38	9.5	15	7	19			
IA16Q-SDJC ^R / _L -11	16	180	38	9.5	15	7	19	DC..11T3..	IMS4009A	ITK15
IA20R-SDJC ^R / _L -11	20	200	42	11.5	18	7	23			
IA25R-SDJC ^R / _L -11	25	200	45	14	23	5	28			

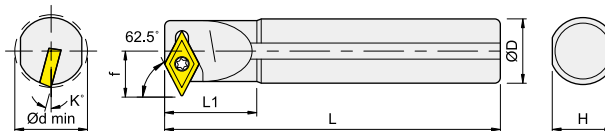
Internal Turning Holders

內徑車刀桿



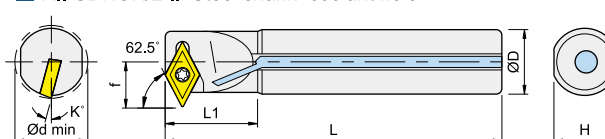
SDNC

■ S..-SDNCR/L-.. Steel shank



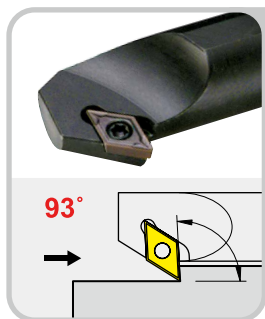
Right-hand shown

■ A..-SDNCR/L-.. Steel shank+coolant hole



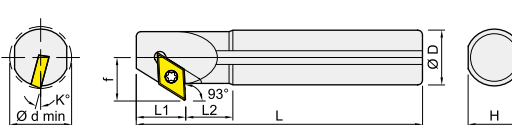
Right-hand shown

Order No.	Dimensions, mm							Insert	Screw	Wrench
	D	L	L1	f	H	K	dmin			
IS12M-SDNC ^R / _L -07	12	150	25	9	11	7	16	DC..0702..	IMS2506B	ITK09
IS16Q-SDNC ^R / _L -07	16	180	30	11	15	7	20			
IS20R-SDNC ^R / _L -11	20	200	35	15	18	7	25	DC..11T3..	IMS4009A	ITK15
IS25R-SDNC ^R / _L -11	25	200	35	17	23	5	32			
IS32S-SDNC ^R / _L -11	32	250	40	20.5	30	5	40			
IA12M-SDNC ^R / _L -07	12	150	25	9	11	7	16	DC..0702..	IMS2506B	ITK09
IA16Q-SDNC ^R / _L -07	16	180	30	11	15	7	20			
IA20R-SDNC ^R / _L -11	20	200	35	15	18	7	25	DC..11T3..	IMS4009A	ITK15
IA25R-SDNC ^R / _L -11	25	200	35	17	23	5	32			



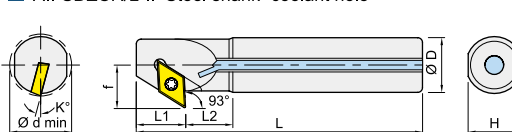
SDZC

■ S..-SDZCR/L-.. Steel shank



Right-hand shown

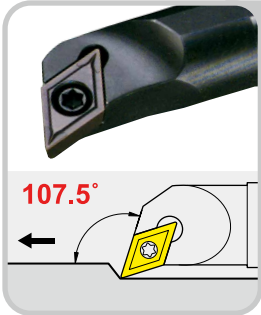
■ A..-SDZCR/L-.. Steel shank+coolant hole



Right-hand shown

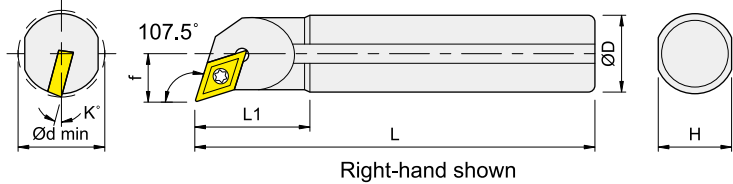
Order No.	Dimensions, mm								Insert	Screw	Wrench
	D	L	L1	L2	f	H	K	dmin			
IS10M-SDZC ^R / _L -07	10	150	12	18	8.5	9	13	14	DC..0702..	IMS2506B	ITK09
IS12M-SDZC ^R / _L -07	12	150	12	20	10.5	11	10	17			
IS16Q-SDZC ^R / _L -07	16	180	12	26	12.5	15	7	21			
IS20R-SDZC ^R / _L -11	20	200	18	27	15.5	18	7	26	DC..11T3..	IMS4009A	ITK15
IS25R-SDZC ^R / _L -11	25	200	18	32	18	23	5	33			
IS32S-SDZC ^R / _L -11	32	250	18	42	21.5	30	5	40			
IA10M-SDZC ^R / _L -07	10	150	12	18	8.5	9	13	14	DC..0702..	IMS2506B	ITK09
IA12M-SDZC ^R / _L -07	12	150	12	20	10.5	11	10	17			
IA16Q-SDZC ^R / _L -07	16	180	12	26	12.5	15	7	21			
IA20R-SDZC ^R / _L -11	20	200	18	27	15.5	18	7	26	DC..11T3..	IMS4009A	ITK15
IA25R-SDZC ^R / _L -11	25	200	18	32	18	23	5	33			
IA32S-SDZC ^R / _L -11	32	250	18	42	21.5	30	5	40			

Internal Turning Holders 內徑車刀桿

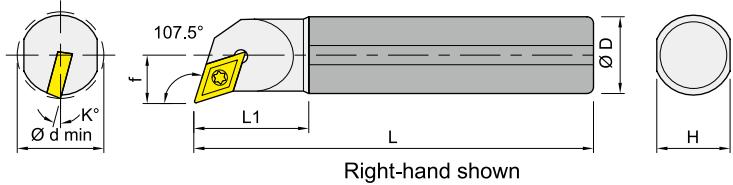


SDQC

Steel shank



Carbide shank



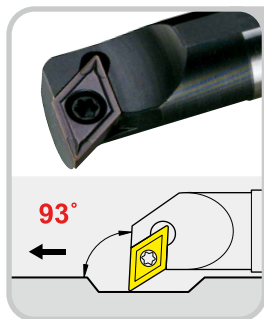
Order No.	Dimensions, mm							Insert	Screw 	Wrench 
	D	L	L1	f	H	K	dmin			
Steel Shank										
IS10K-SDQC ^R / _L -07	10	125	22	6.5	9	13	13	DC..0702..	IMS2506B	ITK09
IS12M-SDQC ^R / _L -07	12	150	30	8	11	10	16			
IS16Q-SDQC ^R / _L -07	16	180	35	10.25	15	7	20			
IS20R-SDQC ^R / _L -07	20	200	40	12.5	18	7	25			
IS16Q-SDQC ^R / _L -11	16	180	35	10.5	15	7	20	DC..11T3..	IMS4009A	ITK15
IS20R-SDQC ^R / _L -11	20	200	40	13	18	7	25			
IS25R-SDQC ^R / _L -11	25	200	45	15.5	23	5	32			
IS32S-SDQC ^R / _L -11	32	250	48	19.5	30	5	40			
IS40T-SDQC ^R / _L -11	40	300	55	25	37	3	50			
IS50U-SDQC ^R / _L -11	50	350	60	30	47	2	60			
Carbide Shank										
IC10M-SDQCR-07	10	150	22	6	9.2	13	13	DC..0702..	IMS2506B	ITK09
IC12Q-SDQCR-07	12	180	30	8	11.2	10	16			
IC16R-SDQC ^R / _L -07	16	200	35	10.25	15.2	7	20			

Steel Shank + Coolant										
IA10K-SDQC ^R / _L -07	10	125	22	6.5	9	13	13	DC..0702..	IMS2506B	ITK09
IA12M-SDQC ^R / _L -07	12	150	30	8	11	10	16			
IA16Q-SDQC ^R / _L -07	16	180	35	10.25	15	7	20			
IA16Q-SDQC ^R / _L -11	16	180	35	10.5	15	7	20	DC..11T3..	IMS4009A	ITK15
IA20R-SDQC ^R / _L -11	20	200	40	13	18	7	25			
IA25R-SDQC ^R / _L -11	25	200	45	15.5	23	5	32			
IA32S-SDQC ^R / _L -11	32	250	48	19.5	30	5	40			
IA40T-SDQCR/L-11	40	300	55	25	37	3	50			
IA50U-SDQCR/L-11	50	350	60	30	47	2	60			

Turning

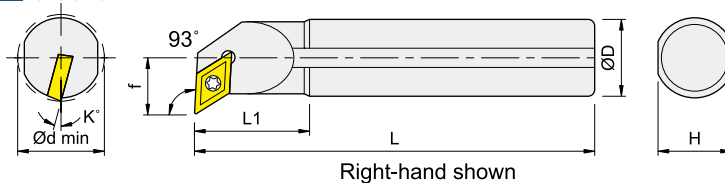
Internal Turning Holders

內徑車刀桿

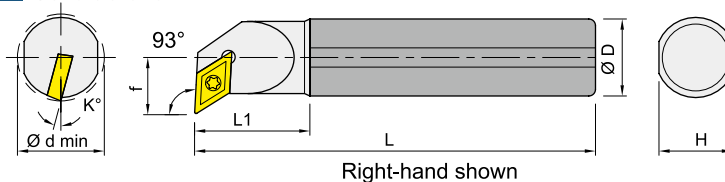


SDUC

Steel shank



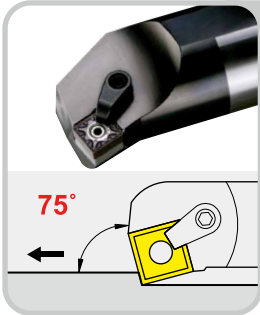
Carbide shank



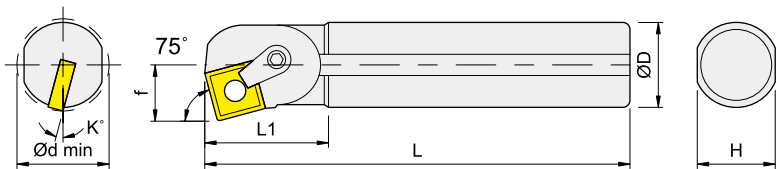
Order No.	Dimensions, mm							Insert	Screw 	Wrench 
	D	L	L1	f	H	K	dmin			
Steel Shank										
IS10K-SDUC ^R / _L -07	10	125	25	7	9	13	13	DC..0702..	IMS2506B	ITK09
IS12M-SDUC ^R / _L -07	12	150	30	8.5	11	10	16			
IS16Q-SDUC ^R / _L -07	16	180	30	11	15	7	20			
IS20R-SDUC ^R / _L -07	20	200	40	12.5	18	7	25			
IS16Q-SDUC ^R / _L -11	16	180	30	11	15	7	20	DC..11T3..	IMS4009A	ITK15
IS20R-SDUC ^R / _L -11	20	200	40	13	18	7	25			
IS25R-SDUC ^R / _L -11	25	200	45	17	23	5	32			
IS32S-SDUC ^R / _L -11	32	250	48	20	30	5	40			
IS40T-SDUC ^R / _L -11	40	300	55	25	37	3	50			
Carbide Shank										
IC10M-SDUCR-07	10	150	25	7	9.2	13	13	DC..0702..	IMS2506B	ITK09
IC12Q-SDUCR-07	12	180	30	8.5	11.2	10	16			
IC16R-SDUCR-11	16	200	30	11	15.2	7	20	DC..11T3..	IMS4009A	ITK15

Steel Shank + Coolant										
IA10K-SDUC ^R / _L -07	10	125	25	7	9	13	13	DC..0702..	IMS2506B	ITK09
IA12M-SDUC ^R / _L -07	12	150	30	8.5	11	10	16			
IA16Q-SDUC ^R / _L -07	16	180	30	11	15	7	20			
IA16Q-SDUC ^R / _L -11	16	180	30	11	15	7	20	DC..11T3..	IMS4009A	ITK15
IA20R-SDUC ^R / _L -11	20	200	40	12.5	18	7	25			
IA25R-SDUC ^R / _L -11	25	200	45	17	23	5	32			
IA32S-SDUC ^R / _L -11	32	250	48	20	30	5	40			
IA40T-SDUC ^R / _L -11	40	300	55	25	37	3	50			

Internal Turning Holders 內徑車刀桿

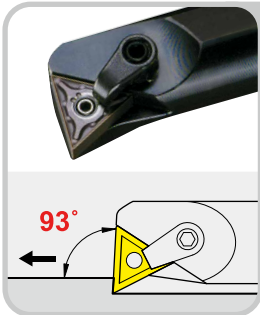


MSKN



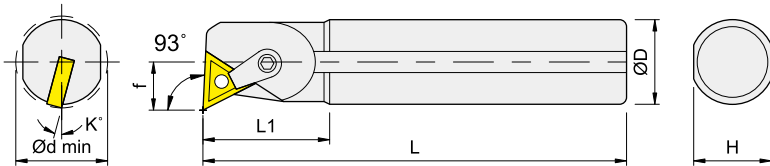
Right-hand shown

Order No.	Dimensions, mm							Insert	Shim	Pin	Wrench	Clamp	Screw	Wrench
	D	L	L1	f	H	K	dmin							
IS40T-MSKN ^R / _L -12	40	300	55	25.5	37	12	50	SN..1204..	ISMS432	IMLP46-A	IPL25	IMC620	IMS625TX	IETL15
IS50U-MSKN ^R / _L -12	50	350	60	30.5	47	10	60							
IS60V-MSKN ^R / _L -12	60	400	60	36	57	9	70							



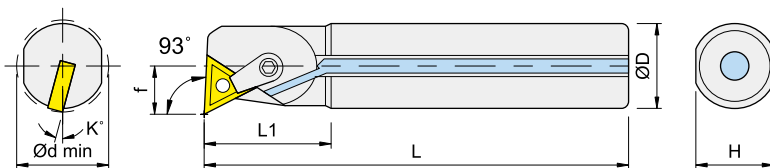
MTUN

■ S..-MTUNR/L-16 Steel shank



Right-hand shown

■ A..-MTUNR/L-16 Steel shank+coolant hole

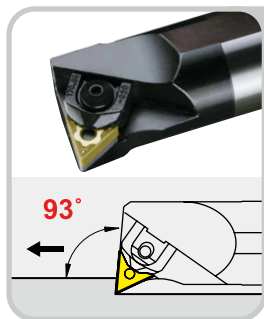


Right-hand shown

Order No.	Dimensions, mm							Insert	Shim 	Pin 	Wrench 	Clamp 	Screw 	Wrench 
	D	L	L1	f	H	K	dmin							
IS20R-MTUN ^R / _L -16	20	200	36	13	18	15	25	TN..1604..	--	IMLP33L	IPL20	IMC515	IMS520TX	IETL10
IS25R-MTUN ^R / _L -16	25	200	40	15	23	13	30		ITMS322	IMLP34L		IMC620	IMS625TX	IETL15
IS32S-MTUN ^R / _L -16	32	250	48	20	30	13	40							
IS40T-MTUN ^R / _L -16	40	300	55	26	37	10	50							
IS50U-MTUN ^R / _L -16	50	350	60	31	47	9	60							
IS60V-MTUN ^R / _L -16	60	400	60	35.5	57	8	70		--	IMLP33L		IMC515	IMS520TX	IETL10
IA20R-MTUN ^R / _L -16	20	200	36	13	18	15	25							
IA25R-MTUN ^R / _L -16	25	200	40	15	23	13	30							
IA32S-MTUN ^R / _L -16	32	250	48	20	30	13	40							
IA40T-MTUN ^R / _L -16	40	300	55	26	37	10	50		ITMS322	IMLP34L		IMC620	IMS625TX	IETL15

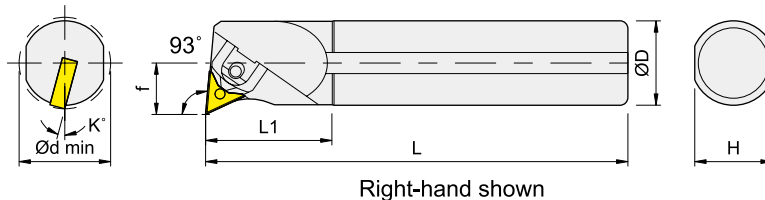
Internal Turning Holders

內徑車刀桿



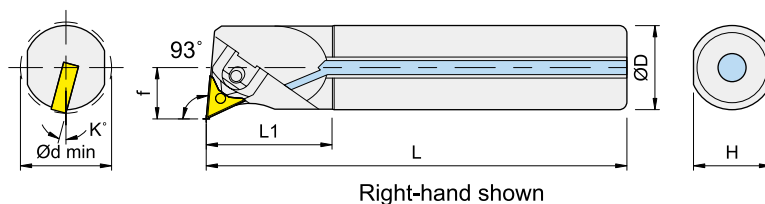
WTUN

■ S.-WTUNR/L-16 Steel shank

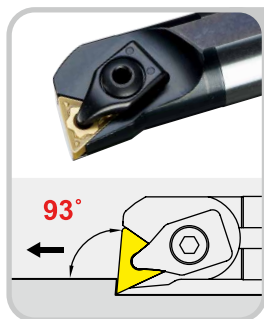


■ A.-WTUNR/L-16 Steel shank+coolant

hole

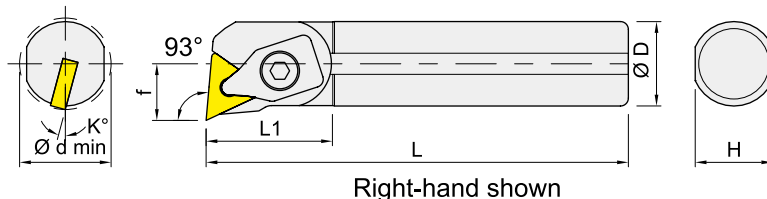


Order No.	Dimensions, mm							Insert				
	D	L	L1	f	H	K	dmin					
IS32S-WTUN ^R / _L -16	32	250	48	19.5	30	13	40	TN..1604..		ISCP315	IMCW3-P25	IPL25
IS40T-WTUN ^R / _L -16	40	300	55	25.5	37	10	50					
IS40U-WTUN ^R / _L -16	40	350	55	25.5	37	10	50					
IS50U-WTUN ^R / _L -16	50	350	60	30.5	47	9	60					
IS50V-WTUN ^R / _L -16	50	400	60	30.5	47	9	60					
IS60V-WTUN ^R / _L -16	60	400	60	35.5	57	8	70					
IA32S-WTUN ^R / _L -16	32	250	48	19.5	30	13	40					
IA40T-WTUN ^R / _L -16	40	300	55	25.5	37	10	50					
IA40U-WTUN ^R / _L -16	40	350	55	25.5	37	10	50					



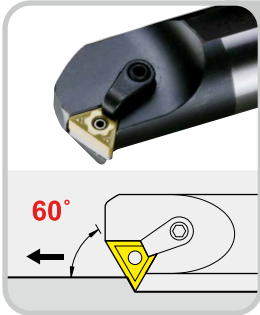
DTUN

■ S.-DTUNR/L-16 Steel shank



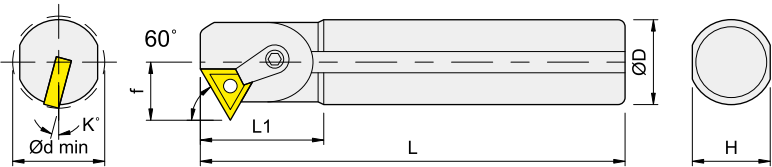
Order No.	Dimensions, mm							Insert					
	D	L	L1	f	H	K	dmin						
IS20R-DTUN ^R / _L -16	20	200	40	14	18	15	28	TN..1604..	--	--	--	IMCD324	IETL20
IS25R-DTUN ^R / _L -16	25	200	40	15.5	23	13	30		ITWS322	IMS4008H	IPL25	IMCD324B	
IS32S-DTUNR-16	32	250	48	19.5	30	13	40						

Internal Turning Holders 內徑車刀桿



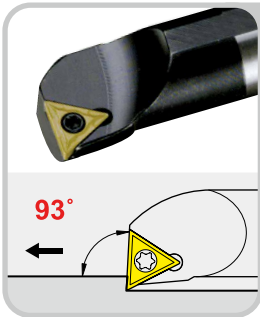
MTWN

S.-MTWNR/L-16 Steel shank



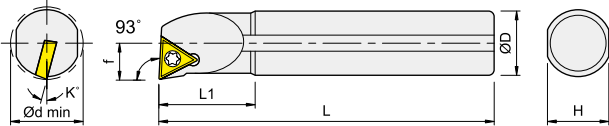
Right-hand shown

Order No.	Dimensions, mm							Insert	Shim	Pin	Wrench	Clamp	Screw	Wrench
	D	L	L1	f	H	K	dmin							
IS20R-MTWN ^R / _L -16	20	200	40	13.5	18	15	27	TN..1604..	--	IMLP33L	IPL20	IMC515	IMS520TX	IETL10
IS25R-MTWN ^R / _L -16	25	200	40	16	23	13	32							
IS32S-MTWN ^R / _L -16	32	250	48	20	30	13	40					IMC620	IMS625TX	IETL15



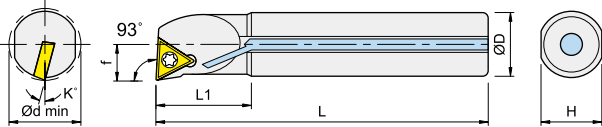
STUC

S.-STUCR/L-.. Steel shank



Right-hand shown

A.-STUCR/L-.. Steel shank+coolant hole

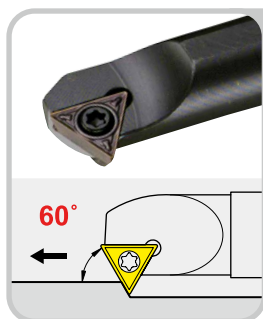


Right-hand shown

Order No.	Dimensions, mm							Insert	Screw 	Wrench 
	D	L	L1	f	H	K	dmin			
IS08K-STUC ^R / _L -09	8	125	20	5.5	7	15	10	TC..0902..	IMS2205A	ITK07
IS10K-STUC ^R / _L -09	10	125	22	6	9	13	12		IMS2206A	
IS10K-STUC ^R / _L -09-D11	10	125	22	5.5	9	13	11			
IS12M-STUCR-09	12	150	26	8	11	10	16			
IS14M-STUCR-09	14	150	26	8	13	10	16	TC..1102..	IMS2506A	ITK09
IS10K-STUC ^R / _L -11	10	125	22	6	9	13	12			
IS12M-STUC ^R / _L -11	12	150	26	8	11	10	16			
IS12M-STUC ^R / _L -11-D13	12	150	26	6.5	11	10	13			
IS16Q-STUC ^R / _L -11	16	180	32	10	15	7	20			
IS16Q-STUC ^R / _L -11-D18	16	180	32	9	15	7	18			
IS20R-STUC ^R / _L -16	20	200	40	13	18	7	25	TC..16T3..	IMS4011A	ITK15
IS25R-STUC ^R / _L -16	25	200	40	15	23	5	30			
IS32S-STUC ^R / _L -16	32	250	48	20	30	5	38			
IS32T-STUC ^R / _L -16	32	300	48	20	30	5	38			
IA08K-STUC ^R / _L -09	8	125	20	5.5	7	15	10	TC..0902..	IMS2205A	ITK07
IA10K-STUC ^R / _L -09	10	125	22	6	9	13	12		IMS2206A	
IA10K-STUC ^R / _L -11	10	125	22	6	9	13	12	TC..1102..	IMS2506A	ITK09
IA12M-STUC ^R / _L -11	12	150	26	8	11	10	16			
IA16Q-STUC ^R / _L -11	16	180	32	10	15	7	20			
IA20R-STUC ^R / _L -16	20	200	40	13	18	7	25			
IA25R-STUC ^R / _L -16	25	200	40	15	23	5	30	TC..16T3..	IMS4011A	ITK15
IA32S-STUC ^R / _L -16	32	250	48	20	30	5	38			
IA32T-STUC ^R / _L -16	32	300	48	20	30	5	38			

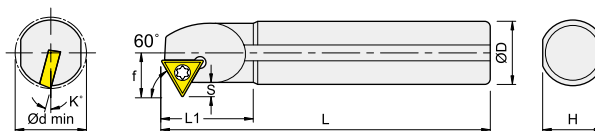
Internal Turning Holders

內徑車刀桿



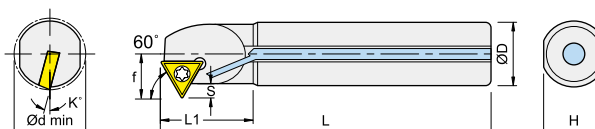
STWC

■ S...-STWCR/L... Steel shank



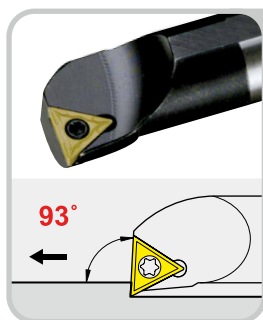
Right-hand shown

■ A...-STWCR/L... Steel shank+coolant hole



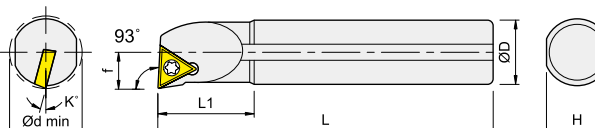
Right-hand shown

Order No.	Dimensions, mm								Insert	Screw 	Wrench 
	D	L	L1	f	S	H	K	dmin			
IS08K-STWC ^R _L -09	8	125	23	6	2	7	15	11	TC..0902..	IMS2205A	ITK07
IS10K-STWC ^R _L -11	10	125	23	7.5	2.5	9	15	13			
IS12M-STWC ^R _L -11	12	150	30	8.5	2.5	11	13	16			
IS16Q-STWC ^R _L -11	16	180	30	10.5	2.5	15	10	20			
IS20R-STWC ^R _L -11	20	200	40	12.5	2.5	18	7	25			
IS20R-STWC ^R _L -16	20	200	40	14.5	4.5	18	8	26	TC..16T3..	IMS4011A	ITK15
IS25R-STWC ^R _L -16	25	200	45	17	4.5	23	6	30			
IS32S-STWC ^R _L -16	32	250	45	20.5	4.5	30	4	40			
IA10K-STWC ^R _L -11	10	125	23	7.5	2.5	9	15	13	TC..1102..	IMS2506A	ITK09
IA12M-STWC ^R _L -11	12	150	30	8.5	2.5	11	13	16			
IA16Q-STWC ^R _L -11	16	180	30	10.5	2.5	15	10	20			
IA20R-STWC ^R _L -11	20	200	40	12.5	2.5	18	7	25			
IA20R-STWC ^R _L -16	20	200	40	14.5	4.5	18	8	26			
IA25R-STWC ^R _L -16	25	200	45	17	4.5	23	6	30	TC..16T3..	IMS4011A	ITK15
IA32S-STWC ^R _L -16	32	250	45	20.5	4.5	30	4	40			



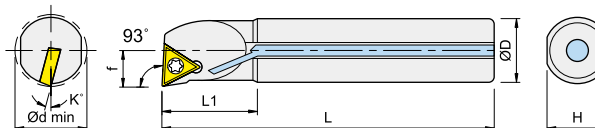
STUP

■ S...-STUPR/L... Steel shank



Right-hand shown

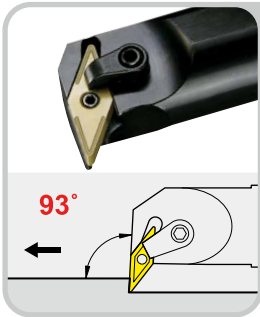
■ A...-STUPR/L... Steel shank+coolant hole



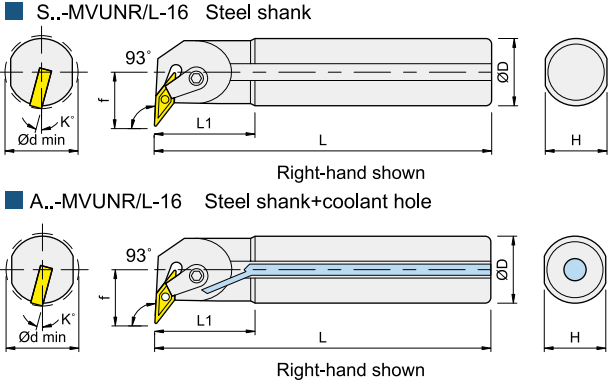
Right-hand shown

Order No.	Dimensions, mm							Insert	Screw 	Wrench 
	D	L	L1	f	H	K	dmin			
S20R-STUP ^R _L -1603	20	200	40	13	18	4	25	TP..1603..	IMS4011A	ITK15
S25R-STUP ^R _L -1603	25	200	40	16	23	0	30			
S32R-STUP ^R _L -1603	32	250	48	20	30	0	38			
A20R-STUP ^R _L -1603	20	200	40	13	18	4	25			
A25R-STUP ^R _L -1603	25	200	40	16	23	0	30			
A32R-STUP ^R _L -1603	32	250	48	20	30	0	38			

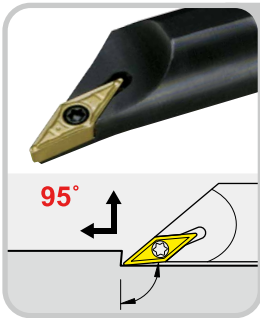
Internal Turning Holders 内徑車刀桿



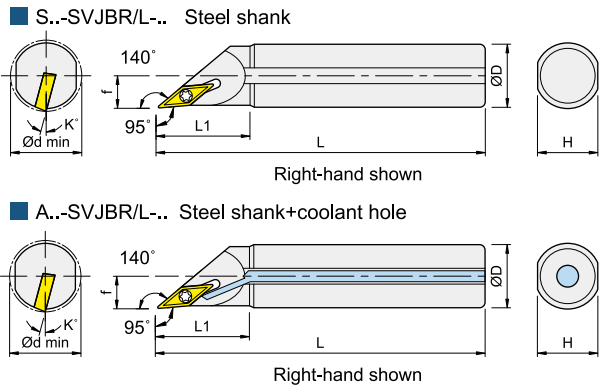
MVUN



Order No.	Dimensions, mm							Insert	Shim	Pin	Wrench	Clamp	Screw	Wrench
	D	L	L1	f	H	K	dmin							
IS25R-MVUN ^R / _L -16	25	200	45	18	23	13	32	VN..1604..	--	IMLP33L	IPL20	IMC515	IMS520TX	IETL10
IS32S-MVUN ^R / _L -16	32	250	50	21	30	13	40		IVMS322	IMLP34L	IPL20	IMC620	IMS625TX	IETL15
IA25R-MVUN ^R / _L -16	25	200	45	18	23	13	32		--	IMLP33L	IPL20	IMC515	IMS520TX	IETL10
IA32S-MVUN ^R / _L -16	32	250	50	21	30	13	40		IVMS322	IMLP34L	IPL20	IMC620	IMS625TX	IETL15



SVJB

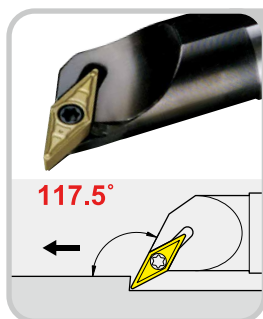


Order No.	Dimensions, mm							Insert	Screw	Wrench
	D	L	L1	f	H	K	dmin			
IS16Q-SVJB ^R / _L -16	16	180	38	9.5	15	7	19	VB..1604..	IMS3509B	ITK15
IS20R-SVJB ^R / _L -16	20	200	42	11.5	18	7	23			
IS25R-SVJB ^R / _L -16	25	200	45	14	23	5	28			
IS32S-SVJB ^R / _L -16	32	250	50	17.5	30	4	35			
IA16Q-SVJB ^R / _L -16	16	180	38	9.5	15	7	19	VB..1604..	IMS3509B	ITK15
IA20R-SVJB ^R / _L -16	20	200	42	11.5	18	7	23			
IA25R-SVJB ^R / _L -16	25	200	45	14	23	5	28			
IA32S-SVJB ^R / _L -16	32	250	50	17.5	30	4	35			

Turning

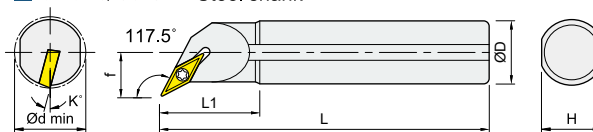
Internal Turning Holders

內徑車刀桿



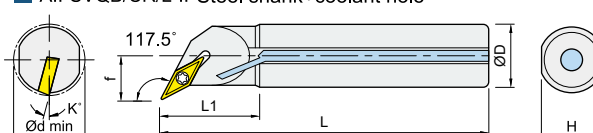
SVQB

■ S...SVQB/CR/L... Steel shank



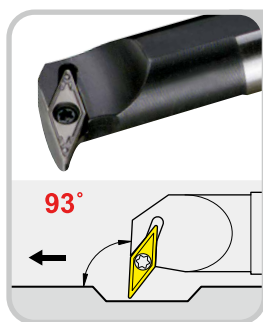
Right-hand shown

■ A...SVQB/CR/L... Steel shank+coolant hole



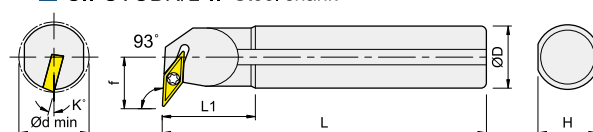
Right-hand shown

Order No.	Dimensions, mm							Insert	Shim	Screw	Wrench	Screw	Wrench
	D	L	L1	f	H	K	dmin						
IS25R-SVQB ^R / _L -16	25	200	45	16	23	5	32	VB..1604..	--	--	--	IMS3509B	ITK15
IS32S-SVQB ^R / _L -16	32	250	48	20	30	5	40		IVSS322	IMDS5035S	IPL35	IMS3512B	
IS40T-SVQB ^R / _L -16	40	300	60	25.5	37	5	50		--	--	--	IMS3509B	
IA25R-SVQB ^R / _L -16	25	200	45	16	23	5	32		IVSS322	IMDS5035S	IPL35	IMS3512B	
IA32S-SVQB ^R / _L -16	32	250	48	20	30	5	40		--	--	--	IMS3509B	
IS12M-SVQC ^R / _L -11	12	150	28	9	11	10	16	VC..1103..	--	--	--	IMS2506A	ITK09
IS16Q-SVQC ^R / _L -11	16	180	35	11	15	7	20		--	--	--	IMS2506A	
IS20R-SVQC ^R / _L -11	20	200	40	13	18	7	25		--	--	--	IMS2506A	
IA16Q-SVQC ^R / _L -11	16	180	35	11	15	7	20		--	--	--	IMS2506A	
IA25R-SVQC ^R / _L -16	20	200	40	13	18	7	25		--	--	--	IMS2506A	



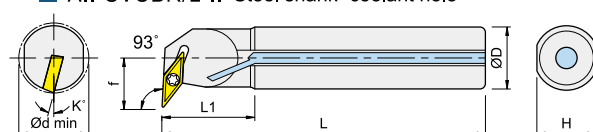
SVUB

■ S...SVUBR/L... Steel shank



Right-hand shown

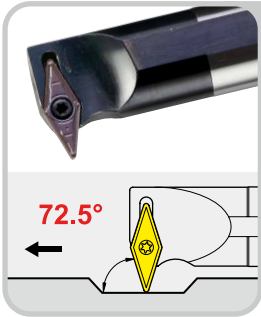
■ A...SVUBR/L... Steel shank+coolant hole



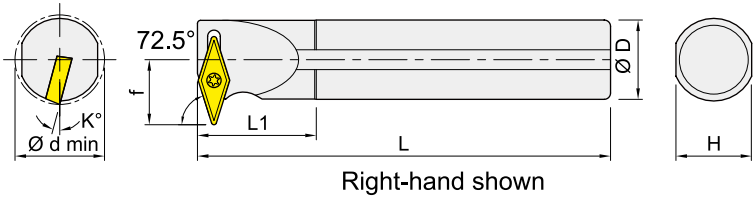
Right-hand shown

Order No.	Dimensions, mm							Insert	Shim	Screw	Wrench	Screw	Wrench
	D	L	L1	f	H	K	dmin						
IS25R-SVUB ^R / _L -16	25	200	45	18	23	5	32	VB..1604..	--	--	--	IMS3509B	ITK15
IS32S-SVUB ^R / _L -16	32	250	50	22	30	5	40		IVSS322	IMDS5035S	IPL35	IMS3512B	
IS40T-SVUB ^R / _L -16	40	300	55	27	37	5	50		--	--	--	IMS3509B	
IA25R-SVUB ^R / _L -16	25	200	45	18	23	5	32		--	--	--	IMS3509B	
IS16Q-SVUC ^R / _L -11	16	180	30	13	15	7	22		--	--	--	IMS2506A	
IS20R-SVUC ^R / _L -11	20	200	40	15	18	7	27	VC..1103..	--	--	--	IMS2506A	ITK09
IA16Q-SVUC ^R / _L -11	16	180	30	13	15	7	22		--	--	--	IMS2506A	
IA20R-SVUC ^R / _L -11	20	200	40	15	18	7	27		--	--	--	IMS2506A	

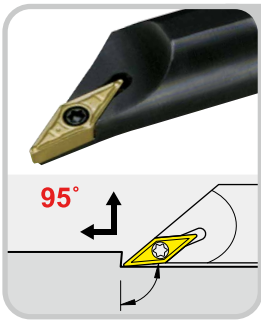
Internal Turning Holders 內徑車刀桿



SVVB

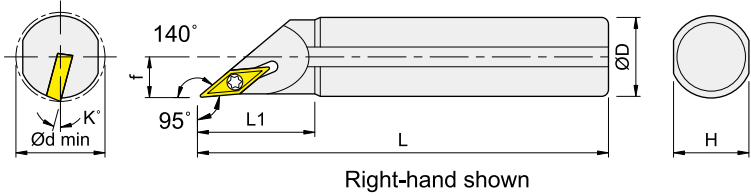


Order No.	Dimensions, mm							Insert	Shim	Screw	Wrench	Screw	Wrench
	D	L	L1	f	H	K	dmin						
IS25R-SVVB ^R / _L -16	25	200	45	20.5	23	5	34	VB..1604..	--	--	--	IMS3509B	ITK15
IS25S-SVVB ^R / _L -16	25	250	45	20.5	23	5	34						
IS32S-SVVB ^R / _L -16	32	250	50	25	30	5	42	VB..1604..	IVSS322	IMDS5035S	IPL35	IMS3512B	ITK15

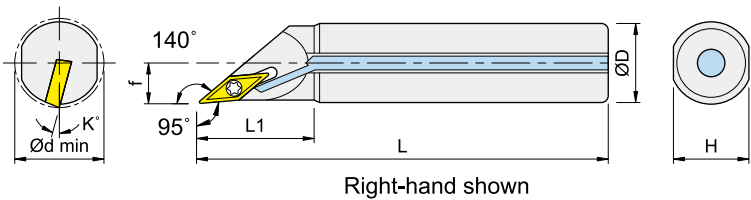


SVJC

■ S.-SVJCR/L-.. Steel shank



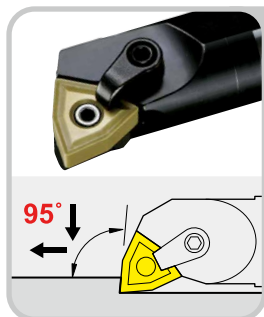
■ A.-SVJCR/L-.. Steel shank+coolant hole



Order No.	Dimensions, mm							Insert	Screw	Wrench
	D	L	L1	f	H	K	dmin			
IC10K-SVJC ^R / _L -11	10	125	25	6	9	13	12	VC..1103..	IMS2506A	ITK09
IC12M-SVJC ^R / _L -11	12	150	30	7	11	10	14			
IC16Q-SVJC ^R / _L -11	16	180	38	9.5	15	7	19			
IC20R-SVJC ^R / _L -11	20	200	42	11.5	18	7	23			
IE10K-SVJC ^R / _L -11	10	125	25	6	9	13	12			
IE12M-SVJC ^R / _L -11	12	150	30	7	11	10	14			
IE16Q-SVJC ^R / _L -11	16	180	38	9.5	15	7	19			
IE20R-SVJC ^R / _L -11	20	200	42	11.5	18	7	23			

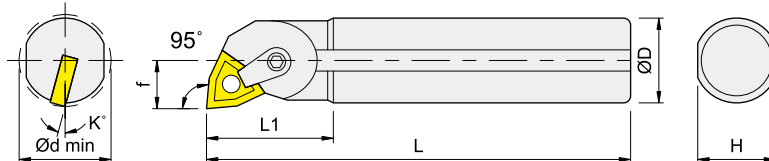
Internal Turning Holders

內徑車刀桿



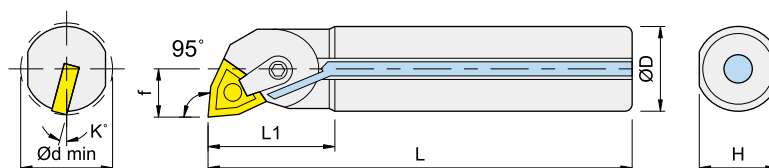
MWLN

■ S..MWLNR/L-08 Steel shank



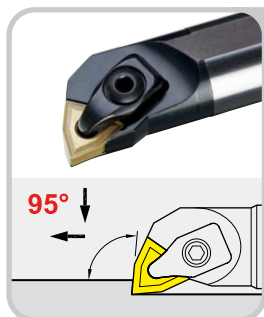
Right-hand shown

■ A..MWLNR/L-08 Steel shank+coolant hole



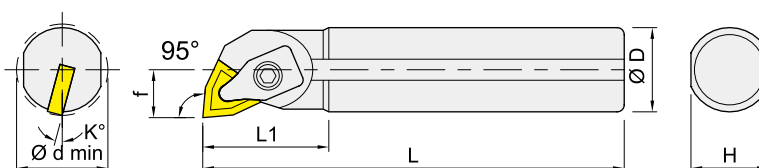
Right-hand shown

Order No.	Dimensions, mm							Insert						
	D	L	L1	f	H	K	dmin							
IS20R-MWLN ^R /L-08	20	200	36	13	18	15	25	WN..0804..	--	IMLP44-A	IPL25	IMC515	IMS520TX	IETL10
IS25R-MWLN ^R /L-08	25	200	40	15	23	13	30						IMS520TX	
IS32S-MWLN ^R /L-08	32	250	48	20	30	13	40		IWMS432	IMLP46-A		IMC620	IMS625TX	IETL15
IS40T-MWLN ^R /L-08	40	300	55	25.5	37	10	50							
IS50U-MWLN ^R /L-08	50	350	60	30.5	47	9	60							
IS60V-MWLN ^R /L-08	60	400	60	35.5	57	8	70							
IA20R-MWLN ^R /L-08	20	200	36	13	18	15	25		--	IMLP44-A		IMC515	IMS520TX	IETL10
IA25R-MWLN ^R /L-08	25	200	40	15	23	13	30						IMS520TX	
IA32S-MWLN ^R /L-08	32	250	48	20	30	13	40		IWMS432	IMLP46-A			IMS520TX	



DWLN

■ S..DWLNR/L-.. Steel shank

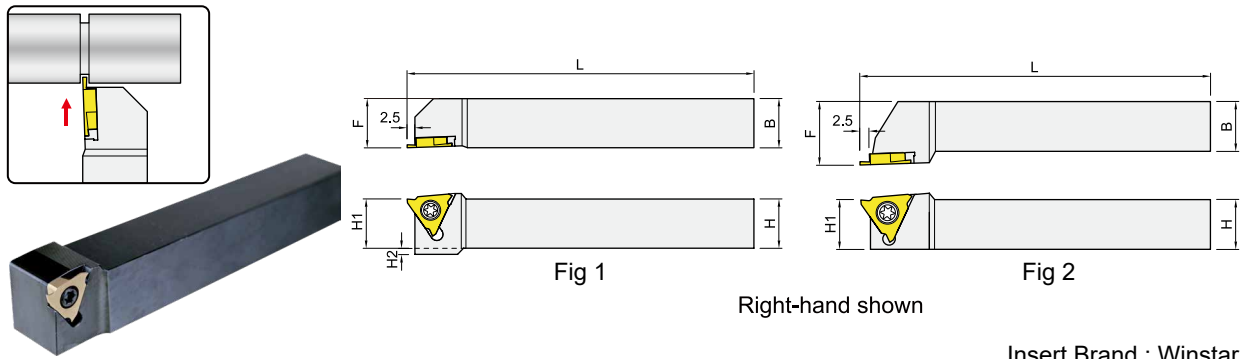


Right-hand shown

Order No.	Dimensions, mm							Insert	Shim	Screw	Wrench	Clamp	Wrench
	D	L	L1	f	H	K	dmin						
IS20R-DWLNR/L-08	20	200	40	14	18	15	28	WN..0804..	--	--	--	IMCD425	IETL20
IS25R-DWLNR/L-08	25	200	40	15	23	13	30						

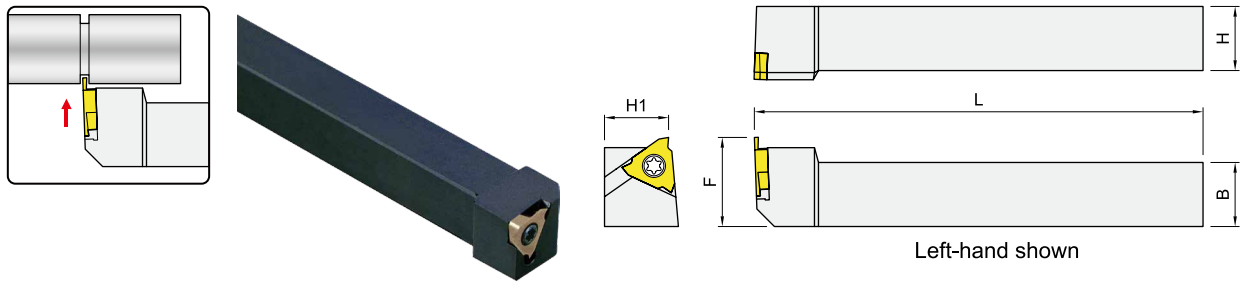
KTGF Shallow Grooving Tools (Vertical , Depth < 2.5mm) KTGF 外徑淺切槽刀 (立式, 切深 < 2.5mm)

External Tool Holder Specifications 外徑刀桿規格



Insert Brand : Winstar

Order No.	Dimensions (mm)					Insert			Fig
	H(H1)	B	L	H2	F				
IKTGF ^R / _L 1010K16F	10	10	125	4	10	TGF32R TGF32L	IMS4009A	ITK15	1
IKTGFR1012K16F	10	12	125	2	12		IMS4011A		
IKTGF ^R / _L 1212K16F	12	12	125	2	12				
IKTGF ^R / _L 1616K16F	16	16	125	-	16				
IKTGFR2020K16F	20	20	125	-	20	TGF32R		IMS4011A	ITK15
IKTGF ^R / _L 1616K16	16	16	125	-	20	TGF32R TGF32L			
IKTGF ^R / _L 2020K16	20	20	125	-	25				
IKTGF ^R / _L 2525M16	25	25	150	-	32				

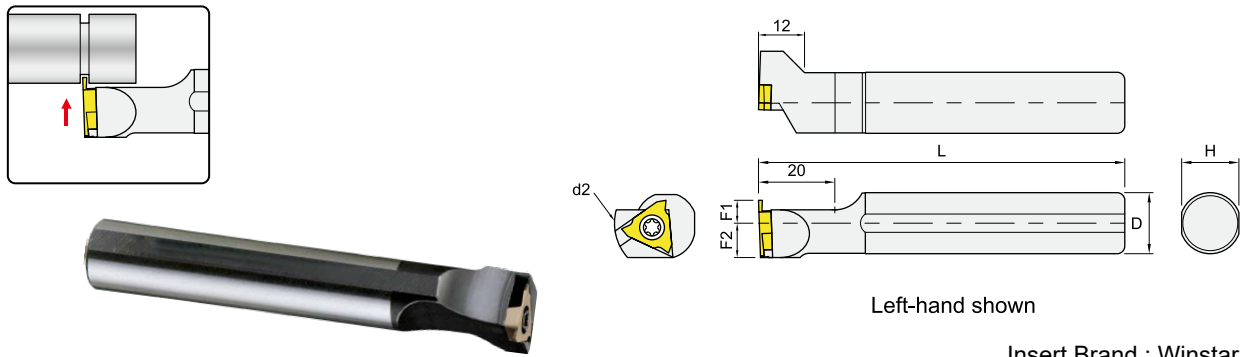


Insert Brand : Winstar

Order No.	Dimensions (mm)				Insert	Screw	Wrench
	H(H1)	B	L	F			
IKTGFSL1616K16	16	16	125	22	TGF32R	IMS4009A	ITK15
IKTGFSL2020K16	20	20	125	26			

KTGF Shallow Grooving Tools (Vertical , Depth < 2.5mm) KTGF 外徑淺切槽刀 (立式 , 切深 < 2.5mm)

External Tool Holder Specifications 外徑刀桿規格



Order No.	Dimensions (mm)						Insert	Screw	Wrench
	D	L	H	F1	F2	d2			
IS16HKTGFL16	16	100	15	6	9	27	TGF32R	IMS4009A	ITK15

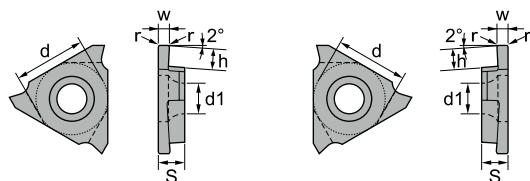
Recommended Cutting Conditions 建議切削數據

Working Material	Vc (m/min)	fr (mm/rev)
Carbon Steel / Alloy Steel	50 ~ 200	0.02 ~ 0.10
Stainless Steel	50 ~ 200	0.02 ~ 0.10
Cast Iron	50 ~ 200	0.02 ~ 0.10
Aluminum Alloy	200 ~ 300	0.05 ~ 0.15
Super Alloy	80 ~ 120	0.03 ~ 0.07

TGF Shallow Grooving Tools (Vertical , Depth < 2.5mm)

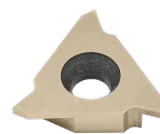
TGF 淺切槽刀 (立式, 切深 < 2.5mm)

Insert Designation 刀片型號



Right hand

Left hand

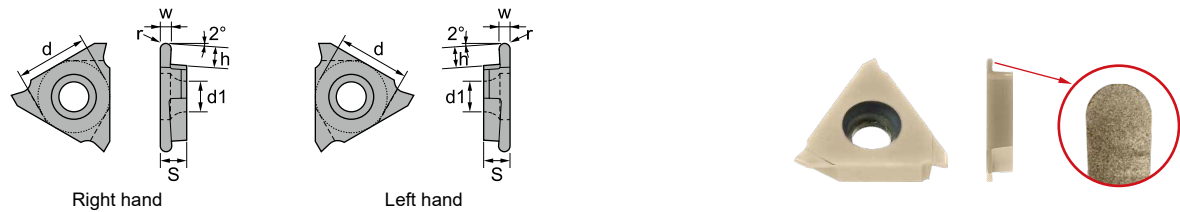


Order No.	Designation	Dimensions (mm)						Max Depth of Cut		Working Material					
		w	h	r	S	d	d1	O.D.	I.D.	P	M	K	N	S	H
ITGF32R0336025	TGF32R033-CP6025	0.33	1.0	0.05	3.18	9.525	4.4	0.8	0.5	●	●	●		○	○
ITGF32L0336025	TGF32L033-CP6025	0.33	1.0	0.05	3.18	9.525	4.4	0.8	0.5	●	●	●		○	○
ITGF32R0506025	TGF32R050-CP6025	0.50	1.4	0.05	3.18	9.525	4.4	1.2	0.8	●	●	●		○	○
ITGF32L0506025	TGF32L050-CP6025	0.50	1.4	0.05	3.18	9.525	4.4	1.2	0.8	●	●	●		○	○
ITGF32R0756025	TGF32R075-CP6025	0.75	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L0756025	TGF32L075-CP6025	0.75	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R0956025	TGF32R095-CP6025	0.95	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L0956025	TGF32L095-CP6025	0.95	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R1006025	TGF32R100-CP6025	1.00	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L1006025	TGF32L100-CP6025	1.00	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R1106025	TGF32R110-CP6025	1.10	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L1106025	TGF32L110-CP6025	1.10	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R1256025	TGF32R125-CP6025	1.25	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L1256025	TGF32L125-CP6025	1.25	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R1356025	TGF32R135-CP6025	1.35	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L1356025	TGF32L135-CP6025	1.35	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R1456025	TGF32R145-CP6025	1.45	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L1456025	TGF32L145-CP6025	1.45	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R1506025	TGF32R150-CP6025	1.50	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L1506025	TGF32L150-CP6025	1.50	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R1656025	TGF32R165-CP6025	1.65	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L1656025	TGF32L165-CP6025	1.65	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R1756025	TGF32R175-CP6025	1.75	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L1756025	TGF32L175-CP6025	1.75	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R1806025	TGF32R180-CP6025	1.80	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L1806025	TGF32L180-CP6025	1.80	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R1856025	TGF32R185-CP6025	1.85	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L1856025	TGF32L185-CP6025	1.85	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R1956025	TGF32R195-CP6025	1.95	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L1956025	TGF32L195-CP6025	1.95	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R2006025	TGF32R200-CP6025	2.00	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L2006025	TGF32L200-CP6025	2.00	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R2506025	TGF32R250-CP6025	2.50	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L2506025	TGF32L250-CP6025	2.50	2.5	0.1	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○

※ To choose CP10(uncoating) for **N** material machining.

TGF Shallow Grooving Tools (Vertical , Depth < 2.5mm) TGF 淺切槽刀 (立式 , 切深 < 2.5mm)

Insert Designation 刀片型號

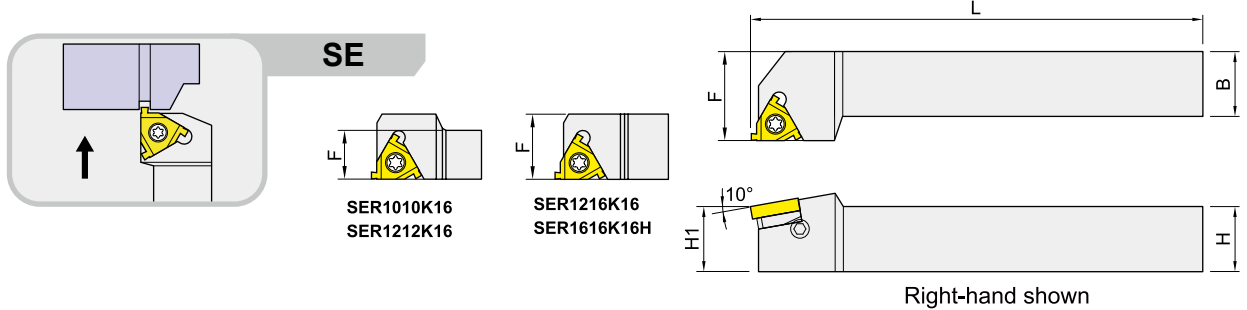


Order No.	Designation	Dimensions (mm)						Max Depth of Cut		Working Material					
		w	h	r	S	d	d1	O.D.	I.D.	P	M	K	N	S	H
ITGF32R025R6025	TGF32R025R-CP6025	0.50	1.4	0.25	3.18	9.525	4.4	1.2	0.8	●	●	●		○	○
ITGF32L025R6025	TGF32L025R-CP6025	0.50	1.4	0.25	3.18	9.525	4.4	1.2	0.8	●	●	●		○	○
ITGF32R037R6025	TGF32R037R-CP6025	0.75	2.5	0.375	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L037R6025	TGF32L037R-CP6025	0.75	2.5	0.375	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R050R6025	TGF32R050R-CP6025	1.00	2.5	0.5	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L050R6025	TGF32L050R-CP6025	1.00	2.5	0.5	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R062R6025	TGF32R062R-CP6025	1.25	2.5	0.625	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L062R6025	TGF32L062R-CP6025	1.25	2.5	0.625	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32R075R6025	TGF32R075R-CP6025	1.50	2.5	0.75	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○
ITGF32L075R6025	TGF32L075R-CP6025	1.50	2.5	0.75	3.18	9.525	4.4	2.0	1.5	●	●	●		○	○

※ To choose CP10(uncoating) for N material machining.

SE Shallow Grooving Tools (Laydown, Depth < 2.5mm) SE 外徑 淺切槽刀 (臥式, 切深 < 2.5mm)

External Tool Holder Specifications 外徑刀桿規格



Insert Brand : Winstar

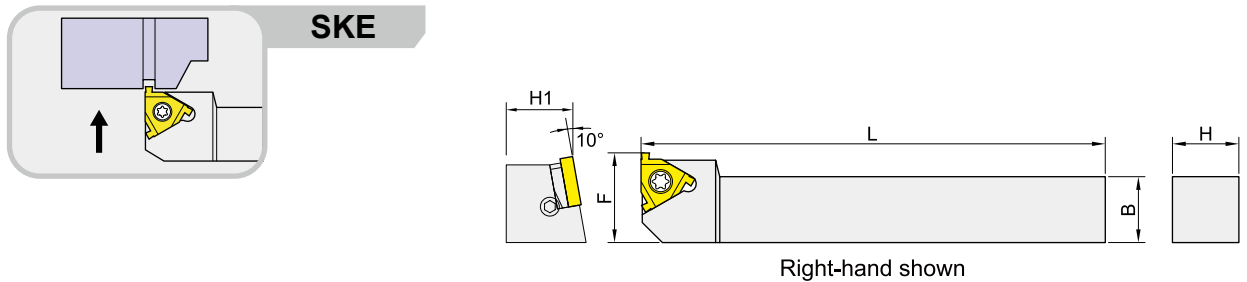
Order No.	Dimensions (mm)				Insert	Spare parts
	H(H1)	B	L	F		
ISE ^R / _L 1216K16	12	16	125	16	TGL16ER or TGL16EL	①
ISE ^R / _L 1010K16H	10	10	125	10		
ISE ^R / _L 1212K16H	12	12	125	12		
ISE ^R / _L 1616K16H	16	16	125	16		
ISE ^R / _L 1616K16	16	16	125	20		②
ISE ^R / _L 2020K16	20	20	125	25		
ISE ^R / _L 2525M16	25	25	150	32		
ISE ^R / _L 3232P16	32	32	170	40		

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

※ SER right hand tools shim is IGXE16, SEL left hand tools shim is IGXN16.

SKE Shallow Grooving Tools (Laydown, Depth < 2.5mm) SKE 外徑 淺切槽刀 (臥式, 切深 < 2.5mm)

External Tool Holder Specifications 外徑刀桿規格



Insert Brand : Winstar

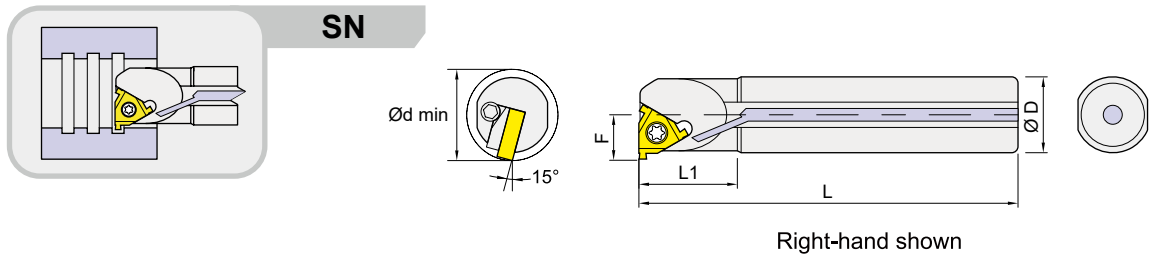
Order No.	Dimensions (mm)				Insert	Spare parts
	H(H1)	B	L	F		
ISKE ^R / _L 1212K16	12	12	125	18	TGL16ER or TGL16EL	①
ISKE ^R / _L 1616K16	16	16	125	22		②
ISKE ^R / _L 2020K16	20	20	125	27		
ISKE ^R / _L 2525M16	25	25	150	34		

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.

SN Shallow Grooving Tools (Laydown, Depth < 2.5mm) SN 內徑 淺切槽刀 (臥式, 切深 < 2.5mm)

Internal Tool Holder Specifications 內徑刀桿規格



Insert Brand : Winstar

Order No.	Dimensions (mm)					Coolant	Insert	Spare parts
	D	L	L1	F	d min			
ISN ^R /L0010K11S10	10	125	22	6.5	13		TGL11IR or TGL11IL	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		TGL16IR or TGL16IL	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	●		③
ISN ^R /LA0025R16	25	200	45	14.5	29	●		
ISN ^R /LA0032S16	32	250	45	18.5	36	●		

Spare parts	Screw	Wrench	Shim	Screw	Wrench
①	IMS2507G	ITK08	-	-	-
②	IMS3509A	ITK15	-	-	-
③	IMS3512A	ITK15	IGXN16 or IGXE16	IHTM309	IPL25

※ SNR right hand tools shim is IGXN16, SNL left hand tools shim is IGXE16.

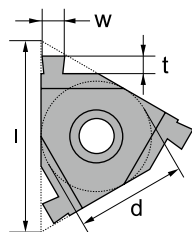
Recommended Cutting Conditions 建議切削數據

Working Material	Vc (m/min)	fr (mm/rev)
Carbon Steel / Alloy Steel	50 ~ 200	0.02 ~ 0.10
Stainless Steel	50 ~ 200	0.02 ~ 0.10
Cast Iron	50 ~ 200	0.02 ~ 0.10
Aluminum Alloy	200 ~ 300	0.05 ~ 0.15
Super Alloy	80 ~ 120	0.03 ~ 0.07

TGL Shallow Grooving Tools (Laydown, Depth < 2.5mm)

TGL 淺切槽刀 (臥式, 切深 < 2.5mm)

Insert Designation 刀片型號



※ Same insert can be used for external right hand and internal left hand.

相同的刀片可以使用在外徑右手與內徑左手加工

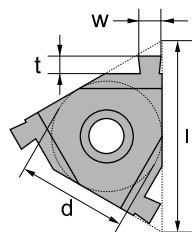
Order No.	Designation	Dimensions (mm)				Working Material					
		d	l	w ±0.02	t	P	M	K	N	S	H
ITGL11ER0506025	TGL11ER050-CP6025	1/4	11	0.50	1.4	●	●	●		○	○
ITGL11IL0506025	TGL11IL050-CP6025	1/4	11	0.50	1.4	●	●	●		○	○
ITGL11ER0606025	TGL11ER060-CP6025	1/4	11	0.60	1.4	●	●	●		○	○
ITGL11IL0606025	TGL11IL060-CP6025	1/4	11	0.60	1.4	●	●	●		○	○
ITGL11ER0706025	TGL11ER070-CP6025	1/4	11	0.70	1.4	●	●	●		○	○
ITGL11IL0706025	TGL11IL070-CP6025	1/4	11	0.70	1.4	●	●	●		○	○
ITGL11ER0806025	TGL11ER080-CP6025	1/4	11	0.80	1.4	●	●	●		○	○
ITGL11IL0806025	TGL11IL080-CP6025	1/4	11	0.80	1.4	●	●	●		○	○
ITGL11ER1006025	TGL11ER100-CP6025	1/4	11	1.00	1.4	●	●	●		○	○
ITGL11IL1006025	TGL11IL100-CP6025	1/4	11	1.00	1.4	●	●	●		○	○
ITGL11ER1206025	TGL11ER120-CP6025	1/4	11	1.20	1.4	●	●	●		○	○
ITGL11IL1206025	TGL11IL120-CP6025	1/4	11	1.20	1.4	●	●	●		○	○
ITGL16ER0506025	TGL16ER050-CP6025	3/8	16	0.50	1.4	●	●	●		○	○
ITGL16IL0506025	TGL16IL050-CP6025	3/8	16	0.50	1.4	●	●	●		○	○
ITGL16ER1006025	TGL16ER100-CP6025	3/8	16	1.00	1.4	●	●	●		○	○
ITGL16IL1006025	TGL16IL100-CP6025	3/8	16	1.00	1.4	●	●	●		○	○
ITGL16ER1206025	TGL16ER120-CP6025	3/8	16	1.20	1.6	●	●	●		○	○
ITGL16IL1206025	TGL16IL120-CP6025	3/8	16	1.20	1.6	●	●	●		○	○
ITGL16ER1406025	TGL16ER140-CP6025	3/8	16	1.40	1.8	●	●	●		○	○
ITGL16IL1406025	TGL16IL140-CP6025	3/8	16	1.40	1.8	●	●	●		○	○
ITGL16ER1706025	TGL16ER170-CP6025	3/8	16	1.70	2.0	●	●	●		○	○
ITGL16IL1706025	TGL16IL170-CP6025	3/8	16	1.70	2.0	●	●	●		○	○
ITGL16ER1956025	TGL16ER195-CP6025	3/8	16	1.95	2.0	●	●	●		○	○
ITGL16IL1956025	TGL16IL195-CP6025	3/8	16	1.95	2.0	●	●	●		○	○
ITGL16ER2256025	TGL16ER225-CP6025	3/8	16	2.25	2.25	●	●	●		○	○
ITGL16IL2256025	TGL16IL225-CP6025	3/8	16	2.25	2.25	●	●	●		○	○

※ To choose CP10(uncoating) for **N** material machining.

TGL Shallow Grooving Tools (Laydown, Depth < 2.5mm)

TGL 淺切槽刀 (臥式, 切深 < 2.5mm)

Insert Designation 刀片型號



※ Same insert can be used for internal right hand and external left hand.

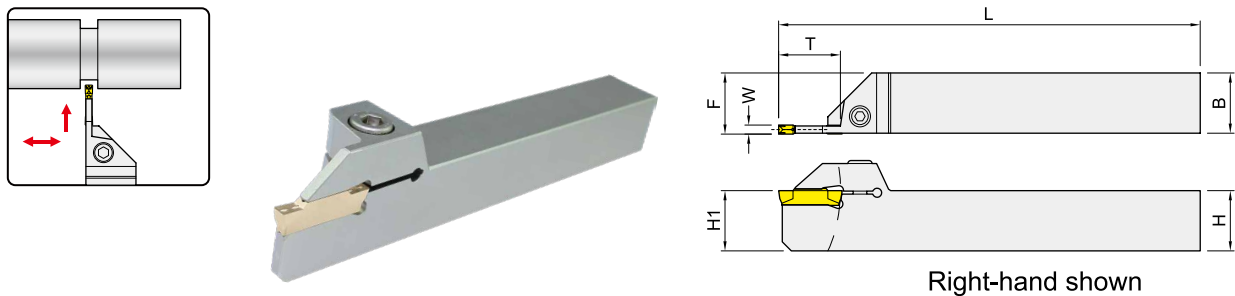
相同的刀片可以使用在內徑右手與外徑左手加工

Order No.	Designation	Dimensions (mm)				Working Material					
		d	l	w ±0.02	t	P	M	K	N	S	H
ITGL11IR0506025	TGL11IR050-CP6025	1/4	11	0.50	1.4	●	●	●		○	○
ITGL11EL0506025	TGL11EL050-CP6025	1/4	11	0.50	1.4	●	●	●		○	○
ITGL11IR0606025	TGL11IR060-CP6025	1/4	11	0.60	1.4	●	●	●		○	○
ITGL11EL0606025	TGL11EL060-CP6025	1/4	11	0.60	1.4	●	●	●		○	○
ITGL11IR0706025	TGL11IR070-CP6025	1/4	11	0.70	1.4	●	●	●		○	○
ITGL11EL0706025	TGL11EL070-CP6025	1/4	11	0.70	1.4	●	●	●		○	○
ITGL11IR0806025	TGL11IR080-CP6025	1/4	11	0.80	1.4	●	●	●		○	○
ITGL11EL0806025	TGL11EL080-CP6025	1/4	11	0.80	1.4	●	●	●		○	○
ITGL11IR1006025	TGL11IR100-CP6025	1/4	11	1.00	1.4	●	●	●		○	○
ITGL11EL1006025	TGL11EL100-CP6025	1/4	11	1.00	1.4	●	●	●		○	○
ITGL11IR1206025	TGL11IR120-CP6025	1/4	11	1.20	1.4	●	●	●		○	○
ITGL11EL1206025	TGL11EL120-CP6025	1/4	11	1.20	1.4	●	●	●		○	○
ITGL16IR0506025	TGL16IR050-CP6025	3/8	16	0.50	1.4	●	●	●		○	○
ITGL16EL0506025	TGL16EL050-CP6025	3/8	16	0.50	1.4	●	●	●		○	○
ITGL16IR1006025	TGL16IR100-CP6025	3/8	16	1.00	1.4	●	●	●		○	○
ITGL16EL1006025	TGL16EL100-CP6025	3/8	16	1.00	1.4	●	●	●		○	○
ITGL16IR1206025	TGL16IR120-CP6025	3/8	16	1.20	1.6	●	●	●		○	○
ITGL16EL1206025	TGL16EL120-CP6025	3/8	16	1.20	1.6	●	●	●		○	○
ITGL16IR1406025	TGL16IR140-CP6025	3/8	16	1.40	1.8	●	●	●		○	○
ITGL16EL1406025	TGL16EL140-CP6025	3/8	16	1.40	1.8	●	●	●		○	○
ITGL16IR1706025	TGL16IR170-CP6025	3/8	16	1.70	2.0	●	●	●		○	○
ITGL16EL1706025	TGL16EL170-CP6025	3/8	16	1.70	2.0	●	●	●		○	○
ITGL16IR1956025	TGL16IR195-CP6025	3/8	16	1.95	2.0	●	●	●		○	○
ITGL16EL1956025	TGL16EL195-CP6025	3/8	16	1.95	2.0	●	●	●		○	○
ITGL16IR2256025	TGL16IR225-CP6025	3/8	16	2.25	2.25	●	●	●		○	○
ITGL16EL2256025	TGL16EL225-CP6025	3/8	16	2.25	2.25	●	●	●		○	○

※ To choose CP10(uncoating) for **N** material machining.

MGEH Grooving Tools (Depth < 20mm) MGEH 外徑切槽刀 (切深 < 20mm)

External Tool Holder Specifications 外徑刀桿規格



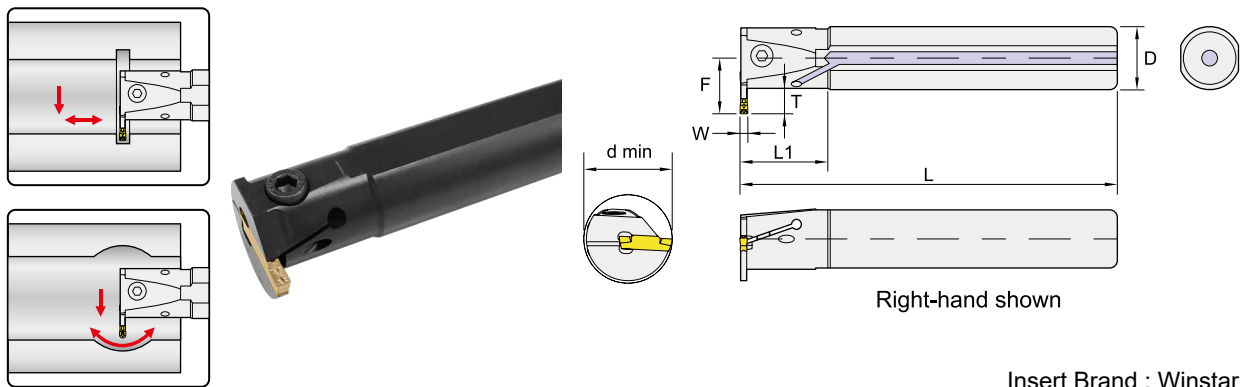
Insert Brand : Winstar

Order No.	Dimensions (mm)						Inserts		
	H (H1)	B	L	F	T	W		Screw	Wrench
IMGEH ^R / _L 1616K2T16T	16	16	125	16.25	16	2.0	MGMN200.. MRMN200..	IHTMT520	IETL25
IMGEH ^R / _L 2020K2T20T	20	20	125	20.25	20	2.0		IHTMT525	IETL25
IMGEH ^R / _L 2525M2T20T	25	25	150	25.25	20	2.0		IHTMT525	IETL25
IMGEH ^R / _L 1616K3T20T	16	16	125	16.30	20	3.0	MGMN300.. MRMG300..	IHTMT520	IETL25
IMGEH ^R / _L 2020K3T20T	20	20	125	20.30	20	3.0		IHTMT525	IETL25
IMGEHR2525M3T20T	25	25	150	25.30	20	3.0		IHTMT525	IETL25
IMGEHR2525M4T20T	25	25	150	25.35	20	4.0	MGMN400.. MRMN400..	IHTMT525	IETL25

MGIV Grooving Tools (Depth < 15mm)

MGIV 內徑切槽刀 (切深 < 15mm)

Internal Tool Holder Specifications 內徑刀桿規格



Insert Brand : Winstar

Order No.	Dimensions (mm)							Insert		
	D	L	L1	F	T	W	d min		Screw	Wrench
IMGIVR2016M2	16	150	25	12	4	2	20	MGMN200.. MRMN200..	ICSH0310	IPL25
IMGIVR2520M2	20	150	25	14.5	4	2	25		ICSH0512	IPL40
IMGIVR2925R2	25	200	30	16	4	2	29		ICSH0516	IPL40
IMGIVR2620M3	20	150	25	16.5	6	3	26	MGMN300.. MRMG300..	ICSH0512	IPL40
IMGIVR3020M3	20	150	25	20	10	3	30		ICSH0512	IPL40
IMGIVR3125R3	25	200	30	18	6	3	31		ICSH0516	IPL40
IMGIVR3525R3	25	200	30	22	10	3	35		ICSH0516	IPL40
IMGIVR3832S3	32	250	40	21.5	6	3	38		ICSH0516	IPL40
IMGIVR4232S3	32	250	40	25.5	10	3	42		ICSH0516	IPL40
IMGIVR2620M4	20	150	25	15.5	6	4	26	MGMN400.. MRMN400..	ICSH0512	IPL40
IMGIVR3020M4	20	150	25	20	10	4	30		ICSH0512	IPL40
IMGIVR3125R4	25	200	30	18.5	6	4	31		ICSH0516	IPL40
IMGIVR3525R4	25	200	30	22.5	10	4	35		ICSH0516	IPL40
IMGIVR3832S4	32	250	40	22	6	4	38		ICSH0516	IPL40
IMGIVR4232S4	32	250	40	26	10	4	42		ICSH0516	IPL40
IMGIVR5040T4	40	300	45	29.5	10	4	50		ICSH0516	IPL40
IMGIVR5540T4	40	300	45	34.5	15	4	55		ICSH0516	IPL40

Turning

MGEH Grooving Tools (Depth < 20mm)

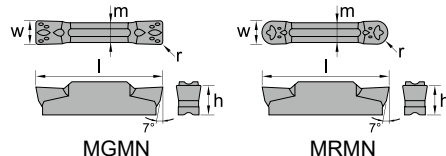
MGEH 切槽刀 (切深 < 20mm)

Recommended Cutting Conditions 建議切削數據

Working Material	Vc (m/min)	Parting off, fr (mm/rev)			Grooving, fr (mm/rev)		
		Cutting Width (w)					
		2	3	4	2	3	4
Carbon Steel / Alloy Steel	80 ~ 200	0.02 ~ 0.14	0.03 ~ 0.21	0.04 ~ 0.28	0.04 ~ 0.08	0.06 ~ 0.12	0.08 ~ 0.16
Stainless Steel	60 ~ 140	0.02 ~ 0.10	0.03 ~ 0.15	0.04 ~ 0.20	0.04 ~ 0.06	0.06 ~ 0.09	0.08 ~ 0.12
Cast Iron	80 ~ 200	0.04 ~ 0.14	0.06 ~ 0.21	0.08 ~ 0.28	0.04 ~ 0.08	0.06 ~ 0.12	0.08 ~ 0.16
Super Alloy	50 ~ 100	0.02 ~ 0.06	0.03 ~ 0.09	0.04 ~ 0.12	0.02 ~ 0.04	0.03 ~ 0.06	0.04 ~ 0.08

Insert Specifications 刀片規格

Insert	Dimensions (mm)					Chipbreaker 斷屑槽	
	w	r	l	h	m	SG	For light cutting 適合輕加工
MGMN200	2.0	0.2	16	3.5	1.60	MG	For general cutting 適合一般泛用加工
MGMN300	3.0	0.4	21	4.8	2.35		
MGMN400	4.0	0.4	21	4.8	3.30		
MRMN200	2.0	1.0	16	3.5	1.60		
MRMN300	3.0	1.5	21	4.8	2.35		
MRMN400	4.0	2.0	21	4.8	3.30		



Insert Designation 刀片型號

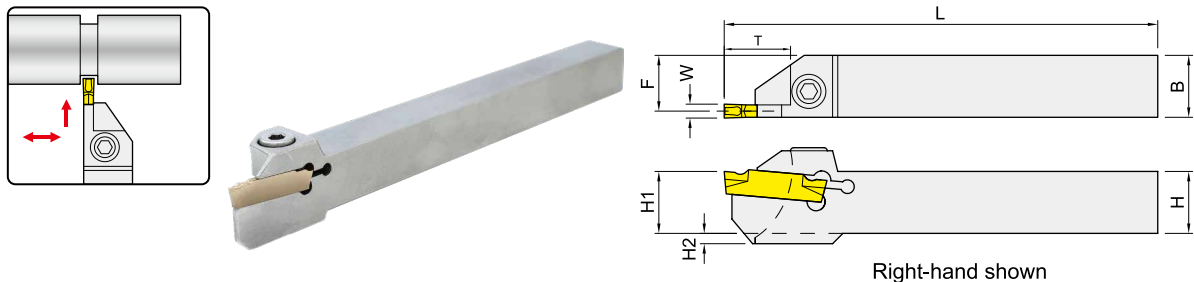
Insert	Order No.	Code-Chipbreaker-Grade	Working Material					
			P	M	K	N	S	H
	IMGMN200SG6025	MGMN200-SG-CP6025	●	●	●		●	●
	IMGMN200SG6035	MGMN200-SG-CP6035	●	●	●		○	
	IMGMN300MG6025	MGMN300-MG-CP6025	●	●	●		●	●
	IMGMN300MG6035	MGMN300-MG-CP6035	●	●	●		○	
	IMGMN400MG6025	MGMN400-MG-CP6025	●	●	●		●	●
	IMGMN400MG6035	MGMN400-MG-CP6035	●	●	●		○	
	IMRMN200MG6025	MRMN200-MG-CP6025	●	●	●		●	●
	IMRMN200MG6035	MRMN200-MG-CP6035	●	●	●		○	
	IMRMN300MG6025	MRMN300-MG-CP6025	●	●	●		●	●
	IMRMN300MG6035	MRMN300-MG-CP6035	●	●	●		○	
	IMRMN400MG6025	MRMN400-MG-CP6025	●	●	●		●	●
	IMRMN400MG6035	MRMN400-MG-CP6035	●	●	●		○	

* CP6025 for General cutting. (Previous grade is CX33TX)
 CP6035 for Interrupted cutting. (Previous grade is CX43TX)

KGM Grooving Tools (Depth < 20mm)

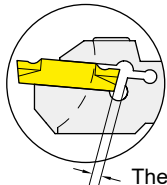
KGM 外徑切槽刀 (切深 < 20mm)

External Tool Holder Specifications 外徑刀桿規格



Insert Brand : Winstar

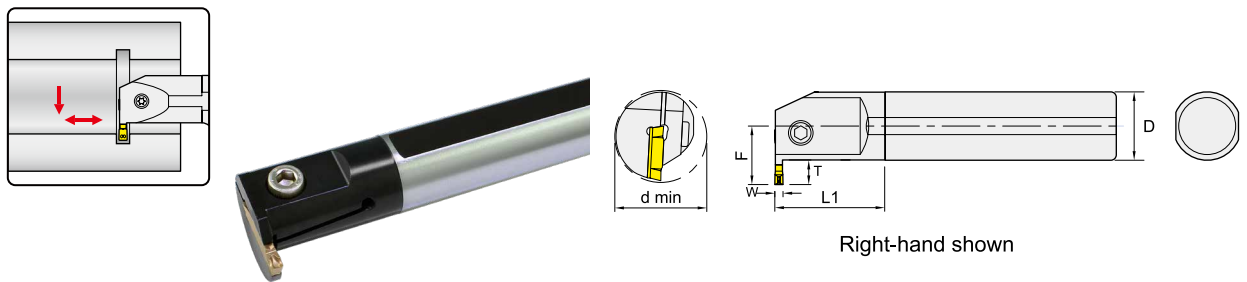
Order No.	Dimensions (mm)						W (mm)		Inserts	Screw	Wrench
	H (H1)	B	L	F	T	H2	min	max			
IKGM ^R / _L 1212K1.5L10	12	12	125	11.4	10	2	1.5	2.0	GMM2020..	IHTM416	IPL30
IKGM ^R / _L 1616K1.5L10	16	16	125	15.4	10	-	1.5	2.0		IHTMT520	IETL25
IKGM ^R / _L 2020K1.5L10	20	20	125	19.4	10	-	1.5	2.0		IHTMT525	IETL25
IKGM ^R / _L 2525M1.5L10	25	25	150	24.4	10	-	1.5	2.0		IHTMT525	IETL25
IKGM ^R / _L 1212K2TL10	12	12	125	11.1	10	2	2.0	3.0	GMM2020.. GMM2520.. GMM3020..	IHTM416	IPL30
IKGM ^R / _L 1616K2TL10	16	16	125	15.1	10	-	2.0	3.0		IHTMT520	IETL25
IKGM ^R / _L 2020K2TL10	20	20	125	19.1	10	-	2.0	3.0		IHTMT525	IETL25
IKGM ^R / _L 2525M2TL10	25	25	150	24.1	10	-	2.0	3.0		IHTMT525	IETL25
IKGM ^R / _L 1212K2TL13	12	12	125	11.1	13	3	2.0	3.0		IHTM420	IPL30
IKGM ^R / _L 1616K2TL13	16	16	125	15.1	13	-	2.0	3.0		IHTMT520	IETL25
IKGM ^R / _L 2020K2TL13	20	20	125	19.1	13	-	2.0	3.0		IHTMT525	IETL25
IKGM ^R / _L 2525M2TL13	25	25	150	24.1	13	-	2.0	3.0		IHTMT525	IETL25
IKGM ^R / _L 1212K2TL17	12	12	125	11.1	17	4	2.0	3.0		IHTM420	IPL30
IKGM ^R / _L 1616K2TL17	16	16	125	15.1	17	-	2.0	3.0		IHTMT520	IETL25
IKGM ^R / _L 2020K2TL17	20	20	125	19.1	17	-	2.0	3.0		IHTMT525	IETL25
IKGM ^R / _L 2525M2TL17	25	25	150	24.1	17	-	2.0	3.0		IHTMT525	IETL25
IKGM ^R / _L 1616K3TL16	16	16	125	14.8	16	-	3.0	4.0	GMM3020..	IHTMT520	IETL25
IKGM ^R / _L 2020K3TL16	20	20	125	18.8	16	-	3.0	4.0		IHTMT525	IETL25
IKGM ^R / _L 2525M3TL16	25	25	150	23.8	16	-	3.0	4.0		IHTMT525	IETL25
IKGM ^R / _L 1616K3TL20	16	16	125	14.8	20	4	3.0	4.0		IHTMT525	IETL25
IKGM ^R / _L 2020K3TL20	20	20	125	18.8	20	-	3.0	4.0		IHTMT525	IETL25
IKGM ^R / _L 2525M3TL20	25	25	150	23.8	20	-	3.0	4.0		IHTMT525	IETL25
IKGMR3232P3TL20	32	32	170	30.8	20	-	3.0	4.0		IHTMT525	IETL25



The GMM series inserts need to be installed 0.5~1mm away from the bottom.

KIGM Grooving Tools (Depth < 9mm) KIGM 內徑切槽刀 (切深 < 9mm)

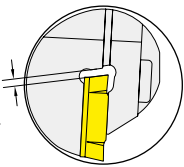
Internal Tool Holder Specifications 內徑刀桿規格



Insert Brand : Winstar

Order No.	Dimensions (mm)							Inserts	 Screw	 Wrench
	D	L	L1	F	T	W	d min			
IKIGMRS20Q3T07	20	180	35	17	7	3	28	GMM3020..	IHTM516	IPL40
IKIGMRS25R3T09	25	200	40	21.5	9	3	35		IHTMT520	IETL25

The GMM3020.. inserts need to be installed 0.5~1mm away from the bottom.



Recommended Cutting Conditions 建議切削數據

Working Material	Vc (m/min)	Parting off, fr (mm/rev)		Grooving, fr (mm/rev)	
		Cutting Width (w)			
		2	3	2	3
Carbon Steel / Alloy Steel	80 ~ 200	0.02 ~ 0.14	0.03 ~ 0.21	0.04 ~ 0.08	0.06 ~ 0.12
Stainless Steel	60 ~ 140	0.02 ~ 0.10	0.03 ~ 0.15	0.04 ~ 0.06	0.06 ~ 0.09
Cast Iron	80 ~ 200	0.04 ~ 0.14	0.06 ~ 0.21	0.04 ~ 0.08	0.06 ~ 0.12
Super Alloy	50 ~ 100	0.02 ~ 0.06	0.03 ~ 0.09	0.02 ~ 0.04	0.03 ~ 0.06

KGM Grooving Tools (Depth < 20mm)

KGM 切槽刀 (切深 < 20mm)

Insert Specifications 刀片規格

Insert	Dimensions (mm)						Fig.	Chipbreaker 斷屑槽	
	w	r	l	h	m	k°		MR	For high feed cutting 適合高進給加工
GMM2020	2.0	0.20	20	4.3	1.5	-	1	Fig. 1	
GMM2020R06	2.0	-	20	4.3	1.5	6°	2		
GMM2020R15	2.0	-	20	4.3	1.5	15°	2		
GMM2020L15	2.0	-	20	4.3	1.5	15°	3	Fig. 2	
GMM2520	2.5	0.20	20	4.3	1.9	-	1		
GMM2520R06	2.5	-	20	4.3	1.9	6°	2		
GMM2520R15	2.5	-	20	4.3	1.9	15°	2	Fig. 3	
GMM2520L15	2.5	-	20	4.3	1.9	15°	3		
GMM3020	3.0	0.25	20	4.3	2.3	-	1		
GMM3020R06	3.0	-	20	4.3	2.3	6°	2		
GMM3020R15	3.0	-	20	4.3	2.3	15°	2		
GMM3020L15	3.0	-	20	4.3	2.3	15°	3		

Insert Designation 刀片型號

Insert	Order No.	Code-Chipbreaker-Grade	Working Material					
			P	M	K	N	S	H
	IGMM2020MR6025	GMM2020-MR-CP6025	●	●	●		●	●
	IGMM2020MR6035	GMM2020-MR-CP6035	●	●	●		○	
	IGMM2520MR6025	GMM2520-MR-CP6025	●	●	●		●	●
	IGMM3020MR6025	GMM3020-MR-CP6025	●	●	●		●	●
	IGMM2020R06MR6025	GMM2020R06-MR-CP6025	●	●	●		●	●
	IGMM2020R06MR6035	GMM2020R06-MR-CP6035	●	●	●		○	
	IGMM2520R06MR6025	GMM2520R06-MR-CP6025	●	●	●		●	●
	IGMM3020R06MR6025	GMM3020R06-MR-CP6025	●	●	●		●	●
	IGMM2020R15MR6025	GMM2020R15-MR-CP6025	●	●	●		●	●
	IGMM2020L15MR6025	GMM2020L15-MR-CP6025	●	●	●		●	●
	IGMM2020R15MR6035	GMM2020R15-MR-CP6035	●	●	●		○	
	IGMM2020L15MR6035	GMM2020L15-MR-CP6035	●	●	●		○	
	IGMM2520R15MR6025	GMM2520R15-MR-CP6025	●	●	●		●	●
	IGMM2520L15MR6025	GMM2520L15-MR-CP6025	●	●	●		●	●
	IGMM3020R15MR6025	GMM3020R15-MR-CP6025	●	●	●		○	●
	IGMM3020L15MR6025	GMM3020L15-MR-CP6025	●	●	●		○	●

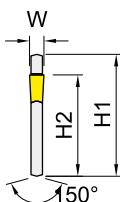
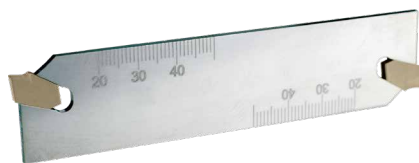
* CP6025 for General cutting. (Previous grade is CX33TX)
 CP6035 for Interrupted cutting. (Previous grade is CX43TX)

SGIH Parting Tools (Depth < 40mm)

SGIH 切斷刀 (切深 < 40mm)

External Tool Holder Specifications 外徑刀桿規格

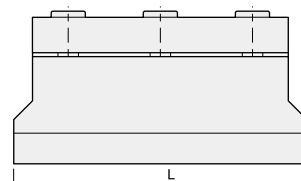
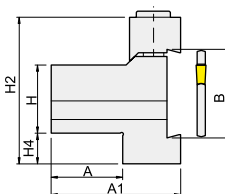
SGIH



Insert Brand : Winstar

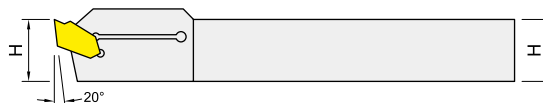
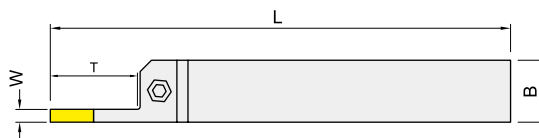
Order No.	Dimensions (mm)				Insert	Tool Block	Wrench
	H1	H2	L	W			
ISGIH26-2	26	21.4	110	2.2	TGTN0220	ISGTBU...-26	IESG-1
ISGIH26-3	26	21.4	110	3.1	TGTN0310		
ISGIH26-4	26	21.4	110	4.1	TGTN0410		
ISGIH32-2	32	25	150	2.2	TGTN0220	ISGTBU...-32	
ISGIH32-3	32	25	150	3.1	TGTN0310		
ISGIH32-4	32	25	150	4.1	TGTN0410		

SGTBU



Order No.	Dimensions (mm)							Screw	Wrench	BLADE
	H	B	A	A1	L	H2	H4			
ISGTBU20-26	20	26	21	38	86	43	9	IHTM630	IPL50	ISGIH26-3
ISGTBU25-26	25	26	23	40	86	43	4			ISGIH32-3
ISGTBU20-32	20	32	21	40	110	50	13			
ISGTBU25-32	25	32	23	42	110	50	8			

SGTHR



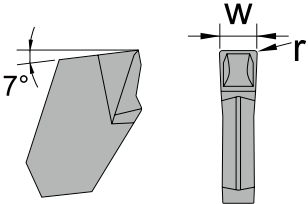
Order No.	Dimensions (mm)					Insert	Screw	Wrench
	H	B	L	W	T			
ISGTHR16162	16	16	110	2	16	TGTN0220	IHTM521	IPL40
ISGTHR20202	20	20	125	2	18			
ISGTHR20203	20	20	125	3	20	TGTN0310	IHTM625	IPL50
ISGTHR25253	25	25	150	3	25			
ISGTHR25254	25	25	150	4	30	TGTN0410	IHTM625	IPL50

Recommended Cutting Conditions 建議切削數據

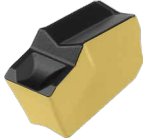
Working Material	Vc (m/min)	Parting off, fr (mm/rev)		
		Cutting Width (w)		
		2	3	4
Carbon Steel / Alloy Steel	80 ~ 200	0.02 ~ 0.14	0.03 ~ 0.21	0.04 ~ 0.28
Stainless Steel	60 ~ 140	0.02 ~ 0.10	0.03 ~ 0.15	0.04 ~ 0.20
Cast Iron	80 ~ 200	0.04 ~ 0.14	0.06 ~ 0.21	0.08 ~ 0.28
Super Alloy	50 ~ 100	0.02 ~ 0.06	0.03 ~ 0.09	0.04 ~ 0.12

Insert Specifications 刀片規格

Insert	Dimensions (mm)	
	w	r
TGTN0220	2.2	0.2
TGTN0310	3.1	0.2
TGTN0410	4.1	0.25



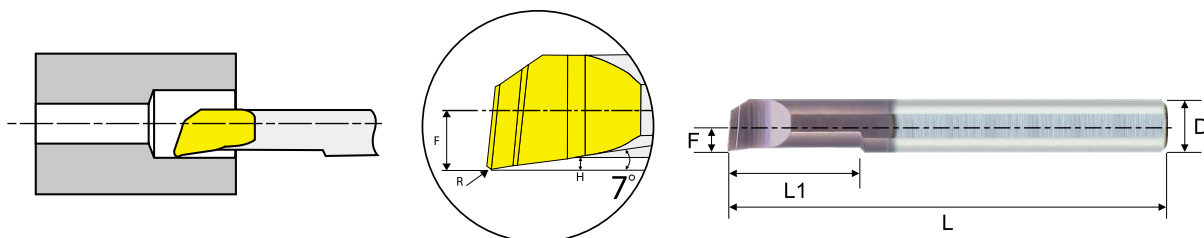
Insert Designation 刀片型號

Inserts	Order No.	Code-Grade	Working Material					
			P	M	K	N	S	H
	ITGTN02206025	TGTN0220-CP6025	●	●	●		●	●
	ITGTN02206035	TGTN0220-CP6035	●	●	●		○	
	ITGTN02207035	TGTN0220-CC7035	●	●	●			
	ITGTN03106025	TGTN0310-CP6025	●	●	●		●	●
	ITGTN03106035	TGTN0310-CP6035	●	●	●		○	
	ITGTN03107035	TGTN0310-CC7035	●	●	●			
	ITGTN04106025	TGTN0410-CP6025	●	●	●		●	●
	ITGTN04106035	TGTN0410-CP6035	●	●	●		○	
	ITGTN04107035	TGTN0410-CC7035	●	●	●			

* CP6025 for General cutting. (Previous grade is CX33TX)
CP6035 for Interrupted cutting. (Previous grade is CX43TX)
CC7035 for Heavy interrupted cutting. (Previous grade is CX47TA)

DLBSR Carbide Internal Boring Bars (7°)

鎢鋼內徑搪刀 (7°)

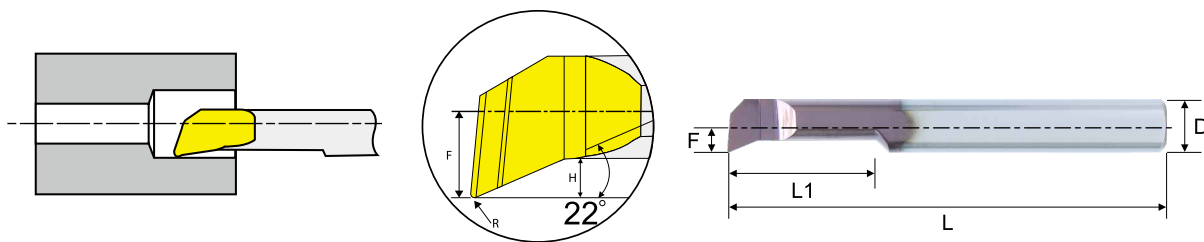


Order No.	F	L1	L	R	D	H	Min. Bore Dia.
DLBSR08051507U	0.8	5	50	0.15	3	0.1	2.4
DLBSR08101507U	0.8	10	50	0.15	3	0.1	2.4
DLBSR13100507U	1.3	10	50	0.05	3	0.2	3.1
DLBSR13150507U	1.3	15	50	0.05	3	0.2	3.1
DLBSR13151007U	1.3	15	50	0.10	3	0.2	3.1
DLBSR13102007U	1.3	10	50	0.20	3	0.2	3.1
DLBSR13152007U	1.3	15	50	0.20	3	0.2	3.1
DLBSR17101007U	1.7	10	50	0.10	4	0.2	4.1
DLBSR17151007U	1.7	15	50	0.10	4	0.2	4.1
DLBSR17221007U	1.7	22	50	0.10	4	0.2	4.1
DLBSR17102007U	1.7	10	50	0.20	4	0.2	4.1
DLBSR17152007U	1.7	15	50	0.20	4	0.2	4.1
DLBSR17222007U	1.7	22	50	0.20	4	0.2	4.1
DLBSR21151007U	2.1	15	50	0.10	5	0.3	5.1
DLBSR21221007U	2.1	22	50	0.10	5	0.3	5.1
DLBSR21301007U	2.1	30	75	0.10	5	0.3	5.1
DLBSR21152007U	2.1	15	50	0.20	5	0.3	5.1
DLBSR21222007U	2.1	22	50	0.20	5	0.3	5.1
DLBSR21302007U	2.1	30	75	0.20	5	0.3	5.1
DLBSR28150507U	2.8	15	50	0.05	6	0.3	6.1
DLBSR28151007U	2.8	15	50	0.10	6	0.3	6.1
DLBSR28152007U	2.8	15	50	0.20	6	0.3	6.1
DLBSR28222007U	2.8	22	50	0.20	6	0.3	6.1
DLBSR28302007U	2.8	30	60	0.20	6	0.3	6.1

* For left hand tools specify DLBSL instead of DLBSR.

DLBSR Carbide Internal Boring Bars (22°)

鎢鋼內徑搪刀 (22°)

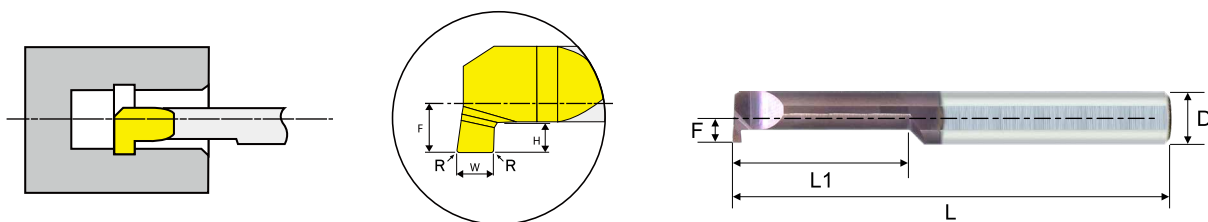


Order No.	F	L1	L	R	D	H	Min. Bore Dia.
DLBSR04030522U	0.4	3	50	0.05	4	0.2	1.0
DLBSR04050522U	0.4	5	50	0.05	4	0.2	1.0
DLBSR08060522U	0.8	6	50	0.05	4	0.4	2.0
DLBSR08100522U	0.8	10	50	0.05	4	0.4	2.0
DLBSR08140522U	0.8	14	50	0.05	4	0.4	2.0
DLBSR13091022U	1.3	9	50	0.10	4	0.6	3.0
DLBSR13151022U	1.3	15	50	0.10	4	0.6	3.0
DLBSR13211022U	1.3	21	50	0.10	4	0.6	3.0
DLBSR18121022U	1.8	12	50	0.10	4	0.8	4.0
DLBSR18201022U	1.8	20	50	0.10	4	0.8	4.0
DLBSR18281022U	1.8	28	60	0.10	4	0.8	4.0
DLBSR23152022U	2.3	15	50	0.20	6	1.0	5.0
DLBSR23252022U	2.3	25	50	0.20	6	1.0	5.0
DLBSR23302022U	2.3	30	60	0.20	6	1.0	5.0
DLBSR28182022U	2.8	18	50	0.20	6	1.2	6.0
DLBSR28302022U	2.8	30	60	0.20	6	1.2	6.0
DLBSR28422022U	2.8	42	65	0.20	6	1.2	6.0

* For left hand tools specify DLBSL instead of DLBSR.

DLGSR Carbide Internal Grooving Bars

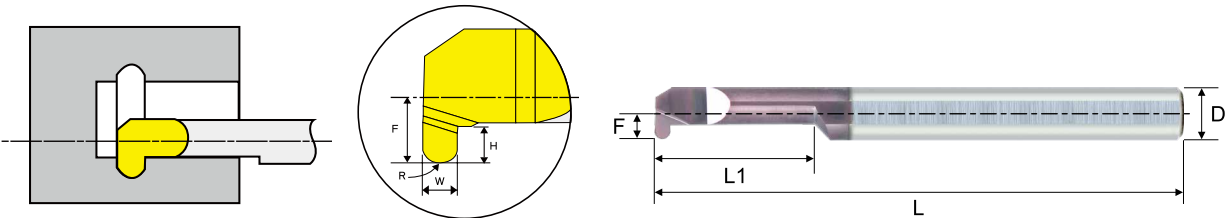
鎢鋼內徑開槽刀



Order No.	F	L1	L	W	R	D	H	Min. Bore Dia.
DLGSR17101010U	1.7	10	50	1.00	0.1	4	1.0	4.1
DLGSR17101510U	1.7	10	50	1.50	0.1	4	1.0	4.1
DLGSR23101012U	2.3	10	50	1.00	0.1	5	1.2	5.1
DLGSR23101512U	2.3	10	50	1.50	0.1	5	1.2	5.1
DLGSR23102012U	2.3	10	50	2.00	0.1	5	1.2	5.1
DLGSR28201014U	2.8	20	50	1.00	0.1	6	1.4	6.1
DLGSR28201514U	2.8	20	50	1.50	0.1	6	1.4	6.1
DLGSR28202014U	2.8	20	50	2.00	0.1	6	1.4	6.1
DLGSR38301022U	3.8	30	60	1.00	0.15	8	2.2	8.1
DLGSR38301522U	3.8	30	60	1.50	0.15	8	2.2	8.1
DLGSR38302022U	3.8	30	60	2.00	0.15	8	2.2	8.1

* For left hand tools specify DLGSL instead of DLGSR.

DLGBR Carbide Internal Grooving R Bars 鎢鋼內徑 R 開槽刀

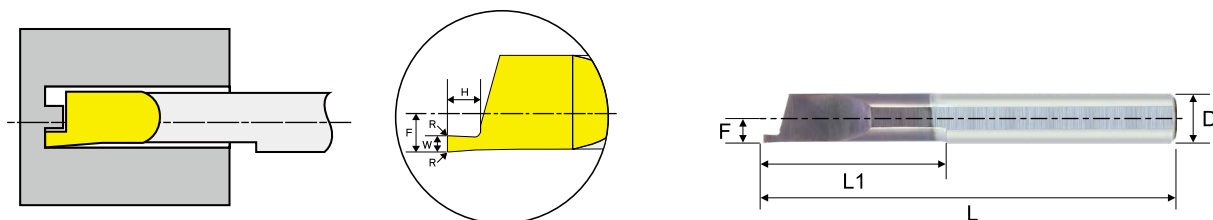


Order No.	F	L1	L	W	R	D	H	Min. Bore Dia.
DLGBR17101010U	1.7	10	50	1.00	0.50	4	1.0	4.1
DLGBR17101510U	1.7	10	50	1.50	0.75	4	1.0	4.1
DLGBR23151012U	2.3	15	50	1.00	0.50	5	1.2	5.1
DLGBR23151512U	2.3	15	50	1.50	0.75	5	1.2	5.1
DLGBR23152012U	2.3	15	50	2.00	1.00	5	1.2	5.1
DLGBR28151016U	2.8	15	50	1.00	0.50	6	1.6	6.1
DLGBR28151516U	2.8	15	50	1.50	0.75	6	1.6	6.1
DLGBR28152016U	2.8	15	50	2.00	1.00	6	1.6	6.1

* For left hand tools specify DLGBL instead of DLGBR.

DLFSR Carbide Internal Face Grooving Bars

迷你鎢鋼內徑端面開槽刀

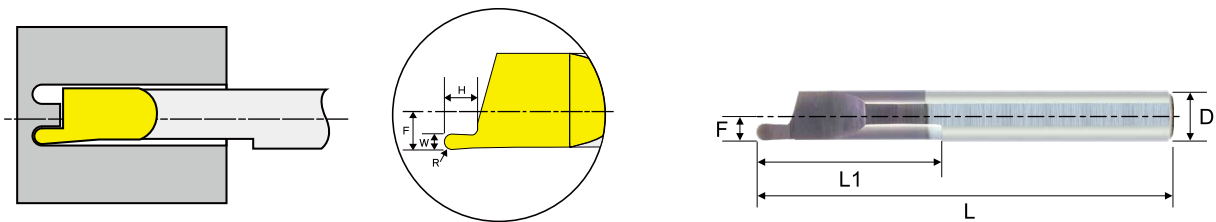


Order No.	F	L1	L	W	R	D	H	Min. Bore Dia.
DLFSR18150712U	1.8	15	50	0.75	0.1	4	1.2	4.0
DLFSR18151015U	1.8	15	50	1.00	0.1	4	1.5	4.0
DLFSR18151526U	1.8	15	50	1.50	0.1	4	2.6	4.0
DLFSR23220712U	2.3	22	50	0.75	0.1	6	1.2	5.0
DLFSR23221015U	2.3	22	50	1.00	0.1	6	1.5	5.0
DLFSR23221525U	2.3	22	50	1.50	0.1	6	2.5	5.0
DLFSR23222036U	2.3	22	50	2.00	0.1	6	3.6	5.0
DLFSR28221015U	2.8	22	50	1.00	0.1	6	1.5	6.0
DLFSR28221525U	2.8	22	50	1.50	0.1	6	2.5	6.0
DLFSR28222030U	2.8	22	50	2.00	0.1	6	3.0	6.0
DLFSR28222546U	2.8	22	50	2.50	0.1	6	4.6	6.0

* For left hand tools specify DLFSL instead of DLFSR.

DLFBR Carbide Internal Face R Grooving Bars

鎢鋼內徑端面 R 開槽刀

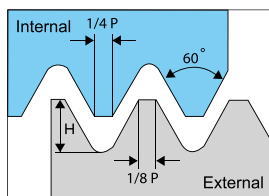


Order No.	F	L1	L	W	R	D	H	Min. Bore Dia.
DLFBR18150512U	1.8	15	50	1.0	0.50	4	1.2	4.0
DLFBR18150715U	1.8	15	50	1.5	0.75	4	1.5	4.0
DLFBR23220512U	2.3	22	50	1.0	0.50	6	1.2	5.0
DLFBR23220715U	2.3	22	50	1.5	0.75	6	1.5	5.0
DLFBR23221025U	2.3	22	50	2.0	1.00	6	2.5	5.0
DLFBR28220715U	2.8	22	50	1.5	0.75	6	1.5	6.0
DLFBR28221025U	2.8	22	50	2.0	1.00	6	2.5	6.0

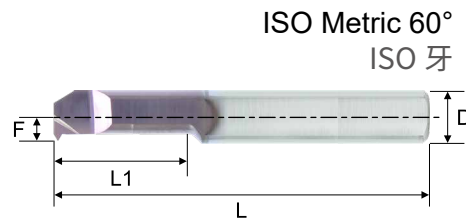
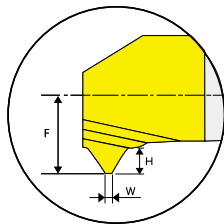
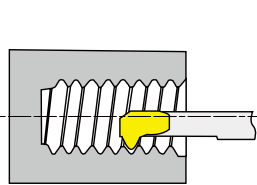
* For left hand tools specify DLFBL instead of DLFBR.

DLTSR Carbide Internal Thread

鎢鋼內徑螺紋搪刀



Tolerance class : 6H

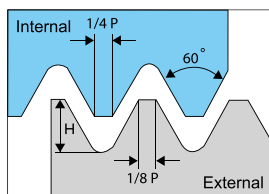


Order No.	F	Pitch	L1	W	L	D	H	Min. Bore Dia.
DLTSR05010360U	1.4	0.50	10	0.062	39	3	0.33	3.2
DLTSR07010360U	1.4	0.70	10	0.087	39	3	0.46	3.2
DLTSR07510360U	1.4	0.75	10	0.093	39	3	0.49	3.2
DLTSR05010460U	1.8	0.50	10	0.062	50	4	0.33	4.1
DLTSR07510460U	1.8	0.75	10	0.093	50	4	0.49	4.1
DLTSR08010460U	1.8	0.80	10	0.100	50	4	0.52	4.1
DLTSR10010560U	2.2	1.00	10	0.125	50	5	0.65	4.9
DLTSR05015660U	2.6	0.50	15	0.062	50	6	0.33	5.9
DLTSR07515660U	2.6	0.75	15	0.093	50	6	0.49	5.9
DLTSR10015660U	2.6	1.00	15	0.125	50	6	0.65	5.9
DLTSR12522660U	2.8	1.25	22	0.156	50	6	0.81	6.1

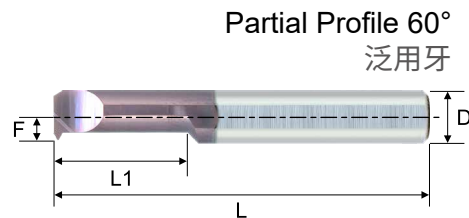
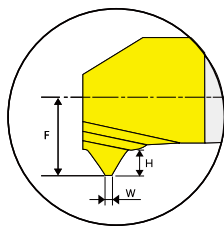
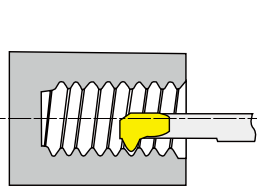
* For left hand tools specify DLTSL instead of DLTSR.

DLTMR Carbide Internal Thread

鎢鋼內徑螺紋搪刀



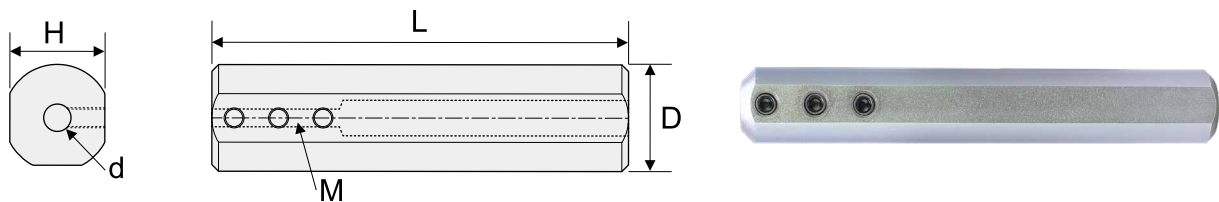
Tolerance class : 6H



Order No.	F	Pitch	L1	W	L	D	H	Min. Bore Dia.
DLTMR04508360U	1.0	0.45 ~ 0.70	8	0.056	50	3	0.5	2.6
DLTMR07015360U	1.4	0.70 ~ 1.00	15	0.087	50	3	0.7	3.2
DLTMR08015460U	1.8	0.80 ~ 1.00	15	0.100	50	4	0.7	4.1
DLTMR10015560U	2.3	1.00 ~ 1.25	15	0.125	50	5	0.8	5.1
DLTMR10015660U	2.6	1.00 ~ 1.50	15	0.125	50	6	1.0	6.0
DLTMR10018860U	3.6	1.00 ~ 1.75	18	0.125	60	8	1.4	8.0
DLTMR10018160U	4.6	1.00 ~ 2.00	18	0.125	75	10	1.8	10.0

* For left hand tools specify DLTML instead of DLTMR.

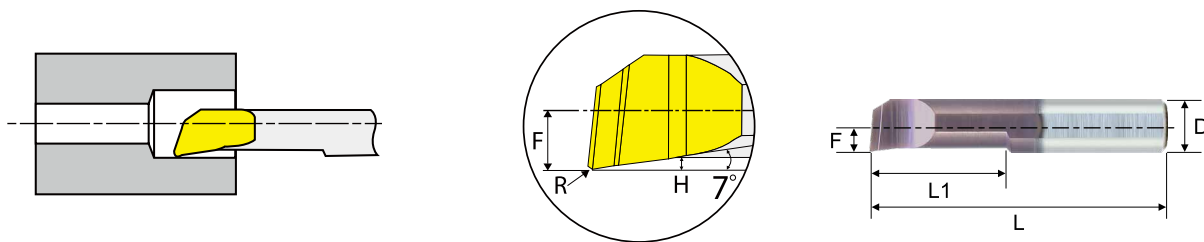
DLS Carbide Bars - Sleeves 鎢鋼內徑搪刀套筒



Order No.	d	D	L	H	M
DLS0316100	3	16	100	14	M4
DLS0416100	4	16	100	14	M4
DLS0516100	5	16	100	14	M4
DLS0616100	6	16	100	14	M5
DLS0816100	8	16	100	14	M5
DLS1016100	10	16	100	14	M5

DEBSR Carbide Modular Internal Boring Bars (7°)

模組化鎢鋼內徑搪刀 (7°)

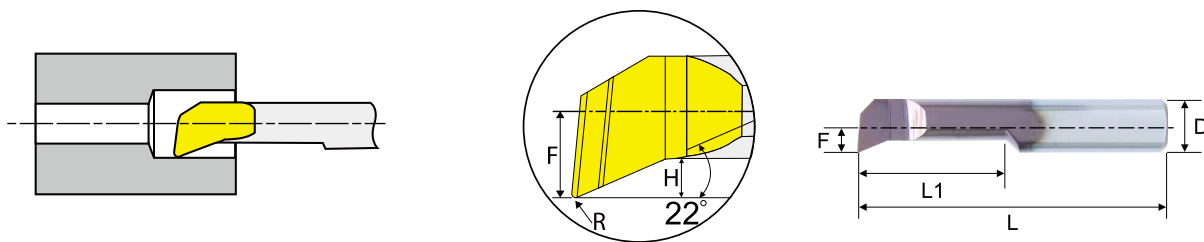


Order No.	F	L1	L (±0.05mm)	R	D	H	Min. Bore Dia.
DEBSR08051507U	0.8	5	21.5	0.15	3	0.1	2.4
DEBSR08101507U	0.8	10	26.5	0.15	3	0.1	2.4
DEBSR13100507U	1.3	10	26.5	0.05	3	0.2	3.1
DEBSR13150507U	1.3	15	31.5	0.05	3	0.2	3.1
DEBSR13151007U	1.3	15	31.5	0.10	3	0.2	3.1
DEBSR13102007U	1.3	10	26.5	0.20	3	0.2	3.1
DEBSR13152007U	1.3	15	31.5	0.20	3	0.2	3.1
DEBSR17101007U	1.7	10	26.5	0.10	4	0.2	4.1
DEBSR17151007U	1.7	15	31.5	0.10	4	0.2	4.1
DEBSR17221007U	1.7	22	38.5	0.10	4	0.2	4.1
DEBSR17102007U	1.7	10	26.5	0.20	4	0.2	4.1
DEBSR17152007U	1.7	15	31.5	0.20	4	0.2	4.1
DEBSR17222007U	1.7	22	38.5	0.20	4	0.2	4.1
DEBSR21151007U	2.1	15	31.5	0.10	5	0.3	5.1
DEBSR21221007U	2.1	22	38.5	0.10	5	0.3	5.1
DEBSR21301007U	2.1	30	46.5	0.10	5	0.3	5.1
DEBSR21152007U	2.1	15	31.5	0.20	5	0.3	5.1
DEBSR21222007U	2.1	22	38.5	0.20	5	0.3	5.1
DEBSR21302007U	2.1	30	46.5	0.20	5	0.3	5.1
DEBSR28150507U	2.8	15	31.5	0.05	6	0.3	6.1
DEBSR28151007U	2.8	15	31.5	0.10	6	0.3	6.1
DEBSR28152007U	2.8	15	31.5	0.20	6	0.3	6.1
DEBSR28222007U	2.8	22	38.5	0.20	6	0.3	6.1
DEBSR28302007U	2.8	30	46.5	0.20	6	0.3	6.1

* For left hand tools specify DEBSL instead of DEBSR.

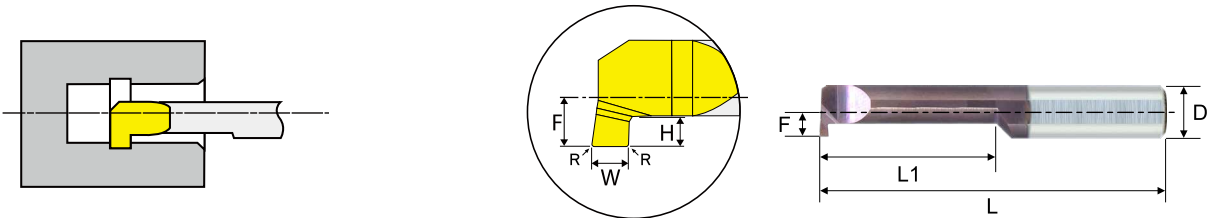
DEBSR Carbide Modular Internal Boring Bars (22°)

模組化鎢鋼內徑搪刀 (22°)



Order No.	F	L1	L (±0.05mm)	R	D	H	Min. Bore Dia.
DEBSR04030522U	0.4	3	19.5	0.05	4	0.2	1.0
DEBSR04050522U	0.4	5	21.5	0.05	4	0.2	1.0
DEBSR08060522U	0.8	6	22.5	0.05	4	0.4	2.0
DEBSR08100522U	0.8	10	26.5	0.05	4	0.4	2.0
DEBSR08140522U	0.8	14	30.5	0.05	4	0.4	2.0
DEBSR13091022U	1.3	9	25.5	0.10	4	0.6	3.0
DEBSR13151022U	1.3	15	31.5	0.10	4	0.6	3.0
DEBSR13211022U	1.3	21	37.5	0.10	4	0.6	3.0
DEBSR18121022U	1.8	12	28.5	0.10	4	0.8	4.0
DEBSR18201022U	1.8	20	36.5	0.10	4	0.8	4.0
DEBSR18281022U	1.8	28	44.5	0.10	4	0.8	4.0
DEBSR23152022U	2.3	15	31.5	0.20	6	1.0	5.0
DEBSR23252022U	2.3	25	41.5	0.20	6	1.0	5.0
DEBSR23302022U	2.3	30	46.5	0.20	6	1.0	5.0
DEBSR28182022U	2.8	18	34.5	0.20	6	1.2	6.0
DEBSR28302022U	2.8	30	46.5	0.20	6	1.2	6.0
DEBSR28422022U	2.8	42	58.5	0.20	6	1.2	6.0

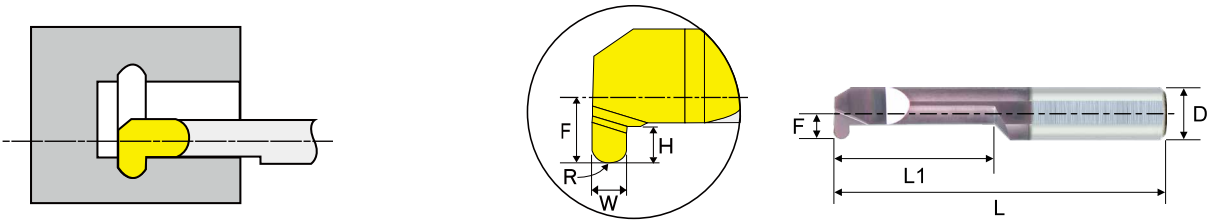
* For left hand tools specify DEBSL instead of DEBSR.



Order No.	F	L1	L (±0.05mm)	W	R	D	H	Min. Bore Dia.
DEGSR17101010U	1.7	10	26.5	1.00	0.1	4	1.0	4.1
DEGSR17101510U	1.7	10	26.5	1.50	0.1	4	1.0	4.1
DEGSR23101012U	2.3	10	26.5	1.00	0.1	5	1.2	5.1
DEGSR23101512U	2.3	10	26.5	1.50	0.1	5	1.2	5.1
DEGSR23102012U	2.3	10	26.5	2.00	0.1	5	1.2	5.1
DEGSR28201014U	2.8	20	36.5	1.00	0.1	6	1.4	6.1
DEGSR28201514U	2.8	20	36.5	1.50	0.1	6	1.4	6.1
DEGSR28202014U	2.8	20	36.5	2.00	0.1	6	1.4	6.1

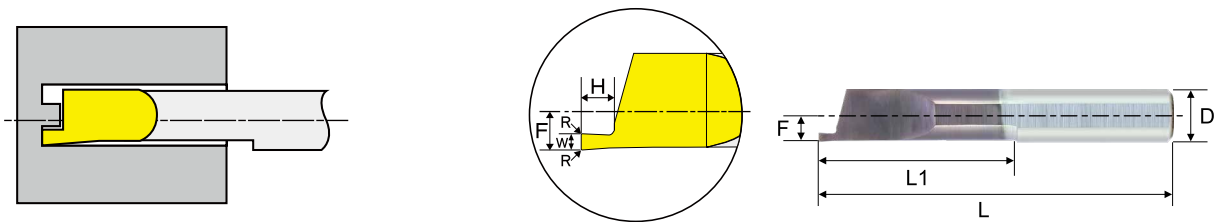
* For left hand tools specify DEGSL instead of DEGSR.

DEGBR Carbide Modular Internal Grooving R Bars 模組化鎢鋼內徑 R 開槽刀



Order No.	F	L1	L (±0.05mm)	W	R	D	H	Min. Bore Dia.
DEGBR17101010U	1.7	10	26.5	1.00	0.50	4	1.0	4.1
DEGBR17101510U	1.7	10	26.5	1.50	0.75	4	1.0	4.1
DEGBR23151012U	2.3	15	31.5	1.00	0.50	5	1.2	5.1
DEGBR23151512U	2.3	15	31.5	1.50	0.75	5	1.2	5.1
DEGBR23152012U	2.3	15	31.5	2.00	1.00	5	1.2	5.1
DEGBR28151016U	2.8	15	31.5	1.00	0.50	6	1.6	6.1
DEGBR28151516U	2.8	15	31.5	1.50	0.75	6	1.6	6.1
DEGBR28152016U	2.8	15	31.5	2.00	1.00	6	1.6	6.1

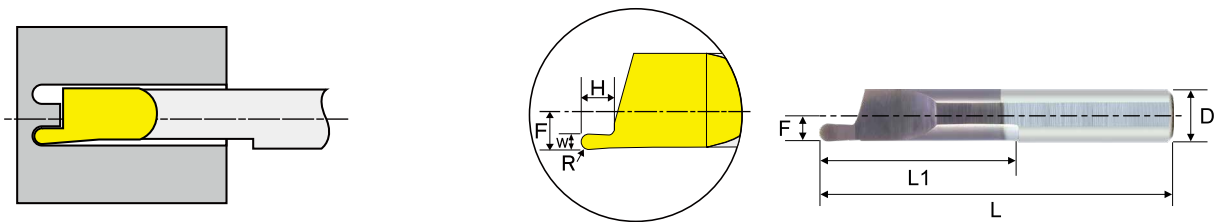
* For left hand tools specify DEGBL instead of DEGBR.



Order No.	F	L1	L (±0.05mm)	W	R	D	H	Min. Bore Dia.
DEFSR18150712U	1.8	15	31.5	0.75	0.1	4	1.2	4
DEFSR18151015U	1.8	15	31.5	1.00	0.1	4	1.5	4
DEFSR18151526U	1.8	15	31.5	1.50	0.1	4	2.6	4
DEFSR23220712U	2.3	22	38.5	0.75	0.1	6	1.2	5
DEFSR23221015U	2.3	22	38.5	1.00	0.1	6	1.5	5
DEFSR23221525U	2.3	22	38.5	1.50	0.1	6	2.5	5
DEFSR23222036U	2.3	22	38.5	2.00	0.1	6	3.6	5
DEFSR28221015U	2.8	22	38.5	1.00	0.1	6	1.5	6
DEFSR28221525U	2.8	22	38.5	1.50	0.1	6	2.5	6
DEFSR28222030U	2.8	22	38.5	2.00	0.1	6	3.0	6
DEFSR28222546U	2.8	22	38.5	2.50	0.1	6	4.6	6

* For left hand tools specify DEFSL instead of DEFSR.

DEFBR Carbide Modular Internal Face R Grooving Bars 模組化鎢鋼內徑端面 R 開槽刀

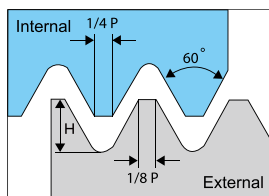


Order No.	F	L1	L (±0.05mm)	W	R	D	H	Min. Bore Dia.
DEFBR18150512U	1.8	15	31.5	1.0	0.50	4	1.2	4
DEFBR18150715U	1.8	15	31.5	1.5	0.75	4	1.5	4
DEFBR23220512U	2.3	22	38.5	1.0	0.50	6	1.2	5
DEFBR23220715U	2.3	22	38.5	1.5	0.75	6	1.5	5
DEFBR23221025U	2.3	22	38.5	2.0	1.00	6	2.5	5
DEFBR28220715U	2.8	22	38.5	1.5	0.75	6	1.5	6
DEFBR28221025U	2.8	22	38.5	2.0	1.00	6	2.5	6

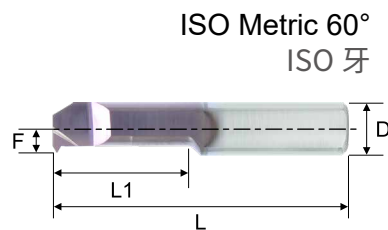
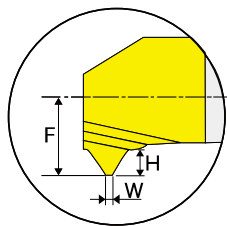
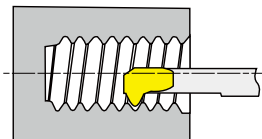
* For left hand tools specify DEFBL instead of DEFBR.

DETSR Carbide Modular Internal Thread

模組化鎢鋼內徑螺紋搪刀



Tolerance class : 6H

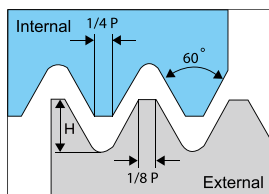


Order No.	F	Pitch	L1	W	L (±0.05mm)	D	H	Min. Bore Dia.
DETSR05010360U	1.4	0.50	10	0.062	26.5	3	0.33	3.2
DETSR07010360U	1.4	0.70	10	0.087	26.5	3	0.46	3.2
DETSR07510360U	1.4	0.75	10	0.093	26.5	3	0.49	3.2
DETSR05010460U	1.8	0.50	10	0.062	26.5	4	0.33	4.1
DETSR07510460U	1.8	0.75	10	0.093	26.5	4	0.49	4.1
DETSR08010460U	1.8	0.80	10	0.100	26.5	4	0.52	4.1
DETSR10010560U	2.2	1.00	10	0.125	26.5	5	0.65	4.9
DETSR05015660U	2.6	0.50	15	0.062	31.5	6	0.33	5.9
DETSR07515660U	2.6	0.75	15	0.093	31.5	6	0.49	5.9
DETSR10015660U	2.6	1.00	15	0.125	31.5	6	0.65	5.9
DETSR12522660U	2.8	1.25	22	0.156	38.5	6	0.81	6.1

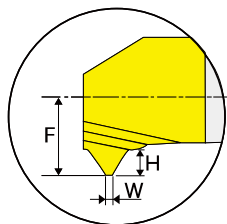
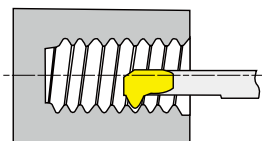
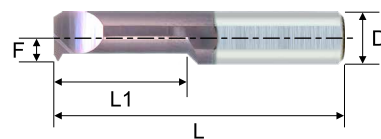
* For left hand tools specify DETSL instead of DETSR.

DETMR Carbide Modular Internal Thread

模組化鎢鋼內徑螺紋搪刀



Tolerance class : 6H

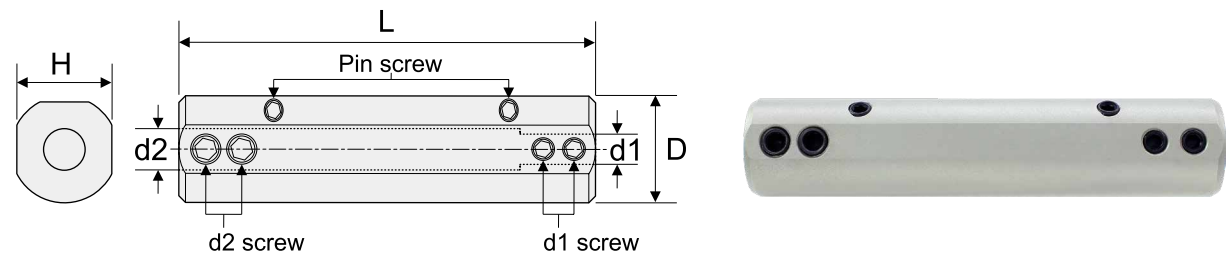

Partial Profile 60°
泛用牙


Order No.	F	Pitch	L1	W	L (±0.05mm)	D	H	Min. Bore Dia.
DETMR04508360U	1.0	0.45 ~ 0.70	8	0.056	24.5	3	0.5	2.6
DETMR07015360U	1.4	0.70 ~ 1.00	15	0.087	31.5	3	0.7	3.2
DETMR08015460U	1.8	0.80 ~ 1.00	15	0.100	31.5	4	0.7	4.1
DETMR10015560U	2.3	1.00 ~ 1.25	15	0.125	31.5	5	0.8	5.1
DETMR10015660U	2.6	1.00 ~ 1.50	15	0.125	31.5	6	1.0	6.0

* For left hand tools specify DETML instead of DETMR.

DES Carbide Modular Bars - Double Sizes Sleeves

模組化鎢鋼內徑搪刀雙柄套筒



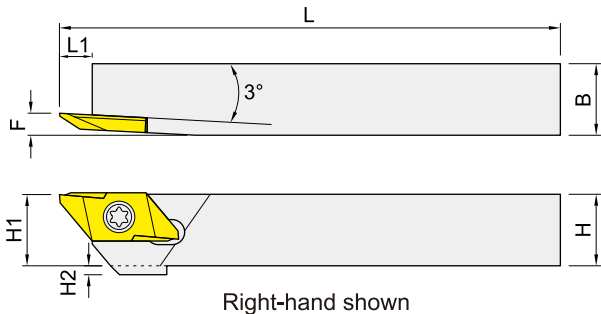
Order No.	D	d1	d2	L	H	Spare parts
DES1635075	16	3	5	75	15	①
DES1646075	16	4	6	75	15	②

Spare parts	d1		d2		Pin	
	Screw 	Wrench 	Screw 	Wrench 	Screw 	Wrench 
①	ITHM405	IPL20	ITHM405	IPL20	ITTS412	IPL20
②	ITHM405	IPL20	ITHM505	IPL25	ITTS412	IPL20

Back Turning - BTAH

後掃車削

Tool Holder Specifications 刀桿規格



Order No.	Item Specification	Dimensions (mm)						Insert	Screw 	Wrench 
		H(H1)	B	L	L1	F	H2			
IBTAHR1010K	BTAHR-1010K-50	10	10	125	5.5	3.5	2	BTAT	IMS4009A	ITK15
IBTAHL1010K	BTAHL-1010K-50	10	10	125	5.5	3.5	2			
IBTAHR1212K	BTAHR-1212K-50	12	12	125	5.5	3.5	-			
IBTAHL1212K	BTAHL-1212K-50	12	12	125	5.5	3.5	-			
IBTAHR1616K	BTAHR-1616K-50	16	16	125	5.5	3.5	-			
IBTAHL1616K	BTAHL-1616K-50	16	16	125	5.5	3.5	-			

Recommended Cutting Conditions 建議切削數據

Working Material	Vc (m/min)	fr (mm/rev)
Carbon Steel / Alloy Steel	30 ~ 180	0.01 ~ 0.15
Stainless Steel	50 ~ 120	0.02 ~ 0.10
Cast Iron	30 ~ 180	0.01 ~ 0.15
Aluminum Alloy	70 ~ 230	0.03 ~ 0.15

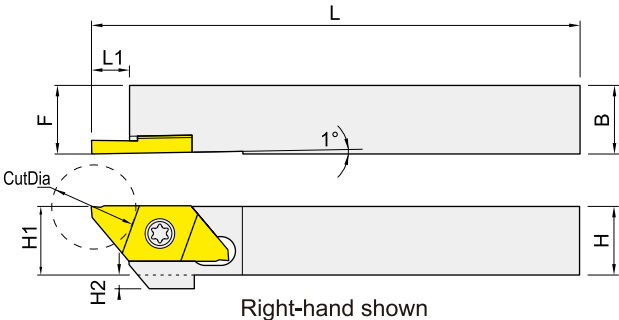
Insert Specifications 刀片規格

Inserts		Designation	Grade No.					Dimensions (mm)				Drawing
			CP6025					K	R	L	W	
 Back turning 後掃加工 Right hand shown Left hand		BTAT552800R-B	✓					55°	0	2.8	0.5	Right hand insert shown
		BTAT552801R-B	✓					55°	0.1	2.8	0.5	
		BTAT603500R-B	✓					60°	0	3.5	0.5	
		BTAT603501R-B	✓					60°	0.1	3.5	0.5	
		BTAT552800L-B	✓					55°	0	2.8	0.5	
		BTAT552801L-B	✓					55°	0.1	2.8	0.5	
		BTAT603500L-B	✓					60°	0	3.5	0.5	
		BTAT603501L-B	✓					60°	0.1	3.5	0.5	

Grooving or Parting - CTAH

切槽或切斷

Tool Holder Specifications 刀桿規格



Right-hand shown

Order No.	Item Specification	Dimensions (mm)						Insert	CutDia (mm)	Screw 	Wrench 
		H(H1)	B	L	L1	F	H2				
ICTAHR1010K	CTAHR-1010K-120	10	10	125	5.5	10	2	CTAT	12	IMS4009A	ITK15
ICTAHR1212K	CTAHR-1212K-120	12	12	125	5.5	12	-			IMS4011A	
ICTAHR1616K	CTAHR-1616K-120	16	16	125	5.5	16	-				
ICTAHL1616K	CTAHL-1616K-120	16	16	125	5.5	16	-				
ICTAHR2020K	CTAHR-2020K-120	20	20	125	5.5	20	-				
ICTAHL2020K	CTAHL-2020K-120	20	20	125	5.5	20	-				

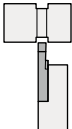
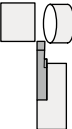
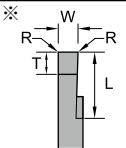
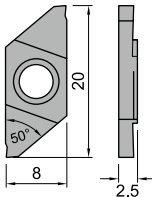
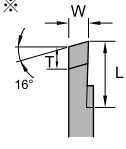
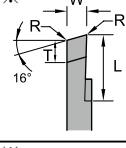
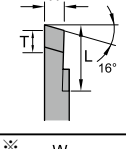
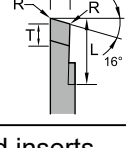
Recommended Cutting Conditions 建議切削數據

Working Material	Vc (m/min)	fr (mm/rev)
Carbon Steel / Alloy Steel	30 ~ 180	0.01 ~ 0.09
Stainless Steel	50 ~ 120	0.02 ~ 0.05
Cast Iron	30 ~ 180	0.01 ~ 0.09
Aluminum Alloy	70 ~ 230	0.03 ~ 0.11

Grooving or Parting - CTAH

切槽或切斷

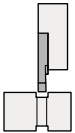
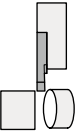
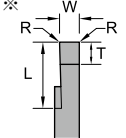
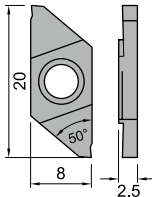
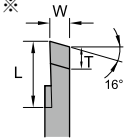
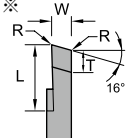
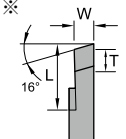
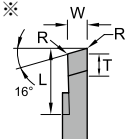
Insert Specifications 刀片規格

Inserts	Designation	Grade No.					Dimensions (mm)				Drawing
		CP6025					W	R	L	T	
 Grooving 切槽加工  Parting off 切斷加工 Right hand shown	※ 	CTAT101205RN	✓				1.0	0.05	6.7	1.5	 Right hand insert shown
		CTAT151205RN	✓				1.5	0.05	6.7	1.5	
		CTAT201205RN	✓				2.0	0.05	6.7	1.5	
	※ 	CTAT101200RR	✓				1.0	-	6.7	1.5	
		CTAT151200RR	✓				1.5	-	6.7	1.5	
		CTAT201200RR	✓				2.0	-	6.7	1.5	
	※ 	CTAT101205RR	✓				1.0	0.05	6.7	1.5	
		CTAT151205RR	✓				1.5	0.05	6.7	1.5	
		CTAT201205RR	✓				2.0	0.05	6.7	1.5	
	※ 	CTAT101200RL	✓				1.0	-	6.7	1.5	
		CTAT151200RL	✓				1.5	-	6.7	1.5	
		CTAT201200RL	✓				2.0	-	6.7	1.5	
	※ 	CTAT101205RL	✓				1.0	0.05	6.7	1.5	
		CTAT151205RL	✓				1.5	0.05	6.7	1.5	
		CTAT201205RL	✓				2.0	0.05	6.7	1.5	

※ Right hand inserts

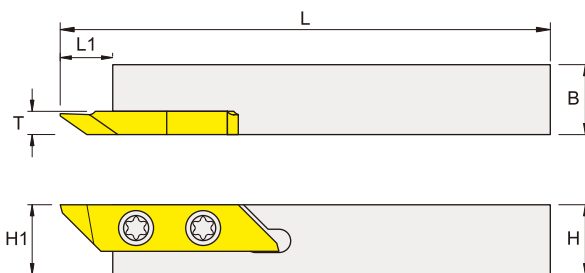
Grooving or Parting - CTAH 切槽或切斷

Insert Specifications 刀片規格

Inserts		Designation	Grade No.					Dimensions (mm)				Drawing
			CP6025					W	R	L	T	
 Grooving 切槽加工  Parting off 切斷加工 Left hand shown	※ 	CTAT101205LN	✓					1.0	0.05	6.7	1.5	 Left hand insert shown
		CTAT151205LN	✓					1.5	0.05	6.7	1.5	
		CTAT201205LN	✓					2.0	0.05	6.7	1.5	
	※ 	CTAT101200LL	✓					1.0	-	6.7	1.5	
		CTAT151200LL	✓					1.5	-	6.7	1.5	
		CTAT201200LL	✓					2.0	-	6.7	1.5	
	※ 	CTAT101205LL	✓					1.0	0.05	6.7	1.5	
		CTAT151205LL	✓					1.5	0.05	6.7	1.5	
		CTAT201205LL	✓					2.0	0.05	6.7	1.5	
	※ 	CTAT101200LR	✓					1.0	-	6.7	1.5	
		CTAT151200LR	✓					1.5	-	6.7	1.5	
		CTAT201200LR	✓					2.0	-	6.7	1.5	
	※ 	CTAT101205LR	✓					1.0	0.05	6.7	1.5	
		CTAT151205LR	✓					1.5	0.05	6.7	1.5	
		CTAT201205LR	✓					2.0	0.05	6.7	1.5	

※Left hand inserts

Tool Holder Specifications 刀桿規格



Right-hand shown

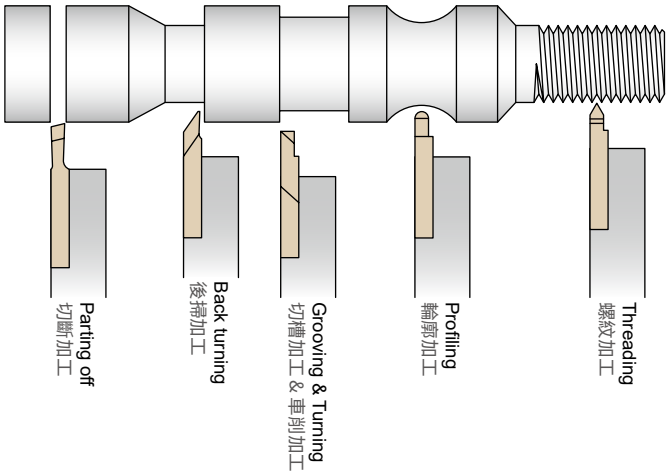
Order No.	Item Specification	Dimensions (mm)					Insert	Screw 	Wrench 
		H(H1)	B	L	L1	T			
ISAKGR1010K	SAKGR-1010K-374	10	10	125	9	4	SAK...	IMS3509A	ITK15
ISAKGL1010K	SAKGL-1010K-374	10	10	125	9	4			
ISAKGR1212K	SAKGR-1212K-374	12	12	125	9	4			
ISAKGL1212K	SAKGL-1212K-374	12	12	125	9	4			
ISAKGR1212M	SAKGR-1212M-374	12	12	150	9	4			
ISAKGL1212M	SAKGL-1212M-374	12	12	150	9	4			
ISAKGR1616M	SAKGR-1616M-374	16	16	150	9	4			
ISAKGL1616M	SAKGL-1616M-374	16	16	150	9	4			
ISAKGR2020K	SAKGR-2020K-374	20	20	125	9	4			
ISAKGL2020K	SAKGL-2020K-374	20	20	125	9	4			
ISAKGR2525M	SAKGR-2525M-374	25	25	150	9	4			
ISAKGL2525M	SAKGL-2525M-374	25	25	150	9	4			

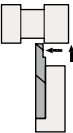
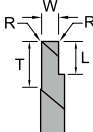
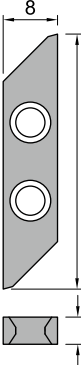
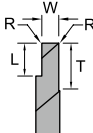
Recommended Cutting Conditions 建議切削數據

For Grooving & turning, Back turning and Parting off

Working Material	Vc (m/min)	fr (mm/rev)
Carbon Steel / Alloy Steel	50 ~ 200	0.02 ~ 0.10
Stainless Steel	50 ~ 200	0.02 ~ 0.10
Cast Iron	50 ~ 200	0.02 ~ 0.10
Aluminum Alloy	200 ~ 300	0.05 ~ 0.15
Super Alloy	80 ~ 120	0.03 ~ 0.07
Hardened Steel	80 ~ 120	0.03 ~ 0.07

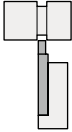
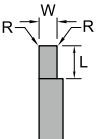
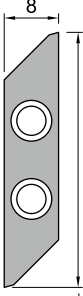
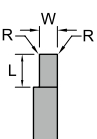
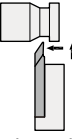
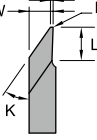
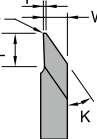
Insert Specifications 刀片規格



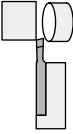
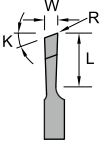
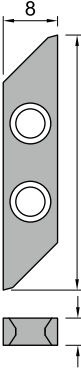
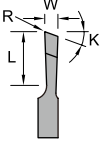
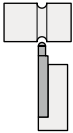
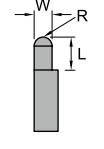
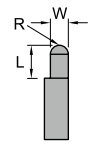
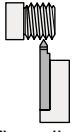
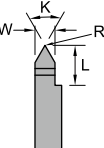
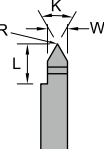
Inserts		Designation	Grade No.					Dimensions (mm)					Drawing
			CP6025					W	R	L	K	T	
 Grooving / Turning 切槽加工 / 車削加工	 Right hand	SAKNR10012	✓					1.0	0.1	2	-	8	 Right hand insert shown
		SAKNR10022	✓					1.0	0.2	2	-	8	
		SAKNR15013	✓					1.5	0.1	3	-	8	
		SAKNR15023	✓					1.5	0.2	3	-	8	
		SAKNR20014	✓					2.0	0.1	4	-	8	
		SAKNR20024	✓					2.0	0.2	4	-	8	
		SAKNR25015	✓					2.5	0.1	5	-	8	
		SAKNR25025	✓					2.5	0.2	5	-	8	
		SAKNR30016	✓					3.0	0.1	6	-	8	
		SAKNR30026	✓					3.0	0.2	6	-	8	
	 Left hand	SAKNL10012	✓					1.0	0.1	2	-	8	
		SAKNL10022	✓					1.0	0.2	2	-	8	
		SAKNL15013	✓					1.5	0.1	3	-	8	
		SAKNL15023	✓					1.5	0.2	3	-	8	
		SAKNL20014	✓					2.0	0.1	4	-	8	
		SAKNL20024	✓					2.0	0.2	4	-	8	
		SAKNL25015	✓					2.5	0.1	5	-	8	
		SAKNL25025	✓					2.5	0.2	5	-	8	
		SAKNL30016	✓					3.0	0.1	6	-	8	
		SAKNL30026	✓					3.0	0.2	6	-	8	

Turning

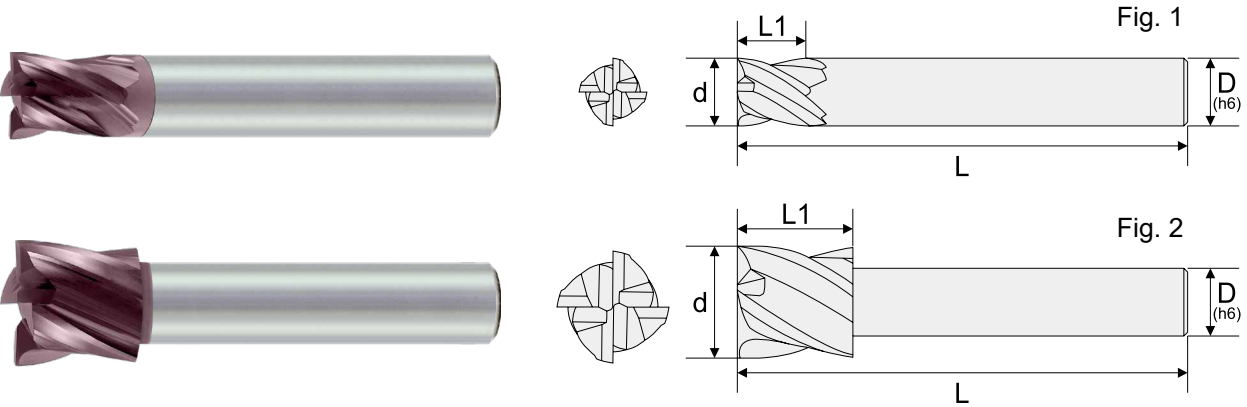
Insert Specifications 刀片規格

Inserts		Designation	Grade No.					Dimensions (mm)					Drawing
			CP6025					W	R	L	K	T	
 Grooving 切槽加工	 Right hand	SAKGR10012	✓					1.0	0.1	2.0	-	-	 37.5  4 Right hand insert shown
		SAKGR15013	✓					1.5	0.1	3.0	-	-	
		SAKGR15023	✓					1.5	0.2	3.0	-	-	
		SAKGR20014	✓					2.0	0.1	4.0	-	-	
		SAKGR20024	✓					2.0	0.2	4.0	-	-	
		SAKGR25015	✓					2.5	0.1	5.0	-	-	
		SAKGR25025	✓					2.5	0.2	5.0	-	-	
		SAKGR30016	✓					3.0	0.1	6.0	-	-	
		SAKGR30026	✓					3.0	0.2	6.0	-	-	
	 Left hand	SAKGL10012	✓					1.0	0.1	2.0	-	-	
		SAKGL15013	✓					1.5	0.1	3.0	-	-	
		SAKGL15023	✓					1.5	0.2	3.0	-	-	
		SAKGL20014	✓					2.0	0.1	4.0	-	-	
		SAKGL20024	✓					2.0	0.2	4.0	-	-	
		SAKGL25015	✓					2.5	0.1	5.0	-	-	
		SAKGL25025	✓					2.5	0.2	5.0	-	-	
		SAKGL30016	✓					3.0	0.1	6.0	-	-	
		SAKGL30026	✓					3.0	0.2	6.0	-	-	
 Back turning 後掃加工	 Right hand	SAKBR20005	✓					2.0	-	5.0	35°	0.5	Right hand insert shown
		SAKBR20015	✓					2.0	0.1	5.0	35°	0.5	
		SAKBR20025	✓					2.0	0.2	5.0	35°	0.5	
		SAKBR30015	✓					3.0	0.1	5.0	35°	0.75	
		SAKBR30025	✓					3.0	0.2	5.0	35°	0.75	
	 Left hand	SAKBL20005	✓					2.0	-	5.0	35°	0.5	
		SAKBL20015	✓					2.0	0.1	5.0	35°	0.5	
		SAKBL20025	✓					2.0	0.2	5.0	35°	0.5	
		SAKBL30015	✓					3.0	0.1	5.0	35°	0.75	
		SAKBL30025	✓					3.0	0.2	5.0	35°	0.75	

Insert Specifications 刀片規格

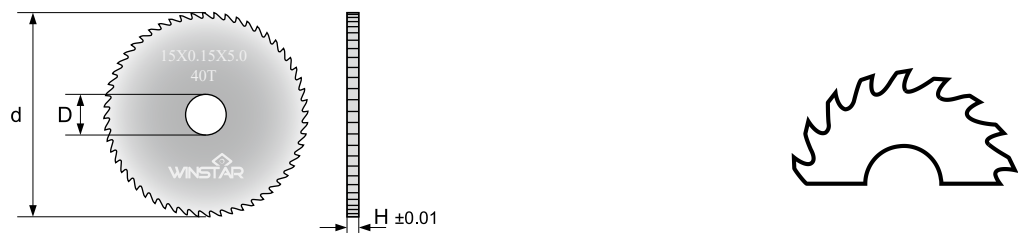
Inserts		Designation	Grade No.					Dimensions (mm)					Drawing
			CP6025					W	R	L	K	Pitch	
 Parting off 切斷加工	 Right hand	SAKCR15018	✓					1.5	0.1	8.5	15°	-	 Right hand insert shown
		SAKCR20019	✓					2.0	0.1	9.0	15°	-	
		SAKCR25019	✓					2.5	0.1	9.0	15°	-	
		SAKCR30019	✓					3.0	0.1	9.0	15°	-	
	 Left hand	SAKCL15018	✓					1.5	0.1	8.5	15°	-	
		SAKCL20019	✓					2.0	0.1	9.0	15°	-	
		SAKCL25019	✓					2.5	0.1	9.0	15°	-	
		SAKCL30019	✓					3.0	0.1	9.0	15°	-	
 Profiling 輪廓加工	 Right hand	SAKPR10053	✓					1.0	0.5	3.0	-	-	
		SAKPR15075	✓					1.5	0.75	5.0	-	-	
		SAKPR20105	✓					2.0	1.0	5.0	-	-	
		SAKPR25125	✓					2.5	1.25	5.0	-	-	
		SAKPR30158	✓					3.0	1.5	8.0	-	-	
	 Left hand	SAKPL10053	✓					1.0	0.5	3.0	-	-	
		SAKPL15075	✓					1.5	0.75	5.0	-	-	
		SAKPL20105	✓					2.0	1.0	5.0	-	-	
		SAKPL25125	✓					2.5	1.25	5.0	-	-	
		SAKPL30158	✓					3.0	1.5	8.0	-	-	
 Threading 螺紋加工	 Right hand	SAKTR20655	✓					2.0	0.05	6.0	55°	0.5~2	
		SAKTR30655	✓					3.0	0.1	6.0	55°	1~3	
		SAKTR20660	✓					2.0	0.05	6.0	60°	0.5~2	
		SAKTR30660	✓					3.0	0.1	6.0	60°	1~3	
	 Left hand	SAKTL20655	✓					2.0	0.05	6.0	55°	0.5~2	
		SAKTL30655	✓					3.0	0.1	6.0	55°	1~3	
		SAKTL20660	✓					2.0	0.05	6.0	60°	0.5~2	
		SAKTL30660	✓					3.0	0.1	6.0	60°	1~3	

ETU Series - Carbide Endmills (Short Total Length) 全鎢鋼銑刀 (短全長)



Order No.	Dia (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)	Coating	Fig
ETSSC401000U	1.0	1.0	40	6	4	UNICO	1
ETSSC401500U	1.5	1.5	40	6	4	UNICO	1
ETSSC402000U	2.0	2.0	40	6	4	UNICO	1
ETSSC402500U	2.5	2.5	40	6	4	UNICO	1
ETSSC403000U	3.0	3.0	40	6	4	UNICO	1
ETSSC404000U	4.0	4.0	40	6	4	UNICO	2
ETSSC405000U	5.0	5.0	40	6	4	UNICO	2
ETSSC406000U	6.0	6.0	40	6	4	UNICO	2
ETSSC408000U	8.0	8.0	40	6	4	UNICO	2
ETSSC410000U	10.0	10.0	40	6	4	UNICO	2
ETSSC412000U	12.0	10.0	40	6	4	UNICO	2

ETWSF Carbide Slitting Saws 全鋤鋼小徑鋸片

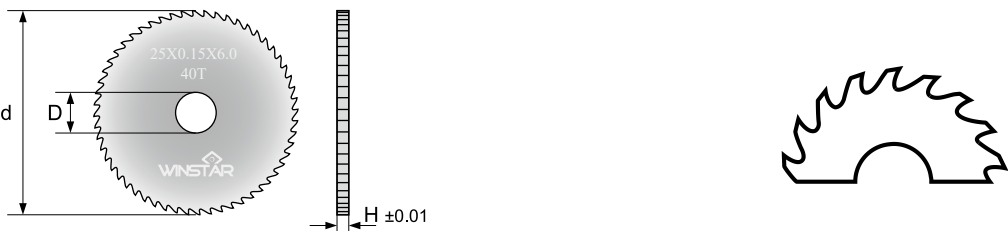


Order No.	d	H	D	T
ETWSF04015015	15	0.15	5	40
ETWSF04015020	15	0.20	5	40
ETWSF04015025	15	0.25	5	40
ETWSF04015030	15	0.30	5	40
ETWSF04015040	15	0.40	5	40
ETWSF04015050	15	0.50	5	40
ETWSF04015060	15	0.60	5	40
ETWSF04015070	15	0.70	5	40
ETWSF04015080	15	0.80	5	40
ETWSF04015090	15	0.90	5	40
ETWSF04015100	15	1.00	5	40
ETWSF05020015	20	0.15	5	56
ETWSF05020020	20	0.20	5	56
ETWSF05020025	20	0.25	5	56
ETWSF05020030	20	0.30	5	56
ETWSF05020040	20	0.40	5	56
ETWSF05020050	20	0.50	5	56
ETWSF05020060	20	0.60	5	56
ETWSF05020070	20	0.70	5	56
ETWSF05020080	20	0.80	5	56
ETWSF05020090	20	0.90	5	56
ETWSF05020100	20	1.00	5	56
ETWSF05020120	20	1.20	5	56
ETWSF05020150	20	1.50	5	56

* Other diameters make to order.

Turning

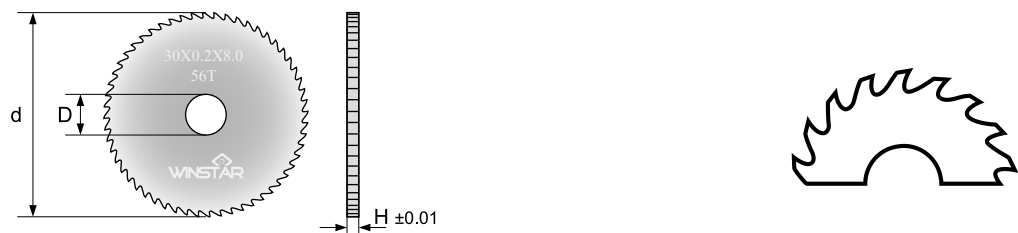
ETWSF Carbide Slitting Saws 全鎢鋼小徑鋸片



Order No.	d	H	D	T
ETWSF04025015	25	0.15	6	40
ETWSF04025020	25	0.20	6	40
ETWSF04025025	25	0.25	6	40
ETWSF04025030	25	0.30	6	40
ETWSF04025040	25	0.40	6	40
ETWSF04025050	25	0.50	6	40
ETWSF04025060	25	0.60	6	40
ETWSF04025070	25	0.70	6	40
ETWSF04025080	25	0.80	6	40
ETWSF04025090	25	0.90	6	40
ETWSF04025100	25	1.00	6	40
ETWSF04025120	25	1.20	6	40
ETWSF04025150	25	1.50	6	40
ETWSF07025015	25	0.15	6	72
ETWSF07025020	25	0.20	6	72
ETWSF07025025	25	0.25	6	72
ETWSF07025030	25	0.30	6	72
ETWSF07025040	25	0.40	6	72
ETWSF07025050	25	0.50	6	72
ETWSF07025060	25	0.60	6	72
ETWSF07025070	25	0.70	6	72
ETWSF07025080	25	0.80	6	72
ETWSF07025090	25	0.90	6	72
ETWSF07025100	25	1.00	6	72
ETWSF07025120	25	1.20	6	72
ETWSF07025150	25	1.50	6	72

* Other diameters make to order.

ETWLF Carbide Slitting Saws 全鎢鋼小徑鋸片

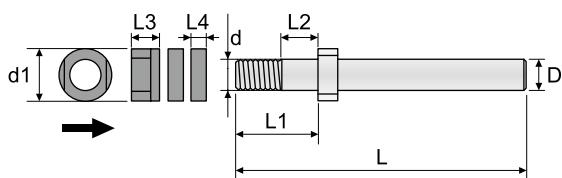


Order No.	d	H	D	T
ETWLF05030020	30	0.20	8	56
ETWLF05030025	30	0.25	8	56
ETWLF05030030	30	0.30	8	56
ETWLF05030040	30	0.40	8	56
ETWLF05030050	30	0.50	8	56
ETWLF05030060	30	0.60	8	56
ETWLF05030070	30	0.70	8	56
ETWLF05030080	30	0.80	8	56
ETWLF05030090	30	0.90	8	56
ETWLF05030100	30	1.00	8	56
ETWLF05030110	30	1.10	8	56
ETWLF05030120	30	1.20	8	56
ETWLF05030150	30	1.50	8	56
ETWLF05030200	30	2.00	8	56

* Other diameters make to order.

ETWSA Carbide Slitting Saws - Arbors

全鎢鋼小徑鋸片 - 鋸片柄



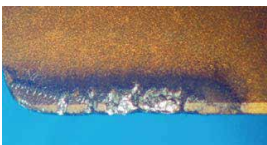
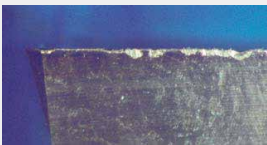
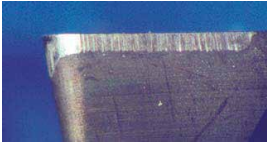
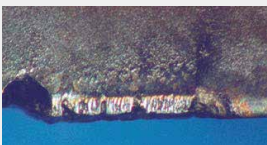
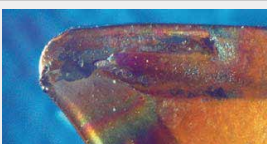
Order No.	d	D	d1	L1	L2	L	L3	L4
ETWSA050065	5	6	10	12	5.2	50	5	3.0
ETWSA050076	5	7	13	16	7.5	60	8.8	4.0
ETWSA060065	6	6	10	12	5.2	50	5.1	3.2
ETWSA060076	6	7	13	16	7.5	60	8.8	4.0
ETWSA060106	6	10	16	11	5.2	60	5.5	1.5 / 3.0
ETWSA060109	6	10	13	16	7.5	90	8.2	4.2
ETWSA080106	8	10	13	16	7.5	60	7.5	4.2

Recommended Cutting Conditions 建議切削數據

Working Material	Carbon Steel (S35C, S45C, S50C)		Alloy Steel (SCM, SKT, SKD)		Stainless Steel (SUS304)		Cast Iron (FC, FCD)		Aluminum / Copper		Hardened Steel (SKT, SKD)	
Hardness	HRC < 30		HRC 30 ~ 45		-		HRC < 30		-		HRC 45 ~ 55	
Vc	54 - 68 - 82 m/min		36 - 45 - 54 m/min		48 - 59 - 70 m/min		54 - 68 - 82 m/min		120 - 150 - 180 m/min		23 - 29 - 35 m/min	
Diameter (mm)	R.P.M	FEED (mm/min)	R.P.M	FEED (mm/min)	R.P.M	FEED (mm/min)	R.P.M	FEED (mm/min)	R.P.M	FEED (mm/min)	R.P.M	FEED (mm/min)
15	1450	220	950	150	1250	180	1450	220	3180	560	620	90
20	1080	240	720	160	940	200	1080	240	2390	580	460	100
25	860	260	570	170	750	220	860	260	1900	600	370	110
30	740	280	470	180	630	240	740	280	1590	620	310	120

Troubleshooting in Insert

刀片加工異常原因及對策

Trouble / 情況	Occurrences / 原因	Countermeasures / 對策
 Thermal Crack 熱裂	Intermittent heating of the cutting edge. High speed, high volume metal removal. 切削角間歇性高熱，高切削線速度和較大的金屬移除量，造成的熱裂	1. Use heat resistant grades 使用具有耐熱抵抗的刀片材質 2. Use positive or large rake tools 使用正角或較銳利的刀片 3. Increase nose radius 使用較大半徑刀口的刀片 4. Reduce speed, feed or depth of cut 降低切削線速度、進給或切深
 Chipping 脆裂	Cutting tool excessively brittle. 刀片材質太硬脆	1. Use tougher grades 使用韌性較高的刀片材質 2. Use negative or smaller rake tools 使用負角或較鈍的刀片 3. Increase nose radius 使用較大半徑刀口的刀片 4. Use increased edge land 使用較大刀口平台的刀片 5. Increase cutting speed 增加切削線速度
 Excessive Flank Wear 過度磨耗	Cutting tool too soft. 刀片材質太軟 Surface speed too fast. 切削線速度太快	1. Use harder and more wear resistant grade 使用較硬或較耐磨的刀片材質 2. Reduce cutting speed 降低切削線速度 3. Increase feed 增加進給 4. Use coolant 使用冷卻液
 Notching 凹陷	Cutting material working harden cause serious wear of insert. 被加工材料產生硬化而造成刀片嚴重磨損	1. Increase approach angle 增加進刀時切削邊緣角 2. Reduce cutting speed and feed 降低切削線速度及進給量 3. Use high lubricity coolant 使用潤滑性較高的冷卻液
 Built-Up-Edge 積屑	Cutting speed too slow for material being machined. 就被加工材料而言，切削線速度太低	1. Increase cutting speed 提高切削線速度 2. Use friction reducing grade 使用摩擦力較低的刀片材質 3. Use high lubricity coolant 使用潤滑性較高的冷卻液
 Deformation 變形	Heavy feeds or higher cutting speed. 切削線速度太快或是進給量太大	1. Reduce cutting speed or feed 降低切削線速度或進給量 2. Use polished tools to reducing friction 使用拋光刀片降低磨擦阻力 3. Use more heat resistant grade 使用更高耐熱抵抗的刀片材質
 Crater Wear 熱裂	Excessive heat and pressure welding of chip to rake. 切削產生的高溫和高壓，造成鐵屑焊黏在刀口上	1. Use a harder grade 使用較硬的刀片材質 2. Reduce cutting speed and feed 降低切削線速度及進給量 3. Use high lubricity coolant 使用潤滑性較高的冷卻液

* Pictures from Kennametal Tooling Catalogue