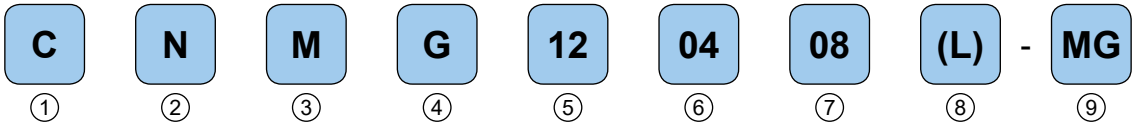
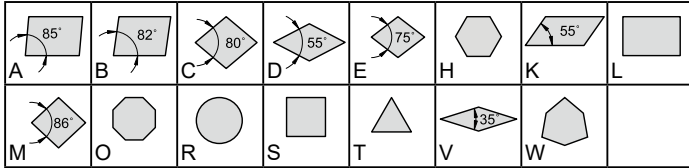


Designations for Turning Insert

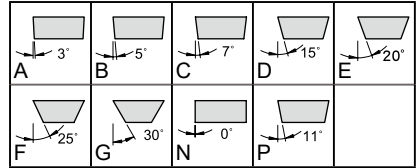
車刀片型號編碼



① Insert Shape



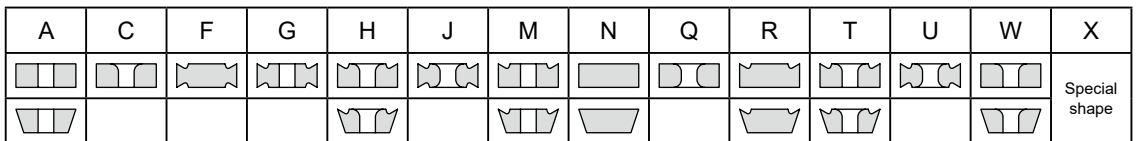
② Relief Angle



③ Tolerance Class

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

④ Insert Features



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

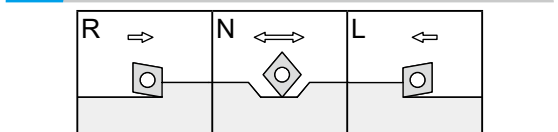
⑥ Thickness

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 Chip Breaker Geometry



Positive Type	Negative Type
AG, XF, YF, FG, MG, MP	FG, FP, SM, SP, MP, ME, RK, RG, RP, HG

Turning


Carbide Turning Insert Grades 鎢鋼車刀片材質介紹

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		<ul style="list-style-type: none"> ● CVD (TiCN-Al₂O₃-TiN) ● Wear resistance ● 耐磨性 	<ul style="list-style-type: none"> ● Finishing and semi-finishing dry machining ● Continuous cutting ● Wear resistance grade for cast iron is 1st recommended ● 適用於乾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 	○	○	●				○	<ul style="list-style-type: none"> ● Auto parts ● Machinery ● 汽車零件 ● 機械零件 	CX2565 CX2575	
CC7025		<ul style="list-style-type: none"> ● CVD (TiCN-Al₂O₃-TiN) ● Wear resistance ● Impact resistance ● 耐磨性 ● 抗衝擊性 	<ul style="list-style-type: none"> ● Semi-finishing and medium dry machining ● Light interrupted cutting ● General purpose grade for alloy steel is 1st recommended ● 適用於乾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 	●	●	●					<ul style="list-style-type: none"> ● Auto parts ● Machinery ● 汽車零件 ● 機械零件 	CX3565 CX3575	
CC7035		<ul style="list-style-type: none"> ● CVD (TiCN-Al₂O₃-TiN) ● High impact resistance ● High toughness ● 高抗衝擊性 ● 高韌性 	<ul style="list-style-type: none"> ● Medium and roughing dry machining ● Interrupted cutting ● Tough grade for stainless steel is 1st recommended ● 適用於乾式中加工和粗加工 ● 適用斷續加工 ● 適合不鏽鋼的第一推薦韌性材質 	●	●	○					<ul style="list-style-type: none"> ● Energy ● Oil & Gas ● Medical ● 能源產業 ● 石化產業 ● 醫療產業 	—	
CP6015		<ul style="list-style-type: none"> ● PVD (AlTiSiN) ● Wear resistance ● Anti-corrosion ● 耐磨性 ● 抗腐蝕 	<ul style="list-style-type: none"> ● 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 	●	○	●				●	○	<ul style="list-style-type: none"> ● Auto small parts ● Machinery parts ● Aircraft parts ● 汽車小零件 ● 機械零件 ● 航太零件 	CX1060
CP6025		<ul style="list-style-type: none"> ● PVD (AlTiSiN) ● Wear resistance ● Anti-corrosion ● 耐磨性 ● 抗腐蝕 	<ul style="list-style-type: none"> ● 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 	●	●	●				●		<ul style="list-style-type: none"> ● Auto small parts ● Machinery parts ● Aircraft parts ● 汽車小零件 ● 機械零件 ● 航太零件 	CX2561

Carbide Turning Insert Grades 鎢鋼車刀片材質介紹

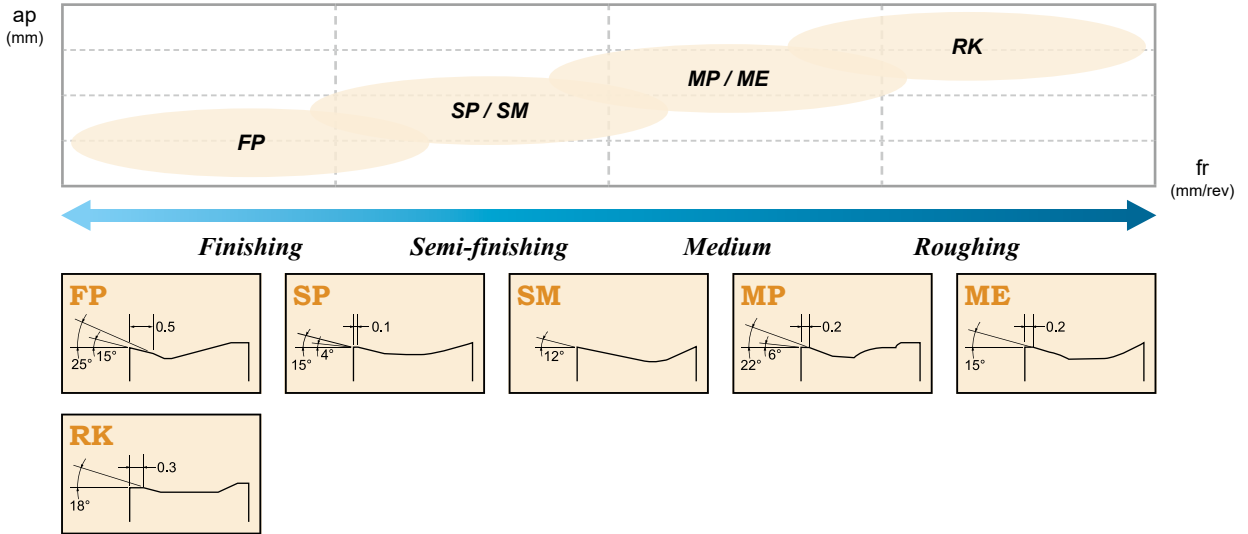
Grade Type 刀片材質	Color 刀片顏色	Properties 屬性	Application 加工特性	Working Material 加工材質						Industry Area 產業應用範圍	Previous Grade 以前的材質
				P	M	K	N	S	H		
CP4025		<ul style="list-style-type: none"> PVD (AlTiXN+ZrN) Wear resistance Anti-corrosion Anti-sticky 耐磨性 抗腐蝕 抗沾黏 	<ul style="list-style-type: none"> Semi-finishing 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 	○	●	○		●		<ul style="list-style-type: none"> Auto small parts Machinery parts Aircraft parts 汽車小零件 機械零件 航太零件 	CX2545
CC1010		<ul style="list-style-type: none"> CVD (Diamond-like) Wear resistance 耐磨性 	<ul style="list-style-type: none"> 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 					●		<ul style="list-style-type: none"> 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	—	<ul style="list-style-type: none"> Uncoated Wear resistance 耐磨性 	<ul style="list-style-type: none"> 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 					●		<ul style="list-style-type: none"> Bike parts Auto small parts Electronic parts 自行車小零件 汽車小零件 電子零件 	CX10

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

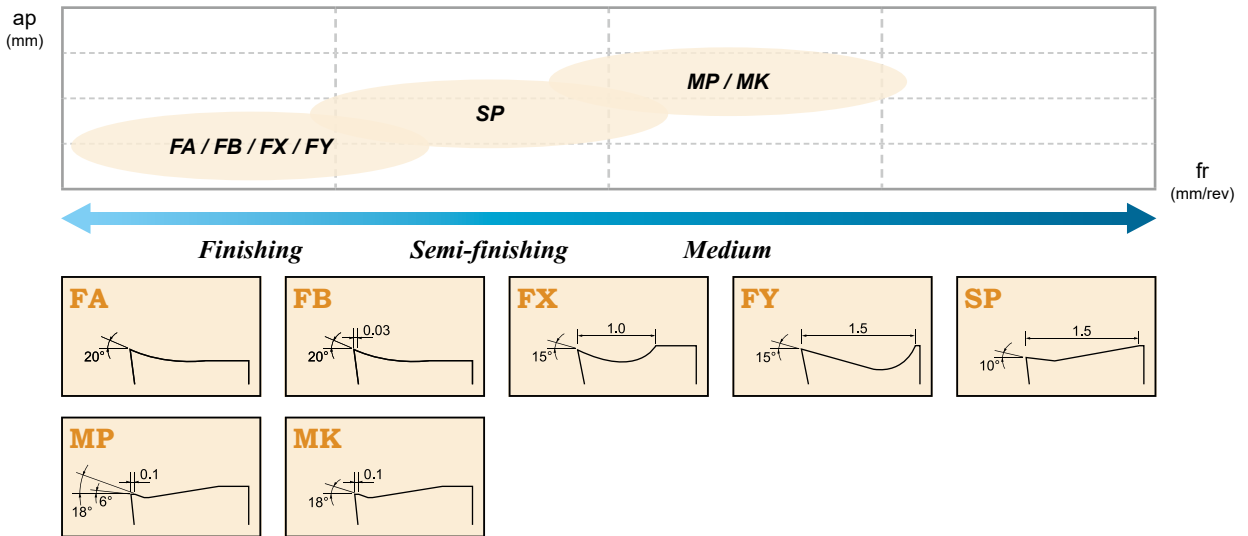
Grade Type 刀片材質	Color 刀片顏色	Properties 屬性	Application 加工特性	Working Material 加工材質						Industry Area 產業應用範圍
				P	M	K	N	S	H	
BN6020		<ul style="list-style-type: none"> PVD (AlTiSiN) Wear resistance Fracture resistance 耐磨性 抗斷裂性 	<ul style="list-style-type: none"> For hardened steel is 1st recommended Semi-finishing 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 						●	<ul style="list-style-type: none"> Auto small parts Machinery parts Aircraft parts 汽車小零件 機械零件 航太零件
BN20	—	<ul style="list-style-type: none"> Uncoated Wear resistance Fracture resistance 耐磨性 抗斷裂性 	<ul style="list-style-type: none"> For small parts cutting Semi-finishing and medium cutting Continuous to medium interrupted dry cutting For general cutting 適合小零件加工 適用於半精加工和中加工 適用連續至中斷續乾式加工 適用泛用加工 						●	<ul style="list-style-type: none"> Bike parts Auto small parts Electronic parts 自行車小零件 汽車小零件 電子零件

Carbide Turning Insert Chip Breakers 鎢鋼車刀片斷屑槽介紹

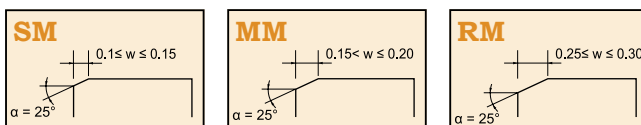
Negative Insert



Positive Insert



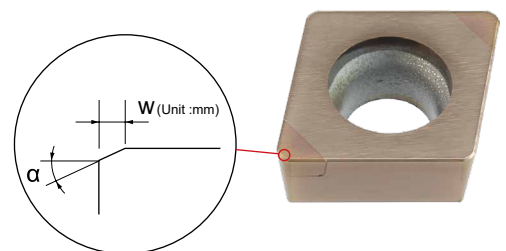
CBN Turning Insert Edge Specification CBN 刀片刀尖規格



Edge specification code


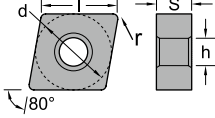





Code = 1 2 2 5

w (width)=0.12 α (angle)= 25°



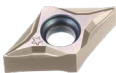
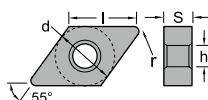


Carbide Turning Inserts · Negative - CN□□

負角鎢鋼車刀片

Inserts	Designation	Grade No.						Dimensions (mm)					Drawing
		CVD			PVD			d	l	S	r	h	
		CG7015	CG7025	CG7035	CP6015	CP6025	CP4025						
Finishing 精	 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	
Roughing 粗	 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	


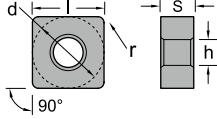


Carbide Turning Inserts · Negative - DN□□

負角鎢鋼車刀片

Inserts	Designation	Grade No.						Dimensions (mm)					Drawing
		CVD			PVD			d	l	S	r	h	
		CG7015	CG7025	CG7035	CP6015	CP6025	CP4025						
Finishing 精	 DNGX 110401-FP 110402-FP				✓			9.525	11.6	4.76	0.1	4.5	
					✓			9.525	11.6	4.76	0.2	4.5	
Semi-finishing 半精	 DNMG 150404-SP 150408-SP 150608-SP	✓	✓		✓			12.7	15.5	4.76	0.4	5.16	
		✓	✓		✓			12.7	15.5	4.76	0.8	5.16	
		✓	✓		✓			12.7	15.5	4.76	0.8	5.16	
Medium 中	 DNMG 150404-MP 150408-MP 150608-MP	✓	✓					12.7	15.5	4.76	0.4	5.16	
		✓	✓					12.7	15.5	4.76	0.8	5.16	
		✓	✓					12.7	15.5	6.35	0.8	5.16	


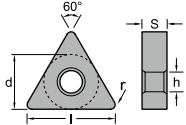







Carbide Turning Inserts · Negative - SN□□


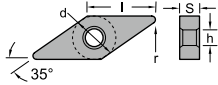

負角鎢鋼車刀片


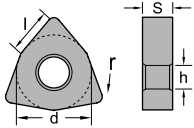




Inserts	Designation	Grade No.						Dimensions (mm)					Drawing
		CVD			PVD			d	l	S	r	h	
		CG7015	CG7025	CG7035	CP6015	CP6025	CP4025						
Medium 中	 SNMA 120408 120412	✓						12.7	12.7	4.76	0.8	5.16	
		✓						12.7	12.7	4.76	1.2	5.16	
	 SNMG 120408-MP 120412-MP	✓	✓	✓				12.7	12.7	4.76	0.8	5.16	
			✓	✓				12.7	12.7	4.76	1.2	5.16	
Roughing 粗	 SNMG 120408-RK 120412-RK		✓	✓				12.7	12.7	4.76	0.8	5.16	
			✓	✓				12.7	12.7	4.76	1.2	5.16	


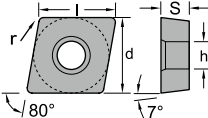



Carbide Turning Inserts · Negative - TN□□

負角鎢鋼車刀片

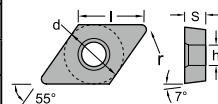
Inserts	Designation	Grade No.					Dimensions (mm)					Drawing	
		CVD		PVD			d	l	S	r	h		
		CG7015	CG7025	CG7035	CP6015	CP6025							CP4025
Finishing 精	 TNMG 160404-FP	✓	✓		✓			9.525	16.5	4.76	0.4	3.81	
	160408-FP	✓	✓		✓			9.525	16.5	4.76	0.8	3.81	
Semi-finishing 半精	 TNMG 160404-SP	✓	✓		✓	✓		9.525	16.5	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	
160412-MP	✓	✓		✓			9.525	16.5	4.76	1.2	3.81		
Roughing 粗	 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	

Inserts	Designation	Grade No.						Dimensions (mm)					Drawing
		CVD			PVD			d	l	S	r	h	
		CG7015	CG7025	CG7035	CP6015	CP6025	CP4025						
Finishing 精	 VNMG 160404-FP	✓			✓			9.525	16.6	4.76	0.4	3.81	
	VNMG 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	
	VNMG 160408-MP	✓	✓		✓			9.525	16.6	4.76	0.8	3.81	


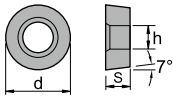
Inserts	Designation	Grade No.						Dimensions (mm)					Drawing
		CVD			PVD			d	l	S	r	h	
		CG7015	CG7025	CG7035	CP6015	CP6025	CP4025						
Finishing 精	 WNMG 080404-FP	✓	✓		✓			12.7	8.7	4.76	0.4	5.16	
	080408-FP	✓	✓		✓			12.7	8.7	4.76	0.8	5.16	
Semi-finishing 半精	 WNMG 080404-SP	✓	✓		✓	✓		12.7	8.7	4.76	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	5.16	
	080412-RK		✓	✓				12.7	8.7	4.76	1.2	5.16	


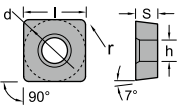




Inserts	Designation	Grade No.						Dimensions (mm)					Drawing	
		CVD			PVD			d	l	S	r	h		
		CG7015	CG7025	CG7035	CP6015	CP6025	CP4025							CU1000
Finishing 精		CCGT 060202-FA						✓	6.35	6.4	2.38	0.2	2.8	
		060204-FA						✓	6.35	6.4	2.38	0.4	2.8	
		09T304-FA						✓	9.525	9.7	3.97	0.4	4.4	
		09T308-FA						✓	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		


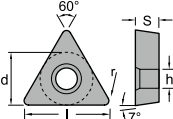


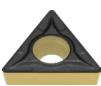

Inserts	Designation	Grade No.						Dimensions (mm)					Drawing	
		CVD			PVD			d	l	S	r	h		
		CG7015	CG7025	CG7035	CP6015	CP6025	CP4025							CU1000
Finishing 精		DCET 11T301R-FX				✓				9.525	11.6	3.97	0.1	4.4
		11T302R-FX				✓			9.525	11.6	3.97	0.2	4.4	
		11T304R-FX				✓			9.525	11.6	3.97	0.4	4.4	
		DCET 11T301L-FX				✓				9.525	11.6	3.97	0.1	4.4
		11T302L-FX				✓				9.525	11.6	3.97	0.2	4.4
		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
		11T302R-FY				✓				9.525	11.6	3.97	0.2	4.4
		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
		11T302L-FY				✓				9.525	11.6	3.97	0.2	4.4
		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
		070204-FA							✓	6.35	7.7	2.38	0.4	2.8
		11T302-FA							✓	9.53	11.6	3.97	0.2	4.4
11T304-FA								✓	9.525	11.6	3.97	0.4	4.4	
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	
	070204-FB				✓				6.35	7.7	2.38	0.4	2.8	
	11T302-FB				✓				9.525	11.6	3.97	0.2	4.4	
	11T304-FB				✓				9.525	11.6	3.97	0.4	4.4	
	11T308-FB				✓				9.525	11.6	3.97	0.8	4.4	
Medium 中		DCEW 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	
		DCMT 11T304-MP	✓			✓	✓			9.525	11.6	3.97	0.4	4.4
		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
		11T304-MK	✓	✓		✓	✓			9.525	11.6	3.97	0.4	4.4
		11T308-MK	✓	✓		✓	✓			9.525	11.6	3.97	0.8	4.4


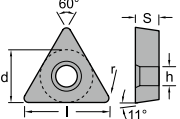


Carbide Turning Inserts · Positive - RC□□ 正角鎢鋼車刀片

Inserts	Designation	Grade No.						Dimensions (mm)					Drawing			
		CVD			PVD			d	l	S	r	h				
		CG7015	CG7025	CG7035	CP6015	CP6025	CP4025							CU1000		
Finishing 精	 RCMT 1204MO-FB					✓					12	-	4.76	-	4.2	







Inserts	Designation	Grade No.						Dimensions (mm)					Drawing	
		CVD			PVD			d	l	S	r	h		
		CG7015	CG7025	CG7035	CP6015	CP6025	CP4025							CU1000
Finishing 精	 SCGT 09T304-FA 09T308-FA						✓	9.525	9.525	3.97	0.4	4.4		
								✓	9.525	9.525	3.97	0.8		4.4
	 SCGT 09T304-FB 09T308-FB				✓				9.525	9.525	3.97	0.4		4.4
					✓				9.525	9.525	3.97	0.8		4.4
Semi-finishing 半精	 SCMT 09T304-SP 09T308-SP	✓			✓			9.525	9.525	3.97	0.4	4.4		
		✓			✓			9.525	9.525	3.97	0.8	4.4		
Medium 中	 SCMT 09T304-MP 09T308-MP	✓			✓			9.525	9.525	3.97	0.4	4.4		
		✓			✓			9.525	9.525	3.97	0.8	4.4		
	 SCMT 09T304-MK 09T308-MK	✓			✓			9.525	9.525	3.97	0.4	4.4		
		✓			✓			9.525	9.525	3.97	0.8	4.4		

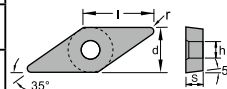
Inserts	Designation	Grade No.						Dimensions (mm)					Drawing	
		CVD			PVD			d	l	S	r	h		
		CG7015	CG7025	CG7035	CP6015	CP6025	CP4025							CU1000
Finishing 精		TCGT 090204-FA						✓	5.56	9.6	2.38	0.4	2.5	
		110204-FA						✓	6.35	11.0	2.38	0.4	2.8	
		16T304-FA						✓	9.525	16.5	3.97	0.4	4.4	
		16T308-FA						✓	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		

Inserts	Designation	Grade No.						Dimensions (mm)					Drawing			
		CVD			PVD			d	l	S	r	h				
		CG7015	CG7025	CG7035	CP6015	CP6025	CP4025							CU1000		
Medium 中		TPMH 160304-MP		✓							9.525	16.5	3.18	0.4	4.4	

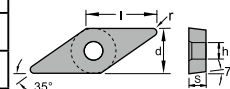
Carbide Turning Inserts · Positive - VB □□

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							CU1000		
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



Inserts	Designation	Grade No.					Dimensions (mm)					Drawing			
		CVD		PVD		CU1000	d	l	S	r	h				
		CG7015	CG7025	CG7035	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-finishing 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


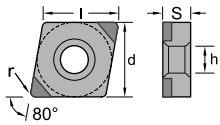

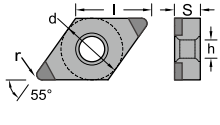

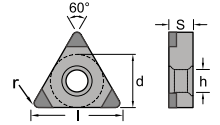

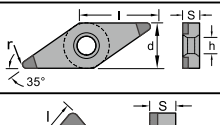

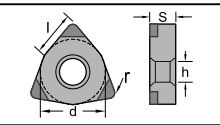

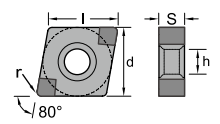

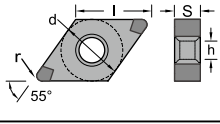

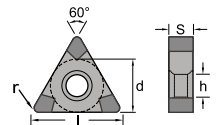

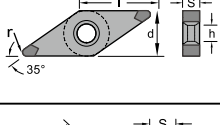

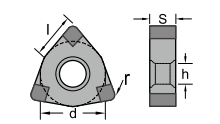


CBN Turning Inserts · Positive

正角 CBN 車刀片

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

Turning

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

P Steel 鋼

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)	RK	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)	RK	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)	RK	CC7025	1.5-3.0-4.5	0.3-0.4-0.5	140-120-90

M Stainless Steel 不鏽鋼

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, FB	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, FB	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, FB	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, FB	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)	RK	CC7035	1.5-3.0-4.5	0.20-0.30-0.40	80-70-50

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

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, RK	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, RK	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, RK	CC7025	0.5-2.0-6.0	0.10-0.30-0.50	160-120-80

S High Temperature Alloy 高溫合金

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, FB	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, FB	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

※ ap & fr value : Min. - Suggestion - Max. Vc : Max. - Suggestion - Min.
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H Hardened Steel 高硬度鋼

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	40-60-80
	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
	Semi-finishing and medium cutting 半精加工和中加工	—	BN20	0.03-0.20-0.30	0.03-0.10-0.20	180-100-30

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