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*Create the largest profit.
Improve and Elevate the Quality.*



HGT SOLID CARBIDE TOOLS



HG TECHNOLOGY CO., LTD.
e-mail: service@hgt.com.tw

HG TECHNOLOGY CO., LTD.



INTRODUCTION

HG TECHNOLOGY CO., LTD.,

located at Changhua, Taiwan, dedicated to developing, designing, producing, and marketing cutting tools, comprises professionals with sophisticated processing experience that provide extensive services and ensure total customer satisfaction.

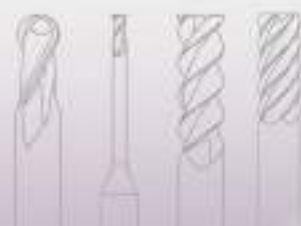
Our service range extensively covers 3C, semiconductor, medical care equipment, aerospace, and precision molding industries.

HG Technology continuously develops more advanced processing technologies based on the enterprise philosophy of extending the lifespan of tools, increasing work efficiencies, minimizing production costs in terms of wear and tear of tools, and maximizing customer benefits.

For HGT Cutting Tools, from material to finished products,

HG Technology insists on utilizing the processes provided by the original European manufacturers for the production. We only use high quality and stable German Carbide Rods, German and Swiss 6-axis CNC Grinding machines, advanced Swiss Coating technologies, and sophisticated German Digital Measuring Instruments.

With reasonable prices and stable quality, HG Technology has an expanding sales network that currently covers more than 30 countries throughout the world. Based on the enterprise philosophy of maximizing customer's benefits, HG Technology continuously refines itself and grows together with all its customers.



*Always improve and elevate the quality,
in order let our customers keep the best competition.*

HG TECHNOLOGY CO., LTD.
<http://www.hgt.com.tw>

ITEM PAGE STRUCTURE

Product Name ①

Item Code ②

Working Material ③

Icons ④

Product specification ⑤

Product Image ⑥

Product diagram ⑦

Depth of cut ⑧

Recommended cutting condition ⑨

MAGIC CUT

QBM

Micro Diameter / Ball Nose (for)

Order No.	Radius R	Flute Length L1	Overall Length L2	Shank Dia D2
QBM-8028	R0.1	0.4	50	8
QBM-8038	R0.15	0.6	50	8
QBM-8048	R0.2	0.8	50	8
QBM-8058	R0.25	1.0	50	8
QBM-8068	R0.3	1.2	50	8
QBM-8078	R0.35	1.4	50	8
QBM-8088	R0.4	1.6	50	8
QBM-8098	R0.45	1.8	50	8
QBM-8108	R0.5	2.0	50	8
QBM-8118	R0.6	2.2	50	8
QBM-8128	R0.7	2.4	50	8
QBM-8138	R0.8	2.6	50	8
QBM-8148	R0.9	2.8	50	8

Depth of cut

Recommended cutting condition for QBM

Material	Color Steel / Alloy Steel S45C, FC, SCM435, SCM438		Alloy Steel / Tool Steel S50C, S55C, S60C, S65C, S70C		Aluminum Alloy 6061, 7075	
	SPEED (m/min)	FEED (mm/min)	SPEED (m/min)	FEED (mm/min)	SPEED (m/min)	FEED (mm/min)
R0.1	2000	600-900	2000	900-1200	2000	200-300
R0.15	1800	500-800	1800	800-1100	1800	180-280
R0.2	1600	400-700	1600	700-1000	1600	160-260
R0.25	1400	300-600	1400	600-900	1400	140-240
R0.3	1200	200-500	1200	500-800	1200	120-220
R0.35	1000	100-400	1000	400-700	1000	100-200
R0.4	800	100-300	800	300-600	800	80-180
R0.45	600	100-200	600	200-500	600	60-160

THE SYSTEM CODE INTRODUCES

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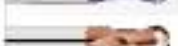













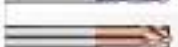



V

V70

	Page	Mill Dia.	Coating	HRC 45-55	HRC 55-60	HRC 60-65	Hardened Steels HRC 65-70	Cast Iron	Titanium Alloy	Stainless Steels	Aluminum Alloy	Copper Alloy	Graphite	Superalloy, Heat-resistant Steels
 V70B NEW	p. 15	3~12	1-plus	○	○	○	○							
 V70R NEW	p. 16	6~12	1-plus	○	○	○	○							
 V70E NEW	p. 17	6~16	1-plus	○	○	○	○							






Q

MAGIC CUT










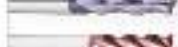















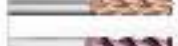

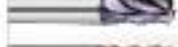








	Page	Mill Dia.	Coating	HRC 45-55	HRC 55-60	HRC 60-65	Hardened Steels HRC 65-70	Cast Iron	Titanium Alloy	Stainless Steels	Aluminum Alloy	Copper Alloy	Graphite	Superalloy, Heat-resistant Steels
 QBM	p. 19	0.2~1.8	Aldura	○	○	○								
 QB	p. 20	1~16	ALTIN	○	○	○								
 QBG	p. 21	4~12	Aldura	○	○	○								
 QBN	p. 22	1~16	nAcoB	○	○	○								
 QBX	p. 23	1~16	B	○	○	○								
 QBHN	p. 24	1~12	nAcoB	○	○	○								
 QBHX	p. 25	1~12	B	○	○	○								
 QBL5/M/L	p. 26	2~20	ALTIN	○	○	○								
 QBLSX/MX/LX	p. 27	2~20	B	○	○	○								
 QBP	p. 28	1~12	ALTIN	○	○	○								
 QEM	p. 29	0.2~1.8	Aldura	○	○	○								
 QEB	p. 30	1~20	ALTIN	○	○	○								
 QEBG	p. 31	4~12	Aldura	○	○	○								
 QEBN	p. 32	3~20	nAcoB	○	○	○								
 QEX	p. 33	3~20	B	○	○	○								
 QELB	p. 34	6~12	ALTIN	○	○	○								
 QRD	p. 35	1~12	ALTIN	○	○	○								
 QRDG	p. 36	4~12	Aldura	○	○	○								
 QRHN	p. 37	3~12	nAcoB	○	○	○								
 QRHX	p. 38	3~12	B	○	○	○								
 QERC	p. 39	6~12	ALTIN	○	○	○								
 QRHLX	p. 40	6~12	B	○	○	○								
 QBF	p. 41	0.5~4	ALTIN	○	○	○								
 QEFA	p. 42	0.5~3	Aldura	○	○	○								
 QRFA	p. 43	1~3	Aldura	○	○	○								
 QRFB	p. 44	1~3	Aldura	○	○	○								

S

SUPER MILL




















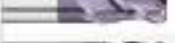















	Page	Mill Dia.	Coating	HRC 45-55	HRC 55-60	HRC 60-65	Hardened Steels HRC 65-70	Cast Iron	Titanium Alloy	Stainless Steels	Aluminum Alloy	Copper Alloy	Graphite	Superalloy, Heat-resistant Steels
 SBM	p. 46	0.2~1.8	ALTIN	○	○			○				○		
 SBMX	p. 47	0.2~1.8	B	○	○			○				○		
 SB	p. 48	1~16	ALTIN	○	○			○				○		
 SBK	p. 49	1~16	G100	○	○			○				○		
 SBX	p. 50	1~16	B	○	○			○				○		

CONTENTS

	Page	Mill Dia.	Coating	HRC 45-55	HRC 55-60	HRC 60-65	Hardened Steels HRC 65-70	Cast Iron	Titanium Alloy	Stainless Steels	Aluminum Alloy	Copper Alloy	Graphite	Superalloy, Heat-resistant Steels
 SBB	p. 51	1~16	ALTIN	○	○			○				○		
 SBL5/M/L	p. 52	1~20	ALTIN	○	○			○				○		
 SBLSX/MX/LX	p. 53	2~12	B	○	○			○				○		
 SBC	p. 54	2~6	ALTIN	○	○			○				○		
 SBCX	p. 55	2~6	B	○	○			○				○		
 SEM	p. 56	0.2~1.8	ALTIN	○	○			○				○		
 SEMX	p. 57	0.2~1.8	B	○	○			○				○		
 SEA	p. 58	1~20	ALTIN	○	○			○				○		
 SEB	p. 59	1~20	ALTIN	○	○			○				○		
 SEK	p. 60	1~20	G100	○	○			○				○		
 SEX	p. 61	3~20	B	○	○			○				○		
 SEP	p. 62	3~20	HELICA	○	○			○				○		
 SEW	p. 63	3~20	G100	○	○			○				○		
 SEPC NEW	p. 64	2~12	B	○	○			○	○	○	○	○		○
 SELA	p. 65	6~12	ALTIN	○	○			○				○		
 SELB	p. 66	3~16	ALTIN	○	○			○				○		
 SELD	p. 67	4~12	ALTIN	○	○			○				○		
 SHA	p. 68	6~16	ALTIN	○	○			○				○		
 SEZ	p. 69	4~12	ALTIN	○	○			○				○		
 SRA	p. 70	4~16	ALTIN	○	○			○				○		
 SRB	p. 71	4~16	ALTIN	○	○			○				○		
 SRC	p. 72	3~12	ALTIN	○	○			○				○		
 SRD	p. 73	1.5~12	ALTIN	○	○			○				○		
 SRDX	p. 74	3~12	B	○	○			○				○		
 SRK	p. 75	3~12	G100	○	○			○				○		
 SERC	p. 76	6~12	ALTIN	○	○			○				○		
 SERCX	p. 77	6~12	B	○	○			○				○		
 SRP	p. 78	6~12	ALTIN	○	○			○				○		
 SBF	p. 79	0.5~4	ALTIN	○	○			○				○		
 SBFX	p. 80	0.5~4	B	○	○			○				○		
 SEFA	p. 81	1~3	ALTIN	○	○			○				○		
 SEFAX	p. 82	1~3	B	○	○			○				○		
 SEF	p. 83	1~3	ALTIN	○	○			○				○		
 SEFX	p. 84	1~3	B	○	○			○				○		
EFFICIENCY MILLS		p. 85												
 BM	p. 86	0.4~1.8	TiAlN	○				○				○		
 BS	p. 87	1~4	TiAlN	○				○				○		

E













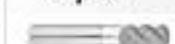




















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		Page	Mill Dia.	Coating	HRC 45-55	HRC 55-60	HRC 60-65	Hardened Steels HRC 65-70	Cast Iron	Titanium Alloy	Stainless Steels	Aluminum Alloy	Copper Alloy	Graphite	Superalloy, Heat-resistant Steels
	BA	p. 88	1-20	TiAlN	○				○				○		
	BB	p. 89	1-12	TiAlN	○				○				○		
	BLS/M/L	p. 90	1-20	TiAlN	○				○				○		
	EM	p. 91	0.4-1.8	TiAlN	○				○				○		
	ES	p. 92	1-4	TiAlN	○				○				○		
	EA	p. 93	1-20	TiAlN	○				○				○		
	EB	p. 94	1-20	TiAlN	○				○				○		
	EC/EP	p. 95	3-20	TiAlN	○				○				○		
	ED	p. 96	3-16	TiAlN	○				○	○	○		○		
	ELA	p. 97	6-12	TiAlN	○				○				○		
	ELB	p. 98	3-16	TiAlN	○				○				○		
	ELC	p. 99	2-12	TiAlN	○				○				○		
	ELD	p. 100	2-20	TiAlN	○				○				○		
	EH	p. 101	6-20	TiAlN	○				○				○		
	EHL	p. 102	6-20	TiAlN	○				○				○		
	EG	p. 103	6-20	TiAlN	○				○				○		
	EGA	p. 104	6-20	TiAlN	○				○				○		
	ETL	p. 105	1-4	TiAlN	○				○				○		
	ET	p. 106	0.5-10	TiAlN	○				○				○		
	ERA	p. 108	3-12	TiAlN	○				○				○		
	ERB	p. 109	3-12	TiAlN	○				○				○		
	ERC	p. 110	6-12	TiAlN	○				○				○		
	BF	p. 111	1-4	TiAlN	○				○				○		
	EFA	p. 112	1-3	TiAlN	○				○				○		
I.pro															
	SBBI	p. 114	3-12	G300	○					○	○				○
	SEI	p. 115	3-20	G300	○					○	○				○
	SEPS	p. 116	3-20	HEUCA	○					○	○				○
	SEPI	p. 117	3-20	G300	○					○	○				○
	SIB	p. 118	3-20	G300	○					○	○				○
	SHAI	p. 119	6-16	G300	○					○	○				○
	SEGI	p. 120	6-20	G300	○					○	○				○
	SRIP	p. 121	3-12	G300	○					○	○				○
	SIW NEW	p. 122	3-20	G-plus	○					○	○				○
	SIRW NEW	p. 123	3-12	G-plus	○					○	○				○
D MILL															
	DB	p. 125	1-12									○			

I

D

CONTENTS

		Page	Mill Dia.	Coating	HRC 45-55	HRC 55-60	HRC 60-65	Hardened Steels HRC 65-70	Cast Iron	Titanium Alloy	Stainless Steels	Aluminum Alloy	Copper Alloy	Graphite	Superalloy, Heat-resistant Steels
	DEA	p. 126	1-16									○			
	DEB	p. 127	1-16									○			
	DEC	p. 128	2-20									○			
	DED	p. 129	2-20									○			
	DEDP	p. 130	2-20	DLC								○			
	DEL	p. 131	2-20									○			
	DEPW NEW	p. 132	3-20									○			
	DEG	p. 133	6-16									○			
	DFR	p. 134	6-20									○			
	DRC	p. 135	3-16									○			
	DBX	p. 136	1-12	CRN								○	○		
	DEDX	p. 137	2-20	CRN								○	○		
G.pro															
	SGBB	p. 139	4-12	Diamond										○	
	SGBF	p. 140	4-12	Diamond										○	
	SGEB	p. 141	4-12	Diamond										○	
	SGRD	p. 142	4-12	Diamond										○	
	SGRB	p. 143	4-12	Diamond										○	
	SGBS	p. 144	1.0-4.0	Diamond										○	
	SGES	p. 145	1.0-4.0	Diamond										○	
	SGRS	p. 146	1.0-4.0	Diamond										○	
DEN.pro															
	TOBF	p. 148	0.6-3.0	Diamond											
	TTBF	p. 149	0.8-3.0	G300											
	TTFA	p. 150	0.5-2.5	G300											
	TTRA	p. 151	1.0-2.5	G300											
	TTRB	p. 151	2.0-4.0	G300											
	TCBF	p. 152	0.8-3.0	Diamond											
	TWBF	p. 153	0.8-3.0												
COM.pro															
	CFPA	p. 155	6-12	Diamond											
	CFRA	p. 156	6-12	Diamond											
MAGIC SHANK															
	EX2CS NEW	p. 158	10-20												
	EX2SB NEW	p. 158	10-20	#	○	○			○				○		
	EX2SRD NEW	p. 159	10-20	#	○	○			○				○		
	EX2SEB NEW	p. 159	10-20	#	○	○			○				○		










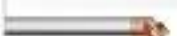








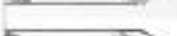








G

DT

COM

EX

CONTENTS

		Page	Mill Dia.	Coating	HRC 45-55	HRC 55-60	HRC 60-65	Hardened Steels HRC 65-70	Cast Iron	Titanium Alloy	Stainless Steels	Aluminum Alloy	Copper Alloy	Graphite	Superalloy, Heat-resistant Steels
	 EX2DPW NEW	p. 160	10-20												
	 EX2SIW NEW	p. 160	10-20	G-plus											
T	T.pro	p. 162													
	 EMT	p. 163	R0.5-R1.5	G100	⊙				○	○	○	○	○	○	○
	 EMTW	p. 164	R0.5-R1.5	G100	⊙				○	○	○	○	○	○	○
	 EMTH	p. 165	R0.7-R1.5	G100	⊙				○	○	○	○	○	○	○
	 EMTS	p. 166	R0.5-R1.5	18	⊙				○	○	○	○	○	○	○
	 EMTF	p. 167	R0.5-R1.5	G100	⊙				○	○	○	○	○	○	○
C	C.pro	p. 168													
	 ECM	p. 169	4-12	TiAlN	⊙				○	○	○	○	○	○	○
	 ECMP NEW	p. 170	4-12	18	⊙				○	○	○	○	○	○	○
	 ECMV NEW	p. 171	4-12	18	⊙				○	○	○	○	○	○	○
	 ECR/EMCR	p. 172	1-12		⊙				○	○	○	○	○	○	○
CD	CD	p. 173													
	 ESD	p. 174	3-20		⊙				○	○	○	○	○	○	○
	 ESD2	p. 174	3-20		⊙				○	○	○	○	○	○	○
	 ESDC	p. 175	3-20	TiAlN	⊙				○	○	○	○	○	○	○
	 ESDA	p. 175	3-20	TiAlN	⊙				○	○	○	○	○	○	○
	 ESDS	p. 176	6-20	TiAlN	⊙				○	○	○	○	○	○	○
	 ESDL	p. 176	6-20	TiAlN	⊙				○	○	○	○	○	○	○
	 CCD	p. 177	0.5-5		⊙				○	○	○	○	○	○	○
	 CCDA	p. 177	0.5-5		⊙				○	○	○	○	○	○	○
	 CD	p. 178	2-13	TiAlN	⊙				○				○		
	 CDA	p. 179	3-20	TiAlN	⊙				○				○		
	 CDB	p. 180	3-20	TiAlN	⊙				○				○		
	 CDC	p. 181	3-12	TiAlN	⊙				○				○		
	 CDAC	p. 182	3-20	18	⊙				○				○		
	 CDBC	p. 183	3-20	18	⊙				○				○		
	 CDCC	p. 184	3-10	18	⊙				○				○		
CR	CR	p. 185													
	 CRA	p. 186	2-12		⊙				○				○		

TOLERANCE

Square End Mills (mm)

Flute Dia.	Dia. Tolerance
1.0	0~-0.015
1.5	0~-0.015
2.0	0~-0.015
2.5	0~-0.015
3.0	0~-0.015
4.0	0~-0.015
5.0	0~-0.015
6.0	0~-0.015
8.0	0~-0.020
10.0	0~-0.020
12.0	0~-0.020
16.0	0~-0.020
20.0	0~-0.020

Ball Nose End Mills (mm)

Flute Dia.	R Tolerance
R0.5	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.01
R6	±0.01
R8	±0.02
R10	±0.02

Corner Radius End Mills (mm)

Flute Dia.	R Tolerance
1.0	±0.01
2.0	±0.01
3.0	±0.01
4.0	±0.01
6.0	±0.01
8.0	±0.01
10.0	±0.01
12.0	±0.01
16.0	±0.015

Shank (mm)

Shank Dia. (h6)	Shank Tolerance
ø 3	0~-0.008
ø 4	0~-0.008
ø 6	0~-0.008
ø 8	0~-0.009
ø 10	0~-0.009
ø 12	0~-0.011
ø 16	0~-0.011
ø 20	0~-0.013

Recommended Cutting Instructions

1. In order to enhance processing efficiency and extend life of cutters, please use the balanced chucks with high rigidity and high accuracy.
2. Make overhang enough for processing. If it's necessary to extend the milling cutter, please be sure to reduce spindle speed and feed speed.
3. If there's abnormal sound or vibration during processing, please adjust cutting data to prevent cutters from being influenced or broken.
4. Please choose correct cutting oil to maximize efficiency.
5. The result of cutting data depends on working materials, machines, work clips, programming and etc. Cutting data are for reference. You may increase cutting data starting from 50%.

ICONS

Flutes



Helix Angle (0°, 5°, 7°, 8°, 10°, 12°, 15°, 18°, 20°, 25°, 30°, 35°, 40°, 45°, 50°, 55°, 60°)



Work Material Hardness (40, 55, 60, 65, 70)



Coating



Roughing Pitch



Corner Radius (0.1, 0.2, 0.3, 0.5, 1, 1.5, 2)



Tip Angle (60°, 90°, 120°)



Applications



Statistics For Drills



DEPTH OF CUT

SIDE MILLING



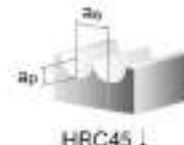
D1 6mm ↓
D1 6mm ↑

SLOTTING



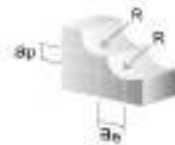
ap 0.2D
Da=D1

RADIUS



ap 0.04R
Da 0.06R

PROFILING



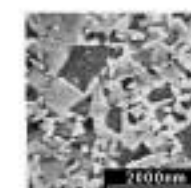
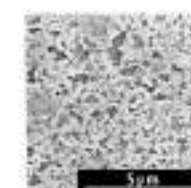
ap 0.02R
Da 0.02R

SOLID CARBIDE

QMG



ISO-Classification		K10-K30
Diameter	(mm)	1.2-32.2
Co	(%)	9.0
WC+Co+TiC+TaC	(%)	91.0
Density	(g/cm ³)	14.40
HV _{0.05}	(kgf/mm ²)	1920
HRA	(ISO3738)	93.9
K ₁₀	(HRA-32)	9.3
TRS	(HRA-32)	> 4000
Porosity	A	02
Porosity	B	00
Porosity	C	00
WC-grain size	(µm)	0.2-0.5



Co %	9
WC incl. Doping (%)	89.83
Tungsten Carbide α	±0.2µm

SMG



ISO-Classification		K40-K50
Diameter	(mm)	1.2-42.2
Co	(%)	12.0
WC+Co+TiC+TaC	(%)	88.0
Density	(g/cm ³)	14.05
HV _{0.05}	(kgf/mm ²)	1680
HRA	(ISO3738)	92.5
K ₄₀	(HRA-32)	10.0
TRS	(HRA-32)	> 4000
Porosity	A	02
Porosity	B	00
Porosity	C	00
WC-grain size	(µm)	0.5

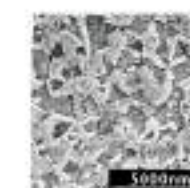


Co %	12
WC incl. Doping (%)	88
Tungsten Carbide α	±0.4µm

MG



ISO-Classification		K40-K50
Diameter	(mm)	1.2-42.2
Co	(%)	10.0
WC+Co+TiC+TaC	(%)	90.0
Density	(g/cm ³)	14.5
HV _{0.05}	(kgf/mm ²)	1610
HRA	(ISO3738)	92.3
K ₄₀	(HRA-32)	10.5
TRS	(HRA-32)	> 4000
Porosity	A	02
Porosity	B	00
Porosity	C	00
WC-grain size	(µm)	0.6



Co %	10
WC incl. Doping (%)	90
Tungsten Carbide α	±0.6µm

WORK MATERIAL

ISO	(H)	(P)	(K)	(M)	(S)	(N)
MATERIAL	Hardened steel	Low alloy steel	Cast iron	Stainless steel	High temp. alloys	Aluminum alloy
						Copper alloys
	High alloy steel, cast steel, tool steel				Titanium and Ti alloys	Non-metallic

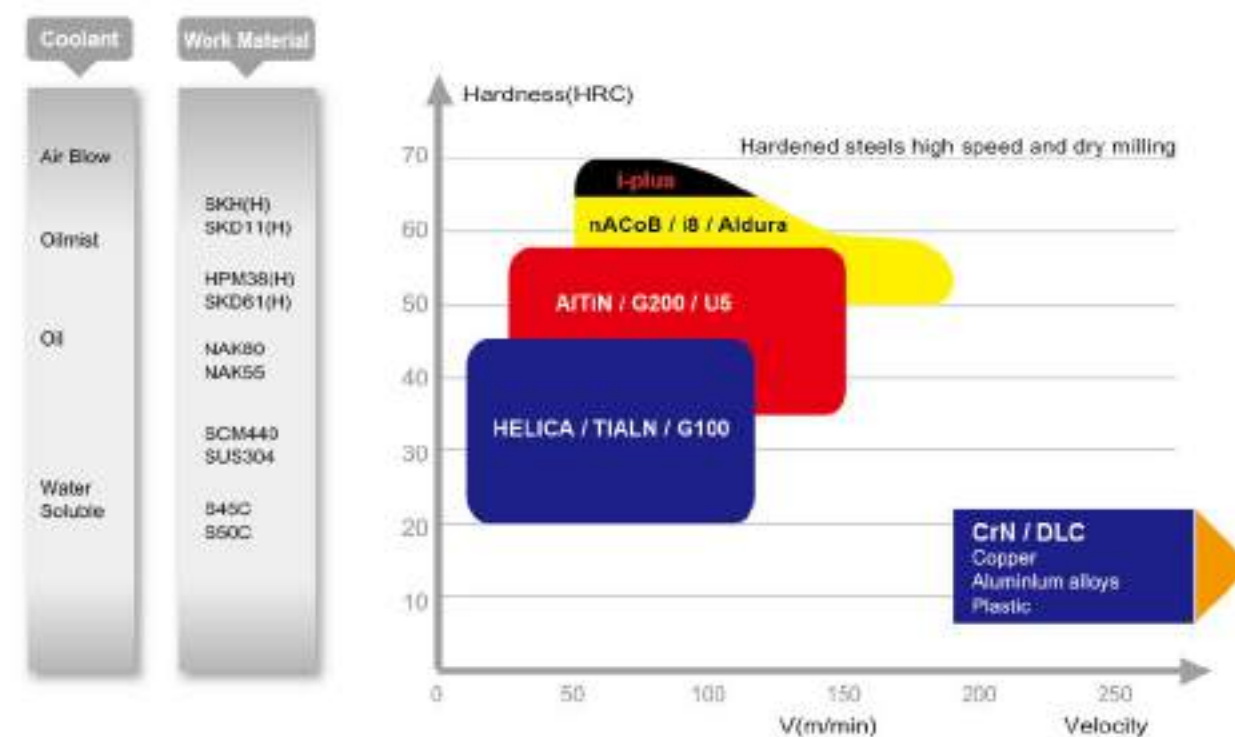
HARD COATING PROPERTIES

Coating Type	Symbol Color	Nanohardness(GPa)	Thickness (μm)	Friction Coefficient	Max usage Temp(°C)	Coating Temp(°C)
TIALN	BLACK	30	1 - 4	0.4	800	450 ↑
AlTiN	BLACK	38	1 - 4	0.6	900	450 ↑
nACoB	BLUE	45	1 - 4	0.45	1200	400 ↑
HELICA	COPPER	30	1 - 4	0.25	1000	480 ↑
CrN	METAL-SILVER	18	1 - 7	0.4	700	200 - 400
DLC	BLACK	20	1 - 3	0.15	400	150 - 250
G100	BURGUNDY-VIOLET	33	1 - 4	0.3	500	
G300	SOFT GOLD	35	1 - 4	0.4	800	
i8	GOLD-BRASS	47	1 - 4	0.45	900	
Aldura	BLACK	32	1 - 4	0.35	1100	
G-plus	WHITE GOLD		1 - 4	0.25	550	
i-plus	COPPER		1 - 3	0.3	1200	



COATING APPLICATIONS

Coating Type	Symbol Color	Introduce coating on different materials
TIALN	BLACK	General steel for wet cutting (HRC35-45)
AlTiN	BLACK	High Hard steel for Dry cutting (HRC45-65)
nACoB	BLUE	High Hard steel for Dry cutting (HRC55-65)
HELICA	COPPER	General steel, Cast iron, with special flute design and work on Stainless steel(EX: SEPS)
CrN	METAL-SILVER	Copper Alloy
DLC	BLACK	Aluminum Alloy
G100	BURGUNDY-VIOLET	General steel for wet cutting (HRC35-45)
G300	SOFT GOLD	Tough material, ex: Titanium Alloy, Nickel Alloy, Stainless steel and Heat-resistant alloy
i8	GOLD-BRASS	High Hard steel for Dry and wet cutting(HRC55-65)
Aldura	BLACK	High Hard steel for Dry cutting (HRC55-65)
Diamond	BLACK GRAY	Graphite, Zirconium Oxide
G-plus	WHITE GOLD	Tough material, ex: Titanium Alloy, Nickel Alloy, Stainless steel and Heat-resistant alloy
i-plus	COPPER	High Hard steel for Dry and wet cutting(HRC70)



V

V70

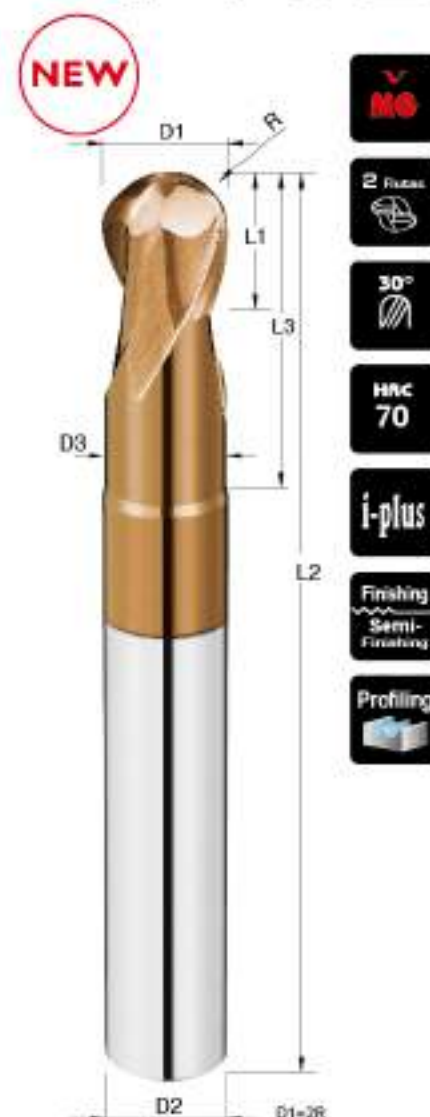
Hardened Steels HRC70 series

V70

V70B

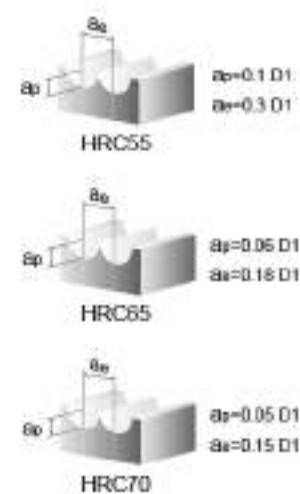
► Ball Nose / for H P

unit: mm



Order No.	Radius R	Neck Dia D3	Flute Length L1	Effective Length L3	O.A.L. L2	Shank Dia D2
V70B 0306	R1.5	2.90	3	8	50	6
V70B 0406	R2	3.88	4	10	50	6
V70B 0506	R2.5	4.80	5	13	50	6
V70B 0606	R3	5.80	6	15	50	6
V70B 0808	R4	7.70	8	20	60	8
V70B 1010	R5	9.60	10	25	75	10
V70B 1212	R6	11.50	12	30	75	12

▼ Depth of cut



▼ Recommended cutting condition for V70B

MATERIAL	Hardened Steels SKD61, SKT4		Hardened Steels SKD11, SKH51		Hardened Steels SKH, HAP	
HARDNESS	-HRC55		-HRC65		-HRC70	
Radius (R)	SPEED (min ⁻¹)	FEED mm/min	SPEED (min ⁻¹)	FEED mm/min	SPEED (min ⁻¹)	FEED mm/min
R1.5	22000	2200	18000	1800	10500	850
R2	16500	2200	13500	1800	8000	850
R2.5	13400	2200	11000	1850	6400	850
R3	11300	2300	9100	1850	5500	850
R4	8600	2350	7000	1900	4100	850
R5	7000	2350	5600	1900	3200	850
R6	5800	2300	4700	1850	2700	850

V70

V70R

► Corner Radius / for **H** **P**

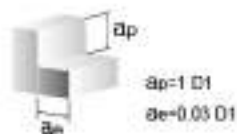
unit: mm

Order No.	Diameter D1	Corner R R	Neck Dia D3	Flute Length L1	Effective Length L3	O.A.L. L2	Shank Dia D2
V70R 0605	6.0	0.5	5.80	6	18	50	6
V70R 0610	6.0	1.0	5.80	6	18	50	6
V70R 0805	8.0	0.5	7.70	8	24	60	8
V70R 0810	8.0	1.0	7.70	8	24	60	8
V70R 1005	10.0	0.5	9.60	10	30	75	10
V70R 1010	10.0	1.0	9.60	10	30	75	10
V70R 1020	10.0	2.0	9.60	10	30	75	10
V70R 1205	12.0	0.5	11.50	12	36	75	12
V70R 1210	12.0	1.0	11.50	12	36	75	12
V70R 1220	12.0	2.0	11.50	12	36	75	12

NEW



▼ Depth of cut



▼ Recommended cutting condition for V70R

MATERIAL	Hardened Steels SKD61 , SKT4		Hardened Steels SKD11 , SKH51		Hardened Steels SKS , SKH	
HARDNESS	-HRC55		-HRC65		-HRC70	
Dia. (D1)	SPEED (min ⁻¹)	FEED mm / min	SPEED (min ⁻¹)	FEED mm / min	SPEED (min ⁻¹)	FEED mm / min
6	5050	420	4000	260	3500	200
8	3800	400	3000	250	2700	180
10	3050	360	2400	240	2100	160
12	2520	360	2000	230	1800	150

V70

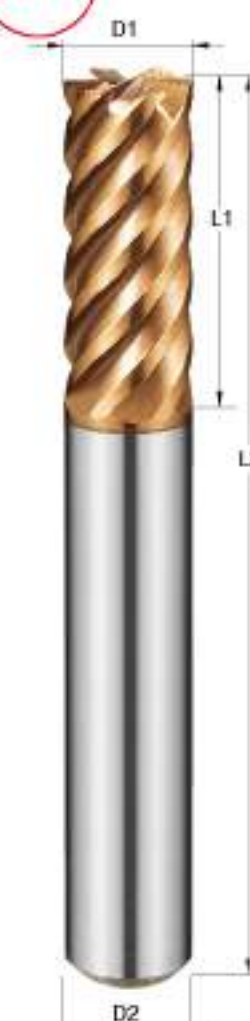
V70E

► Square / for **H** **P**

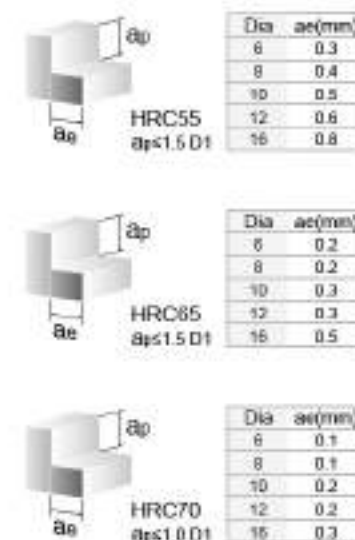
unit: mm

Order No.	Diameter D1	Flute Length L1	O.A.L. L2	Shank Dia D2
V70E 0606	6.0	16	50	6
V70E 0808	8.0	20	60	8
V70E 1010	10.0	25	75	10
V70E 1212	12.0	30	75	12
V70E 1616	16.0	40	100	16

NEW



▼ Depth of cut



▼ Recommended cutting condition for V70E

MATERIAL	Hardened Steels SKD61 , SKT4		Hardened Steels SKD11		Hardened Steels SKS , SKH	
HARDNESS	-HRC55		-HRC65		-HRC70	
Dia. (D1)	SPEED (min ⁻¹)	FEED mm / min	SPEED (min ⁻¹)	FEED mm / min	SPEED (min ⁻¹)	FEED mm / min
6	13000	4600	6400	2400	4200	1450
8	10000	4600	4800	2400	3200	1450
10	7700	4600	4000	2400	2600	1450
12	6400	3800	3200	1900	2200	1200
16	4800	2900	2400	1400	1600	900