



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 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.



CONTENTS

V

V70

Page	Mill Dia.	Coating	HRC 45-55	HRC 55-60	HRC 60-65	HRC 65-70	Cast Iron	Titanium Alloy	Stainless Steels	Aluminum Alloy	Copper Alloy	Graphite	Superalloy, Heat-resistant Steels
14													
15	1~12	i-plus	○	○	○	○							
16	6~12	i-plus	○	○	○	○							
17	4~12	i-plus	○	○	○	○							
18	4~10	i-plus	○	○	○	○							
19	3~16	i-plus	○	○	○	○							
20	6~16	i-plus	○	○	○	○							
21	6~12	i-plus	○	○	○	○							
22	1~12	i-plus	○	○	○	○							
23	0.5~4	i-plus	○	○	○	○							
24	1~4	i-plus	○	○	○	○							
25	1~3	i-plus	○	○	○	○							
26													
27	0.2~1.8	i-X	○	○	○								
28	1~16	ALTiN	○	○	○								
29	4~12	i-X	○	○	○								
30	1~16	nAcoB	○	○	○								
31	1~16	i8	○	○	○								
32	1~12	nAcoB	○	○	○								
33	1~12	i8	○	○	○								
34	2~20	ALTiN	○	○	○								
35	2~20	i8	○	○	○								
36	1~12	ALTiN	○	○	○								
37	0.2~1.8	i-X	○	○	○								
38	1~20	ALTiN	○	○	○								
39	4~12	i-X	○	○	○								
40	1~20	nAcoB	○	○	○								
41	3~20	i8	○	○	○								
42	6~12	ALTiN	○	○	○								
43	1~12	ALTiN	○	○	○								
44	4~12	i-X	○	○	○								
45	1~12	nAcoB	○	○	○								
46	3~12	nAcoB	○	○	○								
47	3~12	i8	○	○	○								
48	6~12	ALTiN	○	○	○								
49	6~12	i8	○	○	○								
50	0.5~4	ALTiN	○	○	○								
51	0.5~3	i-X	○	○	○								
52	1~3	i-X	○	○	○								
53	1~3	i-X	○	○	○								

Q

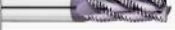
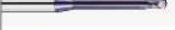
MAGIC CUT

27	0.2~1.8	i-X	○	○	○								
28</													

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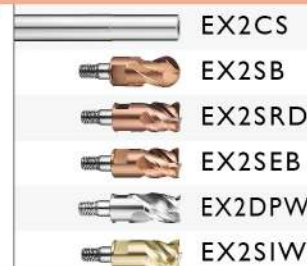
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EFFICIENCY MILLS

	Page	Mill Dia.	Coating	HRC 45-55	HRC 55-60	HRC 60-65	HRC 65-70	Cast Iron	Titanium Alloy	Stainless Steels	Aluminum Alloy	Copper Alloy	Graphite	Superalloy, Heat-resistant Steels
 SEFV(SEFX)	93	1~3	i-X	○	○			○				○		
 BM	94	0.4~1.8	TiaLN	○				○				○		
 BS	95	1~4	TiaLN	○				○				○		
 BA	96	1~20	TiaLN	○				○				○		
 BB	97	1~12	TiaLN	○				○				○		
 BLS/M/L	98	1~20	TiaLN	○				○				○		
 EM	99	0.4~1.8	TiaLN	○				○				○		
 ES	100	1~4	TiaLN	○				○				○		
 EA	101	1~20	TiaLN	○				○				○		
 EB	102	1~20	TiaLN	○				○				○		
 EC	103	3~20	TiaLN	○				○				○		
 EP	104	3~20	TiaLN	○				○				○		
 ED	105	3~16	TiaLN	○				○	○	○		○		
 ELA	106	6~12	TiaLN	○				○				○		
 ELB	107	3~16	TiaLN	○				○				○		
 ELC	108	2~12	TiaLN	○				○				○		
 ELD	109	2~20	TiaLN	○				○				○		
 EH	110	6~20	TiaLN	○				○				○		
 EHL	111	6~20	TiaLN	○				○				○		
 EG	112	6~20	TiaLN	○				○				○		
 EGA	113	6~20	TiaLN	○				○				○		
 ETL	114	1~4	TiaLN	○				○				○		
 ET	115	0.5~10	TiaLN	○				○				○		
 ERA	116	3~12	TiaLN	○				○				○		
 ERB	117	3~12	TiaLN	○				○				○		
 ERC	118	6~12	TiaLN	○				○				○		
 BF	119	1~4	TiaLN	○				○				○		
 EFA	120	1~3	TiaLN	○				○				○		
 SBBIV(SBBI)	121	3~12	G-plus	○				</						

CONTENTS

EX MAGIC SHANK



T T.pro



C C.pro



CD CD



CR CR



Page	Mill Dia.	Coating	HRC 45-55	HRC 55-60	HRC 60-65	HRC 65-70	Cast Iron	Titanium Alloy	Stainless Steels	Aluminum Alloy	Copper Alloy	Graphite	Superalloy, Heat-resistant Steels
171													
172	10~20												
172	10~20	i8											
173	10~20	i8											
173	10~20	i8											
174	10~20												
174	10~20	G-plus											
175													
176	P0.5-P2.5	G100											
177	P0.5-P2.5	G100											
178	P0.7-P2.5	G100											
179	P0.5-P1.25	i8											
180	P0.5-P1.75	G100											
181													
182	4~12	TiaLN											
183	4~12	i8											
184	4~12	i8											
185	1~12												
185	0.5~0.9												
186													
187	3~20												
187	3~20												
188	3~20	TiaLN											
188	3~20	TiaLN											
189	6~20	TiaLN											
189	6~20	TiaLN											
190	0.5~5												
190	0.5~5												
191	2~13	TiaLN											
192	3~20	TiaLN											
193	3~20	TiaLN											
194	3~12	TiaLN											
195	3~20	i8											
196	3~20	i8											
197	3~10	i8											
198													
199	2~12												

CONTENTS

DT DEN.pro



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 Radius	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 datas are for reference. You may increase cutting data starting from 50%.

ICONS

• Flutes



• Helix Angle



• Work Material Hardness



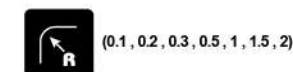
• Coating



• Roughing Pitch



• Corner Radius



• Tip Angle



• Applications



• Statistics For Drills



SOLID CARBIDE

Grade	V MG	Q MG	S MG	MG	G MG	T MG
ISO Classification	K05-K10	K05-K10	K10-K20	K10-K20	K10-K20	K05-K10
CO (%)	9.0	9.0	12.0	10.0	6.0	9.0
WC grain size (um)	0.2-0.4	0.2-0.4	0.5	0.6	0.8	0.2-0.4

WORK MATERIAL

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

HARD COATING PROPERTIES

Coating Type	Symbol Color	Nanohard-ness (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	30	1 - 4	0.4	800	
i8	  Gold-brass	47	1 - 4	0.45	900	
Diamond	  Black Gray					
G-plus	  White Gold		1 - 4	0.25	1100	450
G-X	  Purple gradient		2 - 7	0.4	1000	450
i-plus	  Copper		1 - 3	0.3	1200	
i-X	  Golden gradient		2 - 7	0.55	1100	450
D-X	  Yellow-Blue gradient		0.1 - 1	0.05 - 0.1	500	250 - 650
DLC-X	  Full Colored		0.5 - 1	0.25	350	250

COATING APPLICATIONS

Coating Type	Symbol Color	Introduce coating on different materials
TiaLN	 Black	General steels; wet cutting (HRC35~45)
ALTiN	 Black	Hardened steels; dry and wet cutting (HRC45~65)
nACoB	 Blue	Hardened steels; dry cutting (HRC55~65)
HELICA	 Copper	General steels; wet cutting.
CrN	 Metal-silver	Good adhesive force; excellent for Copper Alloy.
DLC	 Black	High thermal conductivity and low coefficient of friction. Excellent for Aluminum Alloy.
G100	 Burgundy-violet	General steels; wet cutting (HRC35~45)
i8	 Gold-brass	Hardened steels; dry and wet cutting (HRC55-65)
Diamond	 Black Gray	For Graphite, Zirconium CFRP.GFRP cutting.
G-plus	 White Gold	Tough materials, Titanium, Nickel and heat-resistant alloys.
G-X	 Purple gradient	Tough materials, Titanium, Nickel and heat-resistant alloys.
i-plus	 Copper	Hardened steels; dry and wet cutting (HRC55~70)
i-X	 Golden gradient	Hardened steels (HRC55~70)
D-X	 Yellow-Blue gradient	High thermal conductivity and low coefficient of friction. Excellent for Aluminum Alloy.
DLC-X	 Full Colored	Excellent for Aluminum Alloy.

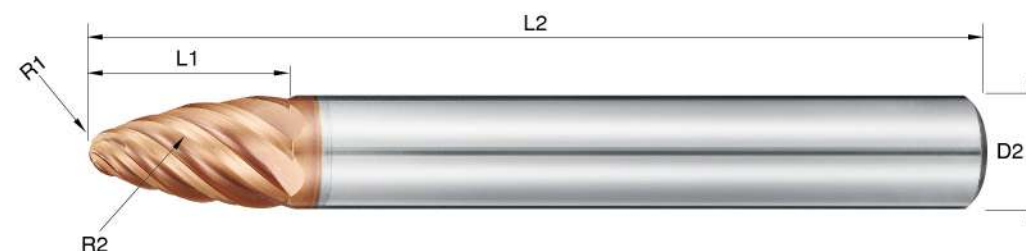


V70

V70BTR



Hardened Steels HRC70 series / 6 Flute / Taper Barrel Type



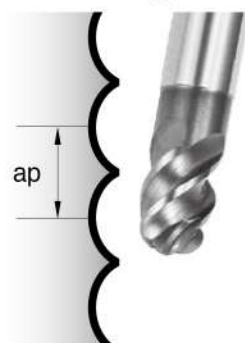
• FEATURES

- 6 Flute Barrel Type for precision milling up to HRC70.
- Large radius edge in the cutting area with multi-flute design brings higher milling efficiency.
- Compared to ball nose end mills, Barrel Type has wider ap stepover to reduce machining time.
- Lower cusp height to improve surface finish.
- i-plus new coating offers great heat resistance and friction resistance; suitable for dry cutting at high speed.

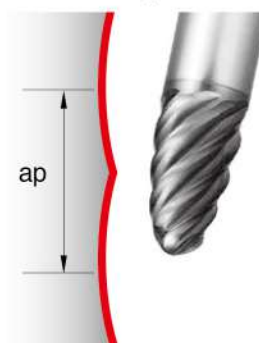
• ITEMS

Order No.	Radius R1	Radius R2	Flute Length L1	O.A.L. L2	Shank Dia D2
V70BTR 1045D06	R1.0	R45	14.0	6	75
V70BTR 1545D08	R1.5	R45	16.0	8	75
V70BTR 2040D10	R2.0	R40	17.5	10	100
V70BTR 2040D12	R2.0	R40	18.5	12	100

Standard Type



Barrel Type

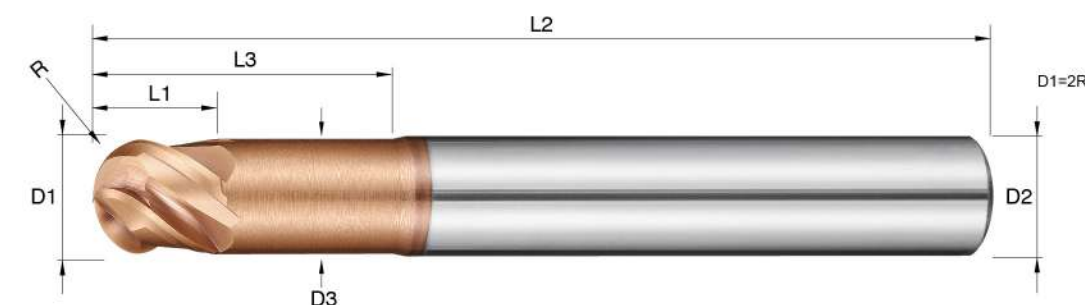


V70

V70BB



Hardened Steels HRC70 series / 4 Flute / Ball Nose



• FEATURES

- 4 Flute Ball Nose with special angle ground for workpiece up to HRC70.
- Effective length design for profile milling.
- i-plus new coating offers great heat resistance and friction resistance; suitable for dry cutting at high speed.

• ITEMS

Order No.	Radius R	Neck Dia D3	Flute Length L1	Effective Length L3	O.A.L. L2	Shank Dia D2
V70BB 0406	R2	3.88	4	10	50	6
V70BB 0606	R3	5.80	6	15	50	6
V70BB 0808	R4	7.70	8	20	60	8
V70BB 1010	R5	9.60	10	25	75	10
V70BB 1212	R6	11.50	12	30	75	12

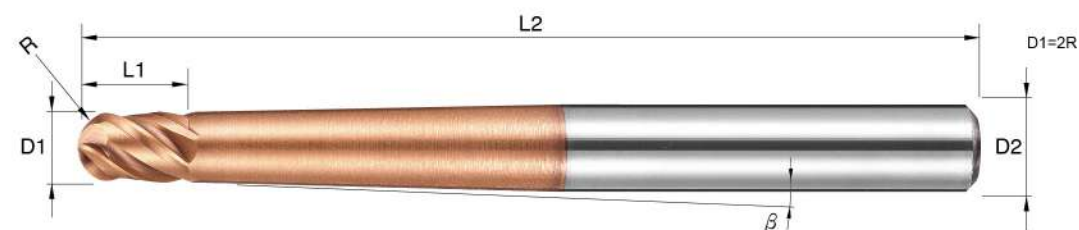


V70

V70BBC



Hardened Steels HRC70 series / 4 Flute / Taper Neck / Ball Nose



• FEATURES

- 4 Flute Ball Nose with special angle ground for workpiece up to HRC70.
- Taper Angle(β): 1.5°, 3°, 5° suitable for working on an inclined surface.
- i-plus new coating offers great heat resistance and friction resistance; suitable for dry cutting at high speed.

• ITEMS

Order No.	Corner R R	Flute Length L1	O.A.L. L2	Shank Dia D2	unit: mm
					Taper Angle β
V70BBC 0406	R2	6	100	6	1.5°
V70BBC 0406A	R2	6	100	6	3°
V70BBC 0406B	R2	6	100	6	5°
V70BBC 0608	R3	9	100	8	1.5°
V70BBC 0608A	R3	9	100	8	3°
V70BBC 0608B	R3	9	100	8	5°
V70BBC 0810	R4	12	100	10	1.5°
V70BBC 0810A	R4	12	100	10	3°
V70BBC 0810B	R4	12	100	10	5°
V70BBC 1012	R5	15	100	12	1.5°
V70BBC 1012A	R5	15	100	12	3°
V70BBC 1012B	R5	15	100	12	5°

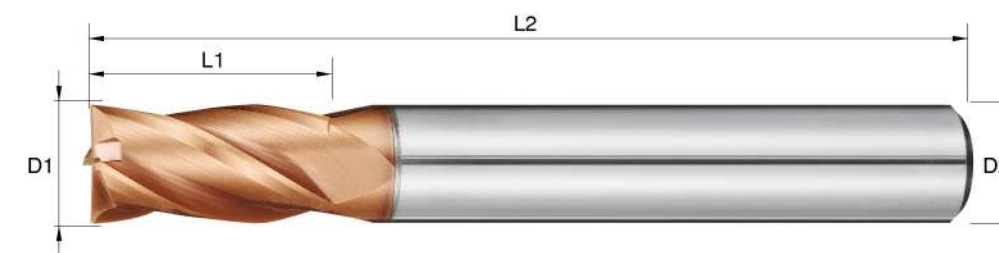


V70

V70EB



Hardened Steels HRC70 series / 4 Flute / Square



• FEATURES

- 4 Flute Square with special angle ground for workpiece up to HRC70.
- VMG Special Micro Grain Carbide. High hardness, high rigidity, and high bending resistance.
- i-plus new coating offers great heat resistance and friction resistance; suitable for dry cutting at high speed.

• ITEMS

Order No.	Diameter D1	Flute Length L1	O.A.L. L2	unit: mm
				Shank Dia D2
V70EB 0306	3.0	8	50	6
V70EB 0406	4.0	11	50	6
V70EB 0506	5.0	13	50	6
V70EB 0606	6.0	16	50	6
V70EB 0808	8.0	20	60	8
V70EB 1010	10.0	25	75	10
V70EB 1212	12.0	30	75	12
V70EB 1616	16.0	40	100	16

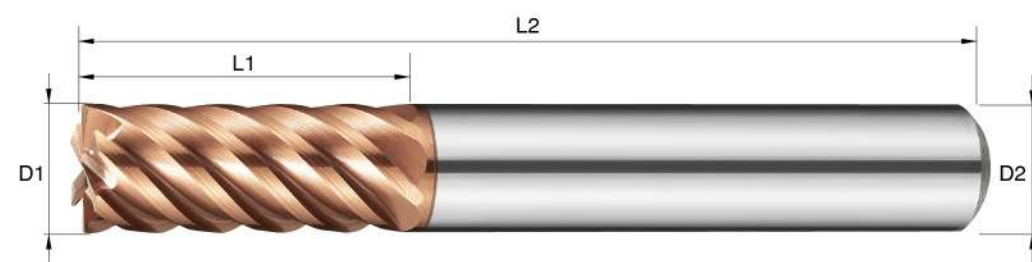


V70

V70E



Hardened Steels HRC70 series / 6 Flute / Square



• FEATURES

- 6 Flute Square with special angle ground for workpiece up to HRC70.
- VMG Special Micro Grain Carbide. High hardness, high rigidity, and high bending resistance.
- i-plus new coating offers great heat resistance and friction resistance; suitable for dry cutting at high speed.

• ITEMS

Order No.	unit: mm			
	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

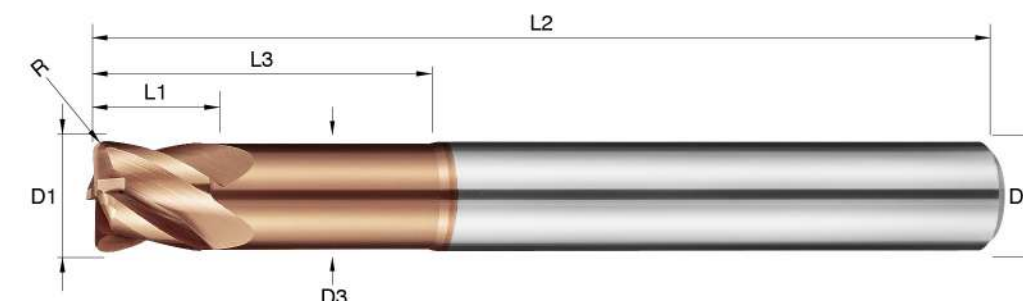


V70

V70R



Hardened Steels HRC70 series / 4 Flute / Coener Radius



• FEATURES

- 4 Flute Corner Radius with special angle ground for workpiece up to HRC70.
- VMG Special Micro Grain Carbide. High hardness, high rigidity, and high bending resistance.
- i-plus new coating offers great heat resistance and friction resistance; suitable for dry cutting at high speed.

• ITEMS

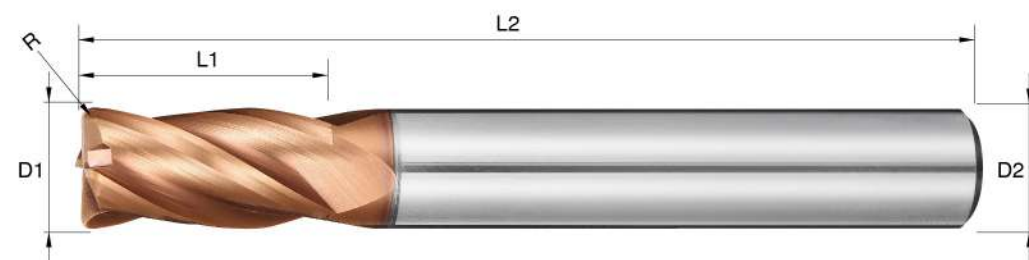
Order No.	unit: mm						
	Diameter D1	Corner R R	Neck Dia D3	Flute Length L1	Effective Length L3	O.A.L. L2	Shank Dia D2
V70R 0605	6.0	0.5	5.80	6	18	50	6
V70R 0610	6.0	1.0	5.80	6	18	50	6
V70R 0805	8.0	0.5	7.70	8	24	60	8
V70R 0810	8.0	1.0	7.70	8	24	60	8
V70R 1005	10.0	0.5	9.60	10	30	75	10
V70R 1010	10.0	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



V70

V70RD

Hardened Steels HRC70 series / 4 Flute / Coener Radius



• FEATURES

- 4 Flute Corner Radius with special angle ground for workpiece up to HRC70.
- VMG Special Micro Grain Carbide. High hardness, high rigidity, and high bending resistance.
- i-plus new coating offers great heat resistance and friction resistance; suitable for dry cutting at high speed.

• ITEMS

Order No.	Diameter D1	Corner R R	Flute Length L1	O.A.L. L2	Shank Dia D2
V70RD 0102	1.0	0.2	2	50	4
V70RD 01502	1.5	0.2	3	50	4
V70RD 01503	1.5	0.3	3	50	4
V70RD 0202	2.0	0.2	4	50	4
V70RD 0203	2.0	0.3	4	50	4
V70RD 0205	2.0	0.5	4	50	4
V70RD 0302	3.0	0.2	6	50	6
V70RD 0305	3.0	0.5	6	50	6
V70RD 0402	4.0	0.2	8	50	6
V70RD 0405	4.0	0.5	8	50	6
V70RD 0410	4.0	1.0	8	50	6
V70RD 0605	6.0	0.5	12	50	6
V70RD 0610	6.0	1.0	12	50	6
V70RD 0805	8.0	0.5	16	60	8
V70RD 0810	8.0	1.0	16	60	8
V70RD 1005	10.0	0.5	20	75	10
V70RD 1010	10.0	1.0	20	75	10
V70RD 1020	10.0	2.0	20	75	10
V70RD 1030	10.0	3.0	20	75	10
V70RD 1205	12.0	0.5	24	75	12
V70RD 1210	12.0	1.0	24	75	12
V70RD 1220	12.0	2.0	24	75	12
V70RD 1230	12.0	3.0	24	75	12

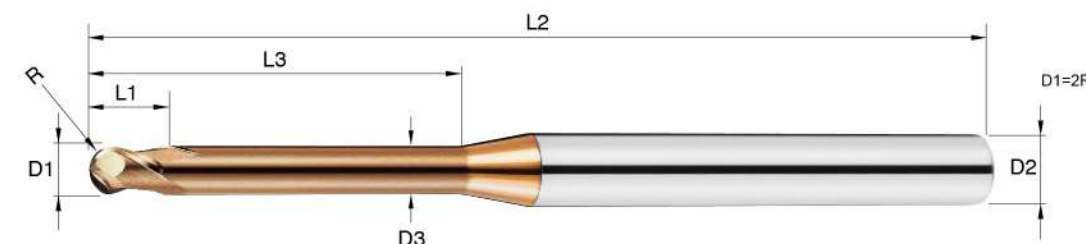
unit: mm



V70

V70BF

Hardened Steels HRC70 series / 2 Flute / Long Neck / Ball Nose



• FEATURES

- R0.25~R2 mm 2 Flute long neck Ball Nose for precision milling up to HRC70.
- Effective length 4~30 mm excellent for rib milling.
- i-plus new coating offers great heat resistance and friction resistance; suitable for dry cutting at high speed.

• ITEMS

Order No.	Radius R	Neck Dia D3	Flute Length L1	Effective Length L3	O.A.L. L2	Shank Dia D2
V70BF 00504	R0.25	0.46	0.5	4	50	4
V70BF 00506	R0.25	0.46	0.5	6	50	4
V70BF 00604	R0.3	0.56	0.6	4	50	4
V70BF 00606	R0.3	0.56	0.6	6	50	4
V70BF 00806	R0.4	0.76	0.8	6	50	4
V70BF 00808	R0.4	0.76	0.8	8	50	4
V70BF 01006	R0.5	0.95	1.5	6	50	4
V70BF						

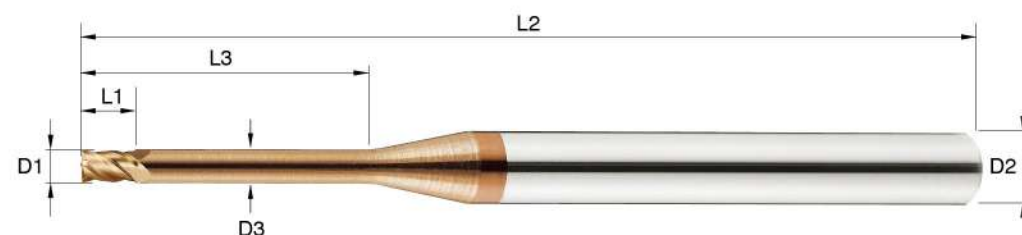


V70

V70EFB



Hardened Steels HRC70 series / 4 Flute / Long Neck / Square



• FEATURES

- 1.0~4.0 mm 4 Flute long neck Square for precision milling up to HRC70.
- Effective length 6~30 mm excellent for rib milling.
- i-plus new coating offers great heat resistance and friction resistance; suitable for dry cutting at high speed.

• ITEMS

Order No.	Diameter D1	Neck Dia D3	Flute Length L1	Effective Length L3	O.A.L. L2	unit: mm	
						Shank Dia D2	
V70EFB 01006	1.0	0.95	1.5	6	50	4	
V70EFB 01008	1.0	0.95	1.5	8	50	4	
V70EFB 01010	1.0	0.95	1.5	10	50	4	
V70EFB 01012	1.0	0.95	1.5	12	50	4	
V70EFB 01208	1.2	1.15	2	8	50	4	
V70EFB 01212	1.2	1.15	2	12	50	4	
V70EFB 01508	1.5	1.45	2	8	50	4	
V70EFB 01510	1.5	1.45	2	10	50	4	
V70EFB 01512	1.5	1.45	2	12	50	4	
V70EFB 01516	1.5	1.45	2	16	50	4	
V70EFB 01608	1.6	1.54	2.5	8	50	4	
V70EFB 01612	1.6	1.54	2.5	12	50	4	
V70EFB 01616	1.6	1.54	2.5	16	50	4	
V70EFB 02008	2.0	1.92	3	8	50	4	
V70EFB 02010	2.0	1.92	3	10	50	4	
V70EFB 02012	2.0	1.92	3	12	50	4	
V70EFB 02016	2.0	1.92	3	16	50	4	
V70EFB 02020	2.0	1.92	3	20	50	4	
V70EFB 02510	2.5	2.40	3	10	50	4	
V70EFB 02512	2.5	2.40	3	12	50	4	
V70EFB 02516	2.5	2.40	3	16	50	4	
V70EFB 02520	2.5	2.40	3	20	50	4	
V70EFB 03010	3.0	2.90	4	10	75	6	
V70EFB 03012	3.0	2.90	4	12	75	6	
V70EFB 03016	3.0	2.90	4	16	75	6	
V70EFB 03020	3.0	2.90	4	20	75	6	
V70EFB 03025	3.0	2.90	4	25	75	6	
V70EFB 04010	4.0	3.88	5	10	75	6	
V70EFB 04015	4.0	3.88	5	15	75	6	
V70EFB 04020	4.0	3.88	5	20	75	6	
V70EFB 04025	4.0	3.88	5	25	75	6	
V70EFB 04030	4.0	3.88	5	30	75	6	



V70

V70RFB



Hardened Steels HRC70 series / 4 Flute / Long Neck / Corner Radius



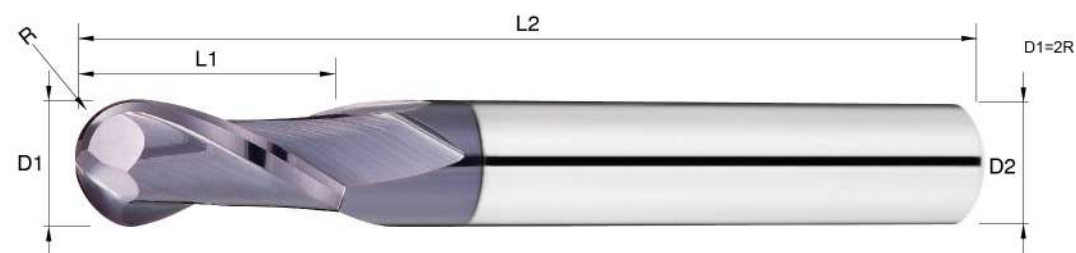


MAGIC CUT

QB



Hardened Steels HRC65 series / 2 Flute / Ball Nose



• FEATURES

- 2 Flute Ball Nose for up to HRC65.
- Hardened steel, Cast iron, Low/High alloy steel, cast steel, and tool steel.
- ALTiN coating for Hardened steel.

• ITEMS

Order No.	Radius R	Flute Length L1	O.A.L. L2	Shank Dia D2
QB 0104	R0.5	2	50	4
QB 0106	R0.5	2	50	6
QB 0154	R0.75	3	50	4
QB 0156	R0.75	3	50	6
QB 0204	R1	4	50	4
QB 0206	R1	4	50	6
QB 0303	R1.5	6	50	3
QB 0304	R1.5	6	50	4
QB 0306	R1.5	6	50	6
QB 0404	R2	8	50	4
QB 0406	R2	8	50	6
QB 0506	R2.5	10	50	6
QB 0606	R3	12	50	6
QB 0808	R4	16	60	8
QB 1010	R5	20	75	10
QB 1212	R6	24	75	12
QB 1616	R8	32	100	16

unit: mm

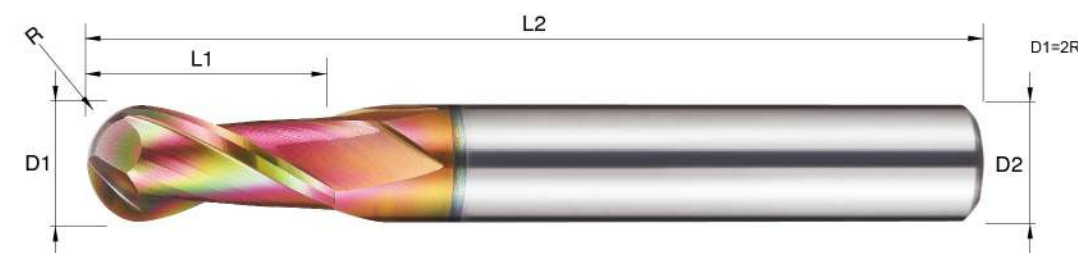


MAGIC CUT

QBGS



Hardened Steels HRC65 series / 2 Flute / Ball Nose



• FEATURES

- 2 Flute Ball Nose for up to HRC65.
- Hardened steel, Cast iron, Low/High alloy steel, cast steel, and tool steel.
- i-X new coating offers great heat resistance and friction resistance; suitable for Hardened steel.

• ITEMS

Order No.	Radius R	Flute Length L1	O.A.L. L2	Shank Dia D2
QBGS 0404	R2	8	50	6
QBGS 0606	R3	12	50	6
QBGS 0808	R4	16	60	8
QBGS 1010	R5	20	75	10
QBGS 1212	R6	24	75	12

unit: mm

QBG



• discontinuation

QBG Product Series with Aldura coating will be discontinued after Dec. 2024.

We will continue to ship QBG orders until our inventory is depleted.

If you'd like to purchase QBG products, please contact your HGT sales representative while stocks last.

The replacement of QBG is QBGS Product Series, which is original QBG with new coating i-X.

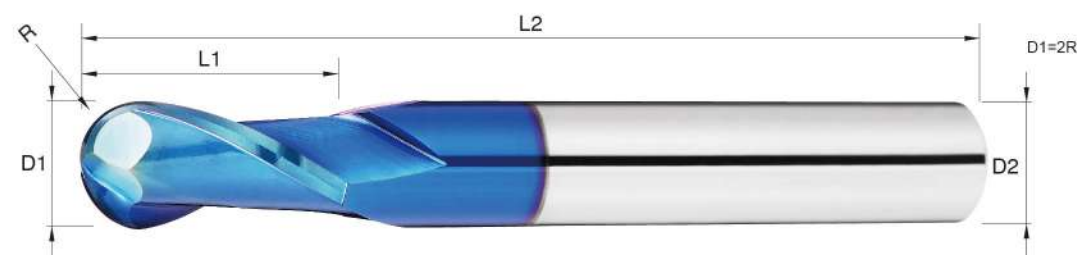


MAGIC CUT

QBN



Hardened Steels HRC65 series / 2 Flute / Ball Nose



• FEATURES

- 2 Flute Ball Nose for up to HRC65.
- Hardened steel, Cast iron, Low/High alloy steel, cast steel, and tool steel.
- Heat-resistant nAcoB Coating, excellent for dry machining; not recommended for working wet.

• ITEMS

Order No.	Radius R	Flute Length L1	O.A.L. L2	Shank Dia D2
QBN 0104	R0.5	2	50	4
QBN 0106	R0.5	2	50	6
QBN 0154	R0.75	3	50	4
QBN 0156	R0.75	3	50	6
QBN 0204	R1	4	50	4
QBN 0206	R1	4	50	6
QBN 0303	R1.5	6	50	3
QBN 0304	R1.5	6	50	4
QBN 0306	R1.5	6	50	6
QBN 0404	R2	8	50	4
QBN 0406	R2	8	50	6
QBN 0506	R2.5	10	50	6
QBN 0606	R3	12	50	6
QBN 0808	R4	16	60	8
QBN 1010	R5	20	75	10
QBN 1212	R6	24	75	12
QBN 1616	R8	32	100	16

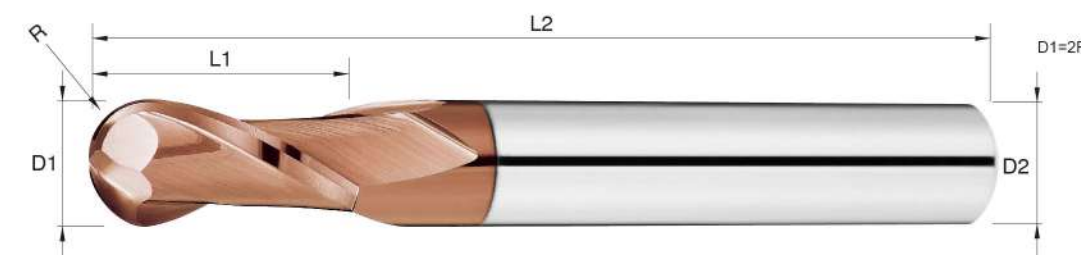


MAGIC CUT

QBX



Hardened Steels HRC65 series / 2 Flute / Ball Nose



• FEATURES

- 2 Flute Ball Nose for up to HRC65.
- Hardened steel, Cast iron, Low/High alloy steel, cast steel, and tool steel.
- i8 Coating: High temperature resistance and low wear.

• ITEMS

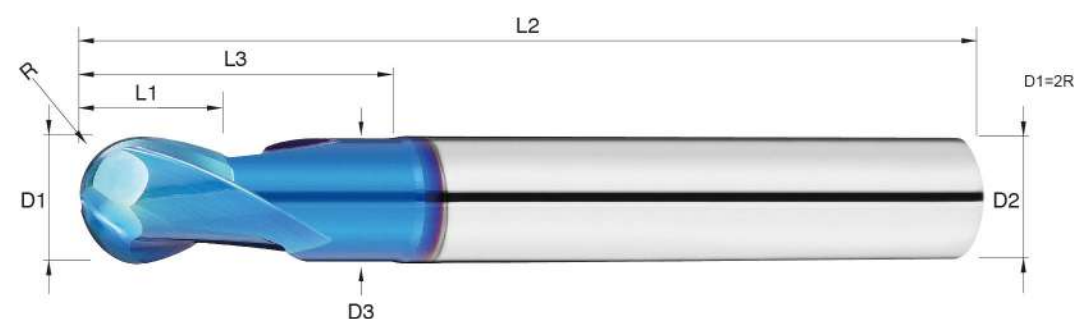
Order No.	Radius R	Flute Length L1	O.A.L. L2	Shank Dia D2
QBX 0104	R0.5	2	50	4
QBX 0106	R0.5	2	50	6
QBX 0154	R0.75	3	50	4
QBX 0156	R0.75	3	50	6
QBX 0204	R1	4	50	4
QBX 0206	R1	4	50	6
QBX 0303	R1.5	6	50	3
QBX 0304	R1.5	6	50	4
QBX 0306	R1.5	6	50	6
QBX 0404	R2	8	50	4
QBX 0406	R2	8	50	6
QBX 0506	R2.5	10	50	6
QBX 0606	R3	12	50	6
QBX 0808	R4	16	60	8
QBX 1010	R5	20	75	10
QBX 1212	R6	24	75	12
QBX 1616	R8	32	100	16



MAGIC CUT

QBHN

Hardened Steels HRC65 series / 2 Flute / Ball Nose



• FEATURES

- 2 Flute Ball Nose for up to HRC65.
- With Effective length design for profile milling.
- Heat-resistant nAcoB Coating, excellent for dry machining; not recommended for working wet.

• ITEMS

Order No.	Radius R	Neck Dia D3	Flute Length L1	Effective Length L3	O.A.L. L2	Shank Dia D2
QBHN 0104	R0.5	0.95	1	3	50	4
QBHN 0154	R0.75	1.45	1	3	50	4
QBHN 0204	R1	1.92	2	5	50	4
QBHN 0306	R1.5	2.90	3	8	50	6
QBHN 0406	R2	3.88	4	10	50	6
QBHN 0506	R2.5	4.80	5	13	50	6
QBHN 0606	R3	5.80	6	15	50	6
QBHN 0808	R4	7.70	8	20	60	8
QBHN 1010	R5	9.60	10	25	75	10
QBHN 1212	R6	11.50	12	30	75	12

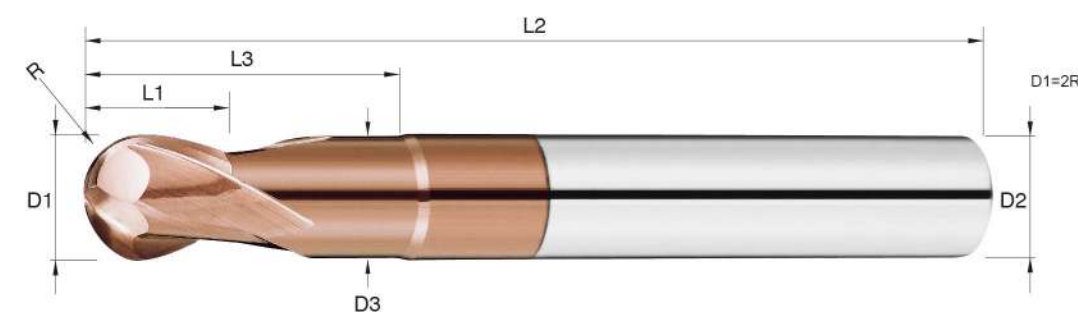
unit: mm



MAGIC CUT

QBHX

Hardened Steels HRC65 series / 2 Flute / Ball Nose



• FEATURES

- 2 Flute Ball Nose for up to HRC65.
- With Effective length design for profile milling.
- i8 Coating: High temperature resistance and low wear.

• ITEMS

Order No.	Radius R	Neck Dia D3	Flute Length L1	Effective Length L3	O.A.L. L2	Shank Dia D2
QBHX 0104	R0.5	0.95	1	3	50	4
QBHX 0154	R0.75	1.45	1	3	50	4
QBHX 0204	R1	1.92	2	5	50	4
QBHX 0306	R1.5	2.90	3	8	50	6
QBHX 0406	R2	3.88	4	10	50	6
QBHX 0506	R2.5	4.80	5	13	50	6
QBHX 0606	R3	5.80	6	15	50	6
QBHX 0808	R4	7.70	8	20	60	8
QBHX 1010	R5	9.60	10	25	75	10
QBHX 1212	R6	11.50	12	30	75	12

unit: mm

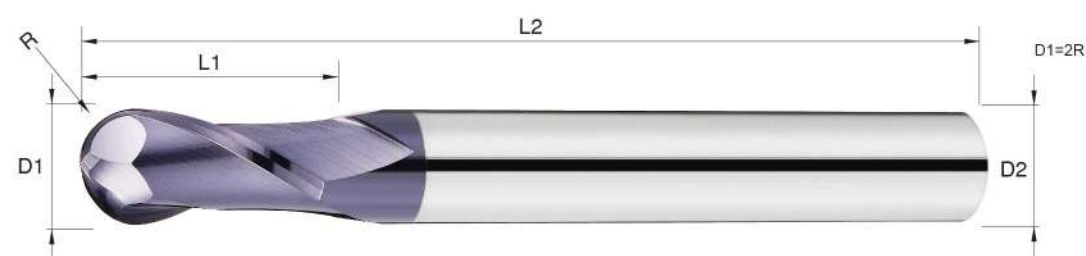


MAGIC CUT

QBLS.M.L



Hardened Steels HRC65 series / 2 Flute / Long Shank / Ball Nose



• FEATURES

- Long Shank 2 Flute Ball Nose for up to HRC65.
- Extended overall length for greater depth of cut.
- ALTiN coating for Hardened steel.

• ITEMS

Order No.	Radius R	Flute Length L1	O.A.L. L2	Shank Dia D2
QBLS 0206	R1	4	75	6
QBLS 0306	R1.5	6	75	6
QBLS 0406	R2	8	75	6
QBLS 0506	R2.5	10	75	6
QBLS 0606	R3	12	75	6
QBLS 0808	R4	16	75	8
QBLM 0606	R3	12	100	6
QBLM 0808	R4	16	100	8
QBLM 1010	R5	20	100	10
QBLM 1212	R6	24	100	12
QBLL 1010	R5	20	150	10
QBLL 1212	R6	24	150	12
QBLL 1616	R8	32	150	16
QBLL 2020	R10	40	150	20

unit: mm

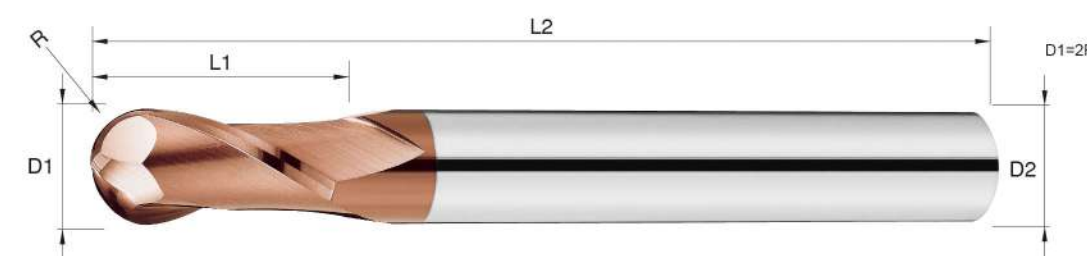


MAGIC CUT

QBLSX.MX.LX



Hardened Steels HRC65 series / 2 Flute / Long Shank / Ball Nose



• FEATURES

- Long Shank 2 Flute Ball Nose for up to HRC65.
- Extended overall length for greater depth of cut.
- i8 Coating: High temperature resistance and low wear.

• ITEMS

Order No.	Radius R	Flute Length L1	O.A.L. L2	Shank Dia D2
QBLSX 0206	R1	4	75	6
QBLSX 0306	R1.5	6	75	6
QBLSX 0406	R2	8	75	6
QBLSX 0506	R2.5	10	75	6
QBLSX 0606	R3	12	75	6
QBLSX 0808	R4	16	75	8
QBLMX 0606	R3	12	100	6
QBLMX 0808	R4	16	100	8
QBLMX 1010	R5	20	100	10
QBLMX 1212	R6	24	100	12
QBLLX 1010	R5	20	150	10
QBLLX 1212	R6	24	150	12
QBLLX 1616	R8	32	150	16
QBLLX 2020	R10	40	150	20

unit: mm

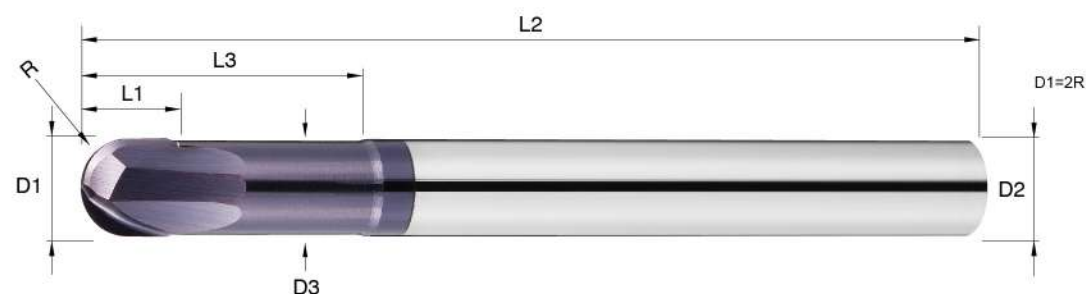


MAGIC CUT

QBP



Hardened Steels HRC65 series / 2 Flute / Power Ball Nose



• FEATURES

- Power 2 Flute Ball Nose for up to HRC65.
- Helix Angle 5 ° for heavy duty cutting and brings better chip removal.
- With Effective length design for profile milling.

• ITEMS

Order No.	Radius R	Neck Dia D3	Flute Length L1	Effective Length L3	O.A.L. L2	unit: mm	
						Shank Dia D2	
QBP 0104	R0.5	0.95	1	3	50	4	
QBP 0154	R0.75	1.45	2	5	50	4	
QBP 0206	R1	1.92	3	6	50	6	
QBP 0306	R1.5	2.90	4	8	50	6	
QBP 0306A	R1.5	2.90	4	8	75	6	
QBP 0406	R2	3.88	5	10	50	6	
QBP 0406A	R2	3.88	5	10	75	6	
QBP 0606	R3	5.80	6	12	50	6	
QBP 0606A	R3	5.80	6	16	75	6	
QBP 0808	R4	7.70	8	16	60	8	
QBP 0808A	R4	7.70	8	25	100	8	
QBP 1010	R5	9.60	10	20	75	10	
QBP 1010A	R5	9.60	10	30	100	10	
QBP 1212	R6	11.50	12	25	75	12	
QBP 1212A	R6	11.50	12	35	100	12	

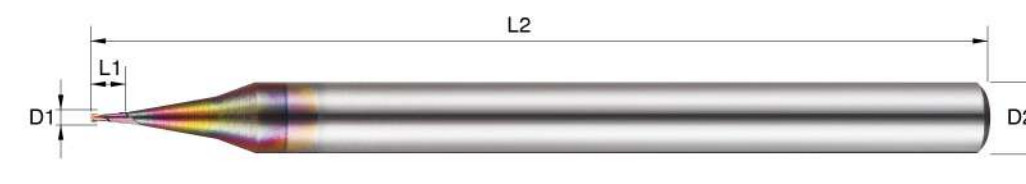


MAGIC CUT

QEMS



Hardened Steels HRC65 series / 2 Flute / Micro Diameter / Square



• FEATURES

- Micro Diameter 2 Flute Square for up to HRC65.
- Dia 0.2~1.8 mm suitable for general purpose precision milling.
- i-X new coating offers great heat resistance and friction resistance; suitable for Hardened steel.

• ITEMS

Order No.	Diameter D1	Flute Length L1	O.A.L. L2	unit: mm	
				Shank Dia D2	
QEMS 0024	0.2	0.4	50	4	
QEMS 0034	0.3	0.6	50	4	
QEMS 0044	0.4	0.8	50	4	
QEMS 0054	0.5	1.0	50	4	
QEMS 0064	0.6	1.2	50	4	
QEMS 0074	0.7	1.4	50	4	
QEMS 0084	0.8	1.6	50	4	
QEMS 0094	0.9	1.8	50	4	
QEMS 0124	1.2				

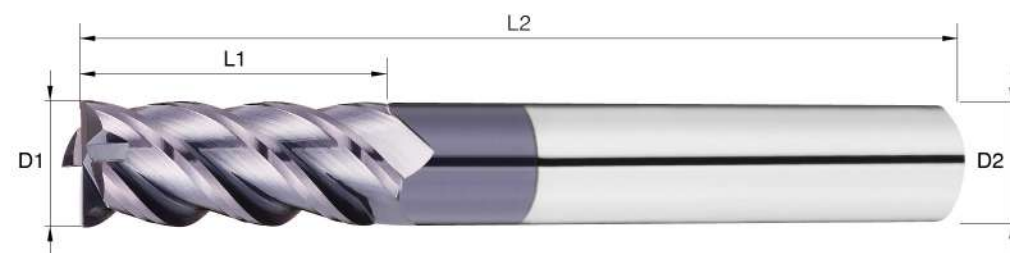


MAGIC CUT

QEB



Hardened Steels HRC65 series / 4 Flute / Square



• FEATURES

- 4 Flute Square for HRC65.
- Hardened steel, Cast iron, Low/High alloy steel, cast steel, and tool steel.
- ALTiN coating for Hardened steel.

• ITEMS

Order No.	unit: mm			
	Diameter D1	Flute Length L1	O.A.L. L2	Shank Dia D2
QEB 0104	1.0	3	50	4
QEB 0154	1.5	4	50	4
QEB 0204	2.0	6	50	4
QEB 0303	3.0	8	50	3
QEB 0304	3.0	8	50	4
QEB 0404	4.0	11	50	4
QEB 0506	5.0	13	50	6
QEB 0606	6.0	16	50	6
QEB 0808	8.0	20	60	8
QEB 1010	10.0	25	75	10
QEB 1212	12.0	30	75	12
QEB 1616	16.0	40	100	16
QEB 2020	20.0	45	100	20

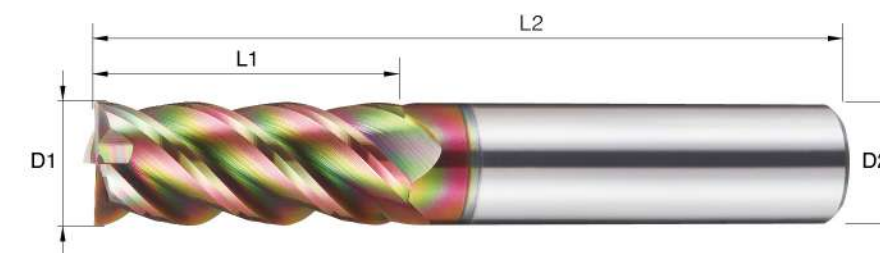


MAGIC CUT

QEBGS



Hardened Steels HRC65 series / 4 Flute / Square



• FEATURES

- 4 Flute Square for HRC65.
- Hardened steel, Cast iron, Low/High alloy steel, cast steel, and tool steel.
- i-X new coating offers great heat resistance and friction resistance; suitable for Hardened steel.

• ITEMS

Order No.	unit: mm			
	Diameter D1	Flute Length L1	O.A.L. L2	Shank Dia D2
QEBGS 0404	4.0	11	50	4
QEBGS 0606	6.0	16	50	6
QEBGS 0808	8.0	20	60	8
QEBGS 1010	10.0	25	75	10
QEBGS 1212	12.0	30	75	12

QEBG



• discontinuation

QEBG Product Series with Aldura coating will be discontinued after Dec. 2024.
We will continue to ship QEBG orders until our inventory is depleted.
If you'd like to purchase QEBG products, please contact your HGT sales representative while stocks last.
The replacement of QEBG is QEBGS Product Series, which is original QEBG with new coating i-X.

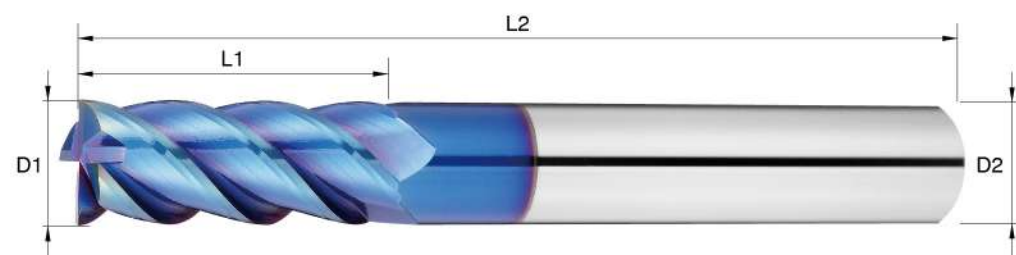


MAGIC CUT

QEBN



Hardened Steels HRC65 series / 4 Flute / Square



• FEATURES

- 4 Flute Square for HRC65.
- Hardened steel, Cast iron, Low/High alloy steel, cast steel, and tool steel.
- Heat-resistant nAcoB Coating, excellent for dry machining; not recommended for working wet.

• ITEMS

Order No.	unit: mm			
	Diameter D1	Flute Length L1	O.A.L. L2	Shank Dia D2
QEBN 0104	1.0	3	50	4
QEBN 0154	1.5	4	50	4
QEBN 0204	2.0	6	50	4
QEBN 0303	3.0	8	50	3
QEBN 0304	3.0	8	50	4
QEBN 0404	4.0	11	50	4
QEBN 0506	5.0	13	50	6
QEBN 0606	6.0	16	50	6
QEBN 0808	8.0	20	60	8
QEBN 1010	10.0	25	75	10
QEBN 1212	12.0	30	75	12
QEBN 1616	16.0	40	100	16
QEBN 2020	20.0	45	100	20

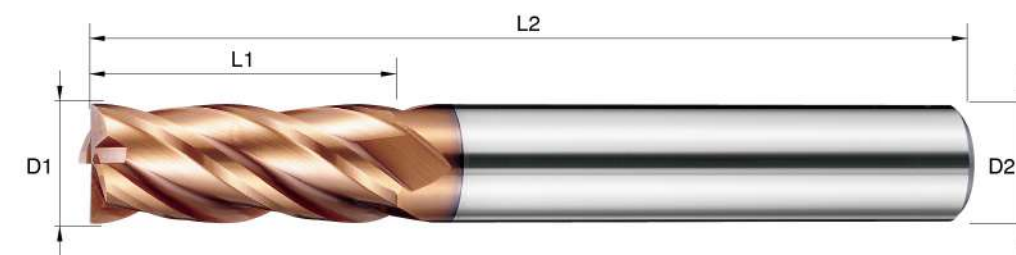


MAGIC CUT

QEX



Hardened Steels HRC65 series / 4 Flute / Square



• FEATURES

- 4 Flute Square for HRC65.
- Hardened steel, Cast iron, Low/High alloy steel, cast steel, and tool steel.
- i8 Coating: High temperature resistance and low wear.

• ITEMS

Order No.	unit: mm			
	Diameter D1	Flute Length L1	O.A.L. L2	Shank Dia D2
QEX 0304	3.0	8	50	4
QEX 0404	4.0	11	50	4
QEX 0506	5.0	13	50	6
QEX 0606	6.0	16	50	6
QEX 0808	8.0	20	60	8
QEX 1010	10.0	25	75	10
QEX 1212	12.0	30	75	12
QEX 1616	16.0	40	100	16
QEX 2020	20.0	45	100	20

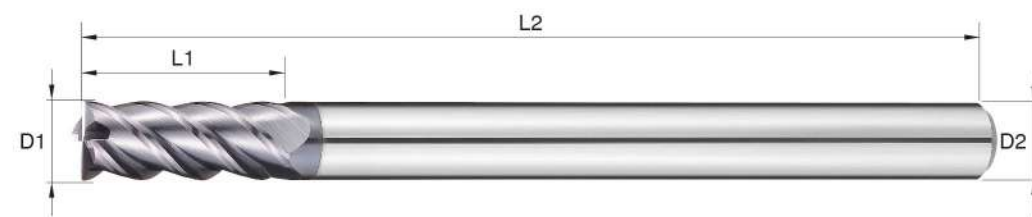


MAGIC CUT

QELB



Hardened Steels HRC65 series / 4 Flute / Long Shank / Square



• FEATURES

- 4 Flute Long Shank Square for up to HRC65.
- Extended overall length for greater depth of cut.
- ALTiN coating for Hardened steel.

• ITEMS

Order No.	unit: mm				
	Diameter D1	Flute Length L1	O.A.L. L2	Shank Dia D2	
QELB 0606	6.0	15	75	6	
QELB 0606A	6.0	15	100	6	
QELB 0808	8.0	20	100	8	
QELB 1010	10.0	25	100	10	
QELB 1212	12.0	30	100	12	

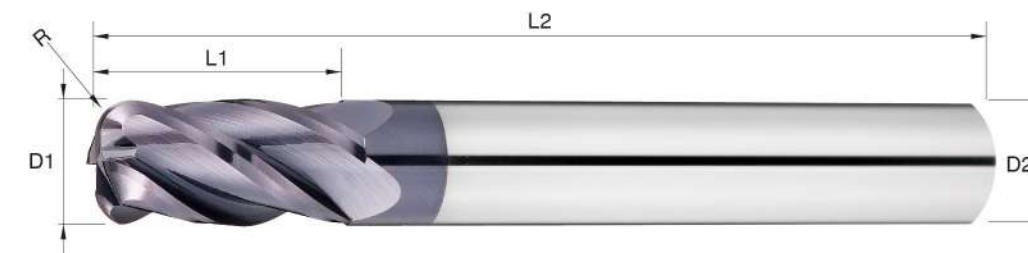


MAGIC CUT

QRD



Hardened Steels HRC65 series / 4 Flute / Corner Radius



• FEATURES

- 4 Flute Corner Radius for HRC65
- Hardened steel, Cast iron, Low/High alloy steel, cast steel, and tool steel.
- ALTiN coating for Hardened steel.

• ITEMS

Order No.	unit: mm				
	Diameter D1	Corner R R	Flute Length L1	O.A.L. L2	Shank Dia D2
QRD 0102	1.0	0.2	2	50	4
QRD 01502	1.5	0.2	3	50	4
QRD 01503	1.5	0.3	3	50	4
QRD 0202	2.0	0.2	4	50	4
QRD 0203	2.0	0.3	4	50	4
QRD 0205	2.0	0.5	4	50	4
QRD 0302	3.0	0.2	6	50	3
QRD 0305	3.0	0.5	6	50	3
QRD 0402	4.0	0.2	8	50	4
QRD 0405	4.0	0.5	8	50	4
QRD 0410	4.0	1.0	8	50	4
QRD 0605	6.0	0.5	12	50	6
QRD 0610	6.0	1.0	12	50	6
QRD 0805	8.0	0.5	16	60	8
QRD 0810	8.0	1.0	16	60	8
QRD 1005	10.0	0.5	20	75	10
QRD 1010	10.0	1.0	20	75	10
QRD 1020	10.0	2.0	20	75	10
QRD 1030	10.0	3.0	20	75	10
QRD 1205	12.0	0.5	24	75	12
QRD 1210	12.0	1.0	24	75	12
QRD 1220	12.0	2.0	24	75	12
QRD 1230	12.0	3.0	24	75	12

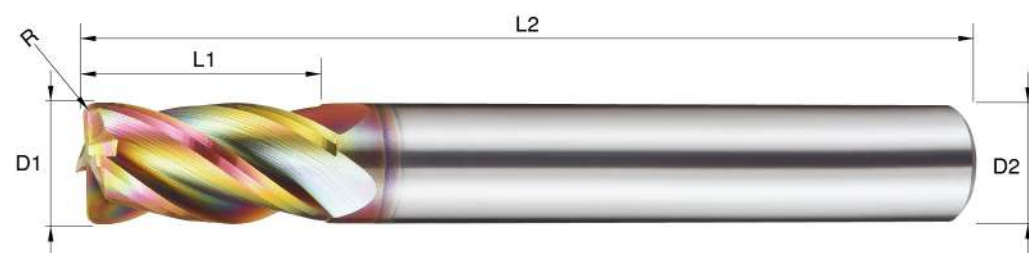


MAGIC CUT

QRDGS



Hardened Steels HRC65 series / 4 Flute / Corner Radius



• FEATURES

- 4 Flute Corner Radius for HRC65
- Hardened steel, Cast iron, Low/High alloy steel, cast steel, and tool steel.
- i-X new coating offers great heat resistance and friction resistance; suitable for Hardened steel.

• ITEMS

Order No.	Diameter D1	Corner R R	Flute Length L1	O.A.L. L2	Shank Dia D2
QRDGS 0405	4.0	0.5	8	50	4
QRDGS 0605	6.0	0.5	12	50	6
QRDGS 0610	6.0	1.0	12	50	6
QRDGS 0805	8.0	0.5	16	60	8
QRDGS 0810	8.0	1.0	16	60	8
QRDGS 1005	10.0	0.5	20	75	10
QRDGS 1010	10.0	1.0	20	75	10
QRDGS 1205	12.0	0.5	24	75	12
QRDGS 1210	12.0	1.0	24	75	12

unit: mm

QRDG



• discontinuation

QRDG Product Series with Aldura coating will be discontinued after Dec. 2024.
We will continue to ship QRDG orders until our inventory is depleted.
If you'd like to purchase QRDG products, please contact your HGT sales representative while stocks last.
The replacement of QRDG is QRDGS Product Series, which is original QRDG with new coating i-X.

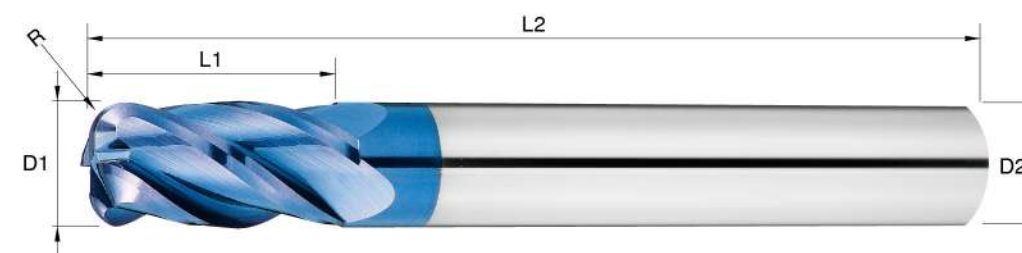


MAGIC CUT

QRDN



Hardened Steels HRC65 series / 4 Flute / Corner Radius



• FEATURES

- 4 Flute Corner Radius for HRC65
- Hardened steel, Cast iron, Low/High alloy steel, cast steel, and tool steel.
- Heat-resistant nAcoB Coating, excellent for dry machining; not recommended for working wet.

• ITEMS

Order No.	Diameter D1	Corner R R	Flute Length L1	O.A.L. L2	Shank Dia D2
QRDN 0102	1.0	0.2	2	50	4
QRDN 01502	1.5	0.2	3	50	4
QRDN 01503	1.5	0.3	3	50	4
QRDN 0202	2.0	0.2	4	50	4
QRDN 0203	2.0	0.3	4	50	4
QRDN 0205	2.0	0.5	4	50	4
QRDN 0302	3.0	0.2	6	50	3
QRDN 0305	3.0	0.5	6	50	3
QRDN 0402	4.0	0.2	8	50	4
QRDN 0405	4.0	0.5	8	50	4
QRDN 0410	4.0	1.0	8	50	4
QRDN 0605	6.0	0.5	12	50	6
QRDN 0610	6.0	1.0	12	50	6
QRDN 0805	8.0	0.5	16	60	8
QRDN 0810	8.0	1.0	16	60	8
QRDN 1005					

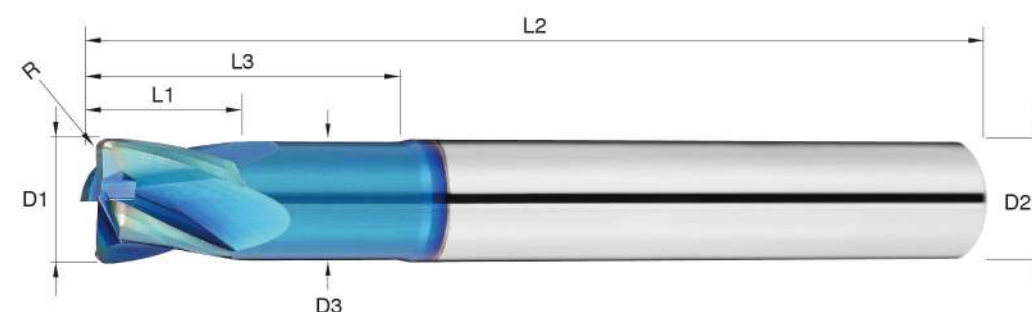


MAGIC CUT

QRHN



Hardened Steels HRC65 series / 4 Flute / Corner Radius



• FEATURES

- 4 Flute Corner Radius for workpiece up to HRC65.
- Helix Angle 25 ° & short flute designed for heavy duty milling.
- Heat-resistant nAcoB Coating, excellent for dry machining; not recommended for working wet.

• ITEMS

Order No.	Diameter D1	Corner R R	Neck Dia D3	Flute Length L1	Effective Length L3	O.A.L. L2	unit: mm	
							Shank Dia D2	
QRHN 0305	3.0	0.5	2.90	3	9	50	6	
QRHN 0405	4.0	0.5	3.88	4	12	50	6	
QRHN 0605	6.0	0.5	5.80	6	15	50	6	
QRHN 0610	6.0	1.0	5.80	6	15	50	6	
QRHN 0805	8.0	0.5	7.70	8	20	60	8	
QRHN 0810	8.0	1.0	7.70	8	20	60	8	
QRHN 1010	10.0	1.0	9.60	10	25	75	10	
QRHN 1020	10.0	2.0	9.60	10	25	75	10	
QRHN 1030	10.0	3.0	9.60	10	25	75	10	
QRHN 1210	12.0	1.0	11.50	12	30	75	12	
QRHN 1220	12.0	2.0	11.50	12	30	75	12	

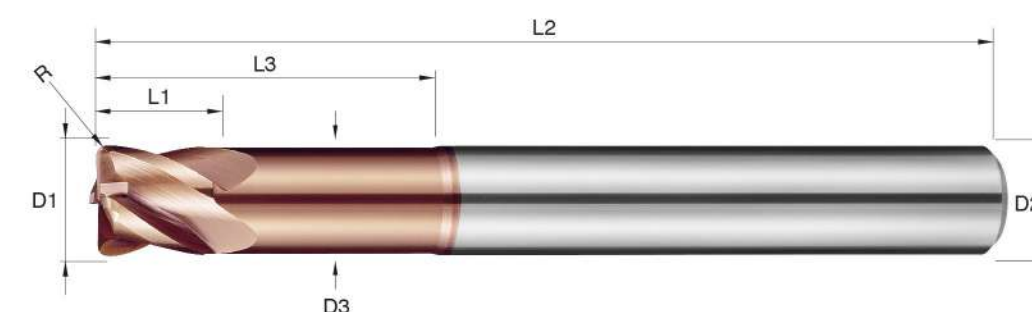


MAGIC CUT

QRHX



Hardened Steels HRC65 series / 4 Flute / Corner Radius



• FEATURES

- 4 Flute Corner Radius for up to HRC65.
- 1D flute length works great for high speed machining.
- i8 Coating: High temperature resistance and low wear.

• ITEMS

Order No.	Diameter D1	Corner R R	Neck Dia D3	Flute Length L1	Effective Length L3	O.A.L. L2	unit: mm	
							Shank Dia D2	
QRHX 0305	3.0	0.5	2.90	3	9	50	6	
QRHX 0405	4.0	0.5	3.88	4	12	50	6	
QRHX 0605	6.0	0.5	5.80	6	18	50	6	
QRHX 0610	6.0	1.0	5.80	6	18	50	6	
QRHX 0805	8.0	0.5	7.70	8	24	60	8	</



S

S

S

SUPER MILL

SBCX

S
MG

2

30°

HRC
60

i8

Finishing
Semi-Finishing

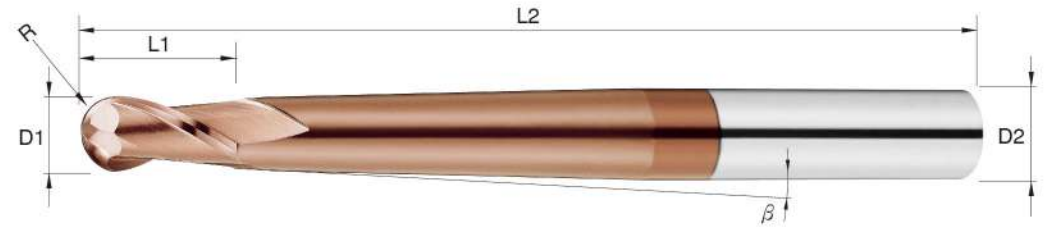
Cutting
Data
P.233

For HRC60 Steels / 2 Flute / Taper Neck / Ball Nose

H

P

K



• FEATURES

- Taper Neck 2 Flute Ball Nose for up to HRC60.
- Taper Angle(β): 1.5°, 3°, 5° suitable for working on an inclined surface.
- i8 Coating: High temperature resistance and low wear.

• ITEMS

Order No.	Radius R	Flute Length L1	O.A.L. L2	Shank Dia D2	unit: mm
					Taper Angle β
SBCX 0206	R1	4	75	6	3°
SBCX 0206A	R1	4	75	6	5°
SBCX 0306	R1.5	6	100	6	1.5°
SBCX 0306A	R1.5	6	75	6	3°
SBCX 0306B	R1.5	6	75	6	5°
SBCX 0406	R2	8	100	6	1.5°
SBCX 0406A	R2	8	100	6	3°
SBCX 0406B	R2	8	75	6	5°
SBCX 0608	R3	12	100	8	1.5°
SBCX 0608A	R3	12	75	8	3°
SBCX 0608B	R3	12	100	8	5°

S

SUPER MILL

SEM

S
MG

2

35°

HRC
60

ALTIN

Finishing
Semi-Finishing

Cutting
Data
P.234

For HRC60 Steels / 2 Flute / Micro Diameter / Square

H

P

K



• FEATURES

- Micro Diameter 2 Flute Square for up to HRC60.
- Dia 0.2~1.8 mm suitable for general purpose precision milling.
- ALTIN Coating for Hardened steel.

• ITEMS

Order No.	Diameter D1	Flute Length L1	O.A.L. L2	unit: mm
				Shank Dia D2
SEM 0024	0.2	0.4	50	4
SEM 0034	0.3	0.6	50	4
SEM 0044	0.4	0.8	50	4
SEM 0054	0.5	1.0	50	4
SEM 0064	0.6	1.2	50	4
SEM 0074	0.7	1.4	50	4
SEM 0084	0.8	1.6	50	4
SEM 0094	0.9	1.8	50	4
SEM 0124	1.2	3.0	50	4
SEM 0144	1.4	3.0	50	4
SEM 0164	1.6	4.0	50	4
SEM 0184	1.8	5.0	50	4

S

SUPER MILL

SEX

S
MG

4

35°

HRC
60

i8

Finishing
Semi-Finishing

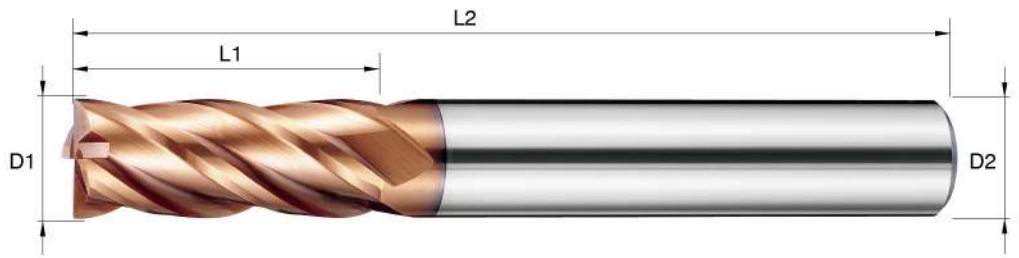
Cutting
Data
P.233

For HRC60 Steels / 4 Flute / Square

H

P

K



• FEATURES

- 4 Flute Square for up to HRC60.
- Hardened steel, Cast iron, Low/High alloy steel, cast steel, and tool steel.
- i8 Coating: High temperature resistance and low wear.

• ITEMS

Order No.	unit: mm			
	Diameter D1	Flute Length L1	O.A.L. L2	Shank Dia D2
SEX 0304	3.0	8	50	4
SEX 0404	4.0	11	50	4
SEX 0506	5.0	13	50	6
SEX 0606	6.0	16	50	6
SEX 0808	8.0	20	60	8
SEX 1010	10.0	25	75	10
SEX 1212	12.0	30	75	12
SEX 1616	16.0	40	100	16
SEX 2020	20.0	45	100	20

S

SUPER MILL

SEP

S
MG

4

45°

HRC
60

HELICA

Roughing

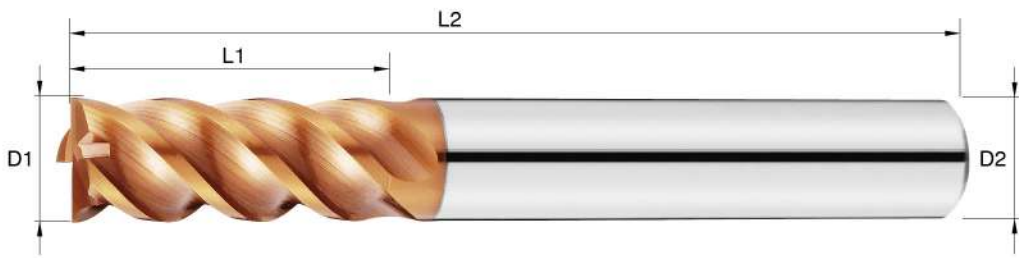
Cutting
Data
P.234

For HRC60 Steels / 4 Flute / Power / Square

H

P

K



• FEATURES

- Power roughing 4 Flute Square for up to HRC60.
- Round and wide chip gullet designed for heavy duty milling.
- HELICA Coating: Heat resistance and low wear.

• ITEMS

Order No.	unit: mm			
	Diameter D1	Flute Length L1	O.A.L. L2	Shank Dia D2
SEP 0306	3.0	8	50	6
SEP 0406	4.0	11	50	6
SEP 0506	5.0	13	50	6
SEP 0606	6.0	16	50	6
SEP 0808	8.0	20	60	8
SEP 1010	10.0	25	75	10
SEP 1212	12.0	30	75	12
SEP 1616	16.0	40	100	16
SEP 2020	20.0	45	100	20

SEX

END MILLS

SEP

END MILLS

S

S

EM



For HRC55 Steels / 2 Flute / Micro Diameter / Square



• FEATURES

- Micro Diameter 2 Flute Square for up to HRC55.
- Dia 0.4~1.8 mm suitable for general purpose micro milling.
- TiAlN Coating for General steel.

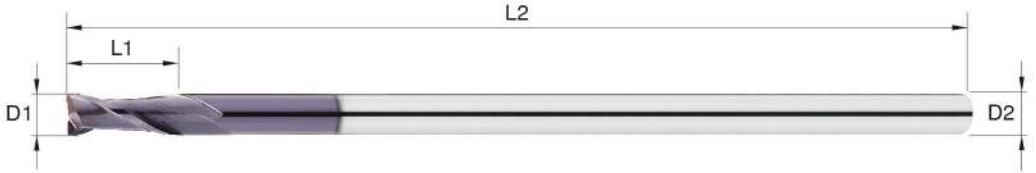
• ITEMS

Order No.	unit: mm			
	Diameter D1	Flute Length L1	O.A.L. L2	Shank Dia D2
EM 0044	0.4	0.8	50	4
EM 0054	0.5	1.0	50	4
EM 0064	0.6	1.2	50	4
EM 0074	0.7	1.4	50	4
EM 0084	0.8	1.6	50	4
EM 0094	0.9	1.8	50	4
EM 0124	1.2	3.0	50	4
EM 0144	1.4	3.0	50	4
EM 0164	1.6	4.0	50	4
EM 0184	1.8	5.0	50	4

ES



For HRC55 Steels / 2 Flute / Small Shank / Square



• FEATURES

- Small Shank 2 Flute Square for up to HRC55.
- Shank Diameter 3~4 mm with extended overall length; suitable for deeper narrow part milling.
- TiAlN Coating for General steel.

• ITEMS

Order No.	unit: mm			
	Diameter D1	Flute Length L1	O.A.L. L2	Shank Dia D2
ES 0103	1.0	3	50	3
ES 0153	1.5	4	50	3
ES 0203	2.0	6	50	3
ES 0253	2.5	8	50	3
ES 0303	3.0	8	50	3
ES 0303A	3.0	8	75	3
ES 0303B	3.0	8	100	3
ES 0404	4.0	11	75	4
ES 0404A	4.0	11	100	4

EC

MG

3

45°

HRC 55

TiAlN

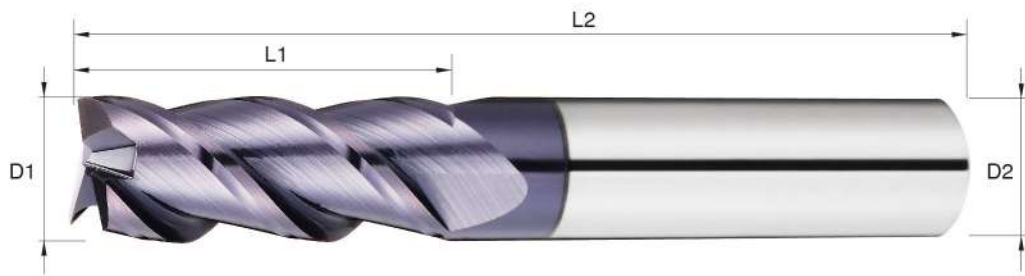
Finishing
Semi-Finishing

Cutting
Data
P.240

For HRC55 Steels / 3 Flute / Square

P

K



• FEATURES

- 3 Flute Square for up to HRC55.
- Helix Angle 45 ° to reduce cutting force.
- TiAlN Coating for General steel.

• ITEMS

Order No.	unit: mm			
	Diameter D1	Flute Length L1	O.A.L. L2	Shank Dia D2
EC 0304	3.0	8	50	4
EC 0404	4.0	11	50	4
EC 0506	5.0	13	50	6
EC 0606	6.0	16	50	6
EC 0808	8.0	20	60	8
EC 1010	10.0	25	75	10
EC 1212	12.0	30	75	12
EC 1616	16.0	40	100	16
EC 2020	20.0	45	100	20

EP

MG

3

45°

HRC 55

TiAlN

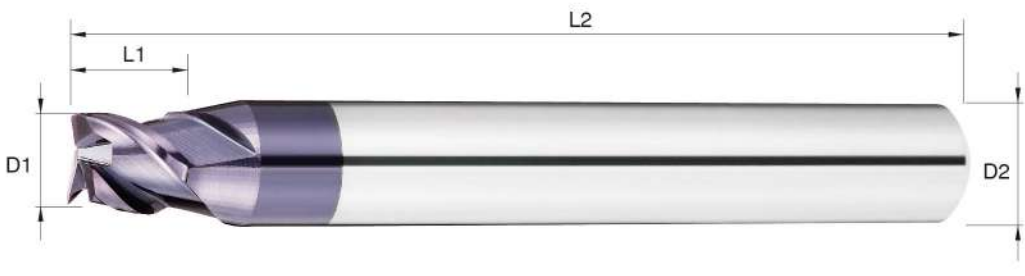
Finishing
Semi-Finishing

Cutting
Data
P.240

For HRC55 Steels / 3 Flute / Square

P

K



• FEATURES

- 3 Flute Square for up to HRC55.
- With larger shank diameter to increase tool's rigidity; suitable for keyway milling.
- TiAlN Coating for General steel.

• ITEMS

Order No.	unit: mm			
	Diameter D1	Flute Length L1	O.A.L. L2	Shank Dia D2
EP 0306	3.0	3	50	6
EP 0406	4.0	4	50	6
EP 0506	5.0	5	50	6
EP 0608	6.0	6	60	8
EP 0810	8.0	8	75	10
EP 1012	10.0	10	75	12

