



SOLID CARBIDE
**END
MILLS**



Icon Guide Line

Coating

 R Coating	 H Coating
 A Coating	 X Coating
 S Coating	 Diamond Coating
 DLC Coating	 Non Coating

No. of Flutes

 1 Flutes	 2 Flutes
 3 Flutes	 4 Flutes
 5 Flutes	 6 Flutes

Tolerance

 Radius Tolerance
 Corner Radius Tolerance
 Outside Diameter Tolerance

Helix Angle

 Helix Angle 20°	 Helix Angle 30°
 Helix Angle 35°	 Helix Angle 40°
 Helix Angle 43°	 Helix Angle 45°

Cutting Condition

 Indicates Page No. of cutting condition

(Product notation)

•(Rib End Mill Notation)

$\frac{2}{1} \frac{H}{2} \frac{R}{3} \frac{B}{4} \frac{020}{5} \frac{100}{6} \frac{4}{7} \frac{45}{8}$

1 Flutes : 2 Flutes 3 Flutes 4 Flutes 5 Flutes 6 Flutes

2 Series : R-Mold H-Mold A-Mold S-Aero D-Graphite A-DLC Alu-Mold

3 Effective Length Type : R – Rib E- Effective L – Long

4 Type : B–Ball End Mill R:Radius E:Flat

5 Diameter : 002 – 0.2mm 020 – 2mm 120 – 12mm

6 Effective Length : 100 – 10mm R15 – R1.5 Corner Radius

7 Shank Diameter : 4 – 4mm A – 10mm G – 16mm

8 Over all length : 45 – 45mm 60 – 60mm A0 – 100mm B0 – 110mm F0 – 150mm

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

•(Flat End Mill Notation)

$\frac{2}{1} \frac{H}{2} \frac{P}{3} \frac{B}{4} \frac{020}{5} \frac{100}{6} \frac{4}{7} \frac{45}{8}$

1 Flutes : 2 Flutes 3 Flutes 4 Flutes 5 Flutes 6 Flutes

2 Series : R-Mold H-Mold A-Mold S-Aero D-Graphite A-DLC Alu-Mold

3 Effective Length Type : R – Rib E- Effective L – Long

4 Type : B–Ball End Mill R:Radius E:Flat

5 Diameter : 002 – 0.2mm 020 – 2mm 120 – 12mm

6 Effective Length : 100 – 10mm R15 – R1.5 Corner Radius

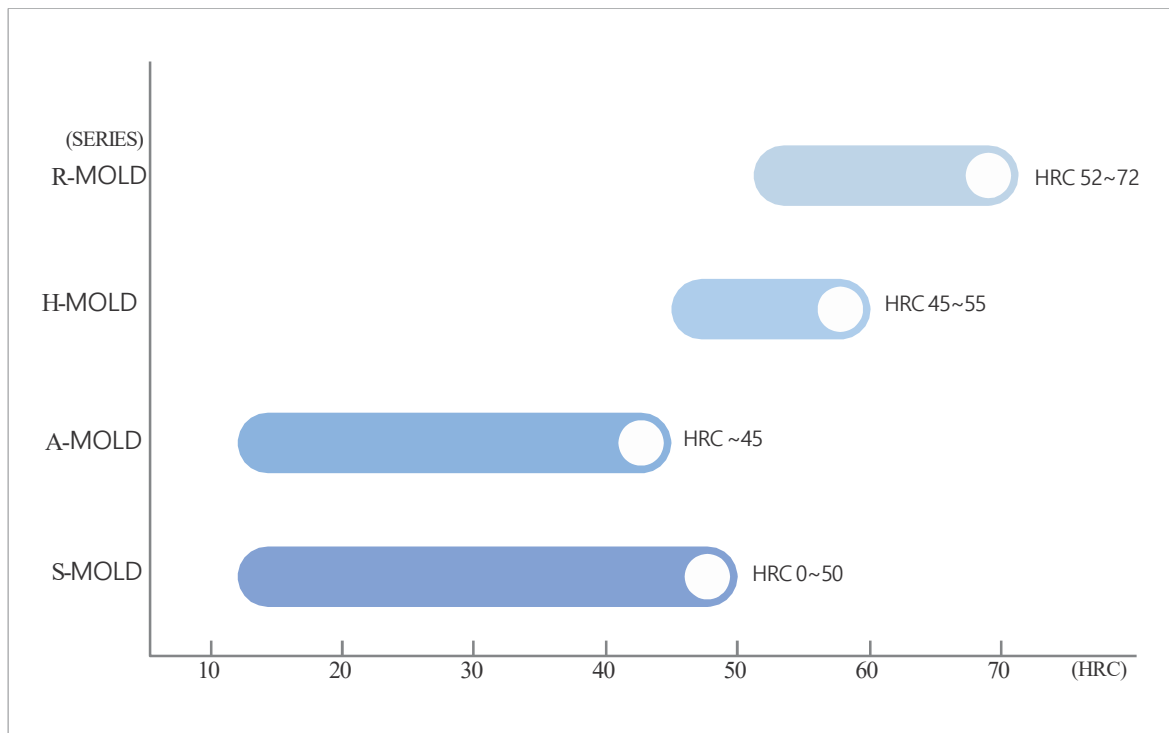
7 Shank Diameter : 4 – 4mm A – 10mm G – 16mm

8 Over all length : 45 – 45mm 60 – 60mm A0 – 100mm B0 – 110mm F0 – 150mm

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
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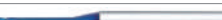
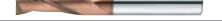
HRC - Range of use according to HRC hardness

Series	Workpiece	HRC
R-Mold	Super Hard	52~72
H-Mold	High Speed Hard Milling	45~55
A-Mold	Low Carbon Steel, General-Purpose	28~45
S-Aero	Stainless Steel, Titanium & Inconel	
D-Graphite	Graphite Milling	
A-DLC	Aluminium, Graphite & Copper	
Alu-Mold	Uncoated for Aluminium, Resins & ABS	



○ INDEX OF END MILLS SERIES



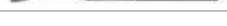
Series	Workpiece	Type	Flutes	Appearance	Model NO.	Effective Length	Page
R-MOLD	HRC 52 ~ 70	Ball	2		2RRB	Y	012
			2		2RSB	N	016
			2		2RPB	N	017
			3		3RSB	N	019
		Corner Radius	4		4RRR	Y	020
			4		4RCR	N	025
			6		6RCR	N	027
		Flat	2		2RRE	Y	028
			4		4RRE	Y	030
			4		4RPE	N	032
			4		4RLE	N	033
		Taper	2		2RTB	N	034
			3		3RTB	N	035
			2		2RTR	N	036
			4		4RTR	N	038
H-MOLD	HRC 45 ~ 55	Ball	2		2HRB	Y	042
			2		2HSB	N	047
			2		2HPB	N	049
			3		3HPB	N	053
			4		4HPB	N	054
		Corner Radius	2		2HRR	Y	055
			2		2HCR	N	068
			4		4HRR	Y	074
			4		4HCR	N	089
			4		4HIT	Y	094
		Flat	2		2HRE	Y	096
			2		2HPE	N	102
			2		2HLE	N	106
			4		4HRE	Y	109
			4		4HPE	N	112
			4		4HLE	N	114
			4		4HHE	N	117
			6		6HPE	N	118
		Inner Corner Radius	2		2IRC	N	119
			4		4IRC	N	121

Carbon Steel	Aalloy Steel	Prehardened Steel	~HRC50	~HRC70	Stainless Steels	Heat resisting alloy steel	Aluminium	Copper	Graphite	Plastic	Page
	○	○	○	◎		○					012
	○	○	○	◎		○					016
	○	○	○	◎		○					017
	○	○	○	◎		○					019
	○	○	○	◎		○					020
	○	○	○	◎		○					025
	○	○	○	◎		○					027
	○	○	○	◎		○					028
	○	○	○	◎		○					030
	○	○	○	◎		○					032
	○	○	○	◎		○					033
	○	○	○	◎		○					034
	○	○	○	◎		○					035
	○	○	○	◎		○					036
	○	○	○	◎		○					038
○	○	◎	◎	○				○	○		042
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○	○	◎	◎	○				○	○		049
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○	○	◎	◎	○				○	○		054
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○	◎	◎	◎	○				○	○		068
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◎	◎	◎	◎				◎	○		◎	121

○ (Suitable) ◎ (Most suitable)

○ INDEX OF END MILLS SERIES



Series	Workpiece	Type	Flutes	Appearance	Model NO.	Effective Length	Page
A - MOLD	HRC ~ 45	Ball	2		2ARB	Y	124
			2		2ASB	Y	126
			2		2APB	N	127
		Corner Radius	2		2ARR	Y	129
			2		2ACR	N	131
			2		2ALR	Y	132
			4		4ARR	Y	133
			4		4ACR	N	134
			4		4ALR	Y	135
		Flat	2		2ARE	Y	136
			2		2APE	N	138
			2		2AEL	N	140
			4		4APE	N	141
			4		4AEL	N	142
			4		4APL	Y	143
R - MOLD	HRC ~ 50	Roughing	3		3XOE	N	146
			4		4XOE	N	147
		Flat	2		2XPE	N	148
			4		4XPE	N	149
			4		4XREV	Y	150
			4		4XPEV	N	151
S-MOLD	SUS SS SUS Titanium Inconel	Ball	4		4SUB	N	154
		Corner Radius	4		4SUR	N	155
			4		4SURA	N	157
		Flat	4		4SUE	N	159
			4		4SUEA	N	161

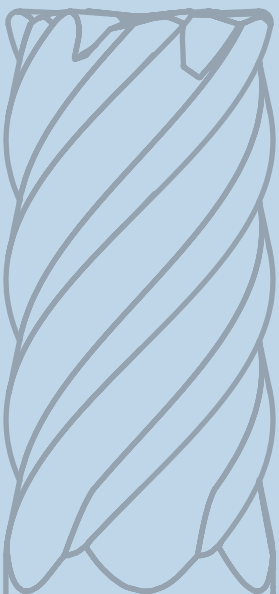
Carbon Steel	Aalloy Steel	Prehardened Steel	~HRC50	~HRC70	Stainless Steels	Heat resisting alloy steel	Aluminium	Copper	Graphite	Plastic	Page
◎	◎	◎	◎		○			◎			124
◎	◎	◎	◎		○			◎			126
◎	◎	◎	◎		○			◎			127
◎	◎	◎	◎		○			◎			129
◎	◎	◎	◎		○			◎			131
◎	◎	◎	◎		○			◎			132
◎	◎	◎	◎		○			◎			133
◎	◎	◎	◎		○			◎			134
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◎	◎	◎	◎		○			◎			143
◎	◎	○	○								146
◎	◎	○	○								147
◎	◎	○	○		○						148
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◎	◎	○	○		○						150
◎	◎	○	○		○						151
◎	◎	◎			◎	○					154
◎	◎	◎			◎	○					155
◎	◎	◎			◎	○					157
◎	◎	◎			◎	○					159
◎	◎	◎			◎	○					161

◉ INDEX OF END MILLS SERIES



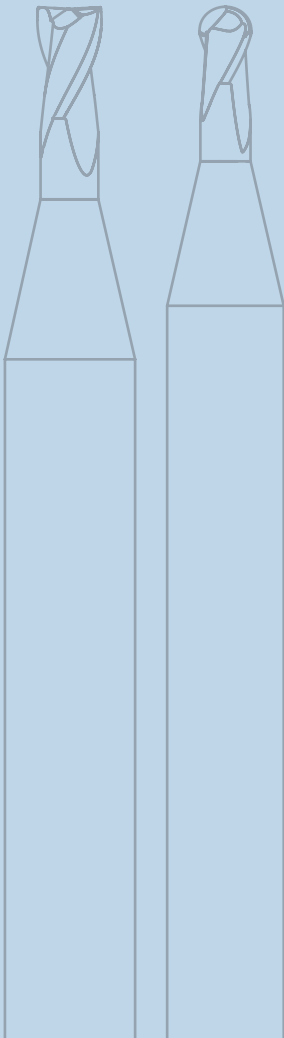
Series	Workpiece	Type	Flutes	Appearance	Model NO.	Effective Length	Page
D- Graphite	Graphite Copper	Ball	2		2DRB	Y	166
			2		2DPB	N	170
		Corner Radius	2		2DRR	Y	171
			4		4DRR	Y	177
		Flat	2		2DRE	Y	180
			2		2DPE	N	181
			4		4DPE	N	183
A-PLUS	Copper Graphite Plastic	Ball	2		2KRB	Y	186
			2		2KSB	Y	188
			2		2KLB	Y	189
		Corner Radius	2		2KRR	Y	190
		Flat	2		2KRE	Y	192
			2		2KPE	N	194
AL-PRO	Aluminium Plastic Non-Ferrous Alloy	Flat	1		1ALE	N	198
			2		2ALE	N	200
			3		3ALE	N	202
ABS	PC, PE ABS Plastic Acrylic Acetal Plastic Engineering	Ball	2		2MRB	Y	208
			2		2MMB	N	210
		Flat	2		2MRE	Y	212
			2		2MME	N	214
MICRO GRAIN	Nonmetal Low Carbon Steel	Ball	2		2MGB	N	218
		Flat	2		2MGE	N	219
			4		4MGE	N	221
		Spot Drill	2		2XPDN	N	223
MULTI PURPOSE	Low Carbon Steel - Heat Treated Steel	Centering	2		2CEN	N	226

Carbon Steel	Aalloy Steel	Prehardened Steel	~HRC50	~HRC70	Stainless Steels	Heat resisting alloy steel	Aluminium	Copper	Graphite	Plastic	Page
								○	◎		166
								◎	◎		170
								◎	◎		171
								◎	◎		177
								◎	◎		180
								◎	◎		181
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◎	○	○	○								223
◎	○						◎	○		◎	226



R-MOLD SERIES





Ball

D Size	D Tolerance (mm)	R Size (mm)	R Tolerance (mm)
0.1 ~ 5	0 ~ -0.010	R0.05 ~ R2.5	±0.005
6 ~ 12	0 ~ -0.015	R3 ~ R6	±0.010

Corner Radius

D Size	D Tolerance (mm)	R Size (mm)	R Tolerance (mm)
1 ~ 5	0 ~ -0.010	R0.02 ~ R0.5	±0.005
6 ~ 12	0 ~ -0.015	R1 ~ R1.5	±0.010
		R2 ~ R3	±0.015

Flat

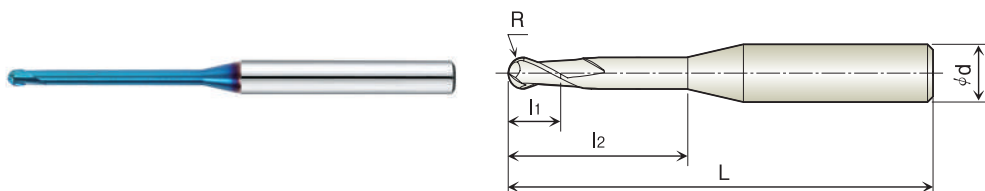
D Size	D Tolerance (mm)
0.1 ~ 0.9	0 ~ -0.010
1 ~ 5	0 ~ -0.010
6 ~ 12	0 ~ -0.015

- Hardened steels, alloy steel
- Maximized the wear resistance & minimized chattering
- Geometry design to protect the breakage of cutting edge and improve the cutting performance.

2RRB



2 Flutes Rib Ball End Mills



unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
2RRB 001 002 445	R0.05	0.1	0.2	4	45
2RRB 001 003 445	R0.05	0.1	0.3	4	45
2RRB 001 005 445	R0.05	0.1	0.5	4	45
2RRB 002 006 445	R0.1	0.2	0.6	4	45
2RRB 002 010 445	R0.1	0.2	1	4	45
2RRB 002 015 445	R0.1	0.2	1.5	4	45
2RRB 002 020 445	R0.1	0.2	2	4	45
2RRB 003 010 445	R0.15	0.3	1	4	45
2RRB 003 015 445	R0.15	0.3	1.5	4	45
2RRB 003 020 445	R0.15	0.3	2	4	45
2RRB 003 025 445	R0.15	0.3	2.5	4	45
2RRB 003 030 445	R0.15	0.3	3	4	45
2RRB 004 010 445	R0.2	0.4	1	4	45
2RRB 004 015 445	R0.2	0.4	1.5	4	45
2RRB 004 020 445	R0.2	0.4	2	4	45
2RRB 004 025 445	R0.2	0.4	2.5	4	45
2RRB 004 030 445	R0.2	0.4	3	4	45
2RRB 004 040 445	R0.2	0.4	4	4	45
2RRB 004 050 445	R0.2	0.4	5	4	45
2RRB 005 010 445	R0.25	0.5	1	4	45
2RRB 005 015 445	R0.25	0.5	1.5	4	45
2RRB 005 020 445	R0.25	0.5	2	4	45
2RRB 005 025 445	R0.25	0.5	2.5	4	45
2RRB 005 030 445	R0.25	0.5	3	4	45
2RRB 005 040 445	R0.25	0.5	4	4	45
2RRB 005 050 445	R0.25	0.5	5	4	45



2 Flutes Rib Ball End Mills

unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2RRB 005 060 445	R0.25	0.5	6	4	45
2RRB 005 080 445	R0.25	0.5	8	4	45
2RRB 006 020 445	R0.3	0.6	2	4	45
2RRB 006 030 445	R0.3	0.6	3	4	45
2RRB 006 040 445	R0.3	0.6	4	4	45
2RRB 006 050 445	R0.3	0.6	5	4	45
2RRB 006 060 445	R0.3	0.6	6	4	45
2RRB 006 080 445	R0.3	0.6	8	4	45
2RRB 006 100 445	R0.3	0.6	10	4	45
2RRB 008 020 445	R0.4	0.8	2	4	45
2RRB 008 030 445	R0.4	0.8	3	4	45
2RRB 008 040 445	R0.4	0.8	4	4	45
2RRB 008 050 445	R0.4	0.8	5	4	45
2RRB 008 060 445	R0.4	0.8	6	4	45
2RRB 008 080 445	R0.4	0.8	8	4	45
2RRB 008 100 445	R0.4	0.8	10	4	45
2RRB 008 120 445	R0.4	0.8	12	4	45
2RRB 010 030 445	R0.5	1	3	4	45
2RRB 010 040 445	R0.5	1	4	4	45
2RRB 010 050 445	R0.5	1	5	4	45
2RRB 010 060 445	R0.5	1	6	4	45
2RRB 010 070 445	R0.5	1	7	4	45
2RRB 010 080 445	R0.5	1	8	4	45
2RRB 010 090 445	R0.5	1	9	4	45
2RRB 010 100 445	R0.5	1	10	4	45
2RRB 010 120 445	R0.5	1	12	4	45
2RRB 010 140 450	R0.5	1	14	4	50
2RRB 010 160 450	R0.5	1	16	4	50
2RRB 010 180 450	R0.5	1	18	4	50
2RRB 010 200 450	R0.5	1	20	4	50
2RRB 012 040 445	R0.6	1.2	4	4	45
2RRB 012 060 445	R0.6	1.2	6	4	45
2RRB 012 080 445	R0.6	1.2	8	4	45
2RRB 012 100 445	R0.6	1.2	10	4	45
2RRB 012 120 445	R0.6	1.2	12	4	45



2 Flutes Rib Ball End Mills

unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2RRB 015 040 445	R0.75	1.5	4	4	45
2RRB 015 060 445	R0.75	1.5	6	4	45
2RRB 015 080 445	R0.75	1.5	8	4	45
2RRB 015 100 445	R0.75	1.5	10	4	45
2RRB 015 120 445	R0.75	1.5	12	4	45
2RRB 015 140 450	R0.75	1.5	14	4	50
2RRB 015 160 450	R0.75	1.5	16	4	50
2RRB 015 180 450	R0.75	1.5	18	4	50
2RRB 015 200 450	R0.75	1.5	20	4	50
2RRB 020 060 445	R1.0	2	6	4	45
2RRB 020 080 445	R1.0	2	8	4	45
2RRB 020 100 445	R1.0	2	10	4	45
2RRB 020 120 445	R1.0	2	12	4	45
2RRB 020 140 450	R1.0	2	14	4	50
2RRB 020 160 450	R1.0	2	16	4	50
2RRB 020 180 450	R1.0	2	18	4	50
2RRB 020 200 450	R1.0	2	20	4	50
2RRB 020 250 460	R1.0	2	25	4	60
2RRB 020 300 470	R1.0	2	30	4	70
2RRB 025 080 445	R1.25	2.5	8	4	45
2RRB 025 100 445	R1.25	2.5	10	4	45
2RRB 025 120 445	R1.25	2.5	12	4	45
2RRB 025 160 450	R1.25	2.5	16	4	50
2RRB 025 200 450	R1.25	2.5	20	4	50
2RRB 030 080 650	R1.5	3	8	6	50
2RRB 030 100 650	R1.5	3	10	6	50
2RRB 030 120 650	R1.5	3	12	6	50
2RRB 030 140 660	R1.5	3	14	6	60
2RRB 030 160 660	R1.5	3	16	6	60
2RRB 030 180 660	R1.5	3	18	6	60
2RRB 030 200 660	R1.5	3	20	6	60
2RRB 030 250 665	R1.5	3	25	6	65
2RRB 030 300 670	R1.5	3	30	6	70
2RRB 030 350 680	R1.5	3	35	6	80
2RRB 040 100 650	R2.0	4	10	6	50
2RRB 040 120 650	R2.0	4	12	6	50



2 Flutes Rib Ball End Mills

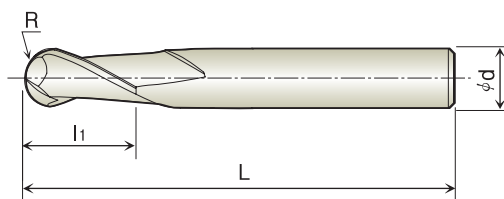
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2RRB 040 160 660	R2.0	4	16	6	60
2RRB 040 200 660	R2.0	4	20	6	60
2RRB 040 250 665	R2.0	4	25	6	65
2RRB 040 300 670	R2.0	4	30	6	70
2RRB 040 350 680	R2.0	4	35	6	80
2RRB 040 400 680	R2.0	4	40	6	80
2RRB 050 120 650	R2.5	5	12	6	50
2RRB 050 300 670	R2.5	5	30	6	70
2RRB 060 150 660	R3.0	7	15	6	60
2RRB 060 200 660	R3.0	6	20	6	60
2RRB 060 300 670	R3.0	6	30	6	70
2RRB 080 150 865	R4.0	8	15	8	65
2RRB 080 200 860	R4.0	8	20	8	60
2RRB 080 300 880	R4.0	8	30	8	80
2RRB 100 200 A60	R5.0	10	20	10	60
2RRB 100 250 A70	R5.0	10	25	10	70
2RRB 100 350 AA0	R5.0	10	35	10	100
2RRB 120 300 C80	R6.0	12	30	12	80
2RRB 120 400 CB0	R6.0	12	40	12	110

2RSB



2 Flutes Short Ball End Mills



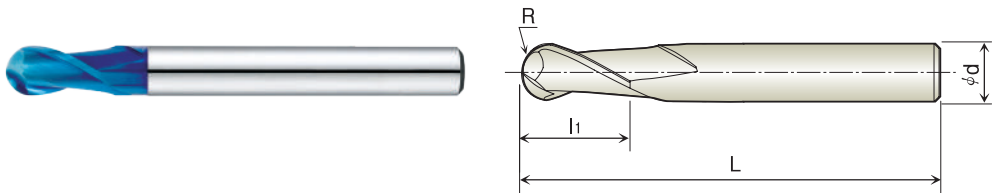
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l ₁)	Shank Diameter (d)	Overall Length (L)
2RSB 001 001 440	R0.05	0.1	4	40
2RSB 002 002 440	R0.1	0.2	4	40
2RSB 003 003 440	R0.15	0.3	4	40
2RSB 004 004 440	R0.2	0.4	4	40
2RSB 005 005 440	R0.25	0.5	4	40
2RSB 006 006 440	R0.3	0.6	4	40
2RSB 007 007 440	R0.35	0.7	4	40
2RSB 008 008 440	R0.4	0.8	4	40
2RSB 009 009 440	R0.45	0.9	4	40
2RSB 010 015 640	R0.5	1.5	6	40
2RSB 015 023 640	R0.75	2.3	6	40
2RSB 020 030 645	R1.0	3	6	45
2RSB 030 045 645	R1.5	4.5	6	45
2RSB 040 060 645	R2.0	6	6	45
2RSB 050 075 650	R2.5	7.5	6	50
2RSB 060 080 660	R3.0	8	6	60
2RSB 080 110 860	R4.0	11	8	60
2RSB 100 130 A60	R5.0	13	10	60
2RSB 120 150 C60	R6.0	15	12	60

2RPB



2 Flutes Ball End Mills



unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
2RPB 001 002 445	R0.05	0.2	4	45
2RPB 002 004 445	R0.1	0.4	4	45
2RPB 003 006 445	R0.15	0.6	4	45
2RPB 004 008 445	R0.2	0.8	4	45
2RPB 005 010 445	R0.25	1	4	45
2RPB 006 012 445	R0.3	1.2	4	45
2RPB 007 015 445	R0.35	1.5	4	45
2RPB 008 015 445	R0.4	1.5	4	45
2RPB 010 020 450	R0.5	2	4	50
2RPB 010 020 650	R0.5	2	6	50
2RPB 012 025 450	R0.6	2.5	4	50
2RPB 015 040 450	R0.75	4	4	50
2RPB 015 040 650	R0.75	4	6	50
2RPB 020 050 450	R1.0	5	4	50
2RPB 020 050 660	R1.0	5	6	60
2RPB 025 060 660	R1.25	6	6	60
2RPB 030 080 360	R1.5	8	3	60
2RPB 030 080 460	R1.5	8	4	60
2RPB 030 080 680	R1.5	8	6	80
2RPB 035 080 660	R1.75	8	6	60
2RPB 040 080 460	R2.0	8	4	60
2RPB 040 080 480	R2.0	8	4	80
2RPB 040 080 670	R2.0	8	6	70
2RPB 045 100 670	R2.25	10	6	70



2 Flutes Ball End Mills

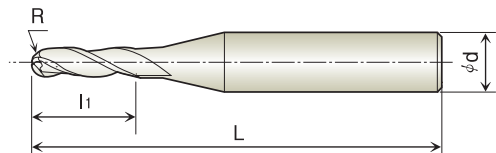
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
2RPB 050 100 680	R2.5	10	6	80
2RPB 055 120 680	R2.75	12	6	80
2RPB 060 120 675	R3.0	12	6	75
2RPB 060 120 690	R3.0	12	6	90
2RPB 070 140 8A0	R3.5	14	8	100
2RPB 080 140 875	R4.0	14	8	75
2RPB 080 140 8A0	R4.0	14	8	100
2RPB 090 180 AA0	R4.5	18	10	100
2RPB 100 180 A75	R5.0	18	10	75
2RPB 100 180 AA0	R5.0	18	10	100
2RPB 120 220 C80	R6.0	22	12	80
2RPB 120 220 CB0	R6.0	22	12	110

3RSB



3 Flutes Short Ball End Mills



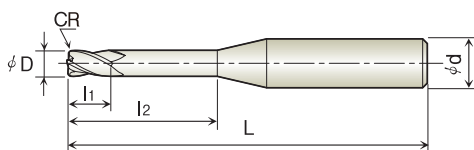
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
3RSB 010 015 640	R0.5	1.5	6	40
3RSB 020 030 645	R1.0	3	6	45
3RSB 030 045 645	R1.5	4.5	6	45
3RSB 040 060 645	R2.0	6	6	45
3RSB 050 075 650	R2.5	7.5	6	50
3RSB 060 080 660	R3.0	8	6	60
3RSB 080 110 860	R4.0	11	8	60
3RSB 100 130 A60	R5.0	13	10	60
3RSB 120 150 C60	R6.0	15	12	60

4RRR



4 Flutes Rib Corner Radius End Mills



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L1)	Effective Length (L2)	Shank Diameter (d)	Overall Length (L)
4RRR 008 R005 020 445	0.8	R0.05	1.2	2	4	45
4RRR 008 R005 040 445	0.8	R0.05	1.2	4	4	45
4RRR 008 R005 060 445	0.8	R0.05	1.2	6	4	45
4RRR 008 R01 020 445	0.8	R0.1	1.2	2	4	45
4RRR 008 R01 040 445	0.8	R0.1	1.2	4	4	45
4RRR 010 R005 040 445	1	R0.05	1.5	4	4	45
4RRR 010 R005 060 445	1	R0.05	1.5	6	4	45
4RRR 010 R005 080 445	1	R0.05	1.5	8	4	45
4RRR 010 R005 100 445	1	R0.05	1.5	10	4	45
4RRR 010 R01 040 445	1	R0.1	1.5	4	4	45
4RRR 010 R01 060 445	1	R0.1	1.5	6	4	45
4RRR 010 R01 080 445	1	R0.1	1.5	8	4	45
4RRR 010 R02 040 445	1	R0.2	1.5	4	4	45
● 4RRR 010 R02 060 445	1	R0.2	1.5	6	4	45
4RRR 010 R02 080 445	1	R0.2	1.5	8	4	45
4RRR 010 R02 100 445	1	R0.2	1.5	10	4	45
4RRR 010 R02 120 445	1	R0.2	1.5	12	4	45
4RRR 010 R03 040 445	1	R0.3	1.5	4	4	45
4RRR 010 R03 060 445	1	R0.3	1.5	6	4	45
● 4RRR 010 R03 080 445	1	R0.3	1.5	8	4	45
4RRR 015 R01 040 445	1.5	R0.1	2.3	4	4	45
4RRR 015 R01 060 445	1.5	R0.1	2.3	6	4	45
4RRR 015 R01 080 445	1.5	R0.1	2.3	8	4	45
4RRR 015 R01 100 445	1.5	R0.1	2.3	10	4	45
4RRR 015 R02 040 445	1.5	R0.2	2.3	4	4	45



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L _c)	Effective Length (L _e)	Shank Diameter (d)	Overall Length (L)
4RRR 015 R02 060 445	1.5	R0.2	2.3	6	4	45
4RRR 015 R02 080 445	1.5	R0.2	2.3	8	4	45
4RRR 015 R02 100 445	1.5	R0.2	2.3	10	4	45
4RRR 015 R02 120 445	1.5	R0.2	2.3	12	4	45
4RRR 015 R02 160 450	1.5	R0.2	2.3	16	4	50
4RRR 020 R01 040 445	2	R0.1	3	4	4	45
4RRR 020 R01 060 445	2	R0.1	3	6	4	45
4RRR 020 R01 080 445	2	R0.1	3	8	4	45
4RRR 020 R01 100 445	2	R0.1	3	10	4	45
4RRR 020 R01 120 445	2	R0.1	3	12	4	45
4RRR 020 R02 040 445	2	R0.2	3	4	4	45
4RRR 020 R02 060 445	2	R0.2	3	6	4	45
4RRR 020 R02 080 445	2	R0.2	3	8	4	45
4RRR 020 R02 100 445	2	R0.2	3	10	4	45
● 4RRR 020 R02 120 445	2	R0.2	3	12	4	45
4RRR 020 R02 160 450	2	R0.2	3	16	4	50
4RRR 020 R03 060 445	2	R0.3	3	6	4	45
4RRR 020 R03 080 445	2	R0.3	3	8	4	45
4RRR 020 R03 100 445	2	R0.3	3	10	4	45
4RRR 020 R03 120 445	2	R0.3	3	12	4	45
4RRR 020 R05 040 445	2	R0.5	3	4	4	45
4RRR 020 R05 060 445	2	R0.5	3	6	4	45
4RRR 020 R05 080 445	2	R0.5	3	8	4	45
4RRR 020 R05 100 445	2	R0.5	3	10	4	45
4RRR 020 R05 120 445	2	R0.5	3	12	4	45
4RRR 030 R01 100 450	3	R0.1	4.5	10	4	50
4RRR 030 R01 120 650	3	R0.1	4.5	12	6	50
4RRR 030 R02 100 350	3	R0.2	4.5	10	3	50
4RRR 030 R02 100 450	3	R0.2	4.5	10	4	50
4RRR 030 R02 080 650	3	R0.2	4.5	8	6	50
4RRR 030 R02 100 650	3	R0.2	4.5	10	6	50
4RRR 030 R02 120 650	3	R0.2	4.5	12	6	50
4RRR 030 R02 160 660	3	R0.2	4.5	16	6	60
4RRR 030 R02 200 660	3	R0.2	4.5	20	6	60
● 4RRR 030 R03 100 350	3	R0.3	4.5	10	3	50
4RRR 030 R03 100 450	3	R0.3	4.5	10	4	50



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4RRR 030 R03 080 650	3	R0.3	4.5	8	6	50
4RRR 030 R03 100 650	3	R0.3	4.5	10	6	50
4RRR 030 R03 120 650	3	R0.3	4.5	12	6	50
4RRR 030 R03 160 660	3	R0.3	4.5	16	6	60
4RRR 030 R03 200 660	3	R0.3	4.5	20	6	60
4RRR 030 R05 100 350	3	R0.5	4.5	10	3	50
4RRR 030 R05 100 450	3	R0.5	4.5	10	4	50
4RRR 030 R05 080 650	3	R0.5	4.5	8	6	50
4RRR 030 R05 100 650	3	R0.5	4.5	10	6	50
4RRR 030 R05 120 650	3	R0.5	4.5	12	6	50
4RRR 030 R05 160 660	3	R0.5	4.5	16	6	60
4RRR 030 R05 200 660	3	R0.5	4.5	20	6	60
4RRR 030 R10 100 350	3	R1.0	4.5	10	3	50
4RRR 030 R10 100 450	3	R1.0	4.5	10	4	50
● 4RRR 030 R10 080 650	3	R1.0	4.5	8	6	50
4RRR 030 R10 100 650	3	R1.0	4.5	10	6	50
● 4RRR 030 R10 120 650	3	R1.0	4.5	12	6	50
4RRR 030 R10 160 660	3	R1.0	4.5	16	6	60
4RRR 030 R10 200 660	3	R1.0	4.5	20	6	60
4RRR 040 R01 120 450	4	R0.1	6	12	4	50
4RRR 040 R02 120 450	4	R0.2	6	12	4	50
4RRR 040 R02 100 650	4	R0.2	6	10	6	50
4RRR 040 R02 120 650	4	R0.2	6	12	6	50
4RRR 040 R02 160 660	4	R0.2	6	16	6	60
● 4RRR 040 R02 200 660	4	R0.2	6	20	6	60
4RRR 040 R02 250 665	4	R0.2	6	25	6	65
4RRR 040 R02 300 670	4	R0.2	6	30	6	70
4RRR 040 R03 120 450	4	R0.3	6	12	4	50
4RRR 040 R03 100 650	4	R0.3	6	10	6	50
4RRR 040 R03 120 650	4	R0.3	6	12	6	50
4RRR 040 R03 160 660	4	R0.3	6	16	6	60
4RRR 040 R03 200 660	4	R0.3	6	20	6	60
4RRR 040 R05 120 450	4	R0.5	6	12	4	50
4RRR 040 R05 160 450	4	R0.5	6	16	4	50
4RRR 040 R05 160 4A0	4	R0.5	6	16	4	100
4RRR 040 R05 100 650	4	R0.5	6	10	6	50



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L _c)	Effective Length (L _e)	Shank Diameter (d)	Overall Length (L)
4RRR 040 R05 120 650	4	R0.5	6	12	6	50
4RRR 040 R05 160 660	4	R0.5	6	16	6	60
4RRR 040 R05 200 660	4	R0.5	6	20	6	60
4RRR 040 R05 250 665	4	R0.5	6	25	6	65
4RRR 040 R05 300 670	4	R0.5	6	30	6	70
4RRR 040 R10 120 450	4	R1.0	6	12	4	50
4RRR 050 R05 180 660	5	R0.5	7.5	18	6	60
4RRR 060 R01 200 660	6	R0.1	9	20	6	60
4RRR 060 R02 200 660	6	R0.2	9	20	6	60
4RRR 060 R02 200 675	6	R0.2	9	20	6	75
4RRR 060 R02 200 6A0	6	R0.2	9	20	6	100
4RRR 060 R03 200 660	6	R0.3	9	20	6	60
4RRR 060 R03 200 675	6	R0.3	9	20	6	75
4RRR 060 R03 200 6A0	6	R0.3	9	20	6	100
4RRR 060 R05 200 660	6	R0.5	9	20	6	60
4RRR 060 R05 200 675	6	R0.5	9	20	6	75
4RRR 060 R05 200 6A0	6	R0.5	9	20	6	100
4RRR 060 R10 200 660	6	R1.0	9	20	6	60
4RRR 060 R10 200 675	6	R1.0	9	20	6	75
4RRR 060 R10 200 6A0	6	R1.0	9	20	6	100
4RRR 080 R01 240 865	8	R0.1	12	24	8	65
4RRR 080 R02 240 865	8	R0.2	12	24	8	65
4RRR 080 R02 240 875	8	R0.2	12	24	8	75
4RRR 080 R02 240 8A0	8	R0.2	12	24	8	100
4RRR 080 R03 240 865	8	R0.3	12	24	8	65
4RRR 080 R03 240 875	8	R0.3	12	24	8	75
4RRR 080 R03 240 8A0	8	R0.3	12	24	8	100
4RRR 080 R05 240 865	8	R0.5	12	24	8	65
4RRR 080 R05 240 875	8	R0.5	12	24	8	75
4RRR 080 R05 240 8A0	8	R0.5	12	24	8	100
4RRR 080 R10 240 865	8	R1.0	12	24	8	65
4RRR 080 R10 240 875	8	R1.0	12	24	8	75
4RRR 080 R10 240 8A0	8	R1.0	12	24	8	100
4RRR 100 R02 300 A75	10	R0.2	15	30	10	75
4RRR 100 R02 300 AA0	10	R0.2	15	30	10	100
4RRR 100 R05 300 A75	10	R0.5	15	30	10	75



4 Flutes Rib Corner Radius End Mills

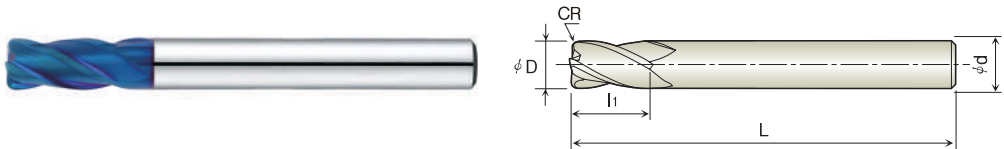
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4RRR 100 R05 300 AA0	10	R0.5	15	30	10	100
4RRR 100 R10 300 A75	10	R1.0	15	30	10	75
4RRR 100 R10 300 AA0	10	R1.0	15	30	10	100
4RRR 100 R10 300 AF0	10	R1.0	15	30	10	150
● 4RRR 120 R05 300 C80	12	R0.5	18	30	12	80
4RRR 120 R05 300 CB0	12	R0.5	18	30	12	110
4RRR 120 R05 300 CF0	12	R0.5	18	30	12	150
4RRR 120 R10 300 C80	12	R1.0	18	30	12	80
● 4RRR 120 R10 300 CB0	12	R1.0	18	30	12	110
4RRR 120 R10 300 CF0	12	R1.0	18	30	12	150

4RCR



4 Flutes Corner Radius End Mills



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
4RCR 010 R01 025 445	1	R0.1	2.5	4	45
4RCR 010 R02 025 445	1	R0.2	2.5	4	45
4RCR 010 R03 025 445	1	R0.3	2.5	4	45
4RCR 015 R01 040 445	1.5	R0.1	4	4	45
4RCR 015 R02 040 445	1.5	R0.2	4	4	45
4RCR 015 R03 040 445	1.5	R0.3	4	4	45
4RCR 015 R05 040 445	1.5	R0.5	4	4	45
4RCR 020 R01 060 445	2	R0.1	6	4	45
4RCR 020 R02 060 445	2	R0.2	6	4	45
4RCR 020 R03 060 445	2	R0.3	6	4	45
4RCR 020 R05 060 445	2	R0.5	6	4	45
4RCR 025 R01 060 450	2.5	R0.1	6	4	50
4RCR 025 R02 060 450	2.5	R0.2	6	4	50
4RCR 025 R03 060 450	2.5	R0.3	6	4	50
4RCR 025 R05 060 450	2.5	R0.5	6	4	50
4RCR 030 R01 080 660	3	R0.1	8	6	60
4RCR 030 R02 080 660	3	R0.2	8	6	60
4RCR 030 R03 080 660	3	R0.3	8	6	60
4RCR 030 R05 080 660	3	R0.5	8	6	60
4RCR 040 R01 100 670	4	R0.1	10	6	70
4RCR 040 R02 100 670	4	R0.2	10	6	70
4RCR 040 R03 100 670	4	R0.3	10	6	70
4RCR 040 R05 100 670	4	R0.5	10	6	70
4RCR 040 R10 100 670	4	R1.0	10	6	70
4RCR 050 R01 130 675	5	R0.1	13	6	75



4 Flutes Corner Radius End Mills

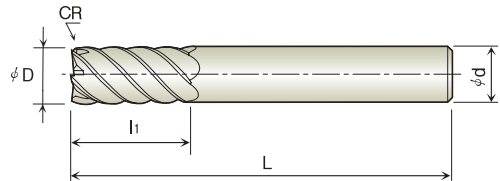
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
4RCR 050 R02 130 675	5	R0.2	13	6	75
4RCR 050 R03 130 675	5	R0.3	13	6	75
4RCR 050 R05 130 675	5	R0.5	13	6	75
4RCR 050 R10 130 675	5	R1.0	13	6	75
4RCR 060 R01 130 690	6	R0.1	13	6	90
4RCR 060 R02 130 690	6	R0.2	13	6	90
4RCR 060 R03 130 690	6	R0.3	13	6	90
4RCR 060 R05 130 690	6	R0.5	13	6	90
4RCR 060 R10 130 690	6	R1.0	13	6	90
4RCR 080 R01 190 8A0	8	R0.1	19	8	100
4RCR 080 R02 190 8A0	8	R0.2	19	8	100
4RCR 080 R03 190 8A0	8	R0.3	19	8	100
4RCR 080 R05 190 8A0	8	R0.5	19	8	100
4RCR 080 R10 190 8A0	8	R1.0	19	8	100
4RCR 080 R20 190 8A0	8	R2.0	19	8	100
4RCR 100 R02 220 AA0	10	R0.2	22	10	100
4RCR 100 R03 220 AA0	10	R0.3	22	10	100
4RCR 100 R05 220 AA0	10	R0.5	22	10	100
4RCR 100 R10 220 AA0	10	R1.0	22	10	100
4RCR 100 R20 220 AA0	10	R2.0	22	10	100
4RCR 120 R02 260 CB0	12	R0.2	26	12	110
4RCR 120 R03 260 CB0	12	R0.3	26	12	110
4RCR 120 R05 260 CB0	12	R0.5	26	12	110
4RCR 120 R10 260 CB0	12	R1.0	26	12	110
4RCR 120 R20 260 CB0	12	R2.0	26	12	110

6RCR



6 Flutes 45° Corner Radius End Mills



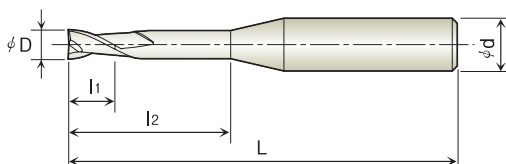
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
6RCR 030 R05 080 650	3	R0.5	8	6	50
6RCR 040 R05 100 650	4	R0.5	10	6	50
6RCR 060 R05 130 650	6	R0.5	13	6	50
6RCR 080 R05 190 865	8	R0.5	19	8	65
6RCR 100 R05 220 A70	10	R0.5	22	10	70
6RCR 120 R05 260 C80	12	R0.5	26	12	80

2RRE



2 Flutes Rib Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Effective Length (l.)	Shank Diameter (d)	Overall Length (L)
2RRE 001 003 445	0.1	0.15	0.3	4	45
2RRE 001 005 445	0.1	0.15	0.5	4	45
2RRE 002 005 445	0.2	0.3	0.5	4	45
2RRE 002 010 445	0.2	0.3	1	4	45
2RRE 002 020 445	0.2	0.3	2	4	45
2RRE 003 005 445	0.3	0.45	0.5	4	45
2RRE 003 010 445	0.3	0.45	1	4	45
2RRE 003 015 445	0.3	0.45	1.5	4	45
2RRE 003 020 445	0.3	0.45	2	4	45
2RRE 003 025 445	0.3	0.45	2.5	4	45
2RRE 003 030 445	0.3	0.45	3	4	45
2RRE 004 010 445	0.4	0.6	1	4	45
2RRE 004 015 445	0.4	0.6	1.5	4	45
2RRE 004 020 445	0.4	0.6	2	4	45
2RRE 004 025 445	0.4	0.6	2.5	4	45
2RRE 004 030 445	0.4	0.6	3	4	45
2RRE 004 035 445	0.4	0.6	3.5	4	45
2RRE 004 040 445	0.4	0.6	4	4	45
2RRE 005 010 445	0.5	0.7	1	4	45
2RRE 005 020 445	0.5	0.7	2	4	45
2RRE 005 030 445	0.5	0.7	3	4	45
2RRE 005 040 445	0.5	0.7	4	4	45
2RRE 005 050 445	0.5	0.7	5	4	45
2RRE 005 060 445	0.5	0.7	6	4	45
2RRE 005 080 445	0.5	0.7	8	4	45



2 Flutes Rib Flat End Mills

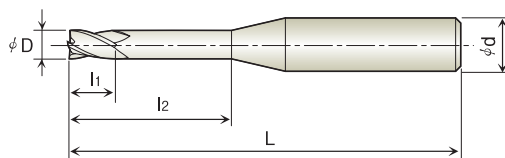
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2RRE 006 020 445	0.6	0.9	2	4	45
2RRE 006 030 445	0.6	0.9	3	4	45
2RRE 006 040 445	0.6	0.9	4	4	45
2RRE 006 050 445	0.6	0.9	5	4	45
2RRE 006 060 445	0.6	0.9	6	4	45
2RRE 006 080 445	0.6	0.9	8	4	45
2RRE 006 100 445	0.6	0.9	10	4	45
2RRE 007 020 445	0.7	1	2	4	45
2RRE 007 040 445	0.7	1	4	4	45
2RRE 007 060 445	0.7	1	6	4	45
2RRE 007 080 445	0.7	1	8	4	45
2RRE 007 100 445	0.7	1	10	4	45
2RRE 007 120 445	0.7	1	12	4	45
2RRE 008 020 445	0.8	1.2	2	4	45
2RRE 008 030 445	0.8	1.2	3	4	45
2RRE 008 040 445	0.8	1.2	4	4	45
2RRE 008 050 445	0.8	1.2	5	4	45
2RRE 008 060 445	0.8	1.2	6	4	45
2RRE 008 080 445	0.8	1.2	8	4	45
2RRE 008 100 445	0.8	1.2	10	4	45
2RRE 008 120 445	0.8	1.2	12	4	45
2RRE 009 060 445	0.9	1.3	6	4	45
2RRE 009 080 445	0.9	1.3	8	4	45
2RRE 009 100 445	0.9	1.3	10	4	45

4RRE



4 Flutes Rib Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Effective Length (l.)	Shank Diameter (d)	Overall Length (L)
4RRE 010 030 445	1	1.5	3	4	45
4RRE 010 040 445	1	1.5	4	4	45
4RRE 010 060 445	1	1.5	6	4	45
4RRE 010 080 445	1	1.5	8	4	45
4RRE 010 100 445	1	1.5	10	4	45
4RRE 015 040 445	1.5	2.3	4	4	45
4RRE 015 060 445	1.5	2.3	6	4	45
4RRE 015 080 445	1.5	2.3	8	4	45
4RRE 015 100 445	1.5	2.3	10	4	45
4RRE 015 120 445	1.5	2.3	12	4	45
4RRE 015 160 450	1.5	2.3	16	4	50
4RRE 020 060 445	2	3	6	4	45
4RRE 020 080 445	2	3	8	4	45
4RRE 020 100 445	2	3	10	4	45
4RRE 020 120 445	2	3	12	4	45
4RRE 020 160 450	2	3	16	4	50
4RRE 020 200 450	2	3	20	4	50
4RRE 030 080 650	3	4.5	8	6	50
4RRE 030 100 650	3	4.5	10	6	50
4RRE 030 120 650	3	4.5	12	6	50
4RRE 030 160 660	3	4.5	16	6	60
4RRE 030 200 660	3	4.5	20	6	60
4RRE 040 100 650	4	6	10	6	50
4RRE 040 120 650	4	6	12	6	50
4RRE 040 160 660	4	6	16	6	60



4 Flutes Rib Flat End Mills

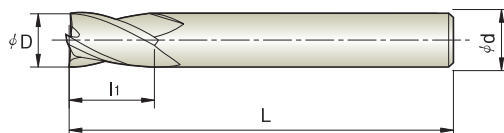
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4RRE 040 200 660	4	6	20	6	60
4RRE 040 250 665	4	6	25	6	65
4RRE 050 160 660	5	8	16	6	60
4RRE 050 300 670	5	8	30	6	70
4RRE 060 150 660	6	9	15	6	60
4RRE 060 200 660	6	9	20	6	60
4RRE 060 300 670	6	9	30	6	70
4RRE 080 200 865	8	12	20	8	65
4RRE 080 300 880	8	12	30	8	80
4RRE 080 400 8A0	8	12	40	8	100
4RRE 100 250 A70	10	15	25	10	70
4RRE 100 350 AA0	10	15	35	10	100
4RRE 100 450 AA0	10	15	45	10	100
4RRE 120 300 C80	12	18	30	12	80
4RRE 120 400 CB0	12	18	40	12	110
4RRE 120 500 CB0	12	18	50	12	110

4RPE



4 Flutes Flat End Mills



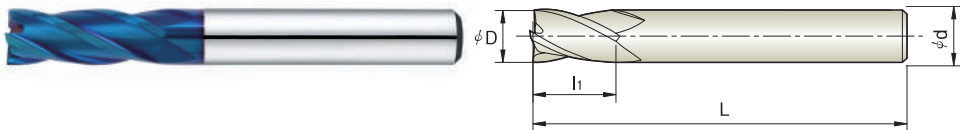
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
4RPE 010 025 445	1	2.5	4	45
4RPE 012 040 445	1.2	4	4	45
4RPE 015 040 445	1.5	4	4	45
4RPE 020 060 445	2	6	4	45
4RPE 025 080 445	2.5	8	4	45
4RPE 030 100 450	3	10	4	50
4RPE 035 100 650	3.5	10	6	50
4RPE 040 120 450	4	12	4	50
4RPE 050 150 650	5	15	6	50
4RPE 060 150 650	6	15	6	50
4RPE 060 150 675	6	15	6	75
4RPE 070 200 865	7	20	8	65
4RPE 080 200 865	8	20	8	65
4RPE 080 200 875	8	20	8	75
4RPE 100 250 A70	10	25	10	70
4RPE 100 250 A75	10	25	10	75
4RPE 120 300 C80	12	30	12	80

4RLE



4 Flutes Long Flat End Mills



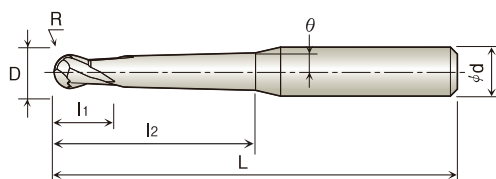
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
4RLE 080 300 8A0	8	30	8	100
4RLE 100 350 AA0	10	35	10	100
4RLE 120 400 CA0	12	40	12	100

2RTB



2 Flutes Taper Neck Ball End Mills



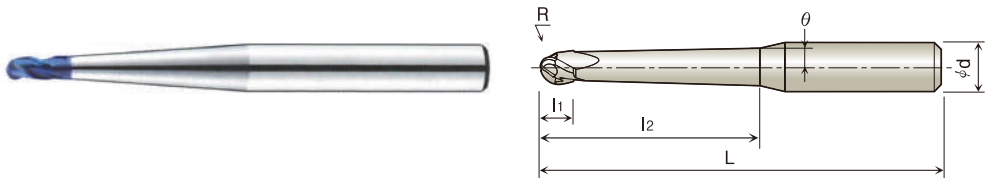
unit(mm)

Model No.	Radius of Ball Nose (R)	Angle(θ)	Length of Cut (L ₁)	Effective Length(L ₂)	Shank Diameter (d)	Overall Length (L)
2RTB 010 010 460	R0.5	Angle Custom-Order	1	Effective Length Custom-Order	4	60
2RTB 010 010 480	R0.5		1		4	80
2RTB 010 010 690	R0.5		1		6	90
2RTB 015 015 460	R0.75		1.5		4	60
2RTB 015 015 480	R0.75		1.5		4	80
● 2RTB 015 015 690	R0.75		1.5		6	90
2RTB 020 020 470	R1		2		4	70
2RTB 020 020 490	R1		2		4	90
2RTB 020 020 690	R1		2		6	90
2RTB 030 030 680	R1.5		3		6	80
2RTB 030 030 6A0	R1.5		3		6	100
2RTB 030 030 8B0	R1.5		3		8	110
2RTB 040 040 680	R2		4		6	80
2RTB 040 040 6B0	R2		4		6	110
2RTB 040 040 8B0	R2		4		8	110
2RTB 050 050 890	R2.5		5		8	90
2RTB 050 050 8B0	R2.5		5		8	110
2RTB 060 060 8B0	R3		6		8	110
2RTB 060 060 AF0	R3		6		10	150
2RTB 080 080 AB0	R4		8		10	110
2RTB 080 080 CG0	R4		8		12	160
2RTB 100 100 CB0	R5		10		12	110
2RTB 100 100 CG0	R5		10		12	160
2RTB 120 120 GG0	R6		12		16	160

3RTB



3 Flutes Taper Neck Ball End Mills



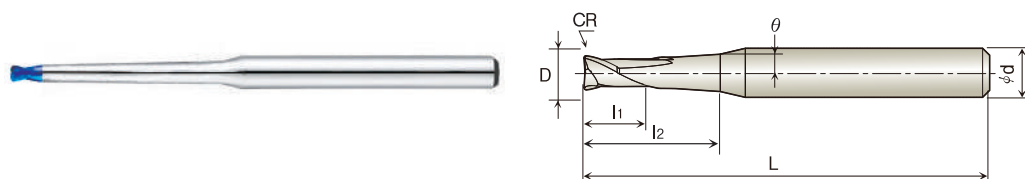
unit(mm)

Model No.	Radius of Ball Nose (R)	Angle(θ)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
3RTB 010 010 460	R0.5	Angle Custom-Order	1		4	60
3RTB 010 010 480	R0.5		1		4	80
3RTB 010 010 690	R0.5		1		6	90
3RTB 015 015 460	R0.75		1.5		4	60
3RTB 015 015 480	R0.75		1.5		4	80
3RTB 015 015 690	R0.75		1.5		6	90
3RTB 020 020 470	R1		2		4	70
3RTB 020 020 490	R1		2		4	90
3RTB 020 020 690	R1		2		6	90
3RTB 030 030 680	R1.5		3		6	80
3RTB 030 030 6A0	R1.5		3		6	100
3RTB 030 030 8B0	R1.5		3		8	110
3RTB 040 040 680	R2		4	Effective Length Custom-Order	6	80
3RTB 040 040 6B0	R2		4		6	110
3RTB 040 040 8B0	R2		4		8	110
3RTB 050 050 890	R2.5		5		8	90
3RTB 050 050 8B0	R2.5		5		8	110
3RTB 060 060 8B0	R3		6		8	110
3RTB 060 060 AF0	R3		6		10	150
3RTB 080 080 AB0	R4		8		10	110
3RTB 080 080 CG0	R4		8		12	160
3RTB 100 100 CB0	R5		10		12	110
3RTB 100 100 CG0	R5		10		12	160
3RTB 120 120 GG0	R6		12		16	160

2RTR



2 Flutes Taper Neck Corner Radius End Mills



unit(mm)

Model No.	Outside Diameter (D)	Angle(θ)	Corner Radius (CR)	Length of Cut (L ₁)	Effective Length (L ₂)	Shank Diameter (d)	Overall Length (L)
2RTR 010 R01 010 460	1	Angle Custom-Order	R0.1	1	Effective Length Custom-Order	4	60
2RTR 010 R01 010 480	1		R0.1	1		4	80
2RTR 010 R01 010 680	1		R0.1	1		6	80
2RTR 010 R02 010 460	1		R0.2	1		4	60
2RTR 010 R02 010 480	1		R0.2	1		4	80
2RTR 010 R02 010 680	1		R0.2	1		6	80
2RTR 010 R03 010 460	1		R0.3	1		4	60
2RTR 010 R03 010 480	1		R0.3	1		4	80
2RTR 010 R03 010 680	1		R0.3	1		6	80
2RTR 015 R02 015 460	1.5		R0.2	1.5		4	60
2RTR 015 R02 015 480	1.5		R0.2	1.5		4	80
2RTR 015 R02 015 680	1.5		R0.2	1.5		6	80
2RTR 015 R03 015 460	1.5		R0.3	1.5		4	60
2RTR 015 R03 015 480	1.5		R0.3	1.5		4	80
2RTR 015 R03 015 680	1.5		R0.3	1.5		6	80
2RTR 015 R05 015 460	1.5		R0.5	1.5		4	60
2RTR 015 R05 015 480	1.5		R0.5	1.5		4	80
2RTR 015 R05 015 680	1.5		R0.5	1.5		6	80
2RTR 020 R02 020 470	2		R0.2	2		4	70
2RTR 020 R02 020 480	2		R0.2	2		4	80
2RTR 020 R02 020 680	2		R0.2	2		6	80
2RTR 020 R03 015 460	2		R0.3	1.5		4	60
2RTR 020 R03 015 480	2		R0.3	1.5		4	80
2RTR 020 R03 015 680	2		R0.3	1.5		6	80



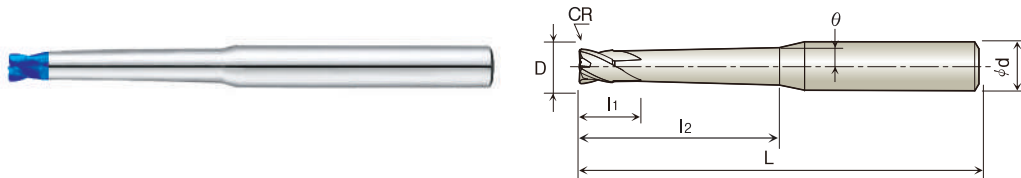
2 Flutes Taper Neck Corner Radius End Mills

unit(mm)							
Model No.	Outside Diameter (D)	Angle(θ)	Corner Radius (CR)	Length of Cut (L.)	Effective Length(L.)	Shank Diameter (d)	Overall Length (L)
2RTR 020 R05 020 470	2	Angle Custom-Order	R0.5	2	Effective Length Custom-Order	4	70
2RTR 020 R05 020 480	2		R0.5	2		4	80
2RTR 020 R05 020 680	2		R0.5	2		6	80
2RTR 030 R02 030 680	3		R0.2	3		6	80
2RTR 030 R02 030 6A0	3		R0.2	3		6	100
2RTR 030 R03 030 680	3		R0.3	3		6	80
2RTR 030 R03 030 6A0	3		R0.3	3		6	100
2RTR 030 R05 030 680	3		R0.5	3		6	80
2RTR 030 R05 030 6A0	3		R0.5	3		6	100
2RTR 040 R02 040 680	4		R0.2	4		6	80
2RTR 040 R02 040 6A0	4		R0.2	4		6	100
2RTR 040 R03 040 680	4		R0.3	4		6	80
2RTR 040 R03 040 6A0	4		R0.3	4		6	100
2RTR 040 R05 040 680	4		R0.5	4		6	80
2RTR 040 R05 040 6A0	4		R0.5	4		6	100
2RTR 040 R10 040 680	4		R1	4		6	80
2RTR 040 R10 040 6A0	4		R1	4		6	100

4RTR



4 Flutes Taper Neck Corner Radius End Mills



unit(mm)

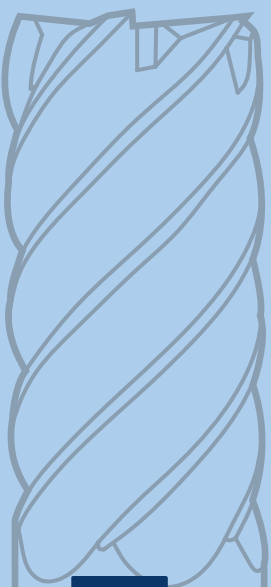
Model No.	Outside Diameter (D)	Angle(θ)	Corner Radius (CR)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
4RTR 010 R01 010 460	1	Angle Custom-Order	R0.1	1	Effective Length Custom-Order	4	60
4RTR 010 R01 010 480	1		R0.1	1		4	80
4RTR 010 R01 010 680	1		R0.1	1		6	80
4RTR 010 R02 010 460	1		R0.2	1		4	60
4RTR 010 R02 010 480	1		R0.2	1		4	80
4RTR 010 R02 010 680	1		R0.2	1		6	80
4RTR 015 R02 015 460	1.5		R0.2	1.5		4	60
4RTR 015 R02 015 480	1.5		R0.2	1.5		4	80
4RTR 015 R02 015 680	1.5		R0.2	1.5		6	80
4RTR 015 R03 015 460	1.5		R0.3	1.5		4	60
4RTR 015 R03 015 480	1.5		R0.3	1.5		4	80
4RTR 015 R03 015 680	1.5		R0.3	1.5		6	80
4RTR 015 R05 015 460	1.5		R0.5	1.5		4	60
4RTR 015 R05 015 480	1.5		R0.5	1.5		4	80
4RTR 015 R05 015 680	1.5		R0.5	1.5		6	80
4RTR 020 R02 020 470	2		R0.2	2		4	70
4RTR 020 R02 020 480	2		R0.2	2		4	80
4RTR 020 R02 020 680	2		R0.2	2		6	80
4RTR 020 R05 020 470	2		R0.5	2		4	70
4RTR 020 R05 020 480	2		R0.5	2		4	80
4RTR 020 R05 020 680	2		R0.5	2		6	80
4RTR 025 R03 025 470	2.5		R0.3	2.5		4	70
4RTR 025 R03 025 480	2.5		R0.3	2.5		4	80
4RTR 025 R03 025 680	2.5		R0.3	2.5		6	80



4 Flutes Taper Neck Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Angle(θ)	Corner Radius (CR)	Length of Cut (L.)	Effective Length(L.)	Shank Diameter (d)	Overall Length (L)
4RTR 025 R05 025 470	2.5	Angle Custom-Order	R0.5	2.5	Effective Length Custom-Order	4	70
4RTR 025 R05 025 480	2.5		R0.5	2.5		4	80
4RTR 025 R05 025 680	2.5		R0.5	2.5		6	80
4RTR 030 R03 030 680	3		R0.3	3		6	80
4RTR 030 R03 030 6A0	3		R0.3	3		6	100
4RTR 030 R05 030 680	3		R0.5	3		6	80
4RTR 030 R05 030 6A0	3		R0.5	3		6	100
4RTR 040 R03 040 680	4		R0.3	4		6	80
4RTR 040 R03 040 6A0	4		R0.3	4		6	100
4RTR 040 R05 040 680	4		R0.5	4		6	80
4RTR 040 R05 040 6A0	4		R0.5	4		6	100



H-MOLD SERIES





Ball

D Size	D Tolerance	R Size(mm)	R Tolerance (mm)
0.1 ~ 0.25	0 ~ -0.005	R0.05 ~ R2.9	±0.005
0.3 ~ 5.8	0 ~ -0.010	R3 ~ R6	±0.010
6 ~ 12	0 ~ -0.015	R6.5 ~ R10	±0.015
13 ~ 20	0 ~ -0.020		

Corner Radius

D Size	D Tolerance (mm)	R Size(mm)	R Tolerance(mm)
0.2 ~ 0.25	0 ~ -0.005	R0.02 ~ R0.5	±0.005
0.3 ~ 5	0 ~ -0.010	R1 ~ R1.5	±0.010
6 ~ 12	0 ~ -0.015	R2 ~ R3	±0.015
16 ~ 20	0 ~ -0.020		

High Speed & Feedrate

D Size	D Tolerance (mm)	R Size (mm)	R Tolerance (mm)
0.8 ~ 5	0 ~ -0.010	R0.02 ~ R0.5	±0.005
6 ~ 12	0 ~ -0.015	R1 ~ R1.5	±0.010
		R2	±0.015

Inner Corner Radius

D Size	D Tolerance	R Size	R Tolerance
0.5 ~ 0.9	0 ~ -0.010	R0.1 ~ R2.5	±0.010
1.4 ~ 5.9	0 ~ -0.020	R3 ~ R8	±0.020

Flat

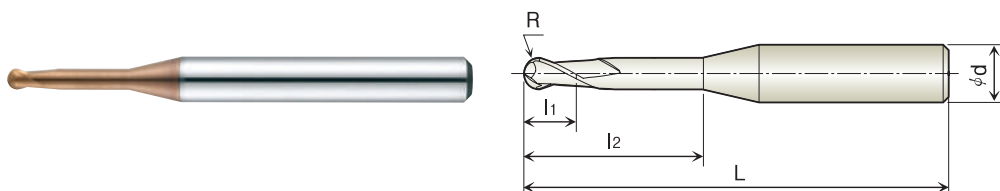
D Size	D Tolerance
0.05 ~ 0.25	0 ~ -0.005
0.3 ~ 5.9	0 ~ -0.010
6 ~ 12	0 ~ -0.015
13 ~ 25	0 ~ -0.020

- Maximized the wear resistance & minimized chattering
- Optimized to high precision in machining by applying lower tolerance
- Designed for high speed cutting

2HRB



2 Flutes Rib Ball End Mills



unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l.)	Effective Length (l.)	Shank Diameter (d)	Overall Length (L)
2HRB 001 003 445	R0.05	0.1	0.3	4	45
2HRB 001 005 445	R0.05	0.1	0.5	4	45
2HRB 0015 005 445	R0.075	0.15	0.5	4	45
2HRB 0016 005 445	R0.08	0.16	0.5	4	45
2HRB 002 005 445	R0.1	0.2	0.5	4	45
2HRB 002 005 650	R0.1	0.2	0.5	6	50
2HRB 002 010 445	R0.1	0.2	1	4	45
2HRB 002 015 445	R0.1	0.2	1.5	4	45
2HRB 002 020 445	R0.1	0.2	2	4	45
2HRB 002 025 445	R0.1	0.2	2.5	4	45
2HRB 002 030 445	R0.1	0.2	3	4	45
2HRB 0025 008 445	R0.125	0.25	0.8	4	45
2HRB 003 005 445	R0.15	0.3	0.5	4	45
2HRB 003 010 445	R0.15	0.3	1	4	45
2HRB 003 015 445	R0.15	0.3	1.5	4	45
2HRB 003 020 445	R0.15	0.3	2	4	45
2HRB 003 025 445	R0.15	0.3	2.5	4	45
2HRB 003 030 445	R0.15	0.3	3	4	45
2HRB 003 035 445	R0.15	0.3	3.5	4	45
2HRB 003 040 445	R0.15	0.3	4	4	45
2HRB 003 050 445	R0.15	0.3	5	4	45
2HRB 004 010 445	R0.2	0.4	1	4	45
2HRB 004 010 650	R0.2	0.4	1	6	50
2HRB 004 015 445	R0.2	0.4	1.5	4	45
2HRB 004 020 445	R0.2	0.4	2	4	45
2HRB 004 025 445	R0.2	0.4	2.5	4	45
2HRB 004 030 445	R0.2	0.4	3	4	45
2HRB 004 035 445	R0.2	0.4	3.5	4	45
2HRB 004 040 445	R0.2	0.4	4	4	45
2HRB 004 045 445	R0.2	0.4	4.5	4	45
2HRB 004 050 445	R0.2	0.4	5	4	45



2 Flutes Rib Ball End Mills

unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRB 004 060 445	R0.2	0.4	6	4	45
2HRB 004 080 445	R0.2	0.4	8	4	45
2HRB 004 100 445	R0.2	0.4	10	4	45
2HRB 005 010 445	R0.25	0.5	1	4	45
2HRB 005 015 445	R0.25	0.5	1.5	4	45
2HRB 005 015 650	R0.25	0.5	1.5	6	50
2HRB 005 020 445	R0.25	0.5	2	4	45
2HRB 005 025 445	R0.25	0.5	2.5	4	45
2HRB 005 030 445	R0.25	0.5	3	4	45
2HRB 005 035 445	R0.25	0.5	3.5	4	45
2HRB 005 040 445	R0.25	0.5	4	4	45
2HRB 005 045 445	R0.25	0.5	4.5	4	45
2HRB 005 050 445	R0.25	0.5	5	4	45
2HRB 005 060 445	R0.25	0.5	6	4	45
2HRB 005 080 445	R0.25	0.5	8	4	45
2HRB 005 100 445	R0.25	0.5	10	4	45
2HRB 005 120 445	R0.25	0.5	12	4	45
2HRB 005 140 445	R0.25	0.5	14	4	45
2HRB 006 010 445	R0.3	0.6	1	4	45
2HRB 006 015 650	R0.3	0.6	1.5	6	50
2HRB 006 020 445	R0.3	0.6	2	4	45
2HRB 006 030 445	R0.3	0.6	3	4	45
2HRB 006 040 445	R0.3	0.6	4	4	45
2HRB 006 050 445	R0.3	0.6	5	4	45
2HRB 006 060 445	R0.3	0.6	6	4	45
2HRB 006 080 445	R0.3	0.6	8	4	45
2HRB 006 100 445	R0.3	0.6	10	4	45
2HRB 006 120 445	R0.3	0.6	12	4	45
2HRB 006 140 445	R0.3	0.6	14	4	45
2HRB 006 160 445	R0.3	0.6	16	4	45
2HRB 007 020 445	R0.35	0.7	2	4	45
2HRB 007 040 445	R0.35	0.7	4	4	45
2HRB 007 060 445	R0.35	0.7	6	4	45
2HRB 007 080 445	R0.35	0.7	8	4	45
2HRB 007 100 445	R0.35	0.7	10	4	45
2HRB 007 120 445	R0.35	0.7	12	4	45
2HRB 008 020 445	R0.4	0.8	2	4	45
2HRB 008 020 650	R0.4	0.8	2	6	50
2HRB 008 030 445	R0.4	0.8	3	4	45
2HRB 008 040 445	R0.4	0.8	4	4	45
2HRB 008 050 445	R0.4	0.8	5	4	45
2HRB 008 060 445	R0.4	0.8	6	4	45
2HRB 008 080 445	R0.4	0.8	8	4	45
2HRB 008 100 445	R0.4	0.8	10	4	45



2 Flutes Rib Ball End Mills

unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRB 008 120 445	R0.4	0.8	12	4	45
2HRB 008 140 445	R0.4	0.8	14	4	45
2HRB 008 160 445	R0.4	0.8	16	4	45
2HRB 009 040 445	R0.45	0.9	4	4	45
2HRB 010 020 445	R0.5	1	2	4	45
2HRB 010 025 650	R0.5	1	2.5	6	50
2HRB 010 030 445	R0.5	1	3	4	45
2HRB 010 040 445	R0.5	1	4	4	45
2HRB 010 050 445	R0.5	1	5	4	45
2HRB 010 060 445	R0.5	1	6	4	45
2HRB 010 080 445	R0.5	1	8	4	45
2HRB 010 100 445	R0.5	1	10	4	45
2HRB 010 120 445	R0.5	1	12	4	45
2HRB 010 140 450	R0.5	1	14	4	50
2HRB 010 160 450	R0.5	11	16	4	50
2HRB 010 180 450	R0.5	12	18	4	50
2HRB 010 200 450	R0.5	13	20	4	50
2HRB 010 220 460	R0.5	14	22	4	60
2HRB 010 250 460	R0.5	15	25	4	60
2HRB 010 300 470	R0.5	16	30	4	70
2HRB 012 030 650	R0.6	1.2	3	6	50
2HRB 012 040 445	R0.6	1.2	4	4	45
2HRB 012 060 445	R0.6	1.2	6	4	45
2HRB 012 080 445	R0.6	1.2	8	4	45
2HRB 012 100 445	R0.6	1.2	10	4	45
2HRB 012 120 445	R0.6	1.2	12	4	45
2HRB 012 140 450	R0.6	1.2	14	4	50
2HRB 012 160 450	R0.6	1.2	16	4	50
2HRB 012 200 450	R0.6	1.2	20	4	50
2HRB 012 240 460	R0.6	1.2	24	4	60
2HRB 014 160 450	R0.7	1.4	16	4	50
2HRB 015 030 445	R0.75	1.5	3	4	45
2HRB 015 040 445	R0.75	1.5	4	4	45
2HRB 015 040 650	R0.75	1.5	4	6	50
2HRB 015 060 445	R0.75	1.5	6	4	45
2HRB 015 080 445	R0.75	1.5	8	4	45
2HRB 015 100 445	R0.75	1.5	10	4	45
2HRB 015 120 445	R0.75	1.5	12	4	45
2HRB 015 140 450	R0.75	1.5	14	4	50
2HRB 015 160 450	R0.75	1.5	16	4	50
2HRB 015 180 450	R0.75	1.5	18	4	50
2HRB 015 200 450	R0.75	1.5	20	4	50
2HRB 015 220 460	R0.75	1.5	22	4	60
2HRB 015 250 460	R0.75	1.5	25	4	60
2HRB 015 300 470	R0.75	1.5	30	4	70



2 Flutes Rib Ball End Mills

unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRB 015 350 470	R0.75	1.5	35	4	70
2HRB 015 400 480	R0.75	1.5	40	4	80
2HRB 020 040 445	R1.0	2	4	4	45
2HRB 020 060 445	R1.0	2	6	4	45
2HRB 020 060 650	R1.0	2	6	6	50
2HRB 020 080 445	R1.0	2	8	4	45
2HRB 020 100 445	R1.0	2	10	4	45
2HRB 020 120 445	R1.0	2	12	4	45
2HRB 020 140 450	R1.0	2	14	4	50
2HRB 020 160 450	R1.0	2	16	4	50
2HRB 020 180 450	R1.0	2	18	4	50
2HRB 020 200 450	R1.0	2	20	4	50
2HRB 020 220 460	R1.0	2	22	4	60
2HRB 020 250 460	R1.0	2	25	4	60
2HRB 020 300 470	R1.0	2	30	4	70
2HRB 020 350 470	R1.0	2	35	4	70
2HRB 025 060 650	R1.25	2.5	6	6	50
2HRB 025 080 445	R1.25	2.5	8	4	45
2HRB 025 100 445	R1.25	2.5	10	4	45
2HRB 025 120 445	R1.25	2.5	12	4	45
2HRB 025 160 450	R1.25	2.5	16	4	50
2HRB 025 200 450	R1.25	2.5	20	4	50
2HRB 025 250 460	R1.25	2.5	25	4	60
2HRB 025 300 470	R1.25	2.5	30	4	70
2HRB 025 350 470	R1.25	2.5	35	4	70
2HRB 030 060 360	R1.5	3	6	3	60
2HRB 030 060 650	R1.5	3	6	6	50
2HRB 030 080 650	R1.5	3	8	6	50
2HRB 030 100 650	R1.5	3	10	6	50
2HRB 030 120 650	R1.5	3	12	6	50
2HRB 030 140 660	R1.5	3	14	6	60
2HRB 030 160 660	R1.5	3	16	6	60
2HRB 030 180 660	R1.5	3	18	6	60
2HRB 030 200 660	R1.5	3	20	6	60
2HRB 030 250 665	R1.5	3	25	6	65
2HRB 030 300 670	R1.5	3	30	6	70
2HRB 030 350 680	R1.5	3	35	6	80
2HRB 030 400 680	R1.5	3	40	6	80
2HRB 030 500 6A0	R1.5	3	50	6	100
2HRB 040 080 470	R2.0	4	8	4	70
2HRB 040 080 650	R2.0	4	8	6	50
2HRB 040 100 650	R2.0	4	10	6	50
2HRB 040 120 650	R2.0	4	12	6	50
2HRB 040 140 660	R2.0	4	14	6	60
2HRB 040 160 660	R2.0	4	16	6	60



2 Flutes Rib Ball End Mills

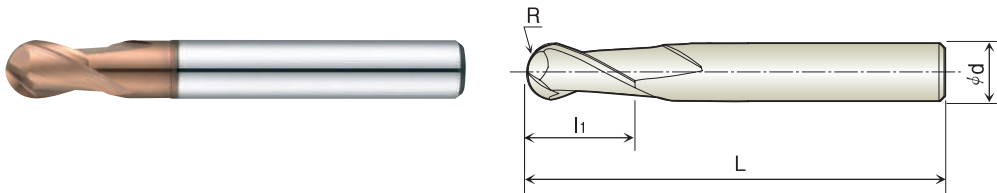
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRB 040 200 660	R2.0	4	20	6	60
2HRB 040 250 665	R2.0	4	25	6	65
2HRB 040 300 670	R2.0	4	30	6	70
2HRB 040 350 680	R2.0	4	35	6	80
2HRB 040 400 680	R2.0	4	40	6	80
2HRB 040 450 690	R2.0	4	45	6	90
2HRB 040 500 6A0	R2.0	4	50	6	100
2HRB 040 550 680	R2.0	4	55	6	110
2HRB 040 600 680	R2.0	4	60	6	110
2HRB 040 650 680	R2.0	4	65	6	110
2HRB 040 700 680	R2.0	4	70	6	110
2HRB 050 120 650	R2.5	5	12	6	50
2HRB 050 160 660	R2.5	5	16	6	60
2HRB 050 200 660	R2.5	5	20	6	60
2HRB 050 250 665	R2.5	5	25	6	65
2HRB 050 300 670	R2.5	5	30	6	70
2HRB 050 400 680	R2.5	5	40	6	80
2HRB 050 500 6A0	R2.5	5	50	6	100
2HRB 060 150 660	R3.0	7	15	6	60
2HRB 060 300 670	R3.0	6	30	6	70
2HRB 060 300 690	R3.0	6	30	6	90
2HRB 080 200 860	R4.0	10	20	8	60
2HRB 080 300 880	R4.0	8	30	8	80
2HRB 100 250 A70	R5.0	12	25	10	70
2HRB 100 350 AA0	R5.0	10	35	10	100
2HRB 120 300 C80	R6.0	14	30	12	80
2HRB 120 400 CB0	R6.0	12	40	12	110

2HSB



2 Flutes Short Ball End Mills



unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l ₁)	Shank Diameter (d)	Overall Length (L)
2HSB 001 001 440	R0.05	0.1	4	40
2HSB 002 002 440	R0.1	0.2	4	40
2HSB 002 003 440	R0.1	0.3	4	40
2HSB 003 003 440	R0.15	0.3	4	40
2HSB 004 004 440	R0.2	0.4	4	40
2HSB 004 006 440	R0.2	0.6	4	40
2HSB 005 005 440	R0.25	0.5	4	40
2HSB 006 006 440	R0.3	0.6	4	40
2HSB 007 007 440	R0.35	0.7	4	40
2HSB 008 008 440	R0.4	0.8	4	40
2HSB 009 009 440	R0.45	0.9	4	40
2HSB 010 010 440	R0.5	1	4	40
2HSB 010 010 640	R0.5	1	6	40
2HSB 010 015 440	R0.5	1.5	4	40
2HSB 010 015 640	R0.5	1.5	6	40
2HSB 015 015 440	R0.75	1.5	4	40
2HSB 015 015 640	R0.75	1.5	6	40
2HSB 015 023 440	R0.75	2.3	4	40
2HSB 015 023 640	R0.75	2.3	6	40
2HSB 020 020 445	R1.0	2	4	45
2HSB 020 020 645	R1.0	2	6	45
2HSB 020 030 445	R1.0	3	4	45
2HSB 020 030 645	R1.0	3	6	45
2HSB 030 030 445	R1.5	3	4	45
2HSB 030 030 645	R1.5	3	6	45



2 Flutes Short Ball End Mills

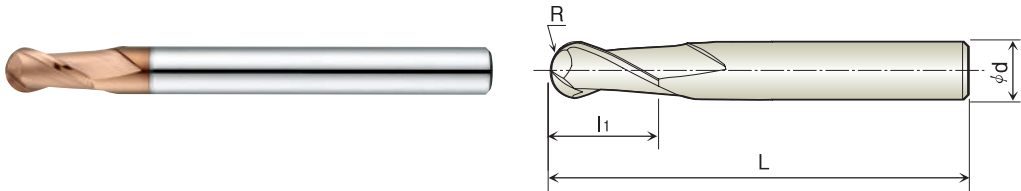
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L)	Shank Diameter (d)	Overall Length (L)
2HSB 030 045 445	R1.5	4.5	4	45
2HSB 030 045 645	R1.5	4.5	6	45
2HSB 040 040 445	R2.0	4	4	45
2HSB 040 040 645	R2.0	4	6	45
2HSB 040 060 445	R2.0	6	4	45
2HSB 040 060 645	R2.0	6	6	45
2HSB 050 050 650	R2.5	5	6	50
2HSB 050 075 650	R2.5	7.5	6	50
2HSB 060 060 650	R3.0	6	6	50
2HSB 060 080 660	R3.0	8	6	60
2HSB 080 080 850	R4.0	8	8	50
2HSB 080 110 860	R4.0	11	8	60
2HSB 100 100 A60	R5.0	10	10	60
2HSB 100 130 A60	R5.0	13	10	60
2HSB 120 120 C60	R6.0	12	12	60
2HSB 120 150 C60	R6.0	15	12	60

2HPB



2 Flutes Ball End Mills



unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l ₁)	Shank Diameter (d)	Overall Length (L)
2HPB 001 002 445	R0.05	0.2	4	45
2HPB 0015 003 445	R0.075	0.3	4	45
2HPB 002 004 445	R0.1	0.4	4	45
2HPB 003 006 445	R0.15	0.6	4	45
2HPB 004 008 445	R0.2	0.8	4	45
2HPB 004 008 645	R0.2	0.8	6	45
2HPB 005 010 445	R0.25	1	4	45
2HPB 005 010 645	R0.25	1	6	45
2HPB 006 012 445	R0.3	1.2	4	45
2HPB 006 012 645	R0.3	1.2	6	45
2HPB 007 015 445	R0.35	1.5	4	45
2HPB 008 015 445	R0.4	1.5	4	45
2HPB 008 015 645	R0.4	1.5	6	45
2HPB 010 020 350	R0.5	2	3	50
2HPB 010 020 450	R0.5	2	4	50
2HPB 010 020 650	R0.5	2	6	50
2HPB 011 024 450	R0.55	2.4	4	50
2HPB 012 025 350	R0.6	2.5	3	50
2HPB 012 025 450	R0.6	2.5	4	50
2HPB 012 025 650	R0.6	2.5	6	50
2HPB 013 032 450	R0.65	3.2	4	50
2HPB 014 035 450	R0.7	3.5	4	50
2HPB 015 040 350	R0.75	4	3	50
2HPB 015 040 450	R0.75	4	4	50
2HPB 015 040 650	R0.75	4	6	50



2 Flutes Ball End Mills

unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
2HPB 015 040 670	R0.75	4	6	70
2HPB 015 040 6A0	R0.75	4	6	100
2HPB 016 040 450	R0.8	4	4	50
2HPB 017 042 450	R0.85	4.2	4	50
2HPB 018 045 450	R0.9	4.5	4	50
2HPB 019 047 450	R0.95	4.7	4	50
2HPB 020 050 350	R1.0	5	3	50
2HPB 020 050 450	R1.0	5	4	50
2HPB 020 050 660	R1.0	5	6	60
2HPB 020 050 680	R1.0	5	6	80
2HPB 020 050 6A0	R1.0	5	6	100
2HPB 022 055 450	R1.1	5.5	4	50
2HPB 024 060 450	R1.2	6	4	50
2HPB 025 060 350	R1.25	6	3	50
2HPB 025 060 450	R1.25	6	4	50
2HPB 025 060 660	R1.25	6	6	60
2HPB 025 060 680	R1.25	6	6	80
2HPB 025 060 6A0	R1.25	6	6	100
2HPB 026 060 450	R1.3	6	4	50
2HPB 028 070 450	R1.4	7	4	50
2HPB 030 080 360	R1.5	8	3	60
2HPB 030 080 460	R1.5	8	4	60
2HPB 030 080 660	R1.5	8	6	60
2HPB 030 080 680	R1.5	8	6	80
2HPB 030 080 6A0	R1.5	8	6	100
2HPB 032 080 460	R1.6	8	4	60
2HPB 034 080 460	R1.7	8	4	60
2HPB 035 080 660	R1.75	8	6	60
2HPB 036 080 460	R1.8	8	4	60
2HPB 038 080 460	R1.9	8	4	60
2HPB 040 080 460	R2.0	8	4	60
2HPB 040 080 480	R2.0	8	4	80
2HPB 040 080 670	R2.0	8	6	70
2HPB 040 080 690	R2.0	8	6	90
2HPB 040 080 6C0	R2.0	8	6	120



2 Flutes Ball End Mills

unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L)	Shank Diameter (d)	Overall Length (L)
2HPB 042 100 670	R2.1	10	6	70
2HPB 044 100 670	R2.2	10	6	70
2HPB 045 100 670	R2.25	10	6	70
2HPB 046 100 670	R2.3	10	6	70
2HPB 047 100 670	R2.35	10	6	70
2HPB 048 100 670	R2.4	10	6	70
2HPB 050 100 680	R2.5	10	6	80
2HPB 052 120 680	R2.6	12	6	80
2HPB 054 120 680	R2.7	12	6	80
2HPB 055 120 680	R2.75	12	6	80
2HPB 056 120 680	R2.8	12	6	80
2HPB 058 120 680	R2.9	12	6	80
2HPB 060 120 675	R3.0	12	6	75
2HPB 060 120 680	R3.0	12	6	80
2HPB 060 120 690	R3.0	12	6	90
2HPB 060 120 6C0	R3.0	12	6	120
2HPB 060 120 6F0	R3.0	12	6	150
2HPB 070 140 8A0	R3.5	14	8	100
2HPB 080 140 875	R4.0	14	8	75
2HPB 080 140 8A0	R4.0	14	8	100
2HPB 080 140 8D0	R4.0	14	8	130
2HPB 080 140 8F0	R4.0	14	8	150
2HPB 090 180 AA0	R4.5	18	10	100
2HPB 100 180 A75	R5.0	18	10	75
2HPB 100 180 AA0	R5.0	18	10	100
2HPB 100 180 AD0	R5.0	18	10	130
2HPB 100 180 AF0	R5.0	18	10	150
2HPB 100 180 AI0	R5.0	18	10	180
2HPB 110 220 CB0	R5.5	22	12	110
2HPB 120 220 CB0	R6.0	22	12	110
2HPB 120 220 CD0	R6.0	22	12	130
2HPB 120 220 CF0	R6.0	22	12	150
2HPB 120 220 CK0	R6.0	22	12	200
2HPB 130 240 EB0	R6.5	24	14	110
2HPB 140 240 EB0	R7.0	24	14	110



2 Flutes Ball End Mills

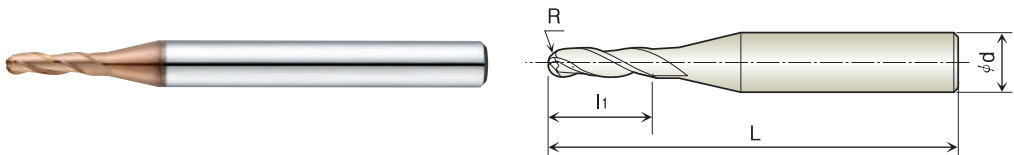
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
2HPB 160 300 GB0	R8.0	30	16	110
2HPB 160 300 GF0	R8.0	30	16	150
2HPB 200 380 KB0	R10.0	38	20	110
2HPB 200 380 KF0	R10.0	38	20	150

3HPB



3 Flutes Ball End Mills



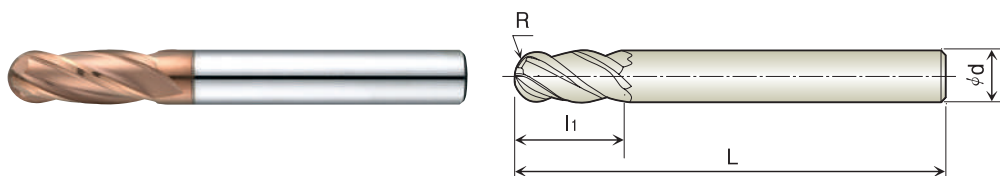
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l ₁)	Shank Diameter (d)	Overall Length (L)
3HPB 010 020 650	R0.5	2	6	50
3HPB 020 050 660	R1.0	5	6	60
3HPB 030 080 660	R1.5	8	6	60
3HPB 040 080 460	R2.0	8	4	60
3HPB 040 080 670	R2.0	8	6	70
3HPB 050 100 680	R2.5	10	6	80
3HPB 060 120 690	R3.0	12	6	90
3HPB 080 140 8A0	R4.0	14	8	100
3HPB 100 180 AA0	R5.0	18	10	100
3HPB 120 220 CB0	R6.0	22	12	110

4HPB



4 Flutes Ball End Mills



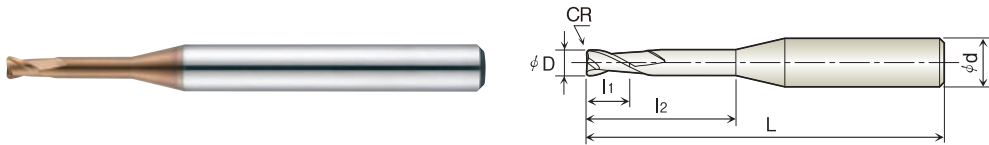
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
4HPB 010 020 650	R0.5	2	6	50
4HPB 015 040 650	R0.75	4	6	50
4HPB 020 050 660	R1.0	5	6	60
4HPB 030 080 660	R1.5	8	6	60
4HPB 040 080 460	R2.0	8	4	60
4HPB 040 080 670	R2.0	8	6	70
4HPB 050 100 680	R2.5	10	6	80
4HPB 060 120 690	R3.0	12	6	90
4HPB 080 140 8A0	R4.0	14	8	100
4HPB 100 180 AA0	R5.0	18	10	100
4HPB 120 220 CB0	R6.0	22	12	110
4HPB 160 300 GD0	R8.0	30	16	130
4HPB 200 380 KF0	R10.0	38	20	150

2HRR



2 Flutes Rib Corner Radius End Mills



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L ₁)	Effective Length (L ₂)	Shank Diameter (d)	Overall Length (L)
2HRR 002 R002 005 445	0.2	R0.02	0.3	0.5	4	45
2HRR 002 R002 010 445	0.2	R0.02	0.3	1	4	45
2HRR 002 R002 015 445	0.2	R0.02	0.3	1.5	4	45
2HRR 002 R005 010 445	0.2	R0.05	0.3	1	4	45
2HRR 002 R005 015 445	0.2	R0.05	0.3	1.5	4	45
2HRR 003 R005 010 445	0.3	R0.05	0.45	1	4	45
2HRR 003 R005 020 445	0.3	R0.05	0.45	2	4	45
2HRR 003 R005 030 445	0.3	R0.05	0.45	3	4	45
2HRR 004 R005 010 445	0.4	R0.05	0.6	1	4	45
2HRR 004 R005 020 445	0.4	R0.05	0.6	2	4	45
2HRR 004 R005 030 445	0.4	R0.05	0.6	3	4	45
2HRR 004 R005 040 445	0.4	R0.05	0.6	4	4	45
2HRR 004 R01 010 445	0.4	R0.1	0.6	1	4	45
2HRR 004 R01 015 445	0.4	R0.1	0.6	1.5	4	45
2HRR 004 R01 020 445	0.4	R0.1	0.6	2	4	45
2HRR 004 R01 030 445	0.4	R0.1	0.6	3	4	45
2HRR 004 R01 040 445	0.4	R0.1	0.6	4	4	45
2HRR 005 R002 010 445	0.5	R0.02	0.7	1	4	45
2HRR 005 R002 015 445	0.5	R0.02	0.7	1.5	4	45
2HRR 005 R002 020 445	0.5	R0.02	0.7	2	4	45
2HRR 005 R002 025 445	0.5	R0.02	0.7	2.5	4	45
2HRR 005 R002 030 445	0.5	R0.02	0.7	3	4	45
2HRR 005 R002 040 445	0.5	R0.02	0.7	4	4	45
2HRR 005 R002 050 445	0.5	R0.02	0.7	5	4	45
2HRR 005 R002 060 445	0.5	R0.02	0.7	6	4	45



2 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRR 005 R002 080 445	0.5	R0.02	0.7	8	4	45
2HRR 005 R002 100 445	0.5	R0.02	0.7	10	4	45
2HRR 005 R005 010 445	0.5	R0.05	0.7	1	4	45
2HRR 005 R005 015 445	0.5	R0.05	0.7	1.5	4	45
2HRR 005 R005 020 445	0.5	R0.05	0.7	2	4	45
2HRR 005 R005 025 445	0.5	R0.05	0.7	2.5	4	45
2HRR 005 R005 030 445	0.5	R0.05	0.7	3	4	45
2HRR 005 R005 040 445	0.5	R0.05	0.7	4	4	45
2HRR 005 R005 050 445	0.5	R0.05	0.7	5	4	45
2HRR 005 R005 060 445	0.5	R0.05	0.7	6	4	45
2HRR 005 R005 080 445	0.5	R0.05	0.7	8	4	45
2HRR 005 R005 100 445	0.5	R0.05	0.7	10	4	45
2HRR 005 R01 010 445	0.5	R0.1	0.7	1	4	45
2HRR 005 R01 015 445	0.5	R0.1	0.7	1.5	4	45
2HRR 005 R01 020 445	0.5	R0.1	0.7	2	4	45
2HRR 005 R01 025 445	0.5	R0.1	0.7	2.5	4	45
2HRR 005 R01 030 445	0.5	R0.1	0.7	3	4	45
2HRR 005 R01 040 445	0.5	R0.1	0.7	4	4	45
2HRR 005 R01 050 445	0.5	R0.1	0.7	5	4	45
2HRR 005 R01 060 445	0.5	R0.1	0.7	6	4	45
2HRR 005 R01 080 445	0.5	R0.1	0.7	8	4	45
2HRR 005 R01 100 445	0.5	R0.1	0.7	10	4	45
2HRR 006 R002 020 445	0.6	R0.02	0.9	2	4	45
2HRR 006 R002 030 445	0.6	R0.02	0.9	3	4	45
2HRR 006 R002 040 445	0.6	R0.02	0.9	4	4	45
2HRR 006 R002 060 445	0.6	R0.02	0.9	6	4	45
2HRR 006 R002 080 445	0.6	R0.02	0.9	8	4	45
2HRR 006 R002 100 445	0.6	R0.02	0.9	10	4	45
2HRR 006 R005 020 445	0.6	R0.05	0.9	2	4	45
2HRR 006 R005 030 445	0.6	R0.05	0.9	3	4	45
2HRR 006 R005 040 445	0.6	R0.05	0.9	4	4	45
2HRR 006 R005 060 445	0.6	R0.05	0.9	6	4	45
2HRR 006 R005 080 445	0.6	R0.05	0.9	8	4	45
2HRR 006 R005 100 445	0.6	R0.05	0.9	10	4	45
2HRR 006 R01 020 445	0.6	R0.1	0.9	2	4	45



2 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRR 006 R01 030 445	0.6	R0.1	0.9	3	4	45
2HRR 006 R01 040 445	0.6	R0.1	0.9	4	4	45
2HRR 006 R01 060 445	0.6	R0.1	0.9	6	4	45
2HRR 006 R01 080 445	0.6	R0.1	0.9	8	4	45
2HRR 006 R01 100 445	0.6	R0.1	0.9	10	4	45
2HRR 007 R01 020 445	0.7	R0.1	1	2	4	45
2HRR 007 R01 040 445	0.7	R0.1	1	4	4	45
2HRR 007 R01 060 445	0.7	R0.1	1	6	4	45
2HRR 008 R002 020 445	0.8	R0.02	1.2	2	4	45
2HRR 008 R002 040 445	0.8	R0.02	1.2	4	4	45
2HRR 008 R002 060 445	0.8	R0.02	1.2	6	4	45
2HRR 008 R002 080 445	0.8	R0.02	1.2	8	4	45
2HRR 008 R002 100 445	0.8	R0.02	1.2	10	4	45
2HRR 008 R005 020 445	0.8	R0.05	1.2	2	4	45
2HRR 008 R005 040 445	0.8	R0.05	1.2	4	4	45
2HRR 008 R005 060 445	0.8	R0.05	1.2	6	4	45
2HRR 008 R005 080 445	0.8	R0.05	1.2	8	4	45
2HRR 008 R005 100 445	0.8	R0.05	1.2	10	4	45
2HRR 008 R01 020 445	0.8	R0.1	1.2	2	4	45
2HRR 008 R01 040 445	0.8	R0.1	1.2	4	4	45
2HRR 008 R01 060 445	0.8	R0.1	1.2	6	4	45
2HRR 008 R01 080 445	0.8	R0.1	1.2	8	4	45
2HRR 008 R01 100 445	0.8	R0.1	1.2	10	4	45
2HRR 008 R02 020 445	0.8	R0.2	1.2	2	4	45
2HRR 008 R02 040 445	0.8	R0.2	1.2	4	4	45
2HRR 008 R02 060 445	0.8	R0.2	1.2	6	4	45
2HRR 008 R02 080 445	0.8	R0.2	1.2	8	4	45
2HRR 008 R02 100 445	0.8	R0.2	1.2	10	4	45
2HRR 010 R005 040 445	1	R0.05	1.5	4	4	45
2HRR 010 R005 060 445	1	R0.05	1.5	6	4	45
2HRR 010 R005 080 445	1	R0.05	1.5	8	4	45
2HRR 010 R005 100 445	1	R0.05	1.5	10	4	45
2HRR 010 R005 120 445	1	R0.05	1.5	12	4	45
2HRR 010 R005 160 450	1	R0.05	1.5	16	4	50
2HRR 010 R005 200 450	1	R0.05	1.5	20	4	50



2 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRR 010 R005 220 460	1	R0.05	1.5	22	4	60
2HRR 010 R005 250 460	1	R0.05	1.5	25	4	60
2HRR 010 R01 040 445	1	R0.1	1.5	4	4	45
2HRR 010 R01 060 445	1	R0.1	1.5	6	4	45
2HRR 010 R01 080 445	1	R0.1	1.5	8	4	45
2HRR 010 R01 100 445	1	R0.1	1.5	10	4	45
2HRR 010 R01 120 445	1	R0.1	1.5	12	4	45
2HRR 010 R01 160 450	1	R0.1	1.5	16	4	50
2HRR 010 R01 200 450	1	R0.1	1.5	20	4	50
2HRR 010 R01 220 460	1	R0.1	1.5	22	4	60
2HRR 010 R01 250 460	1	R0.1	1.5	25	4	60
2HRR 010 R02 040 445	1	R0.2	1.5	4	4	45
2HRR 010 R02 060 445	1	R0.2	1.5	6	4	45
2HRR 010 R02 080 445	1	R0.2	1.5	8	4	45
2HRR 010 R02 100 445	1	R0.2	1.5	10	4	45
2HRR 010 R02 120 445	1	R0.2	1.5	12	4	45
2HRR 010 R02 160 450	1	R0.2	1.5	16	4	50
2HRR 010 R02 200 450	1	R0.2	1.5	20	4	50
2HRR 010 R02 220 460	1	R0.2	1.5	22	4	60
2HRR 010 R02 250 460	1	R0.2	1.5	25	4	60
2HRR 010 R025 040 665	1	R0.25	1.5	4	6	65
2HRR 010 R025 080 665	1	R0.25	1.5	8	6	65
2HRR 010 R03 040 445	1	R0.3	1.5	4	4	45
2HRR 010 R03 060 445	1	R0.3	1.5	6	4	45
2HRR 010 R03 080 445	1	R0.3	1.5	8	4	45
2HRR 010 R03 100 445	1	R0.3	1.5	10	4	45
2HRR 010 R03 120 445	1	R0.3	1.5	12	4	45
2HRR 010 R03 160 450	1	R0.3	1.5	16	4	50
2HRR 010 R03 200 450	1	R0.3	1.5	20	4	50
2HRR 010 R03 220 460	1	R0.3	1.5	22	4	60
2HRR 010 R03 250 460	1	R0.3	1.5	25	4	60
2HRR 012 R01 040 445	1.2	R0.1	1.8	4	4	45
2HRR 012 R01 060 445	1.2	R0.1	1.8	6	4	45
2HRR 012 R01 080 445	1.2	R0.1	1.8	8	4	45
2HRR 012 R01 100 445	1.2	R0.1	1.8	10	4	45



2 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRR 012 R01 120 445	1.2	R0.1	1.8	12	4	45
2HRR 012 R01 160 450	1.2	R0.1	1.8	16	4	50
2HRR 012 R01 200 450	1.2	R0.1	1.8	20	4	50
2HRR 012 R02 040 445	1.2	R0.2	1.8	4	4	45
2HRR 012 R02 060 445	1.2	R0.2	1.8	6	4	45
2HRR 012 R02 080 445	1.2	R0.2	1.8	8	4	45
2HRR 012 R02 100 445	1.2	R0.2	1.8	10	4	45
2HRR 012 R02 120 445	1.2	R0.2	1.8	12	4	45
2HRR 012 R02 160 450	1.2	R0.2	1.8	16	4	50
2HRR 012 R02 200 450	1.2	R0.2	1.8	20	4	50
2HRR 012 R03 040 445	1.2	R0.3	1.8	4	4	45
2HRR 012 R03 060 445	1.2	R0.3	1.8	6	4	45
2HRR 012 R03 080 445	1.2	R0.3	1.8	8	4	45
2HRR 012 R03 100 445	1.2	R0.3	1.8	10	4	45
2HRR 012 R03 120 445	1.2	R0.3	1.8	12	4	45
2HRR 012 R03 160 450	1.2	R0.3	1.8	16	4	50
2HRR 012 R03 200 450	1.2	R0.3	1.8	20	4	50
2HRR 015 R01 040 445	1.5	R0.1	2.3	4	4	45
2HRR 015 R01 060 445	1.5	R0.1	2.3	6	4	45
2HRR 015 R01 080 445	1.5	R0.1	2.3	8	4	45
2HRR 015 R01 100 445	1.5	R0.1	2.3	10	4	45
2HRR 015 R01 120 445	1.5	R0.1	2.3	12	4	45
2HRR 015 R01 160 450	1.5	R0.1	2.3	16	4	50
2HRR 015 R01 200 450	1.5	R0.1	2.3	20	4	50
2HRR 015 R01 220 460	1.5	R0.1	2.3	22	4	60
2HRR 015 R01 250 460	1.5	R0.1	2.3	25	4	60
2HRR 015 R02 040 445	1.5	R0.2	2.3	4	4	45
2HRR 015 R02 060 445	1.5	R0.2	2.3	6	4	45
2HRR 015 R02 080 445	1.5	R0.2	2.3	8	4	45
2HRR 015 R02 100 445	1.5	R0.2	2.3	10	4	45
2HRR 015 R02 120 445	1.5	R0.2	2.3	12	4	45
2HRR 015 R02 160 450	1.5	R0.2	2.3	16	4	50
2HRR 015 R02 200 450	1.5	R0.2	2.3	20	4	50
2HRR 015 R02 220 460	1.5	R0.2	2.3	22	4	60
2HRR 015 R02 250 460	1.5	R0.2	2.3	25	4	60



2 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRR 015 R03 040 445	1.5	R0.3	2.3	4	4	45
2HRR 015 R03 060 445	1.5	R0.3	2.3	6	4	45
2HRR 015 R03 060 670	1.5	R0.3	2.3	6	6	70
2HRR 015 R03 080 445	1.5	R0.3	2.3	8	4	45
2HRR 015 R03 080 670	1.5	R0.3	2.3	8	6	70
2HRR 015 R03 100 445	1.5	R0.3	2.3	10	4	45
2HRR 015 R03 100 670	1.5	R0.3	2.3	10	6	70
2HRR 015 R03 120 445	1.5	R0.3	2.3	12	4	45
2HRR 015 R03 160 450	1.5	R0.3	2.3	16	4	50
2HRR 015 R03 200 450	1.5	R0.3	2.3	20	4	50
2HRR 015 R03 220 460	1.5	R0.3	2.3	22	4	60
2HRR 015 R03 250 460	1.5	R0.3	2.3	25	4	60
2HRR 015 R05 040 445	1.5	R0.5	2.3	4	4	45
2HRR 015 R05 060 445	1.5	R0.5	2.3	6	4	45
2HRR 015 R05 080 445	1.5	R0.5	2.3	8	4	45
2HRR 015 R05 100 445	1.5	R0.5	2.3	10	4	45
2HRR 015 R05 120 445	1.5	R0.5	2.3	12	4	45
2HRR 015 R05 160 450	1.5	R0.5	2.3	16	4	50
2HRR 015 R05 200 450	1.5	R0.5	2.3	20	4	50
2HRR 015 R05 220 460	1.5	R0.5	2.3	22	4	60
2HRR 015 R05 250 460	1.5	R0.5	2.3	25	4	60
2HRR 020 R01 040 445	2	R0.1	3	4	4	45
2HRR 020 R01 060 445	2	R0.1	3	6	4	45
2HRR 020 R01 080 445	2	R0.1	3	8	4	45
2HRR 020 R01 100 445	2	R0.1	3	10	4	45
2HRR 020 R01 120 445	2	R0.1	3	12	4	45
2HRR 020 R01 160 450	2	R0.1	3	16	4	50
2HRR 020 R01 200 450	2	R0.1	3	20	4	50
2HRR 020 R01 250 460	2	R0.1	3	25	4	60
2HRR 020 R01 300 470	2	R0.1	3	30	4	70
2HRR 020 R02 040 445	2	R0.2	3	4	4	45
2HRR 020 R02 060 445	2	R0.2	3	6	4	45
2HRR 020 R02 080 445	2	R0.2	3	8	4	45
2HRR 020 R02 100 445	2	R0.2	3	10	4	45
2HRR 020 R02 120 445	2	R0.2	3	12	4	45



2 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRR 020 R02 160 450	2	R0.2	3	16	4	50
2HRR 020 R02 200 450	2	R0.2	3	20	4	50
2HRR 020 R02 250 460	2	R0.2	3	25	4	60
2HRR 020 R02 300 470	2	R0.2	3	30	4	70
2HRR 020 R03 040 445	2	R0.3	3	4	4	45
2HRR 020 R03 060 445	2	R0.3	3	6	4	45
2HRR 020 R03 080 445	2	R0.3	3	8	4	45
2HRR 020 R03 100 445	2	R0.3	3	10	4	45
2HRR 020 R03 120 445	2	R0.3	3	12	4	45
2HRR 020 R03 160 450	2	R0.3	3	16	4	50
2HRR 020 R03 200 450	2	R0.3	3	20	4	50
2HRR 020 R03 250 460	2	R0.3	3	25	4	60
2HRR 020 R03 300 470	2	R0.3	3	30	4	70
2HRR 020 R05 040 445	2	R0.5	3	4	4	45
2HRR 020 R05 060 445	2	R0.5	3	6	4	45
2HRR 020 R05 060 670	2	R0.5	3	6	6	70
2HRR 020 R05 080 445	2	R0.5	3	8	4	45
2HRR 020 R05 100 445	2	R0.5	3	10	4	45
2HRR 020 R05 100 670	2	R0.5	3	10	6	70
2HRR 020 R05 120 445	2	R0.5	3	12	4	45
2HRR 020 R05 120 670	2	R0.5	3	12	6	70
2HRR 020 R05 160 450	2	R0.5	3	16	4	50
2HRR 020 R05 160 670	2	R0.5	3	16	6	70
2HRR 020 R05 180 450	2	R0.5	3	18	4	50
2HRR 020 R05 200 450	2	R0.5	3	20	4	50
2HRR 020 R05 250 460	2	R0.5	3	25	4	60
2HRR 020 R05 300 470	2	R0.5	3	30	4	70
2HRR 025 R01 100 445	2.5	R0.1	3.8	10	4	45
2HRR 025 R01 160 450	2.5	R0.1	3.8	16	4	50
2HRR 025 R01 200 450	2.5	R0.1	3.8	20	4	50
2HRR 025 R01 250 460	2.5	R0.1	3.8	25	4	60
2HRR 025 R01 300 470	2.5	R0.1	3.8	30	4	70
2HRR 025 R02 100 445	2.5	R0.2	3.8	10	4	45
2HRR 025 R02 160 450	2.5	R0.2	3.8	16	4	50
2HRR 025 R02 200 450	2.5	R0.2	3.8	20	4	50



2 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRR 025 R02 250 460	2.5	R0.2	3.8	25	4	60
2HRR 025 R02 300 470	2.5	R0.2	3.8	30	4	70
2HRR 025 R03 100 445	2.5	R0.3	3.8	10	4	45
2HRR 025 R03 160 450	2.5	R0.3	3.8	16	4	50
2HRR 025 R03 200 450	2.5	R0.3	3.8	20	4	50
2HRR 025 R03 250 460	2.5	R0.3	3.8	25	4	60
2HRR 025 R03 300 470	2.5	R0.3	3.8	30	4	70
2HRR 025 R05 100 445	2.5	R0.5	3.8	10	4	45
2HRR 025 R05 140 450	2.5	R0.5	3.8	14	4	50
2HRR 025 R05 160 450	2.5	R0.5	3.8	16	4	50
2HRR 025 R05 180 450	2.5	R0.5	3.8	18	4	50
2HRR 025 R05 200 450	2.5	R0.5	3.8	20	4	50
2HRR 025 R05 250 460	2.5	R0.5	3.8	25	4	60
2HRR 025 R05 300 470	2.5	R0.5	3.8	30	4	70
2HRR 025 R10 100 445	2.5	R1.0	3.8	10	4	45
2HRR 030 R01 080 650	3	R0.1	4.5	8	6	50
2HRR 030 R01 100 650	3	R0.1	4.5	10	6	50
2HRR 030 R01 120 650	3	R0.1	4.5	12	6	50
2HRR 030 R01 160 660	3	R0.1	4.5	16	6	60
2HRR 030 R01 200 660	3	R0.1	4.5	20	6	60
2HRR 030 R01 250 665	3	R0.1	4.5	25	6	65
2HRR 030 R01 300 670	3	R0.1	4.5	30	6	70
2HRR 030 R01 350 680	3	R0.1	4.5	35	6	80
2HRR 030 R01 400 680	3	R0.1	4.5	40	6	80
2HRR 030 R02 080 650	3	R0.2	4.5	8	6	50
2HRR 030 R02 100 650	3	R0.2	4.5	10	6	50
2HRR 030 R02 120 650	3	R0.2	4.5	12	6	50
2HRR 030 R02 160 660	3	R0.2	4.5	16	6	60
2HRR 030 R02 200 660	3	R0.2	4.5	20	6	60
2HRR 030 R02 250 665	3	R0.2	4.5	25	6	65
2HRR 030 R02 300 670	3	R0.2	4.5	30	6	70
2HRR 030 R02 350 680	3	R0.2	4.5	35	6	80
2HRR 030 R02 400 680	3	R0.2	4.5	40	6	80
2HRR 030 R03 080 650	3	R0.3	4.5	8	6	50
2HRR 030 R03 100 650	3	R0.3	4.5	10	6	50



2 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRR 030 R03 120 650	3	R0.3	4.5	12	6	50
2HRR 030 R03 160 660	3	R0.3	4.5	16	6	60
2HRR 030 R03 200 660	3	R0.3	4.5	20	6	60
2HRR 030 R03 250 665	3	R0.3	4.5	25	6	65
2HRR 030 R03 300 670	3	R0.3	4.5	30	6	70
2HRR 030 R03 350 680	3	R0.3	4.5	35	6	80
2HRR 030 R03 400 680	3	R0.3	4.5	40	6	80
2HRR 030 R05 080 650	3	R0.5	4.5	8	6	50
2HRR 030 R05 080 675	3	R0.5	4.5	8	6	75
2HRR 030 R05 100 650	3	R0.5	4.5	10	6	50
2HRR 030 R05 120 650	3	R0.5	4.5	12	6	50
2HRR 030 R05 120 675	3	R0.5	4.5	12	6	75
2HRR 030 R05 160 660	3	R0.5	4.5	16	6	60
2HRR 030 R05 200 660	3	R0.5	4.5	20	6	60
2HRR 030 R05 200 675	3	R0.5	4.5	20	6	75
2HRR 030 R05 250 665	3	R0.5	4.5	25	6	65
2HRR 030 R05 300 670	3	R0.5	4.5	30	6	70
2HRR 030 R05 350 680	3	R0.5	4.5	35	6	80
2HRR 030 R05 400 680	3	R0.5	4.5	40	6	80
2HRR 030 R10 080 650	3	R1.0	4.5	8	6	50
2HRR 030 R10 100 650	3	R1.0	4.5	10	6	50
2HRR 030 R10 120 650	3	R1.0	4.5	12	6	50
2HRR 030 R10 160 660	3	R1.0	4.5	16	6	60
2HRR 030 R10 200 660	3	R1.0	4.5	20	6	60
2HRR 030 R10 250 665	3	R1.0	4.5	25	6	65
2HRR 030 R10 300 670	3	R1.0	4.5	30	6	70
2HRR 030 R10 350 680	3	R1.0	4.5	35	6	80
2HRR 030 R10 400 680	3	R1.0	4.5	40	6	80
2HRR 040 R01 080 650	4	R0.1	6	8	6	50
2HRR 040 R01 100 650	4	R0.1	6	10	6	50
2HRR 040 R01 120 650	4	R0.1	6	12	6	50
2HRR 040 R01 160 660	4	R0.1	6	16	6	60
2HRR 040 R01 200 660	4	R0.1	6	20	6	60
2HRR 040 R01 250 665	4	R0.1	6	25	6	65
2HRR 040 R01 300 670	4	R0.1	6	30	6	70



2 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRR 040 R01 350 680	4	R0.1	6	35	6	80
2HRR 040 R01 400 680	4	R0.1	6	40	6	80
2HRR 040 R01 450 690	4	R0.1	6	45	6	90
2HRR 040 R01 500 6A0	4	R0.1	6	50	6	100
2HRR 040 R02 080 650	4	R0.2	6	8	6	50
2HRR 040 R02 100 650	4	R0.2	6	10	6	50
2HRR 040 R02 120 650	4	R0.2	6	12	6	50
2HRR 040 R02 160 660	4	R0.2	6	16	6	60
2HRR 040 R02 200 660	4	R0.2	6	20	6	60
2HRR 040 R02 250 665	4	R0.2	6	25	6	65
2HRR 040 R02 300 670	4	R0.2	6	30	6	70
2HRR 040 R02 350 680	4	R0.2	6	35	6	80
2HRR 040 R02 400 680	4	R0.2	6	40	6	80
2HRR 040 R02 450 690	4	R0.2	6	45	6	90
2HRR 040 R02 500 6A0	4	R0.2	6	50	6	100
2HRR 040 R03 080 650	4	R0.3	6	8	6	50
2HRR 040 R03 100 650	4	R0.3	6	10	6	50
2HRR 040 R03 120 650	4	R0.3	6	12	6	50
2HRR 040 R03 160 660	4	R0.3	6	16	6	60
2HRR 040 R03 200 660	4	R0.3	6	20	6	60
2HRR 040 R03 250 665	4	R0.3	6	25	6	65
2HRR 040 R03 300 670	4	R0.3	6	30	6	70
2HRR 040 R03 350 680	4	R0.3	6	35	6	80
2HRR 040 R03 400 680	4	R0.3	6	40	6	80
2HRR 040 R03 450 690	4	R0.3	6	45	6	90
2HRR 040 R03 500 6A0	4	R0.3	6	50	6	100
2HRR 040 R05 080 650	4	R0.5	6	8	6	50
2HRR 040 R05 100 650	4	R0.5	6	10	6	50
2HRR 040 R05 120 650	4	R0.5	6	12	6	50
2HRR 040 R05 120 675	4	R0.5	6	12	6	75
2HRR 040 R05 160 660	4	R0.5	6	16	6	60
2HRR 040 R05 200 660	4	R0.5	6	20	6	60
2HRR 040 R05 200 675	4	R0.5	6	20	6	75
2HRR 040 R05 250 665	4	R0.5	6	25	6	65
2HRR 040 R05 250 675	4	R0.5	6	25	6	75



2 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRR 040 R05 300 670	4	R0.5	6	30	6	70
2HRR 040 R05 350 680	4	R0.5	6	35	6	80
2HRR 040 R05 400 680	4	R0.5	6	40	6	80
2HRR 040 R05 450 690	4	R0.5	6	45	6	90
2HRR 040 R05 500 6A0	4	R0.5	6	50	6	100
2HRR 040 R10 080 650	4	R1.0	6	8	6	50
2HRR 040 R10 100 650	4	R1.0	6	10	6	50
2HRR 040 R10 120 650	4	R1.0	6	12	6	50
2HRR 040 R10 120 675	4	R1.0	6	12	6	75
2HRR 040 R10 160 660	4	R1.0	6	16	6	60
2HRR 040 R10 200 660	4	R1.0	6	20	6	60
2HRR 040 R10 250 665	4	R1.0	6	25	6	65
2HRR 040 R10 300 670	4	R1.0	6	30	6	70
2HRR 040 R10 350 680	4	R1.0	6	35	6	80
2HRR 040 R10 400 680	4	R1.0	6	40	6	80
2HRR 040 R10 450 690	4	R1.0	6	45	6	90
2HRR 040 R10 500 6A0	4	R1.0	6	50	6	100
2HRR 050 R02 150 660	5	R0.2	7.5	15	6	60
2HRR 050 R02 250 665	5	R0.2	7.5	25	6	65
2HRR 050 R02 300 670	5	R0.2	7.5	30	6	70
2HRR 050 R02 400 680	5	R0.2	7.5	40	6	80
2HRR 050 R02 500 6A0	5	R0.2	7.5	50	6	100
2HRR 050 R05 180 660	5	R0.5	7.5	18	6	60
2HRR 050 R05 250 665	5	R0.5	7.5	25	6	65
2HRR 050 R05 300 670	5	R0.5	7.5	30	6	70
2HRR 050 R05 400 680	5	R0.5	7.5	40	6	80
2HRR 050 R05 500 6A0	5	R0.5	7.5	50	6	100
2HRR 050 R10 180 660	5	R1.0	7.5	18	6	60
2HRR 050 R10 250 665	5	R1.0	7.5	25	6	65
2HRR 050 R10 300 670	5	R1.0	7.5	30	6	70
2HRR 050 R10 400 680	5	R1.0	7.5	40	6	80
2HRR 050 R10 500 6A0	5	R1.0	7.5	50	6	100
2HRR 060 R01 200 660	6	R0.1	9	20	6	60
2HRR 060 R01 400 690	6	R0.1	9	40	6	90
2HRR 060 R02 200 660	6	R0.2	9	20	6	60



2 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRR 060 R02 400 690	6	R0.2	9	40	6	90
2HRR 060 R03 200 660	6	R0.3	9	20	6	60
2HRR 060 R03 400 690	6	R0.3	9	40	6	90
2HRR 060 R05 200 660	6	R0.5	9	20	6	60
2HRR 060 R05 400 690	6	R0.5	9	40	6	90
2HRR 060 R10 200 660	6	R1.0	9	20	6	60
2HRR 060 R10 400 690	6	R1.0	9	40	6	90
2HRR 060 R15 200 660	6	R1.5	9	20	6	60
2HRR 060 R15 400 690	6	R1.5	9	40	6	90
2HRR 080 R02 240 865	8	R0.2	12	24	8	65
2HRR 080 R02 400 8A0	8	R0.2	12	40	8	100
2HRR 080 R03 240 865	8	R0.3	12	24	8	65
2HRR 080 R03 400 8A0	8	R0.3	12	40	8	100
2HRR 080 R05 240 865	8	R0.5	12	24	8	65
2HRR 080 R05 240 880	8	R0.5	12	24	8	80
2HRR 080 R05 400 8A0	8	R0.5	12	40	8	100
2HRR 080 R10 240 865	8	R1.0	12	24	8	65
2HRR 080 R10 240 880	8	R1.0	12	24	8	80
2HRR 080 R10 400 8A0	8	R1.0	12	40	8	100
2HRR 080 R15 240 865	8	R1.5	12	24	8	65
2HRR 080 R15 400 8A0	8	R1.5	12	40	8	100
2HRR 080 R20 240 865	8	R2.0	12	24	8	65
2HRR 100 R02 300 A70	10	R0.2	15	30	10	70
2HRR 100 R02 400 AA0	10	R0.2	15	40	10	100
2HRR 100 R03 300 A70	10	R0.3	15	30	10	70
2HRR 100 R03 400 AA0	10	R0.3	15	40	10	100
2HRR 100 R05 300 A70	10	R0.5	15	30	10	70
2HRR 100 R05 400 AA0	10	R0.5	15	40	10	100
2HRR 100 R10 300 A70	10	R1.0	15	30	10	70
2HRR 100 R10 400 AA0	10	R1.0	15	40	10	100
2HRR 100 R15 300 A70	10	R1.5	15	30	10	70
2HRR 100 R15 400 AA0	10	R1.5	15	40	10	100
2HRR 100 R20 300 A70	10	R2.0	15	30	10	70
2HRR 100 R20 400 AA0	10	R2.0	15	40	10	100
2HRR 120 R02 300 C80	12	R0.2	18	30	12	80



2 Flutes Rib Corner Radius End Mills

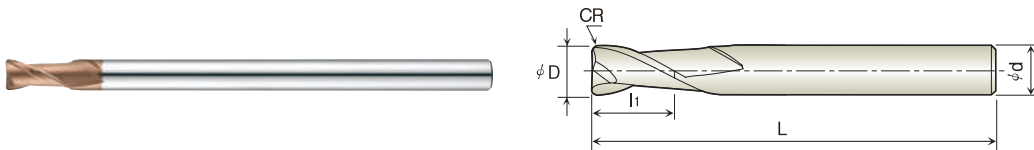
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRR 120 R02 500 CB0	12	R0.2	18	50	12	110
2HRR 120 R03 300 C80	12	R0.3	18	30	12	80
2HRR 120 R03 500 CB0	12	R0.3	18	50	12	110
2HRR 120 R05 300 C80	12	R0.5	18	30	12	80
2HRR 120 R05 500 CB0	12	R0.5	18	50	12	110
2HRR 120 R10 300 C80	12	R1.0	18	30	12	80
2HRR 120 R10 500 CB0	12	R1.0	18	50	12	110
2HRR 120 R15 300 C80	12	R1.5	18	30	12	80
2HRR 120 R15 500 CB0	12	R1.5	18	50	12	110
2HRR 120 R20 300 C80	12	R2.0	18	30	12	80
2HRR 120 R20 500 CB0	12	R2.0	18	50	12	110
2HRR 120 R30 300 C80	12	R3.0	18	30	12	80
2HRR 120 R30 500 CB0	12	R3.0	18	50	12	110
2HRR 160 R05 400 GB0	16	R0.5	24	40	16	110
2HRR 160 R05 400 GF0	16	R0.5	24	40	16	150
2HRR 160 R10 400 GB0	16	R1.0	24	40	16	110
2HRR 160 R10 400 GF0	16	R1.0	24	40	16	150

2HCR



2 Flutes Corner Radius End Mills



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L)	Shank Diameter (d)	Overall Length (L)
2HCR 002 R002 004 445	0.2	R0.02	0.4	4	45
2HCR 002 R005 004 445	0.2	R0.05	0.4	4	45
2HCR 003 R002 006 445	0.3	R0.02	0.6	4	45
2HCR 003 R005 006 445	0.3	R0.05	0.6	4	45
2HCR 003 R01 006 445	0.3	R0.1	0.6	4	45
2HCR 004 R002 008 445	0.4	R0.02	0.8	4	45
2HCR 004 R005 008 445	0.4	R0.05	0.8	4	45
2HCR 004 R01 008 445	0.4	R0.1	0.8	4	45
2HCR 005 R002 010 445	0.5	R0.02	1	4	45
2HCR 005 R005 010 445	0.5	R0.05	1	4	45
2HCR 005 R01 010 445	0.5	R0.1	1	4	45
2HCR 006 R002 012 445	0.6	R0.02	1.2	4	45
2HCR 006 R005 012 445	0.6	R0.05	1.2	4	45
2HCR 006 R01 012 445	0.6	R0.1	1.2	4	45
2HCR 006 R02 012 445	0.6	R0.2	1.2	4	45
2HCR 007 R005 014 445	0.7	R0.05	1.4	4	45
2HCR 007 R01 014 445	0.7	R0.1	1.4	4	45
2HCR 007 R02 014 445	0.7	R0.2	1.4	4	45
2HCR 008 R002 016 445	0.8	R0.02	1.6	4	45
2HCR 008 R005 016 445	0.8	R0.05	1.6	4	45
2HCR 008 R01 016 445	0.8	R0.1	1.6	4	45
2HCR 008 R02 016 445	0.8	R0.2	1.6	4	45
2HCR 009 R005 018 445	0.9	R0.05	1.8	4	45
2HCR 009 R01 018 445	0.9	R0.1	1.8	4	45
2HCR 010 R002 025 445	1	R0.02	2.5	4	45



2 Flutes Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L)	Shank Diameter (d)	Overall Length (L)
2HCR 010 R005 025 445	1	R0.05	2.5	4	45
2HCR 010 R01 025 445	1	R0.1	2.5	4	45
2HCR 010 R02 025 445	1	R0.2	2.5	4	45
2HCR 010 R03 025 445	1	R0.3	2.5	4	45
2HCR 012 R002 032 445	1.2	R0.02	3.2	4	45
2HCR 012 R005 032 445	1.2	R0.05	3.2	4	45
2HCR 012 R01 032 445	1.2	R0.1	3.2	4	45
2HCR 012 R02 032 445	1.2	R0.2	3.2	4	45
2HCR 012 R03 032 445	1.2	R0.3	3.2	4	45
2HCR 015 R002 040 445	1.5	R0.02	4	4	45
2HCR 015 R005 040 445	1.5	R0.05	4	4	45
2HCR 015 R01 040 445	1.5	R0.1	4	4	45
2HCR 015 R02 040 445	1.5	R0.2	4	4	45
2HCR 015 R03 040 445	1.5	R0.3	4	4	45
2HCR 015 R05 040 445	1.5	R0.5	4	4	45
2HCR 020 R002 060 445	2	R0.02	6	4	45
2HCR 020 R005 060 445	2	R0.05	6	4	45
2HCR 020 R01 060 445	2	R0.1	6	4	45
2HCR 020 R02 060 445	2	R0.2	6	4	45
2HCR 020 R03 060 445	2	R0.3	6	4	45
2HCR 020 R05 060 445	2	R0.5	6	4	45
2HCR 025 R005 060 450	2.5	R0.05	6	4	50
2HCR 025 R01 060 450	2.5	R0.1	6	4	50
2HCR 025 R02 060 450	2.5	R0.2	6	4	50
2HCR 025 R03 060 450	2.5	R0.3	6	4	50
2HCR 025 R05 060 450	2.5	R0.5	6	4	50
2HCR 030 R005 080 660	3	R0.05	8	6	60
2HCR 030 R01 080 660	3	R0.1	8	6	60
2HCR 030 R02 080 660	3	R0.2	8	6	60
2HCR 030 R03 080 660	3	R0.3	8	6	60
2HCR 030 R05 080 660	3	R0.5	8	6	60
2HCR 030 R10 080 660	3	R1.0	8	6	60
2HCR 035 R01 090 670	3.5	R0.1	9	6	70
2HCR 035 R02 090 670	3.5	R0.2	9	6	70
2HCR 035 R03 090 670	3.5	R0.3	9	6	70



2 Flutes Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
2HCR 035 R05 090 670	3.5	R0.5	9	6	70
2HCR 035 R10 090 670	3.5	R1.0	9	6	70
2HCR 040 R005 100 460	4	R0.05	10	4	60
2HCR 040 R005 100 670	4	R0.05	10	6	70
2HCR 040 R01 100 460	4	R0.1	10	4	60
2HCR 040 R01 100 670	4	R0.1	10	6	70
2HCR 040 R02 100 460	4	R0.2	10	4	60
2HCR 040 R02 100 670	4	R0.2	10	6	70
2HCR 040 R03 100 460	4	R0.3	10	4	60
2HCR 040 R03 100 670	4	R0.3	10	6	70
2HCR 040 R05 100 460	4	R0.5	10	4	60
2HCR 040 R05 100 670	4	R0.5	10	6	70
2HCR 040 R10 100 460	4	R1.0	10	4	60
2HCR 040 R10 100 670	4	R1.0	10	6	70
2HCR 045 R01 110 675	4.5	R0.1	11	6	75
2HCR 045 R02 110 675	4.5	R0.2	11	6	75
2HCR 045 R03 110 675	4.5	R0.3	11	6	75
2HCR 045 R05 110 675	4.5	R0.5	11	6	75
2HCR 050 R01 130 675	5	R0.1	13	6	75
2HCR 050 R02 130 675	5	R0.2	13	6	75
2HCR 050 R03 130 675	5	R0.3	13	6	75
2HCR 050 R05 130 675	5	R0.5	13	6	75
2HCR 050 R10 130 675	5	R1.0	13	6	75
2HCR 060 R005 110 660	6	R0.05	11	6	60
2HCR 060 R005 130 690	6	R0.05	13	6	90
2HCR 060 R01 110 660	6	R0.1	11	6	60
2HCR 060 R01 130 690	6	R0.1	13	6	90
2HCR 060 R02 110 660	6	R0.2	11	6	60
2HCR 060 R02 130 690	6	R0.2	13	6	90
2HCR 060 R03 110 660	6	R0.3	11	6	60
2HCR 060 R03 130 690	6	R0.3	13	6	90
2HCR 060 R05 110 660	6	R0.5	11	6	60
2HCR 060 R05 130 690	6	R0.5	13	6	90
2HCR 060 R10 110 660	6	R1.0	11	6	60
2HCR 060 R10 130 690	6	R1.0	13	6	90



2 Flutes Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L)	Shank Diameter (d)	Overall Length (L)
2HCR 060 R15 110 660	6	R1.5	11	6	60
2HCR 060 R15 130 690	6	R1.5	13	6	90
2HCR 060 R20 110 660	6	R2.0	11	6	60
2HCR 060 R20 130 690	6	R2.0	13	6	90
2HCR 060 R25 130 690	6	R2.5	13	6	90
2HCR 080 R01 160 870	8	R0.1	16	8	70
2HCR 080 R01 190 8A0	8	R0.1	19	8	100
2HCR 080 R02 160 870	8	R0.2	16	8	70
2HCR 080 R02 190 8A0	8	R0.2	19	8	100
2HCR 080 R03 160 870	8	R0.3	16	8	70
2HCR 080 R03 190 8A0	8	R0.3	19	8	100
2HCR 080 R05 160 870	8	R0.5	16	8	70
2HCR 080 R05 190 8A0	8	R0.5	19	8	100
2HCR 080 R10 160 870	8	R1.0	16	8	70
2HCR 080 R10 190 8A0	8	R1.0	19	8	100
2HCR 080 R15 160 870	8	R1.5	16	8	70
2HCR 080 R15 190 8A0	8	R1.5	19	8	100
2HCR 080 R20 160 870	8	R2.0	16	8	70
2HCR 080 R20 190 8A0	8	R2.0	19	8	100
2HCR 080 R25 190 8A0	8	R2.5	19	8	100
2HCR 080 R30 190 8A0	8	R3.0	19	8	100
2HCR 080 R35 190 8A0	8	R3.5	19	8	100
2HCR 100 R01 190 A75	10	R0.1	19	10	75
2HCR 100 R01 220 AA0	10	R0.1	22	10	100
2HCR 100 R02 190 A75	10	R0.2	19	10	75
2HCR 100 R02 220 AA0	10	R0.2	22	10	100
2HCR 100 R03 190 A75	10	R0.3	19	10	75
2HCR 100 R03 220 AA0	10	R0.3	22	10	100
2HCR 100 R05 190 A75	10	R0.5	19	10	75
2HCR 100 R05 220 AA0	10	R0.5	22	10	100
2HCR 100 R10 190 A75	10	R1.0	19	10	75
2HCR 100 R10 220 AA0	10	R1.0	22	10	100
2HCR 100 R15 190 A75	10	R1.5	19	10	75
2HCR 100 R15 220 AA0	10	R1.5	22	10	100
2HCR 100 R20 190 A75	10	R2.0	19	10	75



2 Flutes Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
2HCR 100 R20 220 AA0	10	R2.0	22	10	100
2HCR 100 R25 220 AA0	10	R2.5	22	10	100
2HCR 100 R30 220 AA0	10	R3.0	22	10	100
2HCR 100 R40 220 AA0	10	R4.0	22	10	100
2HCR 120 R01 220 C80	12	R0.1	22	12	80
2HCR 120 R01 260 CB0	12	R0.1	26	12	110
2HCR 120 R02 220 C80	12	R0.2	22	12	80
2HCR 120 R02 260 CB0	12	R0.2	26	12	110
2HCR 120 R03 220 C80	12	R0.3	22	12	80
2HCR 120 R03 260 CB0	12	R0.3	26	12	110
2HCR 120 R05 220 C80	12	R0.5	22	12	80
2HCR 120 R05 260 CB0	12	R0.5	26	12	110
2HCR 120 R05 260 CD0	12	R0.5	26	12	130
2HCR 120 R10 220 C80	12	R1.0	22	12	80
2HCR 120 R10 260 CB0	12	R1.0	26	12	110
2HCR 120 R10 260 CD0	12	R1.0	26	12	130
2HCR 120 R15 220 C80	12	R1.5	22	12	80
2HCR 120 R15 260 CB0	12	R1.5	26	12	110
2HCR 120 R15 260 CD0	12	R1.5	26	12	130
2HCR 120 R20 220 C80	12	R2.0	22	12	80
2HCR 120 R20 260 CB0	12	R2.0	26	12	110
2HCR 120 R20 260 CD0	12	R2.0	26	12	130
2HCR 120 R25 260 CB0	12	R2.5	26	12	110
2HCR 120 R30 260 CB0	12	R3.0	26	12	110
2HCR 120 R40 260 CB0	12	R4.0	26	12	110
2HCR 120 R50 260 CB0	12	R5.0	26	12	110
2HCR 160 R05 320 GB0	16	R0.5	32	16	110
2HCR 160 R05 320 GF0	16	R0.5	32	16	150
2HCR 160 R10 320 GB0	16	R1.0	32	16	110
2HCR 160 R10 320 GF0	16	R1.0	32	16	150
2HCR 160 R15 320 GB0	16	R1.5	32	16	110
2HCR 160 R20 320 GB0	16	R2.0	32	16	110
2HCR 160 R30 320 GB0	16	R3.0	32	16	110
2HCR 200 R05 380 KB0	20	R0.5	38	20	110
2HCR 200 R05 380 KF0	20	R0.5	38	20	150



2 Flutes Corner Radius End Mills

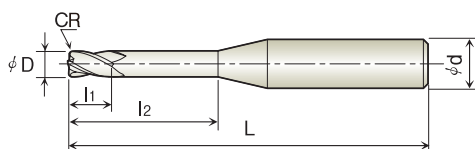
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L)	Shank Diameter (d)	Overall Length (L)
2HCR 200 R10 380 KB0	20	R1.0	38	20	110
2HCR 200 R10 380 KF0	20	R1.0	38	20	150
2HCR 200 R15 380 KB0	20	R1.5	38	20	110
2HCR 200 R20 380 KB0	20	R2.0	38	20	110
2HCR 200 R30 380 KB0	20	R3.0	38	20	110

4HRR



4 Flutes Rib Corner Radius End Mills



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
4HRR 008 R002 020 445	0.8	R0.02	1.2	2	4	45
4HRR 008 R002 040 445	0.8	R0.02	1.2	4	4	45
4HRR 008 R002 060 445	0.8	R0.02	1.2	6	4	45
4HRR 008 R002 080 445	0.8	R0.02	1.2	8	4	45
4HRR 008 R002 100 445	0.8	R0.02	1.2	10	4	45
4HRR 008 R005 020 445	0.8	R0.05	1.2	2	4	45
4HRR 008 R005 040 445	0.8	R0.05	1.2	4	4	45
4HRR 008 R005 060 445	0.8	R0.05	1.2	6	4	45
4HRR 008 R005 080 445	0.8	R0.05	1.2	8	4	45
4HRR 008 R005 100 445	0.8	R0.05	1.2	10	4	45
4HRR 008 R01 020 445	0.8	R0.1	1.2	2	4	45
4HRR 008 R01 040 445	0.8	R0.1	1.2	4	4	45
4HRR 008 R01 060 445	0.8	R0.1	1.2	6	4	45
4HRR 008 R01 080 445	0.8	R0.1	1.2	8	4	45
4HRR 008 R01 100 445	0.8	R0.1	1.2	10	4	45
4HRR 010 R002 040 445	1	R0.02	1.5	4	4	45
4HRR 010 R002 060 445	1	R0.02	1.5	6	4	45
4HRR 010 R002 080 445	1	R0.02	1.5	8	4	45
4HRR 010 R002 100 445	1	R0.02	1.5	10	4	45
4HRR 010 R002 120 445	1	R0.02	1.5	12	4	45
4HRR 010 R002 160 450	1	R0.02	1.5	16	4	50
4HRR 010 R002 200 450	1	R0.02	1.5	20	4	50
4HRR 010 R005 040 445	1	R0.05	1.5	4	4	45
4HRR 010 R005 060 445	1	R0.05	1.5	6	4	45
4HRR 010 R005 080 445	1	R0.05	1.5	8	4	45



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 010 R005 100 445	1	R0.05	1.5	10	4	45
4HRR 010 R005 120 445	1	R0.05	1.5	12	4	45
4HRR 010 R005 160 450	1	R0.05	1.5	16	4	50
4HRR 010 R005 200 450	1	R0.05	1.5	20	4	50
4HRR 010 R01 040 445	1	R0.1	1.5	4	4	45
4HRR 010 R01 060 445	1	R0.1	1.5	6	4	45
4HRR 010 R01 080 445	1	R0.1	1.5	8	4	45
4HRR 010 R01 100 445	1	R0.1	1.5	10	4	45
4HRR 010 R01 120 445	1	R0.1	1.5	12	4	45
4HRR 010 R01 160 450	1	R0.1	1.5	16	4	50
4HRR 010 R01 200 450	1	R0.1	1.5	20	4	50
4HRR 010 R02 040 445	1	R0.2	1.5	4	4	45
4HRR 010 R02 060 445	1	R0.2	1.5	6	4	45
4HRR 010 R02 080 445	1	R0.2	1.5	8	4	45
4HRR 010 R02 100 445	1	R0.2	1.5	10	4	45
4HRR 010 R02 120 445	1	R0.2	1.5	12	4	45
4HRR 010 R02 160 450	1	R0.2	1.5	16	4	50
4HRR 010 R02 200 450	1	R0.2	1.5	20	4	50
4HRR 010 R03 040 445	1	R0.3	1.5	4	4	45
4HRR 010 R03 060 445	1	R0.3	1.5	6	4	45
4HRR 010 R03 080 445	1	R0.3	1.5	8	4	45
4HRR 010 R03 100 445	1	R0.3	1.5	10	4	45
4HRR 010 R03 120 445	1	R0.3	1.5	12	4	45
4HRR 010 R03 160 450	1	R0.3	1.5	16	4	50
4HRR 010 R03 200 450	1	R0.3	1.5	20	4	50
4HRR 012 R002 040 445	1.2	R0.02	1.8	4	4	45
4HRR 012 R002 060 445	1.2	R0.02	1.8	6	4	45
4HRR 012 R002 080 445	1.2	R0.02	1.8	8	4	45
4HRR 012 R002 100 445	1.2	R0.02	1.8	10	4	45
4HRR 012 R002 120 445	1.2	R0.02	1.8	12	4	45
4HRR 012 R002 160 450	1.2	R0.02	1.8	16	4	50
4HRR 012 R002 200 450	1.2	R0.02	1.8	20	4	50
4HRR 012 R005 040 445	1.2	R0.05	1.8	4	4	45
4HRR 012 R005 060 445	1.2	R0.05	1.8	6	4	45
4HRR 012 R005 080 445	1.2	R0.05	1.8	8	4	45



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 012 R005 100 445	1.2	R0.05	1.8	10	4	45
4HRR 012 R005 120 445	1.2	R0.05	1.8	12	4	45
4HRR 012 R005 160 450	1.2	R0.05	1.8	16	4	50
4HRR 012 R005 200 450	1.2	R0.05	1.8	20	4	50
4HRR 012 R01 040 445	1.2	R0.1	1.8	4	4	45
4HRR 012 R01 060 445	1.2	R0.1	1.8	6	4	45
4HRR 012 R01 080 445	1.2	R0.1	1.8	8	4	45
4HRR 012 R01 100 445	1.2	R0.1	1.8	10	4	45
4HRR 012 R01 120 445	1.2	R0.1	1.8	12	4	45
4HRR 012 R01 160 450	1.2	R0.1	1.8	16	4	50
4HRR 012 R01 200 450	1.2	R0.1	1.8	20	4	50
4HRR 012 R02 040 445	1.2	R0.2	1.8	4	4	45
4HRR 012 R02 060 445	1.2	R0.2	1.8	6	4	45
4HRR 012 R02 080 445	1.2	R0.2	1.8	8	4	45
4HRR 012 R02 100 445	1.2	R0.2	1.8	10	4	45
4HRR 012 R02 120 445	1.2	R0.2	1.8	12	4	45
4HRR 012 R02 160 450	1.2	R0.2	1.8	16	4	50
4HRR 012 R02 200 450	1.2	R0.2	1.8	20	4	50
4HRR 012 R03 040 445	1.2	R0.3	1.8	4	4	45
4HRR 012 R03 060 445	1.2	R0.3	1.8	6	4	45
4HRR 012 R03 080 445	1.2	R0.3	1.8	8	4	45
4HRR 012 R03 100 445	1.2	R0.3	1.8	10	4	45
4HRR 012 R03 120 445	1.2	R0.3	1.8	12	4	45
4HRR 012 R03 160 450	1.2	R0.3	1.8	16	4	50
4HRR 012 R03 200 450	1.2	R0.3	1.8	20	4	50
4HRR 015 R002 040 445	1.5	R0.02	2.3	4	4	45
4HRR 015 R002 060 445	1.5	R0.02	2.3	6	4	45
4HRR 015 R002 080 445	1.5	R0.02	2.3	8	4	45
4HRR 015 R002 100 445	1.5	R0.02	2.3	10	4	45
4HRR 015 R002 120 445	1.5	R0.02	2.3	12	4	45
4HRR 015 R002 160 450	1.5	R0.02	2.3	16	4	50
4HRR 015 R002 200 450	1.5	R0.02	2.3	20	4	50
4HRR 015 R002 220 460	1.5	R0.02	2.3	22	4	60
4HRR 015 R002 250 460	1.5	R0.02	2.3	25	4	60
4HRR 015 R005 040 445	1.5	R0.05	2.3	4	4	45



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 015 R005 060 445	1.5	R0.05	2.3	6	4	45
4HRR 015 R005 080 445	1.5	R0.05	2.3	8	4	45
4HRR 015 R005 100 445	1.5	R0.05	2.3	10	4	45
4HRR 015 R005 120 445	1.5	R0.05	2.3	12	4	45
4HRR 015 R005 160 450	1.5	R0.05	2.3	16	4	50
4HRR 015 R005 200 450	1.5	R0.05	2.3	20	4	50
4HRR 015 R005 220 460	1.5	R0.05	2.3	22	4	60
4HRR 015 R005 250 460	1.5	R0.05	2.3	25	4	60
4HRR 015 R01 040 445	1.5	R0.1	2.3	4	4	45
4HRR 015 R01 060 445	1.5	R0.1	2.3	6	4	45
4HRR 015 R01 080 445	1.5	R0.1	2.3	8	4	45
4HRR 015 R01 100 445	1.5	R0.1	2.3	10	4	45
4HRR 015 R01 120 445	1.5	R0.1	2.3	12	4	45
4HRR 015 R01 160 450	1.5	R0.1	2.3	16	4	50
4HRR 015 R01 200 450	1.5	R0.1	2.3	20	4	50
4HRR 015 R01 220 460	1.5	R0.1	2.3	22	4	60
4HRR 015 R01 250 460	1.5	R0.1	2.3	25	4	60
4HRR 015 R02 040 445	1.5	R0.2	2.3	4	4	45
4HRR 015 R02 060 445	1.5	R0.2	2.3	6	4	45
4HRR 015 R02 080 445	1.5	R0.2	2.3	8	4	45
4HRR 015 R02 100 445	1.5	R0.2	2.3	10	4	45
4HRR 015 R02 120 445	1.5	R0.2	2.3	12	4	45
4HRR 015 R02 160 450	1.5	R0.2	2.3	16	4	50
4HRR 015 R02 200 450	1.5	R0.2	2.3	20	4	50
4HRR 015 R02 220 460	1.5	R0.2	2.3	22	4	60
4HRR 015 R02 250 460	1.5	R0.2	2.3	25	4	60
4HRR 015 R03 040 445	1.5	R0.3	2.3	4	4	45
4HRR 015 R03 060 445	1.5	R0.3	2.3	6	4	45
4HRR 015 R03 080 445	1.5	R0.3	2.3	8	4	45
4HRR 015 R03 100 445	1.5	R0.3	2.3	10	4	45
4HRR 015 R03 120 445	1.5	R0.3	2.3	12	4	45
4HRR 015 R03 160 450	1.5	R0.3	2.3	16	4	50
4HRR 015 R03 200 450	1.5	R0.3	2.3	20	4	50
4HRR 015 R03 220 460	1.5	R0.3	2.3	22	4	60
4HRR 015 R03 250 460	1.5	R0.3	2.3	25	4	60



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 015 R05 040 445	1.5	R0.5	2.3	4	4	45
4HRR 015 R05 060 445	1.5	R0.5	2.3	6	4	45
4HRR 015 R05 080 445	1.5	R0.5	2.3	8	4	45
4HRR 015 R05 100 445	1.5	R0.5	2.3	10	4	45
4HRR 015 R05 120 445	1.5	R0.5	2.3	12	4	45
4HRR 015 R05 160 450	1.5	R0.5	2.3	16	4	50
4HRR 015 R05 200 450	1.5	R0.5	2.3	20	4	50
4HRR 015 R05 220 460	1.5	R0.5	2.3	22	4	60
4HRR 015 R05 250 460	1.5	R0.5	2.3	25	4	60
4HRR 020 R002 040 445	2	R0.02	3	4	4	45
4HRR 020 R002 060 445	2	R0.02	3	6	4	45
4HRR 020 R002 080 445	2	R0.02	3	8	4	45
4HRR 020 R002 100 445	2	R0.02	3	10	4	45
4HRR 020 R002 120 445	2	R0.02	3	12	4	45
4HRR 020 R002 140 450	2	R0.02	3	14	4	50
4HRR 020 R002 160 450	2	R0.02	3	16	4	50
4HRR 020 R002 180 450	2	R0.02	3	18	4	50
4HRR 020 R002 200 450	2	R0.02	3	20	4	50
4HRR 020 R002 220 460	2	R0.02	3	22	4	60
4HRR 020 R002 250 460	2	R0.02	3	25	4	60
4HRR 020 R002 300 470	2	R0.02	3	30	4	70
4HRR 020 R002 350 470	2	R0.02	3	35	4	70
4HRR 020 R005 040 445	2	R0.05	3	4	4	45
4HRR 020 R005 060 445	2	R0.05	3	6	4	45
4HRR 020 R005 080 445	2	R0.05	3	8	4	45
4HRR 020 R005 100 445	2	R0.05	3	10	4	45
4HRR 020 R005 120 445	2	R0.05	3	12	4	45
4HRR 020 R005 140 450	2	R0.05	3	14	4	50
4HRR 020 R005 160 450	2	R0.05	3	16	4	50
4HRR 020 R005 180 450	2	R0.05	3	18	4	50
4HRR 020 R005 200 450	2	R0.05	3	20	4	50
4HRR 020 R005 220 460	2	R0.05	3	22	4	60
4HRR 020 R005 250 460	2	R0.05	3	25	4	60
4HRR 020 R005 300 470	2	R0.05	3	30	4	70
4HRR 020 R005 350 470	2	R0.05	3	35	4	70



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 020 R01 040 445	2	R0.1	3	4	4	45
4HRR 020 R01 060 445	2	R0.1	3	6	4	45
4HRR 020 R01 080 445	2	R0.1	3	8	4	45
4HRR 020 R01 100 445	2	R0.1	3	10	4	45
4HRR 020 R01 120 445	2	R0.1	3	12	4	45
4HRR 020 R01 140 450	2	R0.1	3	14	4	50
4HRR 020 R01 160 450	2	R0.1	3	16	4	50
4HRR 020 R01 180 450	2	R0.1	3	18	4	50
4HRR 020 R01 200 450	2	R0.1	3	20	4	50
4HRR 020 R01 220 460	2	R0.1	3	22	4	60
4HRR 020 R01 250 460	2	R0.1	3	25	4	60
4HRR 020 R01 300 470	2	R0.1	3	30	4	70
4HRR 020 R01 350 470	2	R0.1	3	35	4	70
4HRR 020 R02 040 445	2	R0.2	3	4	4	45
4HRR 020 R02 060 445	2	R0.2	3	6	4	45
4HRR 020 R02 080 445	2	R0.2	3	8	4	45
4HRR 020 R02 100 445	2	R0.2	3	10	4	45
4HRR 020 R02 120 445	2	R0.2	3	12	4	45
4HRR 020 R02 140 450	2	R0.2	3	14	4	50
4HRR 020 R02 160 450	2	R0.2	3	16	4	50
4HRR 020 R02 180 450	2	R0.2	3	18	4	50
4HRR 020 R02 200 450	2	R0.2	3	20	4	50
4HRR 020 R02 220 460	2	R0.2	3	22	4	60
4HRR 020 R02 250 460	2	R0.2	3	25	4	60
4HRR 020 R02 300 470	2	R0.2	3	30	4	70
4HRR 020 R02 350 470	2	R0.2	3	35	4	70
4HRR 020 R03 040 445	2	R0.3	3	4	4	45
4HRR 020 R03 060 445	2	R0.3	3	6	4	45
4HRR 020 R03 080 445	2	R0.3	3	8	4	45
4HRR 020 R03 100 445	2	R0.3	3	10	4	45
4HRR 020 R03 120 445	2	R0.3	3	12	4	45
4HRR 020 R03 140 450	2	R0.3	3	14	4	50
4HRR 020 R03 160 450	2	R0.3	3	16	4	50
4HRR 020 R03 180 450	2	R0.3	3	18	4	50
4HRR 020 R03 200 450	2	R0.3	3	20	4	50



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 020 R03 220 460	2	R0.3	3	22	4	60
4HRR 020 R03 250 460	2	R0.3	3	25	4	60
4HRR 020 R03 300 470	2	R0.3	3	30	4	70
4HRR 020 R03 350 470	2	R0.3	3	35	4	70
4HRR 020 R05 040 445	2	R0.5	3	4	4	45
4HRR 020 R05 060 445	2	R0.5	3	6	4	45
4HRR 020 R05 080 445	2	R0.5	3	8	4	45
4HRR 020 R05 100 445	2	R0.5	3	10	4	45
4HRR 020 R05 120 445	2	R0.5	3	12	4	45
4HRR 020 R05 140 450	2	R0.5	3	14	4	50
4HRR 020 R05 160 450	2	R0.5	3	16	4	50
4HRR 020 R05 180 450	2	R0.5	3	18	4	50
4HRR 020 R05 200 450	2	R0.5	3	20	4	50
4HRR 020 R05 220 460	2	R0.5	3	22	4	60
4HRR 020 R05 250 460	2	R0.5	3	25	4	60
4HRR 020 R05 300 470	2	R0.5	3	30	4	70
4HRR 020 R05 350 470	2	R0.5	3	35	4	70
4HRR 025 R01 060 445	2.5	R0.1	3.8	6	4	45
4HRR 025 R01 080 445	2.5	R0.1	3.8	8	4	45
4HRR 025 R01 100 445	2.5	R0.1	3.8	10	4	45
4HRR 025 R01 120 445	2.5	R0.1	3.8	12	4	45
4HRR 025 R01 160 450	2.5	R0.1	3.8	16	4	50
4HRR 025 R01 200 450	2.5	R0.1	3.8	20	4	50
4HRR 025 R01 250 460	2.5	R0.1	3.8	25	4	60
4HRR 025 R01 300 470	2.5	R0.1	3.8	30	4	70
4HRR 025 R02 060 445	2.5	R0.2	3.8	6	4	45
4HRR 025 R02 080 445	2.5	R0.2	3.8	8	4	45
4HRR 025 R02 100 445	2.5	R0.2	3.8	10	4	45
4HRR 025 R02 120 445	2.5	R0.2	3.8	12	4	45
4HRR 025 R02 160 450	2.5	R0.2	3.8	16	4	50
4HRR 025 R02 200 450	2.5	R0.2	3.8	20	4	50
4HRR 025 R02 250 460	2.5	R0.2	3.8	25	4	60
4HRR 025 R02 300 470	2.5	R0.2	3.8	30	4	70
4HRR 025 R03 060 445	2.5	R0.3	3.8	6	4	45
4HRR 025 R03 080 445	2.5	R0.3	3.8	8	4	45



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 025 R03 100 445	2.5	R0.3	3.8	10	4	45
4HRR 025 R03 120 445	2.5	R0.3	3.8	12	4	45
4HRR 025 R03 160 450	2.5	R0.3	3.8	16	4	50
4HRR 025 R03 200 450	2.5	R0.3	3.8	20	4	50
4HRR 025 R03 250 460	2.5	R0.3	3.8	25	4	60
4HRR 025 R03 300 470	2.5	R0.3	3.8	30	4	70
4HRR 025 R05 060 445	2.5	R0.5	3.8	6	4	45
4HRR 025 R05 080 445	2.5	R0.5	3.8	8	4	45
4HRR 025 R05 100 445	2.5	R0.5	3.8	10	4	45
4HRR 025 R05 120 445	2.5	R0.5	3.8	12	4	45
4HRR 025 R05 160 450	2.5	R0.5	3.8	16	4	50
4HRR 025 R05 200 450	2.5	R0.5	3.8	20	4	50
4HRR 025 R05 250 460	2.5	R0.5	3.8	25	4	60
4HRR 025 R05 300 470	2.5	R0.5	3.8	30	4	70
4HRR 030 R01 080 650	3	R0.1	4.5	8	6	50
4HRR 030 R01 100 450	3	R0.1	4.5	10	4	50
4HRR 030 R01 100 650	3	R0.1	4.5	10	6	50
4HRR 030 R01 120 650	3	R0.1	4.5	12	6	50
4HRR 030 R01 160 660	3	R0.1	4.5	16	6	60
4HRR 030 R01 200 660	3	R0.1	4.5	20	6	60
4HRR 030 R01 250 665	3	R0.1	4.5	25	6	65
4HRR 030 R01 300 670	3	R0.1	4.5	30	6	70
4HRR 030 R01 350 680	3	R0.1	4.5	35	6	80
4HRR 030 R01 400 680	3	R0.1	4.5	40	6	80
4HRR 030 R01 500 6A0	3	R0.1	4.5	50	6	100
4HRR 030 R02 100 350	3	R0.2	4.5	10	3	50
4HRR 030 R02 100 450	3	R0.2	4.5	10	4	50
4HRR 030 R02 080 650	3	R0.2	4.5	8	6	50
4HRR 030 R02 100 650	3	R0.2	4.5	10	6	50
4HRR 030 R02 120 650	3	R0.2	4.5	12	6	50
4HRR 030 R02 160 660	3	R0.2	4.5	16	6	60
4HRR 030 R02 200 660	3	R0.2	4.5	20	6	60
4HRR 030 R02 250 665	3	R0.2	4.5	25	6	65
4HRR 030 R02 300 670	3	R0.2	4.5	30	6	70
4HRR 030 R02 350 680	3	R0.2	4.5	35	6	80



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 030 R02 400 680	3	R0.2	4.5	40	6	80
4HRR 030 R02 500 6A0	3	R0.2	4.5	50	6	100
4HRR 030 R03 080 650	3	R0.3	4.5	8	6	50
4HRR 030 R03 100 350	3	R0.3	4.5	10	3	50
4HRR 030 R03 100 450	3	R0.3	4.5	10	4	50
4HRR 030 R03 100 650	3	R0.3	4.5	10	6	50
4HRR 030 R03 120 650	3	R0.3	4.5	12	6	50
4HRR 030 R03 160 660	3	R0.3	4.5	16	6	60
4HRR 030 R03 200 660	3	R0.3	4.5	20	6	60
4HRR 030 R03 250 665	3	R0.3	4.5	25	6	65
4HRR 030 R03 300 670	3	R0.3	4.5	30	6	70
4HRR 030 R03 350 680	3	R0.3	4.5	35	6	80
4HRR 030 R03 400 680	3	R0.3	4.5	40	6	80
4HRR 030 R03 500 6A0	3	R0.3	4.5	50	6	100
4HRR 030 R05 080 650	3	R0.5	4.5	8	6	50
4HRR 030 R05 100 350	3	R0.5	4.5	10	3	50
4HRR 030 R05 100 450	3	R0.5	4.5	10	4	50
4HRR 030 R05 100 650	3	R0.5	4.5	10	6	50
4HRR 030 R05 120 650	3	R0.5	4.5	12	6	50
4HRR 030 R05 160 660	3	R0.5	4.5	16	6	60
4HRR 030 R05 200 660	3	R0.5	4.5	20	6	60
4HRR 030 R05 250 665	3	R0.5	4.5	25	6	65
4HRR 030 R05 300 670	3	R0.5	4.5	30	6	70
4HRR 030 R05 350 675	3	R0.5	4.5	35	6	75
4HRR 030 R05 400 680	3	R0.5	4.5	40	6	80
4HRR 030 R05 500 6A0	3	R0.5	4.5	50	6	100
4HRR 030 R10 080 650	3	R1.0	4.5	8	6	50
4HRR 030 R10 100 350	3	R1.0	4.5	10	3	50
4HRR 030 R10 100 450	3	R1.0	4.5	10	4	50
4HRR 030 R10 100 650	3	R1.0	4.5	10	6	50
4HRR 030 R10 120 650	3	R1.0	4.5	12	6	50
4HRR 030 R10 160 660	3	R1.0	4.5	16	6	60
4HRR 030 R10 200 660	3	R1.0	4.5	20	6	60
4HRR 030 R10 250 665	3	R1.0	4.5	25	6	65
4HRR 030 R10 300 670	3	R1.0	4.5	30	6	70



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 030 R10 350 680	3	R1.0	4.5	35	6	80
4HRR 030 R10 400 680	3	R1.0	4.5	40	6	80
4HRR 030 R10 500 6A0	3	R1.0	4.5	50	6	100
4HRR 040 R01 080 650	4	R0.1	6	8	6	50
4HRR 040 R01 100 650	4	R0.1	6	10	6	50
4HRR 040 R01 120 450	4	R0.1	6	12	4	50
4HRR 040 R01 120 650	4	R0.1	6	12	6	50
4HRR 040 R01 160 660	4	R0.1	6	16	6	60
4HRR 040 R01 200 660	4	R0.1	6	20	6	60
4HRR 040 R01 250 665	4	R0.1	6	25	6	65
4HRR 040 R01 300 670	4	R0.1	6	30	6	70
4HRR 040 R01 350 680	4	R0.1	6	35	6	80
4HRR 040 R01 400 680	4	R0.1	6	40	6	80
4HRR 040 R01 450 690	4	R0.1	6	45	6	90
4HRR 040 R01 500 6A0	4	R0.1	6	50	6	100
4HRR 040 R02 080 650	4	R0.2	6	8	6	50
4HRR 040 R02 100 650	4	R0.2	6	10	6	50
4HRR 040 R02 120 450	4	R0.2	6	12	4	50
4HRR 040 R02 120 650	4	R0.2	6	12	6	50
4HRR 040 R02 160 660	4	R0.2	6	16	6	60
4HRR 040 R02 200 660	4	R0.2	6	20	6	60
4HRR 040 R02 250 665	4	R0.2	6	25	6	65
4HRR 040 R02 300 670	4	R0.2	6	30	6	70
4HRR 040 R02 350 680	4	R0.2	6	35	6	80
4HRR 040 R02 400 680	4	R0.2	6	40	6	80
4HRR 040 R02 450 690	4	R0.2	6	45	6	90
4HRR 040 R02 500 6A0	4	R0.2	6	50	6	100
4HRR 040 R03 080 650	4	R0.3	6	8	6	50
4HRR 040 R03 100 650	4	R0.3	6	10	6	50
4HRR 040 R03 120 450	4	R0.3	6	12	4	50
4HRR 040 R03 120 650	4	R0.3	6	12	6	50
4HRR 040 R03 160 660	4	R0.3	6	16	6	60
4HRR 040 R03 200 660	4	R0.3	6	20	6	60
4HRR 040 R03 250 665	4	R0.3	6	25	6	65
4HRR 040 R03 300 670	4	R0.3	6	30	6	70



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 040 R03 350 680	4	R0.3	6	35	6	80
4HRR 040 R03 400 680	4	R0.3	6	40	6	80
4HRR 040 R03 450 690	4	R0.3	6	45	6	90
4HRR 040 R03 500 6A0	4	R0.3	6	50	6	100
4HRR 040 R05 080 650	4	R0.5	6	8	6	50
4HRR 040 R05 100 650	4	R0.5	6	10	6	50
4HRR 040 R05 120 450	4	R0.5	6	12	4	50
4HRR 040 R05 120 650	4	R0.5	6	12	6	50
4HRR 040 R05 160 450	4	R0.5	6	16	4	50
4HRR 040 R05 160 4A0	4	R0.5	6	16	4	100
4HRR 040 R05 160 660	4	R0.5	6	16	6	60
4HRR 040 R05 200 660	4	R0.5	6	20	6	60
4HRR 040 R05 250 665	4	R0.5	6	25	6	65
4HRR 040 R05 300 670	4	R0.5	6	30	6	70
4HRR 040 R05 350 680	4	R0.5	6	35	6	80
4HRR 040 R05 400 680	4	R0.5	6	40	6	80
4HRR 040 R05 450 690	4	R0.5	6	45	6	90
4HRR 040 R05 500 6A0	4	R0.5	6	50	6	100
4HRR 040 R10 080 650	4	R1.0	6	8	6	50
4HRR 040 R10 100 650	4	R1.0	6	10	6	50
4HRR 040 R10 120 450	4	R1.0	6	12	4	50
4HRR 040 R10 120 650	4	R1.0	6	12	6	50
4HRR 040 R10 160 450	4	R1.0	6	16	4	50
4HRR 040 R10 160 660	4	R1.0	6	16	6	60
4HRR 040 R10 200 660	4	R1.0	6	20	6	60
4HRR 040 R10 250 665	4	R1.0	6	25	6	65
4HRR 040 R10 300 670	4	R1.0	6	30	6	70
4HRR 040 R10 350 680	4	R1.0	6	35	6	80
4HRR 040 R10 400 680	4	R1.0	6	40	6	80
4HRR 040 R10 450 690	4	R1.0	6	45	6	90
4HRR 040 R10 500 6A0	4	R1.0	6	50	6	100
4HRR 050 R01 180 660	5	R0.1	7.5	18	6	60
4HRR 050 R01 300 670	5	R0.1	7.5	30	6	70
4HRR 050 R01 400 680	5	R0.1	7.5	40	6	80
4HRR 050 R01 500 6A0	5	R0.1	7.5	50	6	100



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 050 R02 180 660	5	R0.2	7.5	18	6	60
4HRR 050 R02 300 670	5	R0.2	7.5	30	6	70
4HRR 050 R02 400 680	5	R0.2	7.5	40	6	80
4HRR 050 R02 500 6A0	5	R0.2	7.5	50	6	100
4HRR 050 R03 180 660	5	R0.3	7.5	18	6	60
4HRR 050 R03 300 670	5	R0.3	7.5	30	6	70
4HRR 050 R03 400 680	5	R0.3	7.5	40	6	80
4HRR 050 R03 500 6A0	5	R0.3	7.5	50	6	100
4HRR 050 R05 180 660	5	R0.5	7.5	18	6	60
4HRR 050 R05 300 670	5	R0.5	7.5	30	6	70
4HRR 050 R05 400 680	5	R0.5	7.5	40	6	80
4HRR 050 R05 500 6A0	5	R0.5	7.5	50	6	100
4HRR 050 R10 180 660	5	R1.0	7.5	18	6	60
4HRR 050 R10 300 670	5	R1.0	7.5	30	6	70
4HRR 050 R10 400 680	5	R1.0	7.5	40	6	80
4HRR 050 R10 500 6A0	5	R1.0	7.5	50	6	100
4HRR 060 R01 200 660	6	R0.1	9	20	6	60
4HRR 060 R01 400 690	6	R0.1	9	40	6	90
4HRR 060 R01 500 6A0	6	R0.1	9	50	6	100
4HRR 060 R02 200 660	6	R0.2	9	20	6	60
4HRR 060 R02 200 675	6	R0.2	9	20	6	75
4HRR 060 R02 200 6A0	6	R0.2	9	20	6	100
4HRR 060 R02 300 680	6	R0.2	9	30	6	80
4HRR 060 R02 400 690	6	R0.2	9	40	6	90
4HRR 060 R02 500 6A0	6	R0.2	9	50	6	100
4HRR 060 R03 200 660	6	R0.3	9	20	6	60
4HRR 060 R03 200 675	6	R0.3	9	20	6	75
4HRR 060 R03 200 6A0	6	R0.3	9	20	6	100
4HRR 060 R03 300 680	6	R0.3	9	30	6	80
4HRR 060 R03 400 690	6	R0.3	9	40	6	90
4HRR 060 R03 500 6A0	6	R0.3	9	50	6	100
4HRR 060 R05 200 660	6	R0.5	9	20	6	60
4HRR 060 R05 200 675	6	R0.5	9	20	6	75
4HRR 060 R05 200 6A0	6	R0.5	9	20	6	100
4HRR 060 R05 300 680	6	R0.5	9	30	6	80



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 060 R05 400 690	6	R0.5	9	40	6	90
4HRR 060 R05 500 6A0	6	R0.5	9	50	6	100
4HRR 060 R10 200 660	6	R1.0	9	20	6	60
4HRR 060 R10 200 675	6	R1.0	9	20	6	75
4HRR 060 R10 200 6A0	6	R1.0	9	20	6	100
4HRR 060 R10 300 680	6	R1.0	9	30	6	80
4HRR 060 R10 400 690	6	R1.0	9	40	6	90
4HRR 060 R10 500 6A0	6	R1.0	9	50	6	100
4HRR 060 R15 200 660	6	R1.5	9	20	6	60
4HRR 060 R15 200 675	6	R1.5	9	20	6	75
4HRR 060 R15 200 6A0	6	R1.5	9	20	6	100
4HRR 060 R15 300 680	6	R1.5	9	30	6	80
4HRR 060 R15 400 690	6	R1.5	9	40	6	90
4HRR 060 R15 500 6A0	6	R1.5	9	50	6	100
4HRR 060 R20 200 660	6	R2.0	9	20	6	60
4HRR 060 R20 200 675	6	R2.0	9	20	6	75
4HRR 060 R20 200 6A0	6	R2.0	9	20	6	100
4HRR 060 R20 400 690	6	R2.0	9	40	6	90
4HRR 080 R01 240 865	8	R0.1	12	24	8	65
4HRR 080 R02 240 865	8	R0.2	12	24	8	65
4HRR 080 R02 240 875	8	R0.2	12	24	8	75
4HRR 080 R02 240 8A0	8	R0.2	12	24	8	100
4HRR 080 R03 240 865	8	R0.3	12	24	8	65
4HRR 080 R03 240 875	8	R0.3	12	24	8	75
4HRR 080 R03 240 8A0	8	R0.3	12	24	8	100
4HRR 080 R05 240 865	8	R0.5	12	24	8	65
4HRR 080 R05 240 875	8	R0.5	12	24	8	75
4HRR 080 R05 240 8A0	8	R0.5	12	24	8	100
4HRR 080 R05 300 890	8	R0.5	12	30	8	90
4HRR 080 R05 400 8A0	8	R0.5	12	40	8	100
4HRR 080 R10 240 865	8	R1.0	12	24	8	65
4HRR 080 R10 240 875	8	R1.0	12	24	8	75
4HRR 080 R10 240 8A0	8	R1.0	12	24	8	100
4HRR 080 R10 300 890	8	R1.0	12	30	8	90
4HRR 080 R10 400 8A0	8	R1.0	12	40	8	100



4 Flutes Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRR 080 R15 240 865	8	R1.5	12	24	8	65
4HRR 080 R15 240 875	8	R1.5	12	24	8	75
4HRR 080 R15 240 8A0	8	R1.5	12	24	8	100
4HRR 080 R15 400 8A0	8	R1.5	12	40	8	100
4HRR 080 R20 240 865	8	R2.0	12	24	8	65
4HRR 080 R20 240 875	8	R2.0	12	24	8	75
4HRR 080 R20 300 890	8	R2.0	12	30	8	90
4HRR 100 R02 300 A70	10	R0.2	15	30	10	70
4HRR 100 R02 300 A75	10	R0.2	15	30	10	75
4HRR 100 R02 300 AA0	10	R0.2	15	30	10	100
4HRR 100 R03 300 A70	10	R0.3	15	30	10	70
4HRR 100 R03 300 A75	10	R0.3	15	30	10	75
4HRR 100 R03 300 AA0	10	R0.3	15	30	10	100
4HRR 100 R05 300 A70	10	R0.5	15	30	10	70
4HRR 100 R05 300 A75	10	R0.5	15	30	10	75
4HRR 100 R05 300 AA0	10	R0.5	15	30	10	100
4HRR 100 R05 400 AA0	10	R0.5	15	40	10	100
4HRR 100 R10 300 A70	10	R1.0	15	30	10	70
4HRR 100 R10 300 A75	10	R1.0	15	30	10	75
4HRR 100 R10 300 AA0	10	R1.0	15	30	10	100
4HRR 100 R10 300 AF0	10	R1.0	15	30	10	150
4HRR 100 R10 400 AA0	10	R1.0	15	40	10	100
4HRR 100 R15 300 A70	10	R1.5	15	30	10	70
4HRR 100 R15 300 A75	10	R1.5	15	30	10	75
4HRR 100 R15 300 AA0	10	R1.5	15	30	10	100
4HRR 100 R15 400 AA0	10	R1.5	15	40	10	100
4HRR 100 R20 300 A70	10	R2.0	15	30	10	70
4HRR 100 R20 300 A75	10	R2.0	15	30	10	75
4HRR 100 R20 300 AA0	10	R2.0	15	30	10	100
4HRR 100 R20 400 AA0	10	R2.0	15	40	10	100
4HRR 100 R25 300 A70	10	R2.5	15	30	10	70
4HRR 120 R03 300 C80	12	R0.3	18	30	12	80
4HRR 120 R03 300 CB0	12	R0.3	18	30	12	110
4HRR 120 R05 300 C80	12	R0.5	18	30	12	80
4HRR 120 R05 300 CB0	12	R0.5	18	30	12	110



4 Flutes Rib Corner Radius End Mills

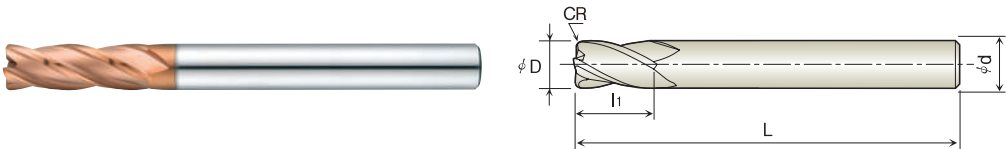
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (l.)	Effective Length (l.)	Shank Diameter (d)	Overall Length (L)
4HRR 120 R05 300 CF0	12	R0.5	18	30	12	150
4HRR 120 R05 400 CB0	12	R0.5	18	40	12	110
4HRR 120 R10 300 C80	12	R1.0	18	30	12	80
4HRR 120 R10 300 CB0	12	R1.0	18	30	12	110
4HRR 120 R10 300 CF0	12	R1.0	18	30	12	150
4HRR 120 R10 400 CB0	12	R1.0	18	40	12	110
4HRR 120 R15 300 C80	12	R1.5	18	30	12	80
4HRR 120 R15 300 CB0	12	R1.5	18	30	12	110
4HRR 120 R15 400 CB0	12	R1.5	18	40	12	110
4HRR 120 R20 300 C80	12	R2.0	18	30	12	80
4HRR 120 R20 300 CB0	12	R2.0	18	30	12	110
4HRR 120 R20 300 CF0	12	R2.0	18	30	12	150
4HRR 120 R20 400 CB0	12	R2.0	18	40	12	110
4HRR 120 R30 300 C80	12	R3.0	18	30	12	80
4HRR 120 R30 300 CB0	12	R3.0	18	30	12	110

4HCR



4 Flutes Corner Radius End Mills



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L _i)	Shank Diameter (d)	Overall Length (L)
4HCR 010 R002 025 445	1	R0.02	2.5	4	45
4HCR 010 R005 025 445	1	R0.05	2.5	4	45
4HCR 010 R01 025 445	1	R0.1	2.5	4	45
4HCR 010 R02 025 445	1	R0.2	2.5	4	45
4HCR 010 R03 025 445	1	R0.3	2.5	4	45
4HCR 012 R002 032 445	1.2	R0.02	3.2	4	45
4HCR 012 R005 032 445	1.2	R0.05	3.2	4	45
4HCR 012 R01 032 445	1.2	R0.1	3.2	4	45
4HCR 012 R02 032 445	1.2	R0.2	3.2	4	45
4HCR 012 R03 032 445	1.2	R0.3	3.2	4	45
4HCR 015 R002 040 445	1.5	R0.02	4	4	45
4HCR 015 R005 040 445	1.5	R0.05	4	4	45
4HCR 015 R01 040 445	1.5	R0.1	4	4	45
4HCR 015 R02 040 445	1.5	R0.2	4	4	45
4HCR 015 R03 040 445	1.5	R0.3	4	4	45
4HCR 015 R05 040 445	1.5	R0.5	4	4	45
4HCR 020 R002 060 445	2	R0.02	6	4	45
4HCR 020 R005 060 445	2	R0.05	6	4	45
4HCR 020 R01 060 445	2	R0.1	6	4	45
4HCR 020 R02 060 445	2	R0.2	6	4	45
4HCR 020 R03 060 445	2	R0.3	6	4	45
4HCR 020 R05 060 445	2	R0.5	6	4	45
4HCR 025 R005 060 450	2.5	R0.05	6	4	50
4HCR 025 R01 060 450	2.5	R0.1	6	4	50
4HCR 025 R02 060 450	2.5	R0.2	6	4	50



4 Flutes Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
4HCR 025 R03 060 450	2.5	R0.3	6	4	50
4HCR 025 R05 060 450	2.5	R0.5	6	4	50
4HCR 030 R005 080 660	3	R0.05	8	6	60
4HCR 030 R01 080 660	3	R0.1	8	6	60
4HCR 030 R02 080 660	3	R0.2	8	6	60
4HCR 030 R03 080 660	3	R0.3	8	6	60
4HCR 030 R05 080 660	3	R0.5	8	6	60
4HCR 030 R10 080 660	3	R1	8	6	60
4HCR 035 R01 090 670	3.5	R0.1	9	6	70
4HCR 035 R02 090 670	3.5	R0.2	9	6	70
4HCR 035 R03 090 670	3.5	R0.3	9	6	70
4HCR 035 R05 090 670	3.5	R0.5	9	6	70
4HCR 035 R10 090 670	3.5	R1	9	6	70
4HCR 040 R005 100 460	4	R0.05	10	4	60
4HCR 040 R005 100 670	4	R0.05	10	6	70
4HCR 040 R01 100 460	4	R0.1	10	4	60
4HCR 040 R01 100 670	4	R0.1	10	6	70
4HCR 040 R02 100 460	4	R0.2	10	4	60
4HCR 040 R02 100 670	4	R0.2	10	6	70
4HCR 040 R03 100 460	4	R0.3	10	4	60
4HCR 040 R03 100 670	4	R0.3	10	6	70
4HCR 040 R05 100 460	4	R0.5	10	4	60
4HCR 040 R05 100 670	4	R0.5	10	6	70
4HCR 040 R10 100 460	4	R1	10	4	60
4HCR 040 R10 100 670	4	R1	10	6	70
4HCR 045 R01 110 675	4.5	R0.1	11	6	75
4HCR 045 R02 110 675	4.5	R0.2	11	6	75
4HCR 045 R03 110 675	4.5	R0.3	11	6	75
4HCR 045 R05 110 675	4.5	R0.5	11	6	75
4HCR 050 R01 130 675	5	R0.1	13	6	75
4HCR 050 R02 130 675	5	R0.2	13	6	75
4HCR 050 R03 130 675	5	R0.3	13	6	75
4HCR 050 R05 130 675	5	R0.5	13	6	75
4HCR 050 R10 130 675	5	R1	13	6	75
4HCR 060 R005 110 660	6	R0.05	11	6	60



4 Flutes Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L)	Shank Diameter (d)	Overall Length (L)
4HCR 060 R005 130 690	6	R0.05	13	6	90
4HCR 060 R01 110 660	6	R0.1	11	6	60
4HCR 060 R01 130 690	6	R0.1	13	6	90
4HCR 060 R02 110 660	6	R0.2	11	6	60
4HCR 060 R02 130 690	6	R0.2	13	6	90
4HCR 060 R03 110 660	6	R0.3	11	6	60
4HCR 060 R03 130 690	6	R0.3	13	6	90
4HCR 060 R05 110 660	6	R0.5	11	6	60
4HCR 060 R05 130 690	6	R0.5	13	6	90
4HCR 060 R10 110 660	6	R1	11	6	60
4HCR 060 R10 130 690	6	R1	13	6	90
4HCR 060 R15 110 660	6	R1.5	11	6	60
4HCR 060 R15 130 690	6	R1.5	13	6	90
4HCR 060 R20 110 660	6	R2	11	6	60
4HCR 060 R20 130 690	6	R2	13	6	90
4HCR 060 R25 130 690	6	R2.5	13	6	90
4HCR 080 R01 160 870	8	R0.1	16	8	70
4HCR 080 R01 190 8A0	8	R0.1	19	8	100
4HCR 080 R02 160 870	8	R0.2	16	8	70
4HCR 080 R02 190 8A0	8	R0.2	19	8	100
4HCR 080 R03 160 870	8	R0.3	16	8	70
4HCR 080 R03 190 8A0	8	R0.3	19	8	100
4HCR 080 R05 160 870	8	R0.5	16	8	70
4HCR 080 R05 190 8A0	8	R0.5	19	8	100
4HCR 080 R10 160 870	8	R1	16	8	70
4HCR 080 R10 190 8A0	8	R1	19	8	100
4HCR 080 R15 160 870	8	R1.5	16	8	70
4HCR 080 R15 190 8A0	8	R1.5	19	8	100
4HCR 080 R20 160 870	8	R2	16	8	70
4HCR 080 R20 190 8A0	8	R2	19	8	100
4HCR 080 R25 190 8A0	8	R2.5	19	8	100
4HCR 080 R30 190 8A0	8	R3	19	8	100
4HCR 080 R35 190 8A0	8	R3.5	19	8	100
4HCR 100 R01 190 A75	10	R0.1	19	10	75
4HCR 100 R01 220 AA0	10	R0.1	22	10	100



4 Flutes Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
4HCR 100 R02 190 A75	10	R0.2	19	10	75
4HCR 100 R02 220 AA0	10	R0.2	22	10	100
4HCR 100 R03 190 A75	10	R0.3	19	10	75
4HCR 100 R03 220 AA0	10	R0.3	22	10	100
4HCR 100 R05 190 A75	10	R0.5	19	10	75
4HCR 100 R05 220 AA0	10	R0.5	22	10	100
4HCR 100 R10 190 A75	10	R1	19	10	75
4HCR 100 R10 220 AA0	10	R1	22	10	100
4HCR 100 R15 190 A75	10	R1.5	19	10	75
4HCR 100 R15 220 AA0	10	R1.5	22	10	100
4HCR 100 R20 190 A75	10	R2	19	10	75
4HCR 100 R20 220 AA0	10	R2	22	10	100
4HCR 100 R25 220 AA0	10	R2.5	22	10	100
4HCR 100 R30 220 AA0	10	R3	22	10	100
4HCR 100 R40 220 AA0	10	R4	22	10	100
4HCR 120 R01 220 C80	12	R0.1	22	12	80
4HCR 120 R01 260 CB0	12	R0.1	26	12	110
4HCR 120 R02 220 C80	12	R0.2	22	12	80
4HCR 120 R02 260 CB0	12	R0.2	26	12	110
4HCR 120 R03 220 C80	12	R0.3	22	12	80
4HCR 120 R03 260 CB0	12	R0.3	26	12	110
4HCR 120 R05 220 C80	12	R0.5	22	12	80
4HCR 120 R05 260 CB0	12	R0.5	26	12	110
4HCR 120 R05 260 CD0	12	R0.5	26	12	130
4HCR 120 R10 220 C80	12	R1	22	12	80
4HCR 120 R10 260 CB0	12	R1	26	12	110
4HCR 120 R10 260 CD0	12	R1	26	12	130
4HCR 120 R15 220 C80	12	R1.5	22	12	80
4HCR 120 R15 260 CB0	12	R1.5	26	12	110
4HCR 120 R15 260 CD0	12	R1.5	26	12	130
4HCR 120 R20 220 C80	12	R2	22	12	80
4HCR 120 R20 260 CB0	12	R2	26	12	110
4HCR 120 R20 260 CD0	12	R2	26	12	130
4HCR 120 R25 260 CB0	12	R2.5	26	12	110
4HCR 120 R30 260 CB0	12	R3	26	12	110

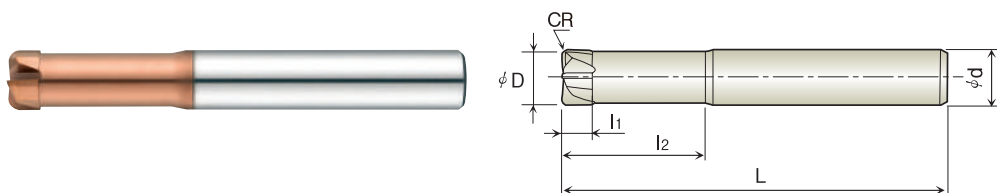


4 Flutes Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L)	Shank Diameter (d)	Overall Length (L)
4HCR 120 R40 260 CB0	12	R4	26	12	110
4HCR 120 R50 260 CB0	12	R5	26	12	110
4HCR 160 R05 320 GB0	16	R0.5	32	16	110
4HCR 160 R05 320 GF0	16	R0.5	32	16	150
4HCR 160 R10 320 GB0	16	R1	32	16	110
4HCR 160 R10 320 GF0	16	R1	32	16	150
4HCR 160 R15 320 GB0	16	R1.5	32	16	110
4HCR 160 R20 320 GB0	16	R2	32	16	110
4HCR 160 R30 320 GB0	16	R3	32	16	110
4HCR 200 R05 380 KB0	20	R0.5	38	20	110
4HCR 200 R05 380 KF0	20	R0.5	38	20	150
4HCR 200 R10 380 KB0	20	R1	38	20	110
4HCR 200 R10 380 KF0	20	R1	38	20	150
4HCR 200 R15 380 KB0	20	R1.5	38	20	110
4HCR 200 R20 380 KB0	20	R2	38	20	110
4HCR 200 R30 380 KB0	20	R3	38	20	110

4 Flutes HIT End Mills for High Speed & Feedrate



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
4HIT 015 R03 040 645	1.5	R0.3	0.8	4	6	45
4HIT 020 R05 060 650	2	R0.5	1	6	6	50
4HIT 020 R05 060 670	2	R0.5	1	6	6	70
4HIT 030 R05 080 650	3	R0.5	1.5	8	6	50
4HIT 030 R05 080 670	3	R0.5	1.5	8	6	70
4HIT 030 R10 080 650	3	R1.0	1.5	8	6	50
4HIT 030 R10 200 660	3	R1.0	1.5	20	6	60
4HIT 040 R05 120 660	4	R0.5	2	12	6	60
4HIT 040 R05 120 670	4	R0.5	2	12	6	70
4HIT 040 R05 160 660	4	R0.5	2	16	6	60
4HIT 040 R05 160 670	4	R0.5	2	16	6	70
4HIT 040 R10 120 660	4	R1.0	2	12	6	60
4HIT 040 R10 120 670	4	R1.0	2	12	6	70
4HIT 040 R10 160 660	4	R1.0	2	16	6	60
4HIT 040 R10 160 670	4	R1.0	2	16	6	70
4HIT 050 R10 150 660	5	R1.0	2.5	15	6	60
4HIT 060 R05 120 660	6	R0.5	3	12	6	60
4HIT 060 R05 150 660	6	R0.5	3	15	6	60
4HIT 060 R05 150 680	6	R0.5	3	15	6	80
4HIT 060 R05 200 680	6	R0.5	3	20	6	80
4HIT 060 R05 300 680	6	R0.5	3	30	6	80
4HIT 060 R10 150 660	6	R1.0	3	15	6	60
4HIT 060 R10 150 680	6	R1.0	3	15	6	80
4HIT 060 R10 200 680	6	R1.0	3	20	6	80
4HIT 060 R10 300 680	6	R1.0	3	30	6	80



4 Flutes HIT End Mills for High Speed & Feedrate

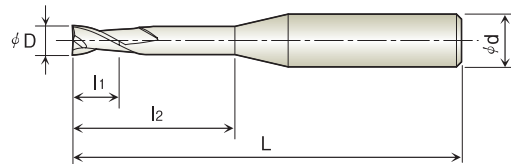
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HIT 060 R15 150 660	6	R1.5	3	15	6	60
4HIT 080 R05 200 865	8	R0.5	4	20	8	65
4HIT 080 R05 200 890	8	R0.5	4	20	8	90
4HIT 080 R05 200 8A0	8	R0.5	4	20	8	100
4HIT 080 R05 400 890	8	R0.5	4	40	8	90
4HIT 080 R10 200 865	8	R1.0	4	20	8	65
4HIT 080 R10 200 890	8	R1.0	4	20	8	90
4HIT 080 R10 200 8A0	8	R1.0	4	20	8	100
4HIT 080 R10 300 890	8	R1.0	4	30	8	90
4HIT 080 R10 400 890	8	R1.0	4	40	8	90
4HIT 080 R20 200 865	8	R2.0	4	20	8	65
4HIT 080 R20 200 8A0	8	R2.0	4	20	8	100
4HIT 100 R05 250 A70	10	R0.5	5	25	10	70
4HIT 100 R05 250 AA0	10	R0.5	5	25	10	100
4HIT 100 R10 250 A70	10	R1.0	5	25	10	70
4HIT 100 R10 250 AA0	10	R1.0	5	25	10	100
4HIT 100 R10 250 AB0	10	R1.0	5	25	10	110
4HIT 100 R10 400 AA0	10	R1.0	5	40	10	100
4HIT 100 R20 200 A70	10	R2.0	5	20	10	70
4HIT 100 R20 250 A70	10	R2.0	5	25	10	70
4HIT 100 R20 250 AB0	10	R2.0	5	25	10	110
4HIT 120 R10 300 C80	12	R1.0	6	30	12	80
4HIT 120 R10 300 CB0	12	R1.0	6	30	12	110
4HIT 120 R10 400 CB0	12	R1.0	6	40	12	110
4HIT 120 R20 300 C80	12	R2.0	6	30	12	80
4HIT 120 R20 300 CB0	12	R2.0	6	30	12	110
4HIT 120 R20 400 CB0	12	R2.0	6	40	12	110

2HRE



2 Flutes Rib Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
2HRE 001 003 445	0.1	0.15	0.3	4	45
2HRE 001 005 445	0.1	0.15	0.5	4	45
2HRE 002 005 445	0.2	0.3	0.5	4	45
2HRE 002 010 445	0.2	0.3	1	4	45
2HRE 002 015 445	0.2	0.3	1.5	4	45
2HRE 002 020 445	0.2	0.3	2	4	45
2HRE 002 025 445	0.2	0.3	2.5	4	45
2HRE 002 030 445	0.2	0.3	3	4	45
2HRE 003 005 445	0.3	0.45	0.5	4	45
2HRE 003 010 445	0.3	0.45	1	4	45
2HRE 003 015 445	0.3	0.45	1.5	4	45
2HRE 003 020 445	0.3	0.45	2	4	45
2HRE 003 025 445	0.3	0.45	2.5	4	45
2HRE 003 030 445	0.3	0.45	3	4	45
2HRE 003 035 445	0.3	0.45	3.5	4	45
2HRE 003 040 445	0.3	0.45	4	4	45
2HRE 003 050 445	0.3	0.45	5	4	45
2HRE 004 010 445	0.4	0.6	1	4	45
2HRE 004 015 445	0.4	0.6	1.5	4	45
2HRE 004 020 445	0.4	0.6	2	4	45
2HRE 004 025 445	0.4	0.6	2.5	4	45
2HRE 004 030 445	0.4	0.6	3	4	45
2HRE 004 035 445	0.4	0.6	3.5	4	45
2HRE 004 040 445	0.4	0.6	4	4	45
2HRE 004 050 445	0.4	0.6	5	4	45



2 Flutes Rib Flat End Mills

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRE 004 060 445	0.4	0.6	6	4	45
2HRE 004 080 445	0.4	0.6	8	4	45
2HRE 004 100 445	0.4	0.6	10	4	45
2HRE 005 010 445	0.5	0.7	1	4	45
2HRE 005 020 445	0.5	0.7	2	4	45
2HRE 005 030 445	0.5	0.7	3	4	45
2HRE 005 040 445	0.5	0.7	4	4	45
2HRE 005 050 445	0.5	0.7	5	4	45
2HRE 005 060 445	0.5	0.7	6	4	45
2HRE 005 080 445	0.5	0.7	8	4	45
2HRE 005 100 445	0.5	0.7	10	4	45
2HRE 005 120 445	0.5	0.7	12	4	45
2HRE 005 140 445	0.5	0.7	14	4	45
2HRE 006 020 445	0.6	0.9	2	4	45
2HRE 006 030 445	0.6	0.9	3	4	45
2HRE 006 040 445	0.6	0.9	4	4	45
2HRE 006 050 445	0.6	0.9	5	4	45
2HRE 006 060 445	0.6	0.9	6	4	45
2HRE 006 080 445	0.6	0.9	8	4	45
2HRE 006 100 445	0.6	0.9	10	4	45
2HRE 006 120 445	0.6	0.9	12	4	45
2HRE 006 140 445	0.6	0.9	14	4	45
2HRE 006 160 445	0.6	0.9	16	4	45
2HRE 007 020 445	0.7	1	2	4	45
2HRE 007 040 445	0.7	1	4	4	45
2HRE 007 060 445	0.7	1	6	4	45
2HRE 007 080 445	0.7	1	8	4	45
2HRE 007 100 445	0.7	1	10	4	45
2HRE 007 120 445	0.7	1	12	4	45
2HRE 008 020 445	0.8	1.2	2	4	45
2HRE 008 030 445	0.8	1.2	3	4	45
2HRE 008 040 445	0.8	1.2	4	4	45
2HRE 008 050 445	0.8	1.2	5	4	45
2HRE 008 060 445	0.8	1.2	6	4	45
2HRE 008 080 445	0.8	1.2	8	4	45



2 Flutes Rib Flat End Mills

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRE 008 100 445	0.8	1.2	10	4	45
2HRE 008 120 445	0.8	1.2	12	4	45
2HRE 008 140 445	0.8	1.2	14	4	45
2HRE 009 060 445	0.9	1.3	6	4	45
2HRE 009 080 445	0.9	1.3	8	4	45
2HRE 009 100 445	0.9	1.3	10	4	45
2HRE 010 020 445	1	1.5	2	4	45
2HRE 010 030 445	1	1.5	3	4	45
2HRE 010 040 445	1	1.5	4	4	45
2HRE 010 050 445	1	1.5	5	4	45
2HRE 010 060 445	1	1.5	6	4	45
2HRE 010 080 445	1	1.5	8	4	45
2HRE 010 100 445	1	1.5	10	4	45
2HRE 010 120 445	1	1.5	12	4	45
2HRE 010 140 450	1	1.5	14	4	50
2HRE 010 160 450	1	1.5	16	4	50
2HRE 010 180 450	1	1.5	18	4	50
2HRE 010 200 450	1	1.5	20	4	50
2HRE 010 250 460	1	1.5	25	4	60
2HRE 012 040 445	1.2	1.8	4	4	45
2HRE 012 060 445	1.2	1.8	6	4	45
2HRE 012 080 445	1.2	1.8	8	4	45
2HRE 012 100 445	1.2	1.8	10	4	45
2HRE 012 120 445	1.2	1.8	12	4	45
2HRE 012 160 450	1.2	1.8	16	4	50
2HRE 012 200 450	1.2	1.8	20	4	50
2HRE 015 040 445	1.5	2.3	4	4	45
2HRE 015 060 445	1.5	2.3	6	4	45
2HRE 015 080 445	1.5	2.3	8	4	45
2HRE 015 100 445	1.5	2.3	10	4	45
2HRE 015 120 445	1.5	2.3	12	4	45
2HRE 015 140 450	1.5	2.3	14	4	50
2HRE 015 160 450	1.5	2.3	16	4	50
2HRE 015 180 450	1.5	2.3	18	4	50
2HRE 015 200 450	1.5	2.3	20	4	50



2 Flutes Rib Flat End Mills

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRE 015 250 460	1.5	2.3	25	4	60
2HRE 015 300 470	1.5	2.3	30	4	70
2HRE 020 040 445	2	3	4	4	45
2HRE 020 060 445	2	3	6	4	45
2HRE 020 080 445	2	3	8	4	45
2HRE 020 100 445	2	3	10	4	45
2HRE 020 120 445	2	3	12	4	45
2HRE 020 140 450	2	3	14	4	50
2HRE 020 160 450	2	3	16	4	50
2HRE 020 180 450	2	3	18	4	50
2HRE 020 200 450	2	3	20	4	50
2HRE 020 220 460	2	3	22	4	60
2HRE 020 250 460	2	3	25	4	60
2HRE 020 300 470	2	3	30	4	70
2HRE 020 350 470	2	3	35	4	70
2HRE 025 080 445	2.5	3.8	8	4	45
2HRE 025 100 445	2.5	3.8	10	4	45
2HRE 025 120 445	2.5	3.8	12	4	45
2HRE 025 160 450	2.5	3.8	16	4	50
2HRE 025 200 450	2.5	3.8	20	4	50
2HRE 025 250 460	2.5	3.8	25	4	60
2HRE 025 300 470	2.5	3.8	30	4	70
2HRE 025 350 470	2.5	3.8	35	4	70
2HRE 030 080 650	3	4.5	8	6	50
2HRE 030 100 650	3	4.5	10	6	50
2HRE 030 120 650	3	4.5	12	6	50
2HRE 030 140 660	3	4.5	14	6	60
2HRE 030 160 660	3	4.5	16	6	60
2HRE 030 180 660	3	4.5	18	6	60
2HRE 030 200 660	3	4.5	20	6	60
2HRE 030 250 665	3	4.5	25	6	65
2HRE 030 300 670	3	4.5	30	6	70
2HRE 030 350 680	3	4.5	35	6	80
2HRE 030 400 680	3	4.5	40	6	80
2HRE 030 500 6A0	3	4.5	50	6	100



2 Flutes Rib Flat End Mills

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2HRE 040 080 650	4	6	8	6	50
2HRE 040 100 650	4	6	10	6	50
2HRE 040 120 650	4	6	12	6	50
2HRE 040 160 660	4	6	16	6	60
2HRE 040 200 660	4	6	20	6	60
2HRE 040 250 665	4	6	25	6	65
2HRE 040 300 670	4	6	30	6	70
2HRE 040 350 680	4	6	35	6	80
2HRE 040 400 680	4	6	40	6	80
2HRE 040 450 690	4	6	45	6	90
2HRE 040 500 6A0	4	6	50	6	100
2HRE 040 550 6B0	4	6	55	6	110
2HRE 040 600 6B0	4	6	60	6	110
2HRE 050 160 660	5	8	16	6	60
2HRE 050 200 660	5	8	20	6	60
2HRE 050 250 665	5	8	25	6	65
2HRE 050 300 670	5	8	30	6	70
2HRE 050 350 680	5	8	35	6	80
2HRE 050 400 680	5	8	40	6	80
2HRE 050 500 6A0	5	8	50	6	100
2HRE 060 200 660	6	9	20	6	60
2HRE 060 300 670	6	9	30	6	70
2HRE 060 400 690	6	9	40	6	90
2HRE 060 500 6A0	6	9	50	6	100
2HRE 080 200 865	8	12	20	8	65
2HRE 080 300 880	8	12	30	8	80
2HRE 080 400 8A0	8	12	40	8	100
2HRE 100 250 A70	10	15	25	10	70
2HRE 100 350 AA0	10	15	35	10	100
2HRE 100 450 AA0	10	15	45	10	100



2 Flutes Rib Flat End Mills

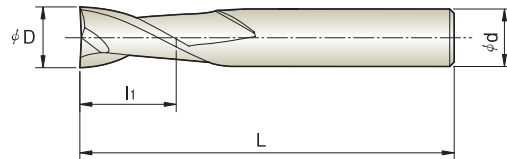
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Effective Length (l.)	Shank Diameter (d)	Overall Length (L)
2HRE 120 300 C80	12	18	30	12	80
2HRE 120 400 CB0	12	18	40	12	110
2HRE 120 500 CB0	12	18	50	12	110

2HPE



2 Flutes Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
2HPE 001 002 445	0.1	0.2	4	45
2HPE 0015 003 445	0.15	0.3	4	45
2HPE 002 004 445	0.2	0.4	4	45
2HPE 0025 005 445	0.25	0.5	4	45
2HPE 003 006 445	0.3	0.6	4	45
2HPE 0035 007 445	0.35	0.7	4	45
2HPE 004 008 445	0.4	0.8	4	45
2HPE 0045 009 445	0.45	0.9	4	45
2HPE 005 010 345	0.5	1	3	45
2HPE 005 010 445	0.5	1	4	45
2HPE 0055 011 445	0.55	1.1	4	45
2HPE 006 012 345	0.6	1.2	3	45
2HPE 006 012 445	0.6	1.2	4	45
2HPE 0065 013 445	0.65	1.3	4	45
2HPE 007 014 445	0.7	1.4	4	45
2HPE 0075 015 445	0.75	1.5	4	45
2HPE 008 016 345	0.8	1.6	3	45
2HPE 008 016 445	0.8	1.6	4	45
2HPE 0085 017 445	0.85	1.7	4	45
2HPE 009 018 445	0.9	1.8	4	45
2HPE 0095 019 445	0.95	1.9	4	45
2HPE 010 025 345	1	2.5	3	45
2HPE 010 025 445	1	2.5	4	45
2HPE 010 025 645	1	2.5	6	45
2HPE 0105 025 645	1.05	2.5	6	45



2 Flutes Flat End Mills

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
2HPE 011 025 645	1.1	2.5	6	45
2HPE 012 040 345	1.2	4	3	45
2HPE 012 040 445	1.2	4	4	45
2HPE 012 040 645	1.2	4	6	45
2HPE 0125 040 645	1.25	4	6	45
2HPE 013 040 645	1.3	4	6	45
2HPE 0135 040 645	1.35	4	6	45
2HPE 014 040 645	1.4	4	6	45
2HPE 0145 040 645	1.45	4	6	45
2HPE 015 040 345	1.5	4	3	45
2HPE 015 040 445	1.5	4	4	45
2HPE 015 040 645	1.5	4	6	45
2HPE 0155 040 645	1.55	4	6	45
2HPE 016 040 645	1.6	4	6	45
2HPE 0165 040 645	1.65	4	6	45
2HPE 017 042 645	1.7	4.2	6	45
2HPE 0175 042 645	1.75	4.2	6	45
2HPE 018 045 645	1.8	4.5	6	45
2HPE 0185 045 645	1.85	4.5	6	45
2HPE 019 050 645	1.9	5	6	45
2HPE 020 060 345	2	6	3	45
2HPE 020 060 445	2	6	4	45
2HPE 020 060 645	2	6	6	45
2HPE 021 060 645	2.1	6	6	45
2HPE 022 060 645	2.2	6	6	45
2HPE 023 060 645	2.3	6	6	45
2HPE 024 080 650	2.4	8	6	50
2HPE 025 080 350	2.5	8	3	50
2HPE 025 080 450	2.5	8	4	50
2HPE 025 080 650	2.5	8	6	50
2HPE 026 080 650	2.6	8	6	50
2HPE 027 080 650	2.7	8	6	50
2HPE 028 080 650	2.8	8	6	50
2HPE 029 080 650	2.9	8	6	50
2HPE 030 080 450	3	8	4	50



2 Flutes Flat End Mills

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
2HPE 030 100 350	3	10	3	50
2HPE 030 100 650	3	10	6	50
2HPE 031 100 650	3.1	10	6	50
2HPE 032 100 650	3.2	10	6	50
2HPE 033 100 650	3.3	10	6	50
2HPE 034 100 650	3.4	10	6	50
2HPE 035 100 650	3.5	10	6	50
2HPE 036 100 650	3.6	10	6	50
2HPE 037 100 650	3.7	10	6	50
2HPE 038 100 650	3.8	10	6	50
2HPE 039 100 650	3.9	10	6	50
2HPE 040 120 450	4	12	4	50
2HPE 040 120 650	4	12	6	50
2HPE 041 120 650	4.1	12	6	50
2HPE 042 120 650	4.2	12	6	50
2HPE 043 120 650	4.3	12	6	50
2HPE 044 120 650	4.4	12	6	50
2HPE 045 120 650	4.5	12	6	50
2HPE 046 130 650	4.6	13	6	50
2HPE 047 130 650	4.7	13	6	50
2HPE 048 130 650	4.8	13	6	50
2HPE 049 130 650	4.9	13	6	50
2HPE 050 150 650	5	15	6	50
2HPE 051 150 650	5.1	15	6	50
2HPE 052 150 650	5.2	15	6	50
2HPE 053 150 650	5.3	15	6	50
2HPE 054 150 650	5.4	15	6	50
2HPE 055 150 650	5.5	15	6	50
2HPE 056 150 650	5.6	15	6	50
2HPE 057 150 650	5.7	15	6	50
2HPE 058 150 650	5.8	15	6	50
2HPE 059 150 650	5.9	15	6	50
2HPE 060 150 650	6	15	6	50
2HPE 061 160 860	6.1	16	8	60
2HPE 062 160 860	6.2	16	8	60



2 Flutes Flat End Mills

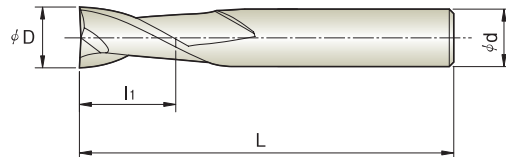
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L)	Shank Diameter (d)	Overall Length (L)
2HPE 063 160 860	6.3	16	8	60
2HPE 064 160 860	6.4	16	8	60
2HPE 065 160 860	6.5	16	8	60
2HPE 070 200 865	7	20	8	65
2HPE 075 200 865	7.5	20	8	65
2HPE 080 200 865	8	20	8	65
2HPE 085 200 A65	8.5	20	10	65
2HPE 090 250 A70	9	25	10	70
2HPE 095 250 A70	9.5	25	10	70
2HPE 100 250 A70	10	25	10	70
2HPE 105 250 C75	10.5	25	12	75
2HPE 110 250 C75	11	25	12	75
2HPE 115 250 C75	11.5	25	12	75
2HPE 120 300 C80	12	30	12	80
2HPE 130 350 E90	13	35	14	90
2HPE 140 350 E90	14	35	14	90
2HPE 150 350 GA0	15	35	16	100
2HPE 160 400 GA0	16	40	16	100
2HPE 180 450 IA0	18	45	18	100
2HPE 200 450 KA0	20	45	20	100

2HLE



2 Flutes Long Length Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
2HLE 010 030 660	1	3	6	60
2HLE 010 050 660	1	5	6	60
2HLE 010 070 660	1	7	6	60
2HLE 010 100 660	1	10	6	60
2HLE 010 120 660	1	12	6	60
2HLE 010 150 660	1	15	6	60
2HLE 015 060 660	1.5	6	6	60
2HLE 015 080 660	1.5	8	6	60
2HLE 015 100 660	1.5	10	6	60
2HLE 015 150 660	1.5	15	6	60
2HLE 015 200 660	1.5	20	6	60
2HLE 020 100 660	2	10	6	60
2HLE 020 120 660	2	12	6	60
2HLE 020 150 660	2	15	6	60
2HLE 020 200 660	2	20	6	60
2HLE 030 120 670	3	12	6	70
2HLE 030 150 670	3	15	6	70
2HLE 030 200 670	3	20	6	70
2HLE 030 250 670	3	25	6	70
2HLE 030 300 670	3	30	6	70
2HLE 040 150 670	4	15	6	70
2HLE 040 200 670	4	20	6	70
2HLE 040 300 675	4	30	6	75
2HLE 040 350 675	4	35	6	75



2 Flutes Long Length Flat End Mills

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
2HLE 040 400 680	4	40	6	80
2HLE 050 200 670	5	20	6	70
2HLE 050 250 670	5	25	6	70
2HLE 050 300 675	5	30	6	75
2HLE 050 400 680	5	40	6	80
2HLE 060 200 670	6	20	6	70
2HLE 060 200 6A0	6	20	6	100
2HLE 060 250 675	6	25	6	75
2HLE 060 300 680	6	30	6	80
2HLE 060 350 680	6	35	6	80
2HLE 060 400 690	6	40	6	90
2HLE 080 250 875	8	25	8	75
2HLE 080 250 8A0	8	25	8	100
2HLE 080 300 880	8	30	8	80
2HLE 080 350 880	8	35	8	80
2HLE 080 400 890	8	40	8	90
2HLE 080 450 8A0	8	45	8	100
2HLE 080 500 8A0	8	50	8	100
2HLE 080 550 8A0	8	55	8	100
2HLE 100 300 A80	10	30	10	80
2HLE 100 350 AA0	10	35	10	100
2HLE 100 400 AA0	10	40	10	100
2HLE 100 450 AA0	10	45	10	100
2HLE 100 500 AA0	10	50	10	100
2HLE 100 550 AB0	10	55	10	110
2HLE 100 600 AB0	10	60	10	110
2HLE 100 650 AC0	10	65	10	120
2HLE 100 700 AC0	10	70	10	120
2HLE 120 300 CA0	12	30	12	100
2HLE 120 350 CA0	12	35	12	100
2HLE 120 400 CA0	12	40	12	100
2HLE 120 450 CA0	12	45	12	100
2HLE 120 500 CA0	12	50	12	100
2HLE 120 550 CB0	12	55	12	110



2 Flutes Long Length Flat End Mills

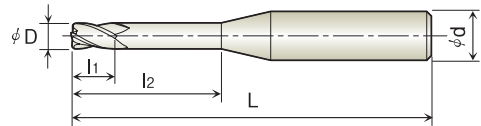
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
2HLE 120 600 CBO	12	60	12	110
2HLE 120 700 CDO	12	70	12	130
2HLE 140 500 EBO	14	50	14	110
2HLE 160 400 GFO	16	40	16	150
2HLE 160 550 GCO	16	55	16	120
2HLE 160 700 GDO	16	70	16	130
2HLE 200 500 KFO	20	50	20	150
2HLE 200 600 KDO	20	60	20	130
2HLE 250 750 PFO	25	75	25	150

4HRE



4 Flutes Rib Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
4HRE 008 020 445	0.8	1.2	2	4	45
4HRE 008 040 445	0.8	1.2	4	4	45
4HRE 008 060 445	0.8	1.2	6	4	45
4HRE 008 080 445	0.8	1.2	8	4	45
4HRE 008 100 445	0.8	1.2	10	4	45
4HRE 008 120 445	0.8	1.2	12	4	45
4HRE 008 160 445	0.8	1.2	16	4	45
4HRE 009 020 445	0.9	1.4	2	4	45
4HRE 009 060 445	0.9	1.4	6	4	45
4HRE 009 080 445	0.9	1.4	8	4	45
4HRE 009 100 445	0.9	1.4	10	4	45
4HRE 010 020 445	1	1.5	2	4	45
4HRE 010 030 445	1	1.5	3	4	45
4HRE 010 040 445	1	1.5	4	4	45
4HRE 010 060 445	1	1.5	6	4	45
4HRE 010 080 445	1	1.5	8	4	45
4HRE 010 100 445	1	1.5	10	4	45
4HRE 010 120 445	1	1.5	12	4	45
4HRE 010 140 450	1	1.5	14	4	50
4HRE 010 160 450	1	1.5	16	4	50
4HRE 010 200 450	1	1.5	20	4	50
4HRE 010 250 460	1	1.5	25	4	60
4HRE 012 040 445	1.2	1.8	4	4	45
4HRE 012 060 445	1.2	1.8	6	4	45
4HRE 012 080 445	1.2	1.8	8	4	45



4 Flutes Rib Flat End Mills

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRE 012 100 445	1.2	1.8	10	4	45
4HRE 012 120 445	1.2	1.8	12	4	45
4HRE 012 160 450	1.2	1.8	16	4	50
4HRE 015 040 445	1.5	2.3	4	4	45
4HRE 015 060 445	1.5	2.3	6	4	45
4HRE 015 080 445	1.5	2.3	8	4	45
4HRE 015 100 445	1.5	2.3	10	4	45
4HRE 015 120 445	1.5	2.3	12	4	45
4HRE 015 160 450	1.5	2.3	16	4	50
4HRE 015 200 450	1.5	2.3	20	4	50
4HRE 015 250 460	1.5	2.3	25	4	60
4HRE 020 040 445	2	3	4	4	45
4HRE 020 060 445	2	3	6	4	45
4HRE 020 080 445	2	3	8	4	45
4HRE 020 100 445	2	3	10	4	45
4HRE 020 120 445	2	3	12	4	45
4HRE 020 140 450	2	3	14	4	50
4HRE 020 160 450	2	3	16	4	50
4HRE 020 180 450	2	3	18	4	50
4HRE 020 200 450	2	3	20	4	50
4HRE 020 250 460	2	3	25	4	60
4HRE 020 300 470	2	3	30	4	70
4HRE 025 100 445	2.5	3.8	10	4	45
4HRE 025 120 445	2.5	3.8	12	4	45
4HRE 025 160 450	2.5	3.8	16	4	50
4HRE 025 200 450	2.5	3.8	20	4	50
4HRE 025 250 460	2.5	3.8	25	4	60
4HRE 025 300 470	2.5	3.8	30	4	70
4HRE 030 060 645	3	4.5	6	6	45
4HRE 030 080 650	3	4.5	8	6	50
4HRE 030 100 650	3	4.5	10	6	50
4HRE 030 120 650	3	4.5	12	6	50
4HRE 030 160 660	3	4.5	16	6	60
4HRE 030 200 660	3	4.5	20	6	60
4HRE 030 250 665	3	4.5	25	6	65



4 Flutes Rib Flat End Mills

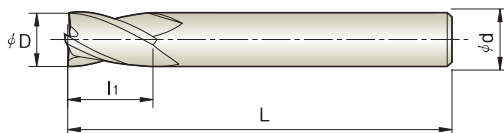
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4HRE 030 300 670	3	4.5	30	6	70
4HRE 030 350 680	3	4.5	35	6	80
4HRE 030 400 680	3	4.5	40	6	80
4HRE 040 080 650	4	6	8	6	50
4HRE 040 100 650	4	6	10	6	50
4HRE 040 120 650	4	6	12	6	50
4HRE 040 160 660	4	6	16	6	60
4HRE 040 200 660	4	6	20	6	60
4HRE 040 250 665	4	6	25	6	65
4HRE 040 300 670	4	6	30	6	70
4HRE 040 400 680	4	6	40	6	80
4HRE 040 450 690	4	6	45	6	90
4HRE 040 500 6A0	4	6	50	6	100
4HRE 050 160 660	5	8	16	6	60
4HRE 050 200 660	5	8	20	6	60
4HRE 050 250 665	5	8	25	6	65
4HRE 050 300 670	5	8	30	6	70
4HRE 050 400 680	5	8	40	6	80
4HRE 050 500 6A0	5	8	50	6	100
4HRE 060 200 660	6	9	20	6	60
4HRE 060 300 670	6	9	30	6	70
4HRE 060 400 690	6	9	40	6	90
4HRE 060 500 6A0	6	9	50	6	100
4HRE 080 200 865	8	12	20	8	65
4HRE 080 300 880	8	12	30	8	80
4HRE 080 400 8A0	8	12	40	8	100
4HRE 100 250 A70	10	15	25	10	70
4HRE 100 350 AA0	10	15	35	10	100
4HRE 100 450 AA0	10	15	45	10	100
4HRE 120 300 C80	12	18	30	12	80
4HRE 120 400 CB0	12	18	40	12	110
4HRE 120 500 CB0	12	18	50	12	110

4HPE



4 Flutes Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
4HPE 008 016 445	0.8	1.6	4	45
4HPE 010 025 445	1	2.5	4	45
4HPE 010 025 645	1	2.5	6	45
4HPE 012 040 445	1.2	4	4	45
4HPE 015 040 445	1.5	4	4	45
4HPE 015 040 645	1.5	4	6	45
4HPE 020 060 445	2	6	4	45
4HPE 020 060 645	2	6	6	45
4HPE 025 080 445	2.5	8	4	45
4HPE 025 080 645	2.5	8	6	45
4HPE 030 100 350	3	10	3	50
4HPE 030 100 450	3	10	4	50
4HPE 030 100 650	3	10	6	50
4HPE 035 100 650	3.5	10	6	50
4HPE 040 120 450	4	12	4	50
4HPE 040 120 650	4	12	6	50
4HPE 045 120 650	4.5	12	6	50
4HPE 050 150 650	5	15	6	50
4HPE 055 150 650	5.5	15	6	50
4HPE 060 150 650	6	15	6	50
4HPE 060 150 675	6	15	6	75
4HPE 060 150 6A0	6	15	6	100
4HPE 070 200 865	7	20	8	65
4HPE 080 200 865	8	20	8	65
4HPE 080 200 875	8	20	8	75



4 Flutes Flat End Mills

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
4HPE 080 200 8A0	8	20	8	100
4HPE 100 250 A70	10	25	10	70
4HPE 100 250 A75	10	25	10	75
4HPE 100 250 AA0	10	25	10	100
4HPE 120 300 C80	12	30	12	80
4HPE 120 300 CA0	12	30	12	100
4HPE 140 350 E90	14	35	14	90
4HPE 160 400 GA0	16	40	16	100
4HPE 180 450 IA0	18	45	18	100
4HPE 200 450 KA0	20	45	20	100

4HLE



4 Flutes Long Length Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
4HLE 010 030 660	1	3	6	60
4HLE 010 050 660	1	5	6	60
4HLE 010 070 660	1	7	6	60
4HLE 015 060 660	1.5	6	6	60
4HLE 015 080 660	1.5	8	6	60
4HLE 015 100 660	1.5	10	6	60
4HLE 020 080 660	2	8	6	60
4HLE 020 100 660	2	10	6	60
4HLE 020 120 660	2	12	6	60
4HLE 020 150 660	2	15	6	60
4HLE 030 100 670	3	10	6	70
4HLE 030 150 670	3	15	6	70
4HLE 030 200 670	3	20	6	70
4HLE 030 250 670	3	25	6	70
4HLE 030 300 670	3	30	6	70
4HLE 040 120 670	4	12	6	70
4HLE 040 150 470	4	15	4	70
4HLE 040 150 670	4	15	6	70
4HLE 040 200 470	4	20	4	70
4HLE 040 200 670	4	20	6	70
4HLE 040 250 670	4	25	6	70
4HLE 040 300 675	4	30	6	75
4HLE 040 350 675	4	35	6	75
4HLE 040 400 680	4	40	6	80



4 Flutes Long Length Flat End Mills

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
4HLE 050 200 670	5	20	6	70
4HLE 050 250 670	5	25	6	70
4HLE 050 300 675	5	30	6	75
4HLE 050 400 680	5	40	6	80
4HLE 060 200 670	6	20	6	70
4HLE 060 200 6A0	6	20	6	100
4HLE 060 250 675	6	25	6	75
4HLE 060 250 6A0	6	25	6	100
4HLE 060 300 680	6	30	6	80
4HLE 060 350 680	6	35	6	80
4HLE 060 400 690	6	40	6	90
4HLE 080 250 875	8	25	8	75
4HLE 080 250 8A0	8	25	8	100
4HLE 080 300 880	8	30	8	80
4HLE 080 300 8A0	8	30	8	100
4HLE 080 300 8F0	8	30	8	150
4HLE 080 350 880	8	35	8	80
4HLE 080 400 890	8	40	8	90
4HLE 080 450 8A0	8	45	8	100
4HLE 080 500 8A0	8	50	8	100
4HLE 080 550 8A0	8	55	8	100
4HLE 100 300 A80	10	30	10	80
4HLE 100 350 AA0	10	35	10	100
4HLE 100 350 AF0	10	35	10	150
4HLE 100 400 AA0	10	40	10	100
4HLE 100 450 AA0	10	45	10	100
4HLE 100 500 AA0	10	50	10	100
4HLE 100 550 AB0	10	55	10	110
4HLE 100 600 AB0	10	60	10	110
4HLE 100 650 AC0	10	65	10	120
4HLE 100 700 AC0	10	70	10	120
4HLE 120 300 CA0	12	30	12	100
4HLE 120 350 CA0	12	35	12	100
4HLE 120 400 CA0	12	40	12	100



4 Flutes Long Length Flat End Mills

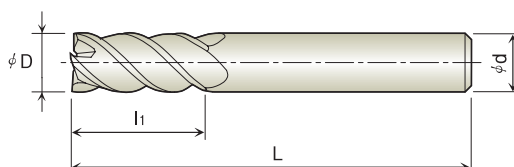
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
4HLE 120 400 CF0	12	40	12	150
4HLE 120 450 CA0	12	45	12	100
4HLE 120 500 CA0	12	50	12	100
4HLE 120 550 CB0	12	55	12	110
4HLE 120 600 CB0	12	60	12	110
4HLE 120 700 CD0	12	70	12	130
4HLE 140 500 EB0	14	50	14	110
4HLE 160 400 GF0	16	40	16	150
4HLE 160 550 GC0	16	55	16	120
4HLE 160 700 GD0	16	70	16	130
4HLE 200 500 KF0	20	50	20	150
4HLE 200 600 KD0	20	60	20	130
4HLE 250 750 PF0	25	75	25	150

4HHE



4 Flutes 43° HELIX Flat End Mills



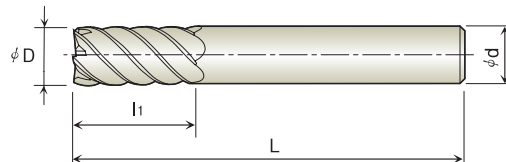
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l ₁)	Shank Diameter (d)	Overall Length (L)
4HHE 010 020 445	1	2	4	45
4HHE 010 020 645	1	2	6	45
4HHE 015 040 445	1.5	4	4	45
4HHE 015 040 645	1.5	4	6	45
4HHE 020 050 445	2	5	4	45
4HHE 020 050 645	2	5	6	45
4HHE 030 080 350	3	8	3	50
4HHE 030 080 445	3	8	4	45
4HHE 030 080 650	3	8	6	50
4HHE 040 100 460	4	10	4	60
4HHE 040 100 650	4	10	6	50
4HHE 040 120 445	4	12	4	45
4HHE 050 130 650	5	13	6	50
4HHE 060 150 650	6	15	6	50
4HHE 060 150 675	6	15	6	75
4HHE 080 200 865	8	20	8	65
4HHE 080 200 875	8	20	8	75
4HHE 100 250 A70	10	25	10	70
4HHE 100 250 A75	10	25	10	75
4HHE 120 300 C80	12	30	12	80
4HHE 160 400 GA0	16	40	16	100
4HHE 200 450 KA0	20	45	20	100

6HPE



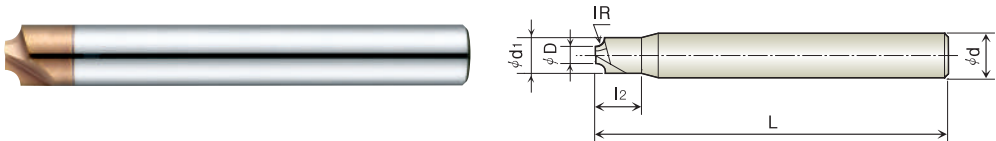
6 Flutes 45° HELIX Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
6HPE 060 150 650	6	15	6	50
6HPE 080 200 865	8	20	8	65
6HPE 100 250 A70	10	25	10	70
6HPE 120 300 C80	12	30	12	80
6HPE 160 400 GA0	16	40	16	100
6HPE 200 450 KA0	20	45	20	100

2 Flutes Inner Corner Radius



unit(mm)

Model No.	Outside Diameter (D)	Inner Radius (IR)	Outside Diameter of Cut (d1)	Effective Length (L _e)	Shank Diameter (d)	Overall Length (L)
2IRC 005 IR055 017 445	0.5	IR0.55	1.7	3	4	45
2IRC 005 IR06 018 445	0.5	IR0.6	1.8	3	4	45
2IRC 005 IR065 019 445	0.5	IR0.65	1.9	3	4	45
2IRC 005 IR07 020 445	0.5	IR0.7	2	3	4	45
2IRC 009 IR05 020 445	0.9	IR0.5	2	3	4	45
2IRC 009 IR075 025 445	0.9	IR0.75	2.5	4	4	45
2IRC 009 IR08 026 445	0.9	IR0.8	2.6	4	4	45
2IRC 009 IR085 027 445	0.9	IR0.85	2.7	4	4	45
2IRC 009 IR09 028 445	0.9	IR0.9	2.8	4	4	45
2IRC 009 IR095 029 445	0.9	IR0.95	2.9	4	4	45
2IRC 009 IR10 030 650	0.9	IR1.0	3	5	6	50
2IRC 009 IR125 035 650	0.9	IR1.25	3.5	5	6	50
2IRC 014 IR15 045 650	1.4	IR1.5	4.5	8	6	50
2IRC 014 IR20 055 650	1.4	IR2.0	5.5	10	6	50
2IRC 019 IR25 070 860	1.9	IR2.5	7	13	8	60
2IRC 019 IR30 080 860	1.9	IR3.0	8	-	8	60
2IRC 019 IR35 090 A70	1.9	IR3.5	9	13	10	70
2IRC 019 IR40 100 A70	1.9	IR4.0	10	-	10	70
2IRC 019 IR45 110 C80	1.9	IR4.5	11	13	12	80
2IRC 019 IR50 120 C80	1.9	IR5.0	12	-	12	80
2IRC 034 IR125 060 650	3.4	IR1.25	6	-	6	50
2IRC 039 IR10 060 650	3.9	IR1.0	6	-	6	50
2IRC 039 IR20 080 860	3.9	IR2.0	8	-	8	60
2IRC 039 IR60 160 G85	3.9	IR6.0	16	-	16	85



2 Flutes Inner Corner Radius

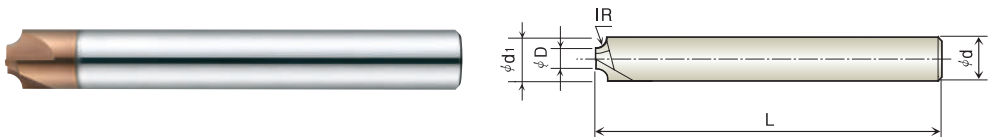
unit(mm)

Model No.	Outside Diameter (D)	Inner Radius (IR)	Outside Diameter of Cut (d1)	Effective Length (l.)	Shank Diameter (d)	Overall Length (L)
2IRC 039 IR80 200 K85	3.9	IR8.0	20	-	20	85
2IRC 049 IR05 060 660	4.9	IR0.5	6	-	6	60
2IRC 049 IR15 080 860	4.9	IR1.5	8	-	8	60
2IRC 059 IR10 080 860	5.9	IR1.0	8	-	8	60
2IRC 059 IR70 200 K85	5.9	IR7.0	20	-	20	85

4IRC



4 Flutes Inner Corner Radius



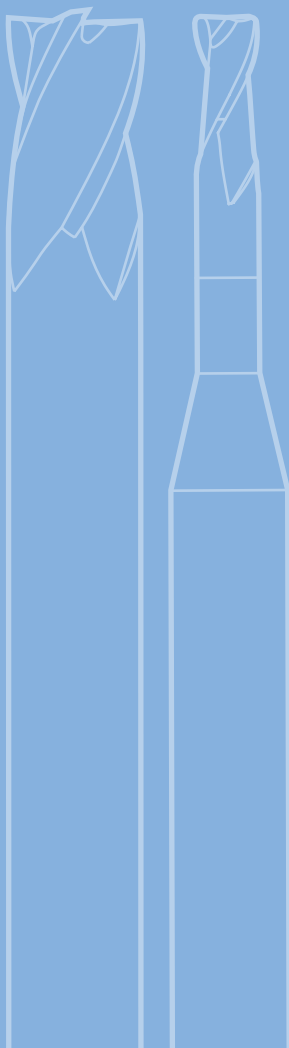
unit(mm)

Model No.	Outside Diameter (D)	Inner Radius (IR)	Outside Diameter of Cut (d1)	Shank Diameter (d)	Overall Length (L)
4IRC 019 IR10 040 450	1.9	IR1.0	4	4	50
4IRC 024 IR075 040 450	2.4	IR0.75	4	4	50
4IRC 029 IR05 040 450	2.9	IR0.5	4	4	50
4IRC 039 IR10 060 650	3.9	IR1.0	6	6	50
4IRC 039 IR20 080 860	3.9	IR2.0	8	8	60
4IRC 039 IR30 100 A70	3.9	IR3.0	10	10	70
4IRC 039 IR40 120 C80	3.9	IR4.0	12	12	80
4IRC 039 IR60 160 G80	3.9	IR6.0	16	16	80
4IRC 049 IR05 060 650	4.9	IR0.5	6	6	50
4IRC 049 IR075 060 650	4.9	IR0.75	6	6	50
4IRC 049 IR15 080 860	4.9	IR1.5	8	8	60
4IRC 049 IR25 100 A70	4.9	IR2.5	10	10	70
4IRC 059 IR10 080 860	5.9	IR1.0	8	8	60
4IRC 059 IR20 100 A70	5.9	IR2.0	10	10	70
4IRC 059 IR30 120 C80	5.9	IR3.0	12	12	80
4IRC 059 IR50 160 G80	5.9	IR5.0	16	16	80



A-MOLD SERIES





All Type

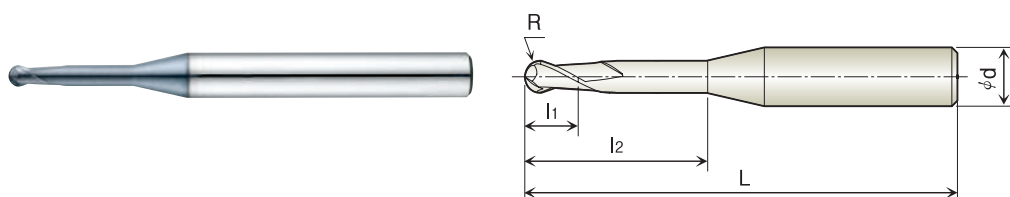
D Size	D Tolerance (mm)
ALL	0 ~ -0.020

- Geometry design to protect the breakage of cutting edge and improve the cutting performance
- Optimized to use shrink-fit chuck
- Suitable to side cutting.

2ARB



2 Flutes Rib Ball End Mills



unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
2ARB 004 010 445	R0.2	0.4	1	4	45
2ARB 004 020 445	R0.2	0.4	2	4	45
2ARB 005 020 445	R0.25	0.5	2	4	45
2ARB 005 040 445	R0.25	0.5	4	4	45
2ARB 006 020 445	R0.3	0.6	2	4	45
2ARB 006 030 445	R0.3	0.6	3	4	45
2ARB 006 040 445	R0.3	0.6	4	4	45
2ARB 006 050 445	R0.3	0.6	5	4	45
2ARB 006 060 445	R0.3	0.6	6	4	45
2ARB 008 020 445	R0.4	0.8	2	4	45
2ARB 008 030 445	R0.4	0.8	3	4	45
2ARB 008 040 445	R0.4	0.8	4	4	45
2ARB 008 050 445	R0.4	0.8	5	4	45
2ARB 008 060 445	R0.4	0.8	6	4	45
2ARB 008 080 445	R0.4	0.8	8	4	45
2ARB 010 030 445	R0.5	1	3	4	45
2ARB 010 040 445	R0.5	1	4	4	45
2ARB 010 050 445	R0.5	1	5	4	45
2ARB 010 060 445	R0.5	1	6	4	45
2ARB 010 080 445	R0.5	1	8	4	45
2ARB 010 100 445	R0.5	1	10	4	45
2ARB 010 120 445	R0.5	1	12	4	45
2ARB 012 080 445	R0.6	1.2	8	4	45
2ARB 012 100 445	R0.6	1.2	10	4	45
2ARB 012 120 445	R0.6	1.2	12	4	45



2 Flutes Rib Ball End Mills

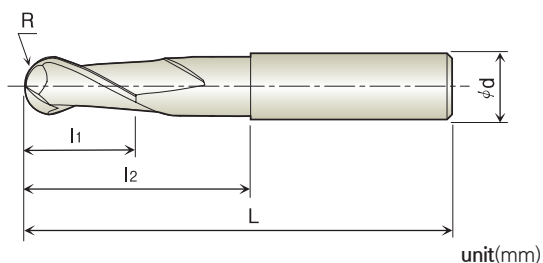
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l.)	Effective Length (l.)	Shank Diameter (d)	Overall Length (L)
2ARB 015 060 445	R0.75	1.5	6	4	45
2ARB 015 080 445	R0.75	1.5	8	4	45
2ARB 015 100 445	R0.75	1.5	10	4	45
2ARB 015 120 445	R0.75	1.5	12	4	45
2ARB 015 160 450	R0.75	1.5	16	4	50
2ARB 016 080 445	R0.8	1.6	8	4	45
2ARB 016 120 445	R0.8	1.6	12	4	45
2ARB 020 080 445	R1.0	2	8	4	45
2ARB 020 100 445	R1.0	2	10	4	45
2ARB 020 120 445	R1.0	2	12	4	45
2ARB 020 160 450	R1.0	2	16	4	50
2ARB 020 200 450	R1.0	2	20	4	50
2ARB 025 080 650	R1.25	2.5	8	6	50
2ARB 030 120 650	R1.5	3	12	6	50
2ARB 030 160 660	R1.5	3	16	6	60
2ARB 030 200 660	R1.5	3	20	6	60
2ARB 030 250 665	R1.5	3	25	6	65
2ARB 040 120 650	R2.0	4	12	6	50
2ARB 040 160 660	R2.0	4	16	6	60
2ARB 040 200 660	R2.0	4	20	6	60
2ARB 040 250 665	R2.0	4	25	6	65
2ARB 040 300 670	R2.0	4	30	6	70

2ASB



2 Flutes Short Ball End Mills

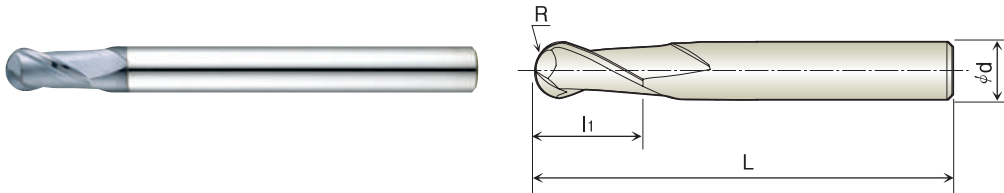


Model No.	Radius of Ball Nose (R)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
2ASB 004 010 650	R0.2	0.4	1	6	50
2ASB 005 015 650	R0.25	0.5	1.5	6	50
2ASB 006 015 650	R0.3	0.6	1.5	6	50
2ASB 008 020 650	R0.4	0.8	2	6	50
2ASB 010 025 650	R0.5	1	2.5	6	50
2ASB 015 040 650	R0.75	1.5	4	6	50
2ASB 020 060 650	R1.0	2	6	6	50
2ASB 025 060 650	R1.25	2.5	6	6	50
2ASB 030 080 650	R1.5	3	8	6	50
2ASB 040 100 650	R2.0	4	10	6	50
2ASB 050 120 650	R2.5	5	12	6	50
2ASB 060 150 660	R3.0	7	15	6	60
2ASB 080 200 860	R4.0	10	20	8	60
2ASB 100 250 A70	R5.0	12	25	10	70
2ASB 120 300 C80	R6.0	14	30	12	80

2APB



2 Flutes Ball End Mills



unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
2APB 004 008 445	R0.2	0.8	4	45
2APB 005 010 445	R0.25	1	4	45
2APB 006 012 445	R0.3	1.2	4	45
2APB 008 015 445	R0.4	1.5	4	45
2APB 010 020 650	R0.5	2	6	50
2APB 015 040 650	R0.75	4	6	50
2APB 020 050 660	R1.0	5	6	60
2APB 025 060 660	R1.25	6	6	60
2APB 030 080 360	R1.5	8	3	60
2APB 030 080 660	R1.5	8	6	60
2APB 035 080 660	R1.75	8	6	60
2APB 040 080 470	R2.0	8	4	70
2APB 040 080 670	R2.0	8	6	70
2APB 045 100 670	R2.25	10	6	70
2APB 050 100 680	R2.5	10	6	80
2APB 055 120 680	R2.75	12	6	80
2APB 060 120 690	R3.0	12	6	90
2APB 065 140 890	R3.25	14	8	90
2APB 070 140 890	R3.5	14	8	90
2APB 080 140 8A0	R4.0	14	8	100
2APB 090 180 AA0	R4.5	18	10	100
2APB 100 180 AA0	R5.0	18	10	100
2APB 100 250 AF0	R5.0	25	10	150
2APB 120 220 CB0	R6.0	22	12	110
2APB 120 300 CF0	R6.0	30	12	150



2 Flutes Ball End Mills

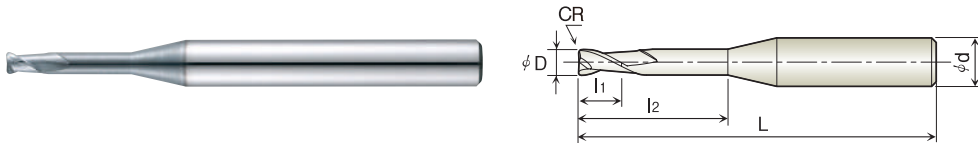
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
2APB 160 300 GA0	R8.0	30	16	100
2APB 160 300 GF0	R8.0	30	16	150
2APB 200 380 KA0	R10.0	38	20	100
2APB 200 380 KF0	R10.0	38	20	150

2ARR



2 Flutes Rib Corner Radius End Mills



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L ₁)	Effective Length (L ₂)	Shank Diameter (d)	Overall Length (L)
2ARR 010 R02 030 650	1	R0.2	1.5	3	6	50
2ARR 010 R02 060 650	1	R0.2	1.5	6	6	50
2ARR 010 R02 080 650	1	R0.2	1.5	8	6	50
2ARR 015 R02 045 650	1.5	R0.2	2.3	4.5	6	50
2ARR 015 R02 100 650	1.5	R0.2	2.3	10	6	50
2ARR 015 R02 120 650	1.5	R0.2	2.3	12	6	50
2ARR 015 R05 045 650	1.5	R0.5	2.3	4.5	6	50
2ARR 020 R02 060 650	2	R0.2	3	6	6	50
2ARR 020 R02 120 650	2	R0.2	3	12	6	50
2ARR 020 R02 160 660	2	R0.2	3	16	6	60
2ARR 020 R05 060 650	2	R0.5	3	6	6	50
2ARR 025 R02 080 650	2.5	R0.2	4	8	6	50
2ARR 025 R05 080 650	2.5	R0.5	4	8	6	50
2ARR 030 R03 120 650	3	R0.3	4.5	12	6	50
2ARR 030 R03 160 660	3	R0.3	4.5	16	6	60
2ARR 030 R05 120 650	3	R0.5	4.5	12	6	50
2ARR 030 R05 160 660	3	R0.5	4.5	16	6	60
2ARR 030 R10 120 650	3	R1.0	4.5	12	6	50
2ARR 040 R03 150 660	4	R0.3	6	15	6	60
2ARR 040 R05 150 660	4	R0.5	6	15	6	60
2ARR 040 R05 200 660	4	R0.5	6	20	6	60
2ARR 040 R10 150 660	4	R1.0	6	15	6	60
2ARR 050 R03 180 660	5	R0.3	7.5	18	6	60
2ARR 050 R05 180 660	5	R0.5	7.5	18	6	60
2ARR 060 R03 180 660	6	R0.3	9	18	6	60



2 Flutes Rib Corner Radius End Mills

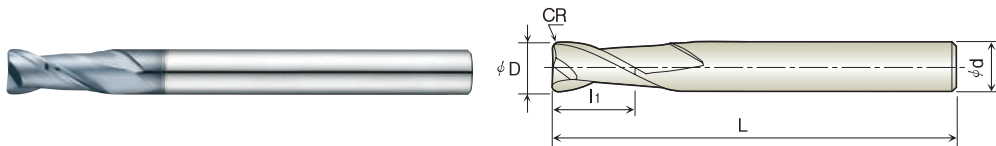
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (l.)	Effective Length (l.)	Shank Diameter (d)	Overall Length (L)
2ARR 060 R05 180 660	6	R0.5	9	18	6	60
2ARR 060 R10 180 660	6	R1.0	9	18	6	60
2ARR 060 R15 180 660	6	R1.5	9	18	6	60
2ARR 080 R03 240 865	8	R0.3	12	24	8	65
2ARR 080 R05 240 865	8	R0.5	12	24	8	65
2ARR 080 R10 240 865	8	R1.0	12	24	8	65
2ARR 080 R15 240 865	8	R1.5	12	24	8	65
2ARR 100 R03 300 A70	10	R0.3	15	30	10	70
2ARR 100 R05 300 A70	10	R0.5	15	30	10	70
2ARR 100 R10 300 A70	10	R1.0	15	30	10	70
2ARR 100 R15 300 A70	10	R1.5	15	30	10	70
2ARR 120 R05 300 C80	12	R0.5	18	30	12	80
2ARR 120 R10 300 C80	12	R1.0	18	30	12	80
2ARR 120 R15 300 C80	12	R1.5	18	30	12	80

2ACR



2 Flutes Corner Radius End Mills



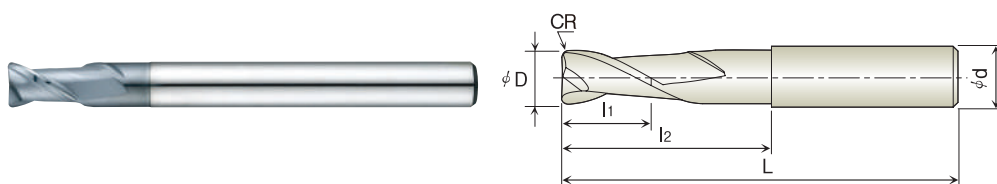
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
2ACR 060 R05 130 690	6	R0.5	13	6	90
2ACR 060 R10 130 690	6	R1.0	13	6	90
2ACR 080 R05 190 8A0	8	R0.5	19	8	100
2ACR 080 R10 190 8A0	8	R1.0	19	8	100
2ACR 100 R05 220 AA0	10	R0.5	22	10	100
2ACR 100 R10 220 AA0	10	R1.0	22	10	100
2ACR 120 R05 260 CB0	12	R0.5	26	12	110
2ACR 120 R10 260 CB0	12	R1.0	26	12	110

2ALR



2 Flutes Long Shank Corner Radius End Mills



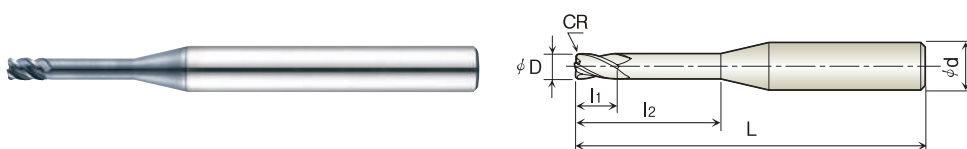
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
2ALR 060 R05 180 680	6	R0.5	9	18	6	80
2ALR 060 R10 180 680	6	R1.0	9	18	6	80
2ALR 080 R05 240 890	8	R0.5	12	24	8	90
2ALR 080 R10 240 890	8	R1.0	12	24	8	90
2ALR 100 R05 300 AA0	10	R0.5	15	30	10	100
2ALR 100 R10 300 AA0	10	R1.0	15	30	10	100
2ALR 120 R05 300 CB0	12	R0.5	18	30	12	110
2ALR 120 R10 300 CB0	12	R1.0	18	30	12	110

4ARR



4 Flutes Rib Corner Radius End Mills



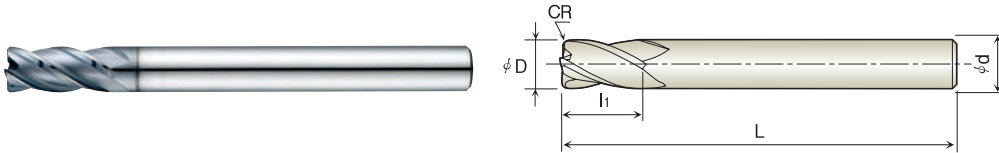
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
4ARR 020 R03 060 650	2	R0.3	3	6	6	50
4ARR 030 R03 120 650	3	R0.3	4.5	12	6	50
4ARR 030 R03 160 660	3	R0.3	4.5	16	6	60
4ARR 030 R05 120 650	3	R0.5	4.5	12	6	50
4ARR 030 R05 160 660	3	R0.5	4.5	16	6	60
4ARR 040 R03 150 660	4	R0.3	6	15	6	60
4ARR 040 R03 200 660	4	R0.3	6	20	6	60
4ARR 040 R05 150 660	4	R0.5	6	15	6	60
4ARR 040 R05 200 660	4	R0.5	6	20	6	60
4ARR 040 R10 150 660	4	R1.0	6	15	6	60
4ARR 060 R05 180 660	6	R0.5	9	18	6	60
4ARR 060 R10 180 660	6	R1.0	9	18	6	60
4ARR 060 R15 180 660	6	R1.5	9	18	6	60
4ARR 080 R05 240 865	8	R0.5	12	24	8	65
4ARR 080 R10 240 865	8	R1.0	12	24	8	65
4ARR 080 R15 240 865	8	R1.5	12	24	8	65
4ARR 080 R20 240 865	8	R2.0	12	24	8	65
4ARR 100 R05 300 A70	10	R0.5	15	30	10	70
4ARR 100 R10 300 A70	10	R1.0	15	30	10	70
4ARR 100 R15 300 A70	10	R1.5	15	30	10	70
4ARR 100 R20 300 A70	10	R2.0	15	30	10	70
4ARR 120 R05 300 C80	12	R0.5	18	30	12	80
4ARR 120 R10 300 C80	12	R1.0	18	30	12	80
4ARR 120 R15 300 C80	12	R1.5	18	30	12	80
4ARR 120 R20 300 C80	12	R2.0	18	30	12	80

4ACR



4 Flutes Corner Radius End Mills



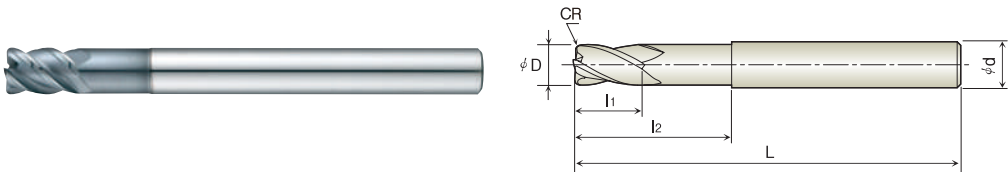
unit(mm)

모델번호 Model No.	인선직경(선단경) Outside Diameter (D)	코너반경 Corner Radius (CR)	날장 Length of Cut (l ₁)	생크경 Shank Diameter (d)	전장 Overall Length (L)
4ACR 060 R05 130 690	6	R0.5	13	6	90
4ACR 060 R10 130 690	6	R1.0	13	6	90
4ACR 080 R05 190 8A0	8	R0.5	19	8	100
4ACR 080 R10 190 8A0	8	R1.0	19	8	100
4ACR 100 R05 220 AA0	10	R0.5	22	10	100
4ACR 100 R10 220 AA0	10	R1.0	22	10	100
4ACR 120 R05 260 CB0	12	R0.5	26	12	110
4ACR 120 R10 260 CB0	12	R1.0	26	12	110

4ALR



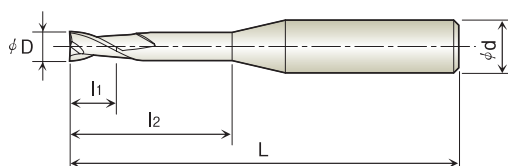
4 Flutes Long Shank Corner Radius End Mills



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L ₁)	Effective Length (L ₂)	Shank Diameter (d)	Overall Length (L)
4ALR 060 R05 180 680	6	R0.5	9	18	6	80
4ALR 060 R10 180 680	6	R1.0	9	18	6	80
4ALR 080 R05 240 8A0	8	R0.5	12	24	8	100
4ALR 080 R10 240 8A0	8	R1.0	12	24	8	100
4ALR 100 R05 300 AA0	10	R0.5	15	30	10	100
4ALR 100 R10 300 AA0	10	R1.0	15	30	10	100
4ALR 120 R05 300 CB0	12	R0.5	18	30	12	110
4ALR 120 R10 300 CB0	12	R1.0	18	30	12	110

2 Flutes Rib Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
2ARE 004 010 445	0.4	0.6	1	4	45
2ARE 004 020 445	0.4	0.6	2	4	45
2ARE 005 020 445	0.5	0.7	2	4	45
2ARE 005 030 445	0.5	0.7	3	4	45
2ARE 005 040 445	0.5	0.7	4	4	45
2ARE 006 020 445	0.6	0.9	2	4	45
2ARE 006 030 445	0.6	0.9	3	4	45
2ARE 006 040 445	0.6	0.9	4	4	45
2ARE 006 050 445	0.6	0.9	5	4	45
2ARE 006 060 445	0.6	0.9	6	4	45
2ARE 007 030 445	0.7	1	3	4	45
2ARE 007 040 445	0.7	1	4	4	45
2ARE 007 060 445	0.7	1	6	4	45
2ARE 008 020 445	0.8	1.2	2	4	45
2ARE 008 030 445	0.8	1.2	3	4	45
2ARE 008 040 445	0.8	1.2	4	4	45
2ARE 008 050 445	0.8	1.2	5	4	45
2ARE 008 060 445	0.8	1.2	6	4	45
2ARE 008 080 445	0.8	1.2	8	4	45
2ARE 010 030 445	1	1.5	3	4	45
2ARE 010 040 445	1	1.5	4	4	45
2ARE 010 050 445	1	1.5	5	4	45
2ARE 010 060 445	1	1.5	6	4	45
2ARE 010 080 445	1	1.5	8	4	45
2ARE 010 100 445	1	1.5	10	4	45



2 Flutes Rib Flat End Mills

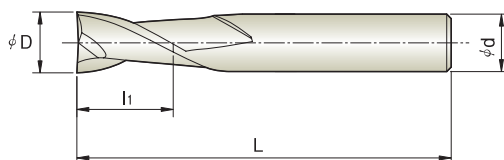
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2ARE 010 120 445	1	1.5	12	4	45
2ARE 012 080 445	1.2	1.8	8	4	45
2ARE 012 100 445	1.2	1.8	10	4	45
2ARE 012 120 445	1.2	1.8	12	4	45
2ARE 015 060 445	1.5	2.3	6	4	45
2ARE 015 080 445	1.5	2.3	8	4	45
2ARE 015 100 445	1.5	2.3	10	4	45
2ARE 015 120 445	1.5	2.3	12	4	45
2ARE 015 160 450	1.5	2.3	16	4	50
2ARE 020 080 445	2	3	8	4	45
2ARE 020 100 445	2	3	10	4	45
2ARE 020 120 445	2	3	12	4	45
2ARE 020 160 450	2	3	16	4	50
2ARE 020 200 450	2	3	20	4	50
2ARE 025 080 650	2.5	3.8	8	6	50
2ARE 025 120 650	2.5	3.8	12	6	50
2ARE 030 120 650	3	4.5	12	6	50
2ARE 030 160 660	3	4.5	16	6	60
2ARE 030 200 660	3	4.5	20	6	60
2ARE 040 120 650	4	6	12	6	50
2ARE 040 160 660	4	6	16	6	60
2ARE 040 200 660	4	6	20	6	60
2ARE 040 250 665	4	6	25	6	65

2APE



2 Flutes Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
2APE 004 008 445	0.4	0.8	4	45
2APE 005 010 445	0.5	1	4	45
2APE 006 012 445	0.6	1.2	4	45
2APE 007 014 445	0.7	1.4	4	45
2APE 008 016 445	0.8	1.6	4	45
2APE 010 025 645	1	2.5	6	45
2APE 012 040 645	1.2	4	6	45
2APE 015 040 645	1.5	4	6	45
2APE 020 060 645	2	6	6	45
2APE 025 080 650	2.5	8	6	50
2APE 030 100 350	3	10	3	50
2APE 030 100 650	3	10	6	50
2APE 035 100 650	3.5	10	6	50
2APE 040 120 455	4	12	4	55
2APE 040 120 650	4	12	6	50
2APE 045 120 650	4.5	12	6	50
2APE 050 150 650	5	15	6	50
2APE 055 150 650	5.5	15	6	50
2APE 060 150 650	6	15	6	50
2APE 065 150 865	6.5	15	8	65
2APE 070 200 865	7	20	8	65
2APE 075 200 865	7.5	20	8	65
2APE 080 200 865	8	20	8	65
2APE 085 200 A65	8.5	20	10	65
2APE 090 250 A70	9	25	10	70



2 Flutes Flat End Mills

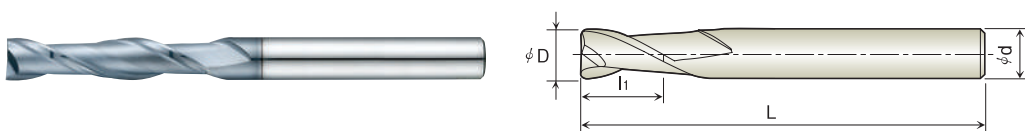
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L)	Shank Diameter (d)	Overall Length (L)
2APE 095 250 A70	9.5	25	10	70
2APE 100 250 A70	10	25	10	70
2APE 105 280 C80	10.5	25	12	70
2APE 110 300 C80	11	25	12	70
2APE 115 250 C70	11.5	25	12	70
2APE 120 300 C80	12	30	12	80
2APE 130 350 E90	13	35	14	90
2APE 140 350 E90	14	35	14	90
2APE 160 400 GA0	16	40	16	100
2APE 180 450 IA0	18	45	18	100
2APE 200 450 KA0	20	45	20	100

2AEL



2 Flutes Long Length Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
2AEL 010 040 645	1	4	6	45
2AEL 020 080 645	2	8	6	45
2AEL 030 120 650	3	12	6	50
2AEL 030 150 660	3	15	6	60
2AEL 040 160 660	4	16	6	60
2AEL 040 200 670	4	20	6	70
2AEL 050 250 680	5	25	6	80
2AEL 060 200 670	6	20	6	70
2AEL 060 250 680	6	25	6	80
2AEL 080 280 890	8	28	8	90
2AEL 080 350 890	8	35	8	90
2AEL 100 350 AA0	10	35	10	100
2AEL 100 450 AB0	10	45	10	110
2AEL 120 400 CB0	12	40	12	110

4APE



4 Flutes Flat End Mills



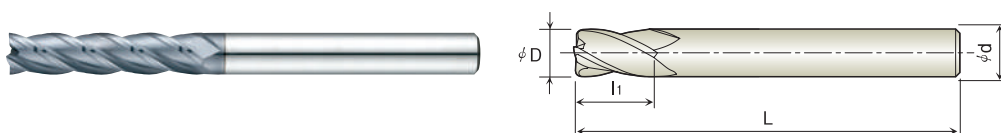
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L _i)	Shank Diameter (d)	Overall Length (L)
4APE 020 060 645	2	6	6	45
4APE 025 080 645	2.5	8	6	45
4APE 030 100 650	3	10	6	50
4APE 035 100 650	3.5	10	6	50
4APE 040 120 650	4	12	6	50
4APE 045 120 650	4.5	12	6	50
4APE 050 150 650	5	15	6	50
4APE 055 150 650	5.5	15	6	50
4APE 060 150 650	6	15	6	50
4APE 065 180 865	6.5	18	8	65
4APE 070 200 865	7	20	8	65
4APE 075 200 865	7.5	20	8	65
4APE 080 200 865	8	20	8	65
4APE 085 230 A65	8.5	23	10	65
4APE 090 250 A70	9	25	10	70
4APE 095 250 A70	9.5	25	10	70
4APE 100 250 A70	10	25	10	70
4APE 105 280 C70	10.5	28	12	70
4APE 110 280 C70	11	28	12	70
4APE 115 300 C70	11.5	30	12	70
4APE 120 300 C80	12	30	12	80
4APE 130 350 E90	13	35	14	90
4APE 140 350 E90	14	35	14	90
4APE 160 400 GA0	16	40	16	100
4APE 180 450 IA0	18	45	18	100
4APE 200 450 KA0	20	45	20	100

4AEL



4 Flutes Long Length Flat End Mills



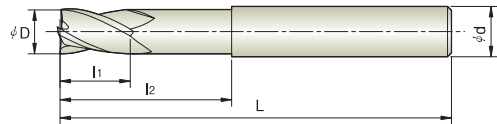
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
4AEL 020 080 645	2	8	6	45
4AEL 030 150 660	3	15	6	60
4AEL 040 200 670	4	20	6	70
4AEL 050 250 680	5	25	6	80
4AEL 060 200 670	6	20	6	70
4AEL 060 250 680	6	25	6	80
4AEL 080 300 890	8	30	8	90
4AEL 080 350 890	8	35	8	90
4AEL 100 350 AA0	10	35	10	100
4AEL 100 450 AB0	10	45	10	110
4AEL 120 400 CB0	12	40	12	110
4AEL 120 500 CB0	12	50	12	110
4AEL 120 600 CC0	12	60	12	120

4APL



4 Flutes Long Shank Flat End Mills



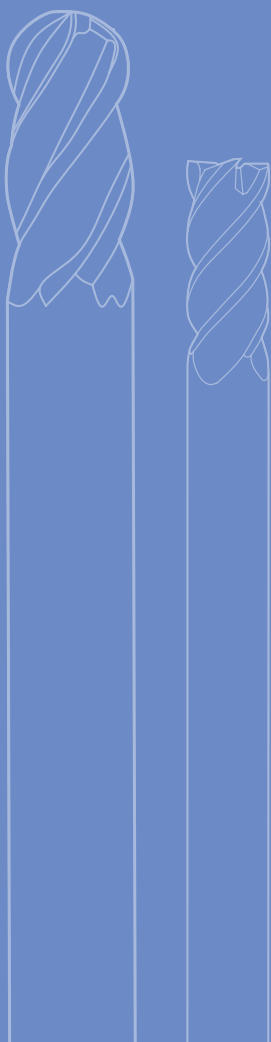
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
4APL 040 180 470	4	6	18	4	70
4APL 060 180 680	6	9	18	6	80
4APL 080 240 8A0	8	12	24	8	100
4APL 100 300 AA0	10	15	30	10	100
4APL 120 300 CB0	12	18	30	12	110



S-MOLD SERIES





Ball

D Size	D Tolerance (mm)	R Size (mm)	R Tolerance (mm)
3 ~ 5	0 ~ -0.010	R1.5 ~ R2.5	±0.010
6 ~ 12	0 ~ -0.015	R3 ~ R6	±0.010
16 ~ 20	0 ~ -0.025	R8 ~ R10	±0.015

Corner Radius

D Size	D Tolerance (mm)	R Size (mm)	R Tolerance (mm)
1 ~ 5	0 ~ -0.010	R0.1 ~ R0.5	±0.005
6 ~ 12	0 ~ -0.015	R1 ~ R1.5	±0.010
14 ~ 20	0 ~ -0.025	R2 ~ R3	±0.015

Flat

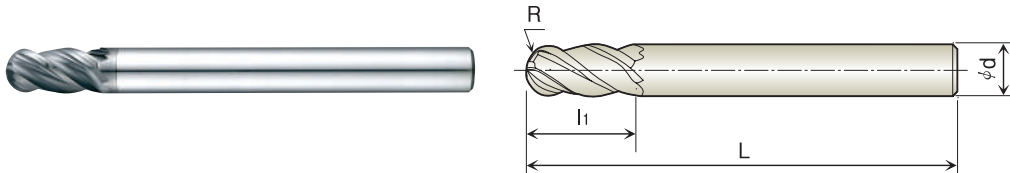
D Size	D Tolerance (mm)
1 ~ 5	0 ~ -0.010
6 ~ 12	0 ~ -0.015
14 ~ 20	0 ~ -0.025

- Unequal flute
- Excellent surface roughness and smooth chip disposal
- Outstanding performance for Alloy steels, SUS, Titanium and hard to cut materials

4SUB



4 Flutes Ball End Mills For SUS



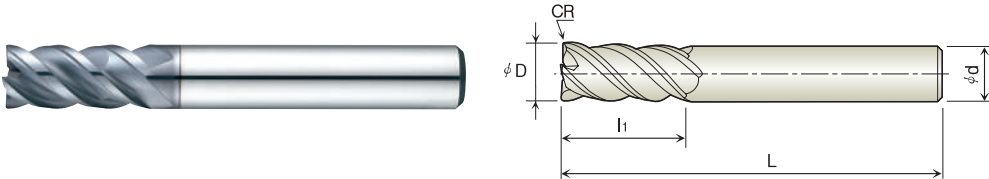
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l ₁)	Shank Diameter (d)	Overall Length (L)
4SUB 030 080 660	R1.5	8	6	60
4SUB 040 080 670	R2.0	8	6	70
4SUB 050 120 680	R2.5	12	6	80
4SUB 060 120 690	R3.0	12	6	90
4SUB 080 160 8A0	R4.0	16	8	100
4SUB 100 200 AA0	R5.0	20	10	100
4SUB 120 250 CA0	R6.0	25	12	100
4SUB 160 300 GA0	R8.0	30	16	100
4SUB 200 380 KA0	R10.0	38	20	100

4SUR



4 Flutes Corner Radius End Mills For SUS



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
4SUR 010 R01 025 650	1	R0.1	2.5	6	50
4SUR 010 R02 025 650	1	R0.2	2.5	6	50
4SUR 012 R01 030 650	1.2	R0.1	3	6	50
4SUR 015 R01 040 650	1.5	R0.1	4	6	50
4SUR 015 R02 040 650	1.5	R0.2	4	6	50
4SUR 020 R01 060 650	2	R0.1	6	6	50
4SUR 020 R02 060 650	2	R0.2	6	6	50
4SUR 025 R02 070 650	2.5	R0.2	7	6	50
4SUR 030 R02 080 655	3	R0.2	8	6	55
4SUR 030 R03 080 655	3	R0.3	8	6	55
4SUR 030 R05 080 655	3	R0.5	8	6	55
4SUR 040 R02 100 655	4	R0.2	10	6	55
4SUR 040 R03 100 655	4	R0.3	10	6	55
4SUR 040 R05 100 655	4	R0.5	10	6	55
4SUR 050 R02 150 660	5	R0.2	15	6	60
4SUR 050 R03 150 660	5	R0.3	15	6	60
4SUR 050 R05 150 660	5	R0.5	15	6	60
4SUR 060 R02 150 660	6	R0.2	15	6	60
4SUR 060 R03 130 660	6	R0.3	13	6	60
4SUR 060 R03 150 660	6	R0.3	15	6	60
4SUR 060 R05 150 660	6	R0.5	15	6	60
4SUR 070 R03 160 865	7	R0.3	16	8	65
4SUR 080 R03 200 870	8	R0.3	20	8	70
4SUR 080 R05 200 870	8	R0.5	20	8	70



4 Flutes Corner Radius End Mills For SUS

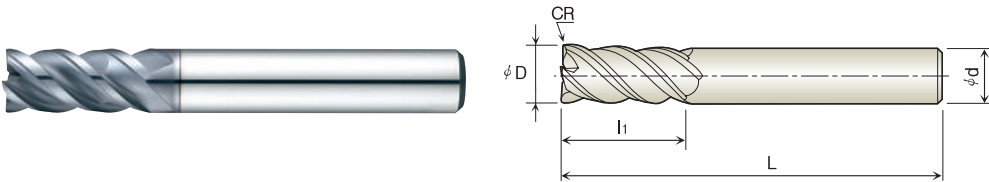
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
4SUR 080 R10 200 870	8	R1.0	20	8	70
4SUR 090 R03 190 A70	9	R0.3	19	10	70
4SUR 100 R03 220 A70	10	R0.3	22	10	70
4SUR 100 R03 250 A75	10	R0.3	25	10	75
4SUR 100 R05 250 A75	10	R0.5	25	10	75
4SUR 100 R10 250 A75	10	R1.0	25	10	75
4SUR 100 R15 250 A75	10	R1.5	25	10	75
4SUR 100 R20 250 A75	10	R2.0	25	10	75
4SUR 100 R30 250 A75	10	R3.0	25	10	75
4SUR 120 R03 260 C80	12	R0.3	26	12	80
4SUR 120 R05 300 C80	12	R0.5	30	12	80
4SUR 120 R10 300 C80	12	R1.0	30	12	80
4SUR 120 R15 300 C80	12	R1.5	30	12	80
4SUR 120 R20 300 C80	12	R2.0	30	12	80
4SUR 120 R30 300 C80	12	R3.0	30	12	80
4SUR 120 R40 300 C80	12	R4.0	30	12	80
4SUR 140 R03 260 E90	14	R0.3	26	14	90
4SUR 160 R03 320 GA0	16	R0.3	32	16	100
4SUR 180 R03 320 IA0	18	R0.3	32	18	100
4SUR 200 R03 380 KA0	20	R0.3	38	20	100

4SURA



4 Flutes Corner Radius End Mills For INCONEL



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
4SURA 010 R01 025 650	1	R0.1	2.5	6	50
4SURA 010 R02 025 650	1	R0.2	2.5	6	50
4SURA 012 R01 030 650	1.2	R0.1	3	6	50
4SURA 015 R01 040 650	1.5	R0.1	4	6	50
4SURA 015 R02 040 650	1.5	R0.2	4	6	50
4SURA 020 R01 060 650	2	R0.1	6	6	50
4SURA 020 R02 060 650	2	R0.2	6	6	50
4SURA 025 R02 070 650	2.5	R0.2	7	6	50
4SURA 030 R02 080 655	3	R0.2	8	6	55
4SURA 030 R03 080 655	3	R0.3	8	6	55
4SURA 030 R05 080 655	3	R0.5	8	6	55
4SURA 040 R02 100 655	4	R0.2	10	6	55
4SURA 040 R03 100 655	4	R0.3	10	6	55
4SURA 040 R05 100 655	4	R0.5	10	6	55
4SURA 050 R02 150 660	5	R0.2	15	6	60
4SURA 050 R03 150 660	5	R0.3	15	6	60
4SURA 050 R05 150 660	5	R0.5	15	6	60
4SURA 060 R02 150 660	6	R0.2	15	6	60
4SURA 060 R03 130 660	6	R0.3	13	6	60
4SURA 060 R03 150 660	6	R0.3	15	6	60
4SURA 060 R05 150 660	6	R0.5	15	6	60
4SURA 070 R03 160 865	7	R0.3	16	8	65
4SURA 080 R03 200 870	8	R0.3	20	8	70
4SURA 080 R05 200 870	8	R0.5	20	8	70
4SURA 080 R10 200 870	8	R1.0	20	8	70



4 Flutes Corner Radius End Mills For INCONEL

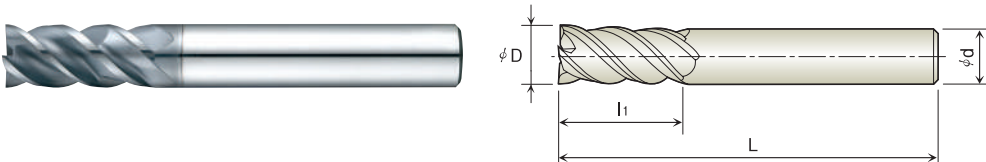
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L)	Shank Diameter (d)	Overall Length (L)
4SURA 090 R03 190 A70	9	R0.3	19	10	70
4SURA 100 R03 220 A70	10	R0.3	22	10	70
4SURA 100 R03 250 A75	10	R0.3	25	10	75
4SURA 100 R05 250 A75	10	R0.5	25	10	75
4SURA 100 R10 250 A75	10	R1.0	25	10	75
4SURA 100 R15 250 A75	10	R1.5	25	10	75
4SURA 100 R20 250 A75	10	R2.0	25	10	75
4SURA 100 R30 250 A75	10	R3.0	25	10	75
4SURA 120 R03 260 C80	12	R0.3	26	12	80
4SURA 120 R05 300 C80	12	R0.5	30	12	80
4SURA 120 R10 300 C80	12	R1.0	30	12	80
4SURA 120 R15 300 C80	12	R1.5	30	12	80
4SURA 120 R20 300 C80	12	R2.0	30	12	80
4SURA 120 R30 300 C80	12	R3.0	30	12	80
4SURA 120 R40 300 C80	12	R4.0	30	12	80
4SURA 140 R03 260 E90	14	R0.3	26	14	90
4SURA 160 R03 320 GA0	16	R0.3	32	16	100
4SURA 180 R03 320 IA0	18	R0.3	32	18	100
4SURA 200 R03 380 KA0	20	R0.3	38	20	100

4SUE



4 Flutes Flat End Mills For SUS



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
4SUE 010 025 650	1	2.5	6	50
4SUE 012 030 650	1.2	3	6	50
4SUE 015 040 650	1.5	4	6	50
4SUE 020 060 650	2	6	6	50
4SUE 025 070 650	2.5	7	6	50
4SUE 030 080 655	3	8	6	55
4SUE 030 100 660	3	10	6	60
4SUE 035 100 655	3.5	10	6	55
4SUE 040 100 655	4	10	6	55
4SUE 040 120 660	4	12	6	60
4SUE 045 120 655	4.5	12	6	55
4SUE 050 150 655	5	15	6	55
4SUE 055 150 660	5.5	15	6	60
4SUE 060 130 660	6	13	6	60
4SUE 060 150 660	6	15	6	60
4SUE 060 200 665	6	20	6	65
4SUE 065 150 860	6.5	15	8	60
4SUE 070 160 865	7	16	8	65
4SUE 070 200 870	7	20	8	70
4SUE 080 160 865	8	16	8	65
4SUE 080 200 870	8	20	8	70
4SUE 080 250 870	8	25	8	70
4SUE 080 300 880	8	30	8	80
4SUE 085 200 A70	8.5	20	10	70



4 Flutes Flat End Mills For SUS

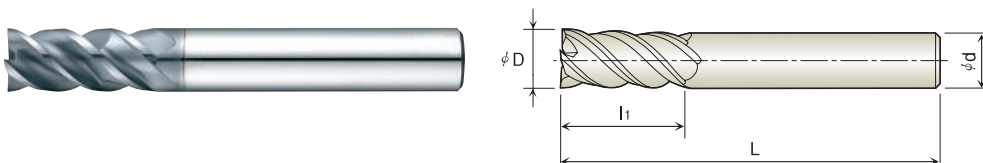
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
4SUE 090 190 A70	9	19	10	70
4SUE 090 250 A80	9	25	10	80
4SUE 100 220 A70	10	22	10	70
4SUE 100 250 A75	10	25	10	75
4SUE 100 350 A85	10	35	10	85
4SUE 120 260 C80	12	26	12	80
4SUE 120 300 C80	12	30	12	80
4SUE 120 400 C90	12	40	12	90
4SUE 140 260 E90	14	26	14	90
4SUE 160 320 GA0	16	32	16	100
4SUE 180 320 IA0	18	32	18	100
4SUE 200 380 KA0	20	38	20	100

4SUEA



4 Flutes Flat End Mills For INCONEL



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l ₁)	Shank Diameter (d)	Overall Length (L)
4SUEA 010 025 650	1	2.5	6	50
4SUEA 012 030 650	1.2	3	6	50
4SUEA 015 040 650	1.5	4	6	50
4SUEA 020 060 650	2	6	6	50
4SUEA 025 070 650	2.5	7	6	50
4SUEA 030 080 655	3	8	6	55
4SUEA 030 100 660	3	10	6	60
4SUEA 035 100 655	3.5	10	6	55
4SUEA 040 100 655	4	10	6	55
4SUEA 040 120 660	4	12	6	60
4SUEA 045 120 655	4.5	12	6	55
4SUEA 050 150 655	5	15	6	55
4SUEA 055 150 660	5.5	15	6	60
4SUEA 060 130 660	6	13	6	60
4SUEA 060 150 660	6	15	6	60
4SUEA 060 200 665	6	20	6	65
4SUEA 065 150 860	6.5	15	8	60
4SUEA 070 160 865	7	16	8	65
4SUEA 070 200 870	7	20	8	70
4SUEA 080 160 865	8	16	8	65
4SUEA 080 200 870	8	20	8	70
4SUEA 080 250 870	8	25	8	70
4SUEA 080 300 880	8	30	8	80
4SUEA 085 200 A70	8.5	20	10	70
4SUEA 090 190 A70	9	19	10	70



4 Flutes Flat End Mills For INCONEL

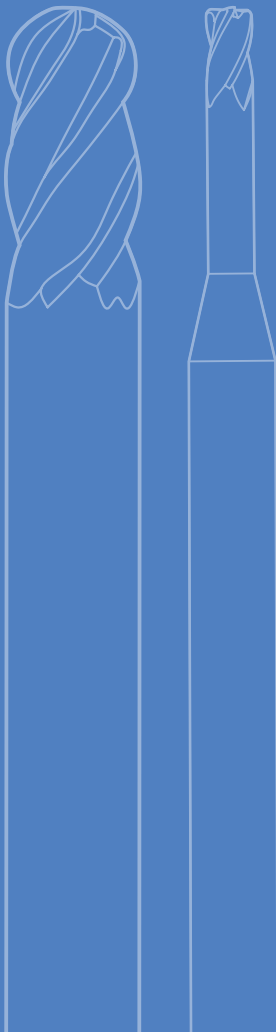
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L)	Shank Diameter (d)	Overall Length (L)
4SUEA 090 250 A80	9	25	10	80
4SUEA 100 220 A70	10	22	10	70
4SUEA 100 250 A75	10	25	10	75
4SUEA 100 350 A85	10	35	10	85
4SUEA 120 260 C80	12	26	12	80
4SUEA 120 300 C80	12	30	12	80
4SUEA 120 400 C90	12	40	12	90
4SUEA 140 260 E90	14	26	14	90
4SUEA 160 320 GA0	16	32	16	100
4SUEA 180 320 IA0	18	32	18	100
4SUEA 200 380 KA0	20	38	20	100



D-Graphite Series





Ball

D Size	D Tolerance (mm)	R Size (mm)	R Tolerance (mm)
0.2 ~ 5	0 ~ -0.010	R0.1 ~ R2.5	±0.005
6 ~ 12	0 ~ -0.015	R3 ~ R6	±0.010

Corner Radius

D Size	D Tolerance (mm)	R Size (mm)	R Tolerance (mm)
2 ~ 5	0 ~ -0.010	R0.05 ~ R0.5	±0.005
6 ~ 12	0 ~ -0.015	R1	±0.010

Flat

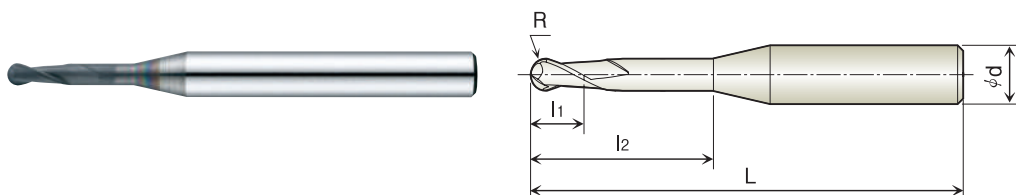
D Size	D Tolerance (mm)
0.5 ~ 5	0 ~ -0.010
6 ~ 12	0 ~ -0.015

- Graphite, Copper, Reinforced Plastic, Glass injection Molding and Non-Ferrous Metal
- The wide range of Effective Length and Overall Length for various work shape
- Improve the performance for the best pure diamond coating(CVD)

2DRB



2 Flutes Diamond Coated Rib Ball End Mills



unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
2DRB 002 010 445	R0.1	0.2	1	4	45
2DRB 002 015 445	R0.1	0.2	1.5	4	45
2DRB 003 010 445	R0.15	0.3	1	4	45
2DRB 003 020 445	R0.15	0.3	2	4	45
2DRB 004 010 445	R0.2	0.4	1	4	45
2DRB 004 020 445	R0.2	0.4	2	4	45
2DRB 004 030 445	R0.2	0.4	3	4	45
2DRB 004 040 445	R0.2	0.4	4	4	45
2DRB 004 050 445	R0.2	0.4	5	4	45
2DRB 004 060 445	R0.2	0.4	6	4	45
2DRB 005 020 445	R0.25	0.5	2	4	45
2DRB 005 030 445	R0.25	0.5	3	4	45
2DRB 005 040 445	R0.25	0.5	4	4	45
2DRB 005 050 445	R0.25	0.5	5	4	45
2DRB 005 060 445	R0.25	0.5	6	4	45
2DRB 005 080 445	R0.25	0.5	8	4	45
2DRB 006 020 445	R0.3	0.6	2	4	45
2DRB 006 030 445	R0.3	0.6	3	4	45
2DRB 006 040 445	R0.3	0.6	4	4	45
2DRB 006 050 445	R0.3	0.6	5	4	45
2DRB 006 060 445	R0.3	0.6	6	4	45
2DRB 006 080 445	R0.3	0.6	8	4	45
2DRB 006 100 445	R0.3	0.6	10	4	45
2DRB 006 120 445	R0.3	0.6	12	4	45
2DRB 008 030 445	R0.4	0.8	3	4	45



2 Flutes Diamond Coated Rib Ball End Mills

unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2DRB 008 040 445	R0.4	0.8	4	4	45
2DRB 008 050 445	R0.4	0.8	5	4	45
2DRB 008 060 445	R0.4	0.8	6	4	45
2DRB 008 080 445	R0.4	0.8	8	4	45
2DRB 008 100 445	R0.4	0.8	10	4	45
2DRB 008 150 445	R0.4	0.8	15	4	45
2DRB 008 200 445	R0.4	0.8	20	4	45
2DRB 010 030 450	R0.5	2	3	4	50
2DRB 010 040 450	R0.5	2	4	4	50
2DRB 010 050 450	R0.5	2	5	4	50
2DRB 010 060 450	R0.5	2	6	4	50
2DRB 010 100 450	R0.5	2	10	4	50
2DRB 010 120 450	R0.5	2	12	4	50
2DRB 010 160 460	R0.5	3	16	4	60
2DRB 010 180 460	R0.5	3	18	4	60
2DRB 010 200 460	R0.5	3	20	4	60
2DRB 010 250 480	R0.5	3	25	4	80
2DRB 010 300 480	R0.5	3	30	4	80
2DRB 010 350 480	R0.5	3	35	4	80
2DRB 010 400 480	R0.5	3	40	4	80
2DRB 015 100 460	R0.75	4	10	4	60
2DRB 015 150 460	R0.75	4	15	4	60
2DRB 015 200 460	R0.75	4	20	4	60
2DRB 015 100 480	R0.75	4.5	10	4	80
2DRB 015 120 480	R0.75	4.5	12	4	80
2DRB 015 150 480	R0.75	4.5	15	4	80
2DRB 015 180 480	R0.75	4.5	18	4	80
2DRB 015 200 480	R0.75	4.5	20	4	80
2DRB 015 250 480	R0.75	4.5	25	4	80
2DRB 015 300 480	R0.75	4.5	30	4	80
2DRB 015 350 480	R0.75	4.5	35	4	80
2DRB 015 400 480	R0.75	4.5	40	4	80
2DRB 020 100 460	R1.0	5	10	4	60
2DRB 020 150 460	R1.0	5	15	4	60
2DRB 020 200 460	R1.0	5	20	4	60



2 Flutes Diamond Coated Rib Ball End Mills

unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2DRB 020 100 480	R1.0	6	10	4	80
2DRB 020 150 480	R1.0	6	15	4	80
2DRB 020 200 480	R1.0	6	20	4	80
2DRB 020 250 480	R1.0	6	25	4	80
2DRB 020 300 480	R1.0	6	30	4	80
2DRB 020 350 480	R1.0	6	35	4	80
2DRB 020 400 4A0	R1.0	6	40	4	100
2DRB 020 450 4A0	R1.0	6	45	4	100
2DRB 020 500 4A0	R1.0	6	50	4	100
2DRB 020 600 4A0	R1.0	6	60	4	100
2DRB 030 150 4A0	R1.5	9	15	4	100
2DRB 030 200 4A0	R1.5	9	20	4	100
2DRB 030 250 4A0	R1.5	9	25	4	100
2DRB 030 300 4A0	R1.5	9	30	4	100
2DRB 030 350 4A0	R1.5	9	35	4	100
2DRB 030 400 4A0	R1.5	9	40	4	100
2DRB 030 500 4A0	R1.5	9	50	4	100
2DRB 030 600 4A0	R1.5	9	60	4	100
2DRB 030 160 660	R1.5	8	16	6	60
2DRB 030 200 660	R1.5	8	20	6	60
2DRB 030 300 675	R1.5	12	30	6	75
2DRB 030 350 680	R1.5	12	35	6	80
2DRB 040 300 480	R2.0	16	30	4	80
2DRB 040 400 4A0	R2.0	16	40	4	100
2DRB 040 400 4D0	R2.0	16	40	4	130
2DRB 040 500 4F0	R2.0	16	50	4	150
2DRB 040 160 660	R2.0	8	16	6	60
2DRB 040 200 670	R2.0	8	20	6	70
2DRB 040 300 680	R2.0	12	30	6	80
2DRB 040 400 685	R2.0	12	40	6	85
2DRB 060 250 680	R3.0	16	25	6	80
2DRB 060 250 6B0	R3.0	16	25	6	110
2DRB 060 300 6F0	R3.0	16	30	6	150
2DRB 060 400 6B0	R3.0	16	40	6	110
2DRB 060 500 6F0	R3.0	16	50	6	150



2 Flutes Diamond Coated Rib Ball End Mills

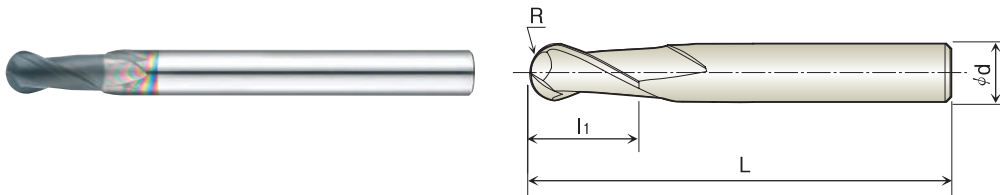
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l.)	Effective Length (l.)	Shank Diameter (d)	Overall Length (L)
2DRB 080 300 880	R4.0	20	30	8	80
2DRB 080 300 8B0	R4.0	20	30	8	110
2DRB 080 400 8B0	R4.0	20	40	8	110
2DRB 080 400 8K0	R4.0	20	40	8	200
2DRB 080 500 8G0	R4.0	20	50	8	160
2DRB 100 350 AB0	R5.0	22	35	10	110
2DRB 100 500 AB0	R5.0	22	50	10	110
2DRB 100 500 AK0	R5.0	22	50	10	200
2DRB 100 600 AG0	R5.0	22	60	10	160
2DRB 120 500 CB0	R6.0	25	50	12	110
2DRB 120 500 CG0	R6.0	25	50	12	160
2DRB 120 600 CK0	R6.0	25	60	12	200

2DPB



2 Flutes Diamond Coated Ball End Mills



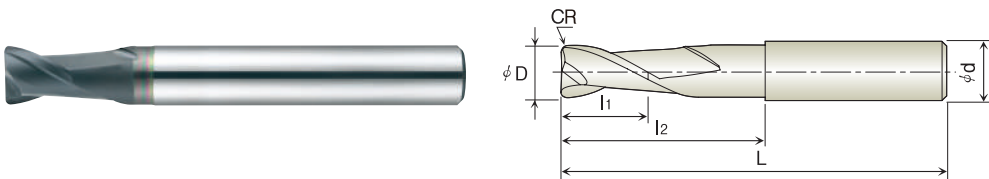
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l ₁)	Shank Diameter (d)	Overall Length (L)
2DPB 006 012 445	R0.3	1.2	4	45
2DPB 008 015 445	R0.4	1.5	4	45
2DPB 010 030 450	R0.5	3	4	50
2DPB 015 050 450	R0.75	5	4	50
2DPB 020 070 460	R1.0	7	4	60
2DPB 030 100 660	R1.5	10	6	60
2DPB 040 120 670	R2.0	12	6	70
2DPB 040 200 4A0	R2.0	20	4	100
2DPB 050 200 6A0	R2.5	20	6	100
2DPB 060 200 6B0	R3.0	20	6	110
2DPB 060 250 6F0	R3.0	25	6	150
2DPB 080 200 8B0	R4.0	20	8	110
2DPB 080 250 8F0	R4.0	25	8	150
2DPB 100 200 AB0	R5.0	20	10	110
2DPB 100 250 AF0	R5.0	25	10	150
2DPB 120 200 CB0	R6.0	20	12	110
2DPB 120 250 CF0	R6.0	25	12	150

2DRR



2 Flutes Diamond Coated Rib Corner Radius End Mills



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L ₁)	Effective Length (L ₂)	Shank Diameter (d)	Overall Length (L)
2DRR 002 R002 015 460	0.2	R0.02	0.4	1.5	4	60
2DRR 003 R002 015 460	0.3	R0.02	0.6	1.5	4	60
2DRR 003 R002 030 460	0.3	R0.02	0.6	3	4	60
2DRR 003 R002 045 460	0.3	R0.02	0.6	4.5	4	60
2DRR 003 R002 060 460	0.3	R0.02	0.6	6	4	60
2DRR 004 R002 020 460	0.4	R0.02	0.8	2	4	60
2DRR 004 R002 040 460	0.4	R0.02	0.8	4	4	60
2DRR 004 R002 060 460	0.4	R0.02	0.8	6	4	60
2DRR 004 R002 080 460	0.4	R0.02	0.8	8	4	60
2DRR 005 R005 015 460	0.5	R0.05	1	1.5	4	60
2DRR 005 R005 025 460	0.5	R0.05	1	2.5	4	60
2DRR 005 R005 035 460	0.5	R0.05	1	3.5	4	60
2DRR 005 R005 050 460	0.5	R0.05	1	5	4	60
2DRR 005 R005 075 460	0.5	R0.05	1	7.5	4	60
2DRR 005 R005 100 460	0.5	R0.05	1	10	4	60
2DRR 006 R005 020 460	0.6	R0.05	1.2	2	4	60
2DRR 006 R005 030 460	0.6	R0.05	1.2	3	4	60
2DRR 006 R005 060 460	0.6	R0.05	1.2	6	4	60
2DRR 006 R005 090 460	0.6	R0.05	1.2	9	4	60
2DRR 006 R005 120 460	0.6	R0.05	1.2	12	4	60
2DRR 008 R005 025 460	0.8	R0.05	1.6	2.5	4	60
2DRR 008 R005 040 460	0.8	R0.05	1.6	4	4	60
2DRR 008 R005 080 460	0.8	R0.05	1.6	8	4	60
2DRR 008 R005 100 460	0.8	R0.05	1.6	10	4	60
2DRR 008 R005 160 460	0.8	R0.05	1.6	16	4	60



2 Flutes Diamond Coated Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2DRR 010 R005 030 460	1	R0.05	2	3	4	60
2DRR 010 R005 050 460	1	R0.05	2	5	4	60
2DRR 010 R005 100 460	1	R0.05	2	10	4	60
2DRR 010 R005 150 460	1	R0.05	2	15	4	60
2DRR 010 R005 200 460	1	R0.05	2	20	4	60
2DRR 010 R01 030 460	1	R0.1	2	3	4	60
2DRR 010 R01 050 460	1	R0.1	2	5	4	60
2DRR 010 R01 100 460	1	R0.1	2	10	4	60
2DRR 010 R01 150 460	1	R0.1	2	15	4	60
2DRR 010 R01 200 460	1	R0.1	2	20	4	60
2DRR 010 R02 030 460	1	R0.2	2	3	4	60
2DRR 010 R02 050 460	1	R0.2	2	5	4	60
2DRR 010 R02 100 460	1	R0.2	2	10	4	60
2DRR 010 R02 150 460	1	R0.2	2	15	4	60
2DRR 010 R02 200 460	1	R0.2	2	20	4	60
2DRR 015 R005 040 460	1.5	R0.05	3	4	4	60
2DRR 015 R005 050 460	1.5	R0.05	3	5	4	60
2DRR 015 R005 100 460	1.5	R0.05	3	10	4	60
2DRR 015 R005 150 460	1.5	R0.05	3	15	4	60
2DRR 015 R005 200 460	1.5	R0.05	3	20	4	60
2DRR 015 R01 040 460	1.5	R0.1	3	4	4	60
2DRR 015 R01 050 460	1.5	R0.1	3	5	4	60
2DRR 015 R01 100 460	1.5	R0.1	3	10	4	60
2DRR 015 R01 150 460	1.5	R0.1	3	15	4	60
2DRR 015 R01 200 460	1.5	R0.1	3	20	4	60
2DRR 015 R015 040 460	1.5	R0.15	3	4	4	60
2DRR 015 R015 050 460	1.5	R0.15	3	5	4	60
2DRR 015 R015 100 460	1.5	R0.15	3	10	4	60
2DRR 015 R015 150 460	1.5	R0.15	3	15	4	60
2DRR 015 R015 200 460	1.5	R0.15	3	20	4	60
2DRR 015 R02 040 460	1.5	R0.2	3	4	4	60
2DRR 015 R02 050 460	1.5	R0.2	3	5	4	60
2DRR 015 R02 100 460	1.5	R0.2	3	10	4	60
2DRR 015 R02 150 460	1.5	R0.2	3	15	4	60
2DRR 015 R02 200 460	1.5	R0.2	3	20	4	60



2 Flutes Diamond Coated Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2DRR 015 R03 040 460	1.5	R0.3	3	4	4	60
2DRR 015 R03 050 460	1.5	R0.3	3	5	4	60
2DRR 015 R03 100 460	1.5	R0.3	3	10	4	60
2DRR 015 R03 150 460	1.5	R0.3	3	15	4	60
2DRR 015 R03 200 460	1.5	R0.3	3	20	4	60
2DRR 020 R005 040 460	2	R0.05	3	4	4	60
2DRR 020 R005 060 460	2	R0.05	3	6	4	60
2DRR 020 R005 120 460	2	R0.05	3	12	4	60
2DRR 020 R005 180 460	2	R0.05	3	18	4	60
2DRR 020 R005 250 460	2	R0.05	3	25	4	60
2DRR 020 R005 300 460	2	R0.05	3	30	4	60
2DRR 020 R01 040 460	2	R0.1	3	4	4	60
2DRR 020 R01 060 460	2	R0.1	3	6	4	60
2DRR 020 R01 120 460	2	R0.1	3	12	4	60
2DRR 020 R01 180 460	2	R0.1	3	18	4	60
2DRR 020 R01 250 460	2	R0.1	3	25	4	60
2DRR 020 R01 300 460	2	R0.1	3	30	4	60
2DRR 020 R02 040 460	2	R0.2	3	4	4	60
2DRR 020 R02 060 460	2	R0.2	3	6	4	60
2DRR 020 R02 120 460	2	R0.2	3	12	4	60
2DRR 020 R02 180 460	2	R0.2	3	18	4	60
2DRR 020 R02 250 460	2	R0.2	3	25	4	60
2DRR 020 R02 300 460	2	R0.2	3	30	4	60
2DRR 020 R03 040 460	2	R0.3	3	4	4	60
2DRR 020 R03 060 460	2	R0.3	3	6	4	60
2DRR 020 R03 120 460	2	R0.3	3	12	4	60
2DRR 020 R03 180 460	2	R0.3	3	18	4	60
2DRR 020 R03 250 460	2	R0.3	3	25	4	60
2DRR 020 R03 300 460	2	R0.3	3	30	4	60
2DRR 020 R05 040 460	2	R0.5	3	4	4	60
2DRR 020 R05 060 460	2	R0.5	3	6	4	60
2DRR 020 R05 120 460	2	R0.5	3	12	4	60
2DRR 020 R05 180 460	2	R0.5	3	18	4	60
2DRR 020 R05 250 460	2	R0.5	3	25	4	60
2DRR 020 R05 300 460	2	R0.5	3	30	4	60



2 Flutes Diamond Coated Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2DRR 030 R005 060 480	3	R0.05	4.5	6	4	80
2DRR 030 R005 100 480	3	R0.05	4.5	10	4	80
2DRR 030 R005 200 480	3	R0.05	4.5	20	4	80
2DRR 030 R005 300 480	3	R0.05	4.5	30	4	80
2DRR 030 R005 400 480	3	R0.05	4.5	40	4	80
2DRR 030 R01 060 480	3	R0.1	4.5	6	4	80
2DRR 030 R01 100 480	3	R0.1	4.5	10	4	80
2DRR 030 R01 200 480	3	R0.1	4.5	20	4	80
2DRR 030 R01 300 480	3	R0.1	4.5	30	4	80
2DRR 030 R01 400 480	3	R0.1	4.5	40	4	80
2DRR 030 R02 060 480	3	R0.2	4.5	6	4	80
2DRR 030 R02 100 480	3	R0.2	4.5	10	4	80
2DRR 030 R02 200 480	3	R0.2	4.5	20	4	80
2DRR 030 R02 300 480	3	R0.2	4.5	30	4	80
2DRR 030 R02 400 480	3	R0.2	4.5	40	4	80
2DRR 030 R03 060 480	3	R0.3	4.5	6	4	80
2DRR 030 R03 100 480	3	R0.3	4.5	10	4	80
2DRR 030 R03 200 480	3	R0.3	4.5	20	4	80
2DRR 030 R03 300 480	3	R0.3	4.5	30	4	80
2DRR 030 R03 400 480	3	R0.3	4.5	40	4	80
2DRR 030 R05 060 480	3	R0.5	4.5	6	4	80
2DRR 030 R05 100 480	3	R0.5	4.5	10	4	80
2DRR 030 R05 200 480	3	R0.5	4.5	20	4	80
2DRR 030 R05 300 480	3	R0.5	4.5	30	4	80
2DRR 030 R05 400 480	3	R0.5	4.5	40	4	80
2DRR 030 R10 060 480	3	R1.0	4.5	6	4	80
2DRR 030 R10 100 480	3	R1.0	4.5	10	4	80
2DRR 030 R10 200 480	3	R1.0	4.5	20	4	80
2DRR 030 R10 300 480	3	R1.0	4.5	30	4	80
2DRR 030 R10 400 480	3	R1.0	4.5	40	4	80
2DRR 040 R005 100 480	4	R0.05	6	10	4	80
2DRR 040 R005 150 480	4	R0.05	6	15	4	80
2DRR 040 R005 250 480	4	R0.05	6	25	4	80
2DRR 040 R005 400 480	4	R0.05	6	40	4	80
2DRR 040 R01 100 480	4	R0.1	6	10	4	80



2 Flutes Diamond Coated Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2DRR 040 R01 150 480	4	R0.1	6	15	4	80
2DRR 040 R01 250 480	4	R0.1	6	25	4	80
2DRR 040 R01 400 480	4	R0.1	6	40	4	80
2DRR 040 R02 100 480	4	R0.2	6	10	4	80
2DRR 040 R02 150 480	4	R0.2	6	15	4	80
2DRR 040 R02 250 480	4	R0.2	6	25	4	80
2DRR 040 R02 400 480	4	R0.2	6	40	4	80
2DRR 040 R05 100 480	4	R0.5	6	10	4	80
2DRR 040 R05 150 480	4	R0.5	6	15	4	80
2DRR 040 R05 250 480	4	R0.5	6	25	4	80
2DRR 040 R05 400 480	4	R0.5	6	40	4	80
2DRR 040 R10 100 480	4	R1.0	6	10	4	80
2DRR 040 R10 150 480	4	R1.0	6	15	4	80
2DRR 040 R10 250 480	4	R1.0	6	25	4	80
2DRR 040 R10 400 480	4	R1.0	6	40	4	80
2DRR 050 R005 100 6B0	5	R0.05	7.5	10	6	110
2DRR 050 R005 150 6B0	5	R0.05	7.5	15	6	110
2DRR 050 R005 300 6B0	5	R0.05	7.5	30	6	110
2DRR 050 R005 500 6B0	5	R0.05	7.5	50	6	110
2DRR 050 R01 100 6B0	5	R0.1	7.5	10	6	110
2DRR 050 R01 150 6B0	5	R0.1	7.5	15	6	110
2DRR 050 R01 300 6B0	5	R0.1	7.5	30	6	110
2DRR 050 R01 500 6B0	5	R0.1	7.5	50	6	110
2DRR 050 R02 100 6B0	5	R0.2	7.5	10	6	110
2DRR 050 R02 150 6B0	5	R0.2	7.5	15	6	110
2DRR 050 R02 300 6B0	5	R0.2	7.5	30	6	110
2DRR 050 R02 500 6B0	5	R0.2	7.5	50	6	110
2DRR 050 R05 100 6B0	5	R0.5	7.5	10	6	110
2DRR 050 R05 150 6B0	5	R0.5	7.5	15	6	110
2DRR 050 R05 300 6B0	5	R0.5	7.5	30	6	110
2DRR 050 R05 500 6B0	5	R0.5	7.5	50	6	110
2DRR 060 R005 150 6B0	6	R0.05	9	15	6	110
2DRR 060 R005 200 6B0	6	R0.05	9	20	6	110
2DRR 060 R005 300 6B0	6	R0.05	9	30	6	110
2DRR 060 R005 500 6B0	6	R0.05	9	50	6	110



2 Flutes Diamond Coated Rib Corner Radius End Mills

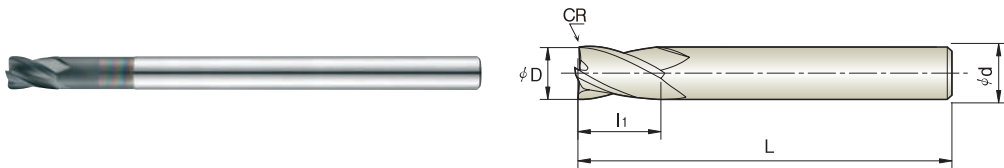
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (l.)	Effective Length (l.)	Shank Diameter (d)	Overall Length (L)
2DRR 060 R01 150 6B0	6	R0.1	9	15	6	110
2DRR 060 R01 200 6B0	6	R0.1	9	20	6	110
2DRR 060 R01 300 6B0	6	R0.1	9	30	6	110
2DRR 060 R01 500 6B0	6	R0.1	9	50	6	110
2DRR 060 R02 150 6B0	6	R0.2	9	15	6	110
2DRR 060 R02 200 6B0	6	R0.2	9	20	6	110
2DRR 060 R02 300 6B0	6	R0.2	9	30	6	110
2DRR 060 R02 500 6B0	6	R0.2	9	50	6	110
2DRR 060 R05 150 6B0	6	R0.5	9	15	6	110
2DRR 060 R05 200 6B0	6	R0.5	9	20	6	110
2DRR 060 R05 300 6B0	6	R0.5	9	30	6	110
2DRR 060 R05 500 6B0	6	R0.5	9	50	6	110
2DRR 060 R10 150 6B0	6	R1.0	9	15	6	110
2DRR 060 R10 200 6B0	6	R1.0	9	20	6	110
2DRR 060 R10 300 6B0	6	R1.0	9	30	6	110
2DRR 060 R10 500 6B0	6	R1.0	9	50	6	110

4DRR



4 Flutes Diamond Coated Rib Corner Radius End Mills



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (l ₁)	Effective Length (l _e)	Shank Diameter (d)	Overall Length (L)
4DRR 020 R005 040 460	2	R0.05	3	4	4	60
4DRR 020 R005 060 460	2	R0.05	3	6	4	60
4DRR 020 R005 120 460	2	R0.05	3	12	4	60
4DRR 020 R005 180 460	2	R0.05	3	18	4	60
4DRR 020 R005 250 460	2	R0.05	3	25	4	60
4DRR 020 R005 300 460	2	R0.05	3	30	4	60
4DRR 020 R01 040 460	2	R0.1	3	4	4	60
4DRR 020 R01 060 460	2	R0.1	3	6	4	60
4DRR 020 R01 120 460	2	R0.1	3	12	4	60
4DRR 020 R01 180 460	2	R0.1	3	18	4	60
4DRR 020 R01 250 460	2	R0.1	3	25	4	60
4DRR 020 R01 300 460	2	R0.1	3	30	4	60
4DRR 020 R02 040 460	2	R0.2	3	4	4	60
4DRR 020 R02 060 460	2	R0.2	3	6	4	60
4DRR 020 R02 120 460	2	R0.2	3	12	4	60
4DRR 020 R02 180 460	2	R0.2	3	18	4	60
4DRR 020 R02 250 460	2	R0.2	3	25	4	60
4DRR 020 R02 300 460	2	R0.2	3	30	4	60
4DRR 020 R03 040 460	2	R0.3	3	4	4	60
4DRR 020 R03 060 460	2	R0.3	3	6	4	60
4DRR 020 R03 120 460	2	R0.3	3	12	4	60
4DRR 020 R03 180 460	2	R0.3	3	18	4	60
4DRR 020 R03 250 460	2	R0.3	3	25	4	60
4DRR 020 R03 300 460	2	R0.3	3	30	4	60
4DRR 020 R05 040 460	2	R0.5	3	4	4	60



4 Flutes Diamond Coated Rib Corner Radius End Mills

unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4DRR 020 R05 060 460	2	R0.5	3	6	4	60
4DRR 020 R05 120 460	2	R0.5	3	12	4	60
4DRR 020 R05 180 460	2	R0.5	3	18	4	60
4DRR 020 R05 250 460	2	R0.5	3	25	4	60
4DRR 020 R05 300 460	2	R0.5	3	30	4	60
4DRR 030 R005 060 480	3	R0.05	4.5	6	4	80
4DRR 030 R005 100 480	3	R0.05	4.5	10	4	80
4DRR 030 R005 200 480	3	R0.05	4.5	20	4	80
4DRR 030 R005 300 480	3	R0.05	4.5	30	4	80
4DRR 030 R005 400 480	3	R0.05	4.5	40	4	80
4DRR 030 R01 060 480	3	R0.1	4.5	6	4	80
4DRR 030 R01 100 480	3	R0.1	4.5	10	4	80
4DRR 030 R01 200 480	3	R0.1	4.5	20	4	80
4DRR 030 R01 300 480	3	R0.1	4.5	30	4	80
4DRR 030 R01 400 480	3	R0.1	4.5	40	4	80
4DRR 030 R02 060 480	3	R0.2	4.5	6	4	80
4DRR 030 R02 100 480	3	R0.2	4.5	10	4	80
4DRR 030 R02 200 480	3	R0.2	4.5	20	4	80
4DRR 030 R02 300 480	3	R0.2	4.5	30	4	80
4DRR 030 R02 400 480	3	R0.2	4.5	40	4	80
4DRR 030 R03 060 480	3	R0.3	4.5	6	4	80
4DRR 030 R03 100 480	3	R0.3	4.5	10	4	80
4DRR 030 R03 200 480	3	R0.3	4.5	20	4	80
4DRR 030 R03 300 480	3	R0.3	4.5	30	4	80
4DRR 030 R03 400 480	3	R0.3	4.5	40	4	80
4DRR 030 R05 060 480	3	R0.5	4.5	6	4	80
4DRR 030 R05 100 480	3	R0.5	4.5	10	4	80
4DRR 030 R05 200 480	3	R0.5	4.5	20	4	80
4DRR 030 R05 300 480	3	R0.5	4.5	30	4	80
4DRR 030 R05 400 480	3	R0.5	4.5	40	4	80
4DRR 030 R10 060 480	3	R1.0	4.5	6	4	80
4DRR 030 R10 100 480	3	R1.0	4.5	10	4	80
4DRR 030 R10 200 480	3	R1.0	4.5	20	4	80
4DRR 030 R10 300 480	3	R1.0	4.5	30	4	80
4DRR 030 R10 400 480	3	R1.0	4.5	40	4	80



4 Flutes Diamond Coated Rib Corner Radius End Mills

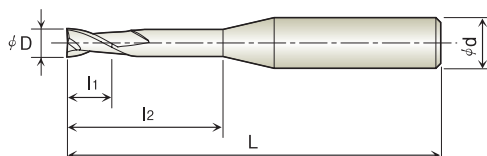
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
4DRR 040 R03 200 4A0	4	R0.3	6	20	4	100
4DRR 040 R05 200 4A0	4	R0.5	6	20	4	100
4DRR 040 R10 200 4A0	4	R1.0	6	20	4	100
4DRR 060 R03 250 6B0	6	R0.3	9	25	6	110
4DRR 060 R05 250 6B0	6	R0.5	9	25	6	110
4DRR 060 R05 300 6F0	6	R0.5	9	30	6	150
4DRR 060 R10 250 6B0	6	R1.0	9	25	6	110
4DRR 060 R10 300 6F0	6	R1.0	9	30	6	150
4DRR 080 R03 300 8B0	8	R0.3	12	30	8	110
4DRR 080 R05 300 8B0	8	R0.5	12	30	8	110
4DRR 080 R05 400 8G0	8	R0.5	12	40	8	160
4DRR 080 R10 300 8B0	8	R1.0	12	30	8	110
4DRR 080 R10 400 8G0	8	R1.0	12	40	8	160
4DRR 100 R05 350 AB0	10	R0.5	15	35	10	110
4DRR 100 R05 450 AG0	10	R0.5	15	45	10	160
4DRR 100 R10 350 AB0	10	R1.0	15	35	10	110
4DRR 100 R10 450 AG0	10	R1.0	15	45	10	160
4DRR 120 R05 400 CB0	12	R0.5	18	40	12	110
4DRR 120 R05 450 CG0	12	R0.5	18	45	12	160
4DRR 120 R10 400 CB0	12	R1.0	18	40	12	110
4DRR 120 R10 450 CG0	12	R1.0	18	45	12	160

2DRE



2 Flutes Diamond Coated Rib Flat End Mills



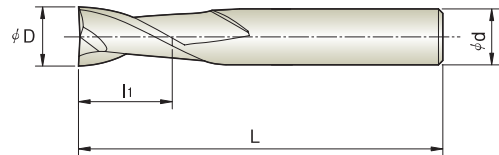
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
2DRE 010 050 460	1	3	5	4	60
2DRE 010 100 460	1	3	10	4	60
2DRE 010 150 460	1	3	15	4	60
2DRE 010 200 460	1	3	20	4	60
2DRE 010 250 460	1	3	25	4	60
2DRE 015 100 460	1.5	6	10	4	60
2DRE 015 150 460	1.5	6	15	4	60
2DRE 015 200 460	1.5	6	20	4	60
2DRE 015 250 460	1.5	6	25	4	60
2DRE 020 120 480	2	8	12	4	80
2DRE 020 150 480	2	8	15	4	80
2DRE 020 200 480	2	8	20	4	80
2DRE 020 250 480	2	8	25	4	80
2DRE 020 300 480	2	8	30	4	80
2DRE 020 400 480	2	8	40	4	80
2DRE 030 200 480	3	12	20	4	80
2DRE 030 250 480	3	12	25	4	80
2DRE 030 300 480	3	12	30	4	80
2DRE 030 400 480	3	12	40	4	80
2DRE 080 400 8G0	8	25	40	8	160
2DRE 100 500 AG0	10	25	50	10	160
2DRE 120 600 CG0	12	25	60	12	160

2DPE



2 Flutes Diamond Coated Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
2DPE 002 004 445	0.2	0.4	4	45
2DPE 003 006 445	0.3	0.6	4	45
2DPE 004 008 445	0.4	0.8	4	45
2DPE 005 010 445	0.5	1	4	45
2DPE 006 012 445	0.6	1.2	4	45
2DPE 007 014 445	0.7	1.4	4	45
2DPE 008 016 445	0.8	1.6	4	45
2DPE 009 018 445	0.9	1.8	4	45
2DPE 010 030 450	1	3	4	50
2DPE 015 040 450	1.5	4	4	50
2DPE 020 060 460	2	6	4	60
2DPE 020 080 480	2	8	4	80
2DPE 025 080 460	2.5	8	4	60
2DPE 030 100 660	3	10	6	60
2DPE 030 120 480	3	12	4	80
2DPE 040 120 660	4	12	6	60
2DPE 050 150 660	5	15	6	60
2DPE 050 200 680	5	20	6	110
2DPE 050 250 680	5	25	6	80
2DPE 060 150 670	6	15	6	70
2DPE 060 250 680	6	25	6	110
2DPE 060 250 6F0	6	25	6	150
2DPE 070 200 870	7	20	8	70
2DPE 080 200 870	8	20	8	70
2DPE 080 250 880	8	25	8	80



2 Flutes Diamond Coated Flat End Mills

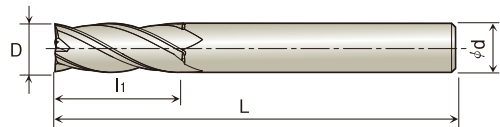
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
2DPE 100 200 A75	10	20	10	75
2DPE 120 250 C80	12	25	12	80

4DPE



4 Flutes Diamond Coated Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L ₁)	Shank Diameter (d)	Overall Length (L)
4DPE 020 060 445	2	6	4	45
4DPE 020 100 460	2	10	4	60
4DPE 030 090 650	3	9	6	50
4DPE 030 150 360	3	15	3	60
4DPE 030 150 460	3	15	4	60
4DPE 040 120 650	4	12	6	50
4DPE 040 200 480	4	20	4	80
4DPE 060 180 660	6	18	6	60
4DPE 060 250 6B0	6	25	6	110
4DPE 060 250 6F0	6	25	6	150
4DPE 080 240 870	8	24	8	70
4DPE 100 250 A80	10	25	10	80
4DPE 120 250 C80	12	25	12	80



A-DLC SERIES





Ball

D Size	D Tolerance (mm)	R Size (mm)	R Tolerance (mm)
0.4 ~ 5	0 ~ -0.010	R0.2 ~ R2.5	±0.005
6 ~ 12	0 ~ -0.015	R3 ~ R6	±0.010

Corner Radius

D Size	D Tolerance (mm)	R Size (mm)	R Tolerance (mm)
1.5 ~ 5	0 ~ -0.010	R0.05 ~ R0.5	±0.005
6 ~ 12	0 ~ -0.015	R1 ~ R1.5	±0.010

Flat

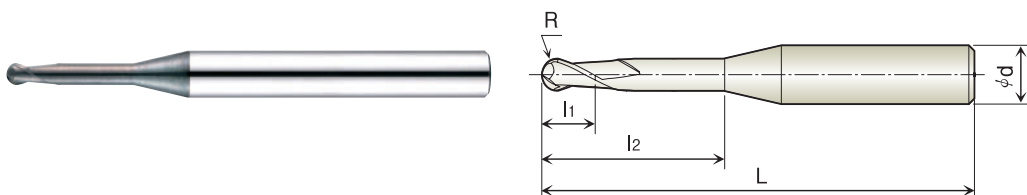
D Size	D Tolerance (mm)
0.5 ~ 5	0 ~ -0.010
6 ~ 12	0 ~ -0.015

- Copper, graphite and non-ferrous metal
 - Special coating to maximize the wear-resistance and
 - Lubrication
- Smooth chip disposal

2KRB



2 Flutes Rib Ball End Mills



unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
2KRB 001 003 445	R0.05	0.1	0.3	4	45
2KRB 002 005 445	R0.1	0.2	0.5	4	45
2KRB 002 010 445	R0.1	0.2	1	4	45
2KRB 002 015 445	R0.1	0.2	1.5	4	45
2KRB 002 020 445	R0.1	0.2	2	4	45
2KRB 003 005 445	R0.15	0.3	0.5	4	45
2KRB 003 010 445	R0.15	0.3	1	4	45
2KRB 003 015 445	R0.15	0.3	1.5	4	45
2KRB 003 020 445	R0.15	0.3	2	4	45
2KRB 004 010 445	R0.2	0.4	1	4	45
2KRB 004 020 445	R0.2	0.4	2	4	45
2KRB 004 030 445	R0.2	0.4	3	4	45
2KRB 004 040 445	R0.2	0.4	4	4	45
2KRB 004 050 445	R0.2	0.4	5	4	45
2KRB 005 020 445	R0.25	0.5	2	4	45
2KRB 005 030 445	R0.25	0.5	3	4	45
2KRB 005 040 445	R0.25	0.5	4	4	45
2KRB 005 060 445	R0.25	0.5	6	4	45
2KRB 006 020 445	R0.3	0.6	2	4	45
2KRB 006 040 445	R0.3	0.6	4	4	45
2KRB 006 060 445	R0.3	0.6	6	4	45
2KRB 006 080 445	R0.3	0.6	8	4	45
2KRB 006 100 445	R0.3	0.6	10	4	45
2KRB 008 020 445	R0.4	0.8	2	4	45
2KRB 008 040 445	R0.4	0.8	4	4	45



2 Flutes Rib Ball End Mills

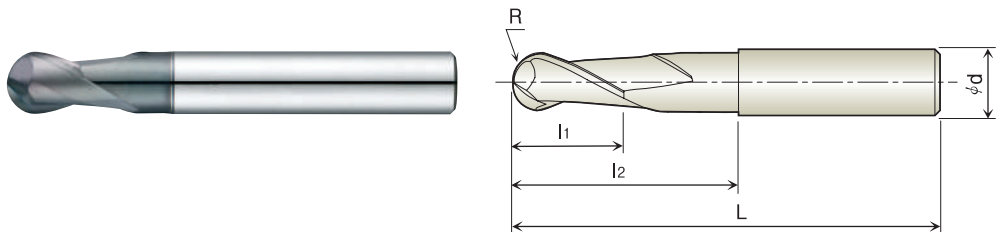
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2KRB 008 060 445	R0.4	0.8	6	4	45
2KRB 008 080 445	R0.4	0.8	8	4	45
2KRB 008 100 445	R0.4	0.8	10	4	45
2KRB 010 040 445	R0.5	1	4	4	45
2KRB 010 060 445	R0.5	1	6	4	45
2KRB 010 080 445	R0.5	1	8	4	45
2KRB 010 100 445	R0.5	1	10	4	45
2KRB 015 060 445	R0.75	1.5	6	4	45
2KRB 015 080 445	R0.75	1.5	8	4	45
2KRB 015 100 445	R0.75	1.5	10	4	45
2KRB 015 120 445	R0.75	1.5	12	4	45
2KRB 015 160 450	R0.75	1.5	16	4	50
2KRB 020 060 445	R1.0	2	6	4	45
2KRB 020 080 445	R1.0	2	8	4	45
2KRB 020 100 445	R1.0	2	10	4	45
2KRB 020 120 445	R1.0	2	12	4	45
2KRB 020 140 450	R1.0	2	14	4	50
2KRB 030 120 650	R1.5	3	12	6	50
2KRB 030 160 660	R1.5	3	16	6	60
2KRB 030 200 660	R1.5	3	20	6	60
2KRB 040 120 650	R2.0	4	12	6	50
2KRB 040 160 660	R2.0	4	16	6	60
2KRB 040 200 660	R2.0	4	20	6	60
2KRB 040 250 665	R2.0	4	25	6	65

2KSB



2 Flutes Short Ball End Mills



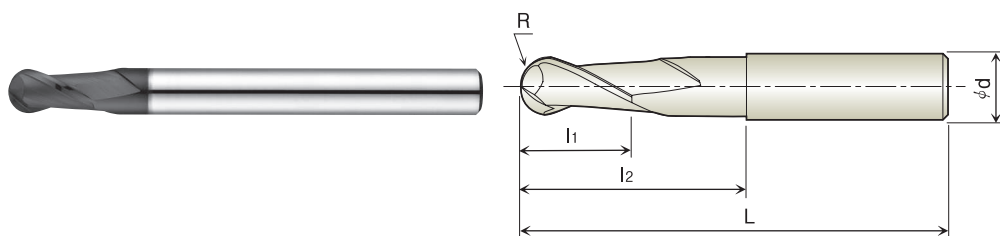
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
2KSB 004 010 650	R0.2	0.4	1	6	50
2KSB 005 015 650	R0.25	0.5	1.5	6	50
2KSB 006 015 650	R0.3	0.6	1.5	6	50
2KSB 008 020 650	R0.4	0.8	2	6	50
2KSB 010 025 650	R0.5	1	2.5	6	50
2KSB 012 030 650	R0.6	1.2	3	6	50
2KSB 015 040 650	R0.75	1.5	4	6	50
2KSB 020 060 650	R1.0	2	6	6	50
2KSB 025 060 650	R1.25	2.5	6	6	50
2KSB 030 080 650	R1.5	3	8	6	50
2KSB 040 100 650	R2.0	4	10	6	50
2KSB 050 120 650	R2.5	5	12	6	50
2KSB 060 150 660	R3.0	7	15	6	60
2KSB 080 200 860	R4.0	10	20	8	60
2KSB 100 250 A70	R5.0	12	25	10	70
2KSB 120 300 C80	R6.0	14	30	12	80

2KLB



2 Flutes Long Ball End Mills



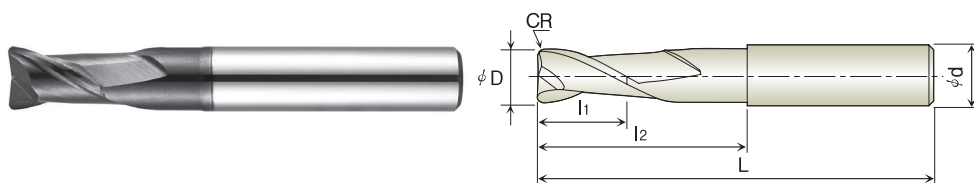
unit(mm)

Model No.	Radius of Ball Nose (R)	Length of Cut (L ₁)	Effective Length (L ₂)	Shank Diameter (d)	Overall Length (L)
2KLB 010 030 650	R0.5	1.5	3	6	50
2KLB 015 040 650	R0.75	2	4	6	50
2KLB 020 060 660	R1.0	3	6	6	60
2KLB 030 080 660	R1.5	4	8	6	60
2KLB 040 100 670	R2.0	6	10	6	70
2KLB 050 120 680	R2.5	8	12	6	80
2KLB 060 150 690	R3.0	9	15	6	90
2KLB 080 200 8A0	R4.0	12	20	8	100
2KLB 100 250 AA0	R5.0	15	25	10	100
2KLB 120 300 CB0	R6.0	18	30	12	110

2KRR



2 Flutes Rib Corner Radius End Mills



unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (l ₁)	Effective Length (l ₂)	Shank Diameter (d)	Overall Length (L)
2KRR 015 R02 040 445	1.5	R0.2	2.3	4	4	45
2KRR 020 R03 060 445	2	R0.3	3	6	4	45
2KRR 020 R03 100 445	2	R0.3	3	10	4	45
2KRR 020 R05 060 445	2	R0.5	3	6	4	45
2KRR 020 R05 100 445	2	R0.5	3	10	4	45
2KRR 020 R05 140 450	2	R0.5	3	14	4	50
2KRR 020 R10 060 445	2	R1.0	3	6	4	45
2KRR 020 R10 100 445	2	R1.0	3	10	4	45
2KRR 030 R05 100 650	3	R0.5	4.5	10	6	50
2KRR 030 R05 120 650	3	R0.5	4.5	12	6	50
2KRR 030 R05 160 660	3	R0.5	4.5	16	6	60
2KRR 030 R05 200 660	3	R0.5	4.5	20	6	60
2KRR 040 R05 120 650	4	R0.5	6	12	6	50
2KRR 040 R05 160 660	4	R0.5	6	16	6	60
2KRR 040 R05 200 660	4	R0.5	6	20	6	60
2KRR 060 R05 180 660	6	R0.5	9	18	6	60
2KRR 060 R10 180 660	6	R1.0	9	18	6	60
2KRR 060 R15 180 660	6	R1.5	9	18	6	60
2KRR 080 R05 240 865	8	R0.5	12	24	8	65
2KRR 080 R10 240 865	8	R1.0	12	24	8	65
2KRR 080 R15 240 865	8	R1.5	12	24	8	65
2KRR 100 R05 300 A70	10	R0.5	15	30	10	70
2KRR 100 R10 300 A70	10	R1.0	15	30	10	70
2KRR 100 R15 300 A70	10	R1.5	15	30	10	70
2KRR 120 R05 300 C80	12	R0.5	18	30	12	80



2 Flutes Rib Corner Radius End Mills

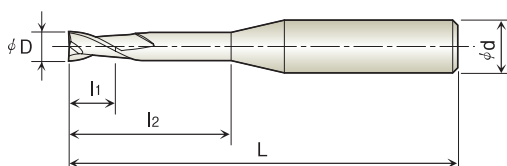
unit(mm)

Model No.	Outside Diameter (D)	Corner Radius (CR)	Length of Cut (L.)	Effective Length (L.)	Shank Diameter (d)	Overall Length (L)
2KRR 120 R10 300 C80	12	R1.0	18	30	12	80
2KRR 120 R15 300 C80	12	R1.5	18	30	12	80

2KRE



2 Flutes Rib Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L ₁)	Effective Length (L ₂)	Shank Diameter (d)	Overall Length (L)
2KRE 001 003 445	0.1	0.15	0.3	4	45
2KRE 001 005 445	0.1	0.15	0.5	4	45
2KRE 002 005 445	0.2	0.3	0.5	4	45
2KRE 002 010 445	0.2	0.3	1	4	45
2KRE 002 015 445	0.2	0.3	1.5	4	45
2KRE 002 020 445	0.2	0.3	2	4	45
2KRE 003 005 445	0.3	0.45	0.5	4	45
2KRE 003 010 445	0.3	0.45	1	4	45
2KRE 003 015 445	0.3	0.45	1.5	4	45
2KRE 003 020 445	0.3	0.45	2	4	45
2KRE 004 010 445	0.4	0.6	1	4	45
2KRE 004 020 445	0.4	0.6	2	4	45
2KRE 004 030 445	0.4	0.6	3	4	45
2KRE 004 040 445	0.4	0.6	4	4	45
2KRE 004 050 445	0.4	0.6	5	4	45
2KRE 005 020 445	0.5	0.7	2	4	45
2KRE 005 040 445	0.5	0.7	4	4	45
2KRE 005 060 445	0.5	0.7	6	4	45
2KRE 006 020 445	0.6	0.9	2	4	45
2KRE 006 040 445	0.6	0.9	4	4	45
2KRE 006 060 445	0.6	0.9	6	4	45
2KRE 008 020 445	0.8	1.2	2	4	45
2KRE 008 040 445	0.8	1.2	4	4	45
2KRE 008 060 445	0.8	1.2	6	4	45
2KRE 008 080 445	0.8	1.2	8	4	45



2 Flutes Rib Flat End Mills

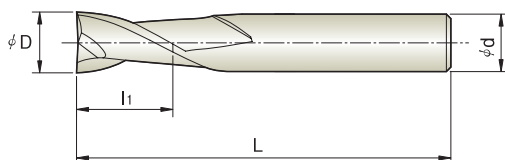
unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Effective Length (l.)	Shank Diameter (d)	Overall Length (L)
2KRE 010 040 445	1	1.5	4	4	45
2KRE 010 060 445	1	1.5	6	4	45
2KRE 010 080 445	1	1.5	8	4	45
2KRE 010 100 445	1	1.5	10	4	45
2KRE 015 060 445	1.5	2.3	6	4	45
2KRE 015 080 445	1.5	2.3	8	4	45
2KRE 015 100 445	1.5	2.3	10	4	45
2KRE 015 120 445	1.5	2.3	12	4	45
2KRE 015 160 450	1.5	2.3	16	4	50
2KRE 020 060 445	2	3	6	4	45
2KRE 020 080 445	2	3	8	4	45
2KRE 020 100 445	2	3	10	4	45
2KRE 020 120 445	2	3	12	4	45
2KRE 020 140 450	2	3	14	4	50
2KRE 030 120 650	3	4.5	12	6	50
2KRE 030 160 660	3	4.5	16	6	60
2KRE 030 200 660	3	4.5	20	6	60
2KRE 040 120 650	4	6	12	6	50
2KRE 040 160 660	4	6	16	6	60
2KRE 040 200 660	4	6	20	6	60
2KRE 040 250 665	4	6	25	6	65

2KPE



2 Flutes Flat End Mills



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l ₁)	Shank Diameter (d)	Overall Length (L)
2KPE 004 008 445	0.4	0.8	4	45
2KPE 005 010 445	0.5	1	4	45
2KPE 006 012 445	0.6	1.2	4	45
2KPE 007 014 445	0.7	1.4	4	45
2KPE 008 016 445	0.8	1.6	4	45
2KPE 010 025 645	1	2.5	6	45
2KPE 010 040 645	1	4	6	45
2KPE 012 040 645	1.2	4	6	45
2KPE 015 040 645	1.5	4	6	45
2KPE 020 060 645	2	6	6	45
2KPE 020 080 645	2	8	6	45
2KPE 025 080 650	2.5	8	6	50
2KPE 030 100 650	3	10	6	50
2KPE 030 120 650	3	12	6	50
2KPE 035 100 650	3.5	10	6	50
2KPE 040 120 650	4	12	6	50
2KPE 040 160 660	4	16	6	60
2KPE 050 150 650	5	15	6	50
2KPE 060 150 660	6	15	6	60
2KPE 060 240 660	6	24	6	60
2KPE 080 200 865	8	20	8	65
2KPE 100 250 A70	10	25	10	70
2KPE 120 300 C80	12	30	12	80



ALU-MOLD Series





All Type

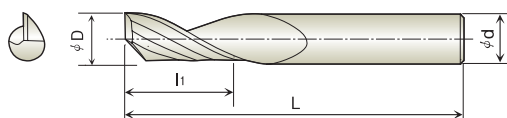
D Size	D Tolerance (mm)
ALL	-0.005 ~ -0.015

- Aluminum and Aluminum alloy.
- Excellent surface clean and chip disposal
- Variety of cutting length and overall length

1ALE



1 Flutes Flat End Mills For ALUMINIUM, RESIN, ABS



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (Li)	Shank Diameter (d)	Overall Length (L)
1ALE 005 010 440	0.5	1	4	40
1ALE 006 012 440	0.6	1.2	4	40
1ALE 007 014 440	0.7	1.4	4	40
1ALE 008 016 440	0.8	1.6	4	40
1ALE 009 018 440	0.9	1.8	4	40
1ALE 010 030 645	1	3	6	45
1ALE 010 040 645	1	4	6	45
1ALE 010 050 645	1	5	6	45
1ALE 010 060 650	1	6	6	50
1ALE 015 040 645	1.5	4	6	45
1ALE 015 060 650	1.5	6	6	50
1ALE 015 080 650	1.5	8	6	50
1ALE 015 100 650	1.5	10	6	50
1ALE 020 060 650	2	6	6	50
1ALE 020 080 650	2	8	6	50
1ALE 020 100 650	2	10	6	50
1ALE 020 120 650	2	12	6	50
1ALE 030 080 650	3	8	6	50
1ALE 030 100 650	3	10	6	50
1ALE 030 120 650	3	12	6	50
1ALE 030 160 650	3	16	6	50
1ALE 040 120 650	4	12	6	50
1ALE 040 160 650	4	16	6	50
1ALE 040 210 660	4	21	6	60

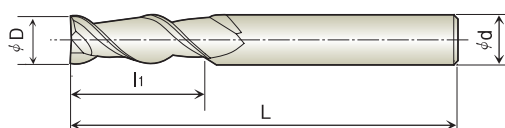


1 Flutes Flat End Mills For ALUMINIUM, RESIN, ABS

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
1ALE 050 160 660	5	16	6	60
1ALE 050 210 660	5	21	6	60
1ALE 050 260 660	5	26	6	60
1ALE 060 160 660	6	16	6	60
1ALE 060 210 660	6	21	6	60
1ALE 060 260 665	6	26	6	65
1ALE 060 320 670	6	32	6	70
1ALE 080 210 870	8	21	8	70
1ALE 080 260 875	8	26	8	75
1ALE 080 320 880	8	32	8	80
1ALE 080 360 890	8	36	8	90
1ALE 100 260 A75	10	26	10	75
1ALE 100 320 A80	10	32	10	80
1ALE 120 260 C80	12	26	12	80
1ALE 120 360 C90	12	36	12	90

2 Flutes 45° HELIX Flat End Mills For ALUMINIUM



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l ₁)	Shank Diameter (d)	Overall Length (L)
2ALE 010 030 650	1	3	6	50
2ALE 010 060 660	1	6	6	60
2ALE 012 040 650	1.2	4	6	50
2ALE 015 060 650	1.5	6	6	50
2ALE 015 080 660	1.5	8	6	60
2ALE 020 060 650	2	6	6	50
2ALE 020 100 660	2	10	6	60
2ALE 025 120 660	2.5	12	6	60
2ALE 030 120 660	3	12	6	60
2ALE 030 150 665	3	15	6	65
2ALE 040 140 660	4	14	6	60
2ALE 040 160 665	4	16	6	65
2ALE 050 170 660	5	17	6	60
2ALE 050 220 660	5	22	6	60
2ALE 060 170 660	6	17	6	60
2ALE 060 220 660	6	22	6	60
2ALE 070 230 865	7	23	8	65
2ALE 080 230 870	8	23	8	70
2ALE 080 310 880	8	31	8	80
2ALE 100 280 A75	10	28	10	75
2ALE 100 360 A90	10	36	10	90
2ALE 120 330 C80	12	33	12	80
2ALE 120 410 CA0	10	41	12	100
2ALE 120 450 CA0	10	45	12	100

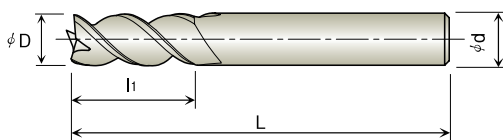


2 Flutes 45° HELIX Flat End Mills For ALUMINIUM

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
2ALE 140 380 E90	14	38	14	90
2ALE 160 450 GA0	16	45	16	100
2ALE 160 530 GB0	16	53	16	110
2ALE 180 490 IA0	18	49	18	100
2ALE 200 500 KA0	20	50	20	100
2ALE 200 550 KB0	20	55	20	110
2ALE 250 500 PC0	25	50	25	120

3 Flutes 45° HELIX Flat End Mills For ALUMINIUM



unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l ₁)	Shank Diameter (d)	Overall Length (L)
3ALE 010 020 640	1	2	6	40
3ALE 010 025 640	1	2.5	6	40
3ALE 010 030 650	1	3	6	50
3ALE 010 040 660	1	4	6	60
3ALE 010 060 660	1	6	6	60
3ALE 012 040 650	1.2	4	6	50
3ALE 015 030 640	1.5	3	6	40
3ALE 015 050 650	1.5	5	6	50
3ALE 015 060 660	1.5	6	6	60
3ALE 015 080 660	1.5	8	6	60
3ALE 015 100 660	1.5	10	6	60
3ALE 020 030 640	2	3	6	40
3ALE 020 060 650	2	6	6	50
3ALE 020 080 660	2	8	6	60
3ALE 020 100 660	2	10	6	60
3ALE 020 120 660	2	12	6	60
3ALE 025 080 640	2.5	8	6	40
3ALE 025 100 660	2.5	10	6	60
3ALE 025 120 660	2.5	12	6	60
3ALE 030 040 645	3	4	6	45
3ALE 030 080 645	3	8	6	45
3ALE 030 110 660	3	11	6	60
3ALE 030 150 665	3	15	6	65
3ALE 030 200 670	3	20	6	70



3 Flutes 45° HELIX Flat End Mills For ALUMINIUM

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
3ALE 030 250 675	3	25	6	75
3ALE 030 300 680	3	30	6	80
3ALE 035 120 660	3,5	12	6	60
3ALE 040 050 645	4	5	6	45
3ALE 040 080 645	4	8	6	45
3ALE 040 110 645	4	11	6	45
3ALE 040 130 660	4	13	6	60
3ALE 040 160 665	4	16	6	65
3ALE 040 200 670	4	20	6	70
3ALE 040 260 675	4	26	6	75
3ALE 040 300 680	4	30	6	80
3ALE 045 150 660	4,5	15	6	60
3ALE 050 060 645	5	6	6	45
3ALE 050 170 660	5	17	6	60
3ALE 050 220 660	5	22	6	60
3ALE 050 250 670	5	25	6	70
3ALE 050 300 675	5	30	6	75
3ALE 050 350 680	5	35	6	80
3ALE 050 400 685	5	40	6	85
3ALE 050 450 690	5	45	6	90
3ALE 055 170 660	5,5	17	6	60
3ALE 060 070 650	6	7	6	50
3ALE 060 130 650	6	13	6	50
3ALE 060 170 660	6	17	6	60
3ALE 060 220 660	6	22	6	60
3ALE 060 250 670	6	25	6	70
3ALE 060 300 675	6	30	6	75
3ALE 060 350 680	6	35	6	80
3ALE 060 420 690	6	42	6	90
3ALE 060 500 6A0	6	50	6	100
3ALE 070 220 865	7	22	8	65
3ALE 080 090 860	8	9	8	60
3ALE 080 190 860	8	19	8	60
3ALE 080 220 870	8	22	8	70



3 Flutes 45° HELIX Flat End Mills For ALUMINIUM

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (l.)	Shank Diameter (d)	Overall Length (L)
3ALE 080 280 880	8	28	8	80
3ALE 080 300 880	8	30	8	80
3ALE 080 350 885	8	35	8	85
3ALE 080 400 890	8	40	8	90
3ALE 080 450 895	8	45	8	95
3ALE 080 500 8A0	8	50	8	100
3ALE 080 550 8B0	8	55	8	110
3ALE 080 660 8B0	8	66	8	110
3ALE 090 270 A70	9	27	10	70
3ALE 100 110 A65	10	11	10	65
3ALE 100 220 A65	10	22	10	65
3ALE 100 270 A75	10	27	10	75
3ALE 100 320 A90	10	32	10	90
3ALE 100 350 A90	10	35	10	90
3ALE 100 400 A90	10	40	10	90
3ALE 100 450 AA0	10	45	10	100
3ALE 100 500 AA0	10	50	10	100
3ALE 100 550 AB0	10	55	10	110
3ALE 100 600 AB0	10	60	10	110
3ALE 100 650 AC0	10	65	10	120
3ALE 120 130 C70	12	13	12	70
3ALE 120 260 C70	12	26	12	70
3ALE 120 320 C80	12	32	12	80
3ALE 120 400 CA0	12	40	12	100
3ALE 120 450 CA0	12	45	12	100
3ALE 120 500 CA0	12	50	12	100
3ALE 120 550 CB0	12	55	12	110
3ALE 120 600 CB0	12	60	12	110
3ALE 120 650 CC0	12	65	12	120
3ALE 120 700 CC0	12	70	12	120
3ALE 120 750 CE0	12	75	12	140
3ALE 140 370 E90	14	37	14	90
3ALE 140 370 G90	14	37	16	90
3ALE 160 180 G90	16	18	16	90



3 Flutes 45° HELIX Flat End Mills For ALUMINIUM

unit(mm)

Model No.	Outside Diameter (D)	Length of Cut (L.)	Shank Diameter (d)	Overall Length (L)
3ALE 160 320 G90	16	32	16	90
3ALE 160 420 GA0	16	42	16	100
3ALE 160 520 GB0	16	52	16	110
3ALE 160 550 GB0	16	55	16	110
3ALE 160 650 GD0	16	65	16	130
3ALE 160 750 GF0	16	75	16	150
3ALE 180 450 IA0	18	45	18	100
3ALE 200 230 K90	20	23	20	90
3ALE 200 380 K90	20	38	20	90
3ALE 200 480 KA0	20	48	20	100
3ALE 200 550 KB0	20	55	20	110
3ALE 200 650 KD0	20	65	20	130
3ALE 200 750 KF0	20	75	20	150
3ALE 250 500 PC0	25	50	25	120

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