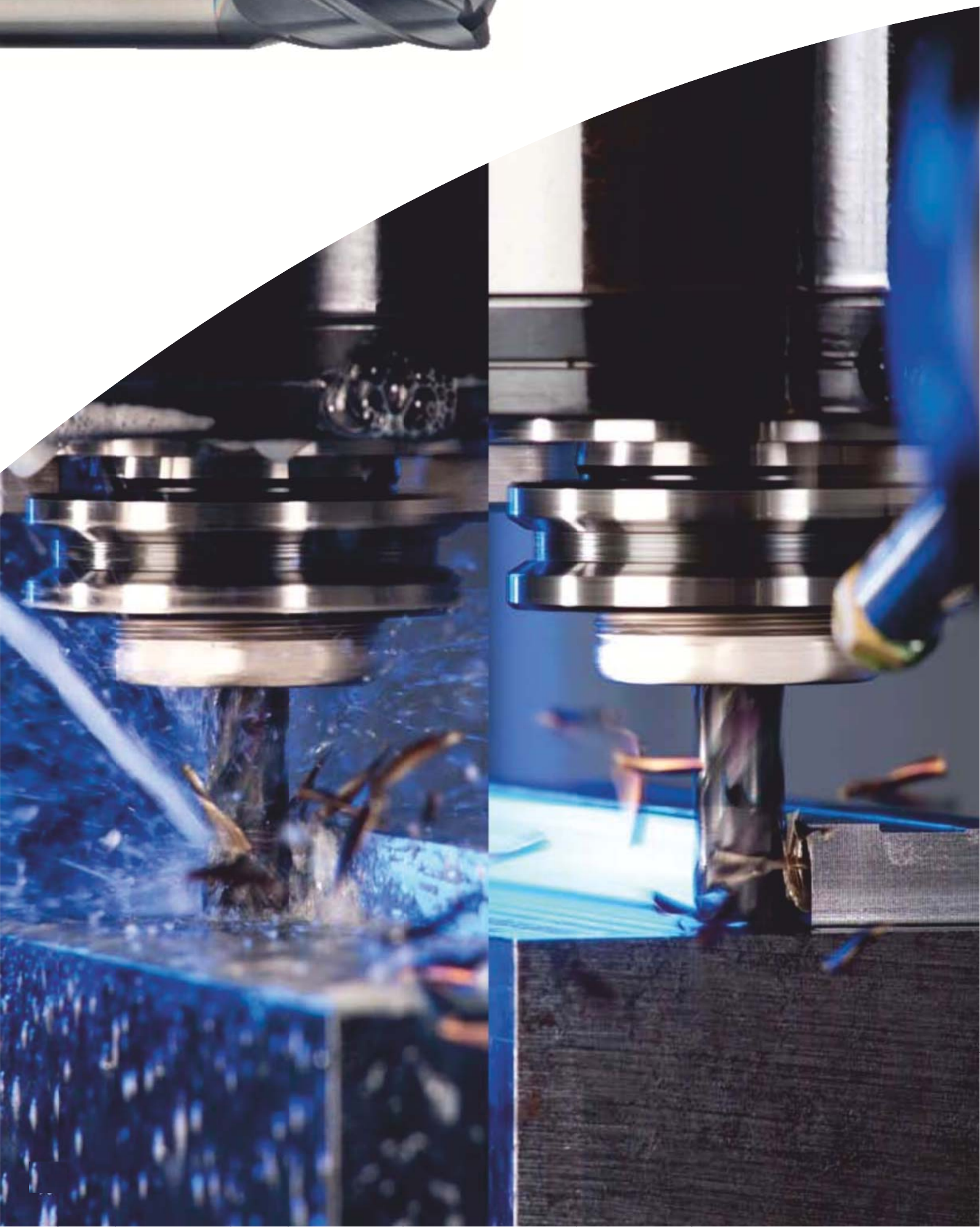
End Mills



Solid Carbide Cutters -INDEX

Part No.	Appearance	Flutes	Type	Page Spec.	Page Parameters
HN END MILL HRc 68					
TNB-HN2		2 Flutes	Taper Neck Ball Mills	01	97
SPE-HN2		2 Flutes	End Mills for 3D Cut 230°	07	98
SPE-HN4		4 Flutes	End Mills for 3D Cut 230°	08	98
SPH-HN4		4 Flutes	End Mills for 3D Cut 270°	09	98
SBN-HN2		2 Flutes	Short Length Ball Nose Mills	10	98
GBN-HN2		2 Flutes	Ball Nose Mills	11	98
GEM-HN4		4 Flutes	End Mills	12	99
LEM-HN4		4 Flutes	Long Length End Mills	13	99
HEM-HN4		4 Flutes	45° Helix End Mills	14	99
HEM-HN6&8		6 Flutes	Rib Corner Radius End Mills	15	100
REM-HN4		4 Flutes	Corner Radius End Mills	16	100
FN END MILL HRc 60					
RBN-FN2		2 Flutes	Rib Ball Mills	18	101
REM-FN2		2 Flutes	Rib End Mills	23	102
REM-FN4		4 Flutes	Rib End Mills	26	105
GBP-FN2		2 Flutes	Ultra Precision Ball End Mills	28	106
SBN-FN2		2 Flutes	Short Length Ball Mills	29	106
GBN-FN2		2 Flutes	Standard Length Ball Mills	30	106
GBN-FN4		4 Flutes	Standard Length Ball Mills	32	114
GEM-FN2		2 Flutes	Standard Length End Mills	33	107
SEM-FN4		4 Flutes	Short Length End Mills	36	108
GEM-FN4		4 Flutes	Standard Length End Mills	37	108

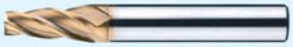
Solid Carbide Cutters -INDEX

Part No.	Appearance	Flutes	Type	Page Spec.	Page Parameters
FN END MILL HRc 60					
HEM-FN4		4 Flutes	45° Helix End Mills	39	109
HEM-FN6&8		6 Flutes	45° Helix End Mills	40	109
LER-FN2		2 Flutes	Long Neck C.Radius EM	41	110
GER-FN4		4 Flutes	Corner Radius End Mills	49	111
HER-FN4		4 Flutes	45° Helix C.Radius EM	52	112
HER-FN6		6 Flutes	45° Helix C.Radius EM	54	111
LEM-FN4		4 Flutes	Long Length End Mills	55	108
AA END MILL HRc 52					
GBN-AA2		2 Flutes	General Ball Mills	57	113
LSB-AA2		2 Flutes	Long Shank General Ball Mills	58	113
GBN-AA4		4 Flutes	General Ball Mills	58	114
LSB-AA4		4 Flutes	Long Shank General Ball Mills	59	114
RBN-AA2		2 Flutes	Rib Ball Mills	59	115
GEM-AA4		4 Flutes	General End Mills	60	115
LSE-AA4		4 Flutes	Long shank General End Mills	61	115
LFE-AA4		4 Flutes	Long Flutes General End Mills	61	115
GER-AA2&4		2&4 Flutes	Corner Radius End Mills	62	116
LSR-AA4		4 Flutes	Long Shank Corner Radius EM	63	116
REM-AA2&4		2&4 Flutes	Rib End Mills	64	117
HEM-AA4		4 Flutes	45° Helix End Mills	65	117
LEH-AA4		4 Flutes	45° Helix Long Flute End Mills	65	117
RFE-AA4		4 Flutes	Roughing End Mills	66	118

Solid Carbide Cutters -INDEX

Part No.	Appearance	Flutes	Type	Page Spec.	Page Parameters
EN END MILL HRc 40					
GBN-EN2		2 Flutes	General Ball Mills	67	119
LSB-EN2		2 Flutes	Long Shank General Ball Mills	68	119
GBN-EN4		4 Flutes	General Ball Mills	68	119
GEM-EN4		4 Flutes	General End Mills	69	119
LSE-EN4		4 Flutes	Long Shank General End Mills	70	119
ALUMINUM END MILL					
GBN-AL2		2 Flutes	General Ball Mills	71	120
LSB-AL2		2 Flutes	Long Shank General Ball Mills	72	120
GEM-AL2		2 Flutes	General End Mills	73	120
LSE-AL2		2 Flutes	Long Shank General End Mills	74	120
LFE-AL2		2 Flutes	Long Flutes General End Mills	74	120
STAINLESS STEEL END MILL					
GBN-SS4		4 Flutes	45^{0} Helix Ball Mills for SUS	75	121
GEM-SS3		3 Flutes	45^{0} Helix EM for Exotic Material & Alloy	76	121
SEM-SS4		4 Flutes	End Mills for SUS	77	122
SER-SS4		4 Flutes	Corner Radius End Mills for Exotic Material & Alloy	79	122
GRAPHITE END MILL					
LEG-SF2		2 Flutes	Long Shank End Mills	81	123
LEG-SF4		4 Flutes	Long Shank End Mills	82	123
LBG-SF2		2 Flutes	Shank Ball Mills	83	123
GBG-DC2		2 Flutes	Diamond Coating Ball Mills	85	123
GEG-DC2		2 Flutes	Diamond Coating End Mills	87	124

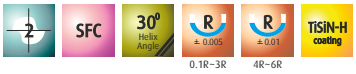
Solid Carbide Cutters -INDEX

Part No.	Appearance	Flutes	Type	Page Spec.	Page Parameters
GRAPHITE END MILL					
GEG-DC3		3 Flutes	Diamond Coating End Mills	88	124
GEG-DC4&6		4&6 Flutes	Diamond Coating End Mills	89	124
GENERAL PURPOSE END MILL					
TBN-FN2		2 Flutes	Taper Ball Mills	90	125
TEM-FN4		4 Flutes	Taper End Mills	92	125
STE-FN1		1 Flute	Straight Flute Taper End Mills	93	126
TSC-UC4		4 Flutes	T - Slot Cutter	94	126
TSC-FN4		4 Flutes	T-Slot Cutter	94	126
TSR-FN4		4 Flutes	T - R Slot Cutter	95	126
SCC		–	Spot & Chamfer Cutter	96	124

TNB-HN2 2 Flutes High Speed Taper Neck Ball Mills

brisloy

- Suitable for high hardened steels upto HRc65.
- High Performance tools due to short straight flutes and taper with middle length shank.
- 1.5 times faster than Rib End Mills.
- Superfine carbide with TiSiN-H coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RxD	θ	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
TNB002003015HN2	0.1RX0.2	0°30	0.2	1.5	40	4
TNB002003020HN2	0.1RX0.2	0°30	0.2	2	40	4
TNB002010015HN2	0.1RX0.2	1°	0.2	1.5	40	4
TNB002010020HN2	0.1RX0.2	1°	0.2	2	40	4
TNB002010025HN2	0.1RX0.2	1°	0.2	2.5	40	4
TNB002013015HN2	0.1RX0.2	1°30	0.2	1.5	40	4
TNB002013020HN2	0.1RX0.2	1°30	0.2	2	40	4
TNB002013025HN2	0.1RX0.2	1°30	0.2	2.5	40	4
TNB002020015HN2	0.1RX0.2	2°	0.2	1.5	40	4
TNB002020020HN2	0.1RX0.2	2°	0.2	2	40	4
TNB002020025HN2	0.1RX0.2	2°	0.2	2.5	40	4
TNB002030015HN2	0.1RX0.2	3°	0.2	1.5	40	4
TNB002030020HN2	0.1RX0.2	3°	0.2	2	40	4
TNB002030025HN2	0.1RX0.2	3°	0.2	2.5	40	4
TNB002050020HN2	0.1RX0.2	5°	0.2	2	40	4
TNB003003030HN2	0.15RX0.3	0°30	0.3	3	40	4
TNB003010020HN2	0.15RX0.3	1°	0.3	2	40	4
TNB003010030HN2	0.15RX0.3	1°	0.3	3	40	4
TNB003010040HN2	0.15RX0.3	1°	0.3	4	40	4
TNB003010050HN2	0.15RX0.3	1°	0.3	5	40	4
TNB003013020HN2	0.15RX0.3	1°30	0.3	2	40	4
TNB003013030HN2	0.15RX0.3	1°30	0.3	3	40	4
TNB003013040HN2	0.15RX0.3	1°30	0.3	4	40	4
TNB003013050HN2	0.15RX0.3	1°30	0.3	5	40	4
TNB003020020HN2	0.15RX0.3	2°	0.3	2	40	4
TNB003020030HN2	0.15RX0.3	2°	0.3	3	40	4
TNB003020040HN2	0.15RX0.3	2°	0.3	4	40	4
TNB003020050HN2	0.15RX0.3	2°	0.3	5	40	4
TNB003030020HN2	0.15RX0.3	3°	0.3	2	40	4
TNB003030030HN2	0.15RX0.3	3°	0.3	3	40	4
TNB003030040HN2	0.15RX0.3	3°	0.3	4	40	4
TNB003030050HN2	0.15RX0.3	3°	0.3	5	40	4
TNB003050050HN2	0.15RX0.3	5°	0.3	5	40	4
TNB004003020HN2	0.2RX0.4	0°30	0.4	2	40	4
TNB004003030HN2	0.2RX0.4	0°30	0.4	3	40	4
TNB004003040HN2	0.2RX0.4	0°30	0.4	4	40	4
TNB004003050HN2	0.2RX0.4	0°30	0.4	5	40	4
TNB004003060HN2	0.2RX0.4	0°30	0.4	6	40	4
TNB004010020HN2	0.2RX0.4	1°	0.4	2	40	4
TNB004010030HN2	0.2RX0.4	1°	0.4	3	40	4
TNB004010040HN2	0.2RX0.4	1°	0.4	4	40	4
TNB004010050HN2	0.2RX0.4	1°	0.4	5	40	4
TNB004010060HN2	0.2RX0.4	1°	0.4	6	40	4
TNB004013020HN2	0.2RX0.4	1°30	0.4	2	40	4

- Suitable for high hardened steels upto HRc65.
- High Performance tools due to short straight flutes and taper with middle length shank.
- 1.5 times faster than Rib End Mills.
- Superfine carbide with TiSiN-H coating.

Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RxD	θ	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
TNB004013030HN2	0.2RX0.4	1°30	0.4	3	40	4
TNB004013040HN2	0.2RX0.4	1°30	0.4	4	40	4
TNB004013050HN2	0.2RX0.4	1°30	0.4	5	40	4
TNB004013060HN2	0.2RX0.4	1°30	0.4	6	40	4
TNB004020020HN2	0.2RX0.4	2°	0.4	2	40	4
TNB004020030HN2	0.2RX0.4	2°	0.4	3	40	4
TNB004020040HN2	0.2RX0.4	2°	0.4	4	40	4
TNB004020050HN2	0.2RX0.4	2°	0.4	5	40	4
TNB004020060HN2	0.2RX0.4	2°	0.4	6	40	4
TNB005003040HN2	0.25RX0.5	0°30	0.5	4	45	4
TNB005003060HN2	0.25RX0.5	0°30	0.5	6	45	4
TNB005010040HN2	0.25RX0.5	1°	0.5	4	45	4
TNB005010060HN2	0.25RX0.5	1°	0.5	6	45	4
TNB005010080HN2	0.25RX0.5	1°	0.5	8	45	4
TNB005010100HN2	0.25RX0.5	1°	0.5	10	45	4
TNB005013040HN2	0.25RX0.5	1°30	0.5	4	45	4
TNB005013060HN2	0.25RX0.5	1°30	0.5	6	45	4
TNB005013080HN2	0.25RX0.5	1°30	0.5	8	45	4
TNB005013100HN2	0.25RX0.5	1°30	0.5	10	45	4
TNB005020040HN2	0.25RX0.5	2°	0.5	4	45	4
TNB005020060HN2	0.25RX0.5	2°	0.5	6	45	4
TNB005020080HN2	0.25RX0.5	2°	0.5	8	45	4
TNB005020100HN2	0.25RX0.5	2°	0.5	10	45	4
TNB005030080HN2	0.25RX0.5	3°	0.5	8	45	4
TNB005030120HN2	0.25RX0.5	3°	0.5	12	50	4
TNB006003040HN2	0.3RX0.6	0°30	0.6	4	45	4
TNB006003060HN2	0.3RX0.6	0°30	0.6	6	45	4
TNB006003080HN2	0.3RX0.6	0°30	0.6	8	45	4
TNB006010040HN2	0.3RX0.6	1°	0.6	4	45	4
TNB006010060HN2	0.3RX0.6	1°	0.6	6	45	4
TNB006010080HN2	0.3RX0.6	1°	0.6	8	45	4
TNB006010100HN2	0.3RX0.6	1°	0.6	10	45	4
TNB006010120HN2	0.3RX0.6	1°	0.6	12	50	4
TNB006010150HN2	0.3RX0.6	1°	0.6	15	50	4
TNB006013040HN2	0.3RX0.6	1°30	0.6	4	45	4
TNB006013060HN2	0.3RX0.6	1°30	0.6	6	45	4
TNB006013080HN2	0.3RX0.6	1°30	0.6	8	45	4
TNB006013100HN2	0.3RX0.6	1°30	0.6	10	45	4
TNB006013120HN2	0.3RX0.6	1°30	0.6	12	50	4
TNB006020060HN2	0.3RX0.6	2°	0.6	6	45	4
TNB006020080HN2	0.3RX0.6	2°	0.6	8	45	4
TNB006020100HN2	0.3RX0.6	2°	0.6	10	45	4
TNB006030130HN2	0.3RX0.6	3°	0.6	13	50	4
TNB008003040HN2	0.4RX0.8	0°30	0.8	4	45	4

TNB-HN2 2 Flutes High Speed Taper Neck Ball Mills

brisloy

- Suitable for high hardened steels upto HRc65.
- High Performance tools due to short straight flutes and taper with middle length shank.
- 1.5 times faster than Rib End Mills.
- Superfine carbide with TiSiN-H coating.

2 | SFC | 30° Helix Angle | R ±0.005 0.1R~3R | R ±0.01 4R~6R | TiSiN-H coating

Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RxD	θ	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
TNB008003060HN2	0.4RX0.8	0°30	0.8	6	45	4
TNB008003080HN2	0.4RX0.8	0°30	0.8	8	45	4
TNB008003100HN2	0.4RX0.8	0°30	0.8	10	45	4
TNB008003120HN2	0.4RX0.8	0°30	0.8	12	50	4
TNB008010040HN2	0.4RX0.8	1°	0.8	4	45	4
TNB008010060HN2	0.4RX0.8	1°	0.8	6	45	4
TNB008010080HN2	0.4RX0.8	1°	0.8	8	45	4
TNB008010100HN2	0.4RX0.8	1°	0.8	10	45	4
TNB008010120HN2	0.4RX0.8	1°	0.8	12	50	4
TNB008010160HN2	0.4RX0.8	1°	0.8	16	50	4
TNB008013040HN2	0.4RX0.8	1°30	0.8	4	45	4
TNB008013060HN2	0.4RX0.8	1°30	0.8	6	45	4
TNB008013080HN2	0.4RX0.8	1°30	0.8	8	45	4
TNB008013100HN2	0.4RX0.8	1°30	0.8	10	45	4
TNB008013120HN2	0.4RX0.8	1°30	0.8	12	50	4
TNB008013160HN2	0.4RX0.8	1°30	0.8	16	50	4
TNB008020080HN2	0.4RX0.8	2°	0.8	8	50	4
TNB008020100HN2	0.4RX0.8	2°	0.8	10	50	4
TNB008020120HN2	0.4RX0.8	2°	0.8	12	50	4
TNB008020160HN2	0.4RX0.8	2°	0.8	16	50	4
TNB008030080HN2	0.4RX0.8	3°	0.8	8	50	4
TNB008030120HN2	0.4RX0.8	3°	0.8	12	50	4
TNB008030160HN2	0.4RX0.8	3°	0.8	16	50	4
TNB010003060HN2	0.5RX1	0°30	1	6	50	4
TNB010003080HN2	0.5RX1	0°30	1	8	50	4
TNB010003100HN2	0.5RX1	0°30	1	10	50	4
TNB010003150HN2	0.5RX1	0°30	1	15	50	4
TNB010003200HN2	0.5RX1	0°30	1	20	60	4
TNB010003250HN2	0.5RX1	0°30	1	25	60	4
TNB010003300HN2	0.5RX1	0°30	1	30	70	4
TNB010010060HN2	0.5RX1	1°	1	6	50	4
TNB010010080HN2	0.5RX1	1°	1	8	50	4
TNB010010100HN2	0.5RX1	1°	1	10	50	4
TNB010010150HN2	0.5RX1	1°	1	15	50	4
TNB010010200HN2	0.5RX1	1°	1	20	50	4
TNB010010250HN2	0.5RX1	1°	1	25	60	4
TNB010010300HN2	0.5RX1	1°	1	30	70	4
TNB010010350HN2	0.5RX1	1°	1	35	75	4
TNB010013060HN2	0.5RX1	1°30	1	6	50	4
TNB010013080HN2	0.5RX1	1°30	1	8	50	4
TNB010013100HN2	0.5RX1	1°30	1	10	50	4
TNB010013150HN2	0.5RX1	1°30	1	15	50	4
TNB010013200HN2	0.5RX1	1°30	1	20	50	4
TNB010013250HN2	0.5RX1	1°30	1	25	60	4

- Suitable for high hardened steels upto HRc65.
- High Performance tools due to short straight flutes and taper with middle length shank.
- 1.5 times faster than Rib End Mills.
- Superfine carbide with TiSiN-H coating.

Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RxD	θ	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
TNB010013300HN2	0.5RX1	1°30	1	30	70	4
TNB010020150HN2	0.5RX1	2°	1	15	50	4
TNB010020200HN2	0.5RX1	2°	1	20	50	4
TNB010020250HN2	0.5RX1	2°	1	25	60	4
TNB010020300HN2	0.5RX1	2°	1	30	70	4
TNB010030200HN2	0.5RX1	3°	1	20	50	4
TNB010030300HN2	0.5RX1	3°	1	30	70	6
TNB010030400HN2	0.5RX1.0	3°	1	40	80	6
TNB010050230HN2	0.5RX1.0	5°	1	23	60	6
TNB012003080HN2	0.6RX1.2	0°30	1.2	8	50	4
TNB012003120HN2	0.6RX1.2	0°30	1.2	12	50	4
TNB012003180HN2	0.6RX1.2	0°30	1.2	18	50	4
TNB012003240HN2	0.6RX1.2	0°30	1.2	24	60	4
TNB012010080HN2	0.6RX1.2	1°	1.2	8	50	4
TNB012010120HN2	0.6RX1.2	1°	1.2	12	50	4
TNB012010180HN2	0.6RX1.2	1°	1.2	18	50	4
TNB012010240HN2	0.6RX1.2	1°	1.2	24	60	4
TNB012013080HN2	0.6RX1.2	1°30	1.2	8	50	4
TNB012013120HN2	0.6RX1.2	1°30	1.2	12	50	4
TNB012013180HN2	0.6RX1.2	1°30	1.2	18	50	4
TNB012013240HN2	0.6RX1.2	1°30	1.2	24	60	4
TNB012020080HN2	0.6RX1.2	2°	1.2	8	50	4
TNB012020120HN2	0.6RX1.2	2°	1.2	12	50	4
TNB012020180HN2	0.6RX1.2	2°	1.2	18	50	4
TNB012020240HN2	0.6RX1.2	2°	1.2	24	60	4
TNB015003080HN2	0.75RX1.5	0°30	1.5	8	50	4
TNB015003100HN2	0.75RX1.5	0°30	1.5	10	50	4
TNB015003120HN2	0.75RX1.5	0°30	1.5	12	50	4
TNB015003150HN2	0.75RX1.5	0°30	1.5	15	50	4
TNB015003200HN2	0.75RX1.5	0°30	1.5	20	60	4
TNB015003300HN2	0.75RX1.5	0°30	1.5	30	70	4
TNB015010080HN2	0.75RX1.5	1°	1.5	8	50	4
TNB015010100HN2	0.75RX1.5	1°	1.5	10	50	4
TNB015010120HN2	0.75RX1.5	1°	1.5	12	50	4
TNB015010150HN2	0.75RX1.5	1°	1.5	15	50	4
TNB015010200HN2	0.75RX1.5	1°	1.5	20	60	4
TNB015010250HN2	0.75RX1.5	1°	1.5	25	60	4
TNB015010300HN2	0.75RX1.5	1°	1.5	30	70	4
TNB015013080HN2	0.75RX1.5	1°30	1.5	8	50	4
TNB015013100HN2	0.75RX1.5	1°30	1.5	10	50	4
TNB015013120HN2	0.75RX1.5	1°30	1.5	12	50	4
TNB015013150HN2	0.75RX1.5	1°30	1.5	15	50	4
TNB015013200HN2	0.75RX1.5	1°30	1.5	20	60	4
TNB015013250HN2	0.75RX1.5	1°30	1.5	25	60	4

TNB-HN2 2 Flutes High Speed Taper Neck Ball Mills

brisloy

- Suitable for high hardened steels upto HRc65.
- High Performance tools due to short straight flutes and taper with middle length shank.
- 1.5 times faster than Rib End Mills.
- Superfine carbide with TiSiN-H coating.

Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RxD	θ	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
TNB015013300HN2	0.75RX1.5	1°30	1.5	30	70	4
TNB015020100HN2	0.75RX1.5	2°	1.5	10	50	4
TNB015020150HN2	0.75RX1.5	2°	1.5	15	50	4
TNB015020200HN2	0.75RX1.5	2°	1.5	20	60	4
TNB015020300HN2	0.75RX1.5	2°	1.5	30	70	4
TNB015030420HN2	0.75RX1.5	3°	1.5	42	80	6
TNB015050250HN2	0.75RX1.5	5°	1.5	25	70	6
TNB020003080HN2	1RX2	0°30	2	8	50	4
TNB020003120HN2	1RX2	0°30	2	12	50	4
TNB020003160HN2	1RX2	0°30	2	16	50	4
TNB020003200HN2	1RX2	0°30	2	20	60	4
TNB020003300HN2	1RX2	0°30	2	30	70	4
TNB020003400HN2	1RX2	0°30	2	40	80	4
TNB020010080HN2	1RX2	1°	2	8	50	4
TNB020010120HN2	1RX2	1°	2	12	50	4
TNB020010160HN2	1RX2	1°	2	16	50	4
TNB020010200HN2	1RX2	1°	2	20	60	4
TNB020010250HN2	1RX2	1°	2	25	60	4
TNB020010300HN2	1RX2	1°	2	30	70	4
TNB020010350HN2	1RX2	1°	2	35	75	4
TNB020010400HN2	1RX2	1°	2	40	80	4
TNB020010500HN2	1RX2	1°	2	50	90	4
TNB020013080HN2	1RX2	1°30	2	8	50	4
TNB020013120HN2	1RX2	1°30	2	12	50	4
TNB020013160HN2	1RX2	1°30	2	16	50	4
TNB020013200HN2	1RX2	1°30	2	20	90	4
TNB020013250HN2	1RX2	1°30	2	25	90	4
TNB020013300HN2	1RX2	1°30	2	30	70	4
TNB020013350HN2	1RX2	1°30	2	35	75	6
TNB020013400HN2	1RX2	1°30	2	40	80	6
TNB020013500HN2	1RX2	1°30	2	50	90	6
TNB020020300HN2	1RX2	2°	2	30	70	6
TNB020020400HN2	1RX2	2°	2	40	80	6
TNB020020500HN2	1RX2	2°	2	50	90	6
TNB020030300HN2	1RX2	3°	2	30	70	6
TNB020030400HN2	1RX2	3°	2	40	80	6
TNB020050250HN2	1RX2	5°	2	25	60	6
TNB020050380HN2	1RX2	5°	2	38	80	8
TNB030003160HN2	1.5RX3	0°30	3	16	60	6
TNB030003200HN2	1.5RX3	0°30	3	20	65	6
TNB030003300HN2	1.5RX3	0°30	3	30	70	6
TNB030003400HN2	1.5RX3	0°30	3	40	80	6
TNB030003500HN2	1.5RX3	0°30	3	50	90	6
TNB030010160HN2	1.5RX3	1°	3	16	60	6

- Suitable for high hardened steels upto HRc65.
- High Performance tools due to short straight flutes and taper with middle length shank.
- 1.5 times faster than Rib End Mills.
- Superfine carbide with TiSiN-H coating.

Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

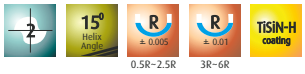
Unit:mm

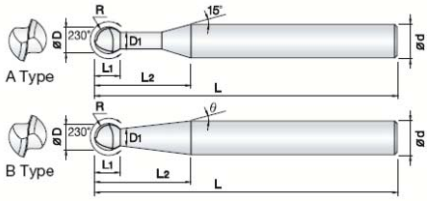
Part Number	Diameter RxD	θ	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
TNB030010200HN2	1.5RX3	1°	3	20	65	6
TNB030010300HN2	1.5RX3	1°	3	30	70	6
TNB030010400HN2	1.5RX3	1°	3	40	80	6
TNB030010500HN2	1.5RX3	1°	3	50	90	6
TNB030013160HN2	1.5RX3	1°30	3	16	60	6
TNB030013200HN2	1.5RX3	1°30	3	20	65	6
TNB030013300HN2	1.5RX3	1°30	3	30	70	6
TNB030013400HN2	1.5RX3	1°30	3	40	80	6
TNB030013500HN2	1.5RX3	1°30	3	50	90	6
TNB030020160HN2	1.5RX3	2°	3	16	60	6
TNB030020200HN2	1.5RX3	2°	3	20	65	6
TNB030020300HN2	1.5RX3	2°	3	30	70	6
TNB030020480HN2	1.5RX3	2°	3	48	90	6
TNB030030300HN2	1.5RX3	3°	3	30	70	6
TNB030030500HN2	1.5RX3	3°	3	50	90	8
TNB030050330HN2	1.5RX3	5°	3	33	90	8
TNB040003600HN2	2RX4	0°30	4	60	100	6
TNB040010500HN2	2RX4	1°	4	50	90	6
TNB040010600HN2	2RX4	1°	4	60	100	6
TNB040013450HN2	2RX4	1°30	4	45	90	6
TNB040013600HN2	2RX4	1°30	4	60	110	8
TNB040030250HN2	2RX4	3°	4	25	70	6
TNB040050290HN2	2RX4	5°	4	29	90	8
TNB050013400HN2	2.5RX5	1°30	5	40	90	8
TNB050013600HN2	2.5RX5	1°30	5	60	110	8
TNB050030400HN2	2.5RX5	3°	5	40	90	8
TNB060013490HN2	3RX6	1°30	9	49	110	8
TNB060020600HN2	3RX6	2°	9	60	110	10
TNB060030290HN2	3RX6	3°	9	29	90	8
TNB060050320HN2	3RX6	5°	9	32	110	10
TNB080013520HN2	4RX8	1°30	12	52	110	10
TNB080030330HN2	4RX8	3°	12	33	100	10
TNB100013540HN2	5RX10	1°30	18	54	130	12
TNB100030370HN2	5RX10	3°	15	37	110	12
TNB120013850HN2	6RX12	1°30	22	85	160	16
TNB120030630HN2	6RX12	3°	22	63	130	16

SPE-HN2 2 Flutes Spherical End Mills for 3D Cut 230°

brisloy

- Endmills for pre-hardened and hardened steel upto HRc62.
- Good wear resistance by Si-based PVD coating.
- 230° degree ball shape for wide range 3D machining.
- Minimize chattering and fracturing by taper and straight designed flute.
- Outstanding performance at high speed machining.



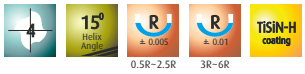


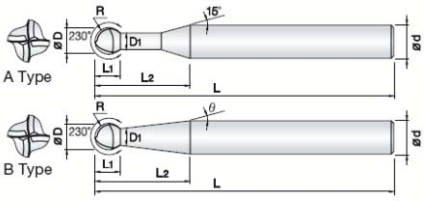
Size	D Tolerance
D≤Ø5	+0 ~ -0.01mm
D>Ø5	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RxD	Neck Diameter D1	Length of Cut L1	Effective Length L2	θ	Overall Length L	Type	Shank Dia d
SPE010091040HN2	0.5RX1	0.91	0.7	4	0°	60	A	6
SPE010091060HN2	0.5RX1	0.91	0.7	6	0°	60	A	6
SPE010091013HN2	0.5RX1	0.91	0.7	20	1°30	80	B	6
SPE015136060HN2	0.75RX1.5	1.36	1	6	0°	60	A	6
SPE015136080HN2	0.75RX1.5	1.36	1	8	0°	60	A	6
SPE015136013HN2	0.75RX1.5	1.36	1	20	1°30	80	B	6
SPE020180060HN2	1RX2	1.8	1.4	6	0°	60	A	6
SPE020180100HN2	1RX2	1.8	1.4	10	0°	60	A	6
SPE020180013HN2	1RX2	1.8	1.4	20	1°30	80	B	6
SPE030270100HN2	1.5RX3	2.7	2.1	10	0°	70	A	6
SPE030270150HN2	1.5RX3	2.7	2.1	15	0°	70	A	6
SPE030270013HN2	1.5RX3	2.7	2.1	30	1°30	80	B	6
SPE040360120HN2	2RX4	3.6	2.8	12	0°	70	A	6
SPE040360200HN2	2RX4	3.6	2.8	20	0°	70	A	6
SPE040360030HN2	2RX4	3.6	2.8	25	3°	80	B	6
SPE050450010HN2	2.5RX5	4.5	3.5	40	1°	90	B	6
SPE060540150HN2	3RX6	5.4	4.2	15	0°	90	A	6
SPE060540300HN2	3RX6	5.4	4.2	30	0°	90	A	6
SPE060540010HN2	3RX6	5.4	4.2	21	1°	100	B	6
SPE080720010HN2	4RX8	7.2	5.7	28	1°	100	B	8
SPE100900010HN2	5RX10	9	7.1	35	1°	110	B	10
SPE120108010HN2	6RX12	10.8	8.5	42	1°	120	B	12

- Endmills for pre-hardened and hardened steel upto HRc62.
- Good wear resistance by Si-based PVD coating.
- 230° degree ball shape for wide range 3D machining.
- Minimize chattering and fracturing by taper and straight designed flute.
- Outstanding performance at high speed machining.





Size	D Tolerance
D≤Ø5	+0 ~ -0.01mm
D>Ø5	+0 ~ -0.015mm

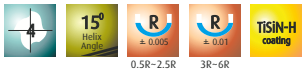
Unit:mm

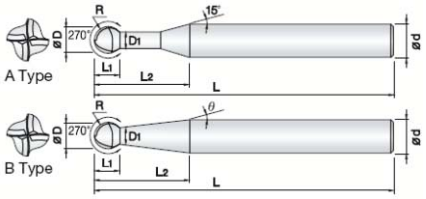
Part Number	Diameter RxD	Neck Diameter D1	Length of Cut L1	Effective Length L2	θ	Overall Length L	Type	Shank Dia d
SPE010091040HN4	0.5RX1	0.91	0.7	4	0°	60	A	6
SPE010091060HN4	0.5RX1	0.91	0.7	6	0°	60	A	6
SPE010091013HN4	0.5RX1	0.91	0.7	20	1°30	80	B	6
SPE015136060HN4	0.75RX1.5	1.36	1	6	0°	60	A	6
SPE015136080HN4	0.75RX1.5	1.36	1	8	0°	60	A	6
SPE015136013HN4	0.75RX1.5	1.36	1	20	1°30	80	B	6
SPE020180060HN4	1RX2	1.8	1.4	6	0°	60	A	6
SPE020180100HN4	1RX2	1.8	1.4	10	0°	60	A	6
SPE020180013HN4	1RX2	1.8	1.4	20	1°30	80	B	6
SPE030270100HN4	1.5RX3	2.7	2.1	10	0°	70	A	6
SPE030270150HN4	1.5RX3	2.7	2.1	15	0°	70	A	6
SPE030270013HN4	1.5RX3	2.7	2.1	30	1°30	80	B	6
SPE040360120HN4	2RX4	3.6	2.8	12	0°	70	A	6
SPE040360200HN4	2RX4	3.6	2.8	20	0°	70	A	6
SPE040360030HN4	2RX4	3.6	2.8	25	3°	80	B	6
SPE050450010HN4	2.5RX5	4.5	3.5	40	1°	90	B	6
SPE060540150HN4	3RX6	5.4	4.2	15	0°	90	A	6
SPE060540300HN4	3RX6	5.4	4.2	30	0°	90	A	6
SPE060540010HN4	3RX6	5.4	4.2	21	1°	100	B	6
SPE080720010HN4	4RX8	7.2	5.7	28	1°	100	B	8
SPE100900010HN4	5RX10	9	7.1	35	1°	110	B	10
SPE120108010HN4	6RX12	10.8	8.5	42	1°	120	B	12

SPH-HN4 4 Flutes Spherical End Mills for 3D Cut 270°

brisloy

- Endmills for pre-hardened and hardened steel upto HRc62.
- Good wear resistance by Si-based PVD coating.
- 270° degree ball shape for wide range 3D machining.
- Minimize chattering and fracturing by taper and straight designed flute.
- Outstanding performance at high speed machining.



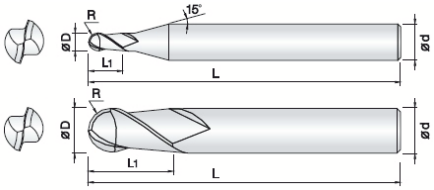


Size	D Tolerance
D≤Ø5	+0 ~ -0.01mm
D>Ø5	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RxD	Neck Diameter D1	Length of Cut L1	Effective Length L2	θ	Overall Length L	Type	Shank Dia d
SPH010040060HN4	0.5RX1	0.7	0.8	4	0°	60	A	6
SPH010060060HN4	0.5RX1	0.7	0.8	6	0°	60	A	6
SPH010013080HN4	0.5RX1	0.7	0.8	20	1°30	80	B	6
SPH015060060HN4	0.75RX1.5	1	1.2	6	0°	60	A	6
SPH015080060HN4	0.75RX1.5	1	1.2	8	0°	60	A	6
SPH015013080HN4	0.75RX1.5	1	1.2	20	1°30	80	B	6
SPH020060060HN4	1RX2	1.4	1.7	6	0°	60	A	6
SPH020100060HN4	1RX2	1.4	1.7	10	0°	60	A	6
SPH020013080HN4	1RX2	1.4	1.7	20	1°30	80	B	6
SPH030100070HN4	1.5RX3	2.1	2.5	10	0°	70	A	6
SPH030150070HN4	1.5RX3	2.1	2.5	15	0°	70	A	6
SPH030013080HN4	1.5RX3	2.1	2.5	30	1°30	80	B	6
SPH040120070HN4	2RX4	2.8	3.4	12	0°	70	A	6
SPH040200070HN4	2RX4	2.8	3.4	20	0°	70	A	6
SPH040030080HN4	2RX4	2.8	3.4	25	3°	80	B	6
SPH050010090HN4	2.5RX5	3.5	4.2	40	1°	90	B	6
SPH060150090HN4	3RX6	4.2	5.1	15	0°	90	A	6
SPH060300090HN4	3RX6	4.2	5.1	30	0°	90	A	6
SPH060010100HN4	3RX6	4.2	5.1	21	1°	100	B	6
SPH080010100HN4	4RX8	5.6	6.8	28	1°	100	B	8
SPH100010110HN4	5RX10	7	8.5	35	1°	110	B	10
SPH120010120HN4	6RX12	8.5	10	42	1°	120	B	12

- Ball Nose Mills for pre-hardened and hardened steel upto HRc68.
- Good wear resistance by Si-based PVD coating.
- High precise edge tolerance.
- Very nice work surface finish.
- Outstanding performance at high speed machining.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

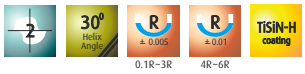
Unit:mm

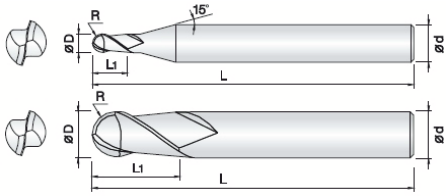
Part Number	Diameter RxD	Length of Cut L1	Overall Length L	Shank Dia d
SBN001001038HN2	0.05R X 0.1	0.1	38	4
SBN001D15038HN2	0.05R X 0.1	0.15	38	4
SBND15D15038HN2	0.075R X 0.15	0.15	38	4
SBND15002038HN2	0.075R X 0.15	0.2	38	4
SBN002002038HN2	0.1R X 0.2	0.2	38	4
SBN002003038HN2	0.1R X 0.2	0.3	38	4
SBN003003038HN2	0.15R X 0.3	0.3	38	4
SBN003045038HN2	0.15R X 0.3	0.45	38	4
SBN004004038HN2	0.2R X 0.4	0.4	38	4
SBN004006038HN2	0.2R X 0.4	0.6	38	4
SBN005005038HN2	0.25R X 0.5	0.5	38	4
SBN005075038HN2	0.25R X 0.5	0.75	38	4
SBN006006038HN2	0.3R X 0.6	0.6	38	4
SBN006009038HN2	0.3R X 0.6	0.9	38	4
SBN007007038HN2	0.35R X 0.7	0.7	38	4
SBN007010038HN2	0.35R X 0.7	1	38	4
SBN008008038HN2	0.4R X 0.8	0.8	38	4
SBN008012038HN2	0.4R X 0.8	1.2	38	4
SBN009009038HN2	0.45R X 0.9	0.9	38	4
SBN009013038HN2	0.45R X 0.9	1.3	38	4
SBN010010040HN2	0.5R X 1	1	40	4
SBN010010S06HN2	0.5R X 1	1	40	6
SBN010015040HN2	0.5R X 1	1.5	40	4
SBN010015S06HN2	0.5R X 1	1.5	40	6
SBN015015040HN2	0.75R X 1.5	1.5	40	4
SBN015015S06HN2	0.75R X 1.5	1.5	40	6
SBN015023040HN2	0.75R X 1.5	2.3	40	4
SBN015023S06HN2	0.75R X 1.5	2.3	40	6
SBN020020045HN2	1R X 2	2	45	4
SBN020020S06HN2	1R X 2	2	45	6
SBN020030045HN2	1R X 2	3	45	4
SBN020030S06HN2	1R X 2	3	45	6
SBN030030045HN2	1.5R X 3	3	45	4
SBN030030S06HN2	1.5R X 3	3	45	6
SBN030045045HN2	1.5R X 3	4.5	45	4
SBN030045S06HN2	1.5R X 3	4.5	45	6
SBN040040045HN2	2R X 4	4	45	4
SBN040040S06HN2	2R X 4	4	45	6
SBN040060045HN2	2R X 4	6	45	4
SBN040060S06HN2	2R X 4	6	45	6
SBN050050050HN2	2.5R X 5	5	50	6
SBN050075050HN2	2.5R X 5	7.5	50	6
SBN060060050HN2	3R X 6	6	50	6
SBN060080055HN2	3R X 6	8	55	6
SBN080080050HN2	4R X 8	8	50	8
SBN080110060HN2	4R X 8	11	60	8
SBN100100060HN2	5R X 10	10	60	10
SBN100130060HN2	5R X 10	13	60	10
SBN120120060HN2	6R X 12	12	60	12
SBN120150060HN2	6R X 12	15	60	12

GBN-HN2 2 Flutes Ball Nose Mills for Hardened Steels

brisloy

- Ball Nose Mills for pre-hardened and hardened steel upto HRc68.
- Good wear resistance by Si-based PVD coating.
- High precise edge tolerance.
- Very nice work surface finish.
- Outstanding performance at high speed machining.



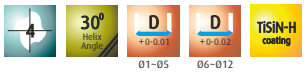


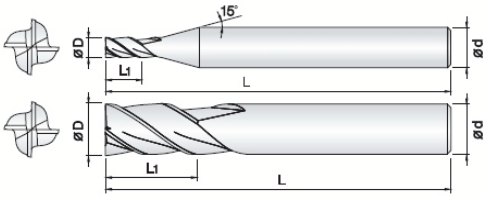
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RxD	Length of Cut L1	Overall Length L	Shank Dia d
GBN001002040HN2	0.05R X 0.1	0.2	40	4
GBND15003040HN2	0.075R X 0.15	0.3	40	4
GBN002004040HN2	0.1R X 0.2	0.4	40	4
GBN003006040HN2	0.15R X 0.3	0.6	40	4
GBN004008040HN2	0.2R X 0.4	0.8	40	4
GBN005010045HN2	0.25R X 0.5	1	45	4
GBN006012045HN2	0.3R X 0.6	1.2	45	4
GBN007015045HN2	0.35R X 0.7	1.5	45	4
GBN008020045HN2	0.4R X 0.8	2	45	4
GBN009020045HN2	0.45R X 0.9	2	45	4
GBN010025S04HN2	0.5R X 1	2.5	50	4
GBN010025050HN2	0.5R X 1	2.5	50	6
GBN010025070HN2	0.5R X 1	2.5	70	6
GBN012030050HN2	0.6R X 1.2	3	50	4
GBN015040S04HN2	0.75R X 1.5	4	50	4
GBN015040050HN2	0.75R X 1.5	4	50	6
GBN015040070HN2	0.75R X 1.5	4	70	6
GBN020050S04HN2	1R X 2	5	50	4
GBN020050050HN2	1R X 2	5	50	6
GBN020050075HN2	1R X 2	5	75	6
GBN025060050HN2	1.25R X 2.5	6	50	4
GBN025060075HN2	1.25R X 2.5	6	75	6
GBN030080050HN2	1.5R X 3	8	50	4
GBN030080060HN2	1.5R X 3	8	60	6
GBN030080080HN2	1.5R X 3	8	80	6
GBN035080060HN2	1.75R X 3.5	8	60	6
GBN040080060HN2	2R X 4	8	60	4
GBN040080080HN2	2R X 4	8	80	4
GBN040080070HN2	2R X 4	8	70	6
GBN040080090HN2	2R X 4	8	90	6
GBN050100075HN2	2.5R X 5	10	75	6
GBN060100060HN2	3R X 6	10	60	6
GBN060120090HN2	3R X 6	12	90	6
GBN080120060HN2	4R X 8	12	60	8
GBN080140100HN2	4R X 8	14	100	8
GBN100150070HN2	5R X 10	15	70	10
GBN100180100HN2	5R X 10	18	100	10
GBN120180075HN2	6R X 12	18	75	12
GBN120220110HN2	6R X 12	22	110	12

- Endmills for pre-hardened and hardened steel upto HRc65.
- Good wear resistance by Si-based PVD coating.
- High precise edge tolerance.
- Reinforced edge design for preventing edge chipping.
- Outstanding performance at high speed machining.





Size	D Tolerance
D≤Ø5	+0 ~ -0.01mm
D>Ø5	+0 ~ -0.02mm

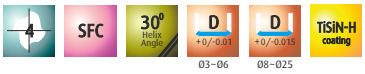
Unit:mm

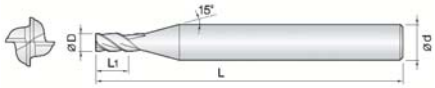
Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
GEM006012S04HN4	0.6	1.2	40	4
GEM008016S04HN4	0.8	1.6	40	4
GEM010025S04HN4	1	2.5	40	4
GEM010025S06HN4	1	2.5	40	6
GEM012030S04HN4	1.2	3	40	4
GEM015040S04HN4	1.5	4	40	4
GEM015040S06HN4	1.5	4	40	6
GEM020060S04HN4	2	6	40	4
GEM020060S06HN4	2	6	40	6
GEM025080S04HN4	2.5	8	45	4
GEM025080S06HN4	2.5	8	45	6
GEM030080S04HN4	3	8	45	4
GEM030080S06HN4	3	8	45	6
GEM035100S06HN4	3.5	10	45	6
GEM040110S04HN4	4	11	45	4
GEM040110S06HN4	4	11	45	6
GEM045110S06HN4	4.5	11	45	6
GEM050130S06HN4	5	13	50	6
GEM055130S06HN4	5.5	13	50	6
GEM060130S06HN4	6	13	50	6
GEM080190S08HN4	8	19	60	8
GEM100220S10HN4	10	22	70	10
GEM120260S12HN4	12	26	75	12

LEM-HN4 4 Flutes Long Length End Mills

brisloy

- Deep cutting with long flutes and long shank.
- Improved process efficiency for better surface finish.
- Superfine carbide with TiSiN-H coating.



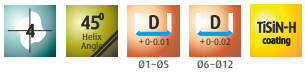


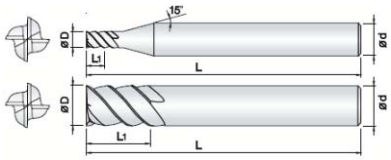
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
LEM010D08060HN4	1	3	60	6
LEM010001060HN4	1	5	60	6
LEM015D12060HN4	1.5	6	60	6
LEM015D15060HN4	1.5	8	60	6
LEM020D17060HN4	2	8	60	6
LEM020002060HN4	2	10	60	6
LEM030003070HN4	3	10	70	6
LEM030004070HN4	3	15	70	6
LEM030005070HN4	3	20	70	6
LEM030006070HN4	3	25	70	6
LEM040D07070HN4	4	12	70	6
LEM040008070HN4	4	15	70	4
LEM040009070HN4	4	15	70	6
LEM040010070HN4	4	20	70	4
LEM040010S06HN4	4	20	70	6
LEM040011070HN4	4	25	70	6
LEM040012075HN4	4	30	75	6
LEM050012070HN4	5	20	70	6
LEM050013075HN4	5	25	75	6
LEM050014080HN4	5	30	80	6
LEM060015075HN4	6	20	75	6
LEM060016100HN4	6	20	100	6
LEM060016075HN4	6	25	75	6
LEM060017080HN4	6	30	80	6
LEM060020080HN4	6	35	80	6
LEM080020075HN4	8	25	75	8
LEM080250100HN4	8	25	100	8
LEM080300080HN4	8	30	80	8
LEM080350090HN4	8	35	90	8
LEM080400090HN4	8	40	90	8
LEM080450100HN4	8	45	100	8
LEM100300080HN4	10	30	80	10
LEM100300110HN4	10	30	110	10
LEM100350090HN4	10	35	90	10
LEM100400090HN4	10	40	90	10
LEM100500100HN4	10	50	100	10
LEM100600110HN4	10	60	110	10
LEM120300090HN4	12	30	90	12
LEM120350110HN4	12	35	110	12
LEM120400100HN4	12	40	100	12
LEM120500100HN4	12	50	100	12
LEM120600110HN4	12	60	110	12
LEM120700130HN4	12	70	130	12
LEM140500110HN4	14	50	110	14
LEM160400160HN4	16	40	160	16
LEM160550120HN4	16	55	120	16
LEM160700130HN4	16	70	130	16
LEM200500160HN4	20	50	160	20
LEM200600130HN4	20	60	130	20
LEM200C00200HN4	20	100	200	20
LEM250750160HN4	25	75	160	25

- Endmills for pre-hardened and hardened steel upto HRc65.
- Good wear resistance by Si-based PVD coating.
- High precise edge tolerance.
- Reinforced edge design for preventing edge chipping.
- 45° degree helix design for high speed, feed condition.
- Outstanding performance at high speed machining.





Size	D Tolerance
D≤Ø5	+0 ~ -0.01mm
D>Ø5	+0 ~ -0.02mm

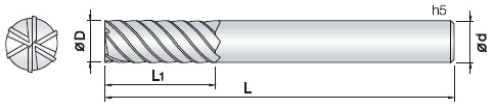
Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
HEM010015030HN4	1	1.5	40	6
HEM010025050HN4	1	2.5	40	6
HEM010035070HN4	1	3.5	40	6
HEM020030060HN4	2	3	40	6
HEM020050080HN4	2	5	40	6
HEM020080100HN4	2	8	40	6
HEM025060080HN4	2.5	6	45	6
HEM025080100HN4	2.5	8	45	6
HEM030060120HN4	3	6	45	6
HEM030080150HN4	3	8	45	6
HEM030120100HN4	3	12	50	6
HEM040080150HN4	4	8	45	6
HEM040110200HN4	4	11	45	6
HEM040150250HN4	4	15	55	6
HEM050100300HN4	5	10	50	6
HEM050130120HN4	5	13	50	6
HEM050200150HN4	5	20	60	6
HEM060130150HN4	6	13	50	6
HEM060150200HN4	6	15	55	6
HEM060200200HN4	6	20	60	6
HEM080200250HN4	8	20	60	8
HEM080250300HN4	8	25	70	8
HEM100220350HN4	10	22	70	10
HEM100300400HN4	10	30	80	10
HEM120260200HN4	12	26	75	12
HEM120350250HN4	12	35	90	12
HEM160350300HN4	16	35	90	16
HEM160500400HN4	16	50	110	16

HEM-HN6&8 6&8 Flutes 45° Helix End Mills for Hardened Steels

brisloy

- Endmills for pre-hardened and hardened steel upto HRc68.
- Good wear resistance by Si-based PVD coating.
- Precise run-out and tolerance for finish machining.
- Reinforced edge design for preventing edge chipping.
- 45° degree helix design for high speed, feed condition.
- Outstanding performance at high speed machining.

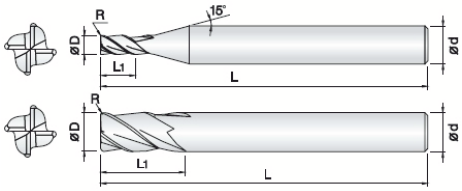


Size	D Tolerance
D≤Ø8	+0 ~ -0.02mm
D>Ø8	+0 ~ -0.03mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
HEM030100200HN6	3	10	50	6
HEM030150200HN6	3	15	50	6
HEM040120250HN6	4	12	50	6
HEM040160300HN6	4	16	50	6
HEM050150350HN6	5	15	50	6
HEM050200400HN6	5	20	60	6
HEM060150250HN6	6	15	50	6
HEM060200250HN6	6	20	60	6
HEM060250300HN6	6	25	65	6
HEM060300350HN6	6	30	70	6
HEM060350400HN6	6	35	75	6
HEM080200450HN6	8	20	60	8
HEM080250500HN6	8	25	65	8
HEM080300550HN6	8	30	75	8
HEM080350300HN6	8	35	80	8
HEM080400300HN6	8	40	90	8
HEM080450350HN6	8	45	100	8
HEM080500400HN6	8	50	100	8
HEM100250450HN6	10	25	70	10
HEM100350500HN6	10	35	90	10
HEM100450550HN6	10	45	100	10
HEM100500600HN6	10	50	100	10
HEM100600650HN6	10	60	110	10
HEM120300700HN6	12	30	80	12
HEM120400300HN6	12	40	90	12
HEM120500350HN6	12	50	100	12
HEM120600400HN6	12	60	110	12
HEM120700450HN6	12	70	120	12
HEM160350500HN6	16	35	90	16
HEM160500550HN6	16	50	110	16
HEM160650600HN6	16	65	120	16
HEM160800700HN6	16	80	150	16
HEM160900800HN6	16	90	160	16
HEM160C00500HN6	16	100	160	16
HEM200450400HN6	20	45	100	20
HEM200600550HN6	20	60	120	20
HEM200800700HN6	20	80	150	20
HEM200900900HN6	20	90	160	20
HEM200C00C00HN6	20	100	160	20
HEM200C10500HN6	20	110	170	20
HEM200C12600HN6	20	120	180	20
HEM250C00800HN8	25	100	160	25
HEM250C13C00HN8	25	130	200	25

- Endmills for pre-hardened and hardened steel upto HRc68.
- Good wear resistance by Si-based PVD coating.
- High precise edge tolerance.
- Designed for minimizing edge chipping by corner R shape.
- Various corner R and flute length for wide range application.
- Outstanding performance at high speed machining.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

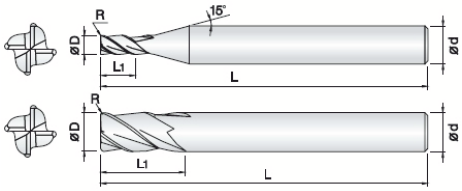
Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
REMD05010025HN4	1 X R0.05	2.5	45	4
REM001010025HN4	1 X R0.1	2.5	45	4
REM002010025HN4	1 X R0.2	2.5	45	4
REM003010025HN4	1 X R0.3	2.5	45	4
REMD05015040HN4	1.5 X R0.05	4	45	4
REM001015040HN4	1.5 X R0.1	4	45	4
REM002015040HN4	1.5 X R0.2	4	45	4
REM003015040HN4	1.5 X R0.3	4	45	4
REM005015040HN4	1.5 X R0.5	4	45	4
REMD05020060HN4	2 X R0.05	6	45	4
REM001020060HN4	2 X R0.1	6	45	4
REM002020060HN4	2 X R0.2	6	45	4
REM003020060HN4	2 X R0.3	6	45	4
REM005020060HN4	2 X R0.5	6	45	4
REM001025060HN4	2.5 X R0.1	6	50	4
REM002025060HN4	2.5 X R0.2	6	50	4
REM003025060HN4	2.5 X R0.3	6	50	4
REM005025060HN4	2.5 X R0.5	6	50	4
REM001030080HN4	3 X R0.1	8	60	6
REM002030080HN4	3 X R0.2	8	60	6
REM003030080HN4	3 X R0.3	8	60	6
REM005030080HN4	3 X R0.5	8	60	6
REM010030080HN4	3 X R1	8	60	6
REM001035090HN4	3.5 X R0.1	9	70	6
REM002035090HN4	3.5 X R0.2	9	70	6
REM003035090HN4	3.5 X R0.3	9	70	6
REM005035090HN4	3.5 X R0.5	9	70	6
REM001040090HN4	4 X R0.1	9	60	4
REM001040010HN4	4 X R0.1	10	70	6
REM002040090HN4	4 X R0.2	9	60	4
REM002040010HN4	4 X R0.2	10	70	6
REM003040090HN4	4 X R0.3	9	60	4
REM003040010HN4	4 X R0.3	10	70	6
REM005040090HN4	4 X R0.5	9	60	4
REM005040010HN4	4 X R0.5	10	70	6
REM010040090HN4	4 X R1	9	60	4
REM010040010HN4	4 X R1	10	70	6
REM002045011HN4	4.5 X R0.2	11	75	6
REM005045011HN4	4.5 X R0.5	11	75	6
REM001050013HN4	5 X R0.1	13	75	6
REM002050013HN4	5 X R0.2	13	75	6
REM003050013HN4	5 X R0.3	13	75	6
REM005050013HN4	5 X R0.5	13	75	6
REM010050013HN4	5 X R1	13	75	6
REM000506011HN4	6 X R0.05	11	55	6
REM000506013HN4	6 X R0.05	13	80	6
REM001060011HN4	6 X R0.1	11	55	6
REM001060013HN4	6 X R0.1	13	80	6

REM-HN4 4 Flutes Corner Radius End Mills for Hardened Steels

brisloy

- Endmills for pre-hardened and hardened steel upto HRc68.
- Good wear resistance by Si-based PVD coating.
- High precise edge tolerance.
- Designed for minimizing edge chipping by corner R shape.
- Various corner R and flute length for wide range application.
- Outstanding performance at high speed machining.

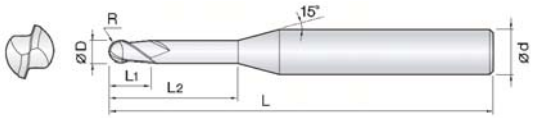


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
REM002060011HN4	6 X R0.2	11	55	6
REM002060013HN4	6 X R0.2	13	80	6
REM003060011HN4	6 X R0.3	11	55	6
REM003060013HN4	6 X R0.3	13	80	6
REM005060011HN4	6 X R0.5	11	55	6
REM005060013HN4	6 X R0.5	13	80	6
REM010060011HN4	6 X R1	11	55	6
REM010060013HN4	6 X R1	13	80	6
REM015060011HN4	6 X R1.5	11	55	6
REM015060013HN4	6 X R1.5	13	80	6
REM020060011HN4	6 X R2	11	55	6
REM020060013HN4	6 X R2	13	80	6
REM003080016HN4	8 X R0.3	16	60	8
REM003080019HN4	8 X R0.3	19	90	8
REM005080016HN4	8 X R0.5	16	60	8
REM005080019HN4	8 X R0.5	19	90	8
REM010080016HN4	8 X R1	16	60	8
REM010080019HN4	8 X R1	19	90	8
REM015080016HN4	8 X R1.5	16	60	8
REM015080019HN4	8 X R1.5	19	90	8
REM020080016HN4	8 X R2	16	60	8
REM020080019HN4	8 X R2	19	90	8
REM003100019HN4	10 X R0.3	19	70	10
REM003100022HN4	10 X R0.3	22	100	10
REM005100019HN4	10 X R0.5	19	70	10
REM005100022HN4	10 X R0.5	22	100	10
REM010100019HN4	10 X R1	19	70	10
REM010100022HN4	10 X R1	22	100	10
REM015100019HN4	10 X R1.5	19	70	10
REM015100022HN4	10 X R1.5	22	100	10
REM020100019HN4	10 X R2	19	70	10
REM020100022HN4	10 X R2	22	100	10
REM025100019HN4	10 X R2.5	19	70	10
REM025100022HN4	10 X R2.5	22	100	10
REM003120022HN4	12 X R0.3	22	75	12
REM003120026HN4	12 X R0.3	26	110	12
REM005120022HN4	12 X R0.5	22	75	12
REM005120026HN4	12 X R0.5	26	110	12
REM010120022HN4	12 X R1	22	75	12
REM010120026HN4	12 X R1	26	110	12
REM015120022HN4	12 X R1.5	22	75	12
REM015120026HN4	12 X R1.5	26	110	12
REM020120022HN4	12 X R2	22	75	12
REM020120026HN4	12 X R2	26	110	12
REM025120022HN4	12 X R2.5	22	75	12
REM025120026HN4	12 X R2.5	26	110	12
REM030120022HN4	12 X R3	22	75	12
REM030120026HN4	12 X R3	26	110	12

- Suitable for HRc62 and high hardened steels.
- Rib ball mills for high speed processing.
- Superfine carbide with TiSiN-F coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

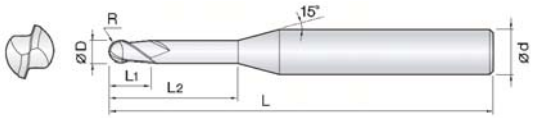
Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
RBN001003040FN2	0.05R X 0.1	0.3	-	40	4
RBN001005040FN2	0.05R X 0.1	0.5	-	40	4
RBN002005040FN2	0.1R X 0.2	0.2	0.5	40	4
RBN002010040FN2	0.1R X 0.2	0.2	1	40	4
RBN002015040FN2	0.1R X 0.2	0.2	1.5	40	4
RBN002020040FN2	0.1R X 0.2	0.2	2	40	4
RBN002025040FN2	0.1R X 0.2	0.2	2.5	40	4
RBN002030040FN2	0.1R X 0.2	0.2	3	40	4
RBN003010040FN2	0.15R X 0.3	0.3	1	40	4
RBN003015040FN2	0.15R X 0.3	0.3	1.5	40	4
RBN003020040FN2	0.15R X 0.3	0.3	2	40	4
RBN003025040FN2	0.15R X 0.3	0.3	2.5	40	4
RBN003030040FN2	0.15R X 0.3	0.3	3	40	4
RBN003035040FN2	0.15R X 0.3	0.3	3.5	40	4
RBN003040040FN2	0.15R X 0.3	0.3	4	40	4
RBN003050040FN2	0.15R X 0.3	0.3	5	40	4
RBN004010040FN2	0.2R X 0.4	0.4	1	40	4
RBN004015040FN2	0.2R X 0.4	0.4	1.5	40	4
RBN004020040FN2	0.2R X 0.4	0.4	2	40	4
RBN004025040FN2	0.2R X 0.4	0.4	2.5	40	4
RBN004030040FN2	0.2R X 0.4	0.4	3	40	4
RBN004035040FN2	0.2R X 0.4	0.4	3.5	40	4
RBN004040040FN2	0.2R X 0.4	0.4	4	40	4
RBN004045040FN2	0.2R X 0.4	0.4	4.5	40	4
RBN004050040FN2	0.2R X 0.4	0.4	5	40	4
RBN004060040FN2	0.2R X 0.4	0.4	6	40	4
RBN004080040FN2	0.2R X 0.4	0.4	8	40	4
RBN004100040FN2	0.2R X 0.4	0.4	10	40	4
RBN005010045FN2	0.25R X 0.5	0.5	1	45	4
RBN005015045FN2	0.25R X 0.5	0.5	1.5	45	4
RBN005020045FN2	0.25R X 0.5	0.5	2	45	4
RBN005025045FN2	0.25R X 0.5	0.5	2.5	45	4
RBN005030045FN2	0.25R X 0.5	0.5	3	45	4
RBN005035045FN2	0.25R X 0.5	0.5	3.5	45	4
RBN005040045FN2	0.25R X 0.5	0.5	4	45	4
RBN005045045FN2	0.25R X 0.5	0.5	4.5	45	4
RBN005050045FN2	0.25R X 0.5	0.5	5	45	4
RBN005060045FN2	0.25R X 0.5	0.5	6	45	4
RBN005080045FN2	0.25R X 0.5	0.5	8	45	4
RBN005100045FN2	0.25R X 0.5	0.5	10	45	4
RBN005120045FN2	0.25R X 0.5	0.5	12	45	4
RBN005140045FN2	0.25R X 0.5	0.5	14	45	4
RBN006010045FN2	0.3R X 0.6	0.6	1	45	4
RBN006020045FN2	0.3R X 0.6	0.6	2	45	4
RBN006030045FN2	0.3R X 0.6	0.6	3	45	4

RBN-FN2 2 Flutes High Speed Rib Ball Mills

brisloy

- Suitable for HRc62 and high hardened steels.
- Rib ball mills for high speed processing.
- Superfine carbide with TiSiN-F coating.

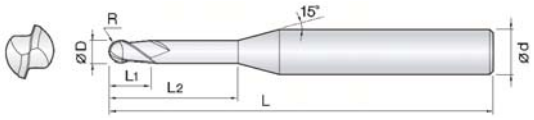


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
RBN006040045FN2	0.3R X 0.6	0.6	4	45	4
RBN006050045FN2	0.3R X 0.6	0.6	5	45	4
RBN006060045FN2	0.3R X 0.6	0.6	6	45	4
RBN006080045FN2	0.3R X 0.6	0.6	8	45	4
RBN006100045FN2	0.3R X 0.6	0.6	10	45	4
RBN006120045FN2	0.3R X 0.6	0.6	12	45	4
RBN006140045FN2	0.3R X 0.6	0.6	14	45	4
RBN006160045FN2	0.3R X 0.6	0.6	16	45	4
RBN007020045FN2	0.35R X 0.7	0.7	2	45	4
RBN007040045FN2	0.35R X 0.7	0.7	4	45	4
RBN007060045FN2	0.35R X 0.7	0.7	6	45	4
RBN007080045FN2	0.35R X 0.7	0.7	8	45	4
RBN007100045FN2	0.35R X 0.7	0.7	10	45	4
RBN007120045FN2	0.35R X 0.7	0.7	12	45	4
RBN008020045FN2	0.4R X 0.8	0.8	2	45	4
RBN008030045FN2	0.4R X 0.8	0.8	3	45	4
RBN008040045FN2	0.4R X 0.8	0.8	4	45	4
RBN008050045FN2	0.4R X 0.8	0.8	5	45	4
RBN008060045FN2	0.4R X 0.8	0.8	6	45	4
RBN008080045FN2	0.4R X 0.8	0.8	8	45	4
RBN008100045FN2	0.4R X 0.8	0.8	10	45	4
RBN008120045FN2	0.4R X 0.8	0.8	12	45	4
RBN008140045FN2	0.4R X 0.8	0.8	14	45	4
RBN008160045FN2	0.4R X 0.8	0.8	16	45	4
RBN009040045FN2	0.45R X 0.9	0.9	4	45	4
RBN010020045FN2	0.5R X 1	1	2	45	4
RBN010020050FN2	0.5R X 1	1	2	50	6
RBN010030045FN2	0.5R X 1	1	3	45	4
RBN010030050FN2	0.5R X 1	1	3	50	6
RBN010040045FN2	0.5R X 1	1	4	45	4
RBN010040050FN2	0.5R X 1	1	4	50	6
RBN010050045FN2	0.5R X 1	1	5	45	4
RBN010050050FN2	0.5R X 1	1	5	50	6
RBN010060045FN2	0.5R X 1	1	6	45	4
RBN010060050FN2	0.5R X 1	1	6	50	6
RBN010080045FN2	0.5R X 1	1	8	45	4
RBN010080050FN2	0.5R X 1	1	8	50	6
RBN010100050FN2	0.5R X 1	1	10	50	4
RBN010100S06FN2	0.5R X 1	1	10	50	6
RBN010120050FN2	0.5R X 1	1	12	50	4
RBN010120S06FN2	0.5R X 1	1	12	50	6
RBN010140050FN2	0.5R X 1	1	14	50	4
RBN010140S06FN2	0.5R X 1	1	14	50	6
RBN010160050FN2	0.5R X 1	1	16	50	4
RBN010160060FN2	0.5R X 1	1	16	60	6

- Suitable for HRc62 and high hardened steels.
- Rib ball mills for high speed processing.
- Superfine carbide with TiSiN-F coating.



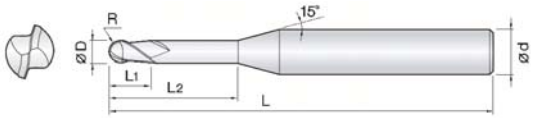
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
RBN010180050FN2	0.5R X 1	1	18	50	4
RBN010180060FN2	0.5R X 1	1	18	60	6
RBN010200050FN2	0.5R X 1	1	20	50	4
RBN010200060FN2	0.5R X 1	1	20	60	6
RBN010220060FN2	0.5R X 1	1	22	60	4
RBN010220065FN2	0.5R X 1	1	22	65	6
RBN010250060FN2	0.5R X 1	1	25	60	4
RBN010300070FN2	0.5R X 1	1	30	70	4
RBN012040045FN2	0.6R X 1.2	1.2	4	45	4
RBN012040050FN2	0.6R X 1.2	1.2	4	50	6
RBN012060045FN2	0.6R X 1.2	1.2	6	45	4
RBN012060S06FN2	0.6R X 1.2	1.2	6	50	6
RBN012080045FN2	0.6R X 1.2	1.2	8	45	4
RBN012080050FN2	0.6R X 1.2	1.2	8	50	6
RBN012100050FN2	0.6R X 1.2	1.2	10	50	4
RBN012100S06FN2	0.6R X 1.2	1.2	10	50	6
RBN012120050FN2	0.6R X 1.2	1.2	12	50	4
RBN012120S06FN2	0.6R X 1.2	1.2	12	50	6
RBN012160050FN2	0.6R X 1.2	1.2	16	50	4
RBN012160060FN2	0.6R X 1.2	1.2	16	60	6
RBN012200050FN2	0.6R X 1.2	1.2	20	50	4
RBN012200060FN2	0.6R X 1.2	1.2	20	60	6
RBN012240060FN2	0.6R X 1.2	1.2	24	60	4
RBN012240065FN2	0.6R X 1.2	1.2	24	65	6
RBN014060045FN2	0.7R X 1.4	1.4	6	45	4
RBN014080045FN2	0.7R X 1.4	1.4	8	45	4
RBN014120050FN2	0.7R X 1.4	1.4	12	50	4
RBN014160050FN2	0.7R X 1.4	1.4	16	50	4
RBN015030045FN2	0.75R X 1.5	1.5	3	45	4
RBN015030050FN2	0.75R X 1.5	1.5	3	50	6
RBN015040045FN2	0.75R X 1.5	1.5	4	45	4
RBN015040050FN2	0.75R X 1.5	1.5	4	50	6
RBN015060045FN2	0.75R X 1.5	1.5	6	45	4
RBN015060050FN2	0.75R X 1.5	1.5	6	50	6
RBN015080045FN2	0.75R X 1.5	1.5	8	45	4
RBN015080050FN2	0.75R X 1.5	1.5	8	50	6
RBN015100050FN2	0.75R X 1.5	1.5	10	50	4
RBN015100S06FN2	0.75R X 1.5	1.5	10	50	6
RBN015120050FN2	0.75R X 1.5	1.5	12	50	4
RBN015120S06FN2	0.75R X 1.5	1.5	12	50	6
RBN015140050FN2	0.75R X 1.5	1.5	14	50	4
RBN015140S06FN2	0.75R X 1.5	1.5	14	50	6
RBN015160050FN2	0.75R X 1.5	1.5	16	50	4
RBN015160060FN2	0.75R X 1.5	1.5	16	60	6
RBN015180050FN2	0.75R X 1.5	1.5	18	50	4

RBN-FN2 2 Flutes High Speed Rib Ball Mills

- Suitable for HRc62 and high hardened steels.
- Rib ball mills for high speed processing.
- Superfine carbide with TiSiN-F coating.

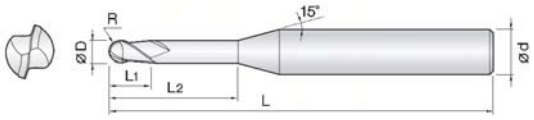


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
RBN015180060FN2	0.75R X 1.5	1.5	18	60	6
RBN015200050FN2	0.75R X 1.5	1.5	20	50	4
RBN015200060FN2	0.75R X 1.5	1.5	20	60	6
RBN015220060FN2	0.75R X 1.5	1.5	22	60	4
RBN015220065FN2	0.75R X 1.5	1.5	22	65	6
RBN015250060FN2	0.75R X 1.5	1.5	25	60	4
RBN015250065FN2	0.75R X 1.5	1.5	25	65	6
RBN015300070FN2	0.75R X 1.5	1.5	30	70	4
RBN015300S06FN2	0.75R X 1.5	1.5	30	70	6
RBN015350070FN2	0.75R X 1.5	1.5	35	70	4
RBN015400080FN2	0.75R X 1.5	1.5	40	80	4
RBN016060045FN2	0.8R X 1.6	1.6	6	45	4
RBN016080045FN2	0.8R X 1.6	1.6	8	45	4
RBN016120050FN2	0.8R X 1.6	1.6	12	50	4
RBN016160050FN2	0.8R X 1.6	1.6	16	50	4
RBN016200050FN2	0.8R X 1.6	1.6	20	50	4
RBN018060045FN2	0.9R X 1.8	1.8	6	45	4
RBN018080045FN2	0.9R X 1.8	1.8	8	45	4
RBN018120050FN2	0.9R X 1.8	1.8	12	50	4
RBN018160050FN2	0.9R X 1.8	1.8	16	50	4
RBN018200050FN2	0.9R X 1.8	1.8	20	50	4
RBN020040045FN2	1R X 2	2	4	45	4
RBN020040050FN2	1R X 2	2	4	50	6
RBN020060045FN2	1R X 2	2	6	45	4
RBN020060050FN2	1R X 2	2	6	50	6
RBN020080045FN2	1R X 2	2	8	45	4
RBN020080050FN2	1R X 2	2	8	50	6
RBN020100050FN2	1R X 2	2	10	50	4
RBN020100S06FN2	1R X 2	2	10	50	6
RBN020120050FN2	1R X 2	2	12	50	4
RBN020120S06FN2	1R X 2	2	12	50	6
RBN020140050FN2	1R X 2	2	14	50	4
RBN020140S06FN2	1R X 2	2	14	50	6
RBN020160050FN2	1R X 2	2	16	50	4
RBN020160060FN2	1R X 2	2	16	60	6
RBN020180050FN2	1R X 2	2	18	50	4
RBN020180060FN2	1R X 2	2	18	60	6
RBN020200050FN2	1R X 2	2	20	50	4
RBN020200060FN2	1R X 2	2	20	60	6
RBN020220060FN2	1R X 2	2	22	60	4
RBN020220065FN2	1R X 2	2	22	65	6
RBN020250060FN2	1R X 2	2	25	60	4
RBN020250065FN2	1R X 2	2	25	65	6
RBN020300070FN2	1R X 2	2	30	70	4
RBN020300S06FN2	1R X 2	2	30	70	6

- Suitable for HRc62 and high hardened steels.
- Rib ball mills for high speed processing.
- Superfine carbide with TiSiN-F coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

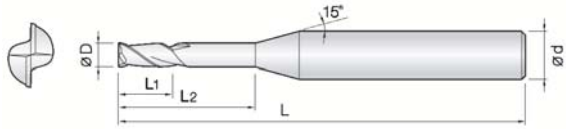
Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
RBN020350070FN2	1R X 2	2	35	70	4
RBN020350075FN2	1R X 2	2	35	75	6
RBN020400080FN2	1R X 2	2	40	80	4
RBN020400S06FN2	1R X 2	2	40	80	6
RBN020450080FN2	1R X 2	2	45	80	4
RBN020500090FN2	1R X 2	2	50	90	4
RBN025080045FN2	1.25R X 2.5	2.5	8	45	4
RBN025080050FN2	1.25R X 2.5	2.5	8	50	6
RBN025100050FN2	1.25R X 2.5	2.5	10	50	4
RBN025100S06FN2	1.25R X 2.5	2.5	10	50	6
RBN025120050FN2	1.25R X 2.5	2.5	12	50	4
RBN025120S06FN2	1.25R X 2.5	2.5	12	50	6
RBN025160050FN2	1.25R X 2.5	2.5	16	50	4
RBN025160060FN2	1.25R X 2.5	2.5	16	60	6
RBN025200060FN2	1.25R X 2.5	2.5	20	60	4
RBN025250060FN2	1.25R X 2.5	2.5	25	60	4
RBN025300070FN2	1.25R X 2.5	2.5	30	70	4
RBN025350070FN2	1.25R X 2.5	2.5	35	70	4
RBN025400080FN2	1.25R X 2.5	2.5	40	80	4
RBN030060050FN2	1.5R X 3	3	6	50	6
RBN030080050FN2	1.5R X 3	3	8	50	6
RBN030100050FN2	1.5R X 3	3	10	50	6
RBN030120050FN2	1.5R X 3	3	12	50	6
RBN030160060FN2	1.5R X 3	3	16	60	6
RBN030200060FN2	1.5R X 3	3	20	60	6
RBN030250065FN2	1.5R X 3	3	25	65	6
RBN030300070FN2	1.5R X 3	3	30	70	6
RBN030350075FN2	1.5R X 3	3	35	75	6
RBN030400080FN2	1.5R X 3	3	40	80	6
RBN030450090FN2	1.5R X 3	3	45	90	6
RBN030500100FN2	1.5R X 3	3	60	100	6
RBN030600100FN2	1.5R X 3	3	60	100	6
RBN030650110FN2	1.5R X 3	3	65	110	6
RBN030700110FN2	1.5R X 3	3	70	110	6

REM-FN2 2 Flutes High Speed Rib End Mills

brisloy

- Suitable for HRc58 and high hardened steels.
- Rib End mills for high speed processing.
- Superfine carbide with TiSiN-F coating.

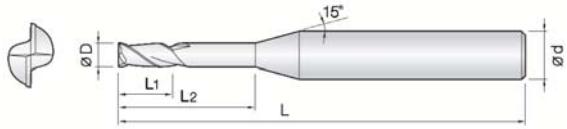


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
REM001003003FN2	0.1	0.3	-	40	4
REM001005005FN2	0.1	0.5	-	40	4
REM002002005FN2	0.2	0.2	0.5	40	4
REM002002010FN2	0.2	0.2	1	40	4
REM002002015FN2	0.2	0.2	1.5	40	4
REM002002020FN2	0.2	0.2	2	40	4
REM002002025FN2	0.2	0.2	2.5	40	4
REM002002030FN2	0.2	0.2	3	40	4
REM003003010FN2	0.3	0.3	1	40	4
REM003003015FN2	0.3	0.3	1.5	40	4
REM003003020FN2	0.3	0.3	2	40	4
REM003003025FN2	0.3	0.3	2.5	40	4
REM003003030FN2	0.3	0.3	3	40	4
REM003003035FN2	0.3	0.3	3.5	40	4
REM003003040FN2	0.3	0.3	4	40	4
REM003003050FN2	0.3	0.3	5	40	4
REM004004010FN2	0.4	0.4	1	40	4
REM004004015FN2	0.4	0.4	1.5	40	4
REM004004020FN2	0.4	0.4	2	40	4
REM004004025FN2	0.4	0.4	2.5	40	4
REM004004030FN2	0.4	0.4	3	40	4
REM004004035FN2	0.4	0.4	3.5	40	4
REM004004040FN2	0.4	0.4	4	40	4
REM004004050FN2	0.4	0.4	5	40	4
REM004004060FN2	0.4	0.4	6	40	4
REM004004080FN2	0.4	0.4	8	40	4
REM004004100FN2	0.4	0.4	10	40	4
REM005005010FN2	0.5	0.5	1	40	4
REM005005020FN2	0.5	0.5	2	40	4
REM005005030FN2	0.5	0.5	3	40	4
REM005005040FN2	0.5	0.5	4	40	4
REM005005050FN2	0.5	0.5	5	40	4
REM005005060FN2	0.5	0.5	6	40	4
REM005005080FN2	0.5	0.5	8	40	4
REM005005100FN2	0.5	0.5	10	40	4
REM005005120FN2	0.5	0.5	12	45	4
REM005005140FN2	0.5	0.5	14	45	4
REM006006010FN2	0.6	0.6	1	40	4
REM006006020FN2	0.6	0.6	2	40	4
REM006006030FN2	0.6	0.6	3	40	4
REM006006040FN2	0.6	0.6	4	40	4
REM006006050FN2	0.6	0.6	5	40	4
REM006006060FN2	0.6	0.6	6	40	4
REM006006080FN2	0.6	0.6	8	40	4
REM006006100FN2	0.6	0.6	10	40	4
REM006006120FN2	0.6	0.6	12	45	4
REM006006140FN2	0.6	0.6	14	45	4
REM006006160FN2	0.6	0.6	16	45	4
REM007007020FN2	0.7	0.7	2	40	4
REM007007040FN2	0.7	0.7	4	40	4
REM007007060FN2	0.7	0.7	6	40	4

- Suitable for HRc58 and high hardened steels.
- Rib End mills for high speed processing.
- Superfine carbide with TiSiN-F coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

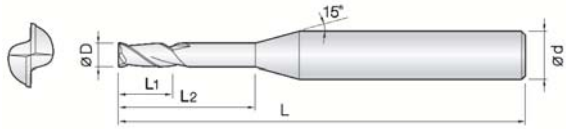
Unit:mm

Part Number	Diameter D	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
REM007007080FN2	0.7	0.7	8	40	4
REM007007100FN2	0.7	0.7	10	40	4
REM007007120FN2	0.7	0.7	12	45	4
REM008008020FN2	0.8	0.8	2	40	4
REM008008030FN2	0.8	0.8	3	40	4
REM008008040FN2	0.8	0.8	4	40	4
REM008008050FN2	0.8	0.8	5	40	4
REM008008060FN2	0.8	0.8	6	40	4
REM008008080FN2	0.8	0.8	8	40	4
REM008008100FN2	0.8	0.8	10	40	4
REM008008120FN2	0.8	0.8	12	45	4
REM008008140FN2	0.8	0.8	14	45	4
REM009009060FN2	0.9	0.9	6	40	4
REM009009080FN2	0.9	0.9	8	40	4
REM009009100FN2	0.9	0.9	10	40	4
REM010010020FN2	1	1	2	45	4
REM010010030FN2	1	1	3	45	4
REM010010040FN2	1	1	4	45	4
REM010010050FN2	1	1	5	45	4
REM010010060FN2	1	1	6	45	4
REM010010080FN2	1	1	8	45	4
REM010010100FN2	1	1	10	45	4
REM010010120FN2	1	1	12	45	4
REM010010140FN2	1	1	14	45	4
REM010010160FN2	1	1	16	50	4
REM010010180FN2	1	1	18	50	4
REM010010200FN2	1	1	20	50	4
REM010010250FN2	1	1	25	60	4
REM010010300FN2	1	1	30	70	4
REM012012040FN2	1.2	1.2	4	45	4
REM012012060FN2	1.2	1.2	6	45	4
REM012012080FN2	1.2	1.2	8	45	4
REM012012100FN2	1.2	1.2	10	45	4
REM012012120FN2	1.2	1.2	12	45	4
REM012012160FN2	1.2	1.2	16	50	4
REM012012200FN2	1.2	1.2	20	50	4
REM012012250FN2	1.2	1.2	25	60	4
REM012012300FN2	1.2	1.2	30	70	4
REM014014060FN2	1.4	1.4	6	45	4
REM014014080FN2	1.4	1.4	8	45	4
REM014014100FN2	1.4	1.4	10	45	4
REM014014140FN2	1.4	1.4	14	45	4
REM014014160FN2	1.4	1.4	16	50	4
REM014014200FN2	1.4	1.4	20	50	4
REM015015040FN2	1.5	1.5	4	45	4
REM015015060FN2	1.5	1.5	6	45	4
REM015015080FN2	1.5	1.5	8	45	4
REM015015100FN2	1.5	1.5	10	45	4
REM015015120FN2	1.5	1.5	12	45	4
REM015015140FN2	1.5	1.5	14	50	4

REM-FN2 2 Flutes High Speed Rib End Mills

brisloy

- Suitable for HRc58 and high hardened steels.
- Rib End mills for high speed processing.
- Superfine carbide with TiSiN-F coating.

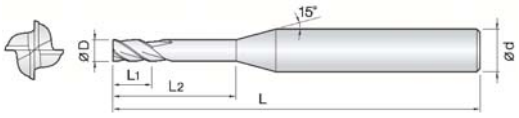


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
REM015015160FN2	1.5	1.5	16	50	4
REM015015180FN2	1.5	1.5	18	50	4
REM015015200FN2	1.5	1.5	20	50	4
REM015015250FN2	1.5	1.5	25	60	4
REM015015300FN2	1.5	1.5	30	70	4
REM016016100FN2	1.6	1.6	10	45	4
REM016016140FN2	1.6	1.6	14	45	4
REM016016180FN2	1.6	1.6	18	60	4
REM018018100FN2	1.8	1.8	10	45	4
REM018018140FN2	1.8	1.8	14	45	4
REM018018180FN2	1.8	1.8	18	50	4
REM020020040FN2	2	2	4	45	4
REM020020060FN2	2	2	6	45	4
REM020020080FN2	2	2	8	45	4
REM020020100FN2	2	2	10	45	4
REM020020120FN2	2	2	12	45	4
REM020020140FN2	2	2	14	45	4
REM020020160FN2	2	2	16	50	4
REM020020180FN2	2	2	18	50	4
REM020020200FN2	2	2	20	50	4
REM020020220FN2	2	2	22	60	4
REM020020250FN2	2	2	25	60	4
REM020020300FN2	2	2	30	60	4
REM020020350FN2	2	2	35	70	4
REM020020400FN2	2	2	40	80	4
REM020020450FN2	2	2	45	80	4
REM020020500FN2	2	2	50	90	4
REM025025080FN2	2.5	2.5	8	45	4
REM025025100FN2	2.5	2.5	10	45	4
REM025025120FN2	2.5	2.5	12	45	4
REM025025160FN2	2.5	2.5	16	50	4
REM025025200FN2	2.5	2.5	20	50	4
REM025025250FN2	2.5	2.5	25	60	4
REM025025300FN2	2.5	2.5	30	70	4
REM025025350FN2	2.5	2.5	35	70	4
REM025025400FN2	2.5	2.5	40	80	4
REM025025500FN2	2.5	2.5	50	90	4
REM030030060FN2	3	3	6	45	6
REM030030080FN2	3	3	8	45	6
REM030030100FN2	3	3	10	45	6
REM030030120FN2	3	3	12	50	6
REM030030160FN2	3	3	16	55	6
REM030030200FN2	3	3	20	60	6
REM030030250FN2	3	3	25	65	6
REM030030300FN2	3	3	30	70	6
REM030030350FN2	3	3	35	75	6
REM030030400FN2	3	3	40	80	6
REM030030450FN2	3	3	45	90	6
REM030030500FN2	3	3	50	100	6
REM030030600FN2	3	3	60	100	6

- Suitable for HRc62 and high hardened steels.
- Rib End mills for high speed processing.
- Superfine carbide with TiSiN-F coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

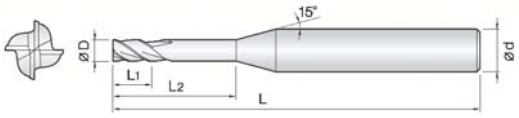
Unit:mm

Part Number	Diameter D	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
REM008009020FN4	0.8	0.8	2	45	4
REM008009040FN4	0.8	0.8	4	45	4
REM008009060FN4	0.8	0.8	6	45	4
REM008009080FN4	0.8	0.8	8	45	4
REM008009100FN4	0.8	0.8	10	45	4
REM008009120FN4	0.8	0.8	12	45	4
REM008009160FN4	0.8	0.8	16	50	4
REM009009020FN4	0.9	0.9	2	45	4
REM009009060FN4	0.9	0.9	6	45	4
REM009009080FN4	0.9	0.9	8	45	4
REM009009100FN4	0.9	0.9	10	45	4
REM010010020FN4	1	1	2	45	4
REM010010030FN4	1	1	3	45	4
REM010010040FN4	1	1	4	45	4
REM010010060FN4	1	1	6	45	4
REM010010080FN4	1	1	8	45	4
REM010010100FN4	1	1	10	45	4
REM010010120FN4	1	1	12	45	4
REM010010140FN4	1	1	14	50	4
REM010010160FN4	1	1	16	50	4
REM010010200FN4	1	1	20	50	4
REM010010250FN4	1	1	25	60	4
REM012012040FN4	1.2	1.2	4	45	4
REM012012060FN4	1.2	1.2	6	45	4
REM012012080FN4	1.2	1.2	8	45	4
REM012012100FN4	1.2	1.2	10	45	4
REM012012120FN4	1.2	1.2	12	45	4
REM012012160FN4	1.2	1.2	16	50	4
REM015015040FN4	1.5	1.5	4	45	4
REM015015060FN4	1.5	1.5	6	45	4
REM015015080FN4	1.5	1.5	8	45	4
REM015015100FN4	1.5	1.5	10	45	4
REM015015120FN4	1.5	1.5	12	45	4
REM015015160FN4	1.5	1.5	16	50	4
REM015015200FN4	1.5	1.5	20	50	4
REM015015250FN4	1.5	1.5	25	60	4
REM020020040FN4	2	2	4	45	4
REM020020060FN4	2	2	6	45	4
REM020020080FN4	2	2	8	45	4
REM020020100FN4	2	2	10	45	4
REM020020120FN4	2	2	12	45	4
REM020020140FN4	2	2	14	50	4
REM020020160FN4	2	2	16	50	4
REM020020180FN4	2	2	18	50	4
REM020020200FN4	2	2	20	50	4

REM-FN4 4 Flutes High Speed Rib End Mills

brisloy

- Suitable for HRc62 and high hardened steels.
- Rib End mills for high speed processing.
- Superfine carbide with TiSiN-F coating.

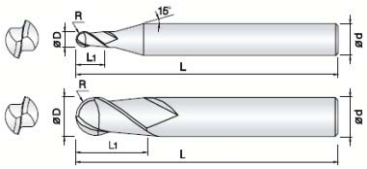


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
REM020020250FN4	2	2	25	60	4
REM020020300FN4	2	2	30	70	4
REM025025100FN4	2.5	2.5	10	45	4
REM025025120FN4	2.5	2.5	12	45	4
REM025025160FN4	2.5	2.5	16	50	4
REM025025200FN4	2.5	2.5	20	50	4
REM025025250FN4	2.5	2.5	25	60	4
REM025025300FN4	2.5	2.5	30	70	4
REM030030060FN4	3	3	6	45	6
REM030030080FN4	3	3	8	45	6
REM030030100FN4	3	3	10	45	6
REM030030120FN4	3	3	12	50	6
REM030030160FN4	3	3	16	55	6
REM030030200FN4	3	3	20	60	6
REM030030250FN4	3	3	25	65	6
REM030030300FN4	3	3	30	70	6
REM030030350FN4	3	3	35	75	6
REM030030400FN4	3	3	40	80	6

- Endmills for precise cutting (±2μm) of pre-hardened steel (HRc50~62).
- Good wear resistance by Si-based PVD coating.
- High precise edge tolerance.
- Very nice work surface finish.
- Outstanding performance at high speed machining.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

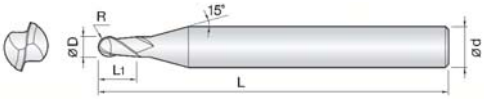
Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Overall Length L	Shank Dia d
GBP002004040FN2	0.1R X 0.2	0.4	40	4
GBP003006040FN2	0.15R X 0.3	0.6	40	4
GBP004008040FN2	0.2R X 0.4	0.8	40	4
GBP005010045FN2	0.25R X 0.5	1	45	4
GBP006012045FN2	0.3R X 0.6	1.2	45	4
GBP007015045FN2	0.35R X 0.7	1.5	45	4
GBP008020045FN2	0.4R X 0.8	2	45	4
GBP009020045FN2	0.45R X 0.9	2	45	4
GBP010025S04FN2	0.5R X 1	2.5	50	4
GBP010025050FN2	0.5R X 1	2.5	50	6
GBP012030050FN2	0.6R X 1.2	3	50	4
GBP015040S04FN2	0.75R X 1.5	4	50	4
GBP015040050FN2	0.75R X 1.5	4	50	6
GBP020050S04FN2	1R X 2	5	50	4
GBP020050050FN2	1R X 2	5	50	6
GBP025060050FN2	1.25R X 2.5	6	50	4
GBP030080050FN2	1.5R X 3	8	50	4
GBP030080060FN2	1.5R X 3	8	60	6
GBP035080060FN2	1.75R X 3.5	8	60	6
GBP040080060FN2	2R X 4	8	60	4
GBP040080070FN2	2R X 4	8	70	6
GBP045080070FN2	2.25R X 4.5	8	70	6
GBP050100075FN2	2.5R X 5	10	75	6
GBP055100075FN2	2.75R X 5.5	10	75	6
GBP060120080FN2	3R X 6	12	80	6
GBP070140080FN2	3.5R X 7	14	80	8
GBP080140090FN2	4R X 8	14	90	8
GBP100180100FN2	5R X 10	18	100	10
GBP120220110FN2	6R X 12	22	110	12

SBN-FN2 2 Flutes High Speed Short Length Ball Mills

brisley

- High speed End Mills suitable for HRc65 and high hardened steels.
- High performance tools due to short flutes.
- Superfine carbide with TiSiN-F coating.

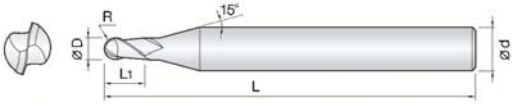


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Overall Length L	Shank Dia d
SBN001001038FN2	0.05R X 0.1	0.1	38	4
SBN001D15038FN2	0.05R X 0.1	0.15	38	4
SBN001D01038FN2	0.075R X 0.15	0.15	38	4
SBN001D02038FN2	0.075R X 0.15	0.2	38	4
SBN002002038FN2	0.1R X 0.2	0.2	38	4
SBN002003038FN2	0.1R X 0.2	0.3	38	4
SBN003003038FN2	0.15R X 0.3	0.3	38	4
SBN003D45038FN2	0.15R X 0.3	0.45	38	4
SBN004004038FN2	0.2R X 0.4	0.4	38	4
SBN004006038FN2	0.2R X 0.4	0.6	38	4
SBN005005038FN2	0.25R X 0.5	0.5	38	4
SBN005D75038FN2	0.25R X 0.5	0.75	38	4
SBN006006038FN2	0.3R X 0.6	0.6	38	4
SBN006009038FN2	0.3R X 0.6	0.9	38	4
SBN007007038FN2	0.35R X 0.7	0.7	38	4
SBN007010038FN2	0.35R X 0.7	1	38	4
SBN008008038FN2	0.4R X 0.8	0.8	38	4
SBN008012038FN2	0.4R X 0.8	1.2	38	4
SBN009009038FN2	0.45R X 0.9	0.9	38	4
SBN009013038FN2	0.45R X 0.9	1.3	38	4
SBN010010040FN2	0.5R X 1	1	40	4
SBN010010S06FN2	0.5R X 1	1	40	6
SBN010015040FN2	0.5R X 1	1.5	40	4
SBN010015S06FN2	0.5R X 1	1.5	40	6
SBN015015040FN2	0.75R X 1.5	1.5	40	4
SBN015015S06FN2	0.75R X 1.5	1.5	40	6
SBN015023040FN2	0.75R X 1.5	2.3	40	4
SBN015023S06FN2	0.75R X 1.5	2.3	40	6
SBN020020045FN2	1R X 2	2	45	4
SBN020020S06FN2	1R X 2	2	45	6
SBN020030045FN2	1R X 2	3	45	4
SBN020030S06FN2	1R X 2	3	45	6
SBN030030045FN2	1.5R X 3	3	45	4
SBN030030S06FN2	1.5R X 3	3	45	6
SBN030045045FN2	1.5R X 3	4.5	45	4
SBN030045S06FN2	1.5R X 3	4.5	45	6
SBN040040045FN2	2R X 4	4	45	4
SBN040040S06FN2	2R X 4	4	45	6
SBN040060045FN2	2R X 4	6	45	4
SBN040060S06FN2	2R X 4	6	45	6
SBN050050050FN2	2.5R X 5	5	50	6
SBN050075050FN2	2.5R X 5	7.5	50	6
SBN060060050FN2	3R X 6	6	50	6
SBN060060060FN2	3R X 6	6	60	6
SBN080080050FN2	4R X 8	8	50	8
SBN080080060FN2	4R X 8	8	60	8
SBN100100060FN2	5R X 10	10	60	10
SBN100100070FN2	5R X 10	10	70	10
SBN120120060FN2	6R X 12	12	60	12
SBN120120070FN2	6R X 12	12	70	12

- High speed Ball mills suitable for HRc62 and high hardened steels.
- Superfine carbide with TiSiN-F coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

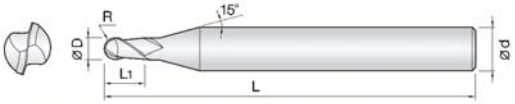
Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Overall Length L	Shank Dia d
GBND06001040FN2	0.03R X 0.06	0.1	40	4
GBND07D12040FN2	0.035R X 0.07	0.12	40	4
GBND08D15040FN2	0.04R X 0.08	0.15	40	4
GBND09D17040FN2	0.045R X 0.09	0.17	40	4
GBN001002040FN2	0.05R X 0.1	0.2	40	4
GBND15003040FN2	0.075R X 0.15	0.3	40	4
GBN002004040FN2	0.1R X 0.2	0.4	40	4
GBN003006040FN2	0.15R X 0.3	0.6	40	4
GBN004008040FN2	0.2R X 0.4	0.8	40	4
GBN005010045FN2	0.25R X 0.5	1	45	4
GBN006012045FN2	0.3R X 0.6	1.2	45	4
GBN007015045FN2	0.35R X 0.7	1.5	45	4
GBN008020045FN2	0.4R X 0.8	2	45	4
GBN009020045FN2	0.45R X 0.9	2	45	4
GBN010025S03FN2	0.5R X 1	2.5	50	3
GBN010025S04FN2	0.5R X 1	2.5	50	4
GBN010025050FN2	0.5R X 1	2.5	50	6
GBN010025070FN2	0.5R X 1	2.5	70	6
GBN010025100FN2	0.5R X 1	2.5	100	6
GBN011027050FN2	0.55R X 1.1	2.7	50	4
GBN012030S03FN2	0.6R X 1.2	3	50	3
GBN012030050FN2	0.6R X 1.2	3	50	4
GBN013032050FN2	0.65R X 1.3	3.2	50	4
GBN014035050FN2	0.7R X 1.4	3.5	50	4
GBN015040S03FN2	0.75R X 1.5	4	50	3
GBN015040S04FN2	0.75R X 1.5	4	50	4
GBN015040050FN2	0.75R X 1.5	4	50	6
GBN015040070FN2	0.75R X 1.5	4	70	6
GBN015040100FN2	0.75R X 1.5	4	100	6
GBN016040050FN2	0.8R X 1.6	4	50	4
GBN017042050FN2	0.85R X 1.7	4.2	50	4
GBN018045050FN2	0.9R X 1.8	4.5	50	4
GBN019047050FN2	0.95R X 1.9	4.7	50	4
GBN020050S03FN2	1R X 2	5	50	3
GBN020050S04FN2	1R X 2	5	50	4
GBN020050050FN2	1R X 2	5	50	6
GBN020050075FN2	1R X 2	5	75	6
GBN020050100FN2	1R X 2	5	100	6
GBN022055050FN2	1.1R X2.2	5.5	50	4
GBN024060050FN2	1.2R X2.4	6	50	4
GBN025060S03FN2	1.25R X 2.5	6	50	3
GBN025060050FN2	1.25R X 2.5	6	50	4
GBN025060075FN2	1.25R X 2.5	6	75	6
GBN025060100FN2	1.25R X 2.5	6	100	6
GBN026060050FN2	1.3R X 2.6	6	50	4
GBN028070050FN2	1.4R X 2.8	7	50	4
GBN030080S04FN2	1.5R X 3	8	60	3
GBN030080050FN2	1.5R X 3	8	50	4
GBN030080060FN2	1.5R X 3	8	60	6
GBN030080080FN2	1.5R X 3	8	80	6

GBN-FN2 2 Flutes High Speed Standard Length Ball Mills

brisloy

- High speed Ball mills suitable for HRc62 and high hardened steels.
- Superfine carbide with TiSiN-F coating.

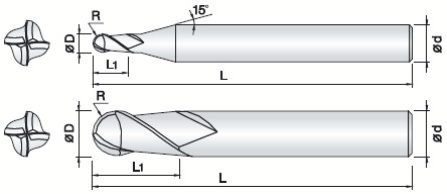


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Overall Length L	Shank Dia d
GBN030080100FN2	1.5R X 3	8	100	6
GBN032080060FN2	1.6R X 3.2	8	60	4
GBN034080060FN2	1.7R X 3.4	8	60	4
GBN035080060FN2	1.75R X 3.5	8	60	6
GBN036090060FN2	1.8R X 3.6	9	60	4
GBN038090060FN2	1.9R X 3.8	9	60	4
GBN040080060FN2	2R X 4	8	60	4
GBN040080080FN2	2R X 4	8	80	4
GBN040080070FN2	2R X 4	8	70	6
GBN040080090FN2	2R X 4	8	90	6
GBN040080120FN2	2R X 4	8	120	6
GBN042100070FN2	2.1R X 4.2	10	70	6
GBN044100070FN2	2.2R X 4.4	10	70	6
GBN045080070FN2	2.25R X 4.5	8	70	6
GBN046100070FN2	2.3R X 4.6	10	70	6
GBN048110070FN2	2.4R X 4.8	11	70	6
GBN050080080FN2	2.5R X 5	8	80	5
GBN050100075FN2	2.5R X 5	10	75	6
GBN052120075FN2	2.6R X 5.2	12	75	6
GBN054120075FN2	2.7R X 5.4	12	75	6
GBN055100075FN2	2.75R X 5.5	10	75	6
GBN056120075FN2	2.8R X 5.6	12	75	6
GBN058120075FN2	2.9R X 5.8	12	75	6
GBN060100060FN2	3R X 6	10	60	6
GBN060120080FN2	3R X 6	12	80	6
GBN060120100FN2	3R X 6	12	100	6
GBN060120120FN2	3R X 6	12	120	6
GBN060120150FN2	3R X 6	12	150	6
GBN070140080FN2	3.5R X 7	14	80	8
GBN080140090FN2	4R X 8	14	90	8
GBN080140110FN2	4R X 8	14	110	8
GBN080140150FN2	4R X 8	14	150	8
GBN090160100FN2	4.5R X 9	16	100	10
GBN100180100FN2	5R X 10	18	100	10
GBN100180120FN2	5R X 10	18	120	10
GBN100180150FN2	5R X 10	18	150	10
GBN100180180FN2	5R X 10	18	180	10
GBN110200110FN2	5.5R X 11	20	110	12
GBN120220110FN2	6R X 12	22	110	12
GBN120220130FN2	6R X 12	22	130	12
GBN120220150FN2	6R X 12	22	150	12
GBN120220200FN2	6R X 12	22	200	12
GBN130240110FN2	6.5R X 13	24	110	14
GBN140240110FN2	7R X 14	24	110	14
GBN160300130FN2	8R X 16	30	130	16
GBN160300160FN2	8R X 16	30	160	16
GBN160300200FN2	8R X 16	30	200	16
GBN200380160FN2	10R X 20	38	160	20
GBN200380200FN2	10R X 20	38	200	20

- Endmills for pre-hardened and hardened steel (HRc50~65).
- Good wear resistance by Si-based PVD coating.
- High precise edge tolerance.
- High speed, feed applicable by 4 flute ball edge.
- Outstanding performance at high speed machining.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

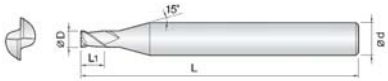
Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Overall Length L	Shank Dia d
GBN010025050FN4	0.5R X 1	2.5	50	6
GBN015040050FN4	0.75R X 1.5	4	50	6
GBN020050050FN4	1R X 2	5	50	6
GBN030080060FN4	1.5R X 3	8	60	6
GBN040080060FN4	2R X 4	8	60	4
GBN040080070FN4	2R X 4	8	70	6
GBN050100080FN4	2.5R X 5	10	80	6
GBN060120090FN4	3R X 6	12	90	6
GBN080140100FN4	4R X 8	14	100	8
GBN100180100FN4	5R X 10	18	100	10
GBN120220110FN4	6R X 12	22	110	12
GBN160300130FN4	8R X 16	30	130	16
GBN200400160FN4	10R X 20	40	160	20

GEM-FN2 2 Flutes High Speed Standard Length End Mills

brisloy

- Suitable for HRc58 and standard end mills.
- End mills for high speed.
- Superfine carbide with TiSiN-F coating.

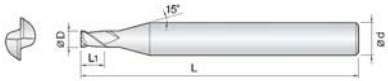


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
GEMD05000804FN2	0.05	0.08	38	4
GEM000600104FN2	0.06	0.1	38	4
GEMD07001204FN2	0.07	0.12	38	4
GEMD08001504FN2	0.08	0.15	38	4
GEMD09001704FN2	0.09	0.17	38	4
GEM001002S04FN2	0.1	0.2	38	4
GEM001500304FN2	0.15	0.3	38	4
GEM002004S04FN2	0.2	0.4	38	4
GEM002500504FN2	0.25	0.5	38	4
GEM003006S04FN2	0.3	0.6	38	4
GEMD35500704FN2	0.35	0.7	38	4
GEM004008S04FN2	0.4	0.8	38	4
GEM004500904FN2	0.45	0.9	38	4
GEM005010S03FN2	0.5	1	40	3
GEM005010S04FN2	0.5	1	38	4
GEM005501104FN2	0.55	1.1	38	4
GEM006012S03FN2	0.6	1.2	40	3
GEM006012S04FN2	0.6	1.2	38	4
GEM006501304FN2	0.65	1.3	38	4
GEM007014S04FN2	0.7	1.4	38	4
GEM007015S04FN2	0.75	1.5	38	4
GEM008016S03FN2	0.8	1.6	40	3
GEM008016S04FN2	0.8	1.6	38	4
GEM008501704FN2	0.85	1.7	38	4
GEM009020S04FN2	0.9	2	38	4
GEM009502004FN2	0.95	2	38	4
GEM010025S03FN2	1	2.5	40	3
GEM010025S04FN2	1	2.5	40	4
GEM010025S06FN2	1	2.5	40	6
GEM010025L06FN2	1	2.5	60	6
GEM010502504FN2	1.05	2.5	40	4
GEM011027S04FN2	1.1	2.7	40	4
GEM011502504FN2	1.15	2.5	40	4
GEM012030S03FN2	1.2	3	40	3
GEM012030S04FN2	1.2	3	40	4
GEM012030S06FN2	1.2	3	60	6
GEM012503004FN2	1.25	3	40	4
GEM013032S04FN2	1.3	3.2	40	4
GEM013503204FN2	1.35	3.2	40	4
GEM014035S04FN2	1.4	3.5	40	4
GEM014503504FN2	1.45	3.5	40	4
GEM015040S03FN2	1.5	4	40	3
GEM015040S04FN2	1.5	4	40	4
GEM015040S06FN2	1.5	4	40	6
GEM015040L06FN2	1.5	4	60	6

- Suitable for HRc58 and standard end mills.
- End mills for high speed.
- Superfine carbide with TiSiN-F coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

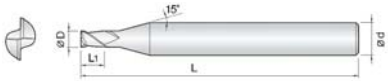
Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
GEM015504004FN2	1.55	4	40	4
GEM016040S04FN2	1.6	4	40	4
GEM016504004FN2	1.65	4	40	4
GEM017042S04FN2	1.7	4.2	40	4
GEM017504204FN2	1.75	4.2	40	4
GEM018045S04FN2	1.8	4.5	40	4
GEM018504504FN2	1.85	4.5	40	4
GEM019050S04FN2	1.9	5	40	4
GEM019505004FN2	1.95	5	40	4
GEM020060S03FN2	2	6	40	3
GEM020060S04FN2	2	6	40	4
GEM020060S06FN2	2	6	40	6
GEM020060L06FN2	2	6	60	6
GEM021060S04FN2	2.1	6	40	4
GEM022060S04FN2	2.2	6	40	4
GEM023060S04FN2	2.3	6	40	4
GEM024080S04FN2	2.4	8	45	4
GEM025080S03FN2	2.5	8	45	3
GEM025080S04FN2	2.5	8	45	4
GEM025080S06FN2	2.5	8	45	6
GEM025080L06FN2	2.5	8	70	6
GEM026080S04FN2	2.6	8	45	4
GEM027080S04FN2	2.7	8	45	4
GEM028080S04FN2	2.8	8	45	4
GEM029080S04FN2	2.9	8	45	4
GEM030080S03FN2	3	8	45	3
GEM030080S04FN2	3	8	45	4
GEM030080S06FN2	3	8	45	6
GEM030080L06FN2	3	8	70	6
GEM031080S06FN2	3.1	8	45	6
GEM032080S06FN2	3.2	8	45	6
GEM033080S06FN2	3.3	8	45	6
GEM034080S06FN2	3.4	8	45	6
GEM035100S06FN2	3.5	10	45	6
GEM036100S06FN2	3.6	10	45	6
GEM037100S06FN2	3.7	10	45	6
GEM038100S06FN2	3.8	10	45	6
GEM039100S06FN2	3.9	10	45	6
GEM040100S04FN2	4	11	45	4
GEM040110S06FN2	4	11	45	6
GEM040110L06FN2	4	11	70	6
GEM041110S06FN2	4.1	11	45	6
GEM042110S06FN2	4.2	11	45	6
GEM043110S06FN2	4.3	11	45	6
GEM044110S06FN2	4.4	11	45	6

GEM-FN2 2 Flutes High Speed Standard Length End Mills

brisloy

- Suitable for HRc58 and standard end mills.
- End mills for high speed.
- Superfine carbide with TiSiN-F coating.

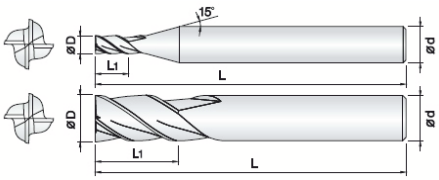


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
GEM045110S06FN2	4.5	11	45	6
GEM046110S06FN2	4.6	11	45	6
GEM047110S06FN2	4.7	11	45	6
GEM048110S06FN2	4.8	11	45	6
GEM049110S06FN2	4.9	11	45	6
GEM050130S06FN2	5	13	80	6
GEM051130S06FN2	5.1	13	50	6
GEM052130S06FN2	5.2	13	50	6
GEM053130S06FN2	5.3	13	50	6
GEM054130S06FN2	5.4	13	50	6
GEM055130S06FN2	5.5	13	50	6
GEM056130S06FN2	5.6	13	50	6
GEM057130S06FN2	5.7	13	50	6
GEM058130S06FN2	5.8	13	50	6
GEM059130S06FN2	5.9	13	50	6
GEM060130S06FN2	6	13	50	6
GEM060130L06FN2	6	13	80	6
GEM061150S08FN2	6.1	15	70	8
GEM062150S08FN2	6.2	15	70	8
GEM063150S08FN2	6.3	15	70	8
GEM064150S08FN2	6.4	15	70	8
GEM065160S08FN2	6.5	16	60	8
GEM070160S08FN2	7	16	60	8
GEM075160S08FN2	7.5	16	60	8
GEM080190S08FN2	8	19	60	8
GEM085190S10FN2	8.5	19	70	10
GEM090190S10FN2	9	19	70	10
GEM095190S10FN2	9.5	19	70	10
GEM100220S10FN2	10	22	70	10
GEM105220S12FN2	10.5	22	75	12
GEM110220S12FN2	11	22	75	12
GEM115220S12FN2	11.5	22	75	12
GEM120260S12FN2	12	26	75	12
GEM130260S14FN2	13	26	80	14
GEM140260S14FN2	14	26	80	14
GEM140260S16FN2	14	26	90	16
GEM150350S16FN2	15	35	100	16
GEM160350S16FN2	16	35	100	16
GEM170350S18FN2	17	35	100	18
GEM180350S18FN2	18	35	100	18
GEM200400S20FN2	20	40	100	20

- Endmills for pre-hardened and hardened steel (HRc50~).
- Good wear resistance by Si-based PVD coating.
- Optimum for heavy condition by short flute design.
- Reinforced edge design for preventing edge chipping.
- Short overall length for easy use with shrinking chuck.
- Outstanding performance at high speed machining.



Size	D Tolerance
D≤Ø5	+0 ~ -0.01mm
D>Ø5	+0 ~ -0.02mm

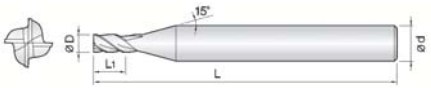
Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
SEM005D75038FN4	0.5	0.75	38	4
SEM006009038FN4	0.6	0.9	38	4
SEM008012038FN4	0.8	1.2	38	4
SEM010015040FN4	1	1.5	40	4
SEM012020040FN4	1.2	2	40	4
SEM015022040FN4	1.5	2.2	40	4
SEM020035040FN4	2	3.5	40	4
SEM020035S06FN4	2	3.5	40	6
SEM030045040FN4	3	4.5	40	4
SEM030045S06FN4	3	4.5	40	6
SEM040060040FN4	4	6	40	4
SEM040060S06FN4	4	6	40	6
SEM050075045FN4	5	7.5	45	6
SEM060090045FN4	6	9	45	6
SEM080120055FN4	8	12	55	8
SEM100150060FN4	10	15	60	10
SEM120180065FN4	12	18	65	12
SEM160240075FN4	16	24	75	16

GEM-FN4 4 Flutes High Speed Standard Length End Mills

brisley

- High speed Endmills suitable for HRc62 and high hardened steels.
- High speed perform tool with outstanding discharge of chips.
- Superfine carbide with TiSiN-F coating.

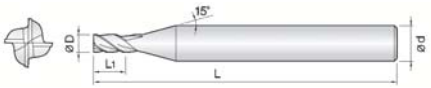


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
GEM005040S04FN4	0.5	1	38	4
GEM006060S04FN4	0.6	1.2	38	4
GEM007060S04FN4	0.7	1.4	38	4
GEM008060S04FN4	0.8	2	38	4
GEM009060S04FN4	0.9	1.8	38	4
GEM010060S03FN4	1	2.5	40	3
GEM010080S04FN4	1	2.5	40	4
GEM010080S06FN4	1	2.5	40	6
GEM010080L06FN4	1	2.5	60	6
GEM010080X06FN4	1	2.5	80	6
GEM012080S03FN4	1.2	3	40	3
GEM012080S04FN4	1.2	3	40	4
GEM012080S06FN4	1.2	3	40	6
GEM012080L06FN4	1.2	3	60	6
GEM015080S03FN4	1.5	4	40	3
GEM015080S04FN4	1.5	4	40	4
GEM015100S06FN4	1.5	4	40	6
GEM015110S06FN4	1.5	4	60	6
GEM015110L06FN4	1.5	4	80	6
GEM020110S03FN4	2	6	40	3
GEM020110S04FN4	2	6	40	4
GEM020110S06FN4	2	6	40	6
GEM020130S06FN4	2	6	60	6
GEM020130L06FN4	2	6	100	6
GEM025130S03FN4	2.5	8	45	3
GEM025130S04FN4	2.5	8	45	4
GEM025130S06FN4	2.5	8	45	6
GEM025130L06FN4	2.5	8	70	6
GEM025130X06FN4	2.5	8	100	6
GEM030160S03FN4	3	8	45	3
GEM030160S04FN4	3	8	45	4
GEM030160S06FN4	3	8	45	6
GEM030190S06FN4	3	8	70	6
GEM030190L06FN4	3	8	100	6
GEM035190S06FN4	3.5	10	45	6
GEM040190S04FN4	4	11	45	4
GEM040220S06FN4	4	11	45	6

- High speed Endmills suitable for HRc62 and high hardened steels.
- High speed perform tool with outstanding discharge of chips.
- Superfine carbide with TiSiN-F coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

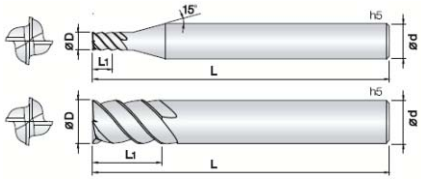
Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
GEM040220L06FN4	4	11	70	6
GEM040220X06FN4	4	11	100	6
GEM045220S06FN4	4.5	11	45	6
GEM050260S06FN4	5	13	50	6
GEM050260L06FN4	5	13	80	6
GEM050260X06FN4	5	13	100	6
GEM055260S06FN4	5.5	13	50	6
GEM060350S06FN4	6	13	50	6
GEM060350L06FN4	6	13	80	6
GEM060350X06FN4	6	13	100	6
GEM065350S08FN4	6.5	16	60	8
GEM070400S08FN4	7	16	60	8
GEM075020S08FN4	7.5	16	60	8
GEM080190S08FN4	8	19	60	8
GEM085190S10FN4	8.5	19	70	10
GEM090190S10FN4	9	19	70	10
GEM095190S10FN4	9.5	19	70	10
GEM100220S10FN4	10	22	70	10
GEM105220S12FN4	10.5	22	75	12
GEM110220S12FN4	11	22	75	12
GEM115220S12FN4	11.5	22	75	12
GEM120260S12FN4	12	26	75	12
GEM130260S14FN4	13	26	80	14
GEM140260S14FN4	14	26	80	14
GEM140260S16FN4	14	26	90	16
GEM150350S16FN4	15	35	100	16
GEM160350S16FN4	16	35	100	16
GEM170350S18FN4	17	35	100	18
GEM180350S18FN4	18	35	100	18
GEM200400S20FN4	20	40	100	20

HEM-FN4 4 Flutes High Speed 45° Helix End Mills

brisloy

- High speed Endmills suitable for HRc62 and high hardened steels.
- Appearance high helix for easy evacuation of chips.
- Superfine carbide with TiSiN-F coating.

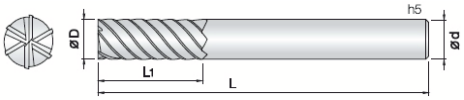


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
HEM010025S06FN4	1	2.5	40	6
HEM010035S06FN4	1	3.5	40	6
HEM010050S06FN4	1	5	45	6
HEM012030S06FN4	1.2	3	40	6
HEM015040S06FN4	1.5	4	40	6
HEM015060S06FN4	1.5	6	40	6
HEM015080S06FN4	1.5	8	45	6
HEM020050S06FN4	2	5	40	6
HEM020080S06FN4	2	8	45	6
HEM020100S06FN4	2	10	50	6
HEM030080S06FN4	3	8	45	6
HEM030120S06FN4	3	12	50	6
HEM030150S06FN4	3	15	55	6
HEM040110S06FN4	4	11	45	6
HEM040160S06FN4	4	16	55	6
HEM040200S06FN4	4	20	60	6
HEM050130S06FN4	5	13	50	6
HEM050180S06FN4	5	18	60	6
HEM050250S06FN4	5	25	70	6
HEM060130S06FN4	6	13	50	6
HEM060200S06FN4	6	20	60	6
HEM060250S06FN4	6	25	70	6
HEM080200S08FN4	8	20	60	8
HEM080250S08FN4	8	25	70	8
HEM080300S08FN4	8	30	75	8
HEM080400S08FN4	8	40	90	8
HEM100220S10FN4	10	22	70	10
HEM100300S10FN4	10	30	80	10
HEM100400S10FN4	10	40	90	10
HEM100500S10FN4	10	50	100	10
HEM120260S12FN4	12	26	75	12
HEM120400S12FN4	12	40	90	12
HEM120500S12FN4	12	50	100	12
HEM120600S12FN4	12	60	110	12
HEM140300S14FN4	14	30	80	14
HEM140500S14FN4	14	50	110	14
HEM160350S16FN4	16	35	90	16
HEM160500S16FN4	16	50	110	16
HEM160650S16FN4	16	65	120	16
HEM200400S20FN4	20	40	100	20
HEM200500S20FN4	20	50	110	20
HEM200700S20FN4	20	70	130	20
HEM250800S25FN4	25	80	160	25

- High speed Endmills exclusive for high hardened steels.
- The optimum performance at high speed with appearance of 45° helix.
- Superfine carbide with TiSiN-F coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

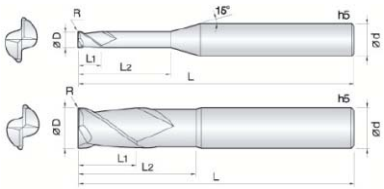
Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
HEM030100S06FN6	3	10	50	6
HEM030150S06FN6	3	15	50	6
HEM040120S06FN6	4	12	50	6
HEM040160S06FN6	4	16	50	6
HEM050150S06FN6	5	15	50	6
HEM050200S06FN6	5	20	60	6
HEM060150S06FN6	6	15	50	6
HEM060200S06FN6	6	20	60	6
HEM060250S06FN6	6	25	65	6
HEM060300S06FN6	6	30	70	6
HEM060350S06FN6	6	35	75	6
HEM080200S08FN6	8	20	60	8
HEM080250S08FN6	8	25	65	8
HEM080300S08FN6	8	30	75	8
HEM080350S08FN6	8	35	80	8
HEM080400S08FN6	8	40	90	8
HEM080450S08FN6	8	45	100	8
HEM080500S08FN6	8	50	100	8
HEM100250S10FN6	10	25	70	10
HEM100350S10FN6	10	35	90	10
HEM100450S10FN6	10	45	100	10
HEM100500S10FN6	10	50	100	10
HEM100600S10FN6	10	60	110	10
HEM120300S12FN6	12	30	80	12
HEM120400S12FN6	12	40	90	12
HEM120500S12FN6	12	50	100	12
HEM120600S12FN6	12	60	110	12
HEM120700S12FN6	12	70	120	12
HEM160350S16FN6	16	35	90	16
HEM160500S16FN6	16	50	110	16
HEM160650S16FN6	16	65	120	16
HEM160800S16FN6	16	80	150	16
HEM160900S16FN6	16	90	160	16
HEM160C00S16FN6	16	100	160	16
HEM200450S20FN6	20	45	100	20
HEM200600S20FN6	20	60	120	20
HEM200800S20FN6	20	80	150	20
HEM200900S20FN6	20	90	160	20
HEM200C00S20FN6	20	100	160	20
HEM200C10S20FN6	20	110	170	20
HEM200C12S20FN6	20	120	180	20
HEM250C00S25FN8	25	100	160	25
HEM250C25S25FN8	25	125	200	25

LER-FN2 2 Flutes Long Neck Corner Radius End Mills

brisloy

- High speed Endmills suitable for HRc58 and high hardened steels.
- Rib corner "R" Endmills for high performance.
- Superfine carbide with TiSiN-F coating.

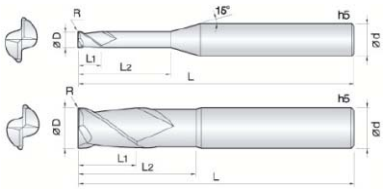


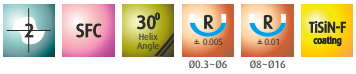
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
LERD02002010FN2	0.2 X R0.02	0.2	1	40	4
LERD02002015FN2	0.2 X R0.02	0.2	1.5	40	4
LERD05002010FN2	0.2 X R0.05	0.2	1	40	4
LERD05002015FN2	0.2 X R0.05	0.2	1.5	40	4
LERD05003010FN2	0.3 X R0.05	0.3	1	40	4
LERD05003020FN2	0.3 X R0.05	0.3	2	40	4
LERD05003030FN2	0.3 X R0.05	0.3	3	40	4
LERD05004010FN2	0.4 X R0.05	0.4	1	40	4
LERD05004020FN2	0.4 X R0.05	0.4	2	40	4
LERD05004030FN2	0.4 X R0.05	0.4	3	40	4
LERD05004040FN2	0.4 X R0.05	0.4	4	40	4
LER001004010FN2	0.4 X R0.1	0.4	1	40	4
LER001004015FN2	0.4 X R0.1	0.4	1.5	40	4
LER001004020FN2	0.4 X R0.1	0.4	2	40	4
LER001004030FN2	0.4 X R0.1	0.4	3	40	4
LER001004040FN2	0.4 X R0.1	0.4	4	40	4
LERD02005010FN2	0.5 X R0.02	0.5	1	45	4
LERD02005015FN2	0.5 X R0.02	0.5	1.5	45	4
LERD02005020FN2	0.5 X R0.02	0.5	2	45	4
LERD02005025FN2	0.5 X R0.02	0.5	2.5	45	4
LERD02005030FN2	0.5 X R0.02	0.5	3	45	4
LERD02005040FN2	0.5 X R0.02	0.5	4	45	4
LERD02005050FN2	0.5 X R0.02	0.5	5	45	4
LERD02005060FN2	0.5 X R0.02	0.5	6	45	4
LERD02005080FN2	0.5 X R0.02	0.5	8	45	4
LERD02005100FN2	0.5 X R0.02	0.5	10	50	4
LERD05005010FN2	0.5 X R0.05	0.5	1	45	4
LERD05005015FN2	0.5 X R0.05	0.5	1.5	45	4
LERD05005020FN2	0.5 X R0.05	0.5	2	45	4
LERD05005025FN2	0.5 X R0.05	0.5	2.5	45	4
LERD05005030FN2	0.5 X R0.05	0.5	3	45	4
LERD05005040FN2	0.5 X R0.05	0.5	4	45	4
LERD05005050FN2	0.5 X R0.05	0.5	5	45	4
LERD05005060FN2	0.5 X R0.05	0.5	6	45	4
LERD05005080FN2	0.5 X R0.05	0.5	8	45	4
LERD05005100FN2	0.5 X R0.05	0.5	10	50	4
LER001005010FN2	0.5 X R0.1	0.5	1	45	4
LER001005015FN2	0.5 X R0.1	0.5	1.5	45	4
LER001005020FN2	0.5 X R0.1	0.5	2	45	4
LER001005025FN2	0.5 X R0.1	0.5	2.5	45	4
LER001005030FN2	0.5 X R0.1	0.5	3	45	4
LER001005040FN2	0.5 X R0.1	0.5	4	45	4
LER001005050FN2	0.5 X R0.1	0.5	5	45	4
LER001005060FN2	0.5 X R0.1	0.5	6	45	4
LER001005080FN2	0.5 X R0.1	0.5	8	45	4
LER001005100FN2	0.5 X R0.1	0.5	10	50	4
LERD02006020FN2	0.6 X R0.02	0.6	2	45	4
LERD02006030FN2	0.6 X R0.02	0.6	3	45	4
LERD02006040FN2	0.6 X R0.02	0.6	4	45	4
LERD02006060FN2	0.6 X R0.02	0.6	6	45	4

- High speed Endmills suitable for HRc58 and high hardened steels.
- Rib corner "R" Endmills for high performance.
- Superfine carbide with TiSiN-F coating.





Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

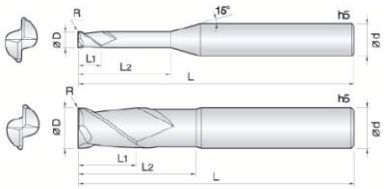
Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
LERD02006080FN2	0.6 X R0.02	0.6	8	45	4
LERD02006100FN2	0.6 X R0.02	0.6	10	50	4
LERD05006020FN2	0.6 X R0.05	0.6	2	45	4
LERD05006030FN2	0.6 X R0.05	0.6	3	45	4
LERD05006040FN2	0.6 X R0.05	0.6	4	45	4
LERD05006060FN2	0.6 X R0.05	0.6	6	45	4
LERD05006080FN2	0.6 X R0.05	0.6	8	45	4
LERD05006100FN2	0.6 X R0.05	0.6	10	50	4
LER001006020FN2	0.6 X R0.1	0.6	2	45	4
LER001006030FN2	0.6 X R0.1	0.6	3	45	4
LER001006040FN2	0.6 X R0.1	0.6	4	45	4
LER001006060FN2	0.6 X R0.1	0.6	6	45	4
LER001006080FN2	0.6 X R0.1	0.6	8	45	4
LER001006100FN2	0.6 X R0.1	0.6	10	50	4
LER001007020FN2	0.7 X R0.1	0.7	2	45	4
LER001007040FN2	0.7 X R0.1	0.7	4	45	4
LER001007060FN2	0.7 X R0.1	0.7	6	45	4
LERD02008020FN2	0.8 X R0.02	0.8	2	45	4
LERD02008040FN2	0.8 X R0.02	0.8	4	45	4
LERD02008060FN2	0.8 X R0.02	0.8	6	45	4
LERD02008080FN2	0.8 X R0.02	0.8	8	45	4
LERD02008100FN2	0.8 X R0.02	0.8	10	50	4
LERD05008020FN2	0.8 X R0.05	0.8	2	45	4
LERD05008040FN2	0.8 X R0.05	0.8	4	45	4
LERD05008060FN2	0.8 X R0.05	0.8	6	45	4
LERD05008080FN2	0.8 X R0.05	0.8	8	45	4
LERD05008100FN2	0.8 X R0.05	0.8	10	50	4
LER001008020FN2	0.8 X R0.1	0.8	2	45	4
LER001008040FN2	0.8 X R0.1	0.8	4	45	4
LER001008060FN2	0.8 X R0.1	0.8	6	45	4
LER001008080FN2	0.8 X R0.1	0.8	8	45	4
LER001008100FN2	0.8 X R0.1	0.8	10	50	4
LER002008020FN2	0.8 X R0.2	0.8	2	45	4
LER002008040FN2	0.8 X R0.2	0.8	4	45	4
LER002008060FN2	0.8 X R0.2	0.8	6	45	4
LER002008080FN2	0.8 X R0.2	0.8	8	45	4
LER002008100FN2	0.8 X R0.2	0.8	10	50	4
LERD05010040FN2	1 X R0.05	1	4	45	4
LERD05010060FN2	1 X R0.05	1	6	45	4
LERD05010080FN2	1 X R0.05	1	8	45	4
LERD05010100FN2	1 X R0.05	1	10	50	4
LERD05010120FN2	1 X R0.05	1	12	50	4
LERD05010160FN2	1 X R0.05	1	16	50	4
LERD05010200FN2	1 X R0.05	1	20	50	4
LERD05010220FN2	1 X R0.05	1	22	60	4
LERD05010250FN2	1 X R0.05	1	25	60	4
LER001010040FN2	1 X R0.1	1	4	45	4
LER001010060FN2	1 X R0.1	1	6	45	4
LER001010080FN2	1 X R0.1	1	8	45	4
LER001010100FN2	1 X R0.1	1	10	50	4

LER-FN2 2 Flutes Long Neck Corner Radius End Mills

brisloy

- High speed Endmills suitable for HRc58 and high hardened steels.
- Rib corner "R" Endmills for high performance.
- Superfine carbide with TiSiN-F coating.

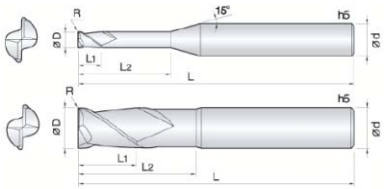


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
LER001010120FN2	1 X R0.1	1	12	50	4
LER001010160FN2	1 X R0.1	1	16	50	4
LER001010200FN2	1 X R0.1	1	20	50	4
LER001010220FN2	1 X R0.1	1	22	60	4
LER001010250FN2	1 X R0.1	1	25	60	4
LER002010040FN2	1 X R0.2	1	4	45	4
LER002010060FN2	1 X R0.2	1	6	45	4
LER002010080FN2	1 X R0.2	1	8	45	4
LER002010100FN2	1 X R0.2	1	10	50	4
LER002010120FN2	1 X R0.2	1	12	50	4
LER002010160FN2	1 X R0.2	1	16	50	4
LER002010200FN2	1 X R0.2	1	20	50	4
LER002010220FN2	1 X R0.2	1	22	60	4
LER002010250FN2	1 X R0.2	1	25	60	4
LER003010040FN2	1 X R0.3	1	4	45	4
LER003010060FN2	1 X R0.3	1	6	45	4
LER003010080FN2	1 X R0.3	1	8	45	4
LER003010100FN2	1 X R0.3	1	10	50	4
LER003010120FN2	1 X R0.3	1	12	50	4
LER003010160FN2	1 X R0.3	1	16	50	4
LER003010200FN2	1 X R0.3	1	20	50	4
LER003010220FN2	1 X R0.3	1	22	60	4
LER003010250FN2	1 X R0.3	1	25	60	4
LER001012040FN2	1.2 X R0.1	1.2	4	45	4
LER001012060FN2	1.2 X R0.1	1.2	6	45	4
LER001012080FN2	1.2 X R0.1	1.2	8	45	4
LER001012100FN2	1.2 X R0.1	1.2	10	50	4
LER001012120FN2	1.2 X R0.1	1.2	12	50	4
LER001012160FN2	1.2 X R0.1	1.2	16	50	4
LER001012200FN2	1.2 X R0.1	1.2	20	50	4
LER002012040FN2	1.2 X R0.2	1.2	4	45	4
LER002012060FN2	1.2 X R0.2	1.2	6	45	4
LER002012080FN2	1.2 X R0.2	1.2	8	45	4
LER002012100FN2	1.2 X R0.2	1.2	10	50	4
LER002012120FN2	1.2 X R0.2	1.2	12	50	4
LER002012160FN2	1.2 X R0.2	1.2	16	50	4
LER002012200FN2	1.2 X R0.2	1.2	20	50	4
LER003012040FN2	1.2 X R0.3	1.2	4	45	4
LER003012060FN2	1.2 X R0.3	1.2	6	45	4
LER003012080FN2	1.2 X R0.3	1.2	8	45	4
LER003012100FN2	1.2 X R0.3	1.2	10	50	4
LER003012120FN2	1.2 X R0.3	1.2	12	50	4
LER003012160FN2	1.2 X R0.3	1.2	16	50	4
LER003012200FN2	1.2 X R0.3	1.2	20	50	4
LER001015040FN2	1.5 X R0.1	1.5	4	45	4
LER001015060FN2	1.5 X R0.1	1.5	6	45	4
LER001015080FN2	1.5 X R0.1	1.5	8	45	4
LER001015100FN2	1.5 X R0.1	1.5	10	50	4
LER001015120FN2	1.5 X R0.1	1.5	12	50	4
LER001015160FN2	1.5 X R0.1	1.5	16	50	4

- High speed Endmills suitable for HRc58 and high hardened steels.
- Rib corner "R" Endmills for high performance.
- Superfine carbide with TiSiN-F coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

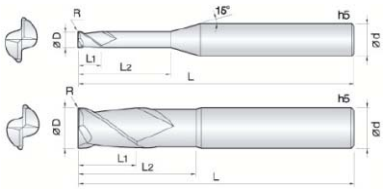
Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
LER001015200FN2	1.5 X R0.1	1.5	20	50	4
LER001015220FN2	1.5 X R0.1	1.5	22	60	4
LER001015250FN2	1.5 X R0.1	1.5	25	60	4
LER002015040FN2	1.5 X R0.2	1.5	4	45	4
LER002015060FN2	1.5 X R0.2	1.5	6	45	4
LER002015080FN2	1.5 X R0.2	1.5	8	45	4
LER002015100FN2	1.5 X R0.2	1.5	10	50	4
LER002015120FN2	1.5 X R0.2	1.5	12	50	4
LER002015160FN2	1.5 X R0.2	1.5	16	50	4
LER002015200FN2	1.5 X R0.2	1.5	20	50	4
LER002015220FN2	1.5 X R0.2	1.5	22	60	4
LER002015250FN2	1.5 X R0.2	1.5	25	60	4
LER003015040FN2	1.5 X R0.3	1.5	4	45	4
LER003015060FN2	1.5 X R0.3	1.5	6	45	4
LER003015080FN2	1.5 X R0.3	1.5	8	45	4
LER003015100FN2	1.5 X R0.3	1.5	10	50	4
LER003015120FN2	1.5 X R0.3	1.5	12	50	4
LER003015160FN2	1.5 X R0.3	1.5	16	50	4
LER003015200FN2	1.5 X R0.3	1.5	20	50	4
LER003015220FN2	1.5 X R0.3	1.5	22	60	4
LER003015250FN2	1.5 X R0.3	1.5	25	60	4
LER005015040FN2	1.5 X R0.5	1.5	4	45	4
LER005015060FN2	1.5 X R0.5	1.5	6	45	4
LER005015080FN2	1.5 X R0.5	1.5	8	45	4
LER005015100FN2	1.5 X R0.5	1.5	10	50	4
LER005015120FN2	1.5 X R0.5	1.5	12	50	4
LER005015160FN2	1.5 X R0.5	1.5	16	50	4
LER005015200FN2	1.5 X R0.5	1.5	20	50	4
LER005015220FN2	1.5 X R0.5	1.5	22	60	4
LER005015250FN2	1.5 X R0.5	1.5	25	60	4
LER001020060FN2	2 X R0.1	2	6	45	4
LER001020080FN2	2 X R0.1	2	8	45	4
LER001020100FN2	2 X R0.1	2	10	50	4
LER001020120FN2	2 X R0.1	2	12	50	4
LER001020160FN2	2 X R0.1	2	16	50	4
LER001020200FN2	2 X R0.1	2	20	50	4
LER001020250FN2	2 X R0.1	2	25	60	4
LER001020300FN2	2 X R0.1	2	30	70	4
LER002020060FN2	2 X R0.2	2	6	45	4
LER002020080FN2	2 X R0.2	2	8	45	4
LER002020100FN2	2 X R0.2	2	10	50	4
LER002020120FN2	2 X R0.2	2	12	50	4
LER002020160FN2	2 X R0.2	2	16	50	4
LER002020200FN2	2 X R0.2	2	20	50	4
LER002020250FN2	2 X R0.2	2	25	60	4
LER002020300FN2	2 X R0.2	2	30	70	4
LER003020060FN2	2 X R0.3	2	6	45	4
LER003020080FN2	2 X R0.3	2	8	45	4
LER003020100FN2	2 X R0.3	2	10	50	4
LER003020120FN2	2 X R0.3	2	12	50	4

LER-FN2 2 Flutes Long Neck Corner Radius End Mills

brisley

- High speed Endmills suitable for HRc58 and high hardened steels.
- Rib corner "R" Endmills for high performance.
- Superfine carbide with TiSiN-F coating.

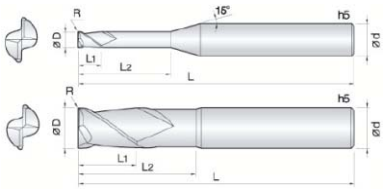


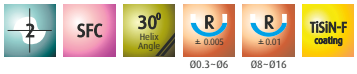
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
LER003020160FN2	2 X R0.3	2	16	50	4
LER003020200FN2	2 X R0.3	2	20	50	4
LER003020250FN2	2 X R0.3	2	25	60	4
LER003020300FN2	2 X R0.3	2	30	70	4
LER005020060FN2	2 X R0.5	2	6	45	4
LER005020080FN2	2 X R0.5	2	8	45	4
LER005020100FN2	2 X R0.5	2	10	50	4
LER005020120FN2	2 X R0.5	2	12	50	4
LER005020160FN2	2 X R0.5	2	16	50	4
LER005020200FN2	2 X R0.5	2	20	50	4
LER005020250FN2	2 X R0.5	2	25	60	4
LER005020300FN2	2 X R0.5	2	30	70	4
LER001025100FN2	2.5 X R0.1	2.5	10	50	4
LER001025160FN2	2.5 X R0.1	2.5	16	50	4
LER001025200FN2	2.5 X R0.1	2.5	20	50	4
LER001025250FN2	2.5 X R0.1	2.5	25	60	4
LER001025300FN2	2.5 X R0.1	2.5	30	70	4
LER002025100FN2	2.5 X R0.2	2.5	10	50	4
LER002025160FN2	2.5 X R0.2	2.5	16	50	4
LER002025200FN2	2.5 X R0.2	2.5	20	50	4
LER002025250FN2	2.5 X R0.2	2.5	25	60	4
LER002025300FN2	2.5 X R0.2	2.5	30	70	4
LER003025100FN2	2.5 X R0.3	2.5	10	50	4
LER003025160FN2	2.5 X R0.3	2.5	16	50	4
LER003025200FN2	2.5 X R0.3	2.5	20	50	4
LER003025250FN2	2.5 X R0.3	2.5	25	60	4
LER003025300FN2	2.5 X R0.3	2.5	30	70	4
LER005025100FN2	2.5 X R0.3	2.5	10	50	4
LER005025160FN2	2.5 X R0.3	2.5	16	50	4
LER005025200FN2	2.5 X R0.3	2.5	20	50	4
LER005025250FN2	2.5 X R0.3	2.5	25	60	4
LER005025300FN2	2.5 X R0.3	2.5	30	70	4
LER001030100FN2	3 X R0.1	3	10	50	6
LER001030120FN2	3 X R0.1	3	12	55	6
LER001030160FN2	3 X R0.1	3	16	55	6
LER001030200FN2	3 X R0.1	3	20	60	6
LER001030250FN2	3 X R0.1	3	25	65	6
LER001030300FN2	3 X R0.1	3	30	70	6
LER001030350FN2	3 X R0.1	3	35	75	6
LER001030400FN2	3 X R0.1	3	40	80	6
LER002030100FN2	3 X R0.2	3	10	50	6
LER002030120FN2	3 X R0.2	3	12	55	6
LER002030160FN2	3 X R0.2	3	16	55	6
LER002030200FN2	3 X R0.2	3	20	60	6
LER002030250FN2	3 X R0.2	3	25	65	6
LER002030300FN2	3 X R0.2	3	30	70	6
LER002030350FN2	3 X R0.2	3	35	75	6
LER002030400FN2	3 X R0.2	3	40	80	6
LER003030100FN2	3 X R0.3	3	10	50	6
LER003030120FN2	3 X R0.3	3	12	55	6

- High speed Endmills suitable for HRc58 and high hardened steels.
- Rib corner "R" Endmills for high performance.
- Superfine carbide with TiSiN-F coating.





Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

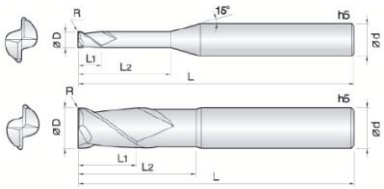
Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
LER003030160FN2	3 X R0.3	3	16	55	6
LER003030200FN2	3 X R0.3	3	20	60	6
LER003030250FN2	3 X R0.3	3	25	65	6
LER003030300FN2	3 X R0.3	3	30	70	6
LER003030350FN2	3 X R0.3	3	35	75	6
LER003030400FN2	3 X R0.3	3	40	80	6
LER005030100FN2	3 X R0.5	3	10	50	6
LER005030120FN2	3 X R0.5	3	12	55	6
LER005030160FN2	3 X R0.5	3	16	55	6
LER005030200FN2	3 X R0.5	3	20	60	6
LER005030250FN2	3 X R0.5	3	25	65	6
LER005030300FN2	3 X R0.5	3	30	70	6
LER005030350FN2	3 X R0.5	3	35	75	6
LER005030400FN2	3 X R0.5	3	40	80	6
LER010030100FN2	3 X R1	3	10	50	6
LER010030120FN2	3 X R1	3	12	55	6
LER010030160FN2	3 X R1	3	16	55	6
LER010030200FN2	3 X R1	3	20	60	6
LER010030250FN2	3 X R1	3	25	65	6
LER010030300FN2	3 X R1	3	30	70	6
LER010030350FN2	3 X R1	3	35	75	6
LER010030400FN2	3 X R1	3	40	80	6
LER001040050FN2	4 X R0.1	4	12	50	4
LER001040070FN2	4 X R0.1	4	20	70	4
LER001040120FN2	4 X R0.1	4	12	55	6
LER001040160FN2	4 X R0.1	4	16	55	6
LER001040200FN2	4 X R0.1	4	20	60	6
LER001040250FN2	4 X R0.1	4	25	65	6
LER001040300FN2	4 X R0.1	4	30	70	6
LER001040350FN2	4 X R0.1	4	35	75	6
LER001040400FN2	4 X R0.1	4	40	80	6
LER001040450FN2	4 X R0.1	4	45	90	6
LER001040500FN2	4 X R0.1	4	50	100	6
LER002040050FN2	4 X R0.2	4	12	50	4
LER002040070FN2	4 X R0.2	4	20	70	4
LER002040120FN2	4 X R0.2	4	12	55	6
LER002040160FN2	4 X R0.2	4	16	55	6
LER002040200FN2	4 X R0.2	4	20	60	6
LER002040250FN2	4 X R0.2	4	25	65	6
LER002040300FN2	4 X R0.2	4	30	70	6
LER002040350FN2	4 X R0.2	4	35	75	6
LER002040400FN2	4 X R0.2	4	40	80	6
LER002040450FN2	4 X R0.2	4	45	90	6
LER002040500FN2	4 X R0.2	4	50	100	6
LER003040050FN2	4 X R0.3	4	12	50	4
LER003040070FN2	4 X R0.3	4	20	70	4
LER003040120FN2	4 X R0.3	4	12	55	6
LER003040160FN2	4 X R0.3	4	16	55	6
LER003040200FN2	4 X R0.3	4	20	60	6
LER003040250FN2	4 X R0.3	4	25	65	6

LER-FN2 2 Flutes Long Neck Corner Radius End Mills

brisley

- High speed Endmills suitable for HRc58 and high hardened steels.
- Rib corner "R" Endmills for high performance.
- Superfine carbide with TiSiN-F coating.

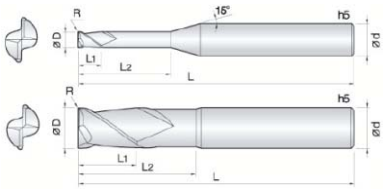


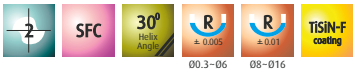
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
LER003040300FN2	4 X R0.3	4	30	70	6
LER003040350FN2	4 X R0.3	4	35	75	6
LER003040400FN2	4 X R0.3	4	40	80	6
LER003040450FN2	4 X R0.3	4	45	90	6
LER003040500FN2	4 X R0.3	4	50	100	6
LER005040050FN2	4 X R0.5	4	12	50	4
LER005040070FN2	4 X R0.5	4	20	70	4
LER005040120FN2	4 X R0.5	4	12	55	6
LER005040160FN2	4 X R0.5	4	16	55	6
LER005040200FN2	4 X R0.5	4	20	60	6
LER005040250FN2	4 X R0.5	4	25	65	6
LER005040300FN2	4 X R0.5	4	30	70	6
LER005040350FN2	4 X R0.5	4	35	75	6
LER005040400FN2	4 X R0.5	4	40	80	6
LER005040450FN2	4 X R0.5	4	45	90	6
LER005040500FN2	4 X R0.5	4	50	100	6
LER010040050FN2	4 X R1	4	12	50	4
LER010040070FN2	4 X R1	4	20	70	4
LER010040120FN2	4 X R1	4	12	55	6
LER010040160FN2	4 X R1	4	16	55	6
LER010040200FN2	4 X R1	4	20	60	6
LER010040250FN2	4 X R1	4	25	65	6
LER010040300FN2	4 X R1	4	30	70	6
LER010040350FN2	4 X R1	4	35	75	6
LER010040400FN2	4 X R1	4	40	80	6
LER010040450FN2	4 X R1	4	45	90	6
LER010040500FN2	4 X R1	4	50	100	6
LER002050150FN2	5 X R0.2	6	15	60	6
LER002050250FN2	5 X R0.2	6	25	70	6
LER002050300FN2	5 X R0.2	6	30	70	6
LER002050400FN2	5 X R0.2	6	40	80	6
LER002050500FN2	5 X R0.2	6	50	100	6
LER005050150FN2	5 X R0.5	6	15	60	6
LER005050250FN2	5 X R0.5	6	25	70	6
LER005050300FN2	5 X R0.5	6	30	70	6
LER005050400FN2	5 X R0.5	6	40	80	6
LER005050500FN2	5 X R0.5	6	50	100	6
LER010050150FN2	5 X R1	6	15	60	6
LER010050250FN2	5 X R1	6	25	70	6
LER010050300FN2	5 X R1	6	30	70	6
LER010050400FN2	5 X R1	6	40	80	6
LER010050500FN2	5 X R1	6	50	100	6
LER001060200FN2	6 X R0.1	7	20	60	6
LER001060400FN2	6 X R0.1	7	40	90	6
LER002060200FN2	6 X R0.2	7	20	60	6
LER002060400FN2	6 X R0.2	7	40	90	6
LER003060200FN2	6 X R0.3	7	20	60	6
LER003060400FN2	6 X R0.3	7	40	90	6
LER005060200FN2	6 X R0.5	7	20	60	6
LER005060400FN2	6 X R0.5	7	40	90	6

- High speed Endmills suitable for HRc58 and high hardened steels.
- Rib corner "R" Endmills for high performance.
- Superfine carbide with TiSiN-F coating.





Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

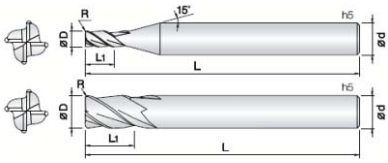
Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
LER010060200FN2	6 X R1	7	20	60	6
LER010060400FN2	6 X R1	7	40	90	6
LER015060200FN2	6 X R1.5	7	20	60	6
LER015060400FN2	6 X R1.5	7	40	90	6
LER002080220FN2	8 X R0.2	9	22	65	8
LER002080400FN2	8 X R0.2	9	40	100	8
LER003080220FN2	8 X R0.3	9	22	65	8
LER003080400FN2	8 X R0.3	9	40	100	8
LER005080220FN2	8 X R0.5	9	22	65	8
LER005080400FN2	8 X R0.5	9	40	100	8
LER010080220FN2	8 X R1	9	22	65	8
LER010080400FN2	8 X R1	9	40	100	8
LER015080220FN2	8 X R1.5	9	22	65	8
LER015080400FN2	8 X R1.5	9	40	100	8
LER002100240FN2	10 X R0.2	11	24	70	10
LER002100450FN2	10 X R0.2	11	45	100	10
LER003100240FN2	10 X R0.3	11	24	70	10
LER003100450FN2	10 X R0.3	11	45	100	10
LER005100240FN2	10 X R0.5	11	24	70	10
LER005100450FN2	10 X R0.5	11	45	100	10
LER010100240FN2	10 X R1	11	24	70	10
LER010100450FN2	10 X R1	11	45	100	10
LER015100240FN2	10 X R1.5	11	24	70	10
LER015100450FN2	10 X R1.5	11	45	100	10
LER020100240FN2	10 X R2	11	24	70	10
LER020100450FN2	10 X R2	11	45	100	10
LER002120260FN2	12 X R0.2	13	26	80	12
LER002120500FN2	12 X R0.2	13	50	110	12
LER003120260FN2	12 X R0.3	13	26	80	12
LER003120500FN2	12 X R0.3	13	50	110	12
LER005120260FN2	12 X R0.5	13	26	80	12
LER005120500FN2	12 X R0.5	13	50	110	12
LER010120260FN2	12 X R1	13	26	80	12
LER010120500FN2	12 X R1	13	50	110	12
LER015120260FN2	12 X R1.5	13	26	80	12
LER015120500FN2	12 X R1.5	13	50	110	12
LER020120260FN2	12 X R2	13	26	80	12
LER020120500FN2	12 X R2	13	50	110	12
LER030120260FN2	12 X R3	13	26	80	12
LER030120500FN2	12 X R3	13	50	110	12
LER005160110FN2	16 X R0.5	20	35	110	16
LER005160160FN2	16 X R0.5	20	35	160	16
LER010160110FN2	16 X R1	20	35	110	16
LER010160160FN2	16 X R1	20	35	160	16

GER-FN4 4 Flutes Corner Radius End Mills

brisloy

- High speed Endmills suitable for HRc55 and high hardened steels.
- High performance with the appearance of corner "R".
- Deep cutting with long shank.
- Superfine carbide with TiSiN-F coating.

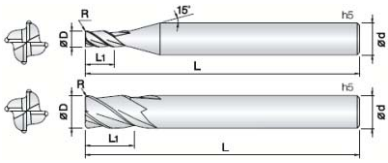


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
GERD02010025FN4	1 X R0.02	2.5	45	4
GERD05010025FN4	1 X R0.05	2.5	45	4
GER001010025FN4	1 X R0.1	2.5	45	4
GER002010025FN4	1 X R0.2	2.5	45	4
GER003010025FN4	1 X R0.3	2.5	45	4
GERD02012040FN4	1.2 X R0.02	4	45	4
GERD05012040FN4	1.2 X R0.05	4	45	4
GER001012040FN4	1.2 X R0.1	4	45	4
GER002012040FN4	1.2 X R0.2	4	45	4
GER003012040FN4	1.2 X R0.3	4	45	4
GERD02015040FN4	1.5 X R0.02	4	45	4
GERD05015040FN4	1.5 X R0.05	4	45	4
GER001015040FN4	1.5 X R0.1	4	45	4
GER002015040FN4	1.5 X R0.2	4	45	4
GER003015040FN4	1.5 X R0.3	4	45	4
GER004015040FN4	1.5 X R0.4	4	45	4
GER005015040FN4	1.5 X R0.5	4	45	4
GERD02020060FN4	2 X R0.02	6	45	4
GERD05020060FN4	2 X R0.05	6	45	4
GER001020060FN4	2 X R0.1	6	45	4
GER002020060FN4	2 X R0.2	6	45	4
GER003020060FN4	2 X R0.3	6	45	4
GER004020060FN4	2 X R0.4	6	45	4
GER005020060FN4	2 X R0.5	6	45	4
GERD05025060FN4	2.5 X R0.05	6	50	4
GER001025060FN4	2.5 X R0.1	6	50	4
GER002025060FN4	2.5 X R0.2	6	50	4
GER003025060FN4	2.5 X R0.3	6	50	4
GER005025060FN4	2.5 X R0.5	6	50	4
GERD05030080FN4	3 X R0.05	8	60	6
GER001030080FN4	3 X R0.1	8	60	6
GER002030080FN4	3 X R0.2	8	60	6
GER003030080FN4	3 X R0.3	8	60	6
GER004030080FN4	3 X R0.4	8	60	6
GER005030080FN4	3 X R0.5	8	60	6
GER010030080FN4	3 X R1	8	60	6
GERD05040090FN4	4 X R0.05	9	60	4
GERD05040L90FN4	4 X R0.05	9	80	4
GERD05040100FN4	4 X R0.05	10	70	6
GER001040090FN4	4 X R0.1	9	60	4
GER01040L090FN4	4 X R0.1	9	80	4
GER001040100FN4	4 X R0.1	10	70	6
GER002040090FN4	4 X R0.2	9	60	4
GER02040L090FN4	4 X R0.2	9	80	4
GER002040100FN4	4 X R0.2	10	70	6
GER003040090FN4	4 X R0.3	9	60	4
GER03040L090FN4	4 X R0.3	9	80	4
GER003040100FN4	4 X R0.3	10	70	6
GER004040090FN4	4 X R0.4	9	60	4
GER04040L090FN4	4 X R0.4	9	80	4
GER004040100FN4	4 X R0.4	10	70	6
GER005040090FN4	4 X R0.5	9	60	4

- High speed Endmills suitable for HRc55 and high hardened steels.
- High performance with the appearance of corner "R".
- Deep cutting with long shank.
- Superfine carbide with TiSiN-F coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

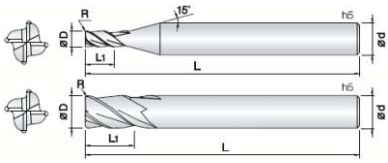
Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
GER05040L090FN4	4 X R0.5	9	80	4
GER005040100FN4	4 X R0.5	10	70	6
GER010040090FN4	4 X R1	9	60	4
GER10040L090FN4	4 X R1	9	80	4
GER010040100FN4	4 X R1	10	70	6
GERD05050130FN4	5 X R0.05	13	75	6
GER001050130FN4	5 X R0.1	13	75	6
GER002050130FN4	5 X R0.2	13	75	6
GER003050130FN4	5 X R0.3	13	75	6
GER004050130FN4	5 X R0.4	13	75	6
GER005050130FN4	5 X R0.5	13	75	6
GER010050130FN4	5 X R1	13	75	6
GERD05060130FN4	6 X R0.05	13	80	6
GER001060110FN4	6 X R0.1	11	60	6
GER001060130FN4	6 X R0.1	13	80	6
GER002060110FN4	6 X R0.2	11	60	6
GER002060130FN4	6 X R0.2	13	80	6
GER003060110FN4	6 X R0.3	11	60	6
GER003060130FN4	6 X R0.3	13	80	6
GER004060130FN4	6 X R0.4	13	80	6
GER005060110FN4	6 X R0.5	11	60	6
GER005060130FN4	6 X R0.5	13	80	6
GER010060110FN4	6 X R1	11	60	6
GER010060130FN4	6 X R1	13	80	6
GER015060110FN4	6 X R1.5	11	60	6
GER015060130FN4	6 X R1.5	13	80	6
GER020060110FN4	6 X R2	11	60	6
GER020060130FN4	6 X R2	13	80	6
GER001080160FN4	8 X R0.1	16	70	8
GER001080190FN4	8 X R0.1	19	90	8
GER002080160FN4	8 X R0.2	16	70	8
GER002080190FN4	8 X R0.2	19	90	8
GER003080160FN4	8 X R0.3	16	70	8
GER003080190FN4	8 X R0.3	19	90	8
GER005080160FN4	8 X R0.5	16	70	8
GER005080190FN4	8 X R0.5	19	90	8
GER05080L190FN4	8 X R0.5	19	110	8
GER010080160FN4	8 X R1	16	70	8
GER010080190FN4	8 X R1	19	90	8
GER10080L190FN4	8 X R1	19	110	8
GER015080160FN4	8 X R1.5	16	70	8
GER015080190FN4	8 X R1.5	19	90	8
GER15080L190FN4	8 X R1.5	19	110	8
GER020080160FN4	8 X R2	16	70	8
GER020080190FN4	8 X R2	19	90	8
GER20080L190FN4	8 X R2	19	110	8
GER025080190FN4	8 X R2.5	19	90	8
GER001100190FN4	10 X R0.1	19	75	10
GER001100220FN4	10 X R0.1	22	100	10
GER002100190FN4	10 X R0.2	19	75	10
GER002100220FN4	10 X R0.2	22	100	10
GER003100190FN4	10 X R0.3	19	75	10

GER-FN4 4 Flutes Corner Radius End Mills

brisloy

- High speed Endmills suitable for HRc55 and high hardened steels.
- High performance with the appearance of corner "R".
- Deep cutting with long shank.
- Superfine carbide with TiSiN-F coating.

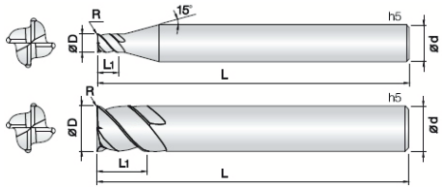


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
GER003100220FN4	10 X R0.3	22	100	10
GER005100190FN4	10 X R0.5	19	75	10
GER005100220FN4	10 X R0.5	22	100	10
GER05100L220FN4	10 X R0.5	22	120	10
GER010100190FN4	10 X R1	19	75	10
GER010100220FN4	10 X R1	22	100	10
GER10100L220FN4	10 X R1	22	120	10
GER015100190FN4	10 X R1.5	19	75	10
GER015100220FN4	10 X R1.5	22	100	10
GER15100L220FN4	10 X R1.5	22	120	10
GER020100190FN4	10 X R2	19	75	10
GER020100220FN4	10 X R2	22	100	10
GER20100L220FN4	10 X R2	22	120	10
GER025100190FN4	10 X R2.5	19	75	10
GER025100220FN4	10 X R2.5	22	100	10
GER25100L220FN4	10 X R2.5	22	120	10
GER030100220FN4	10 X R3	22	100	10
GER002120220FN4	12 X R0.2	22	80	12
GER002120260FN4	12 X R0.2	26	110	12
GER003120220FN4	12 X R0.3	22	80	12
GER003120260FN4	12 X R0.3	26	110	12
GER005120220FN4	12 X R0.5	22	80	12
GER005120260FN4	12 X R0.5	26	110	12
GER05120L260FN4	12 X R0.5	26	130	12
GER010120220FN4	12 X R1	22	80	12
GER010120260FN4	12 X R1	26	110	12
GER10120L260FN4	12 X R1	26	130	12
GER015120220FN4	12 X R1.5	22	80	12
GER015120260FN4	12 X R1.5	26	110	12
GER15120L260FN4	12 X R1.5	26	130	12
GER020120220FN4	12 X R2	22	80	12
GER020120260FN4	12 X R2	26	110	12
GER20120L260FN4	12 X R2	26	130	12
GER025120220FN4	12 X R2.5	22	80	12
GER025120260FN4	12 X R2.5	26	110	12
GER25120L260FN4	12 X R2.5	26	130	12
GER030120220FN4	12 X R3	22	80	12
GER030120260FN4	12 X R3	26	110	12
GER30120L260FN4	12 X R3	26	130	12
GER035120260FN4	12 X R3.5	26	110	12
GER040120260FN4	12 X R4	26	110	12
GER005160320FN4	16 X R0.5	32	110	16
GER05160L320FN4	16 X R0.5	32	160	16
GER010160320FN4	16 X R1	32	110	16
GER10160L320FN4	16 X R1	32	160	16
GER015160320FN4	16 X R1.5	32	110	16
GER020160320FN4	16 X R2	32	110	16
GER030160320FN4	16 X R3	32	110	16
GER005200380FN4	20 X R0.5	38	160	20
GER010200380FN4	20 X R1	38	160	20
GER015200380FN4	20 X R1.5	38	160	20
GER020200380FN4	20 X R2	38	160	20

- High speed Endmills suitable for S.S. material HRc62 and hardened steels.
- High performance at high speed with the appearance of high Helix and corner radius.
- Deep cutting with long shank.
- Superfine carbide with TiSiN-F coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

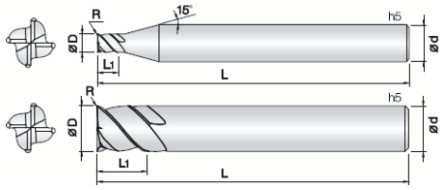
Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
HERD05010050FN4	1 X R0.05	2	50	6
HER001010050FN4	1 X R0.1	2	50	6
HER002010050FN4	1 X R0.2	2	50	6
HER003010050FN4	1 X R0.3	2	50	6
HERD05012050FN4	1.2 X R0.05	2.5	50	6
HER001012050FN4	1.2 X R0.1	2.5	50	6
HER002012050FN4	1.2 X R0.2	2.5	50	6
HER003012050FN4	1.2 X R0.3	2.5	50	6
HERD05015050FN4	1.5 X R0.05	3	50	6
HER001015050FN4	1.5 X R0.1	3	50	6
HER002015050FN4	1.5 X R0.2	3	50	6
HER003015050FN4	1.5 X R0.3	3	50	6
HER005015050FN4	1.5X R0.5	3	50	6
HER001020050FN4	2 X R0.1	5	50	6
HER002020050FN4	2 X R0.2	5	50	6
HER003020050FN4	2 X R0.3	5	50	6
HER005020050FN4	2 X R0.5	5	50	6
HER001025060FN4	2.5 X R0.1	6	60	6
HER002025060FN4	2.5 X R0.2	6	60	6
HER003025060FN4	2.5 X R0.3	6	60	6
HER005025060FN4	2.5 X R0.5	6	60	6
HER001030070FN4	3 X R0.1	6	70	6
HER002030070FN4	3 X R0.2	6	70	6
HER003030070FN4	3 X R0.3	6	70	6
HER005030070FN4	3 X R0.5	6	70	6
HER010030070FN4	3 X R1	6	70	6
HER001040070FN4	4 X R0.1	8	70	6
HER002040070FN4	4 X R0.2	8	70	6
HER003040070FN4	4X R0.3	8	70	6
HER005040070FN4	4 X R0.5	8	70	6
HER010040070FN4	4 X R1	8	70	6
HER001060090FN4	6 X R0.1	12	90	6
HER002060090FN4	6 X R0.2	12	90	6
HER003060090FN4	6 X R0.3	12	90	6
HER005060090FN4	6 X R0.5	12	90	6
HER010060090FN4	6 X R1	12	90	6
HER015060090FN4	6 X R1.5	12	90	6
HER020060090FN4	6 X R2	12	90	6
HER002080090FN4	8 X R0.2	16	90	8
HER003080090FN4	8 X R0.3	16	90	8
HER005080090FN4	8 X R0.5	16	90	8
HER010080090FN4	8 X R1	16	90	8
HER015080090FN4	8 X R1.5	16	90	8
HER020080090FN4	8 X R2	16	90	8

HER-FN4 4 Flutes 45° Helix Corner Radius Long End Mills

brisloy

- High speed Endmills suitable for S.S. material HRc62 and hardened steels.
- High performance at high speed with the appearance of high Helix and corner radius.
- Deep cutting with long shank.
- Superfine carbide with TiSiN-F coating.

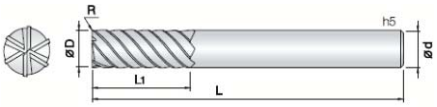


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
HER002100100FN4	10 X R0.2	20	100	10
HER003100100FN4	10 X R0.3	20	100	10
HER005100100FN4	10 X R0.5	20	100	10
HER010100100FN4	10 X R1	20	100	10
HER015100100FN4	10 X R1.5	20	100	10
HER020100100FN4	10 X R2	20	100	10
HER003120110FN4	12 X R0.3	24	110	12
HER005120110FN4	12 X R0.5	24	110	12
HER010120110FN4	12 X R1	24	110	12
HER015120110FN4	12 X R1.5	24	110	12
HER020120110FN4	12 X R2	24	110	12
HER030120110FN4	12 X R3	24	110	12
HER005160120FN4	16 X R0.5	32	120	16
HER010160120FN4	16 X R1	32	120	16
HER020160120FN4	16 X R2	32	120	16
HER030160120FN4	16 X R3	32	120	16
HER005200130FN4	20 X R0.5	38	130	20
HER010200130FN4	20 X R1	38	130	20
HER020200130FN4	20 X R2	38	130	20
HER030200130FN4	20 X R3	38	130	20
HER040200130FN4	20 X R4	38	130	20
HER050200130FN4	20 X R5	38	130	20

- Endmills for pre-hardened and hardened steel (HRc50~).
- Good wear resistance by Si-based PVD coating.
- 45° Degree helix design for high speed, feed condition.
- Improved wear resistance with longer edge and excellent work surface finish in various machining applications.
- Outstanding performance at high speed machining.



Size	D Tolerance
D<Ø6	+0 ~ -0.02mm

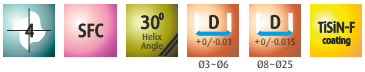
Unit:mm

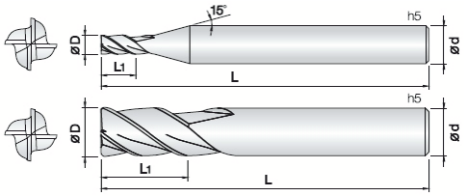
Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
HER002050060FN6	5 X R0.2	13	60	6
HER003050060FN6	5 X R0.3	13	60	6
HER005050060FN6	5 X R0.5	13	60	6
HER010050060FN6	5 X R1	13	60	6
HER002060060FN6	6 X R0.2	15	60	6
HER002060080FN6	6 X R0.2	15	80	6
HER003060060FN6	6 X R0.3	15	60	6
HER003060080FN6	6 X R0.3	15	80	6
HER005060060FN6	6 X R0.5	15	60	6
HER005060080FN6	6 X R0.5	15	80	6
HER010060060FN6	6 X R1	15	60	6
HER010060080FN6	6 X R1	15	80	6
HER003080070FN6	8 X R0.3	20	70	8
HER003080090FN6	8 X R0.3	20	90	8
HER005080070FN6	8 X R0.5	20	70	8
HER005080090FN6	8 X R0.5	20	90	8
HER010080070FN6	8 X R1	20	70	8
HER010080090FN6	8 X R1	20	90	8
HER015080070FN6	8 X R1.5	20	70	8
HER003100075FN6	10 X R0.3	25	75	10
HER003100100FN6	10 X R0.3	25	100	10
HER005100075FN6	10 X R0.5	25	75	10
HER005100100FN6	10 X R0.5	25	100	10
HER010100075FN6	10 X R1	25	75	10
HER010100100FN6	10 X R1	25	100	10
HER020100075FN6	10 X R2	25	75	10
HER003120080FN6	12 X R0.3	30	80	12
HER003120110FN6	12 X R0.3	30	110	12
HER005120080FN6	12 X R0.5	30	80	12
HER005120110FN6	12 X R0.5	30	110	12
HER010120080FN6	12 X R1	30	80	12
HER010120110FN6	12 X R1	30	110	12
HER020120080FN6	12 X R2	30	80	12
HER005160110FN6	16 X R0.5	50	110	16
HER010160110FN6	16 X R1	50	110	16
HER020160110FN6	16 X R2	50	110	16

LEM-FN4 4 Flutes Long Length End Mills

brisloy

- Deep cutting with long flutes and long shank.
- Improved process efficiency for better surface finish.
- Superfine carbide with TiSiN-F coating.



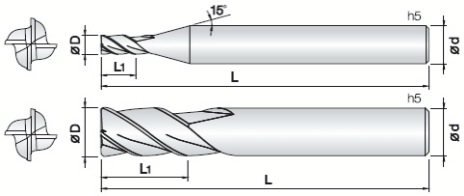


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
LEM010030060FN4	1	3	60	6
LEM010050060FN4	1	5	60	6
LEM010070060FN4	1	7	60	6
LEM015060060FN4	1.5	6	60	6
LEM015080060FN4	1.5	8	60	6
LEM015100060FN4	1.5	10	60	6
LEM020080060FN4	2	8	60	6
LEM020100060FN4	2	10	60	6
LEM020120060FN4	2	12	60	6
LEM020150060FN4	2	15	60	6
LEM030100070FN4	3	10	70	6
LEM030150070FN4	3	15	70	6
LEM030200070FN4	3	20	70	6
LEM030250070FN4	3	25	70	6
LEM030300070FN4	3	30	70	6
LEM040120070FN4	4	12	70	6
LEM040150070FN4	4	15	70	4
LEM040150S06FN4	4	15	70	6
LEM040200070FN4	4	20	70	4
LEM040200S06FN4	4	20	70	6
LEM040250070FN4	4	25	70	6
LEM040300075FN4	4	30	75	6
LEM040350075FN4	4	35	75	6
LEM040400080FN4	4	40	80	6
LEM050200070FN4	5	20	70	6
LEM050250075FN4	5	25	75	6
LEM050300080FN4	5	30	80	6
LEM050400080FN4	5	40	80	6
LEM060200075FN4	6	20	75	6
LEM060200100FN4	6	20	100	6
LEM060250075FN4	6	25	75	6
LEM060300080FN4	6	30	80	6
LEM060350080FN4	6	35	80	6
LEM060400090FN4	6	40	90	6
LEM080250075FN4	8	25	75	8
LEM080250100FN4	8	25	100	8
LEM080300080FN4	8	30	80	8
LEM080350090FN4	8	35	90	8
LEM080400090FN4	8	40	90	8
LEM080450100FN4	8	45	100	8
LEM080500100FN4	8	50	100	8
LEM080550100FN4	8	55	100	8
LEM100300080FN4	10	30	80	10
LEM100300110FN4	10	30	110	10
LEM100350090FN4	10	35	90	10

- Deep cutting with long flutes and long shank.
- Improved process efficiency for better surface finish.
- Superfine carbide with TiSiN-F coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

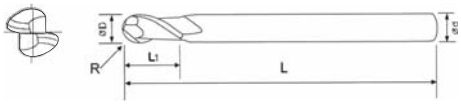
Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
LEM100400090FN4	10	40	90	10
LEM100450100FN4	10	45	100	10
LEM100500100FN4	10	50	100	10
LEM100550100FN4	10	55	100	10
LEM100600110FN4	10	60	110	10
LEM100650120FN4	10	65	120	10
LEM100700120FN4	10	70	120	10
LEM120300090FN4	12	30	90	12
LEM120350110FN4	12	35	110	12
LEM120400100FN4	12	40	100	12
LEM120450100FN4	12	45	100	12
LEM120500100FN4	12	50	100	12
LEM120550110FN4	12	55	110	12
LEM120600110FN4	12	60	110	12
LEM120700130FN4	12	70	130	12
LEM120800130FN4	12	80	130	12
LEM140500110FN4	14	50	110	14
LEM160400160FN4	16	40	160	16
LEM160550120FN4	16	55	120	16
LEM160700130FN4	16	70	130	16
LEM160900150FN4	16	90	150	16
LEM160C00160FN4	16	100	160	16
LEM200500160FN4	20	50	160	20
LEM200600130FN4	20	60	130	20
LEM200800160FN4	20	80	160	20
LEM200C00200FN4	20	100	200	20
LEM250750160FN4	25	75	160	25

GBN-AA2 2 Flutes General Ball Mills

brisloy

- General purpose Endmills.
- Microfine carbide with TiSiN coating.

2 MFC TiSiN coating



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
GBN010020050AA2	1X 0.5R	2	50	3
GBN015030050AA2	1.5 X 0.75R	3	50	3
GBN020040050AA2	2 X 1R	4	50	3
GBN025050050AA2	2.5 X1.25R	5	50	3
GBN030060050AA2	3 X 1.5R	6	50	3
GBN010020S04AA2	1 X 0.5R	2	50	4
GBN015030S04AA2	1.5 X 0.75R	3	50	4
GBN020040S04AA2	2 X 1R	4	50	4
GBN025050S04AA2	2.5 X1.25R	5	50	4
GBN030060S04AA2	3 X 1.5R	6	50	4
GBN035070050AA2	3.5 X 1.75R	7	50	4
GBN040080050AA2	4 X 2R	8	50	4
GBN050100050AA2	5 X 2.5R	10	50	5
GBN060120050AA2	6 X 3R	12	50	6
GBN070140060AA2	7 X 3.5R	14	60	8
GBN080160060AA2	8 X 4R	16	60	8
GBN090180075AA2	9 X 4.5R	18	75	10
GBN100200075AA2	10 X 5R	20	75	10
GBN110220075AA2	11 X 5.5R	22	75	12
GBN120240075AA2	12 X 6R	24	75	12
GBN140280100AA2	14 X 7R	28	100	14
GBN160320100AA2	16 X 8R	32	100	16
GBN180360100AA2	18 X 9R	36	100	18
GBN200400100AA2	20 X 10R	40	100	20

- Deep cutting with long shank.
- Superfine carbide with TiSiN coating.

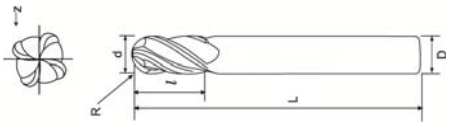
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
LSB030080075AA2	3 X 1.5R	8	75	3
LSB040080075AA2	4 X 2R	8	75	4
LSB050100075AA2	5 X 2.5R	10	75	5
LSB050100100AA2	5 X 2.5R	10	100	5
LSB060120075AA2	6 X 3R	12	75	6
LSB060120100AA2	6 X 3R	12	100	6
LSB080160075AA2	8 X 4R	16	75	8
LSB080160100AA2	8 X 4R	16	100	8
LSB080200150AA2	8 X 4R	20	150	8
LSB100200100AA2	10 X 5R	20	100	10
LSB100200150AA2	10 X 6R	20	150	10
LSB120240100AA2	12 X 6R	24	100	12
LSB120300150AA2	12 X 6R	30	150	12
LSB140280150AA2	14 X 7R	28	150	14
LSB160320150AA2	16 X 8R	32	150	16
LSB180360150AA2	18 X 9R	36	150	18
LSB200400150AA2	20 X 10R	40	150	20

4 Flutes General Ball Mills GBN-AA4

- General purpose Endmills.
- Microfine carbide with TiSiN coating.



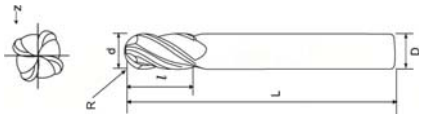
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
GBN030060050AA4	3 X 5R	6	50	3
GBN030060S04AA4	3 X 5R	6	50	4
GBN035070050AA4	3.5 X 1.75R	7	50	4
GBN040080050AA4	4 X 2R	8	50	4
GBN050100050AA4	5 X 2.5R	10	50	5
GBN060120050AA4	6 X 3R	12	50	6
GBN070140060AA4	7 X 3.5R	14	50	8
GBN080160060AA4	8 X 4R	16	60	8
GBN090180075AA4	9 X 4.5R	18	75	10
GBN100200075AA4	10 X 5R	20	75	10
GBN110220075AA4	11 X 5.5R	22	75	12
GBN120240075AA4	12 X 6R	24	75	12
GBN140280100AA4	14 X 7R	28	100	14
GBN160320100AA4	16 X 8R	32	100	16
GBN180360100AA4	18 X 9R	36	100	18
GBN200400100AA4	20 X 10R	40	100	20

LSB-AA4 4 Flutes Long Shank General Ball Mills

- Deep cutting with long shank.
- Superfine carbide with TiSiN coating.



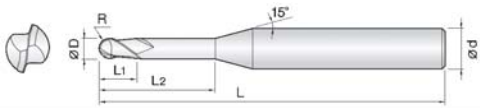
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
LSB030080075AA4	3 X 1.5R	8	75	3
LSB040110075AA4	4 X 2R	11	75	4
LSB050130075AA4	5 X 2.5R	13	75	5
LSB050130100AA4	5 X 2.5R	13	100	5
LSB060150075AA4	6 X 3R	15	75	6
LSB060150100AA4	6 X 3R	15	100	6
LSB080200075AA4	8 X 4R	20	75	8
LSB080200100AA4	8 X 4R	20	100	8
LSB100250100AA4	10 X 5R	25	100	10
LSB100250150AA4	10 X 5R	25	150	10
LSB120300100AA4	12 X 6R	30	100	12
LSB120300150AA4	12 X 6R	30	150	12
LSB140350150AA4	14 X 7R	35	150	14
LSB160400150AA4	16 X 8R	40	150	16
LSB180450150AA4	18 X 9R	45	150	18
LSB200450150AA4	20 X 10R	45	150	20

RBN-AA2 2 Flutes Rib Ball Mills

- General purpose rib ball mills.
- Microfine carbide with TiSiN coating.



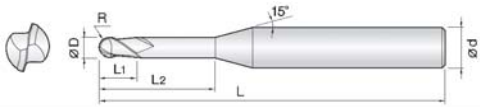
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
RBN004020050AA2	0.4 X 0.2R	2	50	4
RBN004040050AA2	0.4 X 0.2R	4	50	4
RBN005020050AA2	0.5 X 0.25R	2	50	4
RBN005060050AA2	0.5 X 0.25R	6	50	4
RBN005080050AA2	0.5 X 0.25R	8	50	4
RBN006030050AA2	0.6 X 0.3R	3	50	4
RBN006060050AA2	0.6 X 0.3R	6	50	4
RBN006080050AA2	0.6 X 0.3R	8	50	4
RBN007030050AA2	0.7 X 0.35R	3	50	4
RBN007060050AA2	0.7 X 0.35R	6	50	4
RBN007080050AA2	0.7 X 0.35R	8	50	4
RBN008030050AA2	0.8 X .040R	3	50	4
RBN008060050AA2	0.8 X 0.40R	6	50	4
RBN008080050AA2	0.8 X 0.40R	8	50	4
RBN010060050AA2	1 X 0.5R	6	50	4
RBN010080050AA2	1 X 0.5R	8	50	4
RBN010120050AA2	1 X 0.5R	12	50	4
RBN010160050AA2	1 X 0.5R	16	50	4
RBN010180050AA2	1 X 0.5R	18	50	4
RBN015060050AA2	1.5 X 0.75R	6	50	4
RBN015080050AA2	1.5 X 0.75R	8	50	4
RBN015120050AA2	1.5 X 0.75R	12	50	4
RBN015160050AA2	1.5 X 0.75R	16	50	4

2 Flutes Rib Ball Mills RBN-AA2

- General purpose rib ball mills.
- Microfine carbide with TiSiN coating.



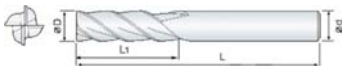
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
RBN015180050AA2	1.5 X 0.75R	18	50	4
RBN020080050AA2	2 X 1R	8	50	4
RBN020120050AA2	2 X 1R	12	50	4
RBN020160050AA2	2 X 1R	16	50	4
RBN020180050AA2	2 X 1R	18	50	4

4 Flutes General End Mills GEM-AA4

- General purpose Endmills.
- Microfine carbide with TiSiN coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
GEM010030050AA4	1	3	50	3
GEM015040050AA4	1.5	4	50	3
GEM020060050AA4	2	6	50	3
GEM025080050AA4	2.5	8	50	3
GEM030090050AA4	3	9	50	3
GEM010030S04AA4	1	3	50	4
GEM015050S04AA4	1.5	5	50	4
GEM020060S04AA4	2	6	50	4
GEM025080S04AA4	2.5	8	50	4
GEM030090S04AA4	3	9	50	4
GEM035100S04AA4	3.5	10	50	4
GEM040120050AA4	4	12	50	4
GEM030090S06AA4	3	9	50	6
GEM035100050AA4	3.5	10	50	6
GEM040120S06AA4	4	12	50	6
GEM045130050AA4	4.5	13	50	6
GEM050150050AA4	5	15	50	6
GEM055160050AA4	5.5	16	50	6
GEM060180050AA4	6	18	50	6
GEM070160060AA4	7	16	60	8
GEM080240060AA4	8	24	60	8
GEM090200075AA4	9	20	75	10
GEM100300075AA4	10	30	75	10
GEM110250075AA4	11	25	75	12
GEM120360075AA4	12	36	75	12
GEM140450100AA4	14	45	100	14
GEM160450100AA4	16	45	100	16
GEM180450100AA4	18	45	100	18
GEM200450100AA4	20	45	100	20

LSE-AA4 4 Flutes Long Shank General End Mills

- Deep cutting with long shank.
- Superfine carbide with TiSiN coating.

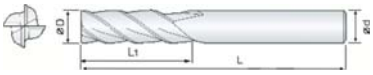
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
LSE030080075AA4	3	8	75	3
LSE040110075AA4	4	11	75	4
LSE050130075AA4	5	13	75	5
LSE050130100AA4	5	13	100	5
LSE060150075AA4	6	15	75	6
LSE060150100AA4	6	15	100	6
LSE080200075AA4	8	20	75	8
LSE080200100AA4	8	20	100	8
LSE080200150AA4	8	20	150	8
LSE100250100AA4	10	25	100	10
LSE100250150AA4	10	25	150	10
LSE120300100AA4	12	30	100	12
LSE120300150AA4	12	30	150	12
LSE140350150AA4	14	35	150	14
LSE160400150AA4	16	40	150	16
LSE180450150AA4	18	45	150	18
LSE200450150AA4	20	45	150	20

LFE-AA4 4 Flutes Long Flutes General End Mills

- Side cutting with long flutes.
- Superfine carbide with TiSiN coating.

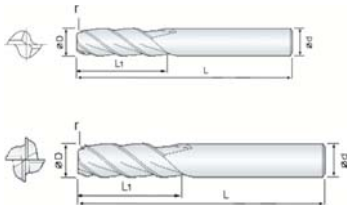


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
LFE030150075AA4	3	15	75	3
LFE040200075AA4	4	20	75	4
LFE050250075AA4	5	25	75	5
LFE060300075AA4	6	30	75	5
LFE060300100AA4	6	30	100	6
LFE080320075AA4	8	32	75	6
LFE080400100AA4	8	40	100	8
LFE080400150AA4	8	40	150	8
LFE100400100AA4	10	40	100	8
LFE100500100AA4	10	50	100	10
LFE100500150AA4	10	50	150	10
LFE120500100AA4	12	50	100	12
LFE120550150AA4	12	55	150	12
LFE140600150AA4	14	60	150	14
LFE160600150AA4	16	60	150	16
LFE180700150AA4	18	70	150	18
LFE200700150AA4	20	70	150	20

- General purpose Endmills.
- Microfine carbide with TiSiN coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

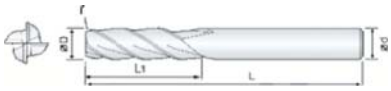
Unit:mm

Part Number	Diameter D	Flutes	Length of Cut L1	Overall Length L	Shank Dia d	R Corner r
GER020010025AA2	1	2	2.5	50	4	R0.2
GER030010025AA2	1	2	2.5	50	4	R0.3
GER020015040AA2	1.5	2	4	50	4	R0.2
GER030015040AA2	1.5	2	4	50	4	R0.3
GER020020050AA2	2	2	5	50	4	R0.2
GER030020050AA2	2	2	5	50	4	R0.3
GER050020050AA2	2	2	5	50	4	R0.5
GER020025065AA2	2.5	2	6.5	50	4	R0.2
GER050025065AA2	2.5	2	6.5	50	4	R0.5
GER030030075AA4	3	4	7.5	50	3	R0.3
GER050030075AA4	3	4	7.5	50	3	R0.5
GER030030S04AA4	3	4	7.5	50	4	R0.3
GER050030S04AA4	3	4	7.5	50	4	R0.5
GER050040100AA4	4	4	10	50	4	R0.5
GER100040100AA4	4	4	10	50	4	R1.0
GER050040S06AA4	4	4	10	50	6	R0.5
GER100040S06AA4	4	4	10	50	6	R1.0
GER050050125AA4	5	4	12.5	50	6	R0.5
GER100050125AA4	5	4	12.5	50	6	R1.0
GER050060150AA4	6	4	15	50	6	R0.5
GER100060150AA4	6	4	15	50	6	R1.0
GER050080200AA4	8	4	20	60	8	R0.5
GER100080200AA4	8	4	20	60	8	R1.0
GER150080200AA4	8	4	20	60	8	R1.5
GER050100250AA4	10	4	25	75	10	R0.5
GER100100250AA4	10	4	25	75	10	R1.0
GER150100250AA4	10	4	25	75	10	R1.5
GER200100250AA4	10	4	25	75	10	R2.0
GER050120300AA4	12	4	30	75	12	R0.5
GER100120300AA4	12	4	30	75	12	R1.0
GER150120300AA4	12	4	30	75	12	R1.5
GER200120300AA4	12	4	30	75	12	R2.0

LSR-AA4 4 Flutes Long Shank Corner Radius End Mills

brisby

- Deep cutting with long shank.
- Superfine carbide with TiSiN coating.

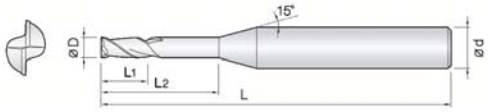


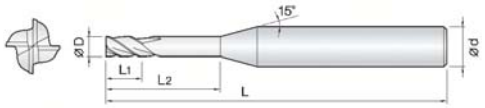
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d	R Corner r
LSR030030090AA4	3	9	75	3	R0.3
LSR050030090AA4	3	9	75	3	R0.5
LSR050030S04AA4	3	9	75	4	R0.5
LSR100030090AA4	3	9	75	4	R1.0
LSR050040120AA4	4	12	75	4	R0.5
LSR100040120AA4	4	12	75	4	R1.0
LSR050040S06AA4	4	12	75	6	R0.5
LSR100040S06AA4	4	12	75	6	R1.0
LSR050060180AA4	6	18	75	6	R0.5
LSR100060180AA4	6	18	75	6	R1.0
LSR050080320AA4	8	32	100	8	R0.5
LSR100080320AA4	8	32	100	8	R1.0
LSR150080320AA4	8	32	100	8	R1.5
LSR050100350AA4	10	35	100	10	R0.5
LSR100100350AA4	10	35	100	10	R1.0
LSR150100350AA4	10	35	100	10	R1.5
LSR200100350AA4	10	35	100	10	R2.0
LSR050120400AA4	12	40	100	12	R0.5
LSR100120400AA4	12	40	100	12	R1.0
LSR150120400AA4	12	40	100	12	R1.5
LSR200120400AA4	12	40	100	12	R2.0

- General purpose Endmills.
- Microfine carbide with TiSiN coating.





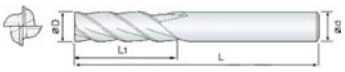
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
REM003010050AA2	0.3	1	50	4
REM003030050AA2	0.3	3	50	4
REM004020050AA2	0.4	2	50	4
REM004040050AA2	0.4	4	50	4
REM005020050AA2	0.5	2	50	4
REM005060050AA2	0.5	6	50	4
REM005080050AA2	0.5	8	50	4
REM006030050AA2	0.6	3	50	4
REM006060050AA2	0.6	6	50	4
REM006080050AA2	0.6	8	50	4
REM007030050AA2	0.7	3	50	4
REM007060050AA2	0.7	6	50	4
REM007080050AA2	0.7	8	50	4
REM008030050AA2	0.8	3	50	4
REM008060050AA2	0.8	6	50	4
REM008080050AA2	0.8	8	50	4
REM010060050AA4	1	6	50	4
REM010080050AA4	1	8	50	4
REM010120050AA4	1	12	50	4
REM010160050AA4	1	16	50	4
REM010180050AA4	1	18	50	4
REM015060050AA4	1.5	6	50	4
REM015080050AA4	1.5	8	50	4
REM015120050AA4	1.5	12	50	4
REM015160050AA4	1.5	16	50	4
REM015180050AA4	1.5	18	50	4
REM020080050AA4	2	8	50	4
REM020120050AA4	2	12	50	4
REM020160050AA4	2	16	50	4
REM020180050AA4	2	18	50	4

HEM-AA4 4 Flutes End Mills 45° Helix

- General purpose Endmills.
- Microfine carbide with TiSiN coating.



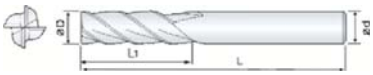
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
HEM030080050AA4	3	10	50	4
HEM035100050AA4	3.5	11	50	4
HEM040110050AA4	4	8	50	4
HEM030080S06AA4	3	10	50	6
HEM035100S06AA4	3.5	11	50	6
HEM040110S06AA4	4	13	50	6
HEM045130050AA4	4.5	13	50	6
HEM050130050AA4	5	13	50	5
HEM055130050AA4	5.5	13	50	6
HEM060150050AA4	6	15	50	6
HEM070160060AA4	7	16	60	8
HEM080200060AA4	8	20	60	8
HEM090200075AA4	9	20	75	10
HEM100200075AA4	10	20	75	10
HEM110250075AA4	11	25	75	12
HEM120300075AA4	12	30	75	12
HEM140350100AA4	14	35	100	14
HEM160400100AA4	16	40	100	16

LEH-AA4 4 Flutes Long Flute End Mills 45° Helix

- Side cutting with long flutes.
- Superfine carbide with TiSiN coating.

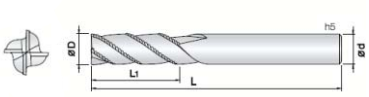


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
LEH030150075AA4	3	15	75	3
LEH040200075AA4	4	20	75	4
LEH050250075AA4	5	25	75	5
LEH060300075AA4	6	30	75	5
LEH060300100AA4	6	30	100	6
LEH080300075AA4	8	30	75	6
LEH080400100AA4	8	40	100	8
LEH100400100AA4	10	40	100	8
LEH100500100AA4	10	50	100	10
LEH100500150AA4	10	50	150	10
LEH120500100AA4	12	50	100	12
LEH120500150AA4	12	50	150	12
LEH140600150AA4	14	60	150	14
LEH160600150AA4	16	60	150	16

- General purpose Endmills.
- Microfine carbide with TiSiN coating.



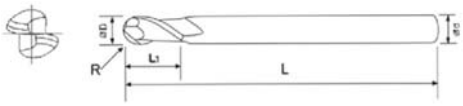
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
RFE040100050AA4	4	10	50	4
RFE050130050AA4	5	13	50	6
RFE060150050AA4	6	15	50	6
RFE080200060AA4	8	20	60	8
RFE100250075AA4	10	25	75	10
RFE120300075AA4	12	30	75	12
RFE140350100AA4	14	35	100	14
RFE160400100AA4	16	40	100	16
RFE180450100AA4	18	45	100	18
RFE200450100AA4	20	45	100	20

GBN-EN2 2 Flutes General Ball Mills

- General purpose Endmills.
- Microfine carbide with TiSiN coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
GBN010020S03EN2	1 X 0.5R	2	50	3
GBN015030S03EN2	1.5 X 0.75R	3	50	3
GBN020040S03EN2	2 X 1R	4	50	3
GBN025050S03EN2	2.5 X1.25R	5	50	3
GBN030060S03EN2	3 X 1.5R	6	50	3
GBN010020S04EN2	1 X 0.5R	2	50	4
GBN015030S04EN2	1.5 X 0.75R	3	50	4
GBN020040S04EN2	2 X 1R	4	50	4
GBN025050S04EN2	2.5 X1.25R	5	50	4
GBN030060S04EN2	3 X 1.5R	6	50	4
GBN040080S04EN2	4 X 2R	8	50	4
GBN050100S05EN2	5 X 2.5R	10	50	5
GBN060120S06EN2	6 X 3R	12	50	6
GBN080160S08EN2	8 X 4R	16	60	8
GBN100200S10EN2	10 X 5R	20	75	10
GBN120240S12EN2	12 X 6R	24	75	12
GBN140280S14EN2	14 X 7R	28	100	14
GBN160320S16EN2	16 X 8R	32	100	16
GBN180360S18EN2	18 X 9R	36	100	18
GBN200400S20EN2	20 X 10R	40	100	20

2 Flutes Long Shank General Ball Mills LSB-EN2

- Deep cutting with long shank.
- Superfine carbide with AlTiN coating.

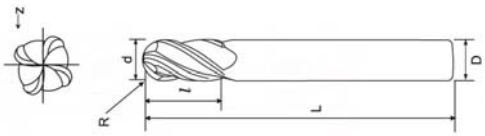
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
LSB030060075EN2	3 X 1.5R	6	75	3
LSB040080075EN2	4 X 2R	8	75	4
LSB050100075EN2	5 X 2.5R	10	75	5
LSB050100100EN2	5 X 2.5R	10	100	5
LSB060120075EN2	6 X 3R	12	75	6
LSB060120100EN2	6 X 3R	12	100	6
LSB080160075EN2	8 X 4R	16	75	8
LSB080160100EN2	8 X 4R	16	100	8
LSB080160150EN2	8 X 4R	20	150	8
LSB100200100EN2	10 X5 R	20	100	10
LSB100200150EN2	10 X 5R	20	150	10
LSB120240100EN2	12 X 6R	24	100	12
LSB120240150EN2	12 X 6R	24	150	12
LSB140280150EN2	14 X 7R	28	150	14
LSB160320150EN2	16 X 8R	32	150	16
LSB180360150EN2	18 X 9R	36	150	18
LSB200400150EN2	20 X 10R	40	150	20

4 Flutes General Ball Mills GBN-EN4

- General purpose Endmills.
- Microfine carbide with AlTiN coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
GBN030060S03EN4	3 X 1.5R	6	50	3
GBN030060S04EN4	3 X 1.5R	6	50	4
GBN040080S04EN4	4 X 2R	8	50	4
GBN050100S05EN4	5 X 2.5R	10	50	5
GBN060120S06EN4	6 X 3R	12	50	6
GBN070140S08EN4	7 X 3.5R	14	60	8
GBN080160S08EN4	8 X 4R	16	60	8
GBN090180S10EN4	9 X 4.5R	18	75	10
GBN100200S10EN4	10 X 5R	20	75	10
GBN120240S12EN4	12 X 6R	24	75	12
GBN140280S14EN4	14 X 7R	28	100	14
GBN160320S16EN4	16 X 8R	32	100	16
GBN180360S18EN4	18 X 9R	36	100	18
GBN200400S20EN4	20 X 10R	40	100	20

GEM-EN4 4 Flutes General End Mills

brisby

- General purpose Endmills.
- Microfine carbide with TiALN coating.

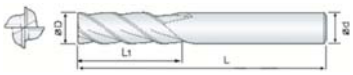
4 MFC AlTiN coating

Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
GEM010025050EN4	1	2.5	50	3
GEM015040050EN4	1.5	4	50	3
GEM020050050EN4	2	5	50	3
GEM025060050EN4	2.5	6	50	3
GEM030075050EN4	3	7.5	50	3
GEM010025S04EN4	1	2.5	50	4
GEM015040S04EN4	1.5	4	50	4
GEM020050S04EN4	2	5	50	4
GEM025060S04EN4	2.5	6	50	4
GEM030075S04EN4	3	7.5	50	4
GEM035085S04EN4	3.5	8.5	50	4
GEM040100050EN4	4	10	50	4
GEM030075S06EN4	3	7.5	50	6
GEM035085S06EN4	3.5	8.5	50	6
GEM040100S06EN4	4	10	50	6
GEM050120050EN4	5	12	50	5
GEM060150050EN4	6	15	50	6
GEM070175060EN4	7	17.5	60	7
GEM080200060EN4	8	20	60	8
GEM090225075EN4	9	22.5	75	10
GEM100250075EN4	10	25	75	10
GEM120300075EN4	12	30	75	12
GEM140400100EN4	14	45	100	14
GEM160450100EN4	16	45	100	16
GEM180450100EN4	18	45	100	18
GEM200450100EN4	20	45	100	20

- Deep cutting with long shank.
- Superfine carbide with TiALN coating.



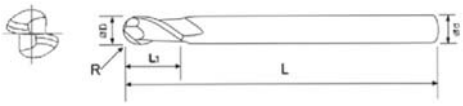
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
LSE030080075EN4	3	8	75	3
LSE040160075EN4	4	16	75	4
LSE050200075EN4	5	20	75	5
LSE050200100EN4	5	20	100	5
LSE060240075EN4	6	24	75	6
LSE060240100EN4	6	24	100	6
LSE080300075EN4	8	30	75	8
LSE080320100EN4	8	32	100	8
LSE080500150EN4	8	50	150	8
LSE100400100EN4	10	40	100	10
LSE100550150EN4	10	55	150	10
LSE120450100EN4	12	45	100	12
LSE120600150EN4	12	60	150	12
LSE140650150EN4	14	65	150	14
LSE160650150EN4	16	65	150	16
LSE180650150EN4	18	65	150	18
LSE200750150EN4	20	75	150	20

GBN-AL2 2 Flutes General Ball Mills

- General purpose Endmills.
- For Aluminum material.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
GBN010020S03AL2	1 X 0.5R	2	50	3
GBN015030S03AL2	1.5 X 0.75R	3	50	3
GBN020040S03AL2	2 X 1R	4	50	3
GBN025050S03AL2	2.5 X1.25R	5	50	3
GBN030060S03AL2	3 X 1.5R	6	50	3
GBN010020S04AL2	1 X 0.5R	2	50	4
GBN015030S04AL2	1.5 X 0.75R	3	50	4
GBN020040S04AL2	2 X 1R	4	50	4
GBN025050S04AL2	2.5 X1.25R	5	50	4
GBN030060S04AL2	3 X 1.5R	6	50	4
GBN040080S04AL2	4 X 2R	8	50	4
GBN060120S06AL2	6 X 3R	12	50	6
GBN080160S08AL2	8 X 4R	16	60	8
GBN100200S10AL2	10 X 5R	20	75	10
GBN120240S12AL2	12 X 6R	24	75	12
GBN140280S14AL2	14 X 7R	28	100	14
GBN160320S16AL2	16 X 8R	32	100	16
GBN180360S18AL2	18 X 9R	36	100	18
GBN200400S20AL2	20 X 10R	40	100	20

- Deep cutting with long shank.
- For Aluminum material.

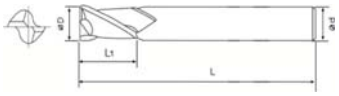
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
LSB040080075AL2	4 X 2R	8	75	4
LSB060120075AL2	6 X 3R	12	75	6
LSB060120100AL2	6 X 3R	12	100	6
LSB080160075AL2	8 X 4R	16	75	8
LSB080160100AL2	8 X 4R	16	100	8
LSB080200150AL2	8 X 4R	20	150	8
LSB100200100AL2	10 X5 R	20	100	10
LSB100200150AL2	10 X 5R	20	150	10
LSB120240100AL2	12 X 6R	24	100	12
LSB120240150AL2	12 X 6R	24	150	12
LSB140280150AL2	14 X 7R	28	150	14
LSB160320150AL2	16 X 8R	32	150	16
LSB180360150AL2	18 X 9R	36	150	18
LSB200400150AL2	20 X 10R	40	150	20

GEM-AL2 2 Flutes General End Mills

- General purpose Endmills.
- For Aluminum material.

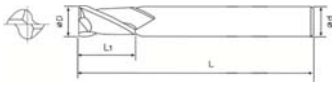


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
GEM010030S04AL2	1	3	50	4
GEM015040S04AL2	1.5	4	50	4
GEM020060S04AL2	2	6	50	4
GEM025080S04AL2	2.5	8	50	4
GEM030090S04AL2	3	9	50	4
GEM040120S04AL2	4	12	50	4
GEM030080S06AL2	3	8	50	6
GEM040110S06AL2	4	11	50	6
GEM050150S06AL2	5	15	50	5
GEM060180S06AL2	6	18	50	6
GEM080240S08AL2	8	24	60	8
GEM100300S10AL2	10	30	75	10
GEM120360S12AL2	12	36	75	12
GEM140450S14AL2	14	45	100	14
GEM160450S16AL2	16	45	100	16
GEM180450S18AL2	18	45	100	18
GEM200450S20AL2	20	45	100	20

- General purpose Endmills.
- For Aluminum material.



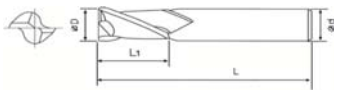
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
LSE030080075AL2	3	8	75	3
LSE040160075AL2	4	16	75	4
LSE050130075AL2	5	13	75	5
LSE050130100AL2	5	13	100	5
LSE060150075AL2	6	15	75	6
LSE060150100AL2	6	15	100	6
LSE080200075AL2	8	20	75	8
LSE080200100AL2	8	20	100	8
LSE100250100AL2	10	25	100	10
LSE100250150AL2	10	25	150	10
LSE120300100AL2	12	30	100	12
LSE120300150AL2	12	30	150	12
LSE140400150AL2	14	35	150	14
LSE160450150AL2	16	40	150	16
LSE180450150AL2	18	45	150	18
LSE200450150AL2	20	45	150	20

2 Flutes Long Flutes General End Mills LFE-AL2

- General purpose Endmills.
- For Aluminum material.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

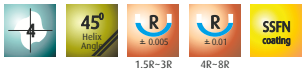
Unit:mm

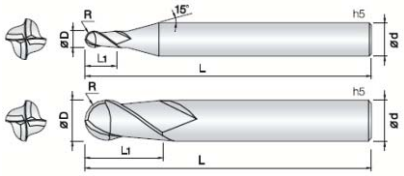
Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
LFE030150075AL2	3	15	75	3
LFE040200075AL2	4	20	75	4
LFE050200075AL2	5	20	75	5
LFE060300075AL2	6	30	75	6
LFE060300100AL2	6	30	100	6
LFE080320075AL2	8	32	75	8
LFE080400100AL2	8	40	100	8
LFE100400100AL2	10	40	100	10
LFE100500100AL2	10	50	100	10
LFE100500150AL2	10	50	150	10
LFE120500100AL2	12	50	100	12
LFE120550150AL2	12	55	150	12
LFE140600150AL2	14	60	150	14
LFE160600150AL2	16	60	150	16
LFE180700150AL2	18	70	150	18
LFE200700150AL2	20	70	150	20

GBN-SS4 4 Flutes 45° Helix Ball Mills for SUS

brisloy

- Endmills for alloy steel, SUS, Ti/Ni base alloy, inconel and hard to cut materials.
- Excellent work surface finish by 4 flute and deep chip pocket.
- Minimize fracturing at high feed by high TRS ultra fine WC grade.



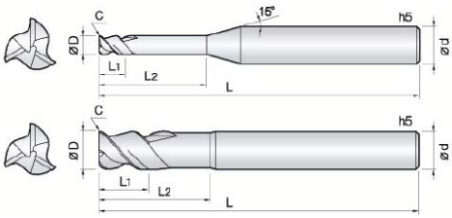


Size	L1 Tolerance
D≤Ø5	+0~-0.01mm
D>Ø5	+0~-0.02mm

Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Overall Length L	Shank Dia d
GBN030080060SS4	1.5R X 3	8	60	6
GBN040080070SS4	2R X 4	8	70	6
GBN050100080SS4	2.5R X 5	10	80	6
GBN060120090SS4	3R X 6	12	90	6
GBN080140100SS4	4R X 8	14	100	8
GBN100180100SS4	5R X 10	18	100	10
GBN120220110SS4	6R X 12	22	110	12
GBN160300130SS4	8R X 16	30	130	16

- Endmills for exotic material such as S.S series, titanium alloys, inconel etc.
- High performance with the appearance of high helix and corner radius.
- Superfine carbide with SSFN coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

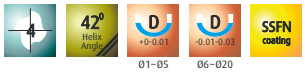
Unit:mm

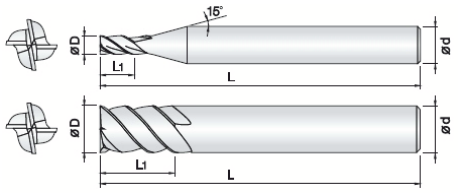
Part Number	Diameter D	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
GEM008020S04SS3	0.8	2	-	45	4
GEM008040S06SS3	0.8	2	4	45	6
GEM010025S04SS3	1	2.5	-	45	4
GEM010025S06SS3	1	2.5	-	45	6
GEM010040S06SS3	1	2.5	4	45	6
GEM012030S04SS3	1.2	3	-	45	4
GEM012030S06SS3	1.2	3	-	45	6
GEM012060060SS3	1.2	3	6	45	6
GEM015040S04SS3	1.5	4	-	45	4
GEM015040S06SS3	1.5	4	-	45	6
GEM015060S06SS3	1.5	4	6	45	6
GEM020050S04SS3	2	5	-	45	4
GEM020050S06SS3	2	5	-	45	6
GEM020080S06SS3	2	5	8	45	6
GEM030080S04SS3	3	8	-	45	4
GEM030080S06SS3	3	8	-	45	6
GEM030150S06SS3	3	8	15	45	6
GEM040100S04SS3	4	10	-	50	4
GEM040100S06SS3	4	10	-	50	6
GEM040150S06SS3	4	10	15	50	6
GEM050120S06SS3	5	12	-	50	6
GEM060120S06SS3	6	12	-	50	6
GEM060200S06SS3	6	12	20	60	6
GEM080190S08SS3	8	19	-	60	8
GEM080260S08SS3	8	19	26	60	8
GEM100220S10SS3	10	22	-	70	10
GEM100320S10SS3	10	22	32	70	10
GEM120260S12SS3	12	26	-	80	12
GEM120380S12SS3	12	26	38	80	12
GEM160360S16SS3	16	36	-	100	16
GEM160450S16SS3	16	36	45	100	16
GEM200550S20SS3	20	36	55	110	20

SEM-SS4 4 Flutes End Mills for SUS

brisloy

- Endmills for steels (~HRc48), SUS, Ti/Ni base alloy, inconel and hard to cut materials.
- Minimize chattering by unequal flute spacing design.
- Excellent work surface finish by 4 flute and deep chip pocket.
- Minimize fracturing at high feed by high TRS ultra fine WC grade.



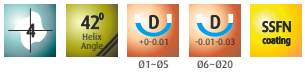


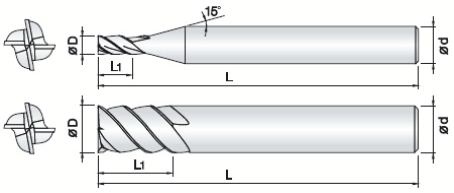
Size	D Tolerance
D≤Ø5	+0 ~ -0.01mm
D>Ø5	-0.01 ~ -0.03mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
SEM010015050SS4	1	1.5	50	4
SEM010025050SS4	1	2.5	50	4
SEM010035050SS4	1	3.5	50	4
SEM015025050SS4	1.5	2.5	50	4
SEM015040050SS4	1.5	4	50	4
SEM015055050SS4	1.5	5.5	50	4
SEM020030050SS4	2	3	50	4
SEM020060050SS4	2	6	50	4
SEM020080050SS4	2	8	50	4
SEM025035050SS4	2.5	3.5	50	4
SEM025080050SS4	2.5	8	50	4
SEM030045060SS4	3	4.5	60	6
SEM030100060SS4	3	10	60	6
SEM030120060SS4	3	12	60	6
SEM040060060SS4	4	6	60	6
SEM040120060SS4	4	12	60	6
SEM040160060SS4	4	16	60	6
SEM050075060SS4	5	7.5	60	6
SEM050150060SS4	5	15	60	6
SEM050200060SS4	5	20	60	6
SEM060090060SS4	6	9	60	6
SEM060150060SS4	6	15	60	6
SEM060180060SS4	6	18	60	6
SEM060250065SS4	6	25	65	6
SEM070110070SS4	7	11	70	8
SEM070180070SS4	7	18	70	8
SEM070210070SS4	7	21	70	8

- Endmills for steels (~HRc48), SUS, Ti/Ni base alloy, inconel and hard to cut materials.
- Minimize chattering by unequal flute spacing design.
- Excellent work surface finish by 4 flute and deep chip pocket.
- Minimize fracturing at high feed by high TRS ultra fine WC grade.





Size	D Tolerance
D≤Ø5	+0 ~ -0.01mm
D>Ø5	-0.01 ~ -0.03mm

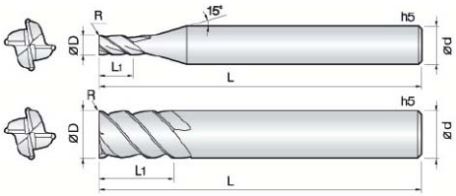
Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
SEM080120070SS4	8	12	70	8
SEM080200070SS4	8	20	70	8
SEM080240070SS4	8	24	70	8
SEM080300080SS4	8	30	80	8
SEM090140080SS4	9	14	80	10
SEM090220080SS4	9	22	80	10
SEM090270080SS4	9	27	80	10
SEM100150080SS4	10	15	80	10
SEM100250080SS4	10	25	80	10
SEM100300080SS4	10	30	80	10
SEM100400090SS4	10	40	90	10
SEM100500100SS4	10	50	100	10
SEM110170090SS4	11	17	90	12
SEM110220090SS4	11	22	90	12
SEM110330090SS4	11	33	90	12
SEM120180090SS4	12	18	90	12
SEM120300090SS4	12	30	90	12
SEM120360090SS4	12	36	90	12
SEM120500100SS4	12	50	100	12
SEM120600110SS4	12	60	110	12
SEM160240100SS4	16	24	100	16
SEM160350100SS4	16	35	100	16
SEM160500110SS4	16	50	110	16
SEM200300100SS4	20	30	100	20
SEM200400100SS4	20	40	100	20
SEM200600120SS4	20	60	120	20

SER-SS4 4 Flutes Corner Radius End Mills for Exotic Material & Alloys

brisloy

- Endmills for exotic material such as S.S series, titanium alloys, inconel etc.
- High performance with the appearance of corner radius.
- Superfine carbide with SSFN coating.

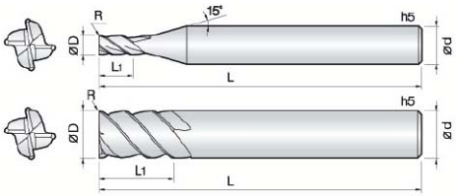


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
SER001010050SS4	1 X R0.1	2.5	50	4
SER002010050SS4	1 X R0.2	2.5	50	4
SER001012050SS4	1.2 X R0.1	3	50	4
SER002012050SS4	1.2 X R0.2	3	50	4
SER001015050SS4	1.5 X R0.1	4	50	4
SER002015050SS4	1.5 X R0.2	4	50	4
SER003015050SS4	1.5 X R0.3	4	50	4
SER001020050SS4	2 X R0.1	6	50	4
SER002020050SS4	2 X R0.2	6	50	4
SER003020050SS4	2 X R0.3	6	50	4
SER005020050SS4	2 X R0.5	6	50	4
SER001025050SS4	2.5 X R0.1	7	50	4
SER002025050SS4	2.5 X R0.2	7	50	4
SER003025050SS4	2.5 X R0.3	7	50	4
SER001030060SS4	3 X R0.1	10	60	6
SER002030055SS4	3 X R0.2	6	55	6
SER002030060SS4	3 X R0.2	10	60	6
SER003030060SS4	3 X R0.3	10	60	6
SER005030055SS4	3 X R0.5	6	55	6
SER005030060SS4	3 X R0.5	10	60	6
SER002035060SS4	3.5 X R0.2	10	60	6
SER001040060SS4	4 X R0.1	12	60	6
SER002040055SS4	4 X R0.2	8	55	6
SER002040060SS4	4 X R0.2	12	60	6
SER003040060SS4	4 X R0.3	12	60	6
SER005040055SS4	4 X R0.5	8	55	6
SER005040060SS4	4 X R0.5	12	60	6
SER010040060SS4	4 X R1	12	60	6
SER002045060SS4	4.5 X R0.2	14	60	6
SER002050055SS4	5 X R0.2	10	55	6
SER002050060SS4	5 X R0.2	15	60	6
SER003050060SS4	5 X R0.3	15	60	6
SER005050055SS4	5 X R0.5	10	55	6
SER005050060SS4	5 X R0.5	15	60	6
SER010050060SS4	5 X R1	15	60	6
SER002055060SS4	5.5 X R0.2	15	60	6
SER003060055SS4	6 X R0.3	12	55	6
SER003060060SS4	6 X R0.3	15	60	6
SER005060055SS4	6 X R0.5	12	55	6
SER005060060SS4	6 X R0.5	15	60	6
SER010060055SS4	6 X R1	12	55	6
SER010060060SS4	6 X R1	15	60	6
SER003065060SS4	6.5 X R0.3	18	60	8
SER003070080SS4	7 X R0.3	20	80	8
SER003080070SS4	8 X R0.3	16	70	8
SER003080080SS4	8 X R0.3	20	80	8
SER005080070SS4	8 X R0.5	16	70	8
SER005080080SS4	8 X R0.5	20	80	8

- Endmills for exotic material such as S.S series, titanium alloys, inconel etc.
- High performance with the appearance of corner radius.
- Superfine carbide with SSFN coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

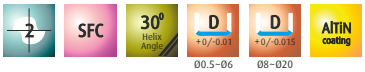
Unit:mm

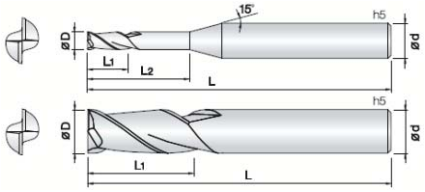
Part Number	Diameter DXR	Length of Cut L1	Overall Length L	Shank Dia d
SER010080070SS4	8 X R1	16	70	8
SER010080080SS4	8 X R1	20	80	8
SER003085080SS4	8.5 X R0.3	22	80	10
SER003090080SS4	9 X R0.3	25	80	10
SER003100070SS4	10 X R0.3	20	70	10
SER003100080SS4	10 X R0.3	25	80	10
SER005100070SS4	10 X R0.5	20	70	10
SER005100080SS4	10 X R0.5	25	80	10
SER010100070SS4	10 X R1	20	70	10
SER010100080SS4	10 X R1	25	80	10
SER015100070SS4	10 X R1.5	20	70	10
SER015100080SS4	10 X R1.5	25	80	10
SER020100070SS4	10 X R2	20	70	10
SER020100080SS4	10 X R2	25	80	10
SER025100070SS4	10 X R2.5	20	70	10
SER025100080SS4	10 X R2.5	25	80	10
SER030100070SS4	10 X R3	20	70	10
SER030100080SS4	10 X R3	25	80	10
SER003120080SS4	12 X R0.3	24	80	12
SER003120100SS4	12 X R0.3	30	100	12
SER005120080SS4	12 X R0.5	24	80	12
SER005120100SS4	12 X R0.5	30	100	12
SER010120080SS4	12 X R1	24	80	12
SER010120100SS4	12 X R1	30	100	12
SER015120080SS4	12 X R1.5	24	80	12
SER015120100SS4	12 X R1.5	30	100	12
SER020120080SS4	12 X R2	24	80	12
SER020120100SS4	12 X R2	30	100	12
SER025120100SS4	12 X R2.5	30	100	12
SER030120080SS4	12 X R3	24	80	12
SER030120100SS4	12 X R3	30	100	12
SER005160100SS4	16 X R0.5	32	100	16
SER005160110SS4	16 X R0.5	42	110	16
SER010160100SS4	16 X R1	32	100	16
SER010160110SS4	16 X R1	42	110	16
SER005200110SS4	20 X R0.5	48	110	20
SER010200110SS4	20 X R1	48	110	20

LEG-SF2 2 Flutes Long Shank End Mills For Graphite Material

brisloy

- For graphite material and nonferrous alloy.
- Deep cutting with long flutes and long shank.
- Superfine carbide with AlTiN coating.



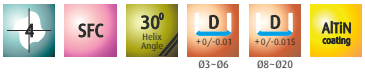


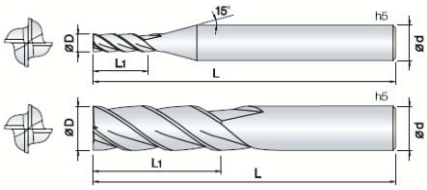
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
LEG005020050SF2	0.5	2	-	50	4
LEG010050060SF2	1	5	-	60	4
LEG010100060SF2	1	5	10	60	4
LEG010100S06SF2	1	5	10	60	6
LEG010150060SF2	1	5	15	60	4
LEG010200060SF2	1	5	20	60	4
LEG010250070SF2	1	5	25	70	4
LEG015100060SF2	1.5	10	-	60	4
LEG015150060SF2	1.5	8	15	60	4
LEG015200060SF2	1.5	8	20	60	4
LEG015200S06SF2	1.5	8	20	60	6
LEG015250070SF2	1.5	8	25	70	4
LEG020100060SF2	2	10	-	60	4
LEG020150060SF2	2	10	15	60	4
LEG020200060SF2	2	10	20	60	4
LEG020200S06SF2	2	10	20	60	6
LEG020250070SF2	2	10	25	70	4
LEG020300080SF2	2	10	30	80	4
LEG030150070SF2	3	15	-	70	4
LEG030250075SF2	3	15	25	75	4
LEG030300075SF2	3	15	30	75	6
LEG040200100SF2	4	20	-	100	4
LEG040400100SF2	4	20	40	100	6
LEG050250100SF2	5	25	-	100	5
LEG060300110SF2	6	30	-	110	6
LEG060300150SF2	6	30	-	150	6
LEG080400150SF2	8	40	-	150	8
LEG100450150SF2	10	45	-	150	10
LEG100500200SF2	10	50	-	200	10
LEG120600150SF2	12	60	-	150	12
LEG120600200SF2	12	60	-	200	12
LEG160600130SF2	16	60	-	130	16
LEG160700160SF2	16	70	-	160	16
LEG160700200SF2	16	70	-	200	16
LEG200800160SF2	20	80	-	160	20
LEG200900200SF2	20	90	-	200	20
LEG200C12320SF2	20	120	-	320	20

- For graphite material and nonferrous alloy.
- Deep cutting with long flutes and long shank.
- Superfine carbide with AlTiN coating.





Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

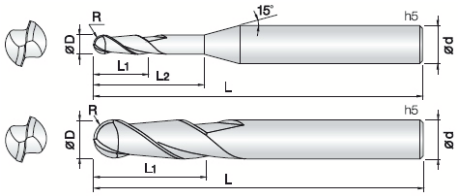
Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
LEG030100100SF4	3	10	100	6
LEG030150100SF4	3	15	100	6
LEG040150100SF4	4	15	100	6
LEG040200100SF4	4	20	100	4
LEG040200S06SF4	4	20	100	6
LEG050200100SF4	5	20	100	6
LEG060300110SF4	6	30	110	6
LEG060300150SF4	6	30	150	6
LEG080400150SF4	8	40	150	8
LEG080400200SF4	8	40	200	8
LEG100500150SF4	10	50	150	10
LEG100500200SF4	10	50	200	10
LEG120600150SF4	12	60	150	12
LEG120600200SF4	12	60	200	12
LEG160700160SF4	16	70	160	16
LEG160800200SF4	16	80	200	16
LEG200750160SF4	20	75	160	20
LEG200900200SF4	20	90	200	20
LEG200C00320SF4	20	100	320	20

LBG-SF2 2 Flutes Long Shank Ball Mills For Graphite Material

brisloy

- For graphite material and nonferrous alloy.
- Deep cutting with long flutes and long shank.
- Superfine carbide with AlTiN coating.

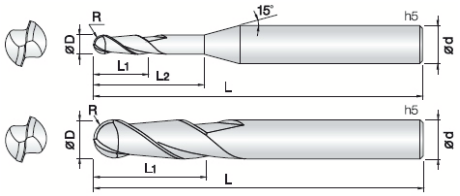


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
LBG005020050SF2	0.25R X 0.5	2	-	50	4
LBG005050050SF2	0.25R X 0.5	2	5	50	4
LBG010050060SF2	0.5R X 1	5	-	60	4
LBG010050S06SF2	0.5R X 1	5	-	60	6
LBG010100060SF2	0.5R X 1	5	10	60	4
LBG010100S06SF2	0.5R X 1	5	10	60	6
LBG010150060SF2	0.5R X 1	5	15	60	4
LBG010200060SF2	0.5R X 1	5	20	60	4
LBG010250070SF2	0.5R X 1	5	25	70	4
LBG010300080SF2	0.5R X 1	5	30	80	4
LBG010350080SF2	0.5R X 1	5	35	80	4
LBG010400090SF2	0.5R X 1	5	40	90	4
LBG015080060SF2	0.75R X 1.5	8	-	60	6
LBG015100060SF2	0.75R X 1.5	8	10	60	4
LBG015150060SF2	0.75R X 1.5	8	15	60	4
LBG015150S06SF2	0.75R X 1.5	8	15	60	6
LBG015200060SF2	0.75R X 1.5	8	20	60	4
LBG015250070SF2	0.75R X 1.5	8	25	70	4
LBG015300080SF2	0.75R X 1.5	8	30	80	4
LBG015350080SF2	0.75R X 1.5	8	35	80	4
LBG015400090SF2	0.75R X 1.5	8	40	90	4
LBG020100060SF2	1R X 2	10	-	60	4
LBG020100070SF2	1R X 2	10	-	70	6
LBG020150060SF2	1R X 2	10	15	60	4
LBG020200060SF2	1R X 2	10	20	60	4
LBG020200070SF2	1R X 2	10	20	70	6
LBG020250070SF2	1R X 2	10	25	70	4
LBG020300080SF2	1R X2	10	30	80	4
LBG020350080SF2	1R X 2	10	35	80	4
LBG020400090SF2	1R X 2	10	40	90	4
LBG020500100SF2	1R X 2	10	50	100	4
LBG020600100SF2	1R X 2	10	60	100	4
LBG025200070SF2	1.25R X 2.5	10	20	70	4
LBG030150100SF2	1.5R X 3	15	-	100	3
LBG030150070SF2	1.5R X 3	15	-	70	6
LBG030200070SF2	1.5R X 3	15	20	70	4
LBG030300080SF2	1.5R X 3	15	30	80	4
LBG030300075SF2	1.5R X 3	15	30	75	6
LBG030400090SF2	1.5R X 3	15	40	90	4
LBG030400S06SF2	1.5R X 3	15	40	90	6
LBG030500100SF2	1.5R X 3	15	50	100	4
LBG030600100SF2	1.5R X 3	15	60	100	4
LBG040200080SF2	2R X 4	20	-	80	4
LBG040200100SF2	2R X 4	20	-	100	4
LBG040200130SF2	2R X 4	20	-	130	4

- For graphite material and nonferrous alloy.
- Deep cutting with long flutes and long shank.
- Superfine carbide with AlTiN coating.



Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

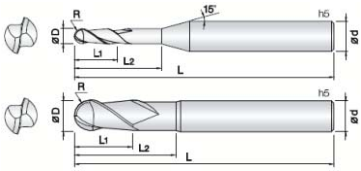
Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
LBG040200075SF2	2R X 4	20	-	75	6
LBG040350090SF2	2R X 4	20	35	90	6
LBG040450100SF2	2R X 4	20	45	100	6
LBG050250100SF2	2.5R X 5	25	-	100	5
LBG050250130SF2	2.5R X 5	25	-	130	5
LBG050250090SF2	2.5R X 5	25	-	90	6
LBG050500110SF2	2.5R X 5	25	50	110	6
LBG060250110SF2	3R X 6	25	-	110	6
LBG060300150SF2	3R X 6	30	-	150	6
LBG060300200SF2	3R X 6	30	-	200	6
LBG060300220SF2	3R X 6	30	-	220	6
LBG080350110SF2	4R X 8	35	-	110	8
LBG080400150SF2	4R X 8	40	-	150	8
LBG080400200SF2	4R X 8	40	-	200	8
LBG080400220SF2	4R X 8	40	-	220	8
LBG100400120SF2	5R X 10	40	-	120	10
LBG100450150SF2	5R X 10	45	-	150	10
LBG100450200SF2	5R X 10	45	-	200	10
LBG100450230SF2	5R X 10	45	-	230	10
LBG120500130SF2	6R X 12	50	-	130	12
LBG120500150SF2	6R X 12	50	-	150	12
LBG120550200SF2	6R X 12	55	-	200	12
LBG120550250SF2	6R X 12	55	-	250	12
LBG160600160SF2	8R X 16	60	-	160	16
LBG160650200SF2	8R X 16	65	-	200	16
LBG160650250SF2	8R X 16	65	-	250	16
LBG160700320SF2	8R X 16	70	-	320	16
LBG200700160SF2	10R X 20	70	-	160	20
LBG200750200SF2	10R X 20	75	-	200	20
LBG200750250SF2	10R X 20	75	-	250	20
LBG200900320SF2	10R X 20	90	-	320	20
LBG250C00250SF2	12.5R X 25	100	-	250	25

GBG-DC2 2 Flutes Diamond Coating Ball Mills For Graphite Material

brisloy

- Deep cutting with long flute and long shank.
- High performance and durability with diamond coating.
- Superfine carbide with diamond coating.



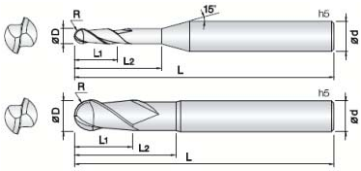
2 | SFC | 30° Helix Angle | R ± 0.005 0.5R~3R | R ± 0.01 4R~10R | DC coating

Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
GBG002010045DC2	0.1R X 0.2	1	-	45	4
GBG003012045DC2	0.15R X 0.3	1.2	-	45	4
GBG003020045DC2	0.15R X 0.3	1.2	2	45	4
GBG004015045DC2	0.2R X 0.4	1.5	-	45	4
GBG004020045DC2	0.2R X 0.4	1.5	2	45	4
GBG004030045DC2	0.2R X 0.4	1.5	3	45	4
GBG004040045DC2	0.2R X 0.4	1.5	4	45	4
GBG004050045DC2	0.2R X 0.4	1.5	5	45	4
GBG005020045DC2	0.25R X 0.5	2	-	45	4
GBG005030045DC2	0.25R X 0.5	2	3	45	4
GBG005040045DC2	0.25R X 0.5	2	4	45	4
GBG005050045DC2	0.25R X 0.5	2	5	45	4
GBG005060045DC2	0.25R X 0.5	2	6	45	4
GBG005080045DC2	0.25R X 0.5	2	8	45	4
GBG006 20045DC2	0.3R X 0.6	2	-	45	4
GBG006030045DC2	0.3R X 0.6	2	3	45	4
GBG006040045DC2	0.3R X 0.6	2	4	45	4
GBG006050045DC2	0.3R X 0.6	2	5	45	4
GBG006060045DC2	0.3R X 0.6	2	6	45	4
GBG006080045DC2	0.3R X 0.6	2	8	45	4
GBG006100045DC2	0.3R X 0.6	2	10	45	4
GBG006120045DC2	0.3R X 0.6	2	12	45	4
GBG008030045DC2	0.4R X 0.8	3	-	45	4
GBG008040045DC2	0.4R X 0.8	3	4	45	4
GBG008050045DC2	0.4R X 0.8	3	5	45	4
GBG008060045DC2	0.4R X 0.8	3	6	45	4
GBG008080045DC2	0.4R X 0.8	3	8	45	4
GBG008100045DC2	0.4R X 0.8	3	10	45	4
GBG008150045DC2	0.4R X 0.8	3	15	45	4
GBG008200045DC2	0.4R X 0.8	3	20	45	4
GBG010030060DC2	0.5R X 1	3	-	60	4
GBG010040060DC2	0.5R X 1	3	4	60	4
GBG010050060DC2	0.5R X 1	3	5	60	4
GBG010060060DC2	0.5R X 1	3	6	60	4
GBG010080060DC2	0.5R X 1	3	8	60	4
GBG010100060DC2	0.5R X 1	3	10	60	4
GBG010120060DC2	0.5R X 1	3	12	60	4
GBG010150060DC2	0.5R X 1	3	15	60	4
GBG010200060DC2	0.5R X 1	3	20	60	4
GBG010250080DC2	0.5R X 1	3	25	80	4
GBG010300080DC2	0.5R X 1	3	30	80	4
GBG010350080DC2	0.5R X 1	3	35	80	4
GBG010400080DC2	0.5R X 1	3	40	80	4
GBG015050006DC2	0.75R X 1.5	5	-	60	4
GBG015080080DC2	0.75R X 1.5	5	8	80	4
GBG015100080DC2	0.75R X 1.5	5	10	80	4
GBG015120080DC2	0.75R X 1.5	5	12	80	4
GBG015150080DC2	0.75R X 1.5	5	15	80	4
GBG015180080DC2	0.75R X 1.5	5	18	80	4
GBG015200080DC2	0.75R X 1.5	5	20	80	4
GBG015250080DC2	0.75R X 1.5	5	25	80	4
GBG015300080DC2	0.75R X 1.5	5	30	80	4

- Deep cutting with long flute and long shank.
- High performance and durability with diamond coating.
- Superfine carbide with diamond coating.



2 | SFC | 30° Helix Angle | R ± 0.005 0.5R~3R | R ± 0.01 4R~10R | DC coating

Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

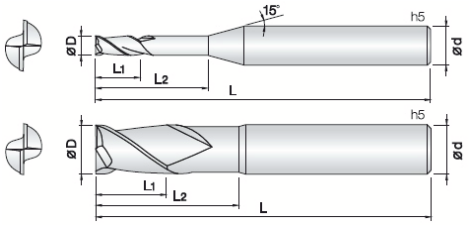
Unit:mm

Part Number	Diameter RXD	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
GBG015350080DC2	0.75R X 1.5	5	35	80	4
GBG015400080DC2	0.75R X 1.5	5	40	80	4
GBG020060060DC2	1R X 2	6	-	60	4
GBG020100080DC2	1R X 2	6	10	80	4
GBG020150080DC2	1R X 2	6	15	80	4
GBG020200080DC2	1R X 2	6	20	80	4
GBG020250080DC2	1R X 2	6	25	80	4
GBG020300080DC2	1R X 2	6	30	80	4
GBG020350080DC2	1R X 2	6	35	80	4
GBG020400100DC2	1R X 2	6	40	100	4
GBG020450100DC2	1R X 2	6	45	100	4
GBG020500100DC2	1R X 2	6	50	100	4
GBG020600100DC2	1R X 2	6	60	100	4
GBG030150100DC2	1.5R X 3	8	15	100	3
GBG030080060DC2	1.5R X 3	8	-	60	4
GBG030150S04DC2	1.5R X 3	8	15	100	4
GBG030200100DC2	1.5R X 3	8	20	100	4
GBG030250100DC2	1.5R X 3	8	25	100	4
GBG030300100DC2	1.5R X 3	8	30	100	4
GBG030350100DC2	1.5R X 3	8	35	100	4
GBG030400100DC2	1.5R X 3	8	40	100	4
GBG030500100DC2	1.5R X 3	8	50	100	4
GBG030600100DC2	1.5R X 3	8	60	100	4
GBG040160060DC2	2R X 4	16	-	60	4
GBG040160080DC2	2R X 4	16	-	80	4
GBG040300080DC2	2R X 4	16	30	80	4
GBG040160100DC2	2R X 4	16	-	100	4
GBG040400100DC2	2R X 4	16	40	100	4
GBG040160130DC2	2R X 4	16	-	130	4
GBG040400130DC2	2R X 4	16	40	130	4
GBG040160150DC2	2R X 4	16	-	150	4
GBG040500150DC2	2R X 4	16	50	150	4
GBG050200110DC2	2.5R X 5	16	20	110	6
GBG060250080DC2	3R X 6	16	25	80	6
GBG060250110DC2	3R X 6	16	25	110	6
GBG060400110DC2	3R X 6	16	40	110	6
GBG060300150DC2	3R X 6	16	30	150	6
GBG060500150DC2	3R X 6	16	50	150	6
GBG080300080DC2	4R X 8	20	30	80	8
GBG080300110DC2	4R X 8	20	30	110	8
GBG080400110DC2	4R X 8	20	40	110	8
GBG080500150DC2	4R X 8	20	50	150	8
GBG080400200DC2	4R X 8	20	40	200	8
GBG100400080DC2	5R X 10	22	40	80	10
GBG100400110DC2	5R X 10	22	40	110	10
GBG100500110DC2	5R X 10	22	50	110	10
GBG100600160DC2	5R X 10	22	60	160	10
GBG100500200DC2	5R X 10	22	50	200	10
GBG120500110DC2	6R X 12	25	50	110	12
GBG120500160DC2	6R X 12	25	50	160	12
GBG120600200DC2	6R X 12	25	60	200	12

GEG-DC2 2 Flutes Diamond Coating End Mills For Graphite

brisloy

- For graphite material.
- Deep cutting with long shank.
- Higher tool life with diamond coating.

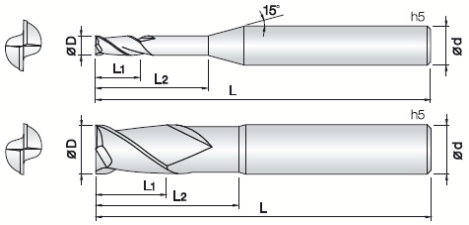


Size	D Tolerance
Ø0.4≤D<Ø1	+0~ -0.01mm
Ø1≤D<Ø6	+0~ -0.015mm
Ø6≤D	+0~ -0.02mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Effective Length L2	Overall Length L	Shank Dia d
GEG002004S04DC2	0.2	0.4	-	45	4
GEG003006S04DC2	0.3	0.6	-	45	4
GEG004008S04DC2	0.4	0.8	-	45	4
GEG005010S04DC2	0.5	1	-	45	4
GEG006012S04DC2	0.6	1.2	-	45	4
GEG007015S04DC2	0.7	1.5	-	45	4
GEG008020S04DC2	0.8	2	-	45	4
GEG009025S04DC2	0.9	2.5	-	45	4
GEG010030S04DC2	1	3	-	60	4
GEG010032S04DC2	1	3.2	-	45	4
GEG010050S04DC2	1	3	5	60	4
GEG010 10004DC2	1	3	10	60	4
GEG010150S04DC2	1	3	15	60	4
GEG010200S04DC2	1	3	20	60	4
GEG010250S04DC2	1	3	25	60	4
GEG015060S04DC2	1.5	6	-	60	4
GEG015100S04DC2	1.5	6	10	60	4
GEG015150S04DC2	1.5	6	15	60	4
GEG015200S04DC2	1.5	6	20	60	4
GEG015250S04DC2	1.5	6	25	60	4
GEG020060S04DC2	2	6	-	45	4
GEG020080S04DC2	2	8	-	80	4
GEG020120S04DC2	2	8	12	80	4
GEG020150S04DC2	2	8	15	80	4
GEG020200S04DC2	2	8	20	80	4
GEG020250S04DC2	2	8	25	80	4
GEG020300S04DC2	2	8	30	80	4
GEG020400S04DC2	2	8	40	80	4
GEG030090S06DC2	3	9	-	50	6
GEG030120S04DC2	3	12	-	80	4
GEG030200S04DC2	3	12	20	80	4
GEG030250S04DC2	3	12	25	80	4
GEG030300S04DC2	3	12	30	80	4
GEG030400S04DC2	3	12	40	80	4
GEG040120S06DC2	4	12	-	50	6
GEG040160S04DC2	4	16	-	80	4
GEG050150S06DC2	5	15	-	60	6
GEG050200S06DC2	5	20	-	110	6
GEG060180S06DC2	6	18	-	60	6
GEG060250S06DC2	6	25	-	110	6
GEG060250L06DC2	6	25	-	150	6
GEG080240S08DC2	8	24	-	70	8
GEG080400S08DC2	8	25	40	150	8
GEG100250S10DC2	10	25	-	80	10
GEG100500S10DC2	10	25	50	160	10
GEG120250S12DC2	12	25	-	80	12
GEG120600S12DC2	12	25	60	160	12

- For graphite material.
- Deep cutting with long shank.
- Higher tool life with diamond coating.



Size	D Tolerance
Ø0.4≤D<Ø1	+0~ -0.01mm
Ø1≤D<Ø6	+0~ -0.015mm
Ø6≤D	+0~ -0.02mm

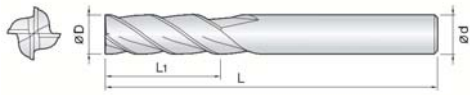
Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
GEG010030S04DC3	1	3	45	4
GEG015060S04DC3	1.5	6	60	4
GEG020060S04DC3	2	6	45	4
GEG020100S04DC3	2	10	60	4
GEG030090S06DC3	3	9	50	6
GEG030150S03DC3	3	15	60	3
GEG030150S04DC3	3	15	60	4
GEG040120S06DC3	4	12	50	6
GEG040200S04DC3	4	20	80	4
GEG060180S06DC3	6	18	60	6
GEG060250S06DC3	6	25	110	6
GEG060250L06DC3	6	25	150	6
GEG080240S08DC3	8	24	70	8
GEG080350S08DC3	8	35	110	8
GEG080350L08DC3	8	35	150	8
GEG100250S10DC3	10	25	80	10
GEG100400S10DC3	10	40	110	10
GEG100500S10DC3	10	50	160	10
GEG120250S12DC3	12	25	80	12
GEG120450S12DC3	12	45	110	12
GEG120550S12DC3	12	55	160	12

GEG-DC4&6 4&6 Flutes Diamond Coated End Mills for Graphite

brisloy

- For graphite material.
- Deep cutting with long shank.
- Higher tool life with diamond coating.

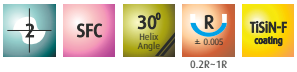


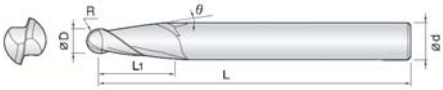
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d
GEG020060S04DC4	2	6	45	4
GEG020100S04DC4	2	10	60	4
GEG030090S06DC4	3	9	50	6
GEG030150S03DC4	3	15	60	3
GEG030150S04DC4	3	15	60	4
GEG040120S06DC4	4	12	50	6
GEG040200S04DC4	4	20	80	4
GEG060180S06DC4	6	18	60	6
GEG060250L06DC4	6	25	110	6
GEG060250S06DC4	6	25	150	6
GEG080240S08DC4	8	24	70	8
GEG080350L08DC4	8	35	110	8
GEG080350S08DC4	8	35	150	8
GEG100250S10DC4	10	25	80	10
GEG100400S10DC4	10	40	110	10
GEG100500S10DC4	10	50	160	10
GEG120250S12DC4	12	25	80	12
GEG120450S12DC4	12	45	110	12
GEG120550S12DC4	12	55	160	12
GEG100400S10DC6	10	40	110	10
GEG100400L10DC6	10	40	160	10
GEG120450S12DC6	12	45	110	12
GEG120450L12DC6	12	45	160	12
GEG160500S16DC6	16	50	110	16
GEG160500L16DC6	16	50	160	16
GEG160500X16DC6	16	50	200	16

- Widely taper cutting suitable for HRc62 and hardened steels.
- Improved process efficiency for better surface finish.
- Superfine carbide with TiSiN-F coating.





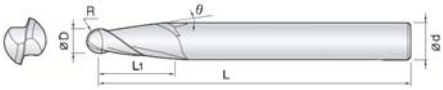
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RXD	θ	Length of Cut L1	Overall Length L	Shank Dia d
TBN004020030FN2	0.2R X 0.4	2°	3	40	4
TBN004030030FN2	0.2R X 0.4	3°	3	40	4
TBN004040030FN2	0.2R X 0.4	4°	3	40	4
TBN004050030FN2	0.2R X 0.4	5°	3	40	4
TBN004070030FN2	0.2R X 0.4	7°	3	40	4
TBN004100030FN2	0.2R X 0.4	10°	3	40	4
TBN005020030FN2	0.25R X 0.5	2°	3	40	4
TBN005030030FN2	0.25R X 0.5	3°	3	40	4
TBN005040035FN2	0.25R X 0.5	4°	3.5	40	4
TBN005050035FN2	0.25R X 0.5	5°	3.5	40	4
TBN005070035FN2	0.25R X 0.5	7°	3.5	40	4
TBN005100035FN2	0.25R X 0.5	10°	3.5	40	4
TBN006020030FN2	0.3R X 0.6	2°	3	40	4
TBN006030030FN2	0.3R X 0.6	3°	3	40	4
TBN006040035FN2	0.3R X 0.6	4°	3.5	40	4
TBN006050035FN2	0.3R X 0.6	5°	3.5	40	4
TBN006070035FN2	0.3R X 0.6	7°	3.5	40	4
TBN006100035FN2	0.3R X 0.6	10°	3.5	40	4
TBN008020030FN2	0.4R X 0.8	2°	3	40	4
TBN008030030FN2	0.4R X 0.8	3°	3	40	4
TBN008040040FN2	0.4R X 0.8	4°	4	40	4
TBN008050040FN2	0.4R X 0.8	5°	4	40	4
TBN008070040FN2	0.4R X 0.8	7°	4	40	4
TBN008100040FN2	0.4R X 0.8	10°	4	40	4
TBN010003030FN2	0.5R X 1	0°30	3	40	4
TBN010010030FN2	0.5R X 1	1°	3	40	4
TBN010013040FN2	0.5R X 1	1°30	4	40	4
TBN010020040FN2	0.5R X 1	2°	4	40	4
TBN010030040FN2	0.5R X 1	3°	4	40	4
TBN010040060FN2	0.5R X 1	4°	6	45	4
TBN010050060FN2	0.5R X 1	5°	6	45	4
TBN010070060FN2	0.5R X 1	7°	6	45	4
TBN010100060FN2	0.5R X 1	10°	6	45	4
TBN015003060FN2	0.75R X 1.5	0°30	6	45	4
TBN015010060FN2	0.75R X 1.5	1°	6	45	4
TBN015013060FN2	0.75R X 1.5	1°30	6	45	4
TBN015020060FN2	0.75R X 1.5	2°	6	45	4
TBN015030060FN2	0.75R X 1.5	3°	6	45	4
TBN015040060FN2	0.75R X 1.5	4°	6	45	4
TBN015050060FN2	0.75R X 1.5	5°	6	45	4
TBN015070060FN2	0.75R X 1.5	7°	6	45	4
TBN020003080FN2	1R X 2	0°30	8	45	4
TBN020010080FN2	1R X 2	1°	8	45	4
TBN020013080FN2	1R X 2	1°30	8	45	4
TBN020020080FN2	1R X 2	2°	8	45	4

TBN-FN2 2 Flutes Taper Ball Mills

- Widely taper cutting suitable for HRc62 and hardened steels.
- Improved process efficiency for better surface finish.
- Superfine carbide with TiSiN-F coating.

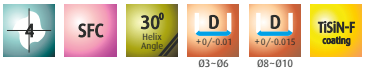


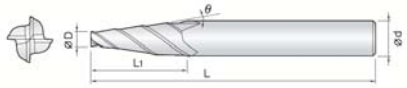
Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

Part Number	Diameter RXD	θ	Length of Cut L1	Overall Length L	Shank Dia d
TBN020030080FN2	1R X 2	3°	8	45	4
TBN020040080FN2	1R X 2	4°	8	45	4
TBN020050080FN2	1R X 2	5°	8	45	4
TBN020070080FN2	1R X 2	7°	8	45	4
TBN030003120FN2	1.5R X 3	0°30	12	60	6
TBN030010120FN2	1.5R X 3	1°	12	60	6
TBN030013120FN2	1.5R X 3	1°30	12	60	6
TBN030020120FN2	1.5R X 3	2°	12	60	6
TBN030030120FN2	1.5R X 3	3°	12	60	6
TBN030040120FN2	1.5R X 3	4°	12	60	6
TBN030050120FN2	1.5R X 3	5°	12	60	6
TBN030070120FN2	1.5R X 3	7°	12	60	6
TBN040003160FN2	2R X 4	0°30	16	70	8
TBN040010160FN2	2R X 4	1°	16	70	8
TBN040013160FN2	2R X 4	1°30	16	70	8
TBN040020160FN2	2R X 4	2°	16	70	8
TBN040030160FN2	2R X 4	3°	16	70	8
TBN040040160FN2	2R X 4	4°	16	70	8
TBN040050160FN2	2R X 4	5°	16	70	8
TBN040070160FN2	2R X 4	7°	16	70	8
TBN050003200FN2	2.5R X 5	0°30	20	75	8
TBN050010200FN2	2.5R X 5	1°	20	75	8
TBN050013200FN2	2.5R X 5	1°30	20	75	8
TBN050020200FN2	2.5R X 5	2°	20	75	8
TBN050030200FN2	2.5R X 5	3°	20	75	8
TBN050040200FN2	2.5R X 5	4°	20	75	8
TBN050050200FN2	2.5R X 5	5°	20	80	10
TBN050070200FN2	2.5R X 5	7°	20	80	10
TBN060003240FN2	3R X 6	0°30	24	80	10
TBN060010240FN2	3R X 6	1°	24	80	10
TBN060013240FN2	3R X 6	1°30	24	80	10
TBN060020240FN2	3R X 6	2°	24	80	10
TBN060030240FN2	3R X 6	3°	24	80	10
TBN060040240FN2	3R X 6	4°	24	80	10
TBN060050240FN2	3R X 6	5°	24	90	12
TBN060070240FN2	3R X 6	7°	24	90	12

- Widely taper cutting suitable for HRc62 and hardened steels.
- Improved process efficiency for better surface finish.
- Superfine carbide with TiSiN-F coating.





Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

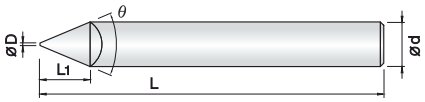
Unit:mm

Part Number	Diameter D	θ	Length of Cut L1	Overall Length L	Shank Dia d
TEM030003110FN4	3	0°30	11	50	6
TEM030010110FN4	3	1°	11	50	6
TEM030013110FN4	3	1°30	11	50	6
TEM030020150FN4	3	2°	15	60	6
TEM030023150FN4	3	2°30	15	60	6
TEM030030150FN4	3	3°	15	60	6
TEM030050150FN4	3	5°	15	60	6
TEM030070120FN4	3	7°	12	60	6
TEM040003150FN4	4	0°30	15	60	6
TEM040010150FN4	4	1°	15	60	6
TEM040013150FN4	4	1°30	15	60	6
TEM040020180FN4	4	2°	18	60	6
TEM040023180FN4	4	2°30	18	60	6
TEM040030180FN4	4	3°	18	60	6
TEM040050230FN4	4	5°	23	65	8
TEM040070250FN4	4	7°	25	75	10
TEM050003180FN4	5	0°30	18	60	6
TEM050010180FN4	5	1°	18	60	6
TEM050013180FN4	5	1°30	18	60	6
TEM050020150FN4	5	2°	15	60	6
TEM050023200FN4	5	2°30	20	65	8
TEM050030210FN4	5	3°	21	65	8
TEM050050280FN4	5	5°	28	80	10
TEM050070280FN4	5	7°	28	80	12
TEM060003200FN4	6	0°30	20	65	8
TEM060010200FN4	6	1°	20	65	8
TEM060013200FN4	6	1°30	20	65	8
TEM060020200FN4	6	2°	20	65	8
TEM060023200FN4	6	2°30	20	65	8
TEM060030260FN4	6	3°	26	75	10
TEM060050230FN4	6	5°	23	75	10
TEM060070240FN4	6	7°	24	80	12
TEM080003250FN4	8	0°30	25	75	10
TEM080010250FN4	8	1°	25	75	10
TEM080013250FN4	8	1°30	25	75	10
TEM080020250FN4	8	2°	25	75	10
TEM080023230FN4	8	2°30	23	75	10
TEM080030300FN4	8	3°	30	80	12
TEM080050230FN4	8	5°	23	85	12
TEM100003300FN4	10	0°30	30	80	12
TEM100010300FN4	10	1°	30	80	12
TEM100013300FN4	10	1°30	30	80	12
TEM100020280FN4	10	2°	28	80	12
TEM100030400FN4	10	3°	40	100	16
TEM100050340FN4	10	5°	34	100	16

STE-FN1 1 Flute Straight Flute Taper End Mills

brisloy

- Endmills for various work materials, hardened steel, pre-hardened steel tool steel and cast iron.
- Good wear resistance by Si-based PVD coating.
- Optimum for NC engraving by straight type one edge.
- Maximize engraving efficiency by various edge diameter.

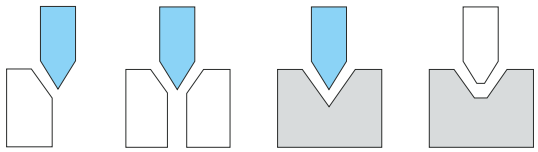


Size	D Tolerance
D=Ø0	+0.05 ~ -0mm
D≧Ø0.1	+0 ~ -0.02mm

Unit:mm

Part Number	Diameter D	θ	Length of Cut L1	Overall Length L	Shank Dia d
STE000200S04FN1	0	20°	5	40	4
STE000300S04FN1	0	30°	5	40	4
STE000200S06FN1	0	20°	5	50	6
STE000300S06FN1	0	30°	5	50	6
STE001200S04FN1	0.1	20°	5	40	4
STE001300S04FN1	0.1	30°	5	40	4
STE001200S06FN1	0.1	20°	5	50	6
STE001300S06FN1	0.1	30°	5	50	6
STED15200S04FN1	0.15	20°	5	40	4
STED15300S04FN1	0.15	30°	5	40	4
STED15200S06FN1	0.15	20°	5	50	6
STED15300S06FN1	0.15	30°	5	50	6
STE002200S04FN1	0.2	20°	5	40	4
STE002300S04FN1	0.2	30°	5	40	4
STE002200S06FN1	0.2	20°	5	50	6
STE002300S06FN1	0.2	30°	5	50	6

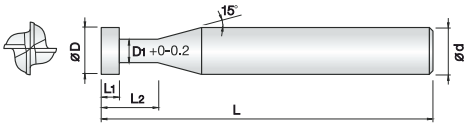
- Available Cutting Shape



(0) (0) (0) (0)

TSC-UC4 & TSC-FN4

- Endmills for various work materials, hardened steel, pre-hardened steel tool steel and cast iron.
- TiSiN-F coating provides wear resistance improvement as well as avoid edge stress in various applications.
- Minimize edge chipping by applying 4 flutes design.
- Various shapes and length provides optimum efficiency.
- Resin plastic machining applicable with coated or non coated Endmills.



Size	L1 Tolerance
D≤Ø6	±0.03mm
D>Ø6	±0.05mm

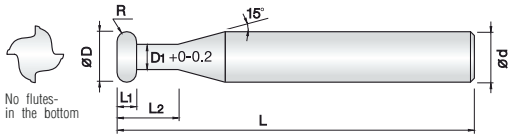
Unit:mm

Part Number		Diameter	Length of Cut	Effective Length	Neck Diameter	Overall Length	Shank Dia
Non Coated	Coated	D	L1	L2	D1	L	d
TSC020010003UC4	TSC020010003FN4	2	0.3	4	1	50	6
TSC020010005UC4	TSC020010005FN4	2	0.5	4	1	50	6
TSC030015003UC4	TSC030015003FN4	3	0.3	4.5	1.5	50	6
TSC030015005UC4	TSC030015005FN4	3	0.5	4.5	1.5	50	6
TSC030015010UC4	TSC030015010FN4	3	1	4.5	1.5	50	6
TSC040020003UC4	TSC040020003FN4	4	0.3	5	2	50	6
TSC040020005UC4	TSC040020005FN4	4	0.5	5	2	50	6
TSC040020010UC4	TSC040020010FN4	4	1	5	2	50	6
TSC050025005UC4	TSC050025005FN4	5	0.5	4.5	2.5	50	6
TSC050025010UC4	TSC050025010FN4	5	1	5	2.5	50	6
TSC050025015UC4	TSC050025015FN4	5	1.5	5.5	2.5	50	6
TSC050025020UC4	TSC050025020FN4	5	2	6	2.5	50	6
TSC060030005UC4	TSC060030005FN4	6	0.5	4.5	3	60	6
TSC060030010UC4	TSC060030010FN4	6	1	5	3	60	6
TSC060030015UC4	TSC060030015FN4	6	1.5	5.5	3	60	6
TSC060030020UC4	TSC060030020FN4	6	2	6	3	60	6
TSC080040005UC4	TSC080040005FN4	8	0.5	4.5	4	60	8
TSC080040010UC4	TSC080040010FN4	8	1	5	4	60	8
TSC080040015UC4	TSC080040015FN4	8	1.5	5.5	4	60	8
TSC080040020UC4	TSC080040020FN4	8	2	6	4	60	8
TSC080040030UC4	TSC080040030FN4	8	3	7	4	60	8
TSC100050010UC4	TSC100050010FN4	10	1	7	5	70	10
TSC100050020UC4	TSC100050020FN4	10	2	8	5	70	10
TSC100050030UC4	TSC100050030FN4	10	3	9	5	70	10

TSR-FN4 4 Flutes T-R Slot Cutter

brisloy

- Endmills for various work materials, hardened steel, pre-hardened steel tool steel and cast iron.
- TiSiN-F coating provides wear resistance improvement as well as avoid edge stress in various applications.
- Minimize edge chipping by applying 4 flutes design.
- Various shapes and length provides optimum efficiency.

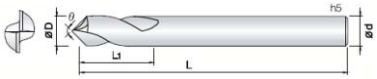


Size	L1 Tolerance
D≦Ø6	±0.03mm
D>Ø6	±0.05mm

Unit:mm

Part Number	Diameter DXR	Length of Cut L1	Effective Length L2	Neck Diameter D1	Overall Length L	Shank Dia d
TSR005050025FN4	5 X 0.5R	1	4.5	2.5	50	6
TSR010050025FN4	5 X 1R	2	5.5	2.5	50	6
TSR005060030FN4	6 X 0.5R	1	5	3	50	6
TSR075060030FN4	6 X 0.75R	1.5	5.5	3	50	6
TSR010060030FN4	6 X 1R	2	6	3	50	6
TSR010080040FN4	8 X 1R	2	7	4	60	8
TSR015080040FN4	8 X 1.5R	3	8	4	60	8
TSR020100045FN4	10 X 2R	4	10	4.5	70	10
TSR030120050FN4	12 X 3R	6	15	5	75	12

- Spot & Chamfer Cutter 60° /90° /120° for Steel 55 HRc.

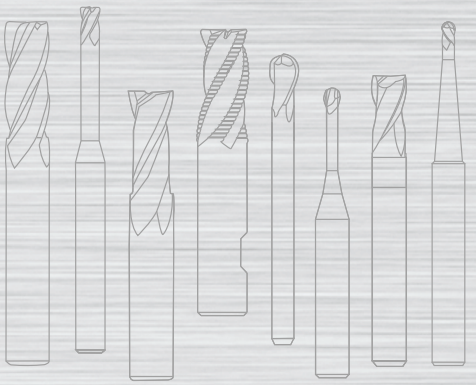


Size	D Tolerance
D≤Ø6	+0 ~ -0.01mm
D>Ø6	+0 ~ -0.015mm

Unit:mm

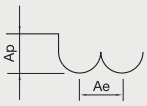
Part Number	Diameter D	Length of Cut L1	Overall Length L	Shank Dia d	Angle θ
SCC04010050A060	4	10	50	4	60°
SCC04010050A090	4	10	50	4	90°
SCC04010050A120	4	10	50	4	120°
SCC06015060A060	6	15	60	6	60°
SCC06015060A090	6	15	60	6	90°
SCC06015060A120	6	15	60	6	120°
SCC08020060A060	8	20	60	8	60°
SCC08020060A090	8	20	60	8	90°
SCC08020060A120	8	20	60	8	120°
SCC10025075A060	10	25	75	10	60°
SCC10025075A090	10	25	75	10	90°
SCC10025075A120	10	25	75	10	120°
SCC12030075A060	12	30	75	12	60°
SCC12030075A090	12	30	75	12	90°
SCC12030075A120	12	30	75	12	120°

Technical Data



• RPM : rev./min • Feed : mm/min

Material		Copper / Carbon Steels Cu / S45C / S50C			Prehardened Steels / Hardened Steels NAK / SKD			Hardened Steels SKD / SKT			Hardened Steels SKD / SKT		
Hardness		30HRC~45HRC			30HRC~45HRC			45HRC~55HRC			55HRc ~ 68HRc		
Radius	Effective Length	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth
R0.1	1.5	42,000	630	0.007	28,350	431	0.005	27,300	326	0.005	27,300	252	0.004
〃	2	32,550	368	0.005	22,575	252	0.004	21,000	200	0.003	21,000	179	0.003
R0.15	2	34,650	641	0.008	23,310	399	0.006	21,525	336	0.005	21,525	294	0.004
〃	3	32,550	494	0.003	22,050	326	0.002	19,950	242	0.002	19,950	189	0.001
R0.2	3	42,000	1,155	0.016	28,350	788	0.013	26,250	672	0.011	26,250	473	0.008
〃	6	25,200	525	0.004	17,850	326	0.003	16,800	294	0.003	16,800	252	0.002
R0.25	4	34,650	1,187	0.019	28,350	861	0.015	24,675	630	0.013	24,675	609	0.011
〃	8	21,525	609	0.006	17,850	431	0.005	15,750	368	0.004	15,750	326	0.003
R0.3	4	43,050	2,142	0.032	31,500	1,418	0.022	23,625	788	0.021	23,625	704	0.016
〃	8	26,775	998	0.016	22,050	735	0.013	16,800	515	0.011	16,800	410	0.008
〃	12	2,625	893	0.008	22,575	714	0.006	14,700	399	0.005	13,650	336	0.004
R0.4	4	43,050	2,310	0.037	29,400	1,470	0.028	24,150	861	0.026	24,150	714	0.016
〃	8	26,775	1,365	0.021	18,900	945	0.016	15,750	630	0.016	15,750	578	0.011
〃	12	26,775	1,050	0.016	16,275	525	0.013	12,600	462	0.011	12,600	420	0.007
R0.5	8	26,250	2,100	0.047	17,850	1,365	0.037	17,850	1,050	0.032	16,800	861	0.026
〃	15	17,850	1,103	0.023	12,600	767	0.019	11,550	683	0.017	11,550	525	0.013
〃	25	15,750	945	0.014	10,500	683	0.011	9,450	567	0.008	9,450	462	0.008
〃	35	9,450	609	0.008	6,300	399	0.006	6,300	378	0.005	6,300	273	0.004
R0.75	10	18,900	2,205	0.063	12,600	1,470	0.042	12,600	1,155	0.037	12,600	893	0.032
〃	20	13,650	1,260	0.032	9,450	945	0.021	9,450	735	0.016	9,450	630	0.014
〃	30	9,450	893	0.016	7,350	651	0.013	7,350	546	0.011	7,350	504	0.011
R1	12	15,750	2,468	0.084	11,550	1,785	0.068	11,025	1,428	0.059	11,025	1,124	0.048
〃	20	10,500	1,470	0.063	8,400	1,050	0.053	9,450	1,050	0.047	9,450	924	0.037
〃	30	9,450	1,260	0.047	7,350	840	0.037	7,350	819	0.032	7,350	672	0.026
〃	40	9,450	1,260	0.037	7,035	819	0.032	6,300	735	0.026	6,300	609	0.021
R1.5	20	10,500	2,310	0.095	8,400	1,365	0.074	7,350	1,260	0.063	7,350	1,155	0.053
〃	30	9,450	1,890	0.079	7,350	1,103	0.063	6,300	1,050	0.053	6,300	924	0.044
〃	40	7,875	1,470	0.063	5,250	924	0.053	5,355	840	0.042	5,355	735	0.037
〃	50	7,875	1,365	0.042	5,250	840	0.032	5,355	788	0.026	5,355	683	0.024
R2	40	6,300	1,260	0.085	3,675	630	0.068	3,360	557	0.053	3,360	525	0.045
〃	60	4,200	767	0.063	3,150	473	0.047	2,940	420	0.042	2,940	368	0.033
R3	29	9,450	2,205	0.147	7,350	1,103	0.105	6,300	998	0.084	6,300	893	0.061
〃	49	4,725	1,470	0.074	4,095	735	0.063	3,570	683	0.053	3,570	578	0.042
R4	33	9,345	2,310	0.189	7,350	1,155	0.147	6,300	1,050	0.105	6,300	840	0.086
〃	52	4,515	1,365	0.095	3,360	683	0.084	3,045	578	0.068	3,045	473	0.042
R5	37	5,775	1,785	0.194	3,675	893	0.168	3,570	735	0.126	3,570	630	0.084
〃	54	4,200	998	0.093	3,150	504	0.068	2,940	420	0.053	2,940	336	0.034
R6	63	3,990	735	0.126	2,940	368	0.086	2,625	326	0.063	2,625	231	0.047
〃	85	2,940	336	0.063	1,995	168	0.032	1,575	158	0.016	1,575	105	0.011
Milling Amount	Roughing	Ae ≤ 0.1D			Ae ≤ 0.1D			Ae ≤ 0.08D			Ae ≤ 0.06D		
	Finishing	Ae = Vf/n											
Depth of Cut		• Ap Axial Depth • Ae Radial Depth • D Outside Diameter • N Speed • Vf Feed											



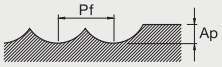
- Recommend air blow or oil mist. When milling copper water soluble or oil is recommended.
- These parameters are for reference only. In operation, we recommend fine adjustments to those parameters according to the milling shape, milling strategy and machine conditions.
- Where the parameters exceed the machine's maximum spindle speed, the RPM and feedrate should be reduced proportionally.
- The Neck length and Taper angle may also affect the parameters used, depending on the operating conditions.
- Remove chips to prevent heat generation and ignition.

SPE-HN2 / SPE-HN4 / SPH-HN4

• Apply 20% up values of below condition for SPE-HN2/SPE-HN4

• RPM : rev./min • Feed : mm/min

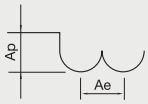
Material	Alloy Steels / Tool Steels SCM / SKT / SKS / SKD		Hardened Steels / Prehardened Steels SKT / SKD / NAK55 / HPM11		Stainless Steels / Hardened Steels SUS304 / SKD		Hardened Steels		Hardened Steels	
Hardness	~ 30HRc		30 ~ 38HRc		38 ~ 45HRc		45 ~ 55HRc		55 ~ 60HRc	
Radius	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R0.5	25,600	680	25,600	680	25,600	680	25,600	680	25,600	610
R0.75	22,000	850	22,000	850	22,000	850	22,000	850	22,000	750
R1	19,200	1,080	19,200	1,080	19,200	1,080	19,200	1,080	17,600	960
R2	12,400	1,440	11,200	1,240	10,800	1,160	10,000	1,080	8,800	920
R3	8,400	1,480	7,600	1,360	7,200	1,280	6,800	1,200	5,900	1,040
R4	6,400	1,120	5,700	1,000	5,500	960	5,100	880	4,400	790
R5	5,100	880	4,600	800	4,400	784	4,000	720	3,600	640
R6	4,800	840	3,800	670	3,640	640	3,400	600	3,000	540
Depth of Cut	Ap: 0.05D, Pf: 0.1D						Ap: 0.02D, Pf: 0.1D			



SBN-HN2 / SBN-HN2

• RPM : rev./min • Feed : mm/min

Material	Prehardened Steels / Hardened Steels NAK / STAVAX				Hardened Steels SKD11				Hardened Steels HAP10				Hardened Steels HAP72			
Hardness	~ 55HRc				55HRc ~ 62HRc				62HRc ~ 65HRc				65HRc ~ 68HRc			
Radius	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
R0.05	60,000	150	0.002	0.004	60,000	150	0.002	0.003	60,000	100	0.001	0.0012	52,500	30	0.001	0.002
R0.1	60,000	180	0.003	0.005	60,000	180	0.002	0.003	60,000	120	0.002	0.003	45,000	60	0.002	0.003
R0.15	60,000	350	0.006	0.008	45,000	310	0.004	0.007	43,500	180	0.003	0.005	32,500	90	0.003	0.005
R0.2	50,000	500	0.01	0.02	37,500	420	0.007	0.012	35,000	240	0.005	0.008	26,250	120	0.005	0.008
R0.25	44,000	650	0.015	0.04	33,000	530	0.010	0.02	30,000	300	0.007	0.01	22,500	150	0.007	0.01
R0.3	40,000	1,100	0.03	0.13	30,000	1,200	0.02	0.1	26,500	800	0.01	0.075	20,000	400	0.01	0.075
R0.4	35,000	1,600	0.06	0.21	27,000	1,600	0.04	0.17	23,500	1,000	0.02	0.12	17,500	500	0.02	0.12
R0.5	30,000	1,750	0.2	0.4	24,000	2,000	0.1	0.3	21,000	1,750	0.05	0.2	16,000	875	0.05	0.2
R0.6	30,000	2,000	0.23	0.45	21,000	2,000	0.1	0.3	18,000	1,750	0.05	0.2	14,500	875	0.05	0.2
R0.75	30,000	2,450	0.25	0.55	17,000	2,000	0.12	0.4	15,000	1,750	0.06	0.29	11,250	875	0.06	0.29
R1	28,000	2,900	0.3	0.7	14,000	2,100	0.15	0.5	12,250	1,800	0.08	0.35	9,200	900	0.08	0.35
R1.25	24,500	2,950	0.35	0.85	12,250	2,150	0.17	0.6	10,700	1,850	0.1	0.45	8,050	925	0.1	0.45
R1.5	21,000	3,000	0.4	1	10,500	2,200	0.2	0.7	9,200	1,900	0.12	0.55	6,900	950	0.12	0.55
R2	18,000	3,200	0.5	1.3	9,000	2,300	0.25	0.95	7,900	2,000	0.15	0.75	5,900	1,000	0.15	0.75
R2.5	15,600	3,500	0.5	1.5	7,800	2,500	0.25	1.05	6,800	2,100	0.15	0.85	5,100	1,050	0.15	0.85
R3	13,000	3,500	0.6	1.8	6,500	2,500	0.3	1.3	5,700	2,200	0.2	1	4,300	1,100	0.2	1
R4	9,500	3,000	0.7	2.1	5,200	2,200	0.4	1.7	4,500	1,900	0.25	1.35	3,400	950	0.25	1.35
R5	7,500	2,500	0.8	2.5	4,300	2,000	0.5	2.1	3,750	1,750	0.3	1.7	2,800	875	0.3	1.7
R6	6,200	2,000	0.9	3	3,600	1,750	0.6	2.6	3,150	1,500	0.35	2	2,350	750	0.35	2
Depth of Cut	• Ap Axial Depth • Ae Radial Depth • D Outside Diameter • n Speed • Vf Feed															

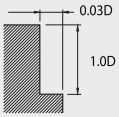


- Decrease both spindle speed and feed rate proportionally when the milling parameters exceed the machine's maximum spindle speed .
- Recommend air blow or oil mist.
- Recommend oil coolant for stainless steels and heat resistant alloys.
- Recommend wet collant for copper
- The tolerance of below ø1 is below 5 µm .

GEM-HN4 / LEM-HN4

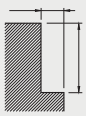
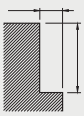
brisloy

• RPM : rev./min • Feed : mm/min

Material	Hardened Steels			
Hardness	45HRc ~ 50HRc		50HRc ~ 55HRc	
Outside Diameter	RPM	FEED	RPM	FEED
1mm	38,000	1,050	25,500	710
2mm	26,000	1,250	17,500	840
3mm	17,300	1,250	11,500	840
4mm	13,200	1,300	8,800	880
5mm	12,500	1,500	8,300	1,000
6mm	10,350	1,400	6,900	950
7mm	9,000	1,380	5,200	900
8mm	7,800	1,350	4,100	840
9mm	6,150	1,260	3,500	840
10mm	5,250	1,260	2,800	800
11mm	4,300	1,150	2,500	800
12mm	4,300	1,150	2,300	760
14mm	3,500	1,050	2,100	760
16mm	3,500	1,050	2,000	700
18mm	2,800	1,000	2,000	700
20mm	2,600	980	1,800	650
Depth of Cut				

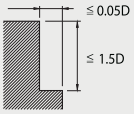
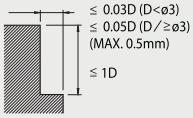
HEM-HN4

• RPM : rev./min • Feed : mm/min

Material	Hardened Steels SKD11			Hardened Steels SKS / SKH		
Hardness	55HRc ~ 62HRc			62HRc ~ 68HRc		
Outside Diameter	RPM	FEED	Ap	RPM	FEED	Ap
1mm	40,000	800	0.03	32,000	500	0.02
1.5mm	40,000	900	0.04	32,000	550	0.02
2mm	24,000	1,000	0.05	16,000	600	0.05
3mm	38,400	4,560	0.1	19,200	2,280	0.05
4mm	28,800	5,280	0.1	14,400	2,640	0.05
5mm	24,000	6,000	0.1	12,000	3,000	0.05
6mm	19,200	6,960	0.2	9,600	3,480	0.1
8mm	14,400	6,960	0.2	7,200	3,480	0.1
10mm	11,520	6,960	0.3	5,760	3,480	0.2
12mm	9,600	5,760	0.3	4,800	2,880	0.2
16mm	7,200	4,320	0.5	3,600	2,160	0.3
20mm	5,760	3,480	0.5	2,880	1,680	0.3
Depth of Cut						

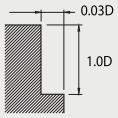
HEM-HN6 & 8

• RPM : rev./min • Feed : mm/min

Material	Hardened Steels SKD11			Hardened Steels SKS/SKH		
Hardness	55HRc ~ 62HRc			62HRc ~ 68HRc		
Outside Diameter	RPM	FEED	Ap	RPM	FEED	Ap
3mm	16,000	1,900	0.1	11,000	1,200	0.05
4mm	12,000	2,200	0.1	8,000	1,300	0.05
5mm	10,000	2,500	0.1	6,000	1,500	0.05
6mm	8,000	2,900	0.2	5,300	1,800	0.1
8mm	6,000	2,900	0.2	4,000	1,800	0.1
10mm	4,800	2,900	0.3	3,200	1,800	0.2
12mm	4,000	2,400	0.3	2,700	1,500	0.2
16mm	3,000	1,800	0.5	2,000	1,100	0.3
20mm	2,400	1,400	0.5	1,600	880	0.3
25mm	2,000	1,000	0.5	1,000	700	0.4
Depth of Cut						

REM-HN4

• RPM : rev./min • Feed : mm/min

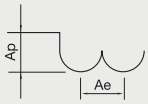
Side Cutting										
Material	Prehardened Steels / Hardened Steels				Hardened Steels					
	NAK / SKD		STAVX / SKD / SKT		SKD11 / SKD61		SKD / SKD11		SKD11 / SKS / SKH51	
Hardness	40HRc ~ 50HRc		50HRc ~ 55HRc		55HRc ~ 60HRc		60HRc ~ 65HRc		65HRc ~ 68HRc	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1mm	38,000	840	25,500	568	20,500	344	16,000	216	12,500	140
2mm	26,000	1,000	17,500	672	14,500	416	11,000	256	9,500	184
3mm	17,300	1,000	11,500	672	9,500	416	7,500	256	6,400	184
4mm	13,200	1,040	8,800	704	7,200	432	5,600	268	4,750	192
5mm	12,500	1,200	8,300	800	6,400	464	5,100	296	4,450	216
6mm	10,350	1,120	6,900	760	5,300	448	4,200	280	3,700	208
8mm	7,800	1,080	5,200	720	4,000	416	3,200	264	2,800	192
10mm	6,150	1,008	4,100	672	3,200	384	2,550	248	2,200	176
12mm	5,250	1,008	3,500	672	2,650	384	2,100	240	1,860	176
Depth of Cut										

• RPM : rev./min • Feed : mm/min

Material		Copper				Prehardened Steels / Hardened Steels				Hardened Steels SKD / SKT				Hardened Steels SKD / SKT			
Hardness						30HRc ~ 45HRc				45HRc ~ 55HRc				55HRc ~ 65HRc			
Radius	Effective Length	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
R0.05	0.3	50,000	85	0.004	0.004	45,000	70	0.004	0.004	45,000	50	0.002	0.002	45,000	40	0.002	0.002
〃	0.5	50,000	75	0.004	0.004	45,000	60	0.002	0.002	45,000	30	0.002	0.002	45,000	30	0.002	0.002
R0.1	0.5	50,000	492	0.010	0.010	45,000	396	0.006	0.007	45,000	260	0.006	0.006	45,000	220	0.005	0.006
〃	1	50,000	432	0.007	0.008	45,000	372	0.004	0.005	45,000	276	0.004	0.004	45,000	200	0.004	0.004
〃	1.5	50,000	360	0.006	0.006	42,000	276	0.003	0.004	42,000	216	0.003	0.004	42,000	180	0.003	0.003
R0.15	1	50,000	744	0.012	0.013	45,000	552	0.010	0.010	38,000	420	0.090	0.010	38,000	348	0.007	0.009
〃	3	48,000	528	0.008	0.009	40,800	360	0.006	0.007	33,600	264	0.005	0.005	33,600	216	0.004	0.005
〃	5	39,600	336	0.004	0.005	28,800	216	0.003	0.003	24,000	168	0.003	0.003	21,600	120	0.002	0.002
R0.2	1	61,200	1,020	0.021	0.034	54,000	768	0.016	0.022	39,600	516	0.013	0.022	39,600	432	0.011	0.021
〃	3	55,200	768	0.015	0.016	44,400	480	0.010	0.010	32,400	312	0.009	0.010	32,400	264	0.008	0.010
〃	5	39,600	468	0.008	0.016	30,000	372	0.008	0.010	26,400	288	0.006	0.010	26,400	228	0.004	0.005
R0.25	1	63,600	1,560	0.026	0.047	45,600	960	0.020	0.033	33,600	636	0.014	0.032	33,600	312	0.007	0.020
〃	5	52,800	1,032	0.012	0.014	34,800	552	0.008	0.008	31,200	444	0.007	0.010	31,200	216	0.006	0.009
〃	10	38,400	528	0.008	0.016	28,800	456	0.007	0.010	28,800	372	0.005	0.010	27,600	216	0.005	0.009
R0.3	1	63,600	1,956	0.030	0.140	39,600	960	0.022	0.091	27,600	600	0.019	0.091	26,400	516	0.014	0.091
〃	5	50,400	1,104	0.014	0.068	28,800	504	0.012	0.043	26,400	396	0.008	0.042	26,400	336	0.007	0.040
〃	10	31,200	540	0.006	0.032	24,000	360	0.005	0.020	22,800	312	0.004	0.020	22,800	240	0.003	0.018
R0.4	2	61,200	2,280	0.054	0.160	34,800	816	0.045	0.100	27,600	552	0.038	0.100	26,400	456	0.030	0.010
〃	6	51,600	1,452	0.035	0.100	28,800	636	0.028	0.068	21,600	420	0.020	0.068	21,600	348	0.015	0.065
〃	10	22,800	672	0.022	0.080	2,040	468	0.020	0.050	19,200	408	0.015	0.050	16,800	336	0.010	0.050
R0.5	2	50,400	2,160	0.068	0.320	33,600	900	0.052	0.220	21,600	540	0.040	0.220	18,000	540	0.008	0.140
〃	5	50,400	2,160	0.068	0.320	33,600	900	0.052	0.220	21,600	540	0.040	0.220	18,000	540	0.008	0.014
〃	10	30,000	1,164	0.024	0.086	16,320	600	0.020	0.056	15,000	456	0.014	0.056	13,680	312	0.008	0.050
〃	16	17,640	720	0.018	0.086	13,680	480	0.016	0.056	12,360	384	0.012	0.056	11,520	252	0.005	0.030
R0.75	3	31,200	2,400	0.167	0.320	21,600	1,152	0.120	0.210	12,960	672	0.100	0.210	12,000	600	0.090	0.210
〃	10	26,400	1,680	0.100	0.220	14,760	780	0.080	0.170	9,720	480	0.062	0.170	9,720	456	0.050	0.160
〃	18	12,120	624	0.030	0.160	12,120	504	0.022	0.110	9,600	432	0.020	0.110	9,600	408	0.012	0.110
〃	30	9,840	516	0.014	0.080	9,840	456	0.012	0.050	9,480	420	0.010	0.050	9,480	396	0.010	0.050
R1	4	26,400	2,448	0.220	0.520	21,000	1,392	0.180	0.350	14,640	1,080	0.140	0.350	14,640	900	0.120	0.350
〃	10	26,400	2,256	0.180	0.350	21,000	1,224	0.140	0.230	14,640	972	0.110	0.230	14,640	792	0.090	0.230
〃	20	15,960	1,164	0.090	0.165	15,960	600	0.060	0.110	12,720	600	0.055	0.110	12,720	492	0.035	0.110
〃	30	10,200	636	0.025	0.070	10,200	480	0.020	0.050	10,200	480	0.015	0.050	10,200	384	0.015	0.045
R1.5	6	16,800	3,240	0.250	0.500	14,400	1,824	0.200	0.340	9,840	1,320	0.160	0.320	6,480	732	0.160	0.320
〃	10	16,800	3,240	0.250	0.500	14,400	1,824	0.200	0.340	9,840	1,320	0.160	0.320	6,480	732	0.160	0.300
〃	20	14,040	2,244	0.200	0.450	12,360	1,476	0.145	0.320	8,520	1,128	0.120	0.310	5,760	660	0.080	0.300
〃	30	10,920	1,620	0.120	0.220	9,360	816	0.100	0.150	8,520	816	0.080	0.150	5,760	384	0.070	0.300
R2	8	12,600	3,012	0.350	0.850	10,440	1,752	0.290	0.550	7,200	1,332	0.220	0.500	7,200	1,056	0.150	0.500
〃	20	12,600	3,012	0.350	0.850	10,440	1,752	0.290	0.550	7,200	1,332	0.220	0.500	7,200	1,056	0.150	0.500
〃	30	11,160	2,040	0.250	0.500	8,880	1,380	0.200	0.320	6,600	1,056	0.150	0.300	6,600	816	0.130	0.300
〃	40	8,160	1,464	0.150	0.500	7,200	1,056	0.132	0.320	6,600	1,056	0.100	0.300	6,600	816	0.090	0.300
R2.5	15	10,800	2,880	0.380	0.800	8,400	1,500	0.300	0.700	6,000	1,140	0.220	0.700	6,000	900	0.200	0.650
〃	25	10,800	2,400	0.380	0.800	8,400	1,380	0.300	0.550	6,000	1,080	0.220	0.550	6,000	816	0.200	0.500
〃	40	9,360	1,320	0.250	0.800	6,720	840	0.200	0.550	4,920	660	0.150	0.550	4,920	504	0.130	0.500
R3	15	8,400	2,676	0.500	1.000	8,160	1,764	0.420	0.800	5,760	1,320	0.300	0.800	4,440	864	0.300	0.800
〃	30	8,400	1,812	0.380	0.900	7,200	1,680	0.300	0.650	5,040	1,176	0.220	0.650	4,440	792	0.220	0.600
R4	25	8,160	1,764	0.410	1.000	7,200	1,176	0.350	0.750	4,920	912	0.180	0.600	4,560	732	0.200	0.630
〃	30	7,680	1,680	0.380	1.000	6,960	1,128	0.300	0.750	4,800	864	0.160	0.600	4,320	720	0.200	0.600
R5	30	6,240	1,344	0.560	1.200	5,880	1,128	0.370	0.900	4,800	852	0.200	0.670	4,200	708	0.200	0.650
〃	35	6,000	1,296	0.500	1.000	5,400	1,080	0.350	0.850	4,560	816	0.150	0.600	3,840	648	0.200	0.600
R6	30	5,160	1,104	0.650	1.400	4,800	984	0.420	0.900	4,320	828	0.250	0.600	3,600	600	0.250	0.600
〃	40	4,920	1,080	0.600	1.200	4,560	9,600	0.400	0.850	4,080	780	0.200	0.600	3,600	600	0.200	0.600

Depth of Cut

- Ap Axial Depth
- Ae Radial Depth
- D Outside Diameter
- n Speed
- Vf Feed



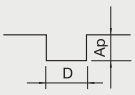
- Decrease both spindle speed and feed rate proportionally when the milling parameters exceed the machine's maximum spindle speed
- Recommend air blow or oil mist.
- Recommend oil coolant for stainless steels and heat resistant alloys.
- Recommend wet collant for copper
- The tolerance of below ø 1 is below 5 µm .

• RPM : rev./min • Feed : mm/min

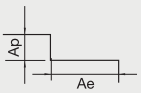
Material		Carbon Steels			Alloy Steels SK / SCM / SUS			Prehardened Steels / Hardened Steels NAK / SKD			Hardened Steels SKD / SKT			Hardened Steels SKD / SKT			Ae Milling amount for side Milling
Hardness		(S45C/S50C) ~225HB			225 ~ 325HB			35HRc ~ 45HRc			45HRc ~ 55HRc			55HRc ~ 60HRc			
Outside Diameter	Effective Length	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
0.1mm	0.3	30,000	30	0.004	30,000	15	0.004	30,000	16	0.002							X
〃	0.5	28,000	28	0.004	28,000	14	0.004	28,000	14	0.002			0.001			X	X
0.2mm	0.5	56,000	340	0.006	56,000	310	0.005	56,000	270	0.003	44,800	180	0.002	15,000	10	0.001	0.160
〃	1	50,900	290	0.005	50,900	260	0.005	50,900	230	0.004	40,800	160	0.003	-	-	-	0.020
〃	1.5	48,200	250	0.003	48,200	230	0.003	48,200	200	0.002	38,500	140	0.002	-	-	-	0.006
0.3mm	1	60,000	560	0.009	60,000	500	0.008	60,000	400	0.006	52,100	330	0.004	14,600	14	0.003	0.101
〃	1.5	50,800	460	0.008	50,800	410	0.007	50,800	360	0.005	42,700	260	0.004	14,600	13	0.003	0.057
〃	2	41,500	350	0.006	41,500	320	0.005	41,500	280	0.004	33,200	190	0.003	14,600	12	0.002	0.013
〃	3	31,900	240	0.002	31,900	220	0.002	31,900	190	0.001	25,500	130	0.001	14,600	10	0.001	0.004
〃	4	26,200	170	0.001	26,200	160	0.001	26,200	140	0.001	20,900	100	0.001	14,600	9	0.001	0.003
〃	5	20,400	100	0.001	20,400	90	0.001	20,400	80	0.001	16,300	60	0.001	-	-	-	-
0.4mm	1	52,700	660	0.012	57,700	640	0.010	48,100	470	0.008	38,500	320	0.005	14,300	17	0.003	0.054
〃	5	38,500	380	0.003	34,200	300	0.003	30,100	240	0.002	24,100	160	0.001	14,300	14	0.001	0.003
〃	10	33,700	260	0.001	27,300	190	0.001	24,600	150	0.001	19,700	100	0.001	14,300	11	0.001	0.001
0.5mm	2	56,800	900	0.020	54,000	760	0.016	40,600	510	0.014	32,500	350	0.010	14,000	20	0.005	0.098
〃	3	44,200	660	0.080	39,900	530	0.090	32,200	370	0.008	25,700	260	0.006	14,000	19	0.004	0.016
〃	4	40,600	580	0.009	36,100	460	0.008	29,700	330	0.008	23,700	230	0.005	14,000	18	0.003	0.012
〃	5	37,000	500	0.080	32,300	390	0.008	27,200	290	0.006	21,700	200	0.004	14,000	17	0.003	0.008
〃	6	33,400	420	0.005	28,500	320	0.005	24,700	250	0.003	19,700	170	0.002	14,000	16	0.001	0.004
〃	8	29,100	320	0.002	24,100	240	0.002	21,600	190	0.001	17,400	130	0.001	14,000	14	0.001	0.002
〃	10	26,100	250	0.001	21,200	180	0.001	19,600	150	0.001	15,600	100	0.001	14,000	12	0.001	0.001
〃	14	21,500	120	0.001	16,700	80	0.001	16,300	70	0.001	13,000	50	0.001	-	-	-	-
0.6mm	2	63,600	1,240	0.025	53,300	930	0.020	39,100	600	0.016	31,300	410	0.011	12,000	23	0.006	0.203
〃	3	52,500	990	0.018	44,000	740	0.016	33,500	500	0.013	26,800	340	0.009	12,000	22	0.005	0.114
〃	4	41,300	740	0.012	34,700	550	0.011	27,900	390	0.009	22,300	270	0.006	12,000	21	0.003	0.025
〃	5	36,700	630	0.010	30,900	470	0.009	25,500	340	0.007	20,400	240	0.005	12,000	20	0.003	0.017
〃	6	32,100	520	0.007	27,000	390	0.006	23,000	290	0.005	18,400	200	0.003	12,000	19	0.002	0.008
〃	8	26,800	390	0.004	22,600	300	0.004	20,000	230	0.003	16,000	160	0.002	12,000	17	0.001	0.003
〃	10	23,400	30	0.002	19,700	230	0.002	17,900	180	0.002	14,300	130	0.001	12,000	15	0.001	0.002
〃	12	20,900	240	0.002	17,600	180	0.001	16,400	150	0.001	13,100	100	0.001	12,000	13	0.001	0.001
〃	16	16,200	100	0.001	13,700	80	0.001	13,500	70	0.001	10,800	50	0.001	-	-	-	-
0.7mm	2	59,800	1,380	0.030	50,200	1,040	0.027	36,100	660	0.021	28,800	430	0.015	10,000	24	0.010	0.038
〃	4	38,900	840	0.017	32,700	630	0.015	25,800	440	0.012	20,600	290	0.009	10,000	22	0.006	0.047
〃	6	30,200	600	0.010	25,400	450	0.009	21,200	330	0.007	16,900	230	0.005	10,000	20	0.003	0.014
〃	8	25,300	460	0.006	21,300	350	0.005	18,400	260	0.004	14,700	190	0.003	10,000	18	0.002	0.006
〃	10	22,000	360	0.004	18,500	270	0.003	16,500	220	0.003	13,200	160	0.002	10,000	16	0.001	0.003
0.8mm	2	41,200	1,050	0.033	34,500	460	0.029	26,200	530	0.023	21,000	370	0.016	8,000	21	0.012	0.108
〃	4	37,100	930	0.027	31,100	700	0.024	24,100	480	0.019	19,300	330	0.013	8,000	20	0.010	0.080
〃	6	28,800	680	0.015	24,200	510	0.013	19,800	370	0.010	15,800	250	0.007	8,000	18	0.005	0.024
〃	8	24,100	520	0.009	20,300	390	0.008	17,200	300	0.006	13,800	200	0.004	8,000	16	0.003	0.010
〃	10	21,000	420	0.006	17,700	320	0.005	15,500	240	0.040	12,400	170	0.003	8,000	14	0.002	0.005
〃	12	18,700	340	0.004	15,800	260	0.003	14,100	200	0.003	11,300	140	0.002	8,000	12	0.001	0.003
〃	14	15,600	230	0.002	13,200	180	0.020	12,300	150	0.001	980	100	0.001	-	-	-	0.001
NN	6	27,600	790	0.019	23,000	590	0.017	18,500	420	0.013	14,800	290	0.010	7,200	18	0.007	0.038
〃	8	23,000	600	0.012	19,300	450	0.011	16,100	330	0.008	12,900	230	0.006	7,200	16	0.004	0.016
〃	10	20,000	470	0.008	16,800	360	0.007	14,500	270	0.005	11,600	190	0.004	7,200	14	0.002	0.008
NN	2	37,900	1,340	0.048	31,500	990	0.043	23,400	6,500	0.034	18,700	440	0.024	6,500	15	0.011	0.263
〃	3	37,900	1,340	0.048	31,500	990	0.043	23,400	6,500	0.034	18,700	440	0.024	6,500	15	0.011	0.263
〃	4	34,100	1,170	0.040	28,400	870	0.036	21,500	580	0.028	17,200	400	0.020	6,500	15	0.010	0.195
〃	5	30,300	1,000	0.032	25,300	750	0.029	19,600	510	0.022	15,700	360	0.016	6,500	15	0.009	0.013
〃	6	26,500	850	0.023	22,100	630	0.021	17,600	440	0.016	14,100	310	0.012	6,500	14	0.007	0.058
〃	8	22,100	660	0.014	18,600	490	0.013	15,300	360	0.010	12,300	250	0.007	6,500	13	0.040	0.024
〃	10	19,200	530	0.010	16,200	400	0.009	13,800	300	0.007	11,000	210	0.005	6,500	12	0.003	0.013
〃	12	17,200	440	0.007	14,500	330	0.006	12,600	250	0.005	10,100	170	0.003	6,500	11	0.002	0.007
〃	14	15,600	360	0.005	13,200	270	0.004	11,700	210	0.003	9,400	150	0.002	650	10	0.001	0.005
〃	16	14,300	300	0.004	12,100	230	0.003	11,000	180	0.003	8,800	130	0.002	-	-	-	0.003
〃	20	12,500	200	0.003	10,600	160	0.003	9,800	130	0.002	7,900	90	0.001	-	-	-	0.001
〃	25	10,800	120	0.003	9,200	90	0.002	8,800	80	0.002	7,100	50	0.001	-	-	-	0.001
〃	30	9,700	50	0.002	8,200	40	0.002	8,100	30	0.001	6,500	30	0.001	-	-	-	-

Depth of Cut

Slotting
- Ap Axial Depth
- D Outside Diameter



Side Milling
- Ap Axial Depth
- Ae Radial Depth

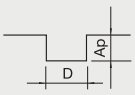


• RPM : rev./min • Feed : mm/min

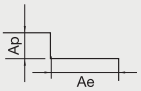
Material		Carbon Steels			Alloy Steels SK / SCM / SUS			Prehardened Steels / Hardened Steels NAK / SKD			Hardened Steels SKD / SKT			Hardened Steels SKD / SKT			Ae Milling amount for side Milling
Hardness		(S45C/S50C) ~225HB			225 ~ 325HB			35HRc ~ 45HRc			45HRc ~ 55HRc			55HRc ~ 60HRc			
Outside Diameter	Effective Length	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
1.2mm	4	28,900	1,180	0.050	24,100	870	0.047	18,300	580	0.036	14,500	400	0.026	9,600	34	0.015	0.189
〃	6	24,800	970	0.037	20,700	720	0.034	16,100	490	0.026	12,800	340	0.019	9,600	22	0.011	0.120
〃	8	20,700	760	0.024	17,300	570	0.021	13,900	400	0.016	11,100	280	0.012	9,600	10	0.007	0.051
〃	10	18,000	620	0.016	15,100	470	0.014	12,400	340	0.011	9,900	230	0.008	-	-	-	0.026
〃	12	16,100	520	0.011	13,500	390	0.010	11,400	290	0.008	9,100	200	0.005	-	-	-	0.015
〃	16	13,400	380	0.006	11,300	290	0.005	9,800	220	0.004	7,900	150	0.003	-	-	-	0.006
〃	20	11,700	280	0.004	9,900	210	0.004	8,800	170	0.003	7,000	120	0.002	-	-	-	0.003
〃	25	10,800	120	0.003	9,200	90	0.002	8,800	80	0.002	7,100	50	0.001	-	-	-	0.001
〃	30	9,700	50	0.002	8,200	40	0.002	8,100	30	0.001	6,500	30	0.001	-	-	-	-
1.4mm	6	23,300	1,070	0.052	19,400	800	0.047	14,800	540	0.060	11,900	370	0.026	9,600	44	0.015	0.222
〃	8	19,500	850	0.035	16,300	640	0.032	12,900	440	0.025	10,300	310	0.018	9,600	18	0.010	0.094
〃	10	16,900	710	0.025	14,200	530	0.022	11,500	380	0.017	9,200	260	0.012	-	-	-	0.048
〃	14	13,700	510	0.013	11,500	390	0.012	9,700	290	0.009	7,800	200	0.007	-	-	-	0.018
〃	16	12,600	450	0.010	10,600	340	0.009	9,100	250	0.007	7,300	180	0.005	-	-	-	0.012
〃	20	10,300	300	0.006	8,700	230	0.005	7,800	180	0.004	6,200	120	0.003	-	-	-	0.005
1.5mm	4	26,600	1,340	0.073	22,100	1,000	0.065	16,300	640	0.051	13,000	440	0.036	9,600	95	0.020	0.462
〃	6	22,800	1,120	0.057	19,000	840	0.051	14,400	550	0.040	11,500	380	0.028	9,600	60	0.016	0.293
〃	8	19,000	900	0.041	15,900	670	0.037	12,500	460	0.029	10,000	320	0.020	9,600	25	0.012	0.124
〃	10	16,600	750	0.030	13,800	560	0.027	11,200	390	0.021	8,900	270	0.015	9,600	13	0.009	0.063
〃	12	14,800	630	0.023	12,400	470	0.020	10,200	340	0.016	8,200	240	0.011	-	-	-	0.037
〃	14	13,400	550	0.017	11,200	410	0.016	9,500	300	0.012	7,600	210	0.009	-	-	-	0.023
〃	16	12,300	480	0.013	10,300	360	0.012	8,900	270	0.009	7,100	190	0.007	-	-	-	0.015
〃	18	11,500	420	0.011	9,600	310	0.010	8,400	240	0.007	6,700	170	0.005	-	-	-	0.011
〃	20	10,700	370	0.009	9,000	280	0.008	7,900	220	0.006	6,300	150	0.004	-	-	-	0.008
〃	25	9,300	270	0.005	7,800	200	0.005	7,100	160	0.004	5,700	110	0.003	-	-	-	0.004
〃	30	8,300	200	0.004	7,000	150	0.004	6,500	120	0.003	5,200	90	0.002	-	-	-	0.002
1.6mm	10	16,100	780	0.035	13,500	580	0.032	10,800	410	0.025	8,600	280	0.018	9,600	15	0.010	0.082
〃	14	13,000	580	0.020	10,900	430	0.018	9,100	320	0.014	7,300	220	0.010	-	-	-	0.030
〃	18	11,100	450	0.013	9,300	340	0.012	8,000	260	0.009	6,400	180	0.006	-	-	-	0.014
2.0mm	4	23,000	1,500	0.070	20,000	1,200	0.060	14,000	750	0.052	12,000	500	0.040	9,600	230	0.022	0.966
〃	6	20,300	1,350	0.064	17,400	1,030	0.058	12,500	650	0.045	10,000	450	0.032	9,600	211	0.019	0.926
〃	8	17,000	1,090	0.054	14,500	830	0.048	10,800	540	0.038	8,700	380	0.027	9,600	89	0.016	0.391
〃	10	14,800	920	0.045	12,600	700	0.040	9,700	470	0.031	7,800	330	0.022	9,600	45	0.013	0.200
〃	12	13,200	790	0.037	11,200	600	0.034	8,900	420	0.026	7,100	290	0.019	9,600	56	0.011	0.116
〃	14	12,000	700	0.031	10,200	530	0.028	8,200	370	0.022	6,600	260	0.016	9,600	16	0.009	0.073
〃	16	11,100	620	0.026	9,400	470	0.024	7,700	340	0.018	6,100	230	0.013	9,600	11	0.007	0.049
〃	18	10,300	550	0.022	8,700	420	0.020	7,200	310	0.015	5,800	210	0.011	-	-	-	0.034
〃	20	9,600	500	0.018	8,100	380	0.016	6,900	280	0.013	5,500	190	0.009	-	-	-	0.025
〃	22	8,700	420	0.014	7,500	320	0.014	6,500	250	0.010	5,200	170	0.008	-	-	-	0.018
〃	25	8,400	390	0.012	7,100	290	0.011	6,200	230	0.008	4,900	160	0.006	-	-	-	0.013
〃	30	7,500	310	0.008	6,300	230	0.007	5,600	180	0.005	4,500	130	0.004	-	-	-	0.007
2.5mm	8	15,000	1,340	0.077	12,800	1,020	0.069	9,600	670	0.054	7,700	460	0.039	9,600	227	0.023	0.954
〃	10	13,100	1,140	0.068	11,100	860	0.061	8,600	590	0.048	6,900	400	0.034	9,600	116	0.020	0.488
〃	12	11,800	1,000	0.060	10,000	750	0.054	7,900	520	0.042	6,300	360	0.030	9,600	67	0.018	0.283
〃	16	9,900	790	0.045	8,400	590	0.040	6,800	430	0.031	5,500	290	0.022	9,600	28	0.013	0.119
〃	20	8,700	650	0.033	7,300	490	0.030	6,100	360	0.023	4,900	250	0.017	9,600	14	0.010	0.061
〃	25	7,600	520	0.022	6,400	390	0.019	5,500	300	0.015	4,400	210	0.011	-	-	-	0.031
〃	30	6,800	430	0.014	5,700	320	0.012	5,000	250	0.010	4,000	1,700	0.007	-	-	-	0.018
〃	35	6,200	380	0.009	5,200	280	0.008	4,800	190	0.007	3,800	1,400	0.005	-	-	-	0.012
〃	40	5,700	290	0.005	4,800	220	0.004	4,400	170	0.003	3,500	120	0.002	-	-	-	0.008
〃	50	5,000	190	0.001	4,200	140	0.001	3,900	120	0.001	3,100	80	0.001	-	-	-	0.004

Depth of Cut

Slotting
- Ap Axial Depth
- D Outside Diameter



Side Milling
- Ap Axial Depth
- Ae Radial Depth

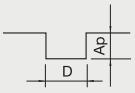


• RPM : rev./min • Feed : mm/min

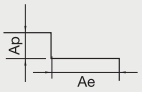
Material		Carbon Steels			Alloy Steels SK / SCM / SUS			Prehardened Steels / Hardened Steels NAK / SKD			Hardened Steels SKD / SKT			Hardened Steels SKD / SKT			Ae Milling amount for side Milling
Hardness		(S45C/S50C) ~225HB			225 ~ 325HB			35HRc ~ 45HRc			45HRc ~ 55HRc			55HRc ~ 60HRc			
Outside Diameter	Effective Length	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
3mm	6	13,200	1,470	0.103	10,900	1,080	0.093	8,000	700	0.072	6,400	480	0.052	8,000	435	0.031	1.978
〃	10	11,600	1,270	0.092	9,600	930	0.083	7,200	620	0.064	5,800	430	0.046	8,000	222	0.027	1.013
〃	12	10,500	1,110	0.081	8,700	830	0.073	6,700	560	0.057	5,300	380	0.041	8,000	128	0.024	0.586
〃	16	8,900	900	0.064	7,400	670	0.058	5,900	470	0.045	4,700	320	0.032	8,000	54	0.019	0.247
〃	20	7,800	750	0.050	6,600	560	0.045	5,300	400	0.035	4,300	280	0.025	8,000	27	0.015	0.127
〃	25	6,900	620	0.036	5,800	460	0.032	4,800	340	0.025	3,900	230	0.018	8,000	14	0.010	0.065
〃	30	6,200	520	0.026	5,200	390	0.023	4,500	290	0.018	3,600	200	0.013	8,000	10	0.007	0.038
〃	35	5,700	440	0.018	4,800	330	0.016	4,200	250	0.013	3,300	170	0.009	-	-	-	0.024
〃	40	5,300	370	0.013	4,500	280	0.012	3,900	220	0.009	3,100	150	0.006	-	-	-	0.016
〃	45	5,000	330	0.008	4,200	230	0.008	3,700	180	0.006	2,900	130	0.005	-	-	-	0.012
〃	50	4700	270	0.006	3900	200	0.005	3600	160	0.004	2800	110	0.003	-	-	-	0.008
〃	60	4,500	250	0.003	3,600	180	0.003	3,200	130	0.003	2,500	90	0.002	-	-	-	0.005
4mm	8	10,000	1,600	0.014	8,800	1,100	0.140	6,800	770	0.093	5,300	500	0.070	6,000	450	0.050	1.990
〃	10	9,200	1,400	0.120	8,000	1,000	0.120	5,900	690	0.085	4,700	460	0.066	6,000	420	0.040	1.960
〃	12	8,500	1,280	0.112	7,100	950	0.101	5,100	600	0.078	4,100	410	0.056	6,000	388	0.033	1.852
〃	16	7,200	1,050	0.093	6,000	770	0.084	4,400	510	0.065	3,600	350	0.046	6,000	164	0.027	0.781
〃	20	6,300	880	0.077	5,200	650	0.069	4,000	440	0.054	3,200	300	0.038	6,000	84	0.022	0.400
〃	25	5,600	750	0.061	4,600	540	0.055	3,600	380	0.042	2,900	260	0.030	6,000	43	0.018	0.205
〃	30	5,000	630	0.048	4,100	460	0.043	3,300	330	0.033	2,600	230	0.024	6,000	24	0.014	0.119
〃	35	4,600	540	0.038	3,800	400	0.034	3,100	290	0.026	2,500	200	0.019	6,000	15	0.011	0.075
〃	40	4,200	470	0.030	3,500	350	0.027	2,900	250	0.021	2,300	180	0.015	6,000	10	0.009	0.050
〃	45	3,900	410	0.023	3,300	300	0.021	2,700	230	0.016	2,200	160	0.012	-	-	-	0.035
〃	50	3700	360	0.018	3100	270	0.016	2600	200	0.013	2100	140	0.009	-	-	-	0.026
〃	55	3,500	320	0.015	2,950	250	0.015	2,500	180	0.010	2,000	130	0.007	-	-	-	0.020
〃	60	3,300	280	0.011	2,800	210	0.010	2,400	160	0.008	1,900	110	0.006	-	-	-	0.015
5mm	16	6,000	1,140	0.127	5,100	860	0.114	3,500	520	0.089	2,800	360	0.064	4,800	457	0.038	1.907
〃	20	5,300	980	0.121	4,400	730	0.109	3,100	440	0.085	2,500	310	0.061	4,800	234	0.036	0.977
〃	25	4,600	820	0.109	3,800	600	0.099	2,800	390	0.077	2,200	270	0.055	4,800	120	0.033	0.500
〃	30	4,200	710	0.094	3,400	510	0.085	2,500	340	0.066	2,000	230	0.047	4,800	69	0.028	0.289
〃	35	3,800	620	0.077	3,100	450	0.069	2,300	300	0.054	1,900	210	0.038	4,800	43	0.022	0.182
〃	40	3,500	540	0.060	2,800	390	0.054	2,200	270	0.042	1,700	180	0.030	4,800	29	0.018	0.122
〃	50	3,100	430	0.031	2,400	300	0.028	1,900	210	0.022	1,500	150	0.016	4,800	15	0.009	0.063
〃	60	2,800	350	0.013	2,100	240	0.012	1,800	170	0.009	1,400	120	0.007	4,800	10	0.004	0.036
6mm	20	4,200	960	0.126	3,800	780	0.114	2,600	470	0.088	2,100	330	0.063	4,000	607	0.037	2.025
〃	30	3,400	730	0.109	2,800	540	0.099	2,000	340	0.077	1,600	240	0.055	4,000	180	0.033	0.600
〃	40	3,000	600	0.083	2,300	410	0.074	1,700	260	0.058	1,300	170	0.041	4,000	75	0.024	0.253
〃	50	2,600	480	0.054	1,900	310	0.049	1,500	220	0.038	1,200	160	0.027	4,000	38	0.016	0.130
〃	60	2,400	410	0.031	1,700	260	0.028	1,300	170	0.022	1,000	120	0.016	4,000	22	0.009	0.075
8mm	20	3,200	910	0.180	2,800	710	0.160	2,300	450	0.130	1,700	330	0.090	3,400	580	0.050	1.600
〃	40	2,600	600	0.120	2,000	410	0.100	1,500	250	0.800	1,100	160	0.060	3,400	84	0.035	0.200
〃	25	2,900	890	0.200	2,700	680	0.180	2,100	430	0.130	1,500	310	0.080	3,200	540	0.050	1.760
〃	45	2,200	580	0.140	2,000	400	0.120	1,300	220	0.700	900	150	0.050	3,200	76	0.030	0.240
〃	30	2,500	710	0.220	2,300	580	0.200	2,000	400	0.140	1,400	280	0.080	3,000	540	0.050	1.840
〃	50	1,900	420	0.160	1,700	350	0.130	1,500	200	0.800	800	140	0.050	3,000	72	0.030	0.280

Depth of Cut

Slotting
- Ap Axial Depth
- D Outside Diameter



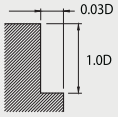
Side Milling
- Ap Axial Depth
- Ae Radial Depth



- Recommend airblow or oil mist cutting fluids.
- Remove chips to prevent heat generation and ignition.
- When the parameters exceed the machine's maximum spindle speed, decrease both spindle speed and feed rate by the same proportion.
- To avoid damaging the precision tip point non-contact measuring should be used.

REM-FN4

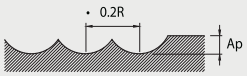
• RPM : rev./min • Feed : mm/min

Material	Alloy Steels / Heat Resistant Steels		Prehardened Steels / Hardened Steels				Hardened Steels			
			NAK / SKD		STAVX / SKD / SKT		SKD11 / SKD61		SKD / SKD11	
Hardness	30HRc ~ 40HRc		40HRc ~ 50HRc		50HRc ~ 55HRc		55HRc ~ 60HRc		60HRc ~ 65HRc	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1mm	48,000	1,480	38,000	1,050	25,500	710	20,500	430	16,000	270
2mm	33,300	1,750	26,000	1,250	17,500	840	14,500	520	11,000	320
3mm	21,800	1,750	17,300	1,250	11,500	840	9,500	520	7,500	320
4mm	16,700	1,800	13,200	1,300	8,800	880	7,200	540	335	4,750
5mm	15,700	2,000	12,500	1,500	8,300	1,000	6,400	580	5,100	370
6mm	13,100	1,950	10,350	1,400	6,900	950	5,300	560	4,200	350
8mm	9,880	1,880	7,800	1,350	5,200	900	4,000	520	3,200	330
10mm	7,800	1,750	6,150	1,260	4,100	840	3,200	480	2,550	310
12mm	6,650	1,750	5,250	1,260	3,500	840	2,650	480	2,100	300
Depth of Cut										

- When cutting austenic stainless steels, the use of water-soluble cutting fluid is effective.
- If the depth of cut is shallow, the revolution and feed rate can be increased.
- When drilling, please set the feed rate at 1/3 or below the values above.
- If the rigidity of the machine or the work materials installation is very low, or chattering and noise are generated, reduce the revolution and feed rate proportionately.

GEM-FN4

• RPM : rev./min • Feed : mm/min

Side Cutting															
Material	Hardened Steels SKD61					Hardened Steels SKD11					Hardened Steels SKS / SKH				
Hardness	45 ~ 55HRc					55 ~ 62HRc					62 ~ 68HRc				
Radius	$\alpha \leq 15^{o}$		$\alpha > 15^{o}$		Ap Axial Depth	$\alpha \leq 15^{o}$		$\alpha > 15^{o}$		Ap Axial Depth	$\alpha \leq 15^{o}$		$\alpha > 15^{o}$		Ap Axial Depth
	RPM	FEED	RPM	FEED		RPM	FEED	RPM	FEED		RPM	FEED	RPM	FEED	
R1.5	40,000	12,000	32,000	5,600	0.13	32,000	7,700	19,000	2,900	0.12	16,000	4,200	11,000	1,100	0.07
R2	32,000	11,000	24,000	4,700	0.15	24,000	6,200	14,000	2,500	0.13	12,000	3,100	8,000	1,000	0.08
R2.5	25,000	9,000	19,000	3,800	0.2	19,000	5,300	12,000	2,200	0.15	9,600	2,700	6,000	780	0.08
R3	21,000	8,400	15,000	3,400	0.25	16,000	4,800	9,600	2,000	0.2	8,000	2,300	5,000	780	0.09
R4	16,000	6,400	12,000	2,600	0.3	12,000	3,600	7,200	1,600	0.2	6,000	1,900	4,000	620	0.09
R5	13,000	5,200	9,600	2,200	0.5	10,000	3,200	5,800	1,300	0.2	4,800	1,500	3,000	550	0.1
R6	9,000	3,600	7,200	1,700	0.5	7,000	2,200	4,300	940	0.3	3,600	1,100	2,200	400	0.1
Depth of Cut															

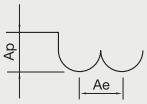
- α is the inclination angle of the machined surface.
- If the depth of cut is shallow, the revolution and feed rate can be increased.
- If the rigidity of the machine or the work materials installation is very low, or chattering and noise are generated, reduce the revolution and feed rate proportionately.

• RPM : rev./min • Feed : mm/min

Material		Copper				Prehardened Steels / Hardened Steels NAK / SKD				Hardened Steels SKD / SKT				Hardened Steels SKD / SKT			
Hardness						30HRc ~ 45HRc				45HRc ~ 55HRc				55HRc ~ 65HRc			
Radius	Cutting Length	RPM	FEED	Ae Radial Depth	Ap Axial Depth	RPM	FEED	Ae Radial Depth	Ap Axial Depth	RPM	FEED	Ae Radial Depth	Ap Axial Depth	RPM	FEED	Ae Radial Depth	Ap Axial Depth
R0.05	0.2	40,000	300	0.010	0.050	40,000	300	0.005	0.040	30,000	200	0.004	0.040	X	X	X	X
R0.1	0.2	54,000	430	0.012	0.008	54,000	630	0.020	0.060	44,300	450	0.040	0.012	30,000	300	0.023	0.008
〃	0.4	54,000	430	0.007	0.008	54,000	430	0.020	0.051	44,300	345	0.016	0.040	32,800	260	0.010	0.023
R0.15	0.3	54,000	720	0.020	0.013	54,000	750	0.030	0.090	44,300	600	0.024	0.072	32,800	450	0.015	0.042
〃	0.6	54,000	720	0.012	0.013	54,000	715	0.030	0.075	44,300	575	0.024	0.060	32,800	430	0.015	0.035
R0.2	0.4	54,000	870	0.028	0.016	54,000	1,000	0.040	0.120	44,300	800	0.032	0.096	32,800	600	0.020	0.056
〃	0.8	54,000	870	0.016	0.016	54,000	880	0.040	0.105	44,300	700	0.032	0.084	32,800	525	0.020	0.049
R0.25	0.5	56,000	1,250	0.035	0.022	53,000	1,250	0.050	0.150	43,500	1,000	0.040	0.120	32,200	750	0.025	0.070
〃	1	56,000	1,250	0.021	0.022	50,000	1,000	0.050	0.125	41,350	800	0.040	0.100	30,600	600	0.025	0.058
R0.3	0.6	58,000	1,510	0.042	0.026	52,000	1,380	0.060	0.180	42,650	1,100	0.048	0.144	31,500	825	0.030	0.084
〃	1.2	58,000	1,510	0.025	0.026	48,500	1,020	0.060	0.155	40,500	810	0.048	0.124	30,000	610	0.030	0.072
R0.4	0.8	52,000	1,870	0.056	0.036	48,000	1,500	0.080	0.240	39,500	1,200	0.064	0.192	29,250	900	0.040	0.112
〃	2	52,000	1,870	0.033	0.036	45,000	1,085	0.080	0.200	37,500	870	0.064	0.160	27,800	650	0.040	0.093
R0.5	1	41,000	1,660	0.063	0.040	45,000	1,560	0.100	0.300	36,900	1,250	0.080	0.240	27,300	940	0.050	0.140
〃	2.5	41,000	1,660	0.022	0.040	40,000	1,000	0.100	0.200	31,500	800	0.080	0.160	23,000	600	0.050	0.090
R0.6	3	34,000	1,740	0.072	0.051	40,100	1,550	0.120	0.360	32,800	1,250	0.096	0.288	24,400	940	0.060	0.168
R0.75	1.5	27,000	1,830	0.087	0.068	35,000	1,600	0.150	0.450	28,700	1,280	0.120	0.360	21,500	960	0.075	0.210
〃	4	27,000	1,830	0.052	0.068	34,000	1,000	0.150	0.325	26,000	800	0.120	0.260	19,250	600	0.075	0.152
R1	2	20,000	1,780	0.112	0.089	30,000	1,850	0.200	0.600	24,600	1,480	0.160	0.480	18,250	1,110	0.100	0.280
〃	5	20,000	1,780	0.067	0.089	26,500	1,350	0.200	0.435	22,000	1,080	0.160	0.348	16,250	810	0.100	0.203
R1.25	6	16,000	1,840	0.067	0.115	25,500	1,600	0.250	0.542	21,000	1,280	0.200	0.430	15,500	960	0.125	0.251
R1.5	3	13,000	2,220	0.197	0.171	25,500	2,520	0.300	0.957	21,000	2,050	0.240	0.766	15,500	1,530	0.150	0.447
〃	8	13,000	2,220	0.100	0.171	25,500	2,350	0.300	0.765	21,000	1,880	0.240	0.612	15,500	1,410	0.150	0.357
R2	4	10,000	2,080	0.266	0.208	21,000	2,450	0.400	1.380	17,300	1,960	0.320	1.100	12,800	1,470	0.200	0.644
〃	8	10,000	2,080	0.134	0.208	21,000	2,350	0.400	1.020	17,300	1,880	0.320	0.816	12,800	1,410	0.200	0.476
R2.5	5	8,300	1,990	0.215	0.240	18,000	2,560	0.500	1.660	14,800	2,050	0.400	1.330	11,000	1,530	0.250	0.770
〃	10	8,300	1,990	0.180	0.240	18,000	2,300	0.500	1.275	14,800	1,840	0.400	1.020	11,000	1,380	0.250	0.595
R3	6	6,900	1,940	0.290	0.281	16,000	2,700	0.600	2.340	13,000	2,160	0.480	1.870	9,600	1,620	0.300	1.090
〃	12	6,900	1,940	0.230	0.281	16,000	2,400	0.600	1.530	13,000	1,920	0.480	1.225	9,600	1,440	0.300	0.715
R4	8	5,720	1,000	0.400	0.175	12,500	2,300	0.800	3.100	10,250	1,840	0.640	2.480	7,600	1,380	0.400	1.446
〃	14	5,720	1,000	0.400	0.175	12,500	2,000	0.800	2.050	10,250	1,600	0.640	1.640	7,600	1,200	0.400	0.957
R5	10	4,550	700	0.500	0.154	10,500	2,200	1.000	3.750	8,650	1,780	0.800	3.000	6,400	1,340	0.500	1.750
〃	18	4,550	700	0.500	0.154	10,500	1,700	1.000	2.550	8,650	1,360	0.800	2.040	6,400	1,020	0.500	1.190
R6	12	3,770	600	0.600	0.159	9,000	1,850	1.200	4.420	7,380	1,480	0.960	3.540	5,450	1,110	0.600	2.060
〃	22	3,770	600	0.600	0.159	9,000	1,600	1.200	3.050	7,380	1,280	0.960	2.440	5,450	960	0.600	1.423
R8	30	2,200	460	0.115	0.450	6,800	1,630	3.870	1.120	4,900	1,100	2.350	0.790	4,000	810	1.742	0.500
R10	38	2,000	470	0.100	0.400	6,200	1,450	4.120	1.100	3,900	1,100	2.530	0.840	3,100	800	1.866	0.520

Depth of Cut

- Ap Axial Depth
- Ae Radial Depth
- D Outside Diameter
- n Speed
- Vf Feed

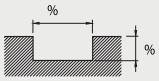


- Decrease both spindle speed and feed rate proportionally when the milling parameters exceed the machine's maximum spindle speed
- Recommend air blow or oil mist.
- Recommend oil coolant for stainless steels and heat resistant alloys.
- Recommend wet collant for copper
- The tolerance of below ø 1 is below 5 µm .

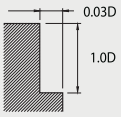
- Apply 20% up values of below condition for GEM-FN2

• RPM : rev./min • Feed : mm/min

Slotting

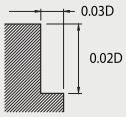
Material	Alloy Steels / Heat Resistant Steels		Prehardened Steels / Hardened Steels				Hardened Steels			
			NAK / SKD		STAVX / SKD / SKT		SKD11 / SKD61		SKD / SKD11	
Hardness	30HRc ~ 40HRc		40HRc ~ 50HRc		50HRc ~ 55HRc		55HRc ~ 60HRc		60HRc ~ 65HRc	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
0.1mm	50,000	100	45,000	100	40,000	90	33,000	50	33,000	40
0.2mm	50,000	130	45,000	115	40,000	95	33,000	60	33,000	45
0.3mm	50,000	190	45,000	140	40,000	115	33,000	70	25,000	50
0.4mm	50,000	235	45,000	180	40,000	140	33,000	90	25,000	55
0.5mm	50,000	370	45,000	280	40,000	220	33,000	140	25,000	85
0.6mm	50,000	470	45,000	360	40,000	285	30,000	160	25,000	105
0.8mm	50,000	600	40,000	440	30,000	295	25,000	185	19,000	110
0.9mm	49,000	655	39,000	520	27,800	330	22,700	205	17,500	125
1mm	48,000	750	38,000	570	25,500	360	20,500	215	16,000	135
2mm	33,300	850	26,000	680	17,500	420	14,500	260	11,000	160
3mm	21,800	850	17,300	680	11,500	420	9,500	260	7,500	160
4mm	16,700	880	13,200	700	8,800	440	7,200	270	5,600	170
5mm	15,700	1,000	12,500	805	8,300	500	6,400	285	5,100	180
6mm	13,100	950	10,350	770	6,900	480	5,300	280	4,200	180
8mm	9,880	930	7,800	720	5,200	445	4,000	255	3,200	165
10mm	7,800	850	6,150	680	4,100	415	3,200	240	2,550	155
12mm	6,650	850	5,250	680	3,500	415	2,650	240	2,100	155
16mm	5,540	780	4,340	610	2,600	360	1,840	180	1,800	100
18mm	5,540	780	4,340	610	2,600	360	1,840	180	1,800	100
20mm	4,640	720	3,650	570	2,100	300	1,460	180	1,400	100
Depth of Cut										

Side Cutting

Material	Alloy Steels / Heat Resistant Steels		Prehardened Steels / Hardened Steels				Hardened Steels			
			NAK / SKD		STAVX / SKD / SKT		SKD11 / SKD61		SKD / SKD11	
Hardness	30HRc ~ 40HRc		40HRc ~ 50HRc		50HRc ~ 55HRc		55HRc ~ 60HRc		60HRc ~ 65HRc	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1mm	50,000	100	45,000	100	40,000	90	33,000	50	33,000	40
2mm	50,000	130	45,000	115	40,000	95	33,000	60	33,000	45
3mm	50,000	190	45,000	140	40,000	115	33,000	70	25,000	50
4mm	50,000	235	45,000	180	40,000	140	33,000	90	25,000	55
5mm	50,000	370	45,000	280	40,000	220	33,000	140	25,000	85
6mm	50,000	470	45,000	360	40,000	285	30,000	160	25,000	105
8mm	50,000	600	40,000	440	30,000	295	25,000	185	19,000	110
10mm	49,000	655	39,000	520	27,800	330	22,700	205	17,500	125
12mm	48,000	750	38,000	570	25,500	360	20,500	215	16,000	135
16mm	33,300	850	26,000	680	17,500	420	14,500	260	11,000	160
18mm	21,800	850	17,300	680	11,500	420	9,500	260	7,500	160
20mm	16,700	880	13,200	700	8,800	440	7,200	270	5,600	170
Depth of Cut										

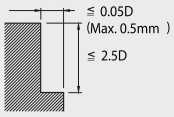
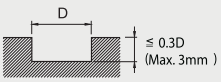
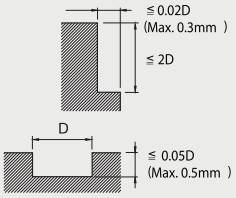
• Apply 20% up values of below condition for SEM-FN4

• RPM : rev./min • Feed : mm/min

Material	Alloy Steels / Heat Resistant Steels		Hardened Steels NAK / SKD	
Hardness	30HRc ~ 40HRc		40 ~ 50HRc	
Outside Diameter	RPM	FEED	RPM	FEED
1mm	48,000	1,480	38,000	1,050
2mm	33,300	1,750	26,000	1,250
3mm	21,800	1,750	17,300	1,250
4mm	16,700	1,800	13,200	1,300
5mm	15,700	2,000	12,500	1,500
6mm	13,100	1,950	10,350	1,400
7mm	11,000	1,900	9,000	1,380
8mm	9,880	1,880	7,800	1,350
9mm	7,800	1,750	6,150	1,260
10mm	6,650	1,750	5,250	1,260
11mm	5,600	1,680	4,300	1,150
12mm	5,600	1,680	4,300	1,150
14mm	4,650	1,600	3,500	1,050
16mm	4,650	1,600	3,500	1,050
18mm	3,750	1,560	2,800	1,000
20mm	3,500	1,460	2,600	980
Milling Amount of Side Milling				

LEM-FN4

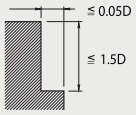
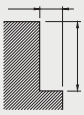
• RPM : rev./min • Feed : mm/min

Material	Carbon Steels S50 / SCM		Hardened Steels / Prehardened Steels NAK / SKD61		Stainless Steels SUS304 / SUS316		Hardened Steels SKD61	
Hardness	~ 30HRc		30 ~ 45HRc				45 ~ 55HRc	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1mm	6,800	85	5,800	85	4,800	55	4,000	25
1.5mm	6,000	90	5,000	90	4,100	60	3,400	30
2mm	5,000	100	4,000	86	3,200	65	2,800	40
3mm	4,200	110	3,400	95	2,600	70	2,100	50
4mm	3,400	140	2,700	110	2,100	85	1,700	60
5mm	2,900	170	2,300	140	1,800	100	1,500	70
6mm	2,500	200	2,000	170	1,500	130	1,300	85
8mm	1,900	220	1,500	170	1,200	150	1,000	85
10mm	1,600	220	1,300	170	950	130	800	85
12mm	1,300	170	1,100	150	800	100	670	70
16mm	1,000	140	820	110	600	80	500	50
20mm	800	110	650	85	480	70	400	40
25mm	650	85	520	70	380	50	320	35
Depth of Cut	 							

- When cutting austenic stainless steels, the use of water-soluble cutting fluid is effective.
- If the depth of cut is shallow, the revolution and feed rate can be increased.
- When drilling, please set the feed rate at 1/3 or below the values above.
- If the rigidity of the machine or the work materials installation is very low, or chattering and noise are generated, reduce the revolution and feed rate proportionately.

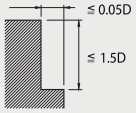
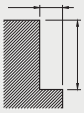
HEM-FN4

• RPM : rev./min • Feed : mm/min

Material	Hardened Steels SKD61			Hardened Steels SKD11		
Hardness	45HRc ~ 55HRc			55HRc ~ 62HRc		
Outside Diameter	RPM	FEED	Ap	RPM	FEED	Ap
1mm	40,000	1,200	0.05	40,000	800	0.03
1.5mm	40,000	1,500	0.05	40,000	900	0.04
2mm	40,000	2,000	0.1	24,000	1,000	0.05
3mm	38,400	4,560	0.2	19,200	2,280	0.1
4mm	28,800	5,280	0.2	14,400	2,640	0.1
5mm	24,000	6,000	0.2	12,000	3,000	0.1
6mm	19,200	6,960	0.3	9,600	3,480	0.2
8mm	14,400	6,960	0.4	7,200	3,480	0.2
10mm	11,520	6,960	0.5	5,760	3,480	0.3
12mm	9,600	5,760	0.6	4,800	2,880	0.3
16mm	7,200	4,320	0.8	3,600	2,160	0.5
20mm	5,760	3,480	1	2,880	1,680	0.5
Depth of Cut	 ≤ 0.05D ≦ 1.5D			 ≦ 0.03D (D < Ø3) ≦ 0.05D (D / ≧ Ø3) (MAX. 0.5mm) ≦ 1D		

HEM-FN6 & 8

• RPM : rev./min • Feed : mm/min

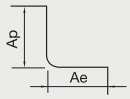
Material	Hardened Steels SKD61			Hardened Steels SKD11		
Hardness	45HRc ~ 55HRc			55HRc ~ 62HRc		
Outside Diameter	RPM	FEED	Ap	RPM	FEED	Ap
3mm	32,000	3,800	0.2	16,000	1,900	0.1
4mm	24,000	4,400	0.2	12,000	2,200	0.1
5mm	20,000	5,000	0.2	10,000	2,500	0.1
6mm	16,000	5,800	0.3	8,000	2,900	0.2
8mm	12,000	5,800	0.4	6,000	2,900	0.2
10mm	9,600	5,800	0.5	4,800	2,900	0.3
12mm	8,000	4,800	0.6	4,000	2,400	0.3
16mm	6,000	3,600	0.8	3,000	1,800	0.5
20mm	4,800	2,900	1	2,400	1,400	0.5
25mm	3,000	2,000	1	2,000	1,000	0.5
Depth of Cut	 ≤ 0.05D ≦ 1.5D			 ≦ 0.03D (D < Ø3) ≦ 0.05D (D / ≧ Ø3) (MAX. 0.5mm) ≦ 1D		

• RPM : rev./min • Feed : mm/min

Material		Copper				Prehardened Steels / Hardened Steels NAK / SKD				Hardened Steels SKD / SKT				Hardened Steels SKD / SKT			
Hardness						30HRc ~ 45HRc				45HRc ~ 55HRc				55HRc ~ 65HRc			
Outside Diameter	Effective Length	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
0.2mm	1mm	50,000	196	0.264	0.020	50,000	196	0.006	0.020	34,500	150	0.004	0.020	14,950	24	0.001	0.015
〃	1.5	50,000	173	0.017	0.010	50,000	173	0.005	0.010	26,450	104	0.003	0.010	11,730	20	0.001	0.007
0.3mm	1	50,000	483	0.029	0.020	50,000	495	0.007	0.020	34,500	345	0.005	0.015	21,505	34	0.004	0.015
〃	3	50,000	207	0.029	0.015	50,000	219	0.006	0.015	24,150	81	0.003	0.010	14,605	20	0.002	0.010
0.4mm	1	47,150	598	0.047	0.062	50,000	495	0.013	0.070	39,675	368	0.011	0.070	23,575	39	0.004	0.070
〃	3	33,350	449	0.026	0.053	26,450	380	0.008	0.026	26,450	276	0.007	0.026	15,755	29	0.003	0.026
0.5mm	1	48,300	1,334	0.079	0.114	48,300	1,116	0.033	0.119	39,100	840	0.029	0.119	24,150	92	0.013	0.119
〃	3	31,050	748	0.056	0.088	31,050	621	0.022	0.110	25,415	460	0.020	0.110	15,755	51	0.008	0.110
〃	5	25,760	552	0.026	0.044	25,760	459	0.011	0.010	20,700	345	0.010	0.010	12,995	38	0.004	0.010
0.6mm	2	27,945	598	0.111	0.158	27,945	495	0.010	0.214	23,000	380	0.010	0.214	14,835	42	0.004	0.214
〃	6	16,445	288	0.035	0.044	16,445	242	0.003	0.010	13,570	184	0.003	0.010	8,740	21	0.001	0.010
0.8mm	4	17,250	529	0.129	0.194	17,020	437	0.014	0.114	14,720	345	0.015	0.114	9,890	40	0.007	0.114
〃	8	12,650	299	0.029	0.098	12,650	264	0.005	0.088	10,695	184	0.004	0.088	7,475	20	0.002	0.088
NN	4	13,800	955	0.196	0.396	13,800	805	0.029	0.264	11,730	655	0.034	0.264	8,280	78	0.017	0.264
〃	10	8,625	380	0.047	0.308	8,625	311	0.011	0.123	7,475	264	0.013	0.123	5,290	31	0.006	0.123
〃	16	6,900	230	0.018	0.220	6,900	184	0.004	0.026	5,980	161	0.005	0.026	4,255	19	0.002	0.026
1.2mm	6	9,200	690	0.182	0.457	9,200	575	0.018	0.088	8,165	483	0.215	0.088	6,095	59	0.011	0.088
〃	12	6,670	437	0.053	0.396	6,670	368	0.007	0.070	5,980	299	0.008	0.070	4,370	37	0.004	0.070
NN	4	12,880	1,265	0.293	0.660	12,880	1,070	0.044	0.440	11,730	920	0.059	0.440	8,970	121	0.032	0.440
〃	10	8,280	874	0.147	0.554	8,280	736	0.031	0.282	7,590	633	0.041	0.282	5,865	83	0.022	0.282
〃	20	5,865	472	0.041	0.352	5,865	403	0.005	0.106	5,405	345	0.006	0.106	4,140	45	0.003	0.106
2mm	6	12,535	1,185	0.314	0.836	12,535	1,001	0.042	0.792	11,730	909	0.059	0.792	9,430	130	0.035	0.792
〃	12	9,200	955	0.182	0.704	9,200	805	0.030	0.440	8,280	725	0.043	0.440	6,785	105	0.025	0.440
〃	20	6,900	748	0.091	0.651	6,900	633	0.017	0.194	6,440	564	0.023	0.194	5,175	82	0.014	0.194
〃	30	5,865	655	0.049	0.440	5,865	541	0.005	0.132	5,405	495	0.005	0.132	4,255	68	0.002	0.132
2.5mm	10	10,350	1,185	0.331	0.836	10,350	1,001	0.051	0.528	9,775	943	0.073	0.528	8,165	151	0.047	0.528
〃	30	6,210	529	0.067	0.616	6,210	437	0.011	0.176	5,865	414	0.016	0.176	4,830	65	0.010	0.176
3mm	12	10,350	1,564	0.381	0.831	10,350	1,127	0.103	0.616	9,775	874	0.103	0.655	8,740	196	0.073	0.655
〃	20	8,165	1,024	0.254	0.762	8,165	863	0.071	0.567	7,705	667	0.071	0.567	6,900	147	0.043	0.567
〃	30	6,900	850	0.137	0.674	6,900	702	0.049	0.371	6,325	541	0.049	0.371	5,865	115	0.028	0.352
4mm	12	8,740	1,265	0.401	1.525	8,740	1,058	0.081	1.124	7,360	920	0.117	1.124	6,210	210	0.083	1.124
〃	20	6,785	1,150	0.375	1.325	6,785	978	0.053	0.880	5,750	840	0.078	0.880	4,830	194	0.057	0.880
〃	30	5,750	897	0.196	1.210	5,750	748	0.028	0.671	4,715	656	0.041	0.671	4,025	149	0.030	0.708
〃	45	4,715	437	0.096	1.118	4,715	368	0.007	0.326	4,025	322	0.010	0.326	3,450	75	0.007	0.326
5mm	15	7,705	2,047	0.697	2.277	7,705	1,702	0.106	1.346	5,520	1,139	0.150	1.346	4,600	342	0.110	1.346
〃	30	5,290	978	0.342	1.760	5,290	817	0.053	1.035	3,795	541	0.075	1.035	3,220	164	0.055	1.035
6mm	20	5,980	1,380	0.600	2.194	5,980	1,219	0.476	1.356	3,565	1,035	0.186	1.356	3,105	393	0.145	1.356
〃	40	4,600	1,150	0.565	2.049	4,600	909	0.410	1.304	2,645	759	0.164	1.304	2,300	304	0.123	1.304
8mm	22	5,520	1,265	0.528	2.542	5,520	1,081	0.419	1.518	3,220	909	0.164	1.518	2,760	346	0.128	1.518
〃	40	4,140	965	0.497	2.277	4,140	805	0.361	1.323	2,415	667	0.144	1.323	1,955	268	0.108	1.323
10mm	24	4,600	1,035	0.449	2.887	4,485	920	0.356	1.645	2,760	771	0.139	1.645	2,300	294	0.108	1.645
〃	45	3,450	817	0.423	2.438	3,450	679	0.307	1.334	1,955	564	0.122	1.334	1,725	228	0.092	1.334
12mm	26	3,795	874	0.377	3.013	3,795	771	0.299	2.024	2,300	644	0.117	2.024	1,955	247	0.091	2.024
〃	50	2,875	690	0.355	2.415	2,875	575	0.258	1.403	1,725	483	0.103	1.403	1,380	191	0.077	1.403
NN	35	2,990	702	0.302	2.921	2,990	610	0.239	2.162	1,725	518	0.094	2.162	1,610	198	0.073	2.162

Milling amount of side milling

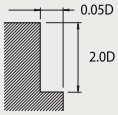
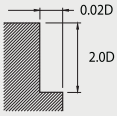
• Ap Axial Depth
• Ae Radial Depth



GER-FN4

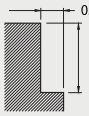
brisloy

• RPM : rev./min • Feed : mm/min

Material	Carbon Steels / Alloy Steels SCM / SNCM / S45		Prehardened Steels NAK / CENA / KP4		Hardened Steels SKD / SKT / STAVAX	
Hardness	~ 35HRc		35 ~ 45HRc		45 ~ 55HRc	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED
1mm	27,600	300	18,000	220	11,000	120
1.5mm	22,000	310	13,500	230	8,500	120
2mm	18,000	320	11,560	240	7,200	130
2.5mm	15,000	330	9,500	250	6,100	130
3mm	13,240	340	8,560	260	5,280	130
4mm	10,720	420	6,820	300	4,300	140
5mm	9,160	430	5,800	360	3,800	170
6mm	7,900	430	5,040	360	3,280	170
8mm	6,000	460	3,800	360	2,520	170
10mm	5,040	460	3,280	360	2,020	170
12mm	4,120	360	2,780	320	1,680	140
16mm	3,100	280	2,100	230	1,280	115
Depth of Cut						

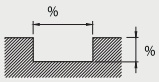
HER-FN6

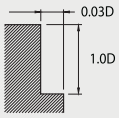
• RPM : rev./min • Feed : mm/min

Side Milling																
Material	Alloy Steels SKD				Prehardened Steels CENA1, NAK80				Hardened Steels SKD61~SKT4				Hardened Steels SKD11~SKH51			
Hardness	25HRc ~ 35HRc				35HRc ~ 45HRc				45HRc ~ 55HRc				55HRc ~ 65HRc			
Outside Diameter	High Speed		General		High Speed		General		High Speed		General		High Speed		General	
	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6mm	13,000	4,910	6,400	2,420	13,000	4,390	5,300	1,250	11,000	3,270	4,200	870	8,000	2,160	3,200	600
8mm	10,000	5,040	4,800	2,420	10,000	4,500	4,000	1,260	8,000	3,170	3,200	890	6,000	2,160	2,400	600
10mm	8,000	4,840	3,800	2,300	8,000	4,320	3,200	1,210	6,400	3,040	2,500	830	4,800	2,070	1,900	570
12mm	6,600	4,440	3,200	2,150	6,600	3,960	2,700	1,130	5,300	2,800	2,100	780	4,000	1,920	1,600	540
16mm	5,000	4,200	2,400	2,070	5,000	3,750	2,000	1,080	4,000	2,640	1,600	760	3,000	1,800	1,200	520
Depth of Cut																

- Use a highly rigid and accurate machine as possible.
- Use the appropriate coolant for the work material and machining shape.
- These condions are for general guaidance: in actual machining conditoins adjust the parameters according to your actual machine and work-piece conditions.
- If the rpm available is lower than that recmmended please reduce the feed rate to the same ratio.

• RPM : rev./min • Feed : mm/min

Slotting																
Material	Alloy Steels SKD61 / SKD11				Alloy Steels SCM440				Hardened Steels NAK80				Hardened Steels SKD61~SKT4			
Hardness	200~250HB				25HRc ~ 35HRc				35HRc ~ 45HRc				45HRc ~ 55HRc			
Outside Diameter	High Speed		General		High Speed		General		High Speed		General		High Speed		General	
	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3mm	8,500	820	6,400	490	-	-	6,400	440	-	-	5,800	360	-	-	5,300	240
4mm	6,400	920	4,800	550	-	-	4,800	500	-	-	4,400	410	-	-	4,000	280
6mm	4,200	1,010	3,200	610	-	-	3,200	550	-	-	2,900	450	-	-	2,700	310
8mm	3,200	1,090	2,400	650	-	-	2,400	590	-	-	2,200	480	-	-	2,000	330
10mm	2,500	950	1,900	580	-	-	1,900	520	-	-	1,800	440	-	-	1,600	290
12mm	2,100	880	1,600	540	-	-	1,600	480	-	-	1,500	400	-	-	1,300	260
Depth of Cut																

Side Cutting																
Material	Alloy Steels SKD61 / SKD11				Alloy Steels SCM440				Hardened Steels NAK80				Hardened Steels SKD61~SKT4			
Hardness	200~250HB				25HRc ~ 35HRc				35HRc ~ 45HRc				45HRc ~ 55HRc			
Outside Diameter	High Speed		General		High Speed		General		High Speed		General		High Speed		General	
	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3mm	16,000	1,800	9,600	860	14,000	1,400	9,600	770	12,000	1,100	8,500	610	11,000	860	7,400	460
4mm	12,000	1,900	7,200	920	10,000	1,400	7,200	830	8,800	1,100	6,400	660	8,000	900	5,600	500
6mm	8,000	2,200	4,800	1,080	6,900	1,700	4,800	970	5,800	1,300	5,100	720	5,300	1,040	3,700	580
8mm	6,000	2,400	3,600	1,150	5,200	1,900	3,600	1,040	4,400	1,400	4,200	750	4,000	1,120	2,800	630
10mm	4,800	2,200	2,900	1,070	4,100	1,700	2,900	960	3,500	1,300	2,500	740	3,200	1,030	2,200	570
12mm	4,000	2,100	2,400	1,000	3,500	1,600	2,400	900	2,900	1,200	2,100	700	2,700	980	1,900	550
Depth of Cut																

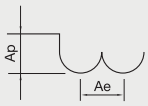
- Use a highly rigid and accurate machine as possible.
- Use the appropriate coolant for the work material and machining shape.
- These condions are for general guaidance: in actual machining conditoins adjust the parameters according to your actual machine and work-piece conditions.
- If the rpm available is lower than that recmmended please reduce the feed rate to the same ratio.

• RPM : rev./min • Feed : mm/min

Material		Copper				Prehardened Steels / Hardened Steels NAK / SKD				Hardened Steels SKD / SKT			
Hardness						30 ~ 45HRc				45 ~ 55HRc			
Radius	Effective Length	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
R0.05	0.2	40,000	300	Less than 0.010	0.050	40,000	300	Less than 0.005	0.040	30,000	200	Less than 0.004	0.040
R0.075	0.15	50,000	380	0.010	0.030	45,000	500	0.005	0.050	40,000	350	0.004	0.043
R0.1	0.2	54,000	430	0.012	0.008	54,000	630	0.020	0.060	44,300	500	0.016	0.048
	0.4	54,000	430	0.005	0.008	54,000	410	0.020	0.049	44,300	320	0.016	0.038
R0.1.5	0.3	54,000	720	0.020	0.013	54,000	750	0.030	0.090	44,300	600	0.024	0.072
	0.6	54,000	720	0.010	0.013	54,000	700	0.030	0.065	44,300	570	0.020	0.058
R0.2	0.4	54,000	870	0.028	0.016	54,000	1,000	0.040	0.120	44,300	800	0.032	0.096
	0.8	54,000	870	0.014	0.016	54,000	840	0.040	0.100	44,300	650	0.032	0.075
R0.25	0.5	56,000	1,250	0.035	0.022	53,000	1,250	0.050	0.150	43,500	1,000	0.040	0.120
R0.3	0.6	58,000	1,510	0.042	0.026	52,000	1,380	0.060	0.180	42,650	1,100	0.048	0.144
R0.35	0.7	55,000	1,690	0.049	0.031	50,000	1,440	0.070	0.210	41,075	1,150	0.056	0.168
R0.4	0.8	52,000	1,870	0.056	0.036	48,000	1,500	0.080	0.240	39,500	1,200	0.064	0.192
	2	52,000	1,870	0.300	0.036	45,000	1,075	0.080	0.150	35,000	810	0.064	0.100
R0.5	1	41,000	1,660	0.063	0.040	45,000	1,560	0.100	0.300	36,900	1,250	0.080	0.240
	2.5	41,000	1,660	0.022	0.040	40,000	1,000	0.100	0.200	31,500	800	0.080	0.160
R0.6	3	34,000	1,740	0.650	0.400	40,100	1,550	0.100	0.280	32,800	1,250	0.800	0.266
R0.75	1.5	27,000	1,830	0.087	0.068	35,000	1,600	0.150	0.450	28,700	1,280	0.120	0.360
	4	27,000	1,830	0.052	0.068	34,500	1,000	0.145	0.325	26,000	800	0.120	0.260
R1	2	20,000	1,780	0.112	0.089	30,000	1,850	0.200	0.600	24,600	1,480	0.160	0.480
	5	20,000	1,780	0.070	0.091	27,000	1,450	0.200	0.485	22,800	1,100	0.160	0.388
R1.25	6	16,000	1,840	0.067	0.115	25,500	1,600	0.250	0.542	21,000	1,280	0.200	0.430
R1.5	3	13,000	2,220	0.197	0.171	25,500	2,520	0.300	0.957	21,000	2,050	0.240	0.766
	8	13,000	2,220	0.100	0.171	25,500	2,350	0.300	0.765	21,000	18,800	0.240	0.612
R1.75	8	11,500	2,150	0.183	0.190	23,000	2,400	0.350	1.073	19,150	10,380	0.280	0.856
R2	4	10,000	2,080	0.266	0.208	21,000	2,450	0.400	1.380	17,300	1,960	0.320	1.100
	8	10,000	2,080	0.134	0.208	21,000	2,350	0.400	1.020	17,300	1,880	0.320	0.816
R2.5	5	8,300	1,990	0.215	0.240	18,000	2,560	0.500	1.660	14,800	2,050	0.400	1.330
	8	8,300	1,990	0.200	0.240	18,000	2,450	0.500	1.500	14,800	1,960	0.400	1.200
	10	8,300	1,990	0.190	0.240	18,000	2,400	0.500	1.300	14,800	1,900	0.400	1.020
R3	6	6,900	1,940	0.290	0.281	16,000	2,700	0.600	2.340	13,000	2,160	0.480	1.870
	10	6,900	1,940	0.250	0.281	16,000	2,500	0.600	1.800	13,000	2,000	0.480	1.440
	12	6,900	1,940	0.230	0.281	16,000	2,400	0.600	1.530	13,000	1,920	0.480	1.225
R3.5	14	6,310	1,470	0.315	0.228	14,500	2,350	0.700	2.315	11,625	1,880	0.560	1.853
R4	8	5,720	1,000	0.400	0.175	12,500	2,300	0.800	3.100	10,250	1,840	0.640	2.480
	14	5,720	1,000	0.400	0.175	12,500	2,000	0.800	2.050	10,250	1,600	0.640	1.640
R4.5	16	5,135	850	0.450	0.165	11,000	2,100	0.900	2.900	9,450	1,690	0.720	2.320
R5	10	4,550	700	0.500	0.154	10,500	2,200	1.000	3.750	8,650	1,780	0.800	3.000
	15	4,550	700	0.500	0.154	10,500	1,900	1.000	3.000	8,650	1,520	0.800	2.400
	18	4,550	700	0.500	0.154	10,500	1,700	1.000	2.550	8,650	1,360	0.800	2.040
R5.5	20	4,160	650	0.550	0.157	10,000	1,700	1.100	3.075	8,015	1,360	0.880	2.460
R0.6	18	3,770	600	0.600	0.159	9,000	1,700	1.200	3.600	7,380	1,360	0.960	2.880
	22	3,770	600	0.600	0.159	9,000	1,850	1.200	4.420	7,380	1,480	0.960	3.540
R6.5	24	3,728	653	0.549	0.156	9,000	1,825	1.098	3.938	7,193	1,540	0.878	3.152
R7	24	3,686	706	0.498	0.153	7,000	1,800	0.996	3.456	7,007	1,600	0.797	2.765
R8	30	2,985	600	0.413	0.147	7,000	1,700	0.827	3.318	5,675	1,360	0.661	2.654
R10	38	2,429	360	0.276	0.133	7,000	1,600	0.551	3.015	4,617	816	0.441	2.412

Depth of Cut

- Ap Axial Depth
- Ae Radial Depth
- D Outside Diameter
- n Speed
- Vf Feed



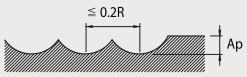
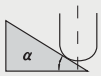
- Decrease both spindle speed and feed rate proportionally when the milling parameters exceed the machine's maximum spindle speed
- Recommend air blow or oil mist.
- Recommend oil coolant for stainless steels and heat resistant alloys.
- Recommend wet collant for copper
- The tolerance of below ø1 is below 5μm.

• RPM : rev./min • Feed : mm/min

Working material hardness	HRC30°		HRC52°		HRC60°	
Radius of Ball Nose R	Rotational speed	Feeding speed	Rotational speed	Feeding speed	Rotational speed	Feeding speed
	RPM	mm/min.	RPM	mm/min.	RPM	mm/min.
D0.5R	18432	691	14976	461	12096	438
D0.75R	17550	738	14130	612	11430	504
D1.0R	17050	806	12845	668	10368	576
D1.25R	15300	954	11520	855	9450	576
D1.5R	13824	1267	10368	922	8986	576
D2.0R	13248	1843	9792	864	8064	783
D2.5R	12420	2304	8986	1152	6336	691
D3.0R	11520	2304	8755	1094	5760	634
D3.5R	8370	2412	6120	1278	4050	702
D4.0R	7488	2534	4608	1382	2880	749
D4.5R	5931	2340	3690	1241	2520	675
D5.0R	4378	2189	2304	1037	1843	576
D6.0R	3420	2070	2304	1152	1382	518
D7.0R	1980	1125	1422	621	882	378
D8.0R	1485	702	945	468	630	324
D10.0R	990	540	612	369	441	221

GBN-FN4

• RPM : rev./min • Feed : mm/min

Side Cutting															
Material	Hardened Steels SKD61					Hardened Steels SKD11					Hardened Steels SKS / SKH				
Hardness	45 ~ 55HRc					55 ~ 62HRc					62 ~ 68HRc				
Radius	$\alpha \leq 15^{o}$		$\alpha > 15^{o}$		Ap Axial Depth	$\alpha \leq 15^{o}$		$\alpha > 15^{o}$		Ap Axial Depth	$\alpha \leq 15^{o}$		$\alpha > 15^{o}$		Ap Axial Depth
	RPM	FEED	RPM	FEED		RPM	FEED	RPM	FEED		RPM	FEED	RPM	FEED	
R1.5	40,000	12,000	32,000	5,600	0.13	32,000	7,700	19,000	2,900	0.12	16,000	4,200	11,000	1,100	0.07
R2	32,000	11,000	24,000	4,700	0.15	24,000	6,200	14,000	2,500	0.13	12,000	3,100	8,000	1,000	0.08
R2.5	25,000	9,000	19,000	3,800	0.2	19,000	5,300	12,000	2,200	0.15	9,600	2,700	6,000	780	0.08
R3	21,000	8,400	15,000	3,400	0.25	16,000	4,800	9,600	2,000	0.2	8,000	2,300	5,000	780	0.09
R4	16,000	6,400	12,000	2,600	0.3	12,000	3,600	7,200	1,600	0.2	6,000	1,900	4,000	620	0.09
R5	13,000	5,200	9,600	2,200	0.5	10,000	3,200	5,800	1,300	0.2	4,800	1,500	3,000	550	0.1
R6	9,000	3,600	7,200	1,700	0.5	7,000	2,200	4,300	940	0.3	3,600	1,100	2,200	400	0.1
Depth of Cut	 														

- α is the inclination angle of the machined surface.
- If the depth of cut is shallow, the revolution and feed rate can be increased.
- If the rigidity of the machine or the work materials installation is very low, or chattering and noise are generated, reduce th e revolution and feed rate proportionately.

RBN-AA2

brisloy

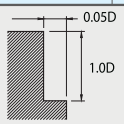
• RPM : rev./min • Feed : mm/min

Material		Copper				Prehardened Steels / Hardened Steels NAK / SKD				Hardened Steels SKD / SKT			
Hardness						30 ~ 45HRc				45 ~ 55HRc			
Radius	Effective Length	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
R0.2	2	54,000	790	0.022	0.036	48,000	590	0.018	0.024	37,000	400	0.015	0.020
	4	50,000	640	0.012	0.018	38,000	400	0.009	0.012	30,000	270	0.009	0.012
R0.25	2	57,000	1,250	0.028	0.054	42,000	750	0.022	0.036	32,000	500	0.018	0.036
	6	36,000	610	0.009	0.018	28,000	400	0.008	0.012	27,000	330	0.005	0.012
	8	36,000	590	0.009	0.018	28,000	400	0.008	0.012	27,000	330	0.005	0.012
R0.3	3	57,000	1,540	0.034	0.144	37,000	770	0.027	0.096	27,000	500	0.021	0.096
	6	46,000	960	0.019	0.072	28,000	460	0.016	0.048	26,000	370	0.012	0.048
	8	30,000	570	0.010	0.054	24,000	400	0.009	0.036	23,000	320	0.006	0.036
R0.35	2	56,000	1,800	0.050	0.162	35,000	740	0.039	0.108	27,000	500	0.031	0.108
	4	54,500	1,500	0.045	0.063	33,000	600	0.035	0.042	26,500	410	0.029	0.096
	8	32,000	800	0.019	0.072	12,215	420	0.020	0.048	22,500	355	0.012	0.048
R0.4	4	55,000	1,860	0.063	0.018	31,000	600	0.050	0.012	27,000	440	0.041	0.120
	6	47,000	1,410	0.038	0.108	28,000	570	0.030	0.072	22,000	390	0.024	0.072
	8	34,000	1,040	0.027	0.090	21,000	430	0.021	0.060	22,000	390	0.018	0.060
R0.5	6	39,000	1,500	0.071	0.180	26,000	760	0.055	0.120	17,600	480	0.009	0.120
	8	39,000	1,500	0.043	0.180	26,000	760	0.034	0.120	17,600	480	0.027	0.120
	12	18,700	660	0.027	0.090	17,600	530	0.024	0.060	16,500	420	0.018	0.060
	16	18,700	640	0.022	0.090	15,400	440	0.018	0.060	14,300	360	0.014	0.060
	20	18,700	540	0.017	0.054	14,300	360	0.013	0.036	13,200	300	0.009	0.036
R1	8	22,000	1,920	0.185	0.360	18,500	1,120	0.147	0.240	13,200	870	0.120	0.240
	12	18,700	1,470	0.166	0.360	16,000	990	0.133	0.240	11,700	780	0.107	0.240
	16	18,700	1,470	0.148	0.360	16,000	990	0.118	0.240	11,700	780	0.090	0.240
	20	14,300	1,070	0.093	0.180	14,700	580	0.074	0.120	11,600	580	0.061	0.120

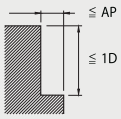
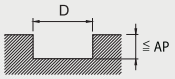
- Decrease both spindle speed and feed rate proportionally when the milling parameters exceed the machine's maximum spindle speed
- Recommend air blow or oil mist.
- Recommend oil coolant for stainless steels and heat resistant alloys.
- Recommend wet collant for copper
- The tolerance of below ø1 is below 5μm.

GEM-AA4 / LSE-AA4 / LFE-AA4

• RPM : rev./min • Feed : mm/min

Material	Carbon Steels / Alloy Steels SCM / SNCM / S45C		Prehardened Steels NAK / CENA / KP4		Stainless Steels SUS		Hardened Steels SKD / SKT / STAVAX	
Hardness	~ 35 HRc		35 ~ 45 HRc				45 ~ 55HRc	
	~1100N/mm 2		1100~1500N/mm 2				1500~2000N/mm 2	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2mm	11,560	280	7,560	170	6,300	140	5,040	50
3mm	8,920	320	5,560	200	4,620	170	3,360	60
4mm	7,560	570	4,620	350	3,880	280	2,940	60
5mm	6,300	600	3,780	360	3,160	300	2,320	70
6mm	5,560	660	3,360	410	2,840	330	2,000	80
8mm	4,200	710	2,520	380	2,100	350	1,680	110
10mm	3,260	610	2,000	300	1,680	300	1,360	90
12mm	2,740	520	1,680	250	1,360	240	1,160	80
14mm	2,420	510	1,460	225	1,210	220	960	70
16mm	2,200	410	1,360	200	1,100	200	900	60
18mm	1820	350	1210	180	950	175	820	50
20mm	1,680	320	1,060	160	840	150	680	40
Depth of Cut								

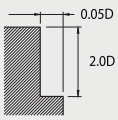
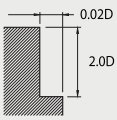
• RPM : rev./min • Feed : mm/min

Maleria	General Steels			SKD61		
Hardness	~45 HRc			45~55 HRc		
Outside Diameter	RPM	FEED	Ap	RPM	FEED	Ap
0.1mm	40,000	40	0.001	40,000	40	0.001
0.2mm	40,000	100	0.002	40,000	100	0.002
0.3mm	40,000	200	0.005	40,000	200	0.005
0.4mm	40,000	600	0.010	40,000	600	0.010
0.5mm	40,000	1,000	0.015	40,000	960	0.015
0.6mm	40,000	1,200	0.020	40,000	1,200	0.020
0.7mm	40,000	1,400	0.020	40,000	1,400	0.020
0.8mm	40,000	1,600	0.030	40,000	1,600	0.030
0.9mm	40,000	1,800	0.040	40,000	1,600	0.040
1mm	40,000	2,000	0.060	32,000	1,600	0.060
1.5mm	40,000	3,000	0.120	32,000	1,900	0.080
2mm	30,000	3,000	0.180	24,000	1,900	0.100
2.5mm	24,000	2,600	0.250	19,000	1,600	0.130
3mm	20,000	2,300	0.300	16,000	1,400	0.150
4mm	15,000	2,000	0.400	12,000	1,200	0.200
5mm	12,000	1,600	0.500	9,000	900	0.250
6mm	10,000	1,400	0.600	7,000	700	0.300
8mm	8,000	1,000	0.800	5,600	550	0.400
10mm	6,400	900	1.000	4,500	500	0.500
12mm	5,400	820	1.000	3,800	450	0.500
16mm	2,400	380	3.000	1,200	100	0.800
20mm	1,900	320	4.000	1,000	80	1.000
Depth of Cut						

- If the depth of cut is shallow, the revolution and feed rate can be increased.
- When Slotting with end mills with• 3 or larger, reduce the revolution to 50~70% and the feed rate to 40~60%.
- When drilling, please set the feed rate at 1/3 or below the values above.
- If the rigidity of the machine or the work materials installation is very low, or chattering and noise are generated, reduce th e revolution and feed rate proportionately.

GER-AA4 / LSR-AA4

• RPM : rev./min • Feed : mm/min

Material	Carbon Steels / Alloy Steels SCM / SNCM / S45		Prehardened Steels NAK / CENA / KP4		Hardened Steels SKD / SKT / STAVAX	
Hardness	~ 35HRc		35 ~ 45HRc		45 ~ 55HRc	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED
1mm	27,600	300	18,000	220	11,000	120
1.5mm	22,000	310	13,500	230	8,500	120
2mm	18,000	320	11,560	240	7,200	130
2.5mm	15,000	330	9,500	250	6,100	130
3mm	13,240	340	8,560	260	5,280	130
4mm	10,720	420	6,820	300	4,300	140
5mm	9,160	430	5,800	360	3,800	170
6mm	7,900	430	5,040	360	3,280	170
8mm	6,000	460	3,800	360	2,520	170
10mm	5,040	460	3,280	360	2,020	170
12mm	4,120	360	2,780	320	1,680	140
16mm	3,100	280	2,100	230	1,280	115
Depth of Cut						

REM-AA2 & 4

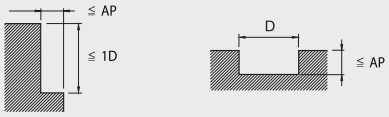
• RPM : rev./min • Feed : mm/min

Material		Carbon Steels / Cast iron / Alloy Steels S50C / FC250 / SCM / NAK		
Hardness		35 ~ 45HRc		
Outside Diameter	Effective Length	RPM	FEED	Ap Axial Depth
0.3	1	40,000	650	0.007
	3	40,000	500	0.002
0.4	2	40,000	800	0.007
	4	40,000	800	0.003
0.5	2	40,000	950	0.003
	6	40,000	700	0.003
	8	30,000	500	0.002
0.6	3	40,000	950	0.010
	6	40,000	800	0.005
	8	35,000	500	0.004
0.7	4	40,000	950	0.015
	6	40,000	900	0.010
	8	30,000	700	0.005
0.8	4	40,000	1,100	0.015
	6	40,000	1,100	0.010
	8	40,000	1,000	0.010

Material		Carbon Steels / Cast iron / Alloy Steels S50C / FC250 / SCM / NAK		
Hardness		35 ~ 45HRc		
Outside Diameter	Effective Length	RPM	FEED	Ap Axial Depth
1mm	6	38,000	2,800	0.035
	8	36,000	2,400	0.030
	12	20,000	1,000	0.020
	16	10,000	500	0.005
2mm	8	38,000	3,600	0.090
	12	32,000	3,200	0.070
	16	24,000	2,400	0.050
	20	12,000	1,200	0.030

EMH-AA4 / LEH-AA4

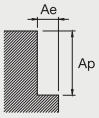
• RPM : rev./min • Feed : mm/min

Material	General Steels			SKD61		
Hardness	~ 45 HRc			45 ~ 55 HRc		
Outside Diameter	RPM	FEED	Ap	RPM	FEED	Ap
1mm	40,000	3,000	0.06	32,000	2,400	0.06
1.5mm	40,000	4,500	0.12	32,000	3,600	0.08
2mm	30,000	4,500	0.18	24,000	3,600	0.10
2.5mm	24,000	3,900	0.25	19,000	3,000	0.13
2mm	20,000	3,500	0.30	16,000	2,700	0.15
4mm	15,000	3,000	0.40	12,000	2,400	0.20
5mm	12,000	2,400	0.50	9,000	1,800	0.25
6mm	10,000	2,100	0.60	7,000	1,500	0.30
8mm	8,000	1,500	0.80	5,600	1,100	0.40
10mm	6,400	1,400	1.00	4,500	950	0.50
12mm	5,400	1,200	1.00	3,800	860	0.50
16mm	2,400	550	3.00	1,200	120	0.80
20mm	1,900	480	4.00	1,000	100	1.00
Depth of Cut						

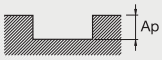
- If the depth of cut is shallow, the revolution and feed rate can be increased.
- When Slotting with end mills with• 3 or larger, reduce the revolution to 50~70% and the feed rate to 40~60%.
- When drilling, please set the feed rate at 1/3 or below the values above.
- If the rigidity of the machine or the work materials installation is very low, or chattering and noise are generated, reduce th e revolution and feed rate proportionately.

• RPM : rev./min • Feed : mm/min

Side Cutting

Material	Mild Steels/ Carbon Steels SS400 / S55C		Alloy Steels/ Tool Steels SCM / SKT / SKD		Tool Steels/ Prehardened Steels SKD / SKT / NAK55 / HPM1		Tool Steels/ Stainless Steels SUS304 / SKD	
Hardness	~750N/mm 2		~ 30HRc		30 ~ 38HRc		38 ~ 45HRc	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
4mm	5,000	510	4,200	260	3,600	180	2,800	130
5mm	5,000	510	4,200	270	3,200	200	2,400	150
6mm	4,200	510	3,600	290	2,800	220	2,100	170
8mm	3,200	510	2,700	330	2,100	250	1,600	190
10mm	2,600	510	2,200	345	1,600	260	1,300	210
12mm	2,100	510	1,800	360	1,400	270	1,100	215
16mm	1,600	510	1,400	385	1,000	290	800	220
20mm	1,300	480	1,100	375	800	280	640	210
Depth of Cut	Ap: 1.5D, Ae: 0.4D 				Ap: 1.5D, Aa: 0.3D			

Slotting

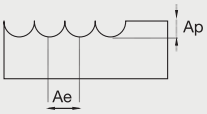
Material	Mild Steels/ Carbon Steels SS400 / S55C		Alloy Steels/ Tool Steels SCM / SKT / SKD		Tool Steels/ Prehardened Steels SKD / SKT / NAK55 / HPM1		Tool Steels/ Stainless Steels SUS304 / SKD	
Hardness	~750N/mm 2		~ 30HRc		30 ~ 38HRc		38 ~ 45HRc	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
4mm	4,000	430	3,800	200	2,800	140	2,400	110
5mm	4,000	430	3,400	220	2,500	160	2,200	130
6mm	3,600	430	3,000	240	2,300	185	1,900	150
8mm	2,700	430	2,200	270	1,800	210	1,400	180
10mm	2,200	430	1,800	290	1,400	220	1,200	185
12mm	1,800	430	1,500	300	1,200	230	960	190
16mm	1,400	430	1,100	310	900	250	720	200
20mm	1,100	410	900	310	700	240	560	185
Depth of Cut	Ap : 0.75D ApMax=12mm 				Ap : 0.5D			

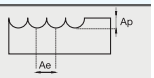
GBN-EE2 / LSB-EE2 / GBN-EE4

brisloy

• RPM : rev./min • Feed : mm/min

Material	Copper				Prehardened Steels / Hardened Steels NAK / SKD				Hardened Steels SKD / SKT			
Hardness			~750N/mm²		~30HRc		~40HRc				~50HRc	
Radius	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R0.5	40,000	800	40,000	800	38,000	700	32,000	320	22,300	200	25,000	275
R1.0	24,000	900	24,000	900	19,000	760	16,000	400	11,150	230	13,000	275
R1.5	15,500	950	15,500	950	12,750	760	10,600	450	7,400	290	8,500	280
R2.0	11,500	950	11,500	950	9,550	760	8,000	550	5,550	370	6,500	370
R2.5	9,500	1,050	9,500	1,050	7,650	800	6,400	550	4,450	370	5,000	375
R3.0	8,000	1,050	8,000	1,050	6,400	800	5,300	580	3,700	390	4,200	390
R4.0	6,000	1,300	6,000	1,300	4,800	950	4,000	700	2,750	455	3,200	440
R5.0	4,800	1,200	4,800	1,200	3,800	900	3,200	650	2,200	430	2,500	440
R6.0	4,000	1,100	4,000	1,100	3,200	840	2,650	610	1,850	430	2,100	420
R8.0	3,000	1,050	3,000	1,050	2,400	800	2,000	600	1,350	380	1,600	375
R10.0	2,400	950	2,400	950	1,900	680	1,600	560	1,100	370	1,250	330
Depth of Cut	Ap: 0.1R, Ae: 0.2R										Ap: 0.05R, Ae: 0.1R	

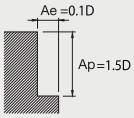


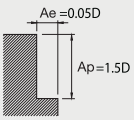


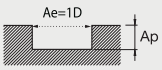
GEM-EE4 / LSE-EE4

• RPM : rev./min • Feed : mm/min

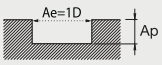
Material	Copper				Prehardened Steels / Hardened Steels NAK / SKD				Hardened Steels SKD / SKT			
Hardness			~750N/mm²		~30HRc		~40HRc				~50HRc	
Ø	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1	20,000	250	20,000	250	20,000	200	20,000	200	20,000	90	20,000	150
2	15,000	400	15,000	400	15,000	360	15,000	350	11,150	100	13,000	225
3	14,000	680	14,000	680	13,000	630	10,600	525	7,500	120	8,500	410
4	10,800	700	10,800	700	10,000	640	8,000	535	5,500	125	6,500	420
5	8,200	730	8,200	730	7,600	670	6,400	560	4,500	125	5,000	440
6	7,000	750	7,000	750	6,400	690	5,300	575	3,700	135	4,200	450
8	5,200	740	5,200	740	4,800	680	4,000	565	2,800	135	3,200	460
10	4,200	730	4,200	730	3,800	670	3,200	560	2,200	135	2,500	435
12	3,500	730	3,500	730	3,200	670	2,650	560	1,850	135	2,100	435
14	3,000	680	3,000	680	2,700	630	2,300	525	1,600	125	1,800	410
16	2,600	680	2,600	680	2,400	630	2,000	525	1,400	120	1,600	410
18	2,300	670	2,300	670	2,100	620	1,800	515	1,250	105	1,400	405
20	2,050	670	2,050	670	1,900	620	1,600	515	1,100	105	1,250	405
Depth of Cut												



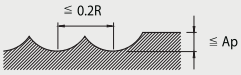




Ae	Ap
Ø1≦D≦Ø3	0.15D
Ø3 ≦ D	0.3D



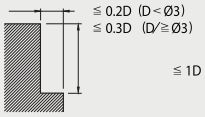
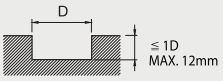
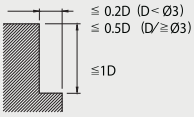
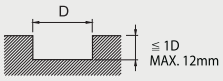
• RPM : rev./min • Feed : mm/min

Materia l	Stainless Steels		Copper Alloys		
Radius	$\alpha \leq 15^{o}$		$\alpha > 15^{o}$		Ap Axial Depth
	RPM	FEED	RPM	FEED	
R0.5	40,000	8,000	40,000	3,200	0.06
R0.75	40,000	9,600	40,000	400	0.09
R1	40,000	9,600	39,000	4,700	0.11
R1.5	40,000	12,000	30,000	4,500	0.12
R2	40,000	12,000	27,000	4,300	0.13
R2.5	32,000	11,000	20,000	3,600	0.15
R3	25,000	9,000	16,000	2,900	0.2
R4	21,000	8,400	13,000	2,600	0.25
R5	16,000	6,400	10,000	2,000	0.3
R6	13,000	5,200	8,000	1,700	0.5
R8	9,000	3,600	6,000	1,300	0.5
Depth of Cut	1D				

- α is the inclination angle of the machined surface.
- If the depth of cut is shallow, the revolution and feed rate can be increased.
- Water-soluble cutting fluid is recommended.
- If the rigidity of the machine or the work materials installation is very low, or chattering and noise are generated, reduce th e revolution and feed rate proportionately.

GEM-AL2 / LSE-AL2 / LFE-AL2

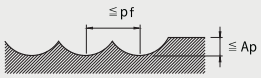
• RPM : rev./min • Feed : mm/min

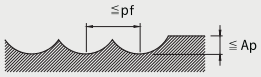
Material	Aluminum Alloys / A7075 etc.				Aluminum Alloys / AC4B etc.			
Speed	300m/min		240m/min		240m/min		200m/min	
	Side Milling		Soltting		Side Milling		Soltting	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1mm	34,000	500	34,000	400	34,000	400	34,000	300
2mm	34,000	950	32,300	720	32,300	720	27,200	470
3mm	27,200	1,200	21,300	800	21,300	800	18,000	510
4mm	20,400	1,300	16,000	850	16,000	850	14,000	550
5mm	16,200	1,400	13,000	850	13,000	850	11,000	600
6mm	13,600	1,600	11,000	940	11,000	940	9,400	640
8mm	10,200	1,600	8,000	1,000	8,000	1,000	6,800	680
10mm	8,100	1,600	6,500	1,000	6,500	1,000	5,400	680
12mm	6,800	1,600	5,400	1,000	5,400	1,000	4,500	680
16mm	5,100	1,600	4,100	1,000	4,100	1,000	3,400	610
20mm	4,100	1,300	3,200	850	3,200	850	2,700	560
Depth of Cut								

GBN-SS4

brisloy

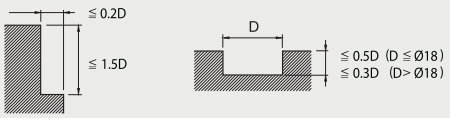
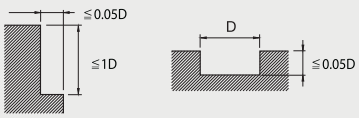
• RPM : rev./min • Feed : mm/min

Materia l	S45C, SCM440, SS400, S10C, NAK, PX5, SNCM439						4V, SUS630, SUS631, SUS431, SUS420J2				
Radius	α ≦ 15°		α > 15°		Ap Axial Depth	pf	α ≦ 15°		α > 15°		Ap Axial Depth
	RPM	FEED	RPM	FEED			RPM	FEED	RPM	FEED	
R1.5	32,000	7,700	21,000	3,200	0.25	0.75	24,000	4,800	16,000	1,900	0.25
R2	24,000	5,800	16,000	2,800	0.33	1	18,000	4,000	12,000	1,700	0.33
R2.5	19,000	5,300	12,700	2,600	0.42	1.25	14,400	3,500	9,600	1,500	0.42
R3	16,000	4,800	10,600	2,100	0.5	1.5	12,000	3,200	8,000	1,400	0.5
R4	12,000	4,300	8,000	1,900	0.8	2	9,000	3,200	6,000	1,400	0.8
R5	9,600	4,100	6,400	1,800	1	2.5	7,200	3,000	4,800	1,300	1
R6	8,000	4,000	5,300	1,800	1.2	3	6,000	3,000	4,000	1,300	1.2
Depth of Cut											

Materia l		Copper						inconel718					
Radius	pf	α ≦ 15°		α > 15°		Ap Axial Depth	pf	α ≦ 15°		α > 15°		Ap Axial Depth	pf
		RPM	FEED	RPM	FEED			RPM	FEED	RPM	FEED		
R1.5	0.75	38,000	9,100	25,000	3,800	0.25	0.75	6,400	640	4,200	340	0.13	0.3
R2	1	29,000	7,000	19,000	3,300	0.33	1	4,800	580	3,200	260	0.17	0.4
R2.5	1.25	23,000	6,400	15,000	3,100	0.42	1.25	3,800	530	2,500	250	0.21	0.5
R3	1.5	19,000	5,700	13,000	2,600	0.5	1.5	3,200	500	2,100	210	0.25	0.6
R4	2	14,000	5,000	9,600	2,300	0.8	2	2,400	430	1,600	190	0.4	0.8
R5	2.5	12,000	5,100	7,700	2,200	1	2.5	2,000	420	1,300	180	0.5	1
R6	3	9,600	4,800	6,400	2,200	1.2	3	1,700	350	1,100	150	0.6	1.2
Depth of Cut													

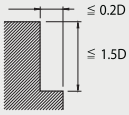
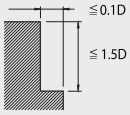
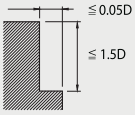
GEM-SS3

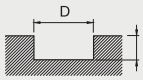
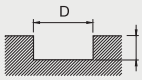
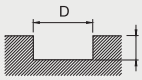
• RPM : rev./min • Feed : mm/min

Material	Carbon Steels / Alloy Steels SS400 / S50C / SCM		Stainless Steels/ Titanium Alloy Steels SUS304 / SUS316 / Ti-6AL-4V		Hardened Steels SKD61		Superhit resistance / Inconel	
Hardness	~ 45HRc				45 ~ 55HRc			
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
0.8mm (3F)	7,200	80	6,400	60	3,900	30	2,000	10
1mm (3F)	6,400	100	5,600	70	3,500	30	1,700	15
2mm (3F)	5,600	110	4,800	80	2,900	34	1,400	20
3mm (3F)	4,800	200	4,000	90	2,200	45	1,400	25
4mm (3F)	4,000	200	3,300	140	1,800	70	1,200	35
5mm (3F)	3,200	230	2,700	170	1,500	90	1,000	45
6mm (3F)	2,900	250	2,400	180	1,400	90	900	45
8mm (3F)	2,200	270	1,800	190	1,000	100	720	40
10mm (3F)	1,700	260	1,400	190	900	110	600	40
12mm (3F)	1,400	230	1,200	150	700	90	500	35
16mm (3F)	1,000	160	900	120	550	60	360	30
Depth of Cut								

• In case of slotting, 80~100% of speed and 60~80% of feed on the talbe.

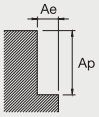
• RPM : rev./min • Feed : mm/min

Side Cutting						
Material	Alloy Steels / Tools steel SKD61 / SK / NAK		SUS304 / SUS316 / Ti6A		Hardened Steels Inconel 718	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED
2mm	21,000	1,100	14,000	560	4,800	130
3mm	15,000	1,250	10,600	850	4,200	200
4mm	11,000	1,400	8,000	960	3,200	220
5mm	9,600	1,900	6,400	1,000	2,500	250
6mm	8,000	2,200	5,300	1,000	2,100	250
7mm	6,800	1,900	4,500	1,000	1,800	260
8mm	6,000	1,600	4,000	960	1,600	260
9mm	5,300	1,480	3,500	840	1,400	220
10mm	4,800	1,440	3,200	770	1,300	210
11mm	4,400	1,350	2,900	760	1,200	190
12mm	4,000	1,250	2,700	760	1,100	180
16mm	3,000	1,140	2,000	560	800	130
20mm	2,400	860	1,600	510	600	100
Depth of Cut	 ≦ 0.2D ≦ 1.5D		 ≦ 0.1D ≦ 1.5D		 ≦ 0.05D ≦ 1.5D	

Slotting						
Material	Alloy Steels / Tools steel SKD61 / SK / NAK		SUS304 / SUS316 / Ti6A		Hardened Steels Inconel 718	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED
2mm	10,000	400	9,600	310	3,200	80
3mm	6,900	410	7,400	380	2,700	110
4mm	5,600	490	5,600	400	2,000	120
5mm	4,500	630	4,500	410	1,600	130
6mm	3,700	740	3,700	440	1,300	160
7mm	3,200	700	3,200	410	1,100	140
8mm	2,800	670	2,800	390	1,000	130
9mm	2,500	600	2,500	350	900	130
10mm	2,200	530	2,200	350	800	130
11mm	2,000	530	2,000	320	720	120
12mm	1,900	530	1,900	300	660	110
16mm	1,400	390	1,400	280	500	80
20mm	1,100	350	1,100	260	400	60
Depth of Cut	 D ≦1D (Max. 12mm)		 D ≦ 0.5D		 D ≦ 0.2D	

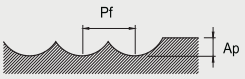
LEG-SF2 / LEG-SF4

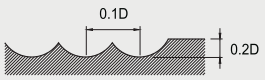
• RPM : rev./min • Feed : mm/min

	LEG-SF2		LEG-SF4	
Material	Graphite		Graphite	
Outside Diameter	RPM	FEED	RPM	FEED
1mm	8,000	160	-	-
2mm	8,000	250	-	-
3mm	8,000	380	8,000	430
4mm	8,000	510	8,000	570
5mm	8,000	640	8,000	720
6mm	8,000	770	8,000	860
8mm	8,000	1,000	8,000	1,100
10mm	8,000	1,250	8,000	1,400
12mm	8,000	1,500	7,000	1,400
16mm	8,000	1,600	7,000	1,500
20mm	8,000	1,600	7,000	1,500
Depth of Cut	Ap: 1D, Ae: 0.1D 			

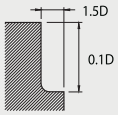
LBG-SF2 / GBG-DC2

• RPM : rev./min • Feed : mm/min

	LBG-SF2	
Material	Graphite	
Radius	RPM	FEED
R0.25	32,000	1,000
R0.5	32,000	1,600
R0.75	28,000	1,600
R1	24,000	1,600
R1.5	16,000	1,600
R2	12,000	1,600
R2.5	9,600	1,400
R3	8,000	1,200
R4	6,400	640
R5	5,200	650
R6	4,300	600
R8	3,500	500
R10	3,000	400
Depth of Cut	Ap: 1D, Pf: 0.3D 	

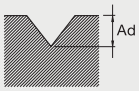
	GBG-DC2	
Material	Graphite	
Outside Diameter	RPM	FEED
1mm	16,000	400
2mm	16,000	800
3mm	16,000	1,450
4mm	16,000	2,100
5mm	16,500	2,550
6mm	15,000	2,950
8mm	13,000	3,000
10mm	11,500	3,000
12mm	10,700	3,200
Depth of Cut		

• RPM : rev./min • Feed : mm/min

	GEG-DC2		GEG-DC4		GEG-DC6	
Material	Graphite		Graphite		Graphite	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED
0.2mm	40,000	100	-	-	-	-
0.4mm	40,000	200	-	-	-	-
0.6mm	40,000	350	-	-	-	-
0.8mm	40,000	550	-	-	-	-
1mm	40,000	700	-	-	-	-
2mm	25,000	800	-	-	-	-
3mm	20,000	800	20,000	1,600	-	-
4mm	18,000	950	18,000	1,900	-	-
5mm	14,000	1,200	14,000	2,400	-	-
6mm	11,000	1,400	11,000	2,800	22,200	8,000
8mm	8,000	1,300	8,000	2,600	16,800	8,000
10mm	6,500	1,200	6,500	2,400	13,400	8,000
12mm	5,500	1,200	5,500	2,400	11,350	6,700
16mm	5,500	1,200	-	-	8,400	5,000
Depth of Cut						

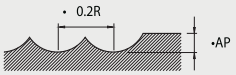
SCC

• RPM : rev./min • Feed : mm/min

Material	Mild Steels / Carbon Steels SS400 / S55C		Alloy Steels / Tools Steels SKD / SUS / SCM		Aluminum Alloys	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED
2mm	900	11,000	530	8,600	1,300	2,000
3mm	860	9,600	480	8,000	1,150	1,800
4mm	650	7,200	360	6,000	860	9,600
6mm	430	4,800	240	4,000	580	6,400
8mm	430	3,600	180	3,000	580	4,800
10mm	410	2,900	140	2,400	530	3,800
12mm	380	2,400	120	2,000	510	3,200
16mm	300	1,800	100	1,500	400	2,400
Depth of Cut	Ad < 0.3D 					

TBN-FN2

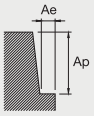
• RPM : rev./min • Feed : mm/min

Material	Alloy Steels / Tool Steels / / Prehardened Steels S50C / FC250 / SCM / NAK					Hardened Steels SKD61				
Hardness	~ 45HRc					45 ~ 55HRc				
Radius	$\alpha \leq 15^{o}$		$\alpha > 15^{o}$		Ap Axial Depth	$\alpha \leq 15^{o}$		$\alpha > 15^{o}$		Ap Axial Depth
	RPM	FEED	RPM	FEED		RPM	FEED	RPM	FEED	
R0.5	40,000	5,600	40,000	3,200	0.06	40,000	5,600	40,000	3,000	0.05
R0.75	40,000	6,500	40,000	4,000	0.09	40,000	6,500	32,000	3,200	0.08
R1	40,000	6,500	39,000	4,700	0.11	40,000	6,500	31,000	3,500	0.11
R1.25	40,000	7,000	30,000	4,500	0.12	36,000	6,500	26,000	3,500	0.12
R1.5	40,000	7,500	27,000	4,300	0.13	32,000	6,000	22,000	3,400	0.13
R2	32,000	7,500	20,000	3,600	0.15	25,000	6,000	16,000	2,700	0.15
R2.5	25,000	6,000	16,000	2,900	0.2	20,000	5,400	13,000	2,300	0.2
R3	21,000	5,800	13,000	2,600	0.25	17,000	4,700	10,000	2,000	0.25
R4	16,000	4,500	10,000	2,000	0.3	13,000	3,600	8,000	1,500	0.3
R5	13,000	3,600	8,000	1,700	0.5	10,000	2,900	6,400	1,200	0.5
R6	9,000	2,500	6,000	1,300	0.5	7,200	2,000	4,800	1,000	0.5
Depth of Cut										

- α is the inclination angle of the machined surface.
- If the depth of cut is shallow, the revolution and feed rate can be increased.
- If the rigidity of the machine or the work materials installation is very low, or chattering and noise are generated, reduce th e revolution and feed rate proportionately.

TEM-FN4

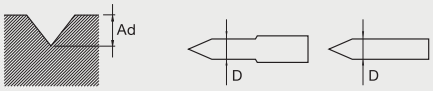
• RPM : rev./min • Feed : mm/min

Material	Mild Steels / Carbon Steels SS400 / S55C		Alloy Steels / Tool Steels SCM / SKT / SKS / SKD		Hardened Steels / Prehardened Steels SKT / SKD / NAK55 / HPM1		Hardened Steels / Stainless Steels SUS304 / SKD		Hardened Steels	
Hardness	~750HN/mm ^{2}		~ 30HRc		30 ~ 38HRc		38 ~ 45HRc		45 ~ 55HRc	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3mm	5,300	225	4,450	225	4,450	180	4,100	130	3,500	130
4mm	3,950	245	3,300	245	3,300	195	3,100	150	2,600	150
5mm	3,150	275	2,650	275	2,650	225	2,450	160	2,100	160
6mm	2,200	275	2,200	275	2,200	225	2,050	175	1,750	175
8mm	1,950	270	1,650	270	1,650	225	1,550	190	1,300	190
10mm	1,550	270	1,300	270	1,300	225	1,200	180	1,050	180
Depth of Cut	Ap: 2.5D, Ae: 0.02D 									

- Use a rigid and precise machine and holder.
- When chattering occurs, reduce the speed and feed simultaneously.
- Use a suitable cutting fluid with high smoke retardant properties.

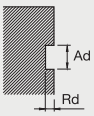
STE-FN1

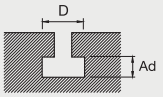
• RPM : rev./min • Feed : mm/min

Material	Mild Steels / Carbon Steels S54C ~ S55C		Alloy Steels SKD / SUS / SCM		Prehardened Steelss NAK / HPM	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED
2mm	3,400 ~ 7,000	70 ~100	2,600 ~ 5,200	50 ~ 90	2,000 ~ 4,000	40 ~ 60
3mm	2,700 ~ 5,300	60 ~ 85	2,100 ~ 4,200	45 ~ 70	1,600 ~ 3,200	35 ~ 50
4mm	2,000 ~ 4,000	50 ~ 70	1,600 ~ 3,200	40 ~ 55	1,200 ~ 2,400	30 ~ 40
5mm	1,700 ~ 3,400	45 ~ 60	1,400 ~ 2,600	35 ~ 50	1,000 ~ 2,000	26 ~ 35
6mm	1,300 ~ 2,700	40 ~ 50	1,100 ~ 2,100	30 ~ 40	800 ~ 1,600	22 ~ 30
7mm	1,150 ~ 2,400	35 ~ 45	950 ~ 1,900	28 ~ 37	700 ~ 1,400	21 ~ 28
8mm	1,000 ~ 2,000	30 ~ 40	800 ~ 1,600	26 ~ 34	600 ~ 1,200	20 ~ 25
9mm	900 ~ 1,800	30 ~ 40	700 ~ 1,450	24 ~ 32	550 ~ 1,100	18 ~ 23
10mm	800 ~ 1,600	30 ~ 37	600 ~ 1,300	23 ~ 29	500 ~ 1,000	17 ~ 22
11mm	750 ~ 1,450	30 ~ 37	550 ~ 1,200	22 ~ 28	450 ~ 900	16 ~ 21
12mm	700 ~ 1,300	28 ~ 35	500 ~ 1,100	21 ~ 27	400 ~ 800	16 ~ 20
Depth of Cut	Ad : 0.05D					

TSC-UC4 / TSC-FN4 / TSR-FN4

• RPM : rev./min • Feed : mm/min

Side Cutting						
Material	Mild Steels / Carbon Steels SS400 / S55C		Alloy Steels SKD / SUS / SCM		Prehardened Steelss NAK / HPM	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED
1.5mm	3,050	162	1,890	94	1,530	76
2mm	2,850	149	1,790	88	1,440	70
2.5mm	2,680	135	1,700	83	1,350	65
3mm	2,500	122	1,610	79	1,260	59
4mm	2,150	108	1,430	72	1,080	54
5mm	1,800	95	1,200	65	900	49
6mm	1,430	86	950	58	720	43
8mm	1,070	64	720	43	540	32
10mm	860	52	580	34	430	26
12mm	720	43	480	29	360	22
Depth of Cut	RD=0.1D					

Slotting						
Material	Mild Steels / Carbon Steels SS400 / S55C		Alloy Steels SKD / SUS / SCM		Prehardened Steelss NAK / HPM	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED
1.5mm	3,050	117	1,890	77	1,530	59
2mm	2,850	110	1,790	72	1,440	55
2.5mm	2,680	99	1,700	66	1,350	50
3mm	2,500	92	1,610	60	1,260	45
4mm	2,150	81	1,430	54	1,080	41
5mm	1,800	70	1,200	47	900	35
6mm	1,430	59	950	39	720	30
8mm	1,070	44	720	30	540	22
10mm	860	35	580	23	430	17
12mm	720	30	480	20	360	14
Depth of Cut						

Brisloy Tools India Private Limited
711, Tower - C, Business Zone
Nirvana Country, Sec - 50
Gurugram - 122018
INDIA
Phone +91 124 494 9505
tools@brisloy.com

http://www.brisloy-tools.com