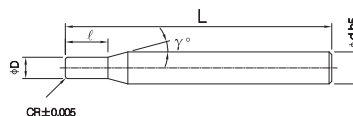


HGXR 4-Flute General Purpose Radius End Mill



Ø D	D Tol. (mm)
D < 3	0 ~ -0.010
3 < D ≤ 6	0 ~ -0.012
6 < D ≤ 10	0 ~ -0.015
10 < D ≤ 18	0 ~ -0.018

Unit : mm

Type No.	Dia.	Corner Radius	Length of Cut	Neck Taper Angle	Overall Length	Shank Dia.
	φD	CR	ℓ	γ/°	L	φd
HGXR4008R0.05 0450	0.8	R0.05	1.6	12	50	4
HGXR4008R0.1 0450	0.8	R0.1	1.6	12	50	4
HGXR4010R0.05 0450	1	R0.05	2	12	50	4
HGXR4010R0.1 0450	1	R0.1	2	12	50	4
HGXR4010R0.2 0450	1	R0.2	2	12	50	4
HGXR4010R0.3 0450	1	R0.3	2	12	50	4
HGXR4015R0.05 0450	1.5	R0.05	3	11	50	4
HGXR4015R0.1 0450	1.5	R0.1	3	11	50	4
HGXR4015R0.2 0450	1.5	R0.2	3	11	50	4
HGXR4015R0.3 0450	1.5	R0.3	3	11	50	4
HGXR4020R0.05 0450	2	R0.05	4	11	50	4
HGXR4020R0.1 0450	2	R0.1	4	11	50	4
HGXR4020R0.2 0450	2	R0.2	4	11	50	4
HGXR4020R0.3 0450	2	R0.3	4	11	50	4
HGXR4020R0.5 0450	2	R0.5	4	11	50	4
HGXR4025R0.1 0450	2.5	R0.1	5	11	50	4
HGXR4025R0.2 0450	2.5	R0.2	5	11	50	4
HGXR4025R0.3 0450	2.5	R0.3	5	11	50	4
HGXR4025R0.5 0450	2.5	R0.5	5	11	50	4
HGXR4030R0.1 0450	3	R0.1	6	11	50	4
HGXR4030R0.1 0660	3	R0.1	6	11	60	6
HGXR4030R0.1 0675	3	R0.1	6	11	75	6
HGXR4030R0.2 0450	3	R0.2	6	11	50	4
HGXR4030R0.2 0660	3	R0.2	6	11	60	6
HGXR4030R0.2 0675	3	R0.2	6	11	75	6
HGXR4030R0.3 0450	3	R0.3	6	11	50	4



HGXR 4-Flute General Purpose Radius End Mill

Unit : mm

Type No.	Dia.	Corner Radius	Length of Cut	Neck Taper Angle	Overall Length	Shank Dia.
	φD	CR	ℓ	γ/°	L	φd
HGXR4030R0.3 0660	3	R0.3	6	11	60	6
HGXR4030R0.3 0675	3	R0.3	6	11	75	6
HGXR4030R0.5 0450	3	R0.5	6	11	50	4
HGXR4030R0.5 0660	3	R0.5	6	11	60	6
HGXR4030R0.5 0675	3	R0.5	6	11	75	6
HGXR4040R0.1 0450	4	R0.1	8	-	50	4
HGXR4040R0.1 0475	4	R0.1	8	-	75	4
HGXR4040R0.1 0660	4	R0.1	8	11	60	6
HGXR4040R0.1 0675	4	R0.1	8	11	75	6
HGXR4040R0.2 0450	4	R0.2	8	-	50	4
HGXR4040R0.2 0475	4	R0.2	8	-	75	4
HGXR4040R0.2 0650	4	R0.2	8	11	50	6
HGXR4040R0.2 0660	4	R0.2	8	11	60	6
HGXR4040R0.2 0675	4	R0.2	8	11	75	6
HGXR4040R0.3 0450	4	R0.3	8	-	50	4
HGXR4040R0.3 0475	4	R0.3	8	-	75	4
HGXR4040R0.3 0660	4	R0.3	8	11	60	6
HGXR4040R0.3 0675	4	R0.3	8	11	75	6
HGXR4040R0.5 0450	4	R0.5	8	-	50	4
HGXR4040R0.5 0475	4	R0.5	8	-	75	4
HGXR4040R0.5 0650	4	R0.5	8	11	50	6
HGXR4040R0.5 0660	4	R0.5	8	11	60	6
HGXR4040R0.5 0675	4	R0.5	8	11	75	6
HGXR4040R1.0 0450	4	R1	8	-	50	4
HGXR4040R1.0 0475	4	R1	8	-	75	4
HGXR4040R1.0 0660	4	R1	8	11	60	6
HGXR4040R1.0 0675	4	R1	8	11	75	6
HGXR4060R0.1 0650	6	R0.1	12	-	50	6
HGXR4060R0.1 0660	6	R0.1	12	-	60	6
HGXR4060R0.1 0675	6	R0.1	12	-	75	6
HGXR4060R0.1 06100	6	R0.1	12	-	100	6
HGXR4060R0.2 0650	6	R0.2	12	-	50	6

HGXR 4-Flute General Purpose Radius End Mill

Unit : mm

Type No.	Dia.	Corner Radius	Length of Cut	Neck Taper Angle	Overall Length	Shank Dia.
	φD	CR	ℓ	γ/°	L	φd
HGXR4060R0.2 0660	6	R0.2	12	-	60	6
HGXR4060R0.2 0675	6	R0.2	12	-	75	6
HGXR4060R0.2 06100	6	R0.2	12	-	100	6
HGXR4060R0.3 0650	6	R0.3	12	-	50	6
HGXR4060R0.3 0660	6	R0.3	12	-	60	6
HGXR4060R0.3 0675	6	R0.3	12	-	75	6
HGXR4060R0.3 06100	6	R0.3	12	-	100	6
HGXR4060R0.5 0650	6	R0.5	12	-	50	6
HGXR4060R0.5 0660	6	R0.5	12	-	60	6
HGXR4060R0.5 0675	6	R0.5	12	-	75	6
HGXR4060R0.5 06100	6	R0.5	12	-	100	6
HGXR4060R1.0 0650	6	R1	12	-	50	6
HGXR4060R1.0 0660	6	R1	12	-	60	6
HGXR4060R1.0 0675	6	R1	12	-	75	6
HGXR4060R1.0 06100	6	R1	12	-	100	6
HGXR4080R0.1 0860	8	R0.1	16	-	60	8
HGXR4080R0.1 0875	8	R0.1	16	-	75	8
HGXR4080R0.1 08100	8	R0.1	16	-	100	8
HGXR4080R0.2 0860	8	R0.2	16	-	60	8
HGXR4080R0.2 0875	8	R0.2	16	-	75	8
HGXR4080R0.2 08100	8	R0.2	16	-	100	8
HGXR4080R0.3 0860	8	R0.3	16	-	60	8
HGXR4080R0.3 0875	8	R0.3	16	-	75	8
HGXR4080R0.3 08100	8	R0.3	16	-	100	8
HGXR4080R0.5 0860	8	R0.5	16	-	60	8
HGXR4080R0.5 0875	8	R0.5	16	-	75	8
HGXR4080R0.5 08100	8	R0.5	16	-	100	8
HGXR4080R1.0 0860	8	R1	16	-	60	8
HGXR4080R1.0 0875	8	R1	16	-	75	8
HGXR4080R1.0 08100	8	R1	16	-	100	8





HGXR 4-Flute General Purpose Radius End Mill

Unit : mm

Type No.	Dia.	Corner Radius	Length of Cut	Neck Taper Angle	Overall Length	Shank Dia.
	φD	CR	ℓ	γ/°	L	φd
HGXR4100R0.2 1075	10	R0.2	20	—	75	10
HGXR4100R0.2 10100	10	R0.2	20	—	100	10
HGXR4100R0.5 1075	10	R0.5	20	—	75	10
HGXR4100R0.5 10100	10	R0.5	20	—	100	10
HGXR4100R1.0 1075	10	R1	20	—	75	10
HGXR4100R1.0 10100	10	R1	20	—	100	10
HGXR4120R0.5 1275	12	R0.5	24	—	75	12
HGXR4120R0.5 12100	12	R0.5	24	—	100	12
HGXR4120R1.0 1275	12	R1	24	—	75	12
HGXR4120R1.0 12100	12	R1	24	—	100	12
HGXR4120R2.0 1275	12	R2	24	—	75	12
HGXR4120R2.0 12100	12	R2	24	—	100	12
HGXR4160R0.5 16100	16	R0.5	32	—	100	16
HGXR4160R1.0 16100	16	R1	32	—	100	16
HGXR4160R2.0 16100	16	R2	32	—	100	16

TABLE OF RECOMMENDED MILLING MATERIALS

○ Very suitable ○ Suitable

CARBON STEELS	ALLOY STEELS	PREHARDENED STEELS, HARDENED STEELS				STAINLESS STEELS	CAST IRON	COPPER ALLOYS	ALUMINUM ALLOY	GRAPHITE	TITANIUM ALLOY	HEAT RESISTANT ALLOYS	PLASTIC
PREHARDENED STEELS	TOOL STEELS						DUCTILE CAST IRON						
~40HRC		~50HRC	~55HRC	~60HRC	~65HRC	~35HRC	~350HB						
○		○	○			○	○	○	○		○	○	

Cutting Parameter

HGXR 4-Flute General Purpose Radius End Mill Face Milling

Workpiece	Carbon Steels, Alloy Steels (≤35HRC)				Pre-Hardened Steels (35~45HRC)				Hardened Steels (45~55HRC)			
Type No.	n min ⁻¹	Vf mm/min	ap mm	ae mm	n min ⁻¹	Vf mm/min	ap mm	ae mm	n min ⁻¹	Vf mm/min	ap mm	ae mm
HGXR4008R_	28000	1500	0.02	0.3	25000	850	0.014	0.25	23000	680	0.012	0.16
HGXR4009R_	25000	1600	0.05	0.3	25000	900	0.03	0.3	20000	800	0.02	0.2
HGXR4010R_	20000	1800	0.05	0.5	18000	1620	0.05	0.4	16000	1440	0.05	0.32
HGXR4015R_	17950	2000	0.05	0.65	16155	1800	0.05	0.52	14360	1600	0.05	0.4
HGXR4020R_	15890	2200	0.1	1	14301	1980	0.1	0.8	12712	1760	0.1	0.64
HGXR4025R_	13500	2300	0.1	1.25	12080	2040	0.1	1	10080	1820	0.1	0.82
HGXR4030R_	12285	2400	0.1	1.5	11056	2160	0.1	1.2	9828	1920	0.1	0.96
HGXR4040R_	9680	2800	0.2	2	8712	2520	0.2	1.6	7744	2240	0.2	1.08
HGXR4060R_	7260	3000	0.2	3	6534	2700	0.2	2.4	5808	2400	0.2	1.96
HGXR4080R_	6050	3500	0.2	4	5445	3150	0.2	3.2	4840	2800	0.2	2.52
HGXR4100R_	5445	3500	0.2	5	4900	3150	0.2	4	4356	2800	0.2	3.2
HGXR4120R_	4840	3600	0.2	6	4356	3240	0.2	4.8	3872	2880	0.2	3.84





Cutting Parameter

HGXR 4-Flute General Purpose Radius End Mill Z-Level Milling

Workpiece	Carbon Steels、Alloy Steels (≤35HRC)				Pre-Hardened Steels (35~45HRC)				Hardened Steels (45-55HRC)			
Type No.	n min ⁻¹	Vf mm/min	ap mm	ae mm	n min ⁻¹	Vf mm/min	ap mm	ae mm	n min ⁻¹	Vf mm/min	ap mm	ae mm
HGXR4008R_	28000	1500	0.02	0.02	25000	850	0.014	0.02	23000	680	0.012	0.015
HGXR4009R_	25000	1600	0.02	0.03	25000	900	0.03	0.03	20000	800	0.02	0.015
HGXR4010R_	20000	1800	0.05	0.03	18000	1620	0.05	0.03	16000	1440	0.05	0.02
HGXR4015R_	17950	2000	0.05	0.05	16155	1800	0.05	0.05	14360	1600	0.05	0.02
HGXR4020R_	15890	2200	0.1	0.05	14301	1980	0.1	0.05	12712	1760	0.1	0.03
HGXR4025R_	13520	2300	0.1	0.05	12080	2040	0.1	0.05	10080	1840	0.1	0.03
HGXR4030R_	12285	2400	0.1	0.05	11056	2160	0.1	0.05	9828	1920	0.1	0.03
HGXR4040R_	9680	2800	0.2	0.05	8712	2520	0.2	0.05	7744	2240	0.2	0.05
HGXR4060R_	7260	3000	0.2	0.08	6534	2700	0.2	0.08	5808	2400	0.2	0.05
HGXR4080R_	6050	3500	0.2	0.08	5445	3150	0.2	0.08	4840	2800	0.2	0.05
HGXR4100R_	5445	3500	0.2	0.1	4900	3150	0.2	0.1	4356	2800	0.2	0.05
HGXR4120R_	4840	3600	0.2	0.1	4356	3240	0.2	0.1	3872	2880	0.2	0.05

- For Z-level and face milling, the recommended axial depth of cut (a_p) is $0.3 \times CR$.
- This item can be used for side milling and slotting applications.