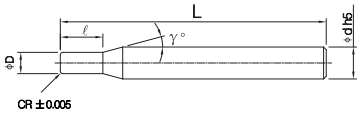
HSXR 4-Flute Corner Radius End Mill



UMG | AHX | 4 | 30° Spiral Angle | Arc Back Angle | R | <65 HRC

Ø D	D Tol. [mm]
D<3	0~-0.010
3<D<6	0~-0.012
6<D<10	0~-0.015
10<D<12	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
HSXR4008R0.05 0450	0.8	R0.05	1.6	12	50	4
HSXR4008R0.1 0450	0.8	R0.1	1.6	12	50	4
HSXR4010R0.05 0450	1	R0.05	2	12	50	4
HSXR4010R0.1 0450	1	R0.1	2	12	50	4
HSXR4010R0.2 0450	1	R0.2	2	12	50	4
HSXR4010R0.3 0450	1	R0.3	2	12	50	4
HSXR4015R0.05 0450	1.5	R0.05	3	11	50	4
HSXR4015R0.1 0450	1.5	R0.1	3	11	50	4
HSXR4015R0.2 0450	1.5	R0.2	3	11	50	4
HSXR4015R0.3 0450	1.5	R0.3	3	11	50	4
HSXR4020R0.05 0450	2	R0.05	4	11	50	4
HSXR4020R0.1 0450	2	R0.1	4	11	50	4
HSXR4020R0.2 0450	2	R0.2	4	11	50	4
HSXR4020R0.3 0450	2	R0.3	4	11	50	4
HSXR4020R0.5 0450	2	R0.5	4	11	50	4
HSXR4025R0.1 0450	2.5	R0.1	5	11	50	4
HSXR4025R0.2 0450	2.5	R0.2	5	11	50	4
HSXR4025R0.3 0450	2.5	R0.3	5	11	50	4
HSXR4025R0.5 0450	2.5	R0.5	5	11	50	4
HSXR4030R0.1 0450	3	R0.1	6	11	50	4
HSXR4030R0.1 0660	3	R0.1	6	11	60	6
HSXR4030R0.1 0675	3	R0.1	6	11	75	6
HSXR4030R0.2 0450	3	R0.2	6	11	50	4
HSXR4030R0.2 0660	3	R0.2	6	11	60	6
HSXR4030R0.2 0675	3	R0.2	6	11	75	6
HSXR4030R0.3 0450	3	R0.3	6	11	50	4
HSXR4030R0.3 0660	3	R0.3	6	11	60	6
HSXR4030R0.3 0675	3	R0.3	6	11	75	6

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Unit : mm

Type No.	Dia.	Corner Radius	Length of Cut	Neck Taper Angle	Overall Length	Shank Dia.
	ϕD	CR	ℓ	γ/°	L	ϕd
HSXR4030R0.5 0450	3	R0.5	6	11	50	4
HSXR4030R0.5 0660	3	R0.5	6	11	60	6
HSXR4030R0.5 0675	3	R0.5	6	11	75	6
HSXR4040R0.1 0450	4	R0.1	8	–	50	4
HSXR4040R0.1 0475	4	R0.1	8	–	75	4
HSXR4040R0.1 0660	4	R0.1	8	11	60	6
HSXR4040R0.1 0675	4	R0.1	8	11	75	6
HSXR4040R0.2 0450	4	R0.2	8	–	50	4
HSXR4040R0.2 0475	4	R0.2	8	–	75	4
HSXR4040R0.2 0660	4	R0.2	8	11	60	6
HSXR4040R0.2 0675	4	R0.2	8	11	75	6
HSXR4040R0.3 0450	4	R0.3	8	–	50	4
HSXR4040R0.3 0475	4	R0.3	8	–	75	4
HSXR4040R0.3 0660	4	R0.3	8	11	60	6
HSXR4040R0.3 0675	4	R0.3	8	11	75	6
HSXR4040R0.5 0450	4	R0.5	8	–	50	4
HSXR4040R0.5 0475	4	R0.5	8	–	75	4
HSXR4040R0.5 0660	4	R0.5	8	11	60	6
HSXR4040R0.5 0675	4	R0.5	8	11	75	6
HSXR4040R1.0 0450	4	R1	8	–	50	4
HSXR4040R1.0 0475	4	R1	8	–	75	4
HSXR4040R1.0 0660	4	R1	8	11	60	6
HSXR4040R1.0 0675	4	R1	8	11	75	6
HSXR4060R0.1 0650	6	R0.1	12	–	50	6
HSXR4060R0.1 0660	6	R0.1	12	–	60	6
HSXR4060R0.1 0675	6	R0.1	12	–	75	6
HSXR4060R0.1 06100	6	R0.1	12	–	100	6
HSXR4060R0.2 0650	6	R0.2	12	–	50	6
HSXR4060R0.2 0660	6	R0.2	12	–	60	6
HSXR4060R0.2 0675	6	R0.2	12	–	75	6
HSXR4060R0.2 06100	6	R0.2	12	–	100	6
HSXR4060R0.3 0650	6	R0.3	12	–	50	6
HSXR4060R0.3 0660	6	R0.3	12	–	60	6
HSXR4060R0.3 0675	6	R0.3	12	–	75	6

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HSXR 4-Flute Corner 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
HSXR4060R0.3 06100	6	R0.3	12	–	100	6
HSXR4060R0.5 0650	6	R0.5	12	–	50	6
HSXR4060R0.5 0660	6	R0.5	12	–	60	6
HSXR4060R0.5 0675	6	R0.5	12	–	75	6
HSXR4060R0.5 06100	6	R0.5	12	–	100	6
HSXR4060R1.0 0650	6	R1	12	–	50	6
HSXR4060R1.0 0660	6	R1	12	–	60	6
HSXR4060R1.0 0675	6	R1	12	–	75	6
HSXR4060R1.0 06100	6	R1	12	–	100	6
HSXR4080R0.1 0860	8	R0.1	16	–	60	8
HSXR4080R0.1 0875	8	R0.1	16	–	75	8
HSXR4080R0.1 08100	8	R0.1	16	–	100	8
HSXR4080R0.2 0860	8	R0.2	16	–	60	8
HSXR4080R0.2 0875	8	R0.2	16	–	75	8
HSXR4080R0.2 08100	8	R0.2	16	–	100	8
HSXR4080R0.3 0860	8	R0.3	16	–	60	8
HSXR4080R0.3 0875	8	R0.3	16	–	75	8
HSXR4080R0.3 08100	8	R0.3	16	–	100	8
HSXR4080R0.5 0860	8	R0.5	16	–	60	8
HSXR4080R0.5 0875	8	R0.5	16	–	75	8
HSXR4080R0.5 08100	8	R0.5	16	–	100	8
HSXR4080R0.5 08125	8	R0.5	20	–	125	8
HSXR4080R0.5 08150	8	R0.5	20	–	150	8
HSXR4080R1.0 0860	8	R1	16	–	60	8
HSXR4080R1.0 0875	8	R1	16	–	75	8
HSXR4080R1.0 08100	8	R1	16	–	100	8
HSXR4080R1.0 08125	8	R1	20	–	125	8
HSXR4080R1.0 08150	8	R1	20	–	150	8
HSXR4100R0.2 1075	10	R0.2	20	–	75	10
HSXR4100R0.2 10100	10	R0.2	20	–	100	10
HSXR4100R0.5 1075	10	R0.5	20	–	75	10
HSXR4100R0.5 10100	10	R0.5	20	–	100	10
HSXR4100R0.5 10125	10	R0.5	25	–	125	10
HSXR4100R0.5 10150	10	R0.5	25	–	150	10

HSXR 4-Flute Corner 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
HSXR4100R1.0 1075	10	R1	20	–	75	10
HSXR4100R1.0 10100	10	R1	20	–	100	10
HSXR4100R1.0 10125	10	R1	25	–	125	10
HSXR4100R1.0 10150	10	R1	25	–	150	10
HSXR4120R0.5 1275	12	R0.5	24	–	75	12
HSXR4120R0.5 12100	12	R0.5	24	–	100	12
HSXR4120R0.5 12125	12	R0.5	30	–	125	12
HSXR4120R0.5 12150	12	R0.5	30	–	150	12
HSXR4120R1.0 1275	12	R1	24	–	75	12
HSXR4120R1.0 12100	12	R1	24	–	100	12
HSXR4120R1.0 12125	12	R1	30	–	125	12
HSXR4120R1.0 12150	12	R1	30	–	150	12
HSXR4120R2.0 1275	12	R2	24	–	75	12
HSXR4120R2.0 12100	12	R2	24	–	100	12
HSXR4120R2.0 12125	12	R2	30	–	125	12
HSXR4120R2.0 12150	12	R2	30	–	150	12
HSXR4160R0.5 16100	16	R0.5	32	–	100	16
HSXR4160R1.0 16100	16	R1	32	–	100	16
HSXR4160R2.0 16100	16	R2	32	–	100	16
HSXR4160R0.5 16150	16	R0.5	40	–	150	16
HSXR4160R1.0 16150	16	R1	40	–	150	16
HSXR4160R2.0 16150	16	R2	40	–	150	16

Cutting Parameter

HSXR 4-Flute Corner Radius End Mill Face Milling Roughing

Workpiece	Pre-Hardened Steels (35-45HRC)				Hardened Steels (45-55HRC)				Hardened Steels (55-65HRC)			
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
HSXR4008R_	28000	1450	0.02	0.56	25000	1305	0.014	0.48	23000	420	0.012	0.4
HSXR4009R_	25000	1500	0.05	0.63	25000	1350	0.03	0.54	20000	450	0.02	0.45
HSXR4010R_	18000	1500	0.05	0.7	16000	1350	0.05	0.6	15000	500	0.03	0.5
HSXR4015R_	16155	1700	0.05	1.05	14360	1530	0.05	0.9	13500	600	0.03	0.75
HSXR4020R_	14301	2000	0.1	1.4	12712	1800	0.1	1.2	10000	800	0.05	1
HSXR4030R_	11056	2200	0.1	2.1	9828	1980	0.1	1.8	7200	800	0.05	1.5
HSXR4040R_	8712	2500	0.2	2.8	7744	2250	0.2	2.4	6000	1000	0.08	2
HSXR4060R_	6543	2800	0.2	4.2	5808	2520	0.2	3.6	4500	1200	0.08	3
HSXR4080R_	5445	3000	0.2	5.6	4840	2700	0.2	4.8	4000	1500	0.1	4
HSXR4100R_	4900	3600	0.2	7	4356	3200	0.2	6	3500	1800	0.1	5
HSXR4120R_	4356	3600	0.2	8.4	3872	3200	0.2	7.2	3200	2000	0.15	6

- For Z-level and face milling, the recommended axial depth of cut (ap) is 0.3 × CR.
- This item can be used for side milling and slotting applicaitons.

HSXR 4-Flute Corner Radius End Mill Face Milling Finishing

Workpiece	Pre-Hardened Steels (35-45HRC)				Hardened Steels (45-55HRC)				Hardened Steels (55-65HRC)			
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
HSXR4020R_	12000	360	0.03	1	10000	300	0.03	1	8800	200	0.02	1
HSXR4030R_	9000	480	0.03	1.5	8000	400	0.03	1.5	7200	300	0.02	1.5
HSXR4040R_	7500	600	0.05	2	7000	500	0.05	2	6000	400	0.03	2
HSXR4060R_	6600	660	0.08	3.5	6000	600	0.05	3.5	4500	500	0.04	3.5
HSXR4080R_	5500	880	0.08	4.5	5000	800	0.05	4.5	4200	600	0.04	4.5
HSXR4100R_	4950	1100	0.08	6	4500	1000	0.06	6	2800	700	0.05	6
HSXR4120R_	4400	1320	0.08	8	4000	1200	0.06	8	2400	800	0.05	8

- For Z-level and face milling, the recommended axial depth of cut (ap) is 0.3 × CR.
- This item can be used for side milling and slotting applicaitons.

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Cutting Parameter

HSXR 4-Flute Corner Radius End Mill Z-Level Milling

Workpiece	Pre-Hardened Steels (35-45HRC)				Hardened Steels (45-55HRC)				Hardened Steels (55-65HRC)			
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
HSXR4008R_	28000	1450	0.03	0.05	25000	1305	0.03	0.03	23000	420	0.03	0.02
HSXR4009R_	25000	1500	0.05	0.05	25000	1350	0.05	0.03	20000	450	0.05	0.02
HSXR4010R_	18000	1500	0.05	0.05	16000	1350	0.05	0.05	15000	500	0.05	0.02
HSXR4015R_	16155	1700	0.05	0.05	14360	1530	0.05	0.05	13500	600	0.05	0.02
HSXR4025R_	15200	1880	0.05	0.1	13500	1680	0.05	0.08	12000	700	0.05	0.02
HSXR4020R_	14301	2000	0.1	0.1	12712	1800	0.1	0.08	10000	800	0.1	0.03
HSXR4030R_	11056	2200	0.1	0.1	9828	1980	0.1	0.08	7200	800	0.1	0.03
HSXR4040R_	8712	2500	0.2	0.1	7744	2250	0.2	0.1	6000	1000	0.2	0.05
HSXR4060R_	6543	2800	0.2	0.2	5808	2520	0.2	0.1	4500	1200	0.2	0.05
HSXR4080R_	5445	3000	0.2	0.2	4840	2700	0.2	0.1	4000	1500	0.2	0.05
HSXR4100R_	4900	3600	0.2	0.2	4356	3200	0.2	0.1	3500	1800	0.2	0.05
HSXR4120R_	4356	3600	0.2	0.2	3872	3200	0.2	0.1	3200	2000	0.2	0.05

- For Z-level and face milling, the recommended axial depth of cut (ap) is 0.3 × CR.
- This item can be used for side milling and slotting applicaitons.