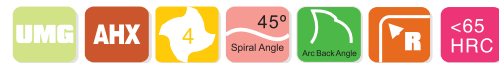
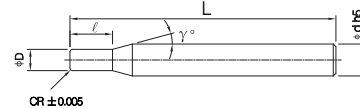


HSXEF-CR 4-Flute Power Corner Radius End Mill



∅ D	D Tol. [mm]
3 < D < 4	0 ~ -0.012
4 < D < 8	0 ~ -0.015
8 < 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
HSXEF4030R0.2 0650	3	R0.2	8	20	50	6
HSXEF4030R0.5 0650	3	R0.5	8	20	50	6
HSXEF4040R0.2 0660	4	R0.2	11	20	50	6
HSXEF4040R0.5 0660	4	R0.5	11	20	50	6
HSXEF4050R0.2 0660	5	R0.2	13	20	60	6
HSXEF4050R0.5 0660	5	R0.5	13	20	60	6
HSXEF4060R0.3 0660	6	R0.3	16	-	60	6
HSXEF4060R0.5 0660	6	R0.5	16	-	60	6
HSXEF4060R1.0 0660	6	R1	16	-	60	6
HSXEF4080R0.3 0875	8	R0.3	20	-	75	8
HSXEF4080R0.5 0875	8	R0.5	20	-	75	8
HSXEF4080R1.0 0875	8	R1	20	-	75	8
HSXEF4100R0.5 1075	10	R0.5	25	-	75	10
HSXEF4100R1.0 1075	10	R1	25	-	75	10
HSXEF4100R2.0 1075	10	R2	25	-	75	10
HSXEF4120R0.5 12100	12	R0.5	35	-	100	12
HSXEF4120R1.0 12100	12	R1	35	-	100	12
HSXEF4120R2.0 12100	12	R2	35	-	100	12

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		~45HRC	~55HRC	~60HRC	~65HRC	~35HRC	~350HB						
○		○	○	○	○	○	○	○			○	○	

Cutting Parameter

HSXEF-CR 4-Flute Power Corner Radius End Mill Side 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
HSXEF4030R_	7500	900	6	0.05	6000	720	6	0.03	5250	400	3	0.03
HSXEF4040R_	6800	1000	8	0.1	5440	800	8	0.03	4760	440	4	0.03
HSXEF4050R_	6000	1200	10	0.1	4800	960	10	0.05	4200	500	5	0.05
HSXEF4060R_	5000	1500	12	0.1	4000	1200	12	0.05	3500	550	6	0.05
HSXEF4080R_	4200	2000	16	0.1	3360	1600	16	0.05	2940	600	8	0.05
HSXEF4100R_	4000	2500	20	0.1	3200	2000	20	0.05	2800	600	10	0.05
HSXEF4120R_	3800	3000	24	0.2	3040	2400	24	0.1	2660	500	12	0.05

● For Z-level and face milling, the recommended axial depth of cut (ap) is 0.3 × CR.

HSXEF-CR 4-Flute Power Corner Radius End Mill Face 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
HSXEF4030R_	9000	480	0.03	1.5	8000	400	0.03	1.5	7200	300	0.02	1.5
HSXEF4040R_	7500	600	0.05	2	7000	500	0.05	2	6000	400	0.03	2
HSXEF4050R_	7000	600	0.06	2.5	6500	550	0.05	2.5	5200	500	0.03	2.5
HSXEF4060R_	6600	660	0.08	3.5	6000	600	0.05	3.5	4500	500	0.04	3.5
HSXEF4080R_	5500	880	0.08	4.5	5000	800	0.05	4.5	4200	600	0.04	4.5
HSXEF4100R_	4950	1100	0.08	6	4500	1000	0.06	6	2800	700	0.05	6
HSXEF4120R_	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.

Cutting Parameter

HSXEF-CR 4-Flute Power 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
HSXEF4030R_	11056	2200	0.08	0.1	9828	1980	0.05	0.08	7200	800	0.03	0.03
HSXEF4040R_	8712	2500	0.1	0.1	7744	2250	0.1	0.1	6000	1000	0.1	0.05
HSXEF4050R_	7600	2600	0.1	0.15	6800	2400	0.1	0.1	5000	1100	0.15	0.05
HSXEF4060R_	6543	2800	0.15	0.2	5808	2520	0.15	0.1	4500	1200	0.15	0.05
HSXEF4080R_	5445	3000	0.15	0.2	4840	2700	0.15	0.1	4000	1500	0.15	0.05
HSXEF4100R_	4900	3600	0.2	0.2	4356	3200	0.2	0.1	3500	1800	0.2	0.05
HSXEF4120R_	4356	3600	0.2	0.2	3872	3200	0.2	0.1	3200	2000	0.2	0.05

HSXEF-CR 4-Flute Power 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
HSXEF4030R_	11056	2200	0.05	2.1	9828	1980	0.05	1.8	7200	800	0.02	1.5
HSXEF4040R_	8712	2500	0.05	2.8	7744	2250	0.05	2.4	6000	1000	0.02	2
HSXEF4050R_	7650	2680	0.05	3.6	6250	2360	0.05	3	5280	1100	0.03	2.5
HSXEF4060R_	6543	2800	0.15	4.2	5808	2520	0.15	3.6	4500	1200	0.03	3
HSXEF4080R_	5445	3000	0.15	5.6	4840	2700	0.2	4.8	4000	1500	0.08	4
HSXEF4100R_	4900	3600	0.2	7	4356	3200	0.2	6	3500	1800	0.1	4
HSXEF4120R_	4356	3600	0.2	8.4	3872	3200	0.2	7.2	3200	2000	0.15	4

● For Z-level and face milling, the recommended axial depth of cut (ap) is $0.3 \times CR$.