

2FESM

(Unit: mm)

(Unit: mm)

Description	Std.	Outside Dia.	Outside Dia. tolerance	Length of edge	Neck Dia.	Shank Dia.	Overall length	Number of Flutes
		ØDc		ℓ	ØD1	ØDs	L	Z
2FESM066-160-08	●	6.6	0 -0.020	16.0	6.8	8	60	2
2FESM067-160-08	●	6.7	0 -0.020	16.0	6.9	8	60	2
2FESM068-160-08	●	6.8	0 -0.020	16.0	7.0	8	60	2
2FESM069-160-08	●	6.9	0 -0.020	16.0	7.1	8	60	2
2FESM070-160-08	●	7.0	0 -0.020	16.0	7.2	8	60	2
2FESM071-160-08	●	7.1	0 -0.020	16.0	7.3	8	60	2
2FESM072-160-08	●	7.2	0 -0.020	16.0	7.4	8	60	2
2FESM073-160-08	●	7.3	0 -0.020	16.0	7.5	8	60	2
2FESM074-160-08	●	7.4	0 -0.020	16.0	7.6	8	60	2
2FESM075-190-08	●	7.5	0 -0.020	19.0	7.7	8	60	2
2FESM076-190-08	●	7.6	0 -0.020	19.0	-	8	60	2
2FESM077-190-08	●	7.7	0 -0.020	19.0	-	8	60	2
2FESM078-190-08	●	7.8	0 -0.020	19.0	-	8	60	2
2FESM079-190-08	●	7.9	0 -0.020	19.0	-	8	60	2
2FESM080-190-08	●	8.0	-0.005 -0.025	19.0	-	8	60	2
2FESM081-190-10	●	8.1	-0.005 -0.025	19.0	8.3	10	70	2
2FESM082-190-10	●	8.2	-0.005 -0.025	19.0	8.4	10	70	2
2FESM083-190-10	●	8.3	-0.005 -0.025	19.0	8.5	10	70	2
2FESM084-190-10	●	8.4	-0.005 -0.025	19.0	8.6	10	70	2
2FESM085-190-10	●	8.5	-0.005 -0.025	19.0	8.7	10	70	2
2FESM086-190-10	●	8.6	-0.005 -0.025	19.0	8.8	10	70	2
2FESM087-190-10	●	8.7	-0.005 -0.025	19.0	8.9	10	70	2

Description	Std.	Outside Dia.	Outside Dia. tolerance	Length of edge	Neck Dia.	Shank Dia.	Overall length	Number of Flutes
		ØDc		ℓ	ØD1	ØDs	L	Z
2FESM088-190-10	●	8.8	-0.005 -0.025	19.0	9.0	10	70	2
2FESM089-190-10	●	8.9	-0.005 -0.025	19.0	9.1	10	70	2
2FESM090-190-10	●	9.0	-0.005 -0.025	19.0	9.2	10	70	2
2FESM091-190-10	●	9.1	-0.005 -0.025	19.0	9.3	10	70	2
2FESM092-190-10	●	9.2	-0.005 -0.025	19.0	9.4	10	70	2
2FESM093-190-10	●	9.3	-0.005 -0.025	19.0	9.5	10	70	2
2FESM094-190-10	●	9.4	-0.005 -0.025	19.0	9.6	10	70	2
2FESM095-190-10	●	9.5	-0.005 -0.025	19.0	9.7	10	70	2
2FESM096-220-10	●	9.6	-0.005 -0.025	22.0	-	10	70	2
2FESM097-220-10	●	9.7	-0.005 -0.025	22.0	-	10	70	2
2FESM098-220-10	●	9.8	-0.005 -0.025	22.0	-	10	70	2
2FESM099-220-10	●	9.9	-0.005 -0.025	22.0	-	10	70	2
2FESM100-220-10	●	10.0	-0.005 -0.025	22.0	-	10	70	2
2FESM105-220-12	●	10.5	-0.005 -0.025	22.0	10.7	12	75	2
2FESM110-220-12	●	11.0	-0.005 -0.025	22.0	11.2	12	75	2
2FESM115-220-12	●	11.5	-0.005 -0.025	22.0	11.7	12	75	2
2FESM120-260-12	●	12.0	-0.010 -0.030	26.0	-	12	75	2
2FESM130-260-16	●	13.0	-0.010 -0.030	26.0	13.2	16	75	2
2FESM140-260-16	●	14.0	-0.010 -0.030	26.0	14.2	16	75	2
2FESM150-300-16	●	15.0	-0.010 -0.030	30.0	15.2	16	90	2
2FESM160-320-16	●	16.0	-0.010 -0.030	32.0	-	16	90	2

Sharp Cutting Edge Reduced Burrs

X10CrNiS18 9 (SUS304)

Block
 • Vc=70m/min
 (n=2,230min⁻¹)
 • ap×ae=5.0mm×1.0mm
 • fz=0.03mm/t
 (Vf=134mm/min)

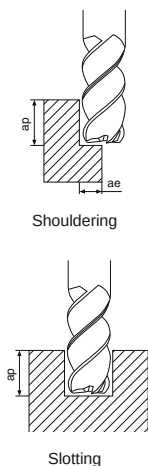
Shouldering

Upper workpiece area
 2FESM100-220-10

Competitor Coating D

burrs

Recommended Cutting Conditions



Shouldering

Workpiece Materials	Depth of Cut (ap×ae) (mm)	Outside Dia. (mm)	Ø0.5	Ø1	Ø2	Ø4	Ø6	Ø8	Ø12	Ø16
Carbon Steel	1.5Dc×0.05Dc (Dc<Ø3)	Spindle Revolution (min ⁻¹)	32,000	25,500	13,200	6,600	4,500	3,300	2,200	1,700
	1.5Dc×0.1Dc (Dc≥Ø3)	Feed Rate (mm/min)	210	225	230	375	415	420	410	410
Alloy Steel	1.5Dc×0.05Dc (Dc<Ø3)	Spindle Revolution (min ⁻¹)	27,000	22,000	11,000	5,600	3,700	2,800	1,900	1,400
	1.5Dc×0.1Dc (Dc≥Ø3)	Feed Rate (mm/min)	180	195	220	285	315	310	310	310
Pre-hardened Steel 30~45HRC	1.5Dc×0.05Dc (Dc<Ø3)	Spindle Revolution (min ⁻¹)	22,500	12,700	7,200	4,200	3,000	2,200	1,500	1,100
	1.5Dc×0.1Dc (Dc≥Ø3)	Feed Rate (mm/min)	50	55	80	100	105	105	110	110
Stainless Steel	1.5Dc×0.05Dc (Dc<Ø3)	Spindle Revolution (min ⁻¹)	27,000	22,000	11,000	5,600	3,700	2,800	1,900	1,400
	1.5Dc×0.1Dc (Dc≥Ø3)	Feed Rate (mm/min)	60	95	95	110	115	115	115	115

* Machining with coolant is recommended for stainless steel.

Please refer to page L44 about Slotting.

● : Std. Item ○ : Check Availability R : Std. Item (R-hand Only) L : Std. Item (L-hand Only)

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