

General use / Finishing (Short)

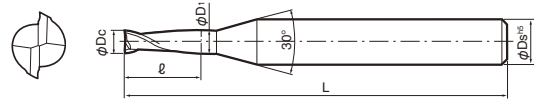


MEGACOAT is applied

Super Micro-grain carbide

Recommended Material

★ 1st Recommendation



Lineup

(Unit: mm)

Description	Std.	Outside Dia. ØDc	Outside Dia. tolerance 0 -0.015	Length of edge ℓ	Neck Dia. ØD1	Shank Dia. ØDs	Overall length L	Number of Flutes Z
2FESS010-015-04	●	1.0	0 -0.015	1.5	1.1	4	45	2
2FESS015-023-04	●	1.5	0 -0.015	2.3	1.6	4	45	2
2FESS020-030-04	●	2.0	0 -0.015	3.0	2.1	4	45	2
2FESS025-037-04	●	2.5	0 -0.015	3.7	2.6	4	45	2
2FESS030-045-06	●	3.0	0 -0.015	4.5	3.2	6	50	2
2FESS035-052-06	●	3.5	0 -0.015	5.2	3.7	6	50	2
2FESS040-060-06	●	4.0	0 -0.015	6.0	4.2	6	50	2
2FESS045-067-06	●	4.5	0 -0.015	6.7	4.7	6	50	2
2FESS050-075-06	●	5.0	0 -0.015	7.5	5.2	6	50	2

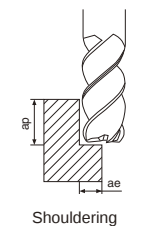
(Unit: mm)

Description	Std.	Outside Dia. ØDc	Outside Dia. tolerance 0 -0.015	Length of edge ℓ	Neck Dia. ØD1	Shank Dia. ØDs	Overall length L	Number of Flutes Z
2FESS055-082-06	●	5.5	0 -0.015	8.2	5.7	6	50	2
2FESS060-090-06	●	6.0	0 -0.020	9.0	-	6	50	2
2FESS080-120-08	●	8.0	-0.005 -0.025	12.0	-	8	60	2
2FESS100-150-10	●	10.0	-0.005 -0.025	15.0	-	10	70	2
2FESS120-180-12	●	12.0	-0.010 -0.030	18.0	-	12	75	2
2FESS140-210-16	●	14.0	-0.010 -0.030	21.0	14.2	16	75	2
2FESS150-230-16	●	15.0	-0.010 -0.030	23.0	15.2	16	90	2
2FESS160-240-16	●	16.0	-0.010 -0.030	24.0	-	16	90	2

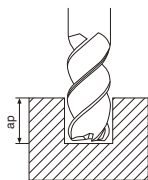
- This product has attained excellent wear resistance by utilizing the new PVD Coated Carbide technology, "MEGACOAT". It has also achieved fracture resistance and stability of machining with its super micro grain carbide. Smooth endmill surface reduces welding and allows stable machining. Achieves high precision machining with coating and sharp cutting edge.

Recommended Cutting Conditions

Shouldering



Shouldering



Slotting

Workpiece Materials	Depth of Cut (ap×ae) (mm)	Outside Dia. (mm)	Ø0.5	Ø1	Ø2	Ø4	Ø6	Ø8	Ø12	Ø16
Carbon Steel	1.2Dc×0.05Dc (Dc<Ø3)	Spindle Revolution (min ⁻¹)	32,000	25,500	13,200	6,600	4,500	3,300	2,200	1,700
	1.2Dc×0.1Dc (Dc≥Ø3)	Feed Rate (mm/min)	210	225	230	375	415	420	410	410
Alloy Steel	1.2Dc×0.05Dc (Dc<Ø3)	Spindle Revolution (min ⁻¹)	27,000	22,000	11,000	5,600	3,700	2,800	1,900	1,400
	1.2Dc×0.1Dc (Dc≥Ø3)	Feed Rate (mm/min)	180	195	220	285	315	310	310	310
Pre-hardened Steel 30~45HRC	1.2Dc×0.05Dc (Dc<Ø3)	Spindle Revolution (min ⁻¹)	22,500	12,700	7,200	4,200	3,000	2,200	1,500	1,100
	1.2Dc×0.1Dc (Dc≥Ø3)	Feed Rate (mm/min)	50	55	80	100	105	105	110	110
Stainless Steel	1.2Dc×0.05Dc (Dc<Ø3)	Spindle Revolution (min ⁻¹)	27,000	22,000	11,000	5,600	3,700	2,800	1,900	1,400
	1.2Dc×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.