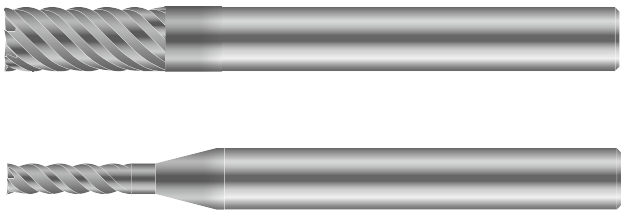
4HFSM, 5HFSM, 6HFSM, 7HFSM, 8HFSM

Number of Flutes: 4, 5, 6, 7, 8

Finishing of Hard Materials



4 5 6 7 8

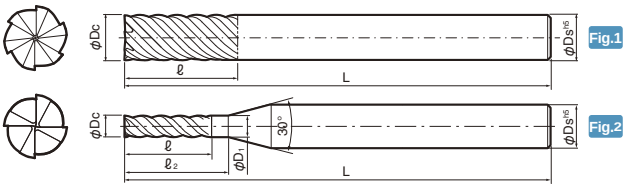
MEGACOAT is applied

Super Micro-grain carbide

Recommended Material ★ 1st Recommendation

P ~750N/mm²	P ~30HRC	P 30~40HRC	H ~55HRC	H ~68HRC
★	★	★	★	★

MEGACOAT Hard | Land | h5 Shank Dia. | 45°



Lineup

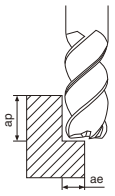
(Unit: mm)

Description	Std.	Outside Dia. øDc	Outside Dia. tolerance	Length of edge ℓ	Neck Dia. øD1	Under Neck Length ℓ2	Shank Dia. øDs	Overall length L	Number of Flutes Z
4HFSM010-050-06 Fig.2	●	1	0 -0.015	5	1.05	6	6	60	4
4HFSM020-090-06 Fig.2	●	2	0 -0.015	9	2.10	10.8	6	60	4
4HFSM030-120-06 Fig.2	●	3	0 -0.015	12	3.15	14.4	6	60	4
4HFSM040-140-06 Fig.2	●	4	0 -0.015	14	4.2	16.8	6	60	4
4HFSM050-170-06 Fig.2	●	5	0 -0.015	17	5.2	20.4	6	60	4
5HFSM040-140-06 Fig.2	●	4	0 -0.015	14	4.2	16.8	6	60	5
6HFSM060-170-06 Fig.1	●	6	0 -0.020	17	-	-	6	60	6
6HFSM080-230-08 Fig.1	●	8	-0.005 -0.025	23	-	-	8	70	6
6HFSM100-280-10 Fig.1	●	10	-0.005 -0.025	28	-	-	10	80	6
6HFSM120-330-12 Fig.1	●	12	-0.010 -0.030	33	-	-	12	90	6

(Unit: mm)

Description	Std.	Outside Dia. øDc	Outside Dia. tolerance	Length of edge ℓ	Neck Dia. øD1	Under Neck Length ℓ2	Shank Dia. øDs	Overall length L	Number of Flutes Z
6HFSM140-370-16 Fig.2	●	14	-0.010 -0.030	37	14.2	44.4	16	105	6
6HFSM150-420-16 Fig.2	●	15	-0.010 -0.030	42	15.2	50.4	16	105	6
6HFSM160-420-16 Fig.1	●	16	-0.010 -0.030	42	-	-	16	105	6
6HFSM200-480-20 Fig.1	●	20	-0.010 -0.030	48	-	-	20	110	6
7HFSM060-170-06 Fig.1	●	6	0 -0.020	17	-	-	6	60	7
7HFSM080-230-08 Fig.1	●	8	-0.005 -0.025	23	-	-	8	70	7
7HFSM100-280-10 Fig.1	●	10	-0.005 -0.025	28	-	-	10	80	7
7HFSM120-330-12 Fig.1	●	12	-0.010 -0.030	33	-	-	12	90	7
6HFSM160-420-16 Fig.1	●	16	-0.010 -0.030	42	-	-	16	105	7
8HFSM250-530-25 Fig.1	●	25	-0.010 -0.030	53	-	-	25	125	8

Recommended Cutting Conditions



Shouldering

Shouldering

Workpiece Materials	Depth of Cut (ap×ae) (mm)	Outside Dia. (mm)	ø1	ø2	ø4	ø6	ø8	ø12	ø16
Tool Steel (< 40HRC) Pre-hardened steel	1.5Dc×0.05D (D<ø3) 1.5Dc×0.1Dc (ø3≦D)	Spindle Revolution (min⁻¹)	20,700	20,000	11,100	7,400	5,600	3,700	2,800
		Feed Rate (mm/min)	910	1,750	2,000	2,900	2,930	2,930	2,720
Tool Steel Heat Treated Steel (40~45HRC) Pre-hardened steel	1.5Dc×0.05D (D<ø3) 1.5Dc×0.1Dc (ø3≦D)	Spindle Revolution (min⁻¹)	20,700	20,000	9,900	6,600	5,000	3,300	2,500
		Feed Rate (mm/min)	910	1,750	1,800	2,630	2,650	2,650	2,400
Hardened 45~55HRC	1.5Dc×0.05D	Spindle Revolution (min⁻¹)	20,700	16,000	8,000	5,300	4,000	2,700	2,000
		Feed Rate (mm/min)	910	1,400	1,400	2,100	2,100	2,100	1,900
Hardened 55~60HRC	1.5Dc×0.02Dc	Spindle Revolution (min⁻¹)	20,700	12,000	6,000	4,000	3,000	2,000	1,500
		Feed Rate (mm/min)	640	730	740	1,100	1,100	1,100	1,050
Hardened 60~65HRC	1.5Dc×0.02Dc	Spindle Revolution (min⁻¹)	20,700	11,100	5,600	3,700	2,800	1,900	1,400
		Feed Rate (mm/min)	550	600	600	880	880	880	910
Hardened 65~70HRC	1.5Dc×0.02Dc	Spindle Revolution (min⁻¹)	15,900	8,000	4,000	2,700	2,000	1,330	1,000
		Feed Rate (mm/min)	370	370	370	560	560	550	550

Not Recommended for Slotting.

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