

4PGSM, 5PGSM, 6PGSM

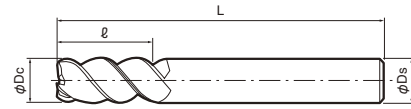
Number of Flutes: 4, 5, 6

Semi-Finishing of Hard Materials (Medium)



Recommended Material

★ 1st Recommendation



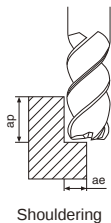
Lineup

(Unit: mm)

Description	Std.	Outside Dia.	Outside Dia. tolerance	Edge Length	Shank Dia.	Total length	Number of Flutes
		ØDc		l	ØDs	L	Z
4PGSM060-150-06	●	6	-0.020 -0.038	15	6	76	4
4PGSM080-200-08	●	8	-0.025 -0.047	20	8	100	4
5PGSM100-250-10	●	10	-0.025 -0.047	25	10	100	5
6PGSM120-300-12	●	12	-0.032 -0.059	30	12	125	6
6PGSM160-400-16	●	16	-0.032 -0.059	40	16	125	6
6PGSM200-500-20	●	20	-0.040 -0.073	50	20	150	6
6PGSM250-630-25	●	25	-0.040 -0.073	63	25	150	6

- Four, five and six flutes types are available for semi-finishing of hardened materials. Web thickness ratio is 60% between the cutting edge and 1Dc and 80% for the rest. Good chip evacuation and high rigidity.

Recommended Cutting Conditions



Shouldering

Workpiece Materials		Depth of Cut (ap×ae) (mm)		Outside Dia. (mm)	Ø6	Ø8	Ø10	Ø12	Ø16	Ø20	Ø25
		Roughing	Finishing								
Steel	< 30HRC	1Dc×0.2Dc	2.5Dc×0.1Dc	Spindle Revolution (min ⁻¹)	10,700	8,000	6,400	5,300	4,000	3,200	2,500
				Feed Rate (mm/min)	2,240	2,240	2,870	3,500	3,580	3,440	3,060
	30~40HRC	1Dc×0.2Dc	2.5Dc×0.1Dc	Spindle Revolution (min ⁻¹)	9,600	7,200	5,700	4,800	3,600	2,900	2,300
				Feed Rate (mm/min)	1,710	1,720	2,440	2,870	3,010	2,920	2,610
	40~45HRC	1Dc×0.2Dc	2.5Dc×0.1Dc	Spindle Revolution (min ⁻¹)	8,500	6,400	5,100	4,200	3,200	2,500	2,000
				Feed Rate (mm/min)	1,360	1,400	1,780	2,040	2,000	2,000	2,080
	45~50HRC	1Dc×0.2Dc	2.5Dc×0.1Dc	Spindle Revolution (min ⁻¹)	6,400	4,800	3,800	3,200	2,400	1,900	1,500
				Feed Rate (mm/min)	760	860	1,050	1,340	1,290	1,260	1,260
	50~55HRC	1Dc×0.2Dc	2.5Dc×0.1Dc	Spindle Revolution (min ⁻¹)	4,200	3,200	2,500	2,100	1,600	1,300	1,000
				Feed Rate (mm/min)	340	380	510	570	570	570	550
	> 55HRC	1Dc×0.2Dc	2.5Dc×0.1Dc	Spindle Revolution (min ⁻¹)	3,700	2,800	2,200	1,900	1,400	1,100	900
				Feed Rate (mm/min)	220	220	330	390	420	400	380

Not Recommended for Slotting.

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