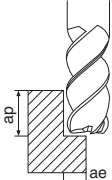


# Recommended Cutting Conditions

## 5DEKM, 5DERM

Application	Workpiece Material	Application	Outside Dia. Dc (mm)	ø4	ø5	ø6	ø8	ø10	ø12	ø16	ø20	ø25
 <p>Shouldering</p> <p>Depth of Cut (apxae)(mm)</p> <p>5DEKM: 1.5Dc×0.25Dc 5DERM: 1.5Dc×0.5Dc</p>	Medium and high carbon steel > 0.3%C	Shouldering	Spindle Revolution (min <sup>-1</sup> )	16,000	12,700	10,600	8,000	6,400	5,300	4,000	3,200	2,500
			Feed Rate (mm/min)	2,400	2,500	2,700	2,400	2,200	1,900	1,600	1,600	1,400
		Slotting	Spindle Revolution (min <sup>-1</sup> )	16,000	12,700	10,600	8,000	6,400	5,300	4,000	3,200	2,500
			Feed Rate (mm/min)	2,400	2,500	2,700	2,400	2,200	1,900	1,600	1,600	1,400
	Alloy steel and alloy tool steel < 330HB < 35HRC	Shouldering	Spindle Revolution (min <sup>-1</sup> )	14,300	11,500	9,600	7,200	5,700	4,800	3,600	2,900	2,300
			Feed Rate (mm/min)	2,100	1,700	1,900	1,800	1,700	1,700	1,400	1,300	1,100
		Slotting	Spindle Revolution (min <sup>-1</sup> )	14,300	11,500	9,600	7,200	5,700	4,800	3,600	2,900	2,300
			Feed Rate (mm/min)	2,100	1,700	1,900	1,800	1,700	1,700	1,400	1,300	1,100
	Alloy steel and alloy tool steel 340~450HB 36~48HRC	Shouldering	Spindle Revolution (min <sup>-1</sup> )	13,000	10,000	8,500	6,400	5,100	4,200	3,200	2,500	2,000
			Feed Rate (mm/min)	1,300	1,500	1,700	1,300	1,300	1,300	1,100	1,000	1,000
		Slotting	Spindle Revolution (min <sup>-1</sup> )	13,000	10,000	8,500	6,400	5,100	4,200	3,200	2,500	2,000
			Feed Rate (mm/min)	1,300	1,500	1,700	1,300	1,300	1,300	1,100	1,000	1,000
Austenitic Stainless Steel (X5CrNi1810) (SUS302, 303, 304)	Shouldering	Spindle Revolution (min <sup>-1</sup> )	9,200	7,300	6,100	4,600	3,700	3,100	2,300	1,800	1,500	
		Feed Rate (mm/min)	1,400	1,100	1,200	1,100	1,100	1,100	920	820	730	
	Slotting	Spindle Revolution (min <sup>-1</sup> )	9,200	7,300	6,100	4,600	3,700	3,100	2,300	1,800	1,500	
		Feed Rate (mm/min)	1,400	1,100	1,200	1,100	1,100	1,100	920	820	730	
Austenitic Stainless Steel (X5CrNiMo17122) (SUS316, 316L)	Shouldering	Spindle Revolution (min <sup>-1</sup> )	6,400	5,100	4,200	3,200	2,500	2,100	1,600	1,300	1,000	
		Feed Rate (mm/min)	640	760	640	640	640	640	560	510	410	
	Slotting	Spindle Revolution (min <sup>-1</sup> )	6,400	5,100	4,200	3,200	2,500	2,100	1,600	1,300	1,000	
		Feed Rate (mm/min)	640	760	640	640	640	640	560	510	410	
Titanium Alloys	Shouldering	Spindle Revolution (min <sup>-1</sup> )	4,800	3,800	3,200	2,400	1,900	1,600	1,200	960	760	
		Feed Rate (mm/min)	480	380	480	480	380	400	360	380	340	
	Slotting	Spindle Revolution (min <sup>-1</sup> )	4,800	3,800	3,200	2,400	1,900	1,600	1,200	960	760	
		Feed Rate (mm/min)	480	380	480	480	380	400	360	380	340	
Heat-resistant Alloys	Shouldering	Spindle Revolution (min <sup>-1</sup> )	3,200	2,500	2,100	1,600	1,300	1,100	800	640	510	
		Feed Rate (mm/min)	160	130	210	240	190	210	200	190	180	
	Slotting	Spindle Revolution (min <sup>-1</sup> )	3,200	2,500	2,100	1,600	1,300	1,100	800	640	510	
		Feed Rate (mm/min)	160	130	210	240	190	210	200	190	180	
Gray Cast Iron	Shouldering	Spindle Revolution (min <sup>-1</sup> )	14,000	11,000	9,000	6,800	5,400	4,500	3,400	2,700	2,200	
		Feed Rate (mm/min)	2,000	2,200	2,300	2,000	2,200	1,800	1,700	1,600	1,400	
	Slotting	Spindle Revolution (min <sup>-1</sup> )	14,000	11,000	9,000	6,800	5,400	4,500	3,400	2,700	2,200	
		Feed Rate (mm/min)	2,000	2,200	2,300	2,000	2,200	1,800	1,700	1,600	1,400	
Nodular Cast Iron CGI Malleable Cast Iron	Shouldering	Spindle Revolution (min <sup>-1</sup> )	10,000	8,300	6,900	5,200	4,100	3,500	2,600	2,100	1,700	
		Feed Rate (mm/min)	1,000	1,200	1,000	1,300	1,000	1,000	910	830	830	
	Slotting	Spindle Revolution (min <sup>-1</sup> )	10,000	8,300	6,900	5,200	4,100	3,500	2,600	2,100	1,700	
		Feed Rate (mm/min)	1,000	1,200	1,000	1,300	1,000	1,000	910	830	830	

\* Cutting with coolant is recommended for stainless steel, titanium alloys and heat-resistant alloys.



Solid End Mill