

Roughing end mill, Medium cut length, 4—6 flute **MR**

Roughing end mill, Medium cut length, 4—6 flute **JR**¹⁾

Roughing end mill, Long cut length, 4—6 flute **LR**²⁾

HSS

RECOMMENDED CUTTING CONDITIONS

Work material	Structural steel, Cast iron, Carbon steel		Carbon steel, Alloy steel (20—30HRC)		Alloy steel, Tool steel, Pre-hardened steel (30—35HRC)		Austenitic stainless steel	
	AISI 1045, AISI No 35 B, AISI 1050		AISI 1055, AISI P20		AISI H13, AISI D2		AISI 304, AISI 316	
Dia. DC (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)
5	1000 (750)	40 (30)	760 (570)	30 (25)	610 (460)	25 (20)	510 (380)	20 (15)
6	960 (720)	50 (40)	720 (540)	40 (30)	570 (430)	30 (25)	480 (360)	25 (20)
8	800 (600)	65 (50)	600 (450)	50 (40)	500 (380)	40 (30)	400 (300)	30 (25)
10	640 (480)	90 (70)	480 (360)	70 (55)	380 (290)	50 (40)	320 (240)	40 (30)
12	530 (400)	90 (70)	400 (300)	70 (55)	320 (240)	55 (40)	270 (200)	45 (35)
16	400 (300)	90 (70)	300 (230)	70 (55)	240 (180)	55 (40)	200 (150)	45 (35)
20	320 (240)	95 (70)	240 (180)	70 (55)	190 (140)	55 (40)	160 (120)	45 (35)
25	250 (190)	90 (70)	190 (140)	65 (50)	150 (110)	50 (40)	130 (100)	45 (35)
30	210 (160)	85 (65)	160 (120)	65 (50)	130 (100)	50 (40)	110 (85)	45 (35)
40	135 (100)	60 (45)	100 (75)	45 (40)	80 (60)	35 (26)	70 (55)	30 (25)
50	100 (75)	50 (40)	75 (55)	40 (30)	60 (45)	30 (23)	50 (40)	25 (20)

Depth of cut	MR

() : Indicates standard revolution and feed rate for slotting with MR.

DC: Dia.

- 1) Decrease the revolution shown above by 10—20% and the feed rate by 20—30% for JR.
- 2) Decrease the revolution shown above by 20—30% and the feed rate by 30—50% for LR.
- 3) Supply cutting fluid sufficiently during cutting.
- 4) When the diameter exceeds 30 and the metal removal is less than the quantity shown in the table, the revolution and feed rate may be increased by 10—40%.
- 5) If the rigidity of the machine or the work materials installation is very low, or chattering and noise are generated, reduce the revolution and feed rate proportionately.

SOLID END MILLS