

MSTAR END MILLS

MS2XB

Ball nose, 2 flute, Taper neck

CARBIDE

RECOMMENDED CUTTING CONDITIONS

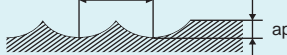
Work material				Carbon steel, Cast iron, Alloy steel, Pre-hardened steel Cf53, GG25	
R (mm)	Taper angle one side	Neck length (mm)	Depth of cut ap (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)
R0.1	30'	1.5	0.005	30000	300
	30'	2	0.005		
	1°	1.5	0.005		
	1°	2	0.005		
	2°	1.5	0.01		
	2°	2	0.01		
	3°	1.5	0.01		
	3°	2	0.01		
	5°	2	0.01		
R0.15	30'	3	0.005	30000	300
	1°	3	0.005		
	2°	3	0.01		
	3°	3	0.01		
	5°	3	0.01		
R0.2	30'	2	0.02	30000	300
	30'	5	0.01		
	1°	2	0.02		
	1°	5	0.01		
	2°	2	0.02		
	2°	5	0.01		
R0.25	30'	3	0.03	30000	300
	30'	5	0.02		
	1°	3	0.03		
	1°	5	0.02		
	2°	3	0.03		
	2°	5	0.02		
R0.3	30'	5	0.03	30000	400
	30'	8	0.02		
	1°	5	0.03		
	1°	10	0.02		
	1°	15	0.01		
	2°	6	0.03		
	2°	8	0.02		
R0.4	30'	8	0.05	30000	500
	30'	12	0.04		
	1°	8	0.05		
	1°	12	0.04		
	2°	8	0.08		
	3°	12	0.06		

Work material				Carbon steel, Cast iron, Alloy steel, Pre-hardened steel Cf53, GG25	
R (mm)	Taper angle one side	Neck length (mm)	Depth of cut ap (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)
R0.5	30'	10	0.05	22000	530
	30'	20	0.02		
	30'	30	0.005		
	1°	10	0.05		
	1°	20	0.02		
	1°	35	0.005		
	2°	20	0.03		
	3°	40	0.05		
	5°	20	0.05		
	R0.6	30'	12		
30'		24	0.02		
1°		12	0.05		
1°		24	0.02		
2°		12	0.06		
2°		24	0.03		
R0.75	30'	10	0.1	20000	700
	30'	30	0.02		
	1°	10	0.1		
	1°	30	0.05		
	2°	30	0.1		
R1	30'	20	0.05	18000	1000
	30'	30	0.03		
	30'	40	0.02		
	1°	20	0.05		
	1°	40	0.03		
	1°	50	0.02		
	2°	40	0.1		
	3°	40	0.1		
	5°	38.2	0.1		
R1.5	30'	30	0.1	16000	1300
	30'	50	0.03		
	1°	30	0.1		
	1°	50	0.03		
	2°	48.9	0.1		
	3°	50	0.1		
R2	30'	60	0.1	14000	1100
	1°	60	0.1		

Depth of cut

≤0.1R (R<0.5)

≤0.2R (R≥0.5)



R:Radius

SOLID END MILLS

1) If the depth of cut is shallow, the revolution and feed rate can be increased.

2) 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.