

Recommended Cutting Conditions

Work Material	Ø (mm)	LxD	Mild Steel (≤180HB)		Carbon steel, Alloy steel (180—280HB)		Carbon steel, Alloy steel (280—350HB)	
			n (min ⁻¹)	Feed rate (Min.—Max.) (mm/rev)	n (min ⁻¹)	Feed rate (Min.—Max.) (mm/rev)	n (min ⁻¹)	Feed rate (Min.—Max.) (mm/rev)
1.0		S*,7xD	15900	0.04 (0.02—0.05)	15900	0.04 (0.02—0.05)	12700	0.04 (0.02—0.05)
		≥ 12xD	15900	0.02 (0.01—0.03)	12700	0.02 (0.01—0.03)	9500	0.02 (0.01—0.03)
1.5		S*,7xD	10600	0.05 (0.03—0.08)	10600	0.05 (0.03—0.08)	8400	0.05 (0.03—0.08)
		≥ 12xD	10600	0.05 (0.02—0.08)	8400	0.05 (0.03—0.08)	6300	0.05 (0.02—0.08)
2.0		S*,7xD	7900	0.07 (0.04—0.10)	7900	0.07 (0.04—0.10)	7900	0.07 (0.04—0.10)
		≥ 12xD	7900	0.07 (0.04—0.10)	7900	0.07 (0.04—0.10)	6300	0.07 (0.04—0.10)
2.5		S*,7xD	7600	0.09 (0.05—0.13)	7600	0.09 (0.05—0.13)	6300	0.09 (0.05—0.13)
		≥ 12xD	7600	0.09 (0.06—0.13)	6300	0.09 (0.06—0.13)	6300	0.08 (0.05—0.13)

Work Material	Ø (mm)	LxD	Austenitic Stainless Steel (≤200HB)		Gray Cast Iron (≤350MPa)		Ductile Cast Iron (≤450MPa)	
			n (min ⁻¹)	Feed rate (Min.—Max.) (mm/rev)	n (min ⁻¹)	Feed rate (Min.—Max.) (mm/rev)	n (min ⁻¹)	Feed rate (Min.—Max.) (mm/rev)
1.0		S*,7xD	9500	0.03 (0.02—0.05)	15900	0.04 (0.02—0.05)	12700	0.04 (0.02—0.05)
		≥ 12xD	9500	0.02 (0.01—0.03)	12700	0.02 (0.01—0.03)	9500	0.02 (0.01—0.03)
1.5		S*,7xD	6300	0.05 (0.03—0.07)	10600	0.05 (0.03—0.08)	8400	0.05 (0.03—0.08)
		≥ 12xD	6300	0.05 (0.02—0.08)	8400	0.05 (0.03—0.08)	6300	0.05 (0.02—0.08)
2.0		S*,7xD	4700	0.06 (0.04—0.08)	7900	0.07 (0.04—0.10)	6300	0.07 (0.04—0.10)
		≥ 12xD	4700	0.07 (0.04—0.10)	7900	0.07 (0.04—0.10)	7900	0.07 (0.04—0.10)
2.5		S*,7xD	5000	0.08 (0.05—0.10)	7600	0.09 (0.05—0.13)	6300	0.09 (0.05—0.13)
		≥ 12xD	3800	0.08 (0.05—0.12)	6300	0.09 (0.06—0.13)	6300	0.08 (0.05—0.12)

Work Material	Ø (mm)	LxD	Aluminium Alloy (Si<5%)		Heat Resistant Alloy	
			n (min ⁻¹)	Feed rate (Min.—Max.) (mm/rev)	n (min ⁻¹)	Feed rate (Min.—Max.) (mm/rev)
1.0		S*,7xD	19000	0.05 (0.03—0.08)	3100	0.02 (0.01—0.03)
		≥ 12xD	15900	0.05 (0.03—0.08)	3100	0.02 (0.01—0.03)
1.5		S*,7xD	16900	0.07 (0.05—0.12)	2100	0.03 (0.02—0.04)
		≥ 12xD	14800	0.08 (0.05—0.12)	2100	0.03 (0.02—0.04)
2.0		S*,7xD	14300	0.1 (0.06—0.15)	2300	0.04 (0.03—0.05)
		≥ 12xD	12700	0.11 (0.06—0.15)	2300	0.04 (0.03—0.05)
2.5		S*,7xD	12700	0.13 (0.08—0.20)	1900	0.05 (0.04—0.06)
		≥ 12xD	11400	0.14 (0.08—0.20)	1900	0.05 (0.04—0.06)

*S=Pilot hole drill. Hole depth is 2xD.