

Cutting Data

Material	Hardness BHN	Cutting Speed SFM MPM	Series and Bore Diameter				
			A	B	C	D	E/F/G
			Ø6.5-Ø7.0	Ø7.5-Ø8.5	Ø9.0-Ø10.0	Ø10.5-Ø11.5	Ø12.0-Ø21.0
IPR mm/rev							
Carbon Steels	100-250	100-260	.0004-.0008	.0004-.0012	.0008-.0016	.0012-.0025	.0012-.0030
		30-80	.01-.02	.01-.03	.02-.04	.03-.06	.03-.08
Free Machining Alloy	125-340	100-230	.0004-.0008	.0004-.0008	.0004-.0012	.0008-.0016	.0008-.0020
		30-70	.01-.02	.01-.02	.01-.03	.02-.04	.02-.05
High Alloy Steel	250-350	100-200	.0004-.0008	.0004-.0012	.0008-.0016	.0012-.0025	.0012-.0030
		30-60	.01-.02	.01-.03	.02-.04	.03-.06	.03-.08
Stainless Steel	140-250	50-100	.0004-.0008	.0004-.0012	.0008-.0016	.0008-.0020	.0008-.0025
		15-30	.01-.02	.01-.03	.02-.04	.02-.06	.02-.08
Grey Cast Iron	150-330	130-230	.0004-.0008	.0004-.0012	.0008-.0016	.0012-.0025	.0012-.0025
		40-70	.01-.02	.01-.03	.02-.04	.03-.06	.03-.08
Nodular Cast Iron	140-310	100-260	.0004-.0008	.0004-.0012	.0008-.0016	.0012-.0025	.0012-.0030
		30-80	.01-.02	.01-.03	.02-.04	.03-.06	.03-.08
Aluminum Alloys	30-180	60-120	.0008-.0012	.0008-.0020	.0012-.0025	.0012-.0030	.0020-.0040
		18-37	.02-.03	.02-.05	.03-.06	.03-.08	.05-.10
Nickel-based Alloys	140-310	20-60	.0004-.0008	.0004-.0008	.0004-.0012	.0008-.0016	.0008-.0020
		7-18	.01-.02	.01-.02	.01-.03	.02-.04	.02-.03
Titanium Alloys		30-100	.0004-.0008	.0004-.0008	.0008-.0012	.0008-.0020	.0008-.0025
		10-30	.01-.02	.01-.02	.02-.03	.02-.05	.02-.06
Copper-Brass-Bronze	80-202	100-290	.0004-.0008	.0004-.0012	.0008-.0016	.0012-.0025	.0012-.0030
		30-90	.01-.025	.01-.03	.02-.04	.03-.06	.03-.08

NOTE: All listed cutting data are standard values only. The cutting values depend on the amount of slope of the material. In case of hard-to-machine materials or interrupted cuts, we recommend applying cutting speeds that are at the lower end of the range.

RECOMMENDATIONS:

- Activation speed: 2000-5000 RPM
- Coolant filtration: <25µm
- Clamping: Sealed coolant or hydraulic holder
- Minimum coolant pressure: 280 PSI (approximately 19.3 BAR)
- If there is long-chipping and deep counterbores, program the feed cycle so short chips are received.