Technical Data and Settings

Cutting Data DEFA

Material	Condition	Tensile strength N/mm²	Hard-ness HB	DF Geometry Cutting speed (m/min)	Feed (mm/rev)	DR Geometry Cutting speed (m/min)	Feed (mm/rev)
Unalloyed steel		<500	<150	40-70	0.02-0.06	40-70	0.05-0.1
Cast steel		500 - 850	150 - 250	40-70	0.02-0.06	40-70	0.05-0.1
Grey cast iron		<500	<150	50-90	0.02-0.06	50-90	0.05-0.1
Ductile cast iron		300 - 800	90 - 240	40-70	0.02-0.06	40-70	0.05-0.1
Low alloy steel	annealed	<850	<250	40-70	0.02-0.06	40-70	0.05-0.1
	tempered	850 - 1000	250 - 300	30-50	0.02-0.06	30-50	0.05-0.1
	tempered	>1000 - 1200	>300 - 350	20-40	0.02-0.04	20-40	0.05-0.06
High alloy steel	annealed	<850	<250	20-50	0.02-0.06	20-50	0.05-0.1
	tempered	850 - 1100	250 - 320	15-30	0.02-0.04	15-30	0.02-0.06
Stainless steel	ferritic	450 - 650	130 - 190	15-30	0.02-0.06	15-30	0.05-0.1
	austenitic	650 - 900	190 - 270	10-20	0.02-0.04	10-20	0.05-0.06
	martensitic	500 - 700	150 - 200	15-30	0.02-0.04	15-30	0.02-0.06
Special alloy (Inconel, titanium)		<1200	<350	10-20	0.02-0.04	10-20	0.02-0.06
Wrought or cast aluminium alloys [1]							
Copper alloy	Brass [1]						
	Bronze short-chipping [1]						
	Bronze long-chipping [1]						

[1] DEFA is primarily designed for use with materials which are difficult to machine and is only partially suitable for soft materials. Workpieces with an interrupted cut are an exception. Please consult HEULE for advice on soft materials.

WARNING NOTICE

All listed cutting data are standard values only! The cutting values depend on the amount of slope of the uneven bore edge. (i.e. high slope ► low cutting value). The feed also depends on the sloping ratio. In case of hard to machine materials or uneven bore edges, we recommend to apply cutting speeds that are at the lower end of the range for uneven bore edges.