Technical Data and Settings

Cutting Data Drilling VEX[1]

Recommended cutting data for helical drills for maximum bore depth < 2xd

Material	Condition	Tensile stren. (N/mm²)	Hardness HB	Cutting speed (m/min)	Feed (mm/rev.)
Unalloyed steel		<500	<150	100-130	0.15-0.25
Cast steel		500 - 850	150 - 250	90-110	0.15-0.25
Grey cast iron		<500	<150	90-180	0.20-0.35
Ductile cast iron		300 - 800	90 - 240	90-160	0.15-0.30
Low alloy steel	annealed	<850	<250	80-130	0.15-0.25
	tempered	850 - 1000	250 - 300	70-110	0.15-0.25
	tempered	>1000 - 1200	>300 - 350	40-70	0.12-0.20
High alloy steel	annealed	<850	<250	40-70	0.12-0.20
	tempered	850 - 1100	250 - 320	35-50	0.12-0.15
Stainless steel	ferritic	450 - 650	130 - 190	30-50	0.08-0.12
	austenitic	650 - 900	190 - 270	30-40	0.08-0.12
	martensitic	500 - 700	150 - 200	20-30	0.08-0.12
Special alloy (Inconel, titanium, …)		<1200	<350	20-25	0.06-0.10
Wrought or cast aluminium alloys				120-250	0.25-0.35
Copper alloy	Brass			140-200	0.25-0.35
	Bronze short-chipping			60-100	0.20-0.30
	Bronze long-chipping			40-60	0.15-0.25

[1] Cutting data for deburring / chamfering (SNAP system) please see on page 267.

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.