SE-B-gel-STEEL

round dies

Comparison of Materials

EMUGE FRANKEN

applications - materials		cutting speed vc in m/min		
		min.	**recommended**	max.
P1.1 Construction steels, Free-cutting steels, etc.	<= 600 N/mm²	1	**5**	8
P2.1 Construction steels, Cementation steels, Steel castings, etc.	<= 800 N/mm²	1	**3**	5
P3.1 Cementation steels, Heat-treatable steels, Cold work steels, etc.	<= 1000 N/mm²	1	**2**	3
M1.1 Ferritic, martensitic	<= 950 N/mm²	1	**2**	4
M2.1 Austenitic	<= 950 N/mm²	1	**2**	4
K1.1 Cast iron with lamellar graphite (GJL)	100-250 N/mm²	2	**5**	10
K1.2 Cast iron with lamellar graphite (GJL)	250-450 N/mm²	2	**5**	10
K2.1 Cast iron with nodular graphite (GJS)	350-500 N/mm²	2	**5**	10
K2.2 Cast iron with nodular graphite (GJS)	500-900 N/mm²	2	**5**	10
N1.1 Aluminium wrought alloys	<= 200 N/mm²	10	**15**	20
N1.2 Aluminium wrought alloys	<= 350 N/mm²	10	**15**	20
N1.3 Aluminium wrought alloys	<= 550 N/mm²	10	**15**	20
N1.4 Aluminium cast alloys	Si <= 7%	10	**15**	20
N2.1 Pure copper, low-alloyed copper	<= 400 N/mm²	10	**15**	20
N2.2 Copper-zinc alloys (brass, long-chipping)	<= 550 N/mm²	10	**15**	20
N2.3 Copper-zinc alloys (brass, short-chipping)	<= 550 N/mm²	10	**15**	25
N2.4 Copper-aluminium alloys (alu bronze, long-chipping)	<= 800 N/mm²	1	**5**	8
N4.2 Thermoplastics (long-chipping)		1	**5**	8

The indicated cutting speeds are guide values which must be adapted to the operating conditions (material, lubrication, machine, etc.).

The values refer to a nominal diameter of 10mm.