RT 800 WP Drill inserts

Series no. **1047**

RT 800 WP (Type) | 140° (Point angle) | h7 (Tolerance on Ø)

Tool material: **Solid Carbide**

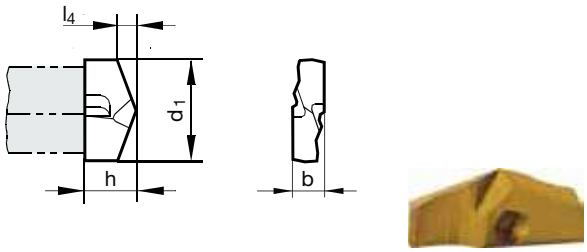
Surface: **S**

P	Steel	●
M	Stainless steel	○
K	Cast iron	●
N	Aluminum	○
S	Titanium alloys	
H	Hardened steel	

●=Optimal
○=Limited

web thinning ≥ Ø 16.000 • relieved cone • main cutting edge form concave • clamping screws art. no. 1071 included

steels up to 1000 N/mm²



Speeds and feeds information on pg. 546

d1 mm	inch	l4 mm	b mm	h mm	Code no.	EDP #
16.000		3.000	4.500	8.000	16.000	**9010470160000**
16.270	41/64	3.000	4.500	8.000	16.270	**9010470162700**
16.500		3.100	4.500	8.000	16.500	**9010470165000**
16.670	21/32	3.100	4.500	8.000	16.670	**9010470166700**
17.000		3.100	4.500	8.000	17.000	**9010470170000**
17.070	43/64	3.200	4.500	8.000	17.070	**9010470170700**
17.460	11/16	3.200	4.500	8.000	17.460	**9010470174600**
17.500		3.200	4.500	8.000	17.500	**9010470175000**
17.860	45/64	3.300	4.500	8.000	17.860	**9010470178600**
18.000		3.300	5.000	8.000	18.000	**9010470180000**
18.260	23/32	3.400	5.000	8.000	18.260	**9010470182600**
18.500		3.400	5.000	8.000	18.500	**9010470185000**
18.650	47/64	3.400	5.000	8.000	18.650	**9010470186500**
19.000		3.500	5.000	8.000	19.000	**9010470190000**
19.050	3/4	3.500	5.000	8.000	19.050	**9010470190500**
19.250		3.600	5.000	8.000	19.250	**9010470192500**
19.450	49/64	3.600	5.000	8.000	19.450	**9010470194500**
19.500		3.600	5.000	8.000	19.500	**9010470195000**
19.840	25/32	3.700	5.000	8.000	19.840	**9010470198400**
20.000		3.700	5.000	8.000	20.000	**9010470200000**
20.240	51/64	3.700	5.500	8.800	20.240	**9010470202400**
20.500		3.800	5.500	8.800	20.500	**9010470205000**
20.640	13/16	3.800	5.500	8.800	20.640	**9010470206400**
21.000		3.900	5.500	8.800	21.000	**9010470210000**
21.030	53/64	3.900	5.500	8.800	21.030	**9010470210300**
21.430	27/32	3.900	5.500	8.800	21.430	**9010470214300**
21.500		4.000	5.500	8.800	21.500	**9010470215000**
21.830	55/64	4.000	5.500	8.800	21.830	**9010470218300**
22.000		4.100	5.500	8.800	22.000	**9010470220000**
22.220	7/8	4.100	5.500	8.800	22.220	**9010470222200**
22.500		4.100	5.500	8.800	22.500	**9010470225000**
22.620	57/64	4.200	6.300	10.000	22.620	**9010470226200**
23.000		4.200	6.300	10.000	23.000	**9010470230000**
23.020	29/32	4.200	6.300	10.000	23.020	**9010470230200**
23.420	59/64	4.300	6.300	10.000	23.420	**9010470234200**
23.500		4.300	6.300	10.000	23.500	**9010470235000**
23.810	15/16	4.400	6.300	10.000	23.810	**9010470238100**
24.000		4.400	6.300	10.000	24.000	**9010470240000**
24.210	61/64	4.500	6.300	10.000	24.210	**9010470242100**
24.500		4.500	6.300	10.000	24.500	**9010470245000**
24.610	31/32	4.500	6.300	10.000	24.610	**9010470246100**
25.000	63/64	4.600	6.300	10.000	25.000	**9010470250000**
25.400	1	4.700	6.300	10.000	25.400	**9010470254000**

RT 800 WP Drill inserts

Series no. **1047**

d1 mm	inch	l4 mm	b mm	h mm	Code no.	EDP #
25.500		4.700	6.300	10.000	25.500	**9010470255000**
26.000		4.800	7.300	11.600	26.000	**9010470260000**
26.500		4.900	7.300	11.600	26.500	**9010470265000**
27.000		5.000	7.300	11.600	27.000	**9010470270000**
27.500		5.100	7.300	11.600	27.500	**9010470275000**
28.000		5.100	7.300	11.600	28.000	**9010470280000**
28.500		5.200	7.300	11.600	28.500	**9010470285000**
29.000		5.300	7.300	11.600	29.000	**9010470290000**
29.500		5.400	7.300	11.600	29.500	**9010470295000**
30.000		5.500	8.500	13.600	30.000	**9010470300000**
30.500		5.600	8.500	13.600	30.500	**9010470305000**
31.000		5.700	8.500	13.600	31.000	**9010470310000**
31.500		5.800	8.500	13.600	31.500	**9010470315000**
32.000		5.900	8.500	13.600	32.000	**9010470320000**
32.500		6.000	8.500	13.600	32.500	**9010470325000**
33.000		6.100	8.500	13.600	33.000	**9010470330000**
33.500		6.100	8.500	13.600	33.500	**9010470335000**
34.000		6.200	8.500	13.600	34.000	**9010470340000**
34.500		6.300	8.500	13.600	34.500	**9010470345000**
35.000		6.400	10.000	16.000	35.000	**9010470350000**
36.000		6.600	10.000	16.000	36.000	**9010470360000**
37.000		6.800	10.000	16.000	37.000	**9010470370000**
37.500		6.900	10.000	16.000	37.500	**9010470375000**
38.000		7.000	10.000	16.000	38.000	**9010470380000**
39.000		7.100	10.000	16.000	39.000	**9010470390000**
40.000		7.300	10.000	16.000	40.000	**9010470400000**
40.500		7.400	10.000	16.000	40.500	**9010470405000**

Insert 1047 - Body 5243

Material group	Hardness HRC	Hardness BHN	SFM	Feed Rate - IPR ≤16.000 mm	41/64 - 25/32 in. 16.001 - 20.000 mm	51/64 - 31/32 in. 20.001 - 25.000 mm	63/64 - 1 17/64 in. 25.001 - 31.500 mm	1 1/4 - 1 9/16 in. 31.501 - 40.000 mm	1 37/64 - 1 61/64 in. 40.001 - 50.000 mm
Common structural steels	-	≤ 150	315	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
	≤ 32	≤ 301	265	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
Free-cutting steels	≤ 25	≤ 255	315	0.0125	0.0160	0.0200	0.0200	0.0250	0.0315
	≤ 32	≤ 301	265	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
Unalloyed heat-treatable steels	≤ 20	≤ 220	315	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
	≤ 25	≤ 255	300	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
	≤ 32	≤ 301	265	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
Alloyed heat-treatable steels	≤ 32	≤ 301	265	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
	≤ 43	≤ 402	215	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
Unalloyed case hardened steels	≤ 25	≤ 255	315	0.0125	0.0160	0.0200	0.0200	0.0250	0.0315
Alloyed case hardened steels	≤ 32	≤ 301	265	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
	≤ 43	≤ 402	185	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
Nitriding steels	≤ 32	≤ 301	265	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
	≤ 43	≤ 402	185	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
Tool steels	≤ 25	≤ 255	135	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
	≤ 43	≤ 402	115	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
High speed steels	≤ 43	≤ 402	135	0.0050	0.0065	0.0080	0.0080	0.0100	0.0125
Spring steels	≤ 38	≤ 354	115	0.0040	0.0050	0.0065	0.0065	0.0080	0.0100
Hardened steels	≤ 48	≤ 460	70	0.0040	0.0050	0.0065	0.0065	0.0080	0.0100
	≤ 66	-							
Stainless steels, sulphured	≤ 28	≤ 273	135	0.0050	0.0065	0.0080	0.0080	0.0100	0.0125
austenitic	≤ 36	≤ 337	100	0.0050	0.0065	0.0080	0.0080	0.0100	0.0125
martensitic	≤ 46	≤ 435	85	0.0050	0.0065	0.0080	0.0080	0.0100	0.0125
Cast iron	≤ 23	≤ 242	490	0.0125	0.0160	0.0200	0.0200	0.0250	0.0315
	≤ 38	≤ 354	360	0.0125	0.0160	0.0200	0.0200	0.0250	0.0315
Spheroidal graphite iron and	≤ 23	≤ 242	360	0.0125	0.0160	0.0200	0.0200	0.0250	0.0315
malleable cast iron	≤ 38	≤ 354	295	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
Chilled cast iron	≤ 38	≤ 354	85	0.0040	0.0050	0.0065	0.0065	0.0080	0.0100
Special alloys	≤ 54	≤ 549	70	0.0040	0.0050	0.0065	0.0065	0.0080	0.0100
Ti and Ti-alloys	≤ 25	≤ 255	100	0.0050	0.0065	0.0080	0.0080	0.0100	0.0125
	≤ 43	≤ 402	85	0.0040	0.0050	0.0065	0.0065	0.0080	0.0100
Aluminium and Al-alloys	-	≤ 120	660	0.0125	0.0160	0.0200	0.0200	0.0250	0.0315
Al wrought alloys	-	≤ 200	660	0.0125	0.0160	0.0200	0.0200	0.0250	0.0315
Al cast alloys ≤ 10 % Si	-	≤ 180	555	0.0125	0.0160	0.0200	0.0200	0.0250	0.0315
≤ 24 % Si	-	≤ 180	455	0.0125	0.0160	0.0200	0.0200	0.0250	0.0315
Magnesium alloys	-	≤ 120	655	0.0125	0.0160	0.0200	0.0200	0.0250	0.0315
Copper, low-alloyed	-	≤ 150	260	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
Brass, short-chipping	-	≤ 180	685	0.0125	0.0160	0.0200	0.0200	0.0250	0.0315
long-chipping	-	≤ 180	455	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
Bronze, short-chipping	-	≤ 180	260	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
	≤ 25	≤ 255	210	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
Bronze, long-chipping	≤ 25	≤ 255	160	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
	≤ 32	≤ 301	130	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
Duroplastics			260	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
Thermoplastics			260	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
Reinforced plastics - Kevlar			260	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
Reinforced plastics - GFK / CFK			260	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200

Insert 1047 - Body 5248

Material group	Hardness HRC	Hardness BHN	SFM	Feed Rate - IPR ≤16.000 mm	41/64 - 25/32 in. 16.001 - 20.000 mm	51/64 - 31/32 in. 20.001 - 25.000 mm	63/64 - 1 17/64 in. 25.001 - 31.500 mm	1 1/4 - 1 9/16 in. 31.501 - 40.000 mm	1 37/64 - 1 61/64 in. 40.001 - 50.000 mm
Common structural steels	-	≤ 150	300	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
	≤ 32	≤ 301	265	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
Free-cutting steels	≤ 25	≤ 255	300	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
	≤ 32	≤ 301	265	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
Unalloyed heat-treatable steels	≤ 20	≤ 220	300	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
	≤ 25	≤ 255	280	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
	≤ 32	≤ 301	250	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
Alloyed heat-treatable steels	≤ 32	≤ 301	250	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
	≤ 43	≤ 402	215	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
Unalloyed case hardened steels	≤ 25	≤ 255	300	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
Alloyed case hardened steels	≤ 32	≤ 301	250	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
	≤ 43	≤ 402	185	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
Nitriding steels	≤ 32	≤ 301	265	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
	≤ 43	≤ 402	185	0.0050	0.0065	0.0080	0.0080	0.0100	0.0125
Tool steels	≤ 25	≤ 255	135	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
	≤ 43	≤ 402	115	0.0050	0.0065	0.0080	0.0080	0.0100	0.0125
High speed steels	≤ 43	≤ 402	135	0.0040	0.0050	0.0065	0.0065	0.0080	0.0100
Spring steels	≤ 38	≤ 354	115	0.0040	0.0050	0.0065	0.0065	0.0080	0.0100
Hardened steels	≤ 48	≤ 460	70	0.0035	0.0040	0.0050	0.0065	0.0065	0.0080
	≤ 66	-							
Stainless steels, sulphured	≤ 28	≤ 273	135	0.0040	0.0050	0.0065	0.0065	0.0080	0.0100
austenitic	≤ 36	≤ 337	100	0.0040	0.0050	0.0065	0.0065	0.0080	0.0100
martensitic	≤ 46	≤ 435	85	0.0040	0.0050	0.0065	0.0065	0.0080	0.0100
Cast iron	≤ 23	≤ 242	490	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
	≤ 38	≤ 354	360	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
Spheroidal graphite iron and	≤ 23	≤ 242	360	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
malleable cast iron	≤ 38	≤ 354	295	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
Chilled cast iron	≤ 38	≤ 354	85	0.0040	0.0050	0.0065	0.0065	0.0080	0.0100
Special alloys	≤ 54	≤ 549	70	0.0035	0.0040	0.0050	0.0065	0.0065	0.0080
Ti and Ti-alloys	≤ 25	≤ 255	100	0.0040	0.0050	0.0065	0.0065	0.0080	0.0100
	≤ 43	≤ 402	85	0.0035	0.0040	0.0050	0.0065	0.0065	0.0080
Aluminium and Al-alloys	-	≤ 120	660	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
Al wrought alloys	-	≤ 200	660	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
Al cast alloys ≤ 10 % Si	-	≤ 180	555	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
≤ 24 % Si	-	≤ 180	455	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
Magnesium alloys	-	≤ 120	655	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
Copper, low-alloyed	-	≤ 150	260	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
Brass, short-chipping	-	≤ 180	685	0.0100	0.0125	0.0160	0.0160	0.0200	0.0250
long-chipping	-	≤ 180	455	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
Bronze, short-chipping	-	≤ 180	260	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
	≤ 25	≤ 255	210	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
Bronze, long-chipping	≤ 25	≤ 255	160	0.0080	0.0100	0.0125	0.0125	0.0160	0.0200
	≤ 32	≤ 301	130	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
Duroplastics			260	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
Thermoplastics			260	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
Reinforced plastics - Kevlar			260	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160
Reinforced plastics - GFK / CFK			260	0.0065	0.0080	0.0100	0.0100	0.0125	0.0160

Series # 1131

Material group	Hardness HRC	Hardness BHN	SFM	Feed Rate - IPR 1/16 in. 1.590 mm	1/8 in. 3.170 mm	1/4 in. 6.350 mm	3/8 in. 9.520 mm	1/2 in. 12.700 mm	5/8 in. 15.870 mm	3/4 in. 19.050 mm	1 in. 25.400 mm	1 1/4 in. 31.750 mm	1 1/2 in. 38.100 mm
Common structural steels	- ≤ 32	≤ 150 ≤ 301	155 120		0.0065 0.0050	0.0100 0.0080	0.0125 0.0100	0.0160 0.0125	0.0160 0.0125	0.0180 0.0140			
Free-cutting steels	≤ 25 ≤ 32	≤ 255 ≤ 301	155 120		0.0065 0.0050	0.0100 0.0080	0.0125 0.0100	0.0160 0.0125	0.0160 0.0125	0.0180 0.0140			
Unalloyed heat-treatable steels	≤ 20 ≤ 25 ≤ 32	≤ 220 ≤ 255 ≤ 301	155 120 65		0.0050 0.0050 0.0040	0.0080 0.0080 0.0065	0.0100 0.0100 0.0080	0.0125 0.0125 0.0100	0.0125 0.0125 0.0100	0.0140 0.0140 0.0110			
Alloyed heat-treatable steels	≤ 32 ≤ 43	≤ 301 ≤ 402	80 65		0.0040 0.0030	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080	0.0100 0.0080	0.0110 0.0090			
Unalloyed case hardened steels	≤ 25	≤ 255	160		0.0065	0.0100	0.0125	0.0160	0.0160	0.0180			
Alloyed case hardened steels	≤ 32 ≤ 43	≤ 301 ≤ 402	70 50		0.0040 0.0030	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080	0.0100 0.0080	0.0110 0.0090			
Nitriding steels	≤ 32 ≤ 43	≤ 301 ≤ 402	65 45		0.0040 0.0030	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080	0.0100 0.0080	0.0110 0.0090			
Tool steels	≤ 25 ≤ 43	≤ 255 ≤ 402	75 45		0.0040 0.0030	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080	0.0100 0.0080	0.0110 0.0090			
High speed steels	≤ 43	≤ 402	45		0.0030	0.0050	0.0065	0.0080	0.0080	0.0090			
Spring steels	≤ 38	≤ 354	35		0.0025	0.0040	0.0050	0.0065	0.0065	0.0070			
Hardened steels	≤ 48 ≤ 66	≤ 460 -	10		0.0025	0.0040	0.0050	0.0065	0.0065	0.0070			
Stainless steels, sulphured austenitic martensitic	≤ 28 ≤ 36 ≤ 46	≤ 273 ≤ 337 ≤ 435	65 45 50		0.0040 0.0030 0.0030	0.0065 0.0050 0.0050	0.0080 0.0065 0.0065	0.0100 0.0080 0.0080	0.0100 0.0080 0.0080	0.0110 0.0090 0.0090			
Cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354	155 120		0.0065 0.0065	0.0100 0.0100	0.0125 0.0125	0.0160 0.0160	0.0160 0.0160	0.0180 0.0180			
Spheroidal graphite iron and malleable cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354	135 95		0.0065 0.0065	0.0100 0.0100	0.0125 0.0125	0.0160 0.0160	0.0160 0.0160	0.0180 0.0180			
Chilled cast iron	≤ 38	≤ 354	35		0.0030	0.0050	0.0065	0.0080	0.0080	0.0090			
New cast materials GGV	≤ 20 ≤ 32	≤ 220 ≤ 301											
New cast materials ADI	≤ 32 ≤ 43	≤ 301 ≤ 402											
Special alloys	≤ 54	≤ 549	30		0.0020	0.0030	0.0040	0.0050	0.0050	0.0055			
Ti and Ti-alloys	≤ 25 ≤ 43	≤ 255 ≤ 402	45 30		0.0025 0.0025	0.0040 0.0040	0.0050 0.0050	0.0065 0.0065	0.0065 0.0065	0.0070 0.0070			
Aluminium and Al-alloys	-	≤ 120											
Al wrought alloys	-	≤ 200											
Al cast alloys ≤ 10 % Si ≤ 24 % Si	- -	≤ 180 ≤ 180	310 245		0.0080 0.0065	0.0125 0.0100	0.0160 0.0125	0.0200 0.0160	0.0200 0.0160	0.0220 0.0180			
Magnesium alloys	-	≤ 120											
Copper, low-alloyed	-	≤ 150	155		0.0050	0.0080	0.0100	0.0125	0.0125	0.0140			
Brass, short-chipping long-chipping	- -	≤ 180 ≤ 180	195		0.0050	0.0080	0.0100	0.0125	0.0125	0.0140			
Bronze, short-chipping	- ≤ 25	≤ 180 ≤ 255	135		0.0040	0.0065	0.0080	0.0100	0.0100	0.0110			
Bronze, long-chipping	≤ 25 ≤ 32	≤ 255 ≤ 301	120 95		0.0040 0.0040	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100	0.0100 0.0100	0.0110 0.0110			
Duroplastics Thermoplastics Reinforced plastics - Kevlar Reinforced plastics - GFK / CFK			120		0.0050	0.0080	0.0100	0.0125	0.0125	0.0140			

Series # 1132

Material group	Hardness HRC	Hardness BHN	SFM	Feed Rate - IPR 1/16 in. 1.590 mm	1/8 in. 3.170 mm	1/4 in. 6.350 mm	3/8 in. 9.520 mm	1/2 in. 12.700 mm	5/8 in. 15.870 mm	3/4 in. 19.050 mm	1 in. 25.400 mm	1 1/4 in. 31.750 mm	1 1/2 in. 38.100 mm
Common structural steels	- ≤ 32	≤ 150 ≤ 301	195 155		0.0065 0.0050	0.0100 0.0080	0.0125 0.0100	0.0160 0.0125	0.0160 0.0125	0.0180 0.0140			
Free-cutting steels	≤ 25 ≤ 32	≤ 255 ≤ 301	195 155		0.0065 0.0050	0.0100 0.0080	0.0125 0.0100	0.0160 0.0125	0.0160 0.0125	0.0180 0.0140			
Unalloyed heat-treatable steels	≤ 20 ≤ 25 ≤ 32	≤ 220 ≤ 255 ≤ 301	195 155 80		0.0050 0.0050 0.0040	0.0080 0.0080 0.0065	0.0100 0.0100 0.0080	0.0125 0.0125 0.0100	0.0125 0.0125 0.0100	0.0140 0.0140 0.0110			
Alloyed heat-treatable steels	≤ 32 ≤ 43	≤ 301 ≤ 402	95 80		0.0040 0.0030	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080	0.0100 0.0080	0.0110 0.0090			
Unalloyed case hardened steels	≤ 25	≤ 255	200		0.0065	0.0100	0.0125	0.0160	0.0160	0.0180			
Alloyed case hardened steels	≤ 32 ≤ 43	≤ 301 ≤ 402	90 65		0.0040 0.0030	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080	0.0100 0.0080	0.0110 0.0090			
Nitriding steels	≤ 32 ≤ 43	≤ 301 ≤ 402	80 55		0.0040 0.0030	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080	0.0100 0.0080	0.0110 0.0090			
Tool steels	≤ 25 ≤ 43	≤ 255 ≤ 402	95 55		0.0040 0.0030	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080	0.0100 0.0080	0.0110 0.0090			
High speed steels	≤ 43	≤ 402	55		0.0030	0.0050	0.0065	0.0080	0.0080	0.0090			
Spring steels	≤ 38	≤ 354	45		0.0025	0.0040	0.0050	0.0065	0.0065	0.0070			
Hardened steels	≤ 48 ≤ 66	≤ 460 -	15 45		0.0025	0.0040	0.0050	0.0065	0.0065	0.0070			
Stainless steels, sulphured austenitic martensitic	≤ 28 ≤ 36 ≤ 46	≤ 273 ≤ 337 ≤ 435	80 55 65		0.0040 0.0030 0.0030	0.0065 0.0050 0.0050	0.0080 0.0065 0.0065	0.0100 0.0080 0.0080	0.0100 0.0080 0.0080	0.0110 0.0090 0.0090			
Cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354	195 155		0.0065 0.0065	0.0100 0.0100	0.0125 0.0125	0.0160 0.0160	0.0160 0.0160	0.0180 0.0180			
Spheroidal graphite iron and malleable cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354	170 120		0.0065 0.0065	0.0100 0.0100	0.0125 0.0125	0.0160 0.0160	0.0160 0.0160	0.0180 0.0180			
Chilled cast iron	≤ 38	≤ 354	45		0.0030	0.0050	0.0065	0.0080	0.0080	0.0090			
New cast materials GGV	≤ 20 ≤ 32	≤ 220 ≤ 301											
New cast materials ADI	≤ 32 ≤ 43	≤ 301 ≤ 402											
Special alloys	≤ 54	≤ 549	35		0.0020	0.0030	0.0040	0.0050	0.0050	0.0055			
Ti and Ti-alloys	≤ 25 ≤ 43	≤ 255 ≤ 402	55 35		0.0025 0.0025	0.0040 0.0040	0.0050 0.0050	0.0065 0.0065	0.0065 0.0065	0.0070 0.0070			
Aluminium and Al-alloys	-	≤ 120											
Al wrought alloys	-	≤ 200											
Al cast alloys ≤ 10 % Si ≤ 24 % Si	- -	≤ 180 ≤ 180	390 310		0.0080 0.0065	0.0125 0.0100	0.0160 0.0125	0.0200 0.0160	0.0200 0.0160	0.0220 0.0180			
Magnesium alloys	-	≤ 120											
Copper, low-alloyed	-	≤ 150	195		0.0050	0.0080	0.0100	0.0125	0.0125	0.0140			
Brass, short-chipping long-chipping	- -	≤ 180 ≤ 180	245		0.0050	0.0080	0.0100	0.0125	0.0125	0.0140			
Bronze, short-chipping	- ≤ 25	≤ 180 ≤ 255	170		0.0040	0.0065	0.0080	0.0100	0.0100	0.0110			
Bronze, long-chipping	≤ 25 ≤ 32	≤ 255 ≤ 301	155 120		0.0040 0.0040	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100	0.0100 0.0100	0.0110 0.0110			
Duroplastics Thermoplastics Reinforced plastics - Kevlar Reinforced plastics - GFK / CFK			155		0.0050	0.0080	0.0100	0.0125	0.0125	0.0140			