Index

Please note: All new products are indicated by orange shading in the catalog pages.

Workpiece materials - material groups

SECO carboloy™

Steel

Mat. group No.		BHN	k_c 1.1	m_c
1	Very soft low-carbon steels. Low carbon and purely ferritic mild steels.	<135	196	.21
2	Free cutting steels, excluding stainless steels.	120 <210	218	.22
3	Machine steels and carbon steels. Plain carbon steels with low to medium carbon content (< 0.5%C).	135 <165	218	.25
4	High-carbon and ordinary low-alloy steels. Medium-hard quenching and tempering steels. High-carbon steels (>0.5%C). Ferritic and martensitic stainless steels.	165 <210	247	.24
5	Normal tool steels. Harder quenching and tempering steels. Martensitic stainless steels.	210 <270	276	.24
6	Difficult tool steels. High-alloy, high-hardness steels. Martensitic stainless steels.	270 <360	290	.24
7	Difficult high-strength, high-hardness steels. Hardened steels from material groups 3–6. Martensitic stainless steels.	>360	421	.22

Stainless steel

8	Easy-cutting stainless steels. Free-cutting stainless steels. Calcium-treated stainless steels.		254	.22
9	Moderately difficult stainless steels. Austenitic and duplex stainless steels.		276	.20
10	Difficult stainless steels. Austenitic and duplex stainless steels.		297	.20
11	Very difficult stainless steels. Austenitic and duplex stainless steels.		312	.20

Cast iron

12	Moderately hard cast iron. Grey iron.		167	.22
13	Low-alloy cast iron. Malleable cast iron. SG iron.		178	.25
14	Moderately difficult alloy cast iron. Moderately difficult malleable iron. SG iron.		196	.28
15	Difficult high-alloy cast iron. Difficult malleable iron. SG iron.		213	.30

Other materials

16	Non-ferrous alloys. Aluminium with <16% Si. Brass, zinc and magnesium.		101	.25
17	Non-ferrous alloys. Aluminium with >16% Si. Aluminium, bronze and copper-nickel.		101	.27
20	Nickel-, cobalt- and ferrous superalloys with hardness of <30 HRc. Incoloy 800 and Inconel 601, 617 and 625. Monel 400.		377	.24
21	Nickel-, cobalt- and ferrous superalloys with hardness of >30 HRc. Inconel 718 and 750-X and Incoloy 925, Monel K-500.		479	.24
22	Titanium-based alloys. Ti-6Al-4V.		210	.23

$k_{c1.1}$-values with 0 degree effective cutting rake angle. For other rake angles, reduce the $k_{c1.1}$-value by 1% for every degree increase in the cutting rake angle and vice versa. Bear in mind that the BHN-value is only an aid in the selection of the material group when the material has been worked by rolling, drawing, heat treatment or other methods that increase the strength of the material.

Workpiece materials - Classification

SECO carboloy™

Steels

Mat. group No.	For power calculation $k_{c1.1}$ mc	Workpiece materials into material groups								
		AISI	W-stoff	DIN	BS	AFNOR	SS	U.N.E./ I.H.A.	JIS	UNI
1	1350 0,21	1006 1010 – A27 65-35 – A570 36 A573-81 65 A515 65 1015 1022 A36 A573-81 – – 1025	1.0201 1.1121 1.1121 1.0443 1.0416 1.0038 1.0116 1.0345 1.0401 1.1133 – 1.0144 – 1.0425 1.1158	St 36 Ck 10 St 37-1 GS-45 GS-38 RSt 37-2 St 37-3 H I C 15 GS-20Mn 5 St 44-2 St 44-3 StE 320-3Z H II Ck 25	– 045 M 10 4360 40 A A1 – 4360 40 C 4360 40 B 1501 161 080 M 15 120 M 19 4360 43 A 4360 43 C 1501 160 – 050 A 20	Fd 5 XC 10 E 23-45 M 230-400 M E 24-2 Ne E 24-U A 37 CP CC 12 20 M 5 NFA 35-501 E 28 E 28-3 – A 42 CP XC 25	1160 1265 1300 1305 1306 1311 1312 1330 1350 1410 1411 1412 1421 1432 1450	– F.1510 – F.221 – – – F.1110 F.1110 F.1515 – – – – F.1120	– S 10 C S 10 C – – – – SGV 410, 450, 480, 490 S 15 C SMnC 420 – SMH 400 A, B, C – SGV 410, 450, 480 S 25 C	– C10 – – – – Fe37-3 – C15:C16 G22Mn3 – – – – –
2	1500 0,22	1213 (12L13) – (12L14) (12L13) 1140 1151	1.0715 1.0718 1.0723 1.0737 1.0718 1.0726 1.0727	9 SMn 28 9 SMnPb 28 15 S 20 9 SMnPb 36 9 SMnPb 28 35 S 20 45 S 20	230 M 07 – 210 A 15 – – 212 M 36 212 M 44	S 250 S 250 Pb S 300 S 300 Pb – 35 MF 4 45 MF 4	1912 1914 1922 1926 1940 1957 1973	– – – – – – –	SUM 22 SUM 22 L SUM 32 – (SUM 32 L) – –	CF9SMn28 CF9SMnPb28 – CF9SMnPb36 CF9SMnPb28 – –
3	1500 0,25	1015 A27 70-36 1035 1035 A148 80-40 1043 1055 1042 A537 1 A662 C A738 – A572-60 A572-60	1.1141 1.0551 1.0501 1.1181 1.0553 1.0503 1.0535 1.1191 1.0473 1.0436 1.0577 1.0570 – 1.8900	Ck 15 GS-52 C 35 Ck 35 GS-60 C 45 C 55 Ck 45 19 Mn 6 ASt 45 ASt 52 St 52-3 17 MnV 6 StE 380	080 M 15 A2 060 A 35 080 A 32 A3 080 M 46 070 M 55 080 A 47 1501 224 1501 224 1501 224 4360 50 B 4360 55 E 4360 55 E	XC 18 280-480 M AF 55 C 35 XC 38 320-560 M AF 65 C 45 – XC 45 A 52 CP A 48 FP A 52 FP E 36-3 NFA 35-501 E 36 –	1370 1505 1550 1572 1606 1650 1655 1660 2101 2103 2107 2132 2142 2145	F.1511 – F.1130 F.1135 – F.5110 F.1150 F.1140 F.1518 – – – – –	S 15 CK – S 35 C S 35 C – S 45 C S 55 C S 45 C SGV 410, 450, 480 – – SM 490 A, B, C – –	C16 – C35 C35 C45 C45 C55 C45 – – – Fe52BFN/Fe52CFN – FeE390KG
4	1700 0,24	1045 1042 1064 1070 1080 1095 9254 1335 5120 A387 12-2 A182 F-22 4130 6150 4135 – 4142 4140 5140 5155 52100 8620 5115 A204A A355A 403 (410S) 410 P4 405 430 434 416 430F 409 430Ti	1.1730 1.1191 1.1221 1.1231 1.1248 1.1274 1.0904 1.1167 1.0841 1.7337 1.7380 1.7218 1.8159 1.2330 1.8515 1.2332 1.7225 1.7045 1.7176 1.3505 1.6523 1.7131 1.5415 1.8509 1.4000 1.4001 (1.4006) 1.2341 1.4724 1.4016 1.4113 1.4005 1.4104 1.4512 1.4510	C 45W Ck 45 Ck 60 Ck 67 Ck 75 Ck 101 55 Si 7 36 Mn 5 St 52-3 16 CrMo 4 4 10 CrMo 9 10 25 CrMo 4 50 CrV 4 35 CrMo 4 31 CrMo 12 47 CrMo 4 42 CrMo 4 42 Cr 41 55 Cr 31 100 Cr 6 21 NiCrMo 2 16 MnCr 5 15 Mo 3 42 CrAlMo 7 X6 Cr 13 X7 Cr 14 G-X 10 Cr 13 X6 CrMo 4 X6 CrAl 13 X6 Cr 17 X6 CrMo 17 X12 CrS 13 X12 CrMoS 17 X5 CrTi 12 X6 CrTi 17	En 43 B 080 M 46 060 A 62 070 A 72 060 A 78 060 A 96 250 A 53 150 M 36 150 M 19 1501 620 1501 622 CDS 110 735 A 50 708 A 37 722 M 24 708 M 40 708 M 40 530 A 40 527 A 60 534 A 99 805 H 20 527 M 17 1501 240 905 M 39 403 S 17 (403 S17) 410 S21 – 405 S 17 430 S 17 434 S 17 416 S 21 420 S 37 409 S 19 –	– – XC 65 XC 68 XC 75 XC 100 55 S 7 40 M 5 20 MC 5 15 CD 4.5 12 CD 9.10 25 CD 4 50 CV 4 34 CD 4 30 CD 12 42 CD 4 42 CD 4 42 C 4 TS 55 C 3 100 C 6 20 NCD 2 16 MC 5 15 D 3 40 CAD 6.12 Z 8 C 13 Z 8 C 13 Z 10 C 13 M – Z 8 CA 12 Z 8 C 17 – Z 11 CF 13 Z 13 CF 17 Z 6 CT 12 Z 4 CT 17	1672 1672 1678 1770 1774 1870 2090 2120 2172 2216 2218 2225 2230 2234 2240 2244 2244 2245 2253 2258 2506 2511 2912 2940 2301 2301 2302 – – 2320 2325 2380 2383 – –	F.114 – F.1150 F.5103 F.5107 F.5117 F.144 F.411 F.431 – F.155 F.1251 F.143 F.1250 F.1712 – F.1252 F.1207 – F.5230 F.1522 F.1516 – F.1740 – F.3110 F.3401 – – F.3113 – F.3411 F.3117 – –	– S 45 C S 58 C – – SUP 4 – SMn 438(H) – – – SCM 420 SUP 10 SCM 432 – SCM 440 SCM 440 SCr 440 – SUJ 2, SUJ 4 SNCM 220(H) – – – SUS 403 SUS 410 S SUS 410 – SUS 405 SUS 430 SUS 434 – SUS 430 F SUH 409 –	– C45 C60 C70 – – 5SSi8 – Fe52 12CrMo910/ G14CrMo910 25CrMo4 50CrV4 – 30CrMo12 – 42CrMo4 – 55Cr31 100Cr6 20NiCrMo2 16MnCr5 16Mo3 41CrAlMo7 X6Cr13 X6Cr13 X12Cr13 – X10CrAl12 X8Cr17 X8CrMo17 X12CrS13 X10CrS17 X6CrTi12 X6CrTi17

Workpiece materials - Classification

SECO carboloy™

Steels

Mat. group No.	For power calculation $k_{c1.1}$ mc	Workpiece materials into material groups								
		AISI	W-stoff	DIN	BS	AFNOR	SS	U.N.E./ I.H.A.	JIS	UNI
5	1900 0,24	W1	1.1545	C105W1	BW1A	Y 105	1880	F.5118	–	C38KU
		420	1.4021	X42 Cr 13	420 S 37	Z 20 C 13	(2314)	F.3402	SUS 420 J1	X20Cr13
		–	1.2108	90 CrSi 5	–	–	2092	F.5230	–	C100KU
		L3	1.2210	115 CrV 3	BL 3	Y 100 C 6	(2140)	F.520L	–	–
		P20 + 1	1.2312	40 CrMnMoS 8 6	–	–	–	X210CrW12	–	–
		O1	1.2510	100 MnCrW 4	BO1	8 Mo 8	2140	F.5220	–	95MnWCr5KU
		6 F7	1.2767	X45 NiCrMo 6 7	En 30 B	–	–	–	–	–
		–	–	31 NiCrMo 13 4	830 M 31	–	2534	F.1270	–	–
		4340	1.6582	34 CrNiMo 6	817 M 40	35 NCD 6	2541	F.1280	SNCM 447	35NiCrMo6KB
		–	1.6746	32 NiCrMo 14 5	830 M 31	35 NCD 14	–	F.1260	–	–
		S1	1.2542	45 WCrV 7	BS1	55 WC 20	2710	F.5241	–	45WCrV8KU
		420	1.4021	X20 Cr 13	420 S 37	Z 20 C 13	2303	F.5261	SUS 420 J 1	X20Cr13
		(420)	1.4028	X30 Cr 13	420 S 45	Z 30 C 13	(2304)	F.5263	(SUS 420 J 1)	X30Cr13/XG40Cr13
		(420)	1.4031	X40 Cr 13	–	Z 40 C 14	(2304)	F.3404	(SUS 420 J 1)	X40Cr14
		–	1.4923	X22 CrMoV 12 1	–	–	–	–	–	–
		431	1.4057	X20 CrNi 17 2	431 S 29	Z 15 CN 16-02	2321	F.313	SUS 431	X16CrNi16
		440B	1.4112	X90 CrMoV 18	–	–	–	–	SUS 440 B	–
6	2000 0,24	P3	1.2080	X210 Cr 12	BD3	Z 200 C 12	2710	F.5212	SKD 1	–
		P20	1.2311	40 CrMnMo 7	–	–	–	F.5263	–	–
		H13	1.2344	X40CrMoV 5 1	BH11	Z 38 CDV 5	2242	F.5318	SKD 61	X40CrMoV511KU
		A2	1.2363	X100 CrMoV 5 1	BA2	Z 100 CDV 5	2260	F.5227	SKD 12	X100CrMoV51KU
		D2	1.2379	X155 CrMoV 12 1	BD2	Z 160 CDV 12	2310	F.5211	–	X155CrVMo121KU
		D4 (D6)	1.2436	X210 CrW 12	BD6	Z 200 CD 12	2312	F.5213	SKD 2	X215CrW121KU
		–	1.2713	55NiCrMoV 6	–	–	–	F.520.S	–	–
		L6	1.2721	50 NiCr 13	–	55 NCV 6	2550	F.528	SKT 4	–
		–	1.7321	20 MoCr 4	–	–	2625	F.1523	–	30CrMo4
		M 2	1.3343	S6/5/2	BM2	Z 85 WDCV	2722	F.5603	SKH 9	HS6-5-2-2
		M 35	1.3243	S6/5/2/5	–	6-5-2-5	2723	F.5613	SKH 55	HS6-5-5
		M 7	1.3348	S2/9/2	–	–	2782	–	–	HS2-9-2
		446	1.4749	X18 CrN 28	–	–	–	–	SUH 446	X16Cr26
		422	1.4935	X20 CrMoWV 12 1	–	–	–	–	–	–
		429	–	X10 CrNi 15	–	–	–	–	–	–
		440C	1.4125	X105 CrMo 17	–	Z 100 CD 17	–	–	SUS 440 C	–
7	2900 0,22	A128 75	1.3401	G-X120 Mn 12	BW10	Z 120 M 12	2183	–	SCMnH 1	–

Workpiece materials - Classification

SECO carboloy™

Stainless steels

Mat. group No.	For power calculation $k_{c1.1}$ mc	Workpiece materials into material groups								
		AISI	W-stoff	DIN	BS	AFNOR	SS	U.N.E./ I.H.A.	JIS	UNI
8	1750 0,20	304	1.4301	X5 CrNi 18 10	304 S 10	Z 5 CN 18-09	2333	–	SUS 304	X5CrNi1810
		304H	1.4948	X6 CrNi 18 11	304 S 51	Z 5 CN 18-09	2333	–	SUS 304 H	–
		303	1.4305	X10 CrNiS 18 9	303 S 31	Z 8 CNF 18-09	2346	–	SUS 303	X10CrNis1809
		304L	1.4306	X2 CrNi 18 10	304 S 11	Z 3 CN 19-11	2352	F.3504	SUS 304 L	X2CrNi1811
		305	1.4312	X8 CrNi 18 12	305 S 19	–	–	F.3503	SUS 305	X8CrNi1910
		302	–	X12 CrNi 18 9	302 S 31	Z 10 CN 18-09	2330	F.314	SUS 302	X10CrNi1809
		301	1.4310	X12 CrNi 17 7	301 S 21	Z 11 CN 17-08	2331	–	SUS 301	X12CrNi1707
		CF-8	1.4308	X6 CrNi 18 9	304 C 15	Z 6 CN 18-10M	2333	–	SCS 13	–
9	1900 0,20	321	1.4541	X6 CrNiTi 18 10	321 S 31	Z 6 CNT 18-10	2337	F.3523	SUS 321	X6CrNiTi1811
		347	1.4550	X6 CrNiNb 1810	347 S 31	Z 6 CNNb 18-10	2338	–	SUS 347	X6CrNiNb1811
		316	1.4436	X5 CrNiMo 17 13 3	316 S 33	Z 6 CND 19-12-03	2343	–	SUS 316	X5CrNiMo1713
		316Ti	1.4571	X8 CrNiMoTi 17 12 2	320 S 31	–	–	–	–	X6CrNiTi1811
		316	1.4401	X5 CrNiMo 17 12 2	316 S 31	Z 7 CND 17-11-02	2347	–	SUS 316	X5CrNiMo1712
		316L	1.4404	X2 CrNiMo 17 13 2	316 S 11	Z 3 CND 17-12-02	2348	F.3533	SUS 316 L	X2CrNiMo1712
		316Ti	1.4571	X6 CrNiMoTi 17 12 2	320 S 31	Z 6 CNDT 17-12-02	2350	F.3535	–	X6CrNiMoTi1712
		316L	1.4435	X2 CrNiMo 18 14 3	316 S 13	Z 3 CND 18-14-03	2353	–	SUS 316 L	X2CrNiMo1713
		317	(1.4449)	X5 CrNiMo 17 13	317 S 16	–	–	–	SUS 317	–
		310S	1.4845	X12 CrNi 25 20	310 S 16	Z 12 CN 25-20	2361	–	SUH 310	X6CrNi2520
		317L	1.4428	X2 CrNiMo 18 16 4	317 S 12	Z 2 CND 19-15-04	2367	–	SUS 317 L	X2CrNiMo1816
		–	1.4418	X4 CrNiMo 16 5	–	Z 6 CND 16-04-01	2387	–	–	–
		304LN	1.4311	X2 CrNiN 18 10	304 S 61	Z 2 CN 18-10 AZ	2371	–	SUS 304 LN	X2CrNiN1811
		309S	1.4833	X6 CrNi 22 13	309 S 13	Z 15 CN 24-13	–	–	SUS 309 S	X6CrNi2314
		CF-8M	1.4408	X6 CrNiMo 18 10	304 C 15	–	2343	–	SCS 14	–
10	2050 0,20	S44400	1.4521	X1CrMoTi 18 2	–	–	2326	–	SUS 444	–
		202	1.4371	X3 CrMnNiN 18 8 7	284 S 16	Z 8 CMN 18-08-05	–	–	SUS 202	–
		S30815	1.4893	X8 CrNiNb 11	–	–	2368	–	–	–
		CA6-NM	1.4313	(G-)X4 CrNi 13 4	(425 C 11)	Z 4 CND 13-04 M	2385	–	SCS 5	(G)X6CrNi304
		660	1.4980	X5 NiCrTi 25 15	–	Z 8 NCTV 25-15 B FF	2570	–	–	–
		(S31726)	1.4439	X2 CrNiMoN 17 13 5	–	Z 3 CND 18-14-06 AZ	–	–	–	–
		330	1.4864	X12 NiCrSi 16	NA 17	Z 12 NCS 35-16	–	–	SUH 330	–
		309	–	X15 CrNi 23 13	309 S 24	Z 15 CNS 20-12	–	–	–	–
		310	1.4841	X15 CrNiSi 25 20	314 S 31	Z 15 CNS 25-20	–	–	–	X16CrNiSi2520
11	2150 0,20	(329)	(1.4460)	X4 CrNiMo 27 5 2	–	Z 5 CND 27-05 AZ	2324	–	SUS 329 J 1	–
		S32304	1.4362	X2 CrNiN 23 4	–	Z 2 CN 23-04 AZ	2327	–	–	–
		SS30415	1.4891	X5 CrNiNb 18 10	–	– 2372	–	–	–	
		316LN	1.4406	X2 CrNiMoN 17 13 2	316 S 61	Z2 CND 17-12 Az	2375	–	SUS 316 LN	–
		316LN	1.4429	X2 CrNiMoN 17 13 2	316 S 63	Z2 CND 17-13 AZ	2375	–	SUS 316 LN	–
		S31500	1.4417	X2 CrNoMoSi 15	–	– 2376	–	–	–	
		S31803	1.4462	X2 CrNiMoN 22 5 3	318 S 13	Z3 CND 22-05 Az	2377	–	–	–
		CN-7M	1.4539	(G-)X1 NiCrMoCu 25 20 5	–	Z1 NCDU 25-02 M	2564	–	–	–
		No8904	1.4539	X2 NiCrMoCu 25 20 5	904 S 13	Z1 NCDU 25-20	2562	–	–	–
		S31254	–	X1 CrNiMoN 20 18 7	–	–	2378	–	–	–
		S31753	–	X2 CrNiMoN 18 13 4	–	–	–	–	–	–
		–	–	X2 CrNiMoN 25 22 7	–	–	–	–	–	–
		S32750	1.4410	X3 CrNiMoN 25 7 4	–	–	–	–	–	–
		–	–	X5 NiCrN 35 25	–	–	2328	–	–	–
		S17400	1.4542	X5 CrNiCuNb 17 4	–	–	–	–	SCS 24	–

Cast iron

Mat. group No.	For power calculation $k_{c1.1}$ mc	Workpiece materials into material groups								
		AISI	W-stoff	DIN	BS	AFNOR	SS	U.N.E./ I.H.A.	JIS	UNI
12	1150 0,22	A48-25B 60/40/18 60/40/18 – A220-40010 A220-50005	0.6015 0.7040 0.7043 0.7033 0.8145 0.8155	GG-15 GGG-40 GGG-40.3 GGG-35.3 GTS-45-06 GTS-55-04	Grade 150 400/17 370/17 350/22L40 P440/7 P510/4	Ft 15 D FGS 370/17 FGS 370/17 FGS 370/17 Mn 450-6 Mn 550-4	0115-00 0717-02 0717-15 0717-15 0852-00 0854-00	FG 15 FGE 38-17 – – – –	FC 150 FCD 400 – – FCMP 440/490 FCMP 540	G15 GS 370-17 – – GMN 45 GMN 55
13	1225 0,25	A48-30B A48-40B A436 Type 2 65/45/12 80/55/06 – A220-50005 A220-70003	0.6020 0.6025 0.6660 0.7050 0.7060 0.7652 0.8155 0.8165	GG-20 GG-25 GGL-NiCr 20 2 GGG-50 GGG-60 GGG-NiMn 13 7 GTS-55-04 GTS-65-02	Grade 200 Grade 260 L-NiCuCr202 500/7 600/3 S-NiMn 137 P510/4 P570/3	Ft 20 D Ft 25 D L-NC 202 FGS 500/7 FGS 600/3 S-Mn 137 Mn 550-4 Mn 650-3	0120-00 0125-00 0523-00 0727-02 0727-03 0772-00 0854-00 0856-00	FG 20 FG 25 – FGE 50-7 FGE 60-2 – – –	FC 200 FC 250 – FCD 500 FCD 600 – FCMP 540 FCMP 590	G 20 G 25 – GS 500-7 GS 600-2 – GMN 55 GMN 65
14	1350 0,28	A48-45B 100/70/03 A43D2 A220-70003 A220-80002 A220-90001	0.6030 0.7070 0.7660 0.8165 0.8170 0.8170	GG-30 GGG-70 GGG-NiCr 20 2 GTS-65-02 GTS-70-02 GTS-70-02	Grade 300 700/2 Grade S6 P570/3 P690/2 –	Ft 30 D FGS 700/2 S-NC 202 Mn 650-3 Mn 700-2 –	0130-00 0737-01 0776-00 0856-00 0862-00 0864-00	FG 30 FGE 70-2 – – – –	FC 300 FCD 700 – FCMP 590 FCMP 690 –	G 30 GS 700-2 – GMN 65 GMN 70 GMN 70
15	1470 0,30	A48-50B A48-60B A220-90001	0.6035 0.6040 0.8170	GG-35 GG-40 GTS-70-02	Grade 350 Grade 400 –	Ft 35 D Ft 40 D Mn 700-2	0135-00 0140-00 0864-00	FG 35 – –	FC 35 FC 40 FCMP 690	G 35 – GMN 70

Workpiece materials – Machinability

Nickel-base alloys	Machinability* (%)
Astroloy	14
Hastelloy B-2	20
Hastelloy C (plate)	25
Hastelloy C (cast)	20
Hastelloy C-22	20
Hastelloy C-276	18
Hastelloy C-4	18
Hastelloy G	18
Hastelloy G-3	18
Hastelloy N (bar, forge, ring)	20
Hastelloy N (cast)	18
Hastelloy S	25
Hastelloy W	18
Hastelloy X	18
IN 100	8
Inconel 600	20
Inconel 601	20
Inconel 625 (cast)	24
Inconel 625 (bar, forge, ring)	16
Inconel 625 (tube)	18
Inconel 706	20
Inconel 708 (bar, forge, ring)	16–20
Inconel 713	14–16
Inconel 713, LC	16
Inconel 718 (cast)	16
Inconel 718 (bar, forge, ring)	14
Inconel 718 (tube)	16
Inconel 901	14–18
Inconel X750 (solution annealed)	20
Inconel X750 (precipitation hardened)	14
Mar-M-200	8
Mar-M-247	10
Modified IN 100	8
Modified Inconel 792	12
Nickel 201	60
Nimonic 101	10
Nimonic 105	18
Nimonic 115	14
Nimonic 263	16
Nimonic 80A	18
Nimonic 81	16
Nimonic 86	20
Nimonic 90	10
Nimonic 901	18
Nimonic 91	10
Rene 95	6
TD Nickel	14
Udimet 500	12
Udimet 700	12
Waspaloy (cast)	16
Waspaloy (bar, forge)	14

Titanium alloys	Machinability* (%)
Ti (pure) – (tube)	60
Ti (pure) – (plate, bar, forge, ring)	45
Ti 17	18
Ti 2Cu	30
Ti 3Al-2.5V (bar, forge)	25
Ti 3Al-2.5V (annealed tube)	60
Ti 4Al-4Mo-2Sn-Si	30
Ti 5Al-2.5 Sn (annealed)	35
Ti 5Al-2.5 Sn (ELI)	40
Ti 5Al-2.5 Sn	35
Ti 5Al-2.5 Fe	30
Ti 6-2-4-2 (precipitation hardened)	25
Ti 6-2-4-2 (annealed)	30
Ti 6-2-4-6 (precipitation hardened)	25
Ti 6-2-4-6 (annealed)	35
Ti 6Al-4V (annealed bar, forge, ring)	30–35
Ti 6Al-4V (annealed casting)	35
Ti 6Al-4V (precipitation hardened bar, forge, ring)	30
Ti 6Al-4V (annealed tube)	30
Ti 6Al-4V (extruded)	35
Ti 6Al-4V (ELI)	40
Ti 6Al-5Zr-0.5Mo-Si	20
Ti 6Al-6V-2Sn	30
Ti 8-1-1	30
Ti Ni-Mo	40

Iron-base alloys	Machinability* (%)
A286 (plate)	20
A286 (solution annealed)	18
A286 (precipitation hardened)	16
AM350 (cast)	18
AM350 (heat treated)	25
AM355	16
Custom 455	20
Discaloy	20
IN 800	16
IN 801	20
Incoloy 909	16
Lapelloy	25
M308	20
N 155 (bar, forge, ring)	20
N 155	16

Cobalt alloys	Machinability* (%)
Air Resist 13	4
H531	6
Haynes 25	12
Haynes 188 (bar, forge, ring)	12
Haynes 188 (tube)	14
MP35N	16
MP 159	16
Stellite 21	16
Stellite 30	16
Stellite 31	16
W 152	16
WI 62	14
Mar-M-302	16
Mar-M-509	12

Precipitation hardened stainless steels	Machinability* (%)
15-5PH	16
17-4PH (precipitation hardened)	16
17-4PH (solution annealed)	30
17-7PH (solution annealed)	25
PH15-7Mo (precipitation hardened)	16
PH15-7Mo (solution annealed)	40

* The machinability is specified in percent. Decreasing values indicate increasing machining difficulty