Interchangeable inserts HT 800, with tool holder ≤ 5xD

Machining group	Art. no.		f (mm/rev) with nom. Ø							
		v_c (m/min)	11	14	16	20	24	28	32	40
P1.1.1 Unalloyed steel, annealed, 0.15 % C, Rm 420 N/mm², 125 HB	4112	130	0.260	0.310	0.345	0.405	0.465	0.525	0.580	0.690
P1.1.2 Unalloyed steel, heat-treated, 0.15 % C, Rm 420 N/mm², 125 HB	4112	115	0.230	0.280	0.310	0.365	0.420	0.470	0.525	0.620
P1.1.3 Unalloyed steel, annealed, 0.45 % C, Rm 640 N/mm², 190 HB	4112	115	0.230	0.280	0.310	0.365	0.420	0.470	0.525	0.620
P1.1.4 Unalloyed steel, heat-treated, 0.45 % C, Rm 640 N/mm², 190 HB	4112	110	0.220	0.265	0.290	0.345	0.395	0.445	0.495	0.585
P1.1.5 Unalloyed steel, heat-treated, 0.45 % C, Rm 850 N/mm², 250 HB	4112	110	0.220	0.265	0.290	0.345	0.395	0.445	0.495	0.585
P1.1.6 Unalloyed steel, annealed, 0.75 % C, Rm 915 N/mm², 270 HB	4112	105	0.205	0.250	0.275	0.325	0.375	0.420	0.465	0.550
P1.1.7 Unalloyed steel, heat-treated, 0.75 % C, Rm 1020 N/mm², 300 HB	4112	100	0.195	0.230	0.255	0.305	0.350	0.395	0.435	0.515
P2.1.1 Low-alloy steel, annealed, Rm 610 N/mm², 180 HB	4112	110	0.260	0.310	0.345	0.405	0.465	0.525	0.580	0.690
P2.1.2 Low-alloy steel, heat-treated, Rm 930 N/mm², 275 HB	4112	110	0.260	0.310	0.345	0.405	0.465	0.525	0.580	0.690
P2.1.3 Low-alloy steel, heat-treated, Rm 1020 N/mm², 300 HB	4112	95	0.220	0.265	0.290	0.345	0.395	0.445	0.495	0.585
P2.1.4 Low-alloy steel, heat-treated, Rm 1190 N/mm², 350 HB	4112	85	0.195	0.230	0.255	0.305	0.350	0.395	0.435	0.515
P3.1.1 High-alloy steel and tool steel, annealed, Rm 680 N/mm², 200 HB	4112	60	0.205	0.250	0.275	0.325	0.375	0.420	0.465	0.550
P3.1.2 High-alloy steel and tool steel, hardened and tempered, Rm 1100 N/mm², 325 HB	4112	50	0.175	0.210	0.235	0.275	0.315	0.355	0.395	0.470
M1.1.1 Stainless steel, ferritic/martensitic, with machining additives	4115	55	0.130	0.155	0.175	0.205	0.235	0.265	0.295	0.345
M1.1.2 Stainless steel, ferritic/martensitic, annealed, Rm 680 N/mm², 200 HB	4115	50	0.115	0.140	0.155	0.185	0.210	0.240	0.265	0.310
M1.1.3 Stainless steel, ferritic/martensitic, heat-treated, Rm 810 N/mm², 240 HB	4115	45	0.110	0.135	0.145	0.175	0.200	0.225	0.250	0.295
M2.1.1 Stainless steel, austenitic, quenched, 180 HB	4115	40	0.130	0.155	0.175	0.205	0.235	0.265	0.295	0.345
M2.2.1 Duplex steel, high-strength stainless steels										
K1.1.1 Grey cast iron, pearlitic/ferritic, 180 HB	4113	100	0.260	0.310	0.345	0.405	0.465	0.525	0.580	0.690
K1.1.2 Grey cast iron, pearlitic/martensitic, 260 HB	4113	85	0.220	0.265	0.290	0.345	0.395	0.445	0.495	0.585
K1.2.1 Cast iron with spheroidal graphite, ferritic, 160 HB										
K1.2.2 Cast iron with spheroidal graphite, pearlitic, 250 HB	4113	85	0.220	0.265	0.290	0.345	0.395	0.445	0.495	0.585
K1.3.1 Malleable cast iron, ferritic, 130 HB										
K1.3.2 Malleable cast iron, pearlitic, 230 HB	4113	80	0.205	0.250	0.275	0.325	0.375	0.420	0.465	0.550
K2.1.1 Vermicular graphite cast iron (GJV)	4113	80	0.205	0.250	0.275	0.325	0.375	0.420	0.465	0.550
K2.2.1 Austenitic-ferritic spheroidal graphite cast iron (ADI)										
N1.1.1 Wrought aluminium alloys, non-hardened, 60 HB	4114	200	0.330	0.395	0.440	0.520	0.595	0.670	0.745	0.880
N1.1.2 Wrought aluminium alloys, hardened, 100 HB	4114	200	0.330	0.395	0.440	0.520	0.595	0.670	0.745	0.880
N2.1.1 Aluminium casting alloys, non-hardened, ≤ 12 % Si, 75 HB	4114	180	0.330	0.395	0.440	0.520	0.595	0.670	0.745	0.880
N2.1.2 Aluminium casting alloys, hardened, ≤ 12 % Si, 90 HB	4114	180	0.330	0.395	0.440	0.520	0.595	0.670	0.745	0.880
N2.1.3 Aluminium casting alloys, non-hardened, > 12 % Si, 130 HB	4114	155	0.280	0.335	0.375	0.440	0.510	0.570	0.630	0.750
N3.1.1 Copper and copper alloys: Free-machining alloy, Pb > 1 %	4114	140	0.260	0.310	0.345	0.405	0.465	0.525	0.580	0.690
N3.1.2 Copper and copper alloys: CuZn, CuSnZn	4114	120	0.220	0.265	0.290	0.345	0.395	0.445	0.495	0.585
N3.1.3 Copper and copper alloys: CuSn, lead-free copper and copper electrolyte	4114	110	0.205	0.250	0.275	0.325	0.375	0.420	0.465	0.550
N4.1.1 Non-metallic materials: Duroplastics, fibre-reinforced plastics										
N4.1.2 Non-metallic materials: Hard rubber, wood, etc.										
N4.1.3 Non-metallic materials: Graphite										
S1.1.1 Heat-resistant alloys, Fe-based, annealed, 200 HB	4115	35	0.105	0.125	0.135	0.165	0.185	0.210	0.230	0.275
S1.1.2 Heat-resistant alloys, Fe-based, hardened, 280 HB	4115	30	0.085	0.100	0.110	0.130	0.150	0.170	0.185	0.220
S1.1.3 Heat-resistant alloys, Ni- or Co-based, annealed, 250 HB	4115	30	0.105	0.125	0.135	0.165	0.185	0.210	0.230	0.275
S1.1.4 Heat-resistant alloys, Ni- or Co-based, hardened, 350 HB	4115	20	0.070	0.085	0.095	0.115	0.130	0.145	0.165	0.195
S1.1.5 Heat-resistant alloys, Ni- or Co-based, cast, 320 HB	4115	20	0.070	0.085	0.095	0.115	0.130	0.145	0.165	0.195
S2.1.1 Titanium alloys, pure titanium, Rm 400 N/mm²	4115	40	0.130	0.155	0.175	0.205	0.235	0.265	0.295	0.345
S2.1.2 Titanium alloys, Alpha and Beta alloys, hardened, Rm 1050 N/mm²	4115	30	0.105	0.125	0.140	0.165	0.190	0.210	0.235	0.280
H1.1.1 Hardened steel, hardened and tempered, < 55 HRC	4115	25	0.105	0.125	0.135	0.165	0.185	0.210	0.230	0.275
H1.1.2 Hardened steel, hardened and tempered, < 60 HRC										
H1.1.3 Hardened steel, hardened and tempered, > 60 HRC										
H2.1.1 Chilled cast iron, 400 HB	4115	90	0.260	0.310	0.345	0.405	0.465	0.525	0.580	0.690
H2.1.2 Chilled cast iron, hardened and tempered, < 55 HRC	4115	65	0.180	0.215	0.240	0.285	0.325	0.365	0.405	0.480

All the values stated are guide values. You can find detailed cutting values online in our Gühring Navigator at navigator.guehring.de.

Interchangeable inserts HT 800, with tool holder 7xD

Machining group	Art. no.		f (mm/rev) with nom. Ø							
		v_c (m/min)	11	14	16	20	24	28	32	40
P1.1.1 Unalloyed steel, annealed, 0.15 % C, Rm 420 N/mm², 125 HB	4112	115	0.225	0.275	0.300	0.360	0.410	0.460	0.510	0.605
P1.1.2 Unalloyed steel, heat-treated, 0.15 % C, Rm 420 N/mm², 125 HB	4112	105	0.205	0.245	0.270	0.320	0.370	0.415	0.460	0.545
P1.1.3 Unalloyed steel, annealed, 0.45 % C, Rm 640 N/mm², 190 HB	4112	105	0.205	0.245	0.270	0.320	0.370	0.415	0.460	0.545
P1.1.4 Unalloyed steel, heat-treated, 0.45 % C, Rm 640 N/mm², 190 HB	4112	100	0.195	0.230	0.255	0.305	0.350	0.395	0.435	0.515
P1.1.5 Unalloyed steel, heat-treated, 0.45 % C, Rm 850 N/mm², 250 HB	4112	100	0.195	0.230	0.255	0.305	0.350	0.395	0.435	0.515
P1.1.6 Unalloyed steel, annealed, 0.75 % C, Rm 915 N/mm², 270 HB	4112	95	0.180	0.220	0.240	0.285	0.330	0.370	0.410	0.485
P1.1.7 Unalloyed steel, heat-treated, 0.75 % C, Rm 1020 N/mm², 300 HB	4112	90	0.170	0.205	0.225	0.270	0.310	0.345	0.385	0.455
P2.1.1 Low-alloy steel, annealed, Rm 610 N/mm², 180 HB	4112	100	0.225	0.275	0.300	0.360	0.410	0.460	0.510	0.605
P2.1.2 Low-alloy steel, heat-treated, Rm 930 N/mm², 275 HB	4112	100	0.225	0.275	0.300	0.360	0.410	0.460	0.510	0.605
P2.1.3 Low-alloy steel, heat-treated, Rm 1020 N/mm², 300 HB	4112	85	0.195	0.230	0.255	0.305	0.350	0.395	0.435	0.515
P2.1.4 Low-alloy steel, heat-treated, Rm 1190 N/mm², 350 HB	4112	75	0.170	0.205	0.225	0.270	0.310	0.345	0.385	0.455
P3.1.1 High-alloy steel and tool steel, annealed, Rm 680 N/mm², 200 HB	4112	55	0.180	0.220	0.240	0.285	0.330	0.370	0.410	0.485
P3.1.2 High-alloy steel and tool steel, hardened and tempered, Rm 1100 N/mm², 325 HB	4112	45	0.155	0.185	0.205	0.245	0.280	0.315	0.350	0.410
M1.1.1 Stainless steel, ferritic/martensitic, with machining additives	4115	50	0.115	0.140	0.150	0.180	0.205	0.235	0.260	0.305
M1.1.2 Stainless steel, ferritic/martensitic, annealed, Rm 680 N/mm², 200 HB	4115	45	0.105	0.125	0.135	0.160	0.185	0.210	0.230	0.275
M1.1.3 Stainless steel, ferritic/martensitic, heat-treated, Rm 810 N/mm², 240 HB	4115	40	0.095	0.115	0.130	0.155	0.175	0.200	0.220	0.260
M2.1.1 Stainless steel, austenitic, quenched, 180 HB	4115	35	0.115	0.140	0.150	0.180	0.205	0.235	0.260	0.305
M2.2.1 Duplex steel, high-strength stainless steels										
K1.1.1 Grey cast iron, pearlitic/ferritic, 180 HB	4113	90	0.225	0.275	0.300	0.360	0.410	0.460	0.510	0.605
K1.1.2 Grey cast iron, pearlitic/martensitic, 260 HB	4113	75	0.195	0.230	0.255	0.305	0.350	0.395	0.435	0.515
K1.2.1 Cast iron with spheroidal graphite, ferritic, 160 HB										
K1.2.2 Cast iron with spheroidal graphite, pearlitic, 250 HB	4113	75	0.195	0.230	0.255	0.305	0.350	0.395	0.435	0.515
K1.3.1 Malleable cast iron, ferritic, 130 HB										
K1.3.2 Malleable cast iron, pearlitic, 230 HB	4113	70	0.180	0.220	0.240	0.285	0.330	0.370	0.410	0.485
K2.1.1 Vermicular graphite cast iron (GJV)	4113	70	0.180	0.220	0.240	0.285	0.330	0.370	0.410	0.485
K2.2.1 Austenitic-ferritic spheroidal graphite cast iron (ADI)										
N1.1.1 Wrought aluminium alloys, non-hardened, 60 HB	4114	180	0.290	0.350	0.385	0.460	0.525	0.590	0.655	0.775
N1.1.2 Wrought aluminium alloys, hardened, 100 HB	4114	180	0.290	0.350	0.385	0.460	0.525	0.590	0.655	0.775
N2.1.1 Aluminium casting alloys, non-hardened, ≤ 12 % Si, 75 HB	4114	160	0.290	0.350	0.385	0.460	0.525	0.590	0.655	0.775
N2.1.2 Aluminium casting alloys, hardened, ≤ 12 % Si, 90 HB	4114	160	0.290	0.350	0.385	0.460	0.525	0.590	0.655	0.775
N2.1.3 Aluminium casting alloys, non-hardened, > 12 % Si, 130 HB	4114	140	0.245	0.295	0.330	0.390	0.445	0.500	0.555	0.660
N3.1.1 Copper and copper alloys: Free-machining alloy, Pb > 1 %	4114	125	0.225	0.275	0.300	0.360	0.410	0.460	0.510	0.605
N3.1.2 Copper and copper alloys: CuZn, CuSnZn	4114	105	0.195	0.230	0.255	0.305	0.350	0.395	0.435	0.515
N3.1.3 Copper and copper alloys: CuSn, lead-free copper and copper electrolyte	4114	100	0.180	0.220	0.240	0.285	0.330	0.370	0.410	0.485
N4.1.1 Non-metallic materials: Duroplastics, fibre-reinforced plastics										
N4.1.2 Non-metallic materials: Hard rubber, wood, etc.										
N4.1.3 Non-metallic materials: Graphite										
S1.1.1 Heat-resistant alloys, Fe-based, annealed, 200 HB	4115	30	0.090	0.110	0.120	0.145	0.165	0.185	0.205	0.240
S1.1.2 Heat-resistant alloys, Fe-based, hardened, 280 HB	4115	25	0.075	0.085	0.095	0.115	0.130	0.150	0.165	0.195
S1.1.3 Heat-resistant alloys, Ni- or Co-based, annealed, 250 HB	4115	25	0.090	0.110	0.120	0.145	0.165	0.185	0.205	0.240
S1.1.4 Heat-resistant alloys, Ni- or Co-based, hardened, 350 HB	4115	15	0.065	0.075	0.085	0.100	0.115	0.130	0.145	0.170
S1.1.5 Heat-resistant alloys, Ni- or Co-based, cast, 320 HB	4115	20	0.065	0.075	0.085	0.100	0.115	0.130	0.145	0.170
S2.1.1 Titanium alloys, pure titanium, Rm 400 N/mm²	4115	35	0.115	0.140	0.150	0.180	0.205	0.235	0.260	0.305
S2.1.2 Titanium alloys, Alpha and Beta alloys, hardened, Rm 1050 N/mm²	4115	25	0.090	0.110	0.120	0.145	0.165	0.185	0.205	0.245
H1.1.1 Hardened steel, hardened and tempered, < 55 HRC	4115	25	0.090	0.110	0.120	0.145	0.165	0.185	0.205	0.240
H1.1.2 Hardened steel, hardened and tempered, < 60 HRC										
H1.1.3 Hardened steel, hardened and tempered, > 60 HRC										
H2.1.1 Chilled cast iron, 400 HB	4115	80	0.225	0.275	0.300	0.360	0.410	0.460	0.510	0.605
H2.1.2 Chilled cast iron, hardened and tempered, < 55 HRC	4115	55	0.160	0.190	0.210	0.250	0.290	0.325	0.360	0.425

All the values stated are guide values. You can find detailed cutting values online in our Gühring Navigator at navigator.guehring.de.

Interchangeable inserts HT 800, with tool holder 10xD

Machining group	Art. no.		f (mm/rev) with nom. Ø							
		v_c (m/min)	11	14	16	20	24	28	32	40
P1.1.1 Unalloyed steel, annealed, 0.15 % C, Rm 420 N/mm², 125 HB	4112	110	0.215	0.260	0.290	0.340	0.390	0.440	0.490	0.580
P1.1.2 Unalloyed steel, heat-treated, 0.15 % C, Rm 420 N/mm², 125 HB	4112	100	0.195	0.235	0.260	0.305	0.355	0.395	0.440	0.520
P1.1.3 Unalloyed steel, annealed, 0.45 % C, Rm 640 N/mm², 190 HB	4112	100	0.195	0.235	0.260	0.305	0.355	0.395	0.440	0.520
P1.1.4 Unalloyed steel, heat-treated, 0.45 % C, Rm 640 N/mm², 190 HB	4112	95	0.185	0.220	0.245	0.290	0.335	0.375	0.415	0.490
P1.1.5 Unalloyed steel, heat-treated, 0.45 % C, Rm 850 N/mm², 250 HB	4112	95	0.185	0.220	0.245	0.290	0.335	0.375	0.415	0.490
P1.1.6 Unalloyed steel, annealed, 0.75 % C, Rm 915 N/mm², 270 HB	4112	90	0.175	0.210	0.230	0.275	0.315	0.355	0.390	0.465
P1.1.7 Unalloyed steel, heat-treated, 0.75 % C, Rm 1020 N/mm², 300 HB	4112	85	0.165	0.195	0.215	0.255	0.295	0.330	0.365	0.435
P2.1.1 Low-alloy steel, annealed, Rm 610 N/mm², 180 HB	4112	95	0.215	0.260	0.290	0.340	0.390	0.440	0.490	0.580
P2.1.2 Low-alloy steel, heat-treated, Rm 930 N/mm², 275 HB	4112	95	0.215	0.260	0.290	0.340	0.390	0.440	0.490	0.580
P2.1.3 Low-alloy steel, heat-treated, Rm 1020 N/mm², 300 HB	4112	80	0.185	0.220	0.245	0.290	0.335	0.375	0.415	0.490
P2.1.4 Low-alloy steel, heat-treated, Rm 1190 N/mm², 350 HB	4112	70	0.165	0.195	0.215	0.255	0.295	0.330	0.365	0.435
P3.1.1 High-alloy steel and tool steel, annealed, Rm 680 N/mm², 200 HB	4112	50	0.175	0.210	0.230	0.275	0.315	0.355	0.390	0.465
P3.1.2 High-alloy steel and tool steel, hardened and tempered, Rm 1100 N/mm², 325 HB	4112	45	0.145	0.175	0.195	0.230	0.265	0.300	0.330	0.395
M1.1.1 Stainless steel, ferritic/martensitic, with machining additives	4115	45	0.110	0.130	0.145	0.170	0.200	0.220	0.245	0.290
M1.1.2 Stainless steel, ferritic/martensitic, annealed, Rm 680 N/mm², 200 HB	4115	45	0.100	0.120	0.130	0.155	0.180	0.200	0.220	0.260
M1.1.3 Stainless steel, ferritic/martensitic, heat-treated, Rm 810 N/mm², 240 HB	4115	40	0.095	0.110	0.125	0.145	0.170	0.190	0.210	0.250
M2.1.1 Stainless steel, austenitic, quenched, 180 HB	4115	35	0.110	0.130	0.145	0.170	0.200	0.220	0.245	0.290
M2.2.1 Duplex steel, high-strength stainless steels										
K1.1.1 Grey cast iron, pearlitic/ferritic, 180 HB	4113	85	0.215	0.260	0.290	0.340	0.390	0.440	0.490	0.580
K1.1.2 Grey cast iron, pearlitic/martensitic, 260 HB	4113	75	0.185	0.220	0.245	0.290	0.335	0.375	0.415	0.490
K1.2.1 Cast iron with spheroidal graphite, ferritic, 160 HB										
K1.2.2 Cast iron with spheroidal graphite, pearlitic, 250 HB	4113	75	0.185	0.220	0.245	0.290	0.335	0.375	0.415	0.490
K1.3.1 Malleable cast iron, ferritic, 130 HB										
K1.3.2 Malleable cast iron, pearlitic, 230 HB	4113	70	0.175	0.210	0.230	0.275	0.315	0.355	0.390	0.465
K2.1.1 Vermicular graphite cast iron (GJV)	4113	70	0.175	0.210	0.230	0.275	0.315	0.355	0.390	0.465
K2.2.1 Austenitic-ferritic spheroidal graphite cast iron (ADI)										
N1.1.1 Wrought aluminium alloys, non-hardened, 60 HB	4114	170	0.275	0.335	0.370	0.435	0.500	0.565	0.625	0.740
N1.1.2 Wrought aluminium alloys, hardened, 100 HB	4114	170	0.275	0.335	0.370	0.435	0.500	0.565	0.625	0.740
N2.1.1 Aluminium casting alloys, non-hardened, ≤ 12 % Si, 75 HB	4114	155	0.275	0.335	0.370	0.435	0.500	0.565	0.625	0.740
N2.1.2 Aluminium casting alloys, hardened, ≤ 12 % Si, 90 HB	4114	155	0.275	0.335	0.370	0.435	0.500	0.565	0.625	0.740
N2.1.3 Aluminium casting alloys, non-hardened, > 12 % Si, 130 HB	4114	130	0.235	0.285	0.315	0.370	0.425	0.480	0.530	0.630
N3.1.1 Copper and copper alloys: Free-machining alloy, Pb > 1 %	4114	120	0.215	0.260	0.290	0.340	0.390	0.440	0.490	0.580
N3.1.2 Copper and copper alloys: CuZn, CuSnZn	4114	100	0.185	0.220	0.245	0.290	0.335	0.375	0.415	0.490
N3.1.3 Copper and copper alloys: CuSn, lead-free copper and copper electrolyte	4114	95	0.175	0.210	0.230	0.275	0.315	0.355	0.390	0.465
N4.1.1 Non-metallic materials: Duroplastics, fibre-reinforced plastics										
N4.1.2 Non-metallic materials: Hard rubber, wood, etc.										
N4.1.3 Non-metallic materials: Graphite										
S1.1.1 Heat-resistant alloys, Fe-based, annealed, 200 HB	4115	30	0.085	0.105	0.115	0.135	0.155	0.175	0.195	0.230
S1.1.2 Heat-resistant alloys, Fe-based, hardened, 280 HB	4115	25	0.070	0.085	0.090	0.110	0.125	0.140	0.155	0.185
S1.1.3 Heat-resistant alloys, Ni- or Co-based, annealed, 250 HB	4115	25	0.085	0.105	0.115	0.135	0.155	0.175	0.195	0.230
S1.1.4 Heat-resistant alloys, Ni- or Co-based, hardened, 350 HB	4115	15	0.060	0.075	0.080	0.095	0.110	0.125	0.135	0.160
S1.1.5 Heat-resistant alloys, Ni- or Co-based, cast, 320 HB	4115	20	0.060	0.075	0.080	0.095	0.110	0.125	0.135	0.160
S2.1.1 Titanium alloys, pure titanium, Rm 400 N/mm²	4115	35	0.110	0.130	0.145	0.170	0.200	0.220	0.245	0.290
S2.1.2 Titanium alloys, Alpha and Beta alloys, hardened, Rm 1050 N/mm²	4115	25	0.085	0.105	0.115	0.140	0.160	0.180	0.195	0.235
H1.1.1 Hardened steel, hardened and tempered, < 55 HRC	4115	20	0.085	0.105	0.115	0.135	0.155	0.175	0.195	0.230
H1.1.2 Hardened steel, hardened and tempered, < 60 HRC										
H1.1.3 Hardened steel, hardened and tempered, > 60 HRC										
H2.1.1 Chilled cast iron, 400 HB	4115	75	0.215	0.260	0.290	0.340	0.390	0.440	0.490	0.580
H2.1.2 Chilled cast iron, hardened and tempered, < 55 HRC	4115	55	0.150	0.180	0.200	0.240	0.275	0.310	0.340	0.405

All the values stated are guide values. You can find detailed cutting values online in our Gühring Navigator at navigator.guehring.de.

Interchangeable inserts HT 800 steel beams, with tool holder ≤10xD

With tool holders for interchangeable inserts HT 800, 1xD, art. no. 4105 / 1.5xD, art. no. 4106 / 3xD, art. no. 4107 / 5xD, art. no. 4108

Machining group		f (mm/rev) with nom. Ø							
	v_c (m/min)	11	14	16	20	24	28	32	40
P1.1.1 Unalloyed steel, annealed, 0.15 % C, Rm 420 N/mm², 125 HB	100	0.205	0.250	0.275	0.325	0.375	0.420	0.465	0.550
P1.1.2 Unalloyed steel, heat-treated, 0.15 % C, Rm 420 N/mm², 125 HB	90	0.185	0.225	0.245	0.295	0.335	0.380	0.420	0.495
P1.1.3 Unalloyed steel, annealed, 0.45 % C, Rm 640 N/mm², 190 HB	90	0.185	0.225	0.245	0.295	0.335	0.380	0.420	0.495
P1.1.4 Unalloyed steel, heat-treated, 0.45 % C, Rm 640 N/mm², 190 HB	85	0.175	0.210	0.235	0.275	0.315	0.355	0.395	0.470
P1.1.5 Unalloyed steel, heat-treated, 0.45 % C, Rm 850 N/mm², 250 HB	85	0.175	0.210	0.235	0.275	0.315	0.355	0.395	0.470
P1.1.6 Unalloyed steel, annealed, 0.75 % C, Rm 915 N/mm², 270 HB	80	0.165	0.200	0.220	0.260	0.300	0.335	0.370	0.440
P1.1.7 Unalloyed steel, heat-treated, 0.75 % C, Rm 1020 N/mm², 300 HB	75	0.155	0.185	0.205	0.245	0.280	0.315	0.350	0.415

With tool holder for interchangeable inserts HT 800, 7xD, art. no. 4109

Machining group		f (mm/rev) with nom. Ø							
	v_c (m/min)	11	14	16	20	24	28	32	40
P1.1.1 Unalloyed steel, annealed, 0.15 % C, Rm 420 N/mm², 125 HB	90	0.180	0.220	0.240	0.285	0.330	0.370	0.410	0.485
P1.1.2 Unalloyed steel, heat-treated, 0.15 % C, Rm 420 N/mm², 125 HB	80	0.165	0.195	0.215	0.260	0.295	0.335	0.370	0.435
P1.1.3 Unalloyed steel, annealed, 0.45 % C, Rm 640 N/mm², 190 HB	80	0.165	0.195	0.215	0.260	0.295	0.335	0.370	0.435
P1.1.4 Unalloyed steel, heat-treated, 0.45 % C, Rm 640 N/mm², 190 HB	75	0.155	0.185	0.205	0.245	0.280	0.315	0.350	0.410
P1.1.5 Unalloyed steel, heat-treated, 0.45 % C, Rm 850 N/mm², 250 HB	75	0.155	0.185	0.205	0.245	0.280	0.315	0.350	0.410
P1.1.6 Unalloyed steel, annealed, 0.75 % C, Rm 915 N/mm², 270 HB	70	0.145	0.175	0.195	0.230	0.265	0.295	0.325	0.390
P1.1.7 Unalloyed steel, heat-treated, 0.75 % C, Rm 1020 N/mm², 300 HB	70	0.135	0.165	0.180	0.215	0.245	0.275	0.305	0.365

With tool holder for interchangeable inserts HT 800, 10xD, art. no. 4110

Machining group		f (mm/rev) with nom. Ø							
	v_c (m/min)	11	14	16	20	24	28	32	40
P1.1.1 Unalloyed steel, annealed, 0.15 % C, Rm 420 N/mm², 125 HB	85	0.175	0.210	0.230	0.275	0.315	0.355	0.390	0.465
P1.1.2 Unalloyed steel, heat-treated, 0.15 % C, Rm 420 N/mm², 125 HB	75	0.155	0.185	0.205	0.245	0.280	0.315	0.350	0.415
P1.1.3 Unalloyed steel, annealed, 0.45 % C, Rm 640 N/mm², 190 HB	75	0.155	0.185	0.205	0.245	0.280	0.315	0.350	0.415
P1.1.4 Unalloyed steel, heat-treated, 0.45 % C, Rm 640 N/mm², 190 HB	75	0.145	0.175	0.195	0.230	0.265	0.300	0.330	0.395
P1.1.5 Unalloyed steel, heat-treated, 0.45 % C, Rm 850 N/mm², 250 HB	75	0.145	0.175	0.195	0.230	0.265	0.300	0.330	0.395
P1.1.6 Unalloyed steel, annealed, 0.75 % C, Rm 915 N/mm², 270 HB	70	0.140	0.165	0.185	0.220	0.250	0.280	0.310	0.370
P1.1.7 Unalloyed steel, heat-treated, 0.75 % C, Rm 1020 N/mm², 300 HB	65	0.130	0.155	0.175	0.205	0.235	0.265	0.295	0.345

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