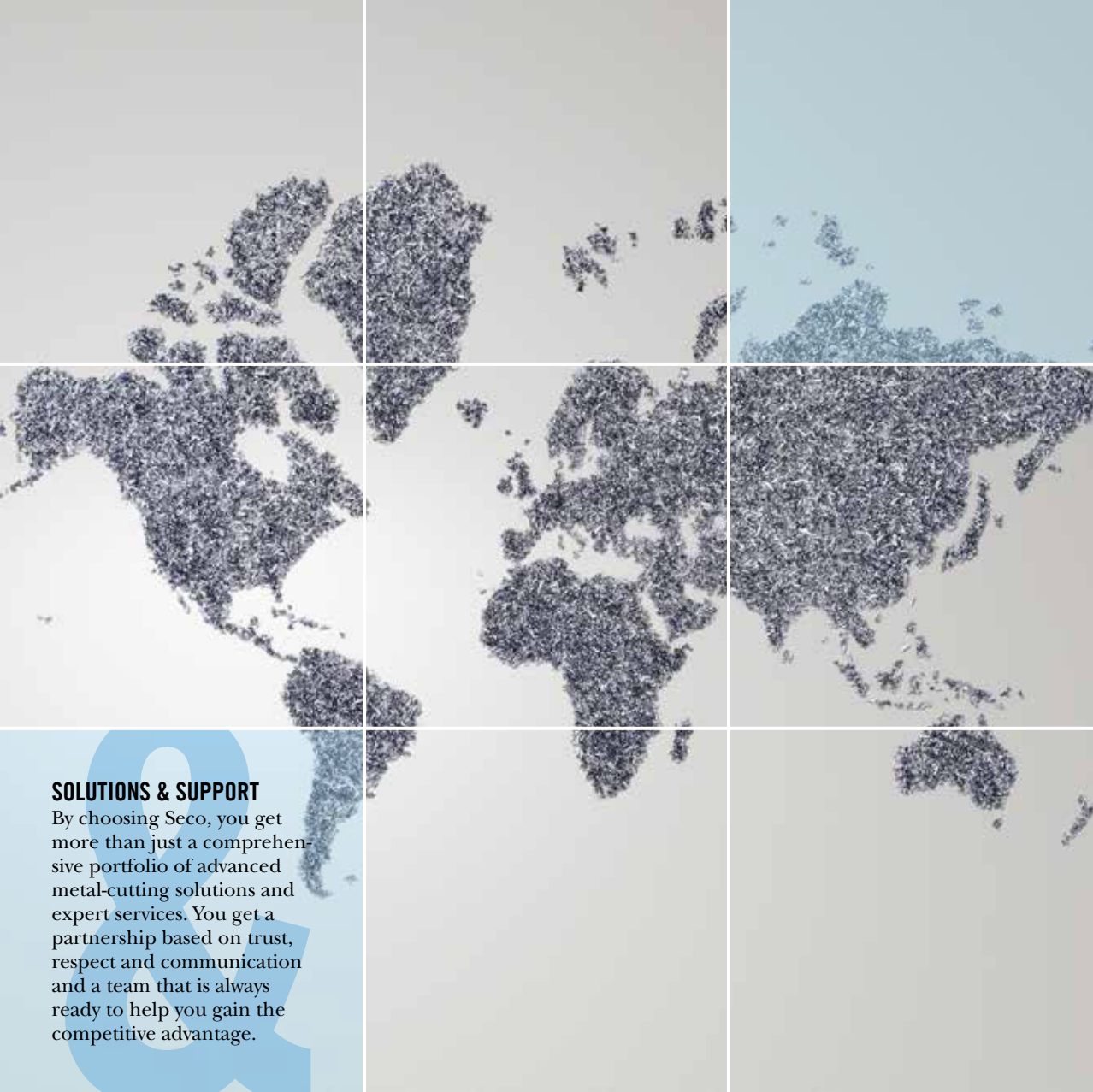




UPDATE 2016-2



SOLUTIONS & SUPPORT

By choosing Seco, you get more than just a comprehensive portfolio of advanced metal-cutting solutions and expert services. You get a partnership based on trust, respect and communication and a team that is always ready to help you gain the competitive advantage.

Globally headquartered in Fagersta, Sweden and present in more than 50 countries, Seco develops cutting tools, processes and services for high productivity and profitability. Our team of over 5,000 dedicated employees maintains partnerships around the world to identify and overcome the challenges faced by today's manufacturers.

Our broad selection of milling, turning, holmaking and toolholding solutions include over 30,000 standard products, custom items for special applications and a team of metal-cutting experts who help customers identify and implement cost-effective solutions.

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Milling
Solid end mills
Turning
Threading
Holemaking
Tooling

* SMG = Seco Material Group

R217/220.69-10 – Insert selection

SMG		a_p	f_z		
			100%	30%	10%
P1	XOMX10T308TR-ME07 F40M	4,5	0,11	0,12	0,19
P2	XOMX10T308TR-ME07 F40M	4,5	0,12	0,13	0,19
P3	XOMX10T308TR-ME07 MP2500	4,5	0,11	0,12	0,18
P4	XOMX10T308TR-ME07 MP2500	4,5	0,11	0,12	0,18
P5	XOMX10T308TR-M09 MP2500	4,5	0,12	0,13	0,20
P6	XOMX10T308TR-M09 MP2500	4,5	0,12	0,13	0,20
P7	XOMX10T308TR-M09 MP2500	4,5	0,12	0,13	0,20
P8	XOMX10T308TR-M09 MP2500	4,5	0,12	0,13	0,20
P11	XOMX10T308TR-M09 T350M	4,5	0,12	0,13	0,20
M1	XOEX10T308R-M06 F40M	4,5	0,085	0,095	0,15
M2	XOEX10T308R-M06 F40M	4,5	0,080	0,085	0,13
M3	XOEX10T308R-M06 F40M	3,5	0,065	0,070	0,11
M4	XOEX10T308R-M06 T350M	2,5	0,055	0,065	0,095
M5	XOEX10T308R-M06 T350M	2,5	0,055	0,065	0,095
K1	XOMX10T308TR-M09 MK2050	4,5	0,13	0,14	0,22
K2	XOMX10T308TR-M09 MK2050	4,5	0,12	0,13	0,20
K3	XOMX10T308TR-M09 MK2050	4,5	0,12	0,13	0,20
K4	XOMX10T308TR-M09 MK2050	4,5	0,12	0,13	0,20
K5	XOMX10T308TR-M09 MK2050	4,5	0,11	0,12	0,18
K6	XOMX10T308TR-M09 MK2050	4,5	0,12	0,13	0,20
K7	XOMX10T308TR-M09 MK2050	4,5	0,11	0,12	0,18
N1	XOEX10T308FR-E05 H15	4,5	0,11	0,12	0,19
N2	XOEX10T308FR-E05 H15	4,5	0,11	0,12	0,19
N3	XOEX10T308FR-E05 H15	4,5	0,11	0,12	0,19
N11	XOEX10T308FR-E05 H15	4,5	0,11	0,12	0,19
S1	XOEX10T308R-M06 T350M	2,5	0,055	0,065	0,095
S2	XOEX10T308R-M06 T350M	2,5	0,055	0,065	0,095
S3	XOEX10T308R-M06 T350M	2,5	0,055	0,060	0,090
S11	XOEX10T308R-M06 MS2050	3,0	0,065	0,070	0,11
S12	XOEX10T308R-M06 MS2050	3,0	0,065	0,070	0,11
S13	XOEX10T308R-M06 MS2050	2,5	0,055	0,065	0,095
H5	XOMX10T304TR-M09 MP1500	3,5	0,080	0,085	0,13
H8	XOMX10T308TR-M09 MP3000	3,0	0,065	0,070	0,11
H11	XOMX10T304TR-M09 MP1500	3,5	0,080	0,085	0,13
H12	XOMX10T304TR-M09 MP1500	3,5	0,080	0,085	0,13

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_p/D_c = %

All cutting data are start values

Square shoulder and slot milling cutters



R217/220.69-10 – Cutting data $v_c =$ (m/min)

SMG	MP1020			MP1500			MP2500			MP3000			T350M			F40M		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	360	435	465	370	495	570	330	435	510	310	415	480	285	380	445	250	330	385
P2	355	420	450	355	470	560	310	415	495	295	395	470	270	365	430	235	315	375
P3	320	375	400	310	415	490	275	365	435	260	345	410	240	320	375	210	275	330
P4	280	330	350	275	365	430	240	320	380	230	305	360	210	280	330	185	245	290
P5	270	315	335	270	355	410	235	315	365	225	300	345	205	275	315	180	240	275
P6	300	355	375	300	400	470	265	355	415	250	335	390	230	310	360	200	270	315
P7	285	335	355	285	375	440	250	335	390	240	315	370	220	290	340	190	255	295
P8	270	315	335	260	345	410	230	310	365	220	290	345	200	270	315	175	235	275
P11	275	325	345	275	365	430	245	325	380	230	305	360	215	280	330	185	245	290
M1	—	—	—	—	—	—	225	300	360	220	295	350	210	280	335	190	255	305
M2	—	—	—	—	—	—	190	255	295	190	250	290	180	235	275	160	215	250
M3	—	—	—	—	—	—	150	200	235	150	200	235	140	190	220	130	170	200
M4	—	—	—	—	—	—	115	160	185	115	155	180	110	150	170	100	135	155
M5	—	—	—	—	—	—	100	135	155	95	130	150	90	125	145	85	110	130
K1	—	—	—	280	375	445	245	330	395	235	315	370	215	290	345	185	250	300
K2	—	—	—	255	335	390	225	300	345	215	285	325	195	260	300	170	225	260
K3	—	—	—	215	285	330	190	255	290	180	240	275	165	220	255	145	190	220
K4	—	—	—	205	270	315	180	240	280	170	230	265	160	210	245	140	185	210
K5	—	—	—	125	165	195	110	145	170	105	140	160	95	130	150	85	110	130
K6	—	—	—	180	240	275	160	215	245	150	200	235	140	185	215	120	160	185
K7	—	—	—	160	210	245	140	190	220	135	180	205	120	165	190	105	145	165
N1	—	—	—	—	—	—	920	1225	1450	870	1175	1375	—	—	—	700	930	1100
N2	—	—	—	—	—	—	740	1000	1175	700	940	1125	—	—	—	560	760	890
N3	—	—	—	—	—	—	495	660	790	470	630	750	—	—	—	375	500	600
N11	—	—	—	—	—	—	570	760	900	540	720	850	—	—	—	430	580	680
S1	—	—	—	—	—	—	55	75	90	55	75	85	50	70	80	46	65	75
S2	—	—	—	—	—	—	46	60	70	43	60	70	41	55	65	37	50	60
S3	—	—	—	—	—	—	40	55	65	38	50	60	36	49	55	33	44	50
S11	—	—	—	—	—	—	80	105	125	75	100	120	70	95	110	65	85	100
S12	—	—	—	—	—	—	46	60	70	43	60	70	41	55	65	37	50	60
S13	—	—	—	—	—	—	37	50	60	35	47	55	33	45	50	30	41	47
H5	—	—	—	60	75	90	47	60	75	46	60	70	45	60	70	39	50	60
H8	—	—	—	60	80	95	50	65	75	48	65	75	48	65	75	41	55	65
H11	—	—	—	75	100	115	60	80	95	60	80	90	60	75	90	50	65	80
H12	—	—	—	120	160	185	100	130	150	95	125	145	95	125	145	80	105	125
H21	—	—	—	60	80	95	50	65	75	48	65	75	48	65	75	41	55	65

R217/220.69-10 – Cutting data $v_c =$ (m/min)

SMG	MK1500			MK2050			MM4500			MS2050			MS2500			H15		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	295	395	460	200	270	315	250	285	300	365	480	570	—	—	—
P2	—	—	—	285	385	450	190	255	305	245	280	290	355	470	560	—	—	—
P3	—	—	—	250	335	395	170	225	265	205	235	250	310	410	480	—	—	—
P4	—	—	—	220	295	350	150	200	235	180	205	210	275	360	430	—	—	—
P5	—	—	—	210	285	335	145	195	225	175	190	200	260	350	410	—	—	—
P6	—	—	—	240	320	375	165	215	255	195	215	225	295	390	460	—	—	—
P7	—	—	—	225	300	350	155	205	240	185	200	215	275	370	435	—	—	—
P8	—	—	—	210	285	335	140	190	225	175	195	210	260	345	400	—	—	—
P11	—	—	—	220	290	340	150	200	235	180	195	205	270	360	420	—	—	—
M1	—	—	—	—	—	—	165	220	260	215	245	255	255	335	400	—	—	—
M2	—	—	—	—	—	—	140	185	215	170	185	195	210	280	325	—	—	—
M3	—	—	—	—	—	—	110	145	175	115	120	130	165	225	260	—	—	—
M4	—	—	—	—	—	—	85	115	135	80	80	80	130	175	200	—	—	—
M5	—	—	—	—	—	—	70	95	110	65	65	70	110	145	170	—	—	—
K1	325	435	510	310	415	485	—	—	—	250	280	295	280	370	440	—	—	—
K2	290	385	455	275	365	430	—	—	—	210	230	245	250	330	390	—	—	—
K3	245	325	385	230	310	365	—	—	—	180	195	205	210	280	330	—	—	—
K4	235	310	365	220	295	345	—	—	—	170	185	195	200	265	315	—	—	—
K5	145	190	225	135	180	210	—	—	—	95	105	110	125	160	190	—	—	—
K6	205	275	325	195	260	305	—	—	—	150	165	175	175	235	275	—	—	—
K7	180	245	285	175	230	270	—	—	—	120	135	140	155	205	245	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	720	950	1125
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	580	770	910
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	385	510	610
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	440	590	690
S1	—	—	—	—	—	—	26	36	41	55	70	80	65	85	100	—	—	—
S2	—	—	—	—	—	—	21	29	33	45	55	65	50	70	80	—	—	—
S3	—	—	—	—	—	—	19	25	29	40	50	55	45	60	70	—	—	—
S11	—	—	—	—	—	—	37	49	55	75	95	105	90	120	135	—	—	—
S12	—	—	—	—	—	—	28	38	44	60	75	80	50	70	80	—	—	—
S13	—	—	—	—	—	—	23	31	35	48	60	65	41	55	65	—	—	—
H5	—	—	—	—	—	—	—	—	—	—	—	—	50	70	80	—	—	—
H8	—	—	—	—	—	—	—	—	—	—	—	—	55	70	85	—	—	—
H11	—	—	—	—	—	—	—	—	—	—	—	—	65	90	100	—	—	—
H12	—	—	—	—	—	—	—	—	—	—	—	—	105	140	165	—	—	—

R217/220.69-12 – Insert selection

SMG		a_p	f_z		
			100%	30%	10%
P1	XOMX120408TR-ME08 F40M	5,0	0,14	0,16	0,24
P2	XOMX120408TR-ME08 F40M	5,0	0,14	0,16	0,24
P3	XOMX120408TR-ME08 MP2500	5,0	0,14	0,15	0,22
P4	XOMX120408TR-ME08 MP2500	5,0	0,13	0,15	0,22
P5	XOMX120408TR-M12 MP2500	5,0	0,16	0,17	0,26
P6	XOMX120408TR-M12 MP2500	5,0	0,16	0,17	0,26
P7	XOMX120408TR-M12 MP2500	5,0	0,16	0,17	0,26
P8	XOMX120408TR-M12 MP2500	5,0	0,16	0,18	0,28
P11	XOMX120408TR-M12 T350M	5,0	0,16	0,17	0,26
M1	XOEX120408R-M07 F40M	5,0	0,12	0,13	0,19
M2	XOEX120408R-M07 F40M	5,0	0,11	0,11	0,18
M3	XOEX120408R-M07 F40M	4,5	0,085	0,090	0,14
M4	XOEX120408R-M07 T350M	3,0	0,075	0,080	0,13
M5	XOEX120408R-M07 T350M	3,0	0,075	0,080	0,13
K1	XOMX120408TR-M12 MK2050	5,0	0,17	0,19	0,30
K2	XOMX120408TR-M12 MK2050	5,0	0,16	0,17	0,26
K3	XOMX120408TR-M12 MK2050	5,0	0,16	0,17	0,26
K4	XOMX120408TR-M12 MK2050	5,0	0,16	0,17	0,26
K5	XOMX120408TR-MD13 MK2050	5,0	0,15	0,17	0,26
K6	XOMX120408TR-MD13 MK2050	5,0	0,17	0,19	0,28
K7	XOMX120408TR-MD13 MK2050	5,0	0,15	0,17	0,26
N1	XOEX120408FR-E06 H15	5,0	0,13	0,14	0,22
N2	XOEX120408FR-E06 H15	5,0	0,13	0,14	0,22
N3	XOEX120408FR-E06 H15	5,0	0,13	0,14	0,22
N11	XOEX120408FR-E06 H15	5,0	0,13	0,14	0,22
S1	XOEX120408R-M07 T350M	3,0	0,075	0,080	0,13
S2	XOEX120408R-M07 T350M	3,0	0,075	0,080	0,13
S3	XOEX120408R-M07 T350M	3,0	0,070	0,075	0,12
S11	XOEX120408R-M07 MS2050	4,0	0,085	0,095	0,14
S12	XOEX120408R-M07 MS2050	4,0	0,085	0,095	0,14
S13	XOEX120408R-M07 MS2050	3,0	0,075	0,080	0,13
H5	XOMX120408TR-MD13 MP1500	4,5	0,12	0,13	0,20
H8	XOMX120408TR-MD13 MP2500	4,0	0,090	0,10	0,15
H11	XOMX120408TR-MD13 MP3000	4,5	0,12	0,13	0,20
H12	XOMX120408TR-MD13 MP1500	4,5	0,12	0,13	0,20
H21	XOMX120408TR-D14 MP1500	4,0	0,095	0,11	0,16

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_p/D_c = %

All cutting data are start values

Square shoulder and slot milling cutters



R217/220.69-12 – Cutting data $v_c =$ (m/min)

SMG	MP1020			MP1500			MP2500			MP3000			T350M			F40M		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	400	460	490	295	390	465	295	395	460	300	400	465	260	345	405	225	300	350
P2	375	440	475	285	380	455	290	380	450	285	380	455	250	330	395	220	290	340
P3	335	385	415	250	330	390	250	335	395	250	335	395	215	290	345	190	250	300
P4	295	340	365	220	295	350	225	295	350	220	295	350	195	255	305	170	220	265
P5	295	330	350	210	285	335	215	285	335	215	290	340	185	250	290	160	215	255
P6	330	370	390	235	320	375	240	320	375	245	325	380	210	280	325	180	245	285
P7	310	350	370	225	300	355	225	300	355	230	305	360	195	265	310	170	230	270
P8	285	325	345	210	280	330	210	280	335	210	280	335	180	245	290	160	210	255
P11	305	340	360	215	290	345	220	295	345	225	295	350	190	255	300	165	220	260
M1	—	—	—	—	—	—	210	275	325	215	285	340	195	255	305	175	230	275
M2	—	—	—	—	—	—	170	230	270	180	240	280	160	215	250	145	195	230
M3	—	—	—	—	—	—	140	185	220	145	195	225	130	170	205	120	155	185
M4	—	—	—	—	—	—	110	145	170	110	150	175	100	135	160	90	125	145
M5	—	—	—	—	—	—	90	120	140	95	125	145	85	115	130	75	105	120
K1	—	—	—	225	300	360	230	300	355	225	300	360	200	260	310	175	230	270
K2	—	—	—	200	270	320	200	270	315	205	275	320	175	235	275	155	205	240
K3	—	—	—	170	230	270	170	230	270	175	230	270	150	200	235	130	175	205
K4	—	—	—	160	220	255	165	220	255	165	220	260	140	190	225	125	165	195
K5	—	—	—	100	135	155	100	135	155	100	135	155	85	115	135	75	100	120
K6	—	—	—	145	190	225	145	195	225	145	195	230	125	170	195	110	145	170
K7	—	—	—	130	170	200	125	170	200	130	170	200	110	150	175	95	130	150
N1	—	—	—	—	—	—	840	1125	1325	840	1125	1325	—	—	—	640	840	1000
N2	—	—	—	—	—	—	680	900	1075	680	910	1075	—	—	—	510	680	810
N3	—	—	—	—	—	—	450	600	710	450	610	720	—	—	—	340	455	540
N11	—	—	—	—	—	—	520	690	820	520	690	820	—	—	—	390	520	620
S1	—	—	—	—	—	—	55	70	80	50	70	80	47	65	75	43	60	65
S2	—	—	—	—	—	—	42	55	65	42	55	65	38	50	60	35	46	55
S3	—	—	—	—	—	—	37	50	60	37	49	60	33	44	50	30	40	47
S11	—	—	—	—	—	—	75	95	115	75	100	115	65	85	105	60	80	95
S12	—	—	—	—	—	—	43	55	65	42	55	65	38	50	60	35	46	55
S13	—	—	—	—	—	—	34	46	55	34	45	55	30	41	48	28	37	43
H5	—	—	—	47	65	75	43	55	65	44	60	70	41	55	65	36	47	55
H8	—	—	—	50	70	80	46	60	70	47	60	75	44	60	70	38	50	60
H11	—	—	—	60	80	95	55	75	85	55	75	90	55	70	80	46	60	70
H12	—	—	—	95	130	155	90	120	140	90	120	140	85	115	135	75	100	115
H21	—	—	—	50	70	80	46	60	70	47	60	75	44	60	70	38	50	60

R217/220.69-12 – Cutting data $v_c =$ (m/min)

SMG	MK1500			MK2050			MM4500			MS2050			MS2500			H15		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	260	345	410	180	245	285	270	320	350	345	460	540	—	—	—
P2	—	—	—	250	335	390	175	235	275	265	315	340	330	440	520	—	—	—
P3	—	—	—	215	295	345	150	205	245	225	265	290	290	385	455	—	—	—
P4	—	—	—	195	260	300	135	180	215	200	235	255	255	340	400	—	—	—
P5	—	—	—	185	245	295	130	175	205	190	220	235	250	330	390	—	—	—
P6	—	—	—	210	280	330	145	195	230	210	245	265	280	370	435	—	—	—
P7	—	—	—	195	265	310	140	185	215	200	230	250	265	350	410	—	—	—
P8	—	—	—	185	245	290	130	170	205	190	225	240	245	325	385	—	—	—
P11	—	—	—	190	260	305	135	180	210	195	225	245	255	340	400	—	—	—
M1	—	—	—	—	—	—	150	200	235	230	275	300	235	315	375	—	—	—
M2	—	—	—	—	—	—	125	170	195	185	215	230	200	265	310	—	—	—
M3	—	—	—	—	—	—	105	135	160	135	150	160	160	215	250	—	—	—
M4	—	—	—	—	—	—	80	105	125	95	105	110	125	165	195	—	—	—
M5	—	—	—	—	—	—	65	90	105	80	85	90	100	140	160	—	—	—
K1	285	385	445	270	365	420	—	—	—	265	320	345	260	350	415	—	—	—
K2	255	335	400	240	320	380	—	—	—	230	265	285	235	315	370	—	—	—
K3	215	285	340	205	270	320	—	—	—	195	225	245	200	265	315	—	—	—
K4	205	270	325	195	260	310	—	—	—	185	215	230	190	255	300	—	—	—
K5	125	165	200	120	160	185	—	—	—	110	125	135	115	155	180	—	—	—
K6	180	240	285	170	225	270	—	—	—	165	190	205	170	225	265	—	—	—
K7	160	215	255	155	205	240	—	—	—	140	160	170	150	200	230	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	700	930	1100
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	560	750	880
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	375	500	590
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	430	570	670
S1	—	—	—	—	—	—	24	33	38	49	65	75	60	80	95	—	—	—
S2	—	—	—	—	—	—	20	26	30	40	50	60	48	65	75	—	—	—
S3	—	—	—	—	—	—	17	23	27	35	46	50	42	55	65	—	—	—
S11	—	—	—	—	—	—	34	45	55	65	90	100	85	115	130	—	—	—
S12	—	—	—	—	—	—	26	34	41	50	70	75	49	65	75	—	—	—
S13	—	—	—	—	—	—	21	28	33	42	55	65	39	50	60	—	—	—
H5	—	—	—	—	—	—	—	—	—	—	—	—	49	65	75	—	—	—
H8	—	—	—	—	—	—	—	—	—	—	—	—	50	70	80	—	—	—
H11	—	—	—	—	—	—	—	—	—	—	—	—	65	85	100	—	—	—
H12	—	—	—	—	—	—	—	—	—	—	—	—	100	135	160	—	—	—
H21	—	—	—	—	—	—	—	—	—	—	—	—	50	70	80	—	—	—

R217/220.69-18 – Insert selection

SMG		a_p	f_z		
			100%	30%	10%
P1	XOMX180608TR-ME13 F40M	8,0	0,18	0,20	0,30
P2	XOMX180608TR-ME13 F40M	8,0	0,19	0,20	0,32
P3	XOMX180608TR-M14 MP2500	8,0	0,19	0,20	0,32
P4	XOMX180608TR-M14 MP2500	8,0	0,19	0,20	0,32
P5	XOMX180608TR-M14 MP2500	8,0	0,18	0,20	0,30
P6	XOMX180608TR-M14 MP2500	8,0	0,18	0,20	0,30
P7	XOMX180608TR-M14 MP2500	8,0	0,18	0,20	0,30
P8	XOMX180608TR-MD15 MP1500	8,0	0,20	0,22	0,34
P11	XOMX180608TR-M14 T350M	8,0	0,18	0,20	0,30
M1	XOMX180608TR-M14 F40M	8,0	0,20	0,22	0,34
M2	XOMX180608TR-M14 F40M	8,0	0,18	0,20	0,30
M3	XOMX180608TR-M14 F40M	7,0	0,15	0,16	0,24
M4	XOMX180608R-M10 T350M	5,0	0,090	0,10	0,15
M5	XOMX180608R-M10 T350M	5,0	0,090	0,10	0,15
K1	XOMX180608TR-M14 MK2050	8,0	0,20	0,22	0,34
K2	XOMX180608TR-M14 MK2050	8,0	0,18	0,20	0,30
K3	XOMX180608TR-M14 MK2050	8,0	0,18	0,20	0,30
K4	XOMX180608TR-M14 MK2050	8,0	0,18	0,20	0,30
K5	XOMX180608TR-M14 MK2050	8,0	0,16	0,18	0,28
K6	XOMX180608TR-M14 MK2050	8,0	0,18	0,20	0,30
K7	XOMX180608TR-M14 MK2050	8,0	0,16	0,18	0,28
N1	XOEX180608FR-E10 H25	8,0	0,18	0,20	0,30
N2	XOEX180608FR-E10 H25	8,0	0,18	0,20	0,30
N3	XOEX180608FR-E10 H25	8,0	0,18	0,20	0,30
N11	XOEX180608FR-E10 H25	8,0	0,18	0,20	0,30
S1	XOMX180608R-M10 T350M	5,0	0,090	0,10	0,15
S2	XOMX180608R-M10 T350M	5,0	0,090	0,10	0,15
S3	XOMX180608R-M10 T350M	5,0	0,085	0,095	0,14
S11	XOMX180608R-M10 MS2050	6,0	0,10	0,11	0,18
S12	XOMX180608R-M10 MS2050	6,0	0,10	0,11	0,18
S13	XOMX180608R-M10 MS2050	5,0	0,090	0,10	0,15
H5	XOMX180608TR-MD15 MP1500	7,0	0,13	0,15	0,22
H8	XOMX180608TR-MD15 MP2500	6,0	0,10	0,11	0,17
H11	XOMX180608TR-MD15 MP1500	7,0	0,13	0,15	0,22
H12	XOMX180608TR-MD15 MP1500	7,0	0,13	0,15	0,22

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_p/D_c = %

All cutting data are start values

Square shoulder and slot milling cutters



R217/220.69-18 – Cutting data $v_c =$ (m/min)

SMG	MP1020			MP1500			MP2500			MP3000			T350M			F40M		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	340	415	450	285	385	460	280	375	445	240	320	385	245	325	390	215	285	335
P2	330	390	435	280	375	440	270	365	425	235	315	370	235	320	370	205	275	325
P3	285	350	390	245	330	385	235	320	375	205	275	325	205	275	325	180	240	285
P4	265	305	345	215	290	340	210	280	335	180	245	285	185	245	290	160	210	255
P5	255	305	330	210	280	330	200	270	320	175	235	280	175	235	280	155	205	245
P6	285	340	370	235	310	370	225	305	360	195	260	310	200	265	315	170	230	275
P7	270	320	350	220	295	350	215	290	340	185	245	295	185	250	295	160	220	255
P8	240	295	330	205	280	325	200	270	315	175	235	270	175	235	275	150	205	240
P11	260	315	340	215	285	340	210	280	330	180	240	285	180	245	285	160	210	250
M1	—	—	—	—	—	—	195	265	305	175	235	275	180	245	285	165	225	260
M2	—	—	—	—	—	—	165	215	260	145	195	230	150	200	240	140	185	220
M3	—	—	—	—	—	—	130	175	210	120	160	190	120	165	195	110	150	180
M4	—	—	—	—	—	—	105	140	160	90	125	145	95	130	150	85	120	135
M5	—	—	—	—	—	—	85	115	135	75	105	120	80	110	125	75	100	115
K1	—	—	—	220	295	350	215	290	335	185	250	295	185	250	295	160	220	255
K2	—	—	—	200	265	315	190	255	305	165	220	265	165	220	265	145	195	230
K3	—	—	—	170	225	265	160	215	255	140	185	225	140	185	225	125	165	195
K4	—	—	—	160	215	255	155	205	245	135	180	215	135	180	215	115	155	185
K5	—	—	—	100	130	155	95	125	150	85	110	130	85	110	130	75	95	115
K6	—	—	—	140	190	225	135	180	215	120	155	190	120	160	190	105	135	165
K7	—	—	—	125	170	195	125	160	190	105	140	165	105	140	165	95	120	145
N1	—	—	—	—	—	—	780	1050	1250	670	910	1075	—	—	—	590	800	940
N2	—	—	—	—	—	—	630	850	1000	540	730	870	—	—	—	480	640	760
N3	—	—	—	—	—	—	420	570	670	365	490	580	—	—	—	320	430	510
N11	—	—	—	—	—	—	480	650	770	415	560	670	—	—	—	365	490	580
S1	—	—	—	—	—	—	50	70	80	43	60	70	45	60	70	41	55	65
S2	—	—	—	—	—	—	40	55	65	35	47	55	36	49	55	33	44	50
S3	—	—	—	—	—	—	36	48	55	31	41	48	32	43	50	29	39	46
S11	—	—	—	—	—	—	70	95	110	60	80	95	60	85	100	55	75	90
S12	—	—	—	—	—	—	40	55	65	34	47	55	36	48	55	32	44	50
S13	—	—	—	—	—	—	32	44	50	28	38	44	29	39	45	26	35	41
H5	—	—	—	47	60	75	41	55	65	37	49	60	39	50	60	34	45	55
H8	—	—	—	50	70	80	44	60	70	40	55	60	42	55	65	37	49	55
H11	—	—	—	60	80	95	50	70	85	48	60	75	50	65	80	44	60	70
H12	—	—	—	100	130	155	85	115	135	75	100	120	80	110	130	70	95	110
H21	—	—	—	50	70	80	44	60	70	40	55	60	42	55	65	37	49	55

R217/220.69-18 – Cutting data $v_c =$ (m/min)

SMG	MK1500			MK2050			MM4500			MS2050			H25		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	250	335	400	175	230	275	265	325	365	—	—	—
P2	—	—	—	245	325	385	165	225	260	260	315	355	—	—	—
P3	—	—	—	215	290	335	145	195	230	225	275	305	—	—	—
P4	—	—	—	190	255	295	130	170	205	200	240	265	—	—	—
P5	—	—	—	185	245	290	125	165	195	190	230	255	—	—	—
P6	—	—	—	205	270	325	140	190	220	215	260	285	—	—	—
P7	—	—	—	195	255	305	130	175	210	200	245	270	—	—	—
P8	—	—	—	180	245	285	120	165	195	190	230	255	—	—	—
P11	—	—	—	190	250	295	130	170	200	195	235	260	—	—	—
M1	—	—	—	—	—	—	140	190	225	225	275	310	—	—	—
M2	—	—	—	—	—	—	120	160	190	185	225	250	—	—	—
M3	—	—	—	—	—	—	95	130	155	140	165	180	—	—	—
M4	—	—	—	—	—	—	75	100	120	105	120	125	—	—	—
M5	—	—	—	—	—	—	65	85	100	85	100	105	—	—	—
K1	280	370	440	265	350	415	—	—	—	260	320	355	—	—	—
K2	250	330	395	235	315	375	—	—	—	230	280	310	—	—	—
K3	210	280	335	200	265	315	—	—	—	195	235	260	—	—	—
K4	200	265	320	190	255	300	—	—	—	185	225	250	—	—	—
K5	125	165	195	120	155	185	—	—	—	110	135	145	—	—	—
K6	175	235	280	170	225	265	—	—	—	165	200	220	—	—	—
K7	160	210	250	150	200	235	—	—	—	140	170	185	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	640	840	1000
N2	—	—	—	—	—	—	—	—	—	—	—	—	510	680	810
N3	—	—	—	—	—	—	—	—	—	—	—	—	340	455	540
N11	—	—	—	—	—	—	—	—	—	—	—	—	390	520	620
S1	—	—	—	—	—	—	23	31	36	44	55	65	—	—	—
S2	—	—	—	—	—	—	19	25	29	35	46	55	—	—	—
S3	—	—	—	—	—	—	16	22	26	31	41	47	—	—	—
S11	—	—	—	—	—	—	32	43	50	60	80	90	—	—	—
S12	—	—	—	—	—	—	24	33	39	45	60	70	—	—	—
S13	—	—	—	—	—	—	20	27	31	38	50	55	—	—	—
H5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

R217/220.96-08 – Insert selection

SMG		a_p	f_z		
			100%	30%	10%
P1	XNEX080608TR-ME09 F40M	3,5	0,13	0,14	0,22
P2	XNEX080608TR-ME09 F40M	3,5	0,13	0,14	0,22
P3	XNEX080608TR-M13 MP2500	3,5	0,18	0,20	0,30
P4	XNEX080608TR-M13 MP2500	3,5	0,18	0,19	0,30
P5	XNEX080608TR-M13 MP2500	3,5	0,17	0,19	0,30
P6	XNEX080608TR-M13 MP2500	3,5	0,17	0,19	0,28
P7	XNEX080608TR-M13 MP2500	3,5	0,17	0,19	0,28
P8	XNEX080608TR-M13 MP2500	3,5	0,18	0,20	0,30
P11	XNEX080608TR-M13 T350M	3,5	0,17	0,19	0,28
M1	XNEX080608R-M08 F40M	3,5	0,12	0,13	0,20
M2	XNEX080608R-M08 F40M	3,5	0,11	0,12	0,18
M3	XNEX080608R-M08 F40M	3,0	0,085	0,095	0,14
M4	XNEX080608R-M08 T350M	2,0	0,080	0,085	0,13
M5	XNEX080608R-M08 T350M	2,0	0,080	0,085	0,13
K1	XNEX080608TR-M13 MK2050	3,5	0,19	0,20	0,32
K2	XNEX080608TR-M13 MK2050	3,5	0,17	0,19	0,30
K3	XNEX080608TR-M13 MK2050	3,5	0,17	0,19	0,30
K4	XNEX080608TR-M13 MK2050	3,5	0,17	0,19	0,30
K5	XNEX080608TR-M13 MK2050	3,5	0,16	0,17	0,26
K6	XNEX080608TR-M13 MK2050	3,5	0,17	0,19	0,30
K7	XNEX080608TR-M13 MK2050	3,5	0,16	0,17	0,26
N1	XNEX080608R-M08 H25	3,5	0,15	0,16	0,24
N2	XNEX080608R-M08 H25	3,5	0,15	0,16	0,24
N3	XNEX080608R-M08 H25	3,5	0,15	0,16	0,24
N11	XNEX080608R-M08 H25	3,5	0,15	0,16	0,24
S1	XNEX080608R-M08 T350M	2,0	0,080	0,085	0,13
S2	XNEX080608R-M08 T350M	2,0	0,080	0,085	0,13
S3	XNEX080608R-M08 T350M	2,0	0,075	0,080	0,12
S11	XNEX080608R-M08 MS2050	2,5	0,085	0,095	0,15
S12	XNEX080608R-M08 MS2050	2,5	0,085	0,095	0,15
S13	XNEX080608R-M08 MS2050	2,0	0,080	0,085	0,13
H5	XNEX080608TR-M13 MP1500	3,0	0,12	0,13	0,20
H8	XNEX080608TR-M13 MP2500	2,5	0,090	0,10	0,15
H11	XNEX080608TR-M13 MP1500	3,0	0,12	0,13	0,20
H12	XNEX080608TR-M13 MP1500	3,0	0,12	0,13	0,20

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_g/D_c = %

All cutting data are start values

Square shoulder and slot milling cutters



R217/220.96-08 – Cutting data $v_c =$ (m/min)

SMG	MP1020			MP1500			MP2500			MP3000			T350M			F40M		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	265	355	380	345	460	540	305	405	475	290	385	450	265	355	415	230	305	360
P2	260	320	370	335	445	520	295	395	465	280	375	440	260	345	405	225	300	350
P3	235	295	335	295	385	460	260	340	410	245	320	385	225	295	355	195	260	310
P4	210	260	295	260	345	405	230	305	360	215	290	340	200	265	315	175	230	270
P5	210	260	280	245	330	385	220	290	345	205	275	325	190	255	300	165	220	260
P6	235	290	330	275	370	435	245	325	385	235	310	365	215	285	335	185	250	290
P7	225	275	310	260	350	410	230	310	365	220	295	345	200	270	315	175	235	275
P8	200	250	280	245	325	385	220	285	345	205	270	325	190	250	300	165	215	260
P11	215	265	300	255	340	400	225	300	355	215	285	335	195	260	310	170	225	270
M1	—	—	—	—	—	—	215	285	335	210	280	330	200	265	310	180	240	285
M2	—	—	—	—	—	—	175	235	275	175	230	270	165	220	255	150	200	235
M3	—	—	—	—	—	—	145	190	220	140	185	220	135	175	205	120	160	190
M4	—	—	—	—	—	—	110	145	170	110	145	170	105	135	160	95	125	145
M5	—	—	—	—	—	—	90	120	145	90	120	140	85	115	135	80	105	120
K1	—	—	—	265	355	415	235	315	365	220	295	345	205	275	320	180	235	280
K2	—	—	—	235	310	370	210	275	325	195	260	310	180	240	285	155	210	245
K3	—	—	—	200	265	310	175	235	275	165	220	260	155	205	240	135	175	210
K4	—	—	—	190	250	295	170	225	265	160	210	250	145	195	230	125	170	200
K5	—	—	—	115	155	180	100	135	160	95	130	150	90	120	140	75	105	120
K6	—	—	—	165	220	260	150	195	230	140	185	220	130	170	200	110	150	175
K7	—	—	—	150	195	230	130	175	205	125	165	195	115	150	180	100	130	155
N1	—	—	—	—	—	—	860	1150	1350	810	1100	1275	—	—	—	650	870	1025
N2	—	—	—	—	—	—	690	930	1100	660	880	1050	—	—	—	520	710	830
N3	—	—	—	—	—	—	460	620	730	435	590	690	—	—	—	350	470	550
N11	—	—	—	—	—	—	530	710	840	500	670	790	—	—	—	400	540	630
S1	—	—	—	—	—	—	55	70	85	50	65	80	48	65	75	44	60	70
S2	—	—	—	—	—	—	43	60	65	41	55	65	39	50	60	35	47	55
S3	—	—	—	—	—	—	38	50	60	36	48	55	34	46	55	31	41	48
S11	—	—	—	—	—	—	75	100	115	70	95	110	65	90	105	60	80	95
S12	—	—	—	—	—	—	43	55	70	41	55	65	39	50	60	35	47	55
S13	—	—	—	—	—	—	35	46	55	33	44	50	31	41	48	28	38	44
H5	—	—	—	55	70	85	44	60	70	43	55	70	42	55	65	37	49	60
H8	—	—	—	60	75	90	47	60	75	46	60	70	45	60	70	39	50	60
H11	—	—	—	70	95	110	55	75	90	55	75	85	55	70	85	47	60	75
H12	—	—	—	115	150	180	90	120	145	90	120	140	90	115	135	75	100	120

R217/220.96-08 – Cutting data $v_c =$ (m/min)

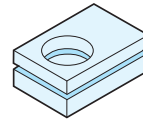
SMG	MK1500			MK2050			MM4500			MS2050			MS2500			H25		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	—	—	—	235	320	380	185	250	290	265	305	340	340	450	530	—	—	—
P2	—	—	—	230	310	370	180	245	285	260	305	330	325	430	510	—	—	—
P3	—	—	—	205	275	325	160	210	250	220	255	280	285	380	450	—	—	—
P4	—	—	—	180	240	285	140	185	220	195	225	245	250	335	395	—	—	—
P5	—	—	—	175	230	270	135	180	210	185	215	235	240	320	375	—	—	—
P6	—	—	—	195	260	310	150	200	235	205	235	255	275	365	430	—	—	—
P7	—	—	—	185	245	295	140	190	225	195	225	245	260	345	405	—	—	—
P8	—	—	—	175	230	270	135	175	210	185	215	235	240	320	375	—	—	—
P11	—	—	—	180	235	285	140	185	215	190	215	235	255	335	395	—	—	—
M1	—	—	—	—	—	—	155	210	245	225	265	290	230	310	370	—	—	—
M2	—	—	—	—	—	—	130	170	200	180	210	230	190	255	300	—	—	—
M3	—	—	—	—	—	—	105	135	165	130	145	155	155	205	245	—	—	—
M4	—	—	—	—	—	—	80	105	125	95	100	105	120	160	190	—	—	—
M5	—	—	—	—	—	—	65	90	105	80	85	85	100	135	160	—	—	—
K1	265	355	420	250	335	400	—	—	—	260	305	335	255	340	405	—	—	—
K2	235	315	370	225	300	350	—	—	—	225	260	285	225	300	360	—	—	—
K3	200	265	315	190	250	295	—	—	—	190	220	240	190	255	305	—	—	—
K4	190	255	300	180	240	285	—	—	—	180	210	230	185	245	290	—	—	—
K5	115	155	185	110	145	175	—	—	—	105	120	130	115	150	175	—	—	—
K6	170	225	265	160	210	250	—	—	—	160	185	200	160	215	255	—	—	—
K7	150	200	235	140	190	225	—	—	—	135	150	165	145	195	225	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	630	840	1000
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	510	680	810
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	340	455	540
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	385	520	610
S1	—	—	—	—	—	—	25	33	38	49	65	70	60	80	90	—	—	—
S2	—	—	—	—	—	—	20	26	31	39	50	60	47	65	75	—	—	—
S3	—	—	—	—	—	—	18	23	27	35	45	50	42	55	65	—	—	—
S11	—	—	—	—	—	—	35	46	55	65	85	100	85	110	130	—	—	—
S12	—	—	—	—	—	—	27	35	41	50	65	75	48	65	75	—	—	—
S13	—	—	—	—	—	—	21	28	33	42	55	60	38	50	60	—	—	—
H5	—	—	—	—	—	—	—	—	—	—	—	—	48	65	75	—	—	—
H8	—	—	—	—	—	—	—	—	—	—	—	—	50	70	80	—	—	—
H11	—	—	—	—	—	—	—	—	—	—	—	—	60	80	95	—	—	—
H12	—	—	—	—	—	—	—	—	—	—	—	—	100	130	155	—	—	—

Disc Milling cutter 335.14

Disc milling cutter with exchangeable carbide head from diameter 9.7 mm



- A broad range of heads and shanks available for all your disc milling operation by circular interpolation or linear slotting.
- Strong, Reliable and precise connection between the head and the cutter body
- Cover all type of material with universal M geometry and F32M grade



- **Grooving:** head from dia 9.7 to 34.7 mm for bore with minimum dia 10mm
Width from 1 to 4 mm



- **Circlip groove:** head from dia 9.7 to 21.7 mm and width from 0.7 to 5.15 mm



- **Full radius profile:** head from dia 11.7 to 21.7 and width from 1 to 4 mm



- **Top & bottom Chamfering profile:** head from dia 11.7 to 21.7 and width from 1 to 4 mm

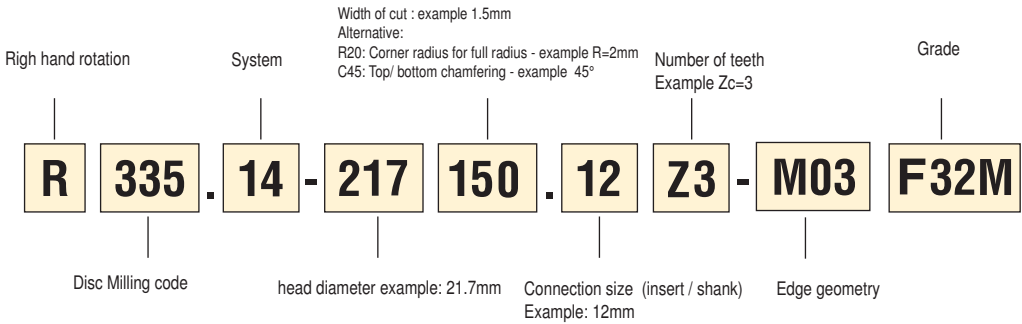


Disc Milling cutter 335.14

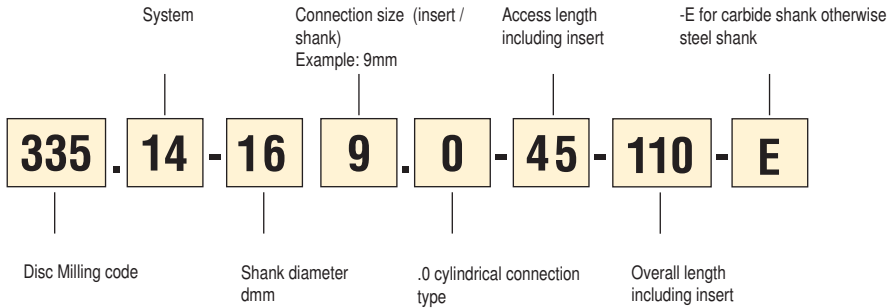


2 types of shanks available: cylindrical available both in steel and carbide, or ER collet chuck system

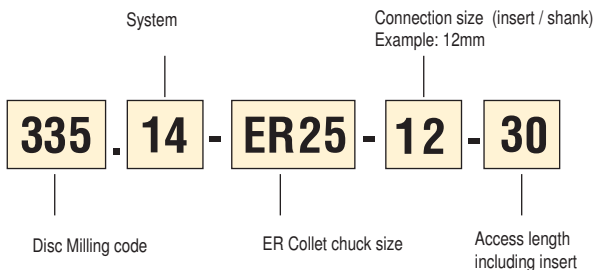
Code key insert



Code key cylindrical shank



Code key collet chuck

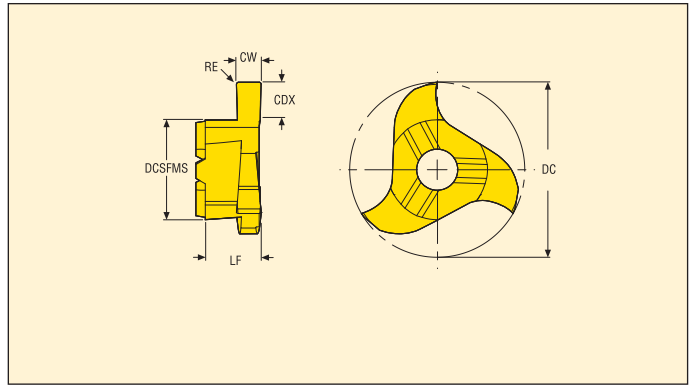


Selection – heads

		Cutter diameter in mm (min bore diameter in mm)											See page		
		9.7 (10)	11.7 (12)	13.7 (14)	17.7 (20)		21.7 (22)		27.7 (28)		34.7 (35)				
		Connection size DCSFMS in mm													
		6	6	8	9		12		14		14				
		Number of teeth ZEFP													
		ZEFP=3	ZEFP=6	ZEFP=3	ZEFP=3	ZEFP=3	ZEFP=6	ZEFP=3	ZEFP=6	ZEFP=3	ZEFP=6	ZEFP=6			
Grooving 	Width of cut in mm	1	x			x									16
		1,5	x			x	x		x	x	x	x	x		
		2	x			x	x		x	x	x	x	x		
		2,5	x			x	x		x	x	x	x	x		
		3					x		x	x	x	x	x		
		3,5									x				
		4							x	x	x	x			
*CDX (mm)=			1,5		2,5	3,5		4,5	6,5		10				
Circlips Groove 	Nominal width of cut in mm	0.7	x											17	
		0.8	x												
		0.9	x												
		1.10	x				x								
		1.30	x				x								
		1,6					x		x						
		1.85							x						
		2.15							x						
		2.65							x						
		3.15							x						
		4.15							x						
		5.15							x						
*CDX (mm)=			1,5			3,5		4,5							
Full radius 	Width of cut and (Radius) - mm	1 (R0.5)						x					18		
		2 (R1)						x							
		2.2 (R1.1)			x		x								
		3 (R1.5)							x						
		4 (R2)							x						
*CDX (mm)=				2,5		3,5		4,5							
Chamfering 	Width of cut in mm x angle°	1.2 x45°		x									19		
		2.2x45°						x							
		1.9x45°								x					

x Solution available - grade F32M

335.14 insert: general grooving



- Suitable shank, see page 15
- Cutting data, see pages 23 - 26
- Technical information, see page 27

Part No.	Dimensions in mm						ZEFP	Coated					
	CW	DC	CDX	DCSFMS	LF	RE		Grades					
								F32M					
R335.14-097100.06Z3-M01	1,0	9,7	1,5	6,0	3,35	0,1	3	■					
-097150.06Z3-M01	1,5	9,7	1,5	6,0	3,5	0,2	3	■					
-097200.06Z3-M01	2,0	9,7	1,5	6,0	3,5	0,2	3	■					
-097250.06Z3-M01	2,5	9,7	1,5	6,0	3,5	0,2	3	■					
R335.14-137100.08Z3-M01	1,0	13,7	2,5	8,0	4,35	0,1	3	■					
-137150.08Z3-M01	1,5	13,7	2,5	8,0	4,5	0,2	3	■					
-137200.08Z3-M01	2,0	13,7	2,5	8,0	4,5	0,2	3	■					
-137250.08Z3-M01	2,5	13,7	2,5	8,0	4,5	0,2	3	■					
R335.14-177150.09Z3-M02	1,5	17,7	3,5	9,0	5,75	0,2	3	■					
-177200.09Z3-M02	2,0	17,7	3,5	9,0	5,75	0,2	3	■					
-177250.09Z3-M02	2,5	17,7	3,5	9,0	5,75	0,2	3	■					
-177300.09Z3-M02	3,0	17,7	3,5	9,0	5,75	0,2	3	■					
R335.14-217150.12Z3-M03	1,5	21,7	4,5	12,0	5,7	0,2	3	■					
-217150.12Z6-M03	1,5	21,7	4,5	12,0	6,25	0,1	6	■					
-217200.12Z3-M03	2,0	21,7	4,5	12,0	5,7	0,2	3	■					
-217200.12Z6-M03	2,0	21,7	4,5	12,0	6,25	0,2	6	■					
-217250.12Z3-M03	2,5	21,7	4,5	12,0	5,7	0,2	3	■					
-217250.12Z6-M03	2,5	21,7	4,5	12,0	6,25	0,2	6	■					
-217300.12Z3-M03	3,0	21,7	4,5	12,0	5,7	0,2	3	■					
-217300.12Z6-M03	3,0	21,7	4,5	12,0	6,25	0,2	6	■					
-217400.12Z3-M03	4,0	21,7	4,5	12,0	5,7	0,2	3	■					
-217400.12Z6-M03	4,0	21,7	4,5	12,0	6,25	0,2	6	■					
R335.14-277150.14Z3-M03	1,5	27,7	6,5	14,0	6,5	0,2	3	■					
-277150.14Z6-M03	1,5	27,7	6,5	14,0	6,45	0,1	6	■					
-277200.14Z3-M03	2,0	27,7	6,5	14,0	6,5	0,2	3	■					
-277200.14Z6-M03	2,0	27,7	6,5	14,0	6,4	0,2	6	■					
-277250.14Z3-M03	2,5	27,7	6,5	14,0	6,5	0,2	3	■					
-277250.14Z6-M03	2,5	27,7	6,5	14,0	6,4	0,2	6	■					
-277300.14Z3-M03	3,0	27,7	6,5	14,0	6,5	0,2	3	■					
-277300.14Z6-M03	3,0	27,7	6,5	14,0	6,4	0,2	6	■					
-277350.14Z3-M03	3,5	27,7	6,5	14,0	6,5	0,2	3	■					
-277400.14Z3-M03	4,0	27,7	6,5	14,0	6,5	0,2	3	■					
-277400.14Z6-M03	4,0	27,7	6,5	14,0	6,4	0,2	6	■					
R335.14-347150.14Z6-M03	1,5	34,7	10,0	14,0	6,25	0,1	6	■					
-347200.14Z6-M03	2,0	34,7	10,0	14,0	6,25	0,2	6	■					
-347250.14Z6-M03	2,5	34,7	10,0	14,0	6,25	0,2	6	■					
-347300.14Z6-M03	3,0	34,7	10,0	14,0	6,25	0,2	6	■					

ZEFP = Effective number of teeth

Technical information

Locking screw / key

Connection size (DCSFWS)	Assembly screw	Key (T-handle)	Replaceable end	Torque value (Nm)
6	C92608-T08P	DOUBLE-T	H4B-T08P	2
8	C93510-T10P	DOUBLE-T	H6B-T10P	3,5
9	C94012-T15P	DOUBLE-T	H6B-T15P	5
12 & 14	C95012-T20P	DOUBLE-T	H6B-T20P	7

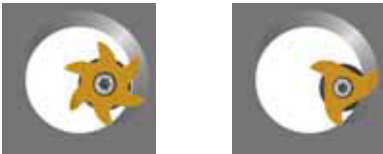
Recommendation for circular interpolation

To avoid vibration and insert damage when working with internal circular interpolation, we recommend a progressive entrance into the material. The circular arc angle for the progressive immersion should be between 45° and 180°

When calculating cutting datas for circular interpolation please be aware of the real radial depth of cut and the feed speed related to the centre of the cutter- See MN2015 page 668 for more info



Milling insert with 6 cutting edges



If vibrations appear when working with milling insert with 6 cutting edges please reduce the radial depth of cut to reduce the number of teeth into contact with the material, an alternative is to choose an insert with 3 cutting edges instead.

Holder recommendation

For best result in terms of stability, precision and reliability, it is recommended to use the following SECO-EPB holders

- High precision collet chucks EPB 5672
- Shrink fit Holder EPB 5603, EPB5600 and EPB 5801
- ER Collet chuck EPB5675

Please see SECO Tooling System catalogue for more information.



335.14 - Insert selection

SMG		f _z			
		25%	20%	10%	5%
P1	R335.14...-M01 F32M	0,028	0,030	0,040	0,055
P2	R335.14...-M01 F32M	0,030	0,033	0,043	0,060
P3	R335.14...-M01 F32M	0,028	0,030	0,040	0,055
P4	R335.14...-M01 F32M	0,028	0,030	0,040	0,055
P5	R335.14...-M01 F32M	0,028	0,028	0,038	0,055
P6	R335.14...-M01 F32M	0,025	0,028	0,038	0,050
P7	R335.14...-M01 F32M	0,025	0,028	0,038	0,050
P8	R335.14...-M01 F32M	0,028	0,030	0,040	0,055
P11	R335.14...-M01 F32M	0,025	0,028	0,038	0,050
M1	R335.14...-M01 F32M	0,030	0,033	0,043	0,060
M2	R335.14...-M01 F32M	0,028	0,028	0,038	0,055
M3	R335.14...-M01 F32M	0,021	0,023	0,030	0,043
M4	R335.14...-M01 F32M	0,019	0,020	0,028	0,038
M5	R335.14...-M01 F32M	0,019	0,020	0,028	0,038
K1	R335.14...-M01 F32M	0,030	0,033	0,043	0,060
K2	R335.14...-M01 F32M	0,028	0,028	0,038	0,055
K3	R335.14...-M01 F32M	0,028	0,028	0,038	0,055
K4	R335.14...-M01 F32M	0,028	0,028	0,038	0,055
K5	R335.14...-M01 F32M	0,024	0,025	0,035	0,048
K6	R335.14...-M01 F32M	0,028	0,028	0,038	0,055
K7	R335.14...-M01 F32M	0,024	0,025	0,035	0,048
N1	R335.14...-M01 F32M	0,038	0,040	0,055	0,075
N2	R335.14...-M01 F32M	0,038	0,040	0,055	0,075
N3	R335.14...-M01 F32M	0,038	0,040	0,055	0,075
N11	R335.14...-M01 F32M	0,038	0,040	0,055	0,075
S1	R335.14...-M01 F32M	0,019	0,020	0,028	0,038
S2	R335.14...-M01 F32M	0,019	0,020	0,028	0,038
S3	R335.14...-M01 F32M	0,018	0,019	0,025	0,035
S11	R335.14...-M01 F32M	0,021	0,023	0,030	0,043
S12	R335.14...-M01 F32M	0,021	0,023	0,030	0,043
S13	R335.14...-M01 F32M	0,019	0,020	0,028	0,038
H5	R335.14...-M01 F32M	0,018	0,020	0,025	0,035
H8	R335.14...-M01 F32M	0,014	0,015	0,020	0,028
H11	R335.14...-M01 F32M	0,018	0,020	0,025	0,035
H12	R335.14...-M01 F32M	0,018	0,020	0,025	0,035
H21	R335.14...-M01 F32M	0,014	0,015	0,020	0,028

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_e/D_c = %

All cutting data are start values

335.14 - Insert selection

SMG		f_z			
		25%	20%	10%	5%
P1	R335.14...-M02 F32M	0,044	0,048	0,064	0,088
P2	R335.14...-M02 F32M	0,048	0,052	0,068	0,096
P3	R335.14...-M02 F32M	0,044	0,048	0,064	0,088
P4	R335.14...-M02 F32M	0,044	0,048	0,064	0,088
P5	R335.14...-M02 F32M	0,044	0,044	0,060	0,088
P6	R335.14...-M02 F32M	0,040	0,044	0,060	0,080
P7	R335.14...-M02 F32M	0,040	0,044	0,060	0,080
P8	R335.14...-M02 F32M	0,044	0,048	0,064	0,088
P11	R335.14...-M02 F32M	0,040	0,044	0,060	0,080
M1	R335.14...-M02 F32M	0,048	0,052	0,068	0,096
M2	R335.14...-M02 F32M	0,044	0,044	0,060	0,088
M3	R335.14...-M02 F32M	0,034	0,036	0,048	0,068
M4	R335.14...-M02 F32M	0,030	0,032	0,044	0,060
M5	R335.14...-M02 F32M	0,030	0,032	0,044	0,060
K1	R335.14...-M02 F32M	0,048	0,052	0,068	0,096
K2	R335.14...-M02 F32M	0,044	0,044	0,060	0,088
K3	R335.14...-M02 F32M	0,044	0,044	0,060	0,088
K4	R335.14...-M02 F32M	0,044	0,044	0,060	0,088
K5	R335.14...-M02 F32M	0,038	0,040	0,056	0,076
K6	R335.14...-M02 F32M	0,044	0,044	0,060	0,088
K7	R335.14...-M02 F32M	0,038	0,040	0,056	0,076
N1	R335.14...-M02 F32M	0,060	0,064	0,088	0,120
N2	R335.14...-M02 F32M	0,060	0,064	0,088	0,120
N3	R335.14...-M02 F32M	0,060	0,064	0,088	0,120
N11	R335.14...-M02 F32M	0,060	0,064	0,088	0,120
S1	R335.14...-M02 F32M	0,030	0,032	0,044	0,060
S2	R335.14...-M02 F32M	0,030	0,032	0,044	0,060
S3	R335.14...-M02 F32M	0,028	0,030	0,040	0,056
S11	R335.14...-M02 F32M	0,034	0,036	0,048	0,068
S12	R335.14...-M02 F32M	0,034	0,036	0,048	0,068
S13	R335.14...-M02 F32M	0,030	0,032	0,044	0,060
H5	R335.14...-M02 F32M	0,028	0,032	0,040	0,056
H8	R335.14...-M02 F32M	0,022	0,024	0,032	0,044
H11	R335.14...-M02 F32M	0,028	0,032	0,040	0,056
H12	R335.14...-M02 F32M	0,028	0,032	0,040	0,056
H21	R335.14...-M02 F32M	0,022	0,024	0,032	0,044

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_e/D_c = %

All cutting data are start values

335.14 - Insert selection

SMG		f _z			
		25%	20%	10%	5%
P1	R335.14...-M03 F32M	0,069	0,075	0,10	0,14
P2	R335.14...-M03 F32M	0,075	0,081	0,11	0,15
P3	R335.14...-M03 F32M	0,069	0,075	0,10	0,14
P4	R335.14...-M03 F32M	0,069	0,075	0,10	0,14
P5	R335.14...-M03 F32M	0,069	0,069	0,094	0,14
P6	R335.14...-M03 F32M	0,063	0,069	0,094	0,13
P7	R335.14...-M03 F32M	0,063	0,069	0,094	0,13
P8	R335.14...-M03 F32M	0,069	0,075	0,10	0,14
P11	R335.14...-M03 F32M	0,063	0,069	0,094	0,13
M1	R335.14...-M03 F32M	0,075	0,081	0,11	0,15
M2	R335.14...-M03 F32M	0,069	0,069	0,094	0,14
M3	R335.14...-M03 F32M	0,053	0,056	0,075	0,11
M4	R335.14...-M03 F32M	0,047	0,050	0,069	0,094
M5	R335.14...-M03 F32M	0,047	0,050	0,069	0,094
K1	R335.14...-M03 F32M	0,075	0,081	0,11	0,15
K2	R335.14...-M03 F32M	0,069	0,069	0,094	0,14
K3	R335.14...-M03 F32M	0,069	0,069	0,094	0,14
K4	R335.14...-M03 F32M	0,069	0,069	0,094	0,14
K5	R335.14...-M03 F32M	0,059	0,063	0,088	0,12
K6	R335.14...-M03 F32M	0,069	0,069	0,094	0,14
K7	R335.14...-M03 F32M	0,059	0,063	0,088	0,12
N1	R335.14...-M03 F32M	0,094	0,10	0,14	0,19
N2	R335.14...-M03 F32M	0,094	0,10	0,14	0,19
N3	R335.14...-M03 F32M	0,094	0,10	0,14	0,19
N11	R335.14...-M03 F32M	0,094	0,10	0,14	0,19
S1	R335.14...-M03 F32M	0,047	0,050	0,069	0,094
S2	R335.14...-M03 F32M	0,047	0,050	0,069	0,094
S3	R335.14...-M03 F32M	0,044	0,047	0,063	0,088
S11	R335.14...-M03 F32M	0,053	0,056	0,075	0,11
S12	R335.14...-M03 F32M	0,053	0,056	0,075	0,11
S13	R335.14...-M03 F32M	0,047	0,050	0,069	0,094
H5	R335.14...-M03 F32M	0,044	0,050	0,063	0,088
H8	R335.14...-M03 F32M	0,034	0,038	0,050	0,069
H11	R335.14...-M03 F32M	0,044	0,050	0,063	0,088
H12	R335.14...-M03 F32M	0,044	0,050	0,063	0,088
H21	R335.14...-M03 F32M	0,034	0,038	0,050	0,069

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

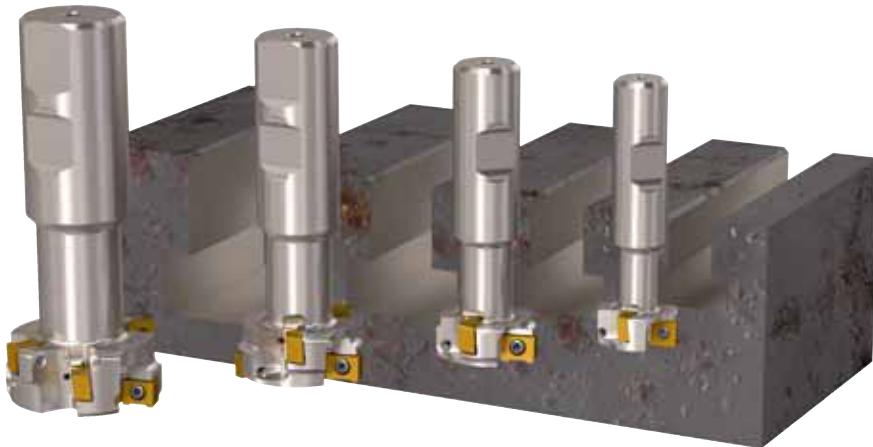
a_e/D_c = %

All cutting data are start values

335.14 - Cutting data $v_c =$ (m/min)

SMG	F32M			
	25%	20%	10%	5%
P1	235	240	270	295
P2	225	230	255	280
P3	195	205	225	245
P4	175	180	200	215
P5	165	175	190	205
P6	190	195	215	240
P7	180	185	205	225
P8	165	170	190	205
P11	175	180	195	220
M1	180	185	205	225
M2	150	155	170	185
M3	120	125	140	150
M4	95	95	105	115
M5	75	80	90	95
K1	175	185	205	220
K2	155	165	180	195
K3	130	140	155	165
K4	125	135	145	160
K5	80	80	90	100
K6	110	120	130	140
K7	100	105	115	125
N1	660	690	750	830
N2	530	550	610	670
N3	355	370	405	445
N11	405	420	465	510
S1	43	45	49	55
S2	35	36	40	44
S3	30	32	35	38
S11	60	65	70	75
S12	43	44	49	55
S13	34	35	39	42
H5	37	38	42	46
H8	39	40	44	48
H11	47	48	55	60
H12	70	75	80	90
H21	39	40	44	48

T-slot Disc Milling cutter R335.16



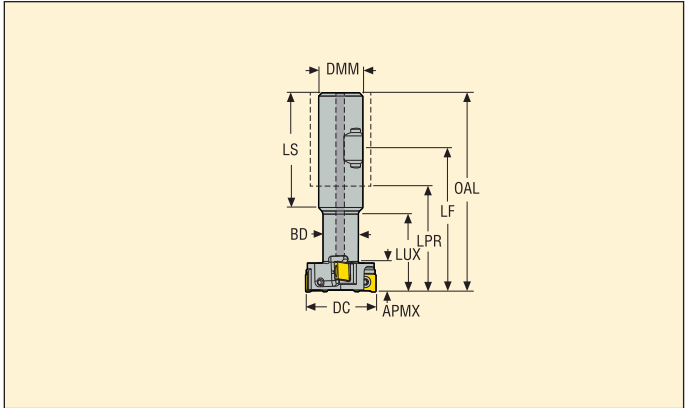
The unique design offers a strengthened cutter body to ensure an excellent stability of the tool during the cutting process. The elaborate chip flute and the specific insert staggering, together with the centralized coolant channels, optimize the chip evacuation to work under reliable conditions. The nickel coating on the cutter extends body life and avoid chip sticking on the cutter body in this very demanding operation

RANGE OVERVIEW:

- Cutter diameters from 25 mm to 50 mm
- Width of cut from 11 to 21mm
- Standard stocked insert LNKT08 or SPMX07 with up to 4 cutting edges
- Full range of insert geometries and grades for all applications

R335.16

T-slot milling



- For insert selection and cutting data recommendations, see page(s) 31 - 32
- For complete insert programme, see page(s) 52, 57

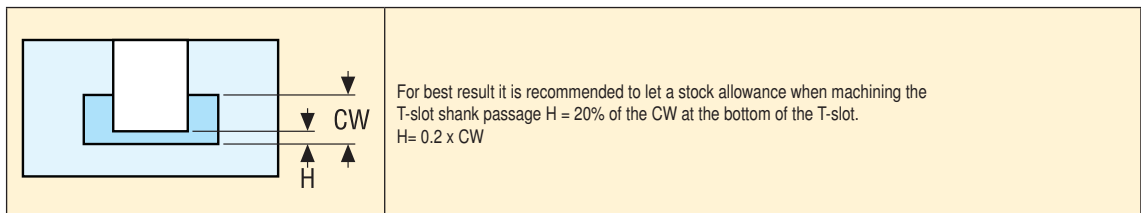
Part No.	Type of mounting	Dimensions in mm											ZEFP	KG	Insert	
		APMX	DC	BD	DMM	LS	LF	OAL	LUX	LPR	LC					
R335.16 -1625.3-11.2NA	Cyl.-Weldon	10,91	25,0	12,0	16,0	49,0	56,0	80,0	28,4	32,5	49,0	4	2	0,11	24500	SPMX07..
R335.16 -2032.3-14.2NA	Cyl.-Weldon	13,91	32,0	16,0	20,0	52,0	65,0	90,0	35,4	40,5	52,0	4	2	0,19	17600	LNK.08..
-2540.3-18.2NA	Cyl.-Weldon	17,91	40,0	20,0	25,0	58,0	73,0	105,0	43,7	49,5	58,0	5	2	0,36	14600	LNK.08..
-3250.3-21.2NA	Cyl.-Weldon	21,0	50,0	26,0	32,0	61,0	84,0	120,0	55,2	60,5	61,0	6	2	0,7	9800	LNK.08..

ZEFP = Effective number of teeth

Spare Parts

For cutter	Key (T-handle)	Insert screw	Insert key	Torque value (Nm)
∅ 25	DOUBLE-T	C02506-T07P	H4B-T07P	1,2
∅ 32-50	DOUBLE-T	C73007-T09P	H4B-T09P	2,0

Technical information



Please check availability in current price and stock-list

Torque keys, see page 672 MN2015 Milling

335.16 - SP07 - Insert selection

SMG		f _z		
		100%	20%	10%
P1	SPMX070304-75 F40M	0,085	0,11	0,14
P2	SPMX070304-75 F40M	0,085	0,11	0,14
P3	SPMX070304-75 F40M	0,080	0,10	0,14
P4	SPMX070304-75 F40M	0,080	0,10	0,13
P5	SPMX070304-75 F40M	0,080	0,10	0,13
P6	SPMX070304-75 F40M	0,075	0,095	0,13
P7	SPMX070304-75 F40M	0,075	0,095	0,13
P8	SPMX070304-75 F40M	0,080	0,10	0,14
P11	SPMX070304-75 F40M	0,075	0,095	0,13
M1	SPMX070304-75 F40M	0,085	0,11	0,14
M2	SPMX070304-75 F40M	0,080	0,10	0,13
M3	SPMX070304-75 F40M	0,060	0,080	0,10
M4	SPMX070304-75 F40M	0,055	0,070	0,090
M5	SPMX070304-75 F40M	0,055	0,070	0,090
K1	SPMX070304-75 F40M	0,085	0,11	0,14
K2	SPMX070304-75 F40M	0,080	0,10	0,13
K3	SPMX070304-75 F40M	0,080	0,10	0,13
K4	SPMX070304-75 F40M	0,080	0,10	0,13
K5	SPMX070304-75 F40M	0,070	0,090	0,12
K6	SPMX070304-75 F40M	0,080	0,10	0,13
K7	SPMX070304-75 F40M	0,070	0,090	0,12
N1	SPMX070304-75 F40M	0,11	0,14	0,18
N2	SPMX070304-75 F40M	0,11	0,14	0,18
N3	SPMX070304-75 F40M	0,11	0,14	0,18
N11	SPMX070304-75 F40M	0,11	0,14	0,18
S1	SPMX070304-75 F40M	0,055	0,070	0,090
S2	SPMX070304-75 F40M	0,055	0,070	0,090
S3	SPMX070304-75 F40M	0,050	0,065	0,085
S11	SPMX070304-75 F40M	0,060	0,080	0,10
S12	SPMX070304-75 F40M	0,060	0,080	0,10
S13	SPMX070304-75 F40M	0,055	0,070	0,090
H5	SPMX070304-75 F40M	0,055	0,065	0,090
H8	SPMX070304-75 F40M	0,040	0,050	0,070
H11	SPMX070304-75 F40M	0,055	0,065	0,090
H12	SPMX070304-75 F40M	0,055	0,065	0,090
H21	SPMX070304-75 F40M	0,040	0,050	0,070

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_e/D_c = %

All cutting data are start values

335.16 - SP07 - Cutting data $v_c =$ (m/min)

SMG	F40M			T25M		
	100%	20%	10%	100%	20%	10%
P1	175	250	275	195	275	305
P2	170	240	270	190	265	295
P3	150	210	230	165	235	255
P4	130	185	210	145	205	230
P5	125	180	200	140	195	220
P6	145	205	225	160	225	245
P7	135	190	210	150	210	230
P8	125	180	195	140	195	215
P11	130	185	205	145	205	225
M1	140	195	215	155	215	240
M2	115	160	180	125	175	195
M3	95	130	145	100	140	160
M4	70	100	110	80	110	120
M5	60	85	90	65	90	100
K1	135	190	215	150	210	235
K2	120	170	190	130	185	205
K3	100	145	160	110	160	175
K4	95	135	150	105	150	165
K5	60	85	90	65	90	100
K6	85	120	135	95	135	145
K7	75	105	120	85	115	130
N1	500	710	800	550	780	870
N2	405	570	640	450	630	710
N3	270	385	430	300	420	470
N11	310	440	490	340	480	540
S1	33	46	50	36	50	55
S2	27	37	41	29	41	46
S3	23	33	36	26	36	40
S11	47	65	75	50	70	80
S12	33	46	50	36	50	55
S13	26	36	40	29	40	44
H5	28	39	43	—	—	—
H8	30	41	45	—	—	—
H11	35	50	55	—	—	—
H12	55	75	85	—	—	—
H21	30	41	45	—	—	—

335.16 - LNK - Insert selection

SMG		f _z		
		100%	20%	10%
P1	LNKT080508PPTN-M06 F40M	0,11	0,14	0,19
P2	LNKT080508PPTN-M06 F40M	0,11	0,14	0,19
P3	LNKT080508PPTN-M06 F40M	0,11	0,14	0,18
P4	LNKT080508PPTN-M06 F40M	0,11	0,13	0,18
P5	LNKT080508PPTN-M06 F40M	0,10	0,13	0,17
P6	LNKT080508PPTN-M06 MP3000	0,10	0,13	0,17
P7	LNKT080508PPTN-M06 MP2500	0,10	0,13	0,17
P8	LNKT080504PPTN-M06 MP2500	0,11	0,14	0,18
P11	LNKT080508PPTN-M06 F40M	0,10	0,13	0,17
M1	LNKT080508PPTN-M06 F40M	0,11	0,14	0,19
M2	LNKT080508PPTN-M06 F40M	0,10	0,13	0,17
M3	LNKT080508PPTN-M06 F40M	0,085	0,10	0,14
M4	LNKT080508PPTN-M06 F40M	0,075	0,090	0,12
M5	LNKT080508PPTN-M06 F40M	0,075	0,090	0,12
K1	LNKT080508PPTN-M06 MK2050	0,11	0,14	0,19
K2	LNKT080508PPTN-M06 MK2050	0,10	0,13	0,17
K3	LNKT080508PPTN-M06 MK2050	0,10	0,13	0,17
K4	LNKT080508PPTN-M06 MK2050	0,10	0,13	0,17
K5	LNKT080508PPTN-M06 MK2050	0,095	0,12	0,16
K6	LNKT080508PPTN-M06 MK2050	0,10	0,13	0,17
K7	LNKT080508PPTN-M06 MK2050	0,095	0,12	0,16
N1	LNKT080508PPN-E05 H25	0,13	0,16	0,22
N2	LNKT080508PPN-E05 H25	0,13	0,16	0,22
N3	LNKT080508PPN-E05 H25	0,13	0,16	0,22
N11	LNKT080508PPN-E05 H25	0,13	0,16	0,22
S1	LNKT080508PPTN-M06 F40M	0,075	0,090	0,12
S2	LNKT080508PPTN-M06 F40M	0,075	0,090	0,12
S3	LNKT080508PPTN-M06 F40M	0,070	0,085	0,11
S11	LNKT080508PPTN-M06 F40M	0,085	0,10	0,14
S12	LNKT080508PPTN-M06 F40M	0,085	0,10	0,14
S13	LNKT080508PPTN-M06 F40M	0,075	0,090	0,12
H5	LNKT080504PPTN-M06 MP2500	0,070	0,090	0,12
H8	LNKT080504PPTN-M06 MP2500	0,055	0,070	0,090
H11	LNKT080504PPTN-M06 MP2500	0,070	0,090	0,12
H12	LNKT080504PPTN-M06 MP2500	0,070	0,090	0,12
H21	LNKT080504PPTN-M06 MP2500	0,055	0,070	0,090

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_e/D_c = %

All cutting data are start values

335.16 - Cutting data $v_c =$ (m/min)

SMG	MP2500			MP3000			T350M			F40M			MK1500			MK2050		
	100%	20%	10%	100%	20%	10%	100%	20%	10%	100%	20%	10%	100%	20%	10%	100%	20%	10%
P1	200	285	315	190	270	300	175	250	275	155	215	240	—	—	—	200	280	310
P2	195	275	305	185	265	290	170	245	265	150	210	230	—	—	—	195	275	300
P3	170	240	265	160	225	255	150	210	235	130	180	205	—	—	—	165	235	265
P4	150	215	235	140	205	225	130	185	205	115	165	180	—	—	—	145	210	230
P5	145	205	225	140	195	215	130	180	200	110	155	175	—	—	—	145	200	225
P6	165	230	255	155	220	245	145	200	225	125	175	195	—	—	—	160	225	250
P7	155	215	240	145	205	230	135	190	210	115	165	185	—	—	—	155	215	240
P8	140	200	225	135	190	215	125	175	195	110	155	170	—	—	—	140	200	220
P11	150	210	235	145	200	220	130	185	205	115	160	180	—	—	—	150	210	230
M1	140	200	220	140	195	215	130	185	205	120	170	185	—	—	—	—	—	—
M2	115	165	180	115	160	180	110	155	170	100	140	155	—	—	—	—	—	—
M3	95	135	145	90	130	145	85	125	135	80	115	125	—	—	—	—	—	—
M4	70	100	115	70	100	110	65	95	105	60	85	95	—	—	—	—	—	—
M5	60	85	95	60	85	95	55	80	90	50	75	80	—	—	—	—	—	—
K1	155	220	240	150	210	230	—	—	—	120	165	185	220	310	345	210	295	325
K2	140	195	215	130	185	205	—	—	—	105	150	165	195	275	305	185	260	290
K3	115	165	180	110	155	175	—	—	—	90	125	140	165	235	260	160	220	245
K4	110	155	175	105	150	165	—	—	—	85	120	135	160	225	250	150	210	235
K5	65	95	105	65	90	100	—	—	—	50	70	80	95	135	150	90	130	140
K6	100	140	155	95	130	145	—	—	—	75	105	115	140	195	220	135	185	205
K7	85	120	135	80	115	130	—	—	—	65	95	105	125	175	190	115	165	180
N1	—	—	—	—	—	—	—	—	—	430	620	680	—	—	—	—	—	—
N2	—	—	—	435	620	690	—	—	—	345	500	550	—	—	—	—	—	—
N3	—	—	—	290	415	460	—	—	—	230	335	370	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	265	380	420	—	—	—	—	—	—
S1	—	—	—	33	47	50	31	45	50	29	41	45	—	—	—	—	—	—
S2	—	—	—	27	38	42	25	36	40	23	33	36	—	—	—	—	—	—
S3	—	—	—	23	33	37	22	31	35	20	29	32	—	—	—	—	—	—
S11	—	—	—	46	65	75	44	65	70	40	55	65	—	—	—	—	—	—
S12	—	—	—	33	47	50	31	44	48	28	40	44	—	—	—	—	—	—
S13	—	—	—	26	37	41	25	35	39	22	32	35	—	—	—	—	—	—
H5	29	41	45	29	40	44	28	39	43	24	34	38	—	—	—	—	—	—
H8	31	43	48	30	42	47	30	41	46	26	36	40	—	—	—	—	—	—
H11	37	50	55	36	50	55	36	50	55	31	44	48	—	—	—	—	—	—
H12	55	80	85	55	75	85	55	75	85	47	65	75	—	—	—	—	—	—
H21	31	43	48	30	42	47	30	41	46	26	36	40	—	—	—	—	—	—

335.16 - LNK - Cutting data $v_c =$ (m/min)

SMG	MM4500			H25		
	100%	20%	10%	100%	20%	10%
P1	125	175	195	—	—	—
P2	120	170	190	—	—	—
P3	105	145	165	—	—	—
P4	90	130	145	—	—	—
P5	90	125	140	—	—	—
P6	100	140	155	—	—	—
P7	95	135	150	—	—	—
P8	90	125	140	—	—	—
P11	95	130	145	—	—	—
M1	105	145	160	—	—	—
M2	85	120	135	—	—	—
M3	70	100	105	—	—	—
M4	55	75	85	—	—	—
M5	44	65	70	—	—	—
K1	—	—	—	—	—	—
K2	—	—	—	—	—	—
K3	—	—	—	—	—	—
K4	—	—	—	—	—	—
K5	—	—	—	—	—	—
K6	—	—	—	—	—	—
K7	—	—	—	—	—	—
N1	—	—	—	450	640	710
N2	—	—	—	365	520	570
N3	—	—	—	240	345	380
N11	—	—	—	275	395	435
S1	16	23	25	—	—	—
S2	13	19	21	—	—	—
S3	11	16	18	—	—	—
S11	23	32	36	—	—	—
S12	17	25	27	—	—	—
S13	14	20	22	—	—	—
H5	—	—	—	—	—	—
H8	—	—	—	—	—	—
H11	—	—	—	—	—	—
H12	—	—	—	—	—	—
H21	—	—	—	—	—	—

The 335.25 disc milling cutter has been expanded to include new cassettes for round inserts diameter 16 and 20-mm

This new range of product complement both the 335.29 fixed pocket disc milling cutter with round insert diameter 5, 6, 7, 8, 10 and 12mm and also the 335.18 disc milling cassette cutter with round insert diameter 8, 10 and 12mm

Product overview:

- Ideal for applications involving full and half side and face operation with large corner radii
- Exchangeable cassettes ensure long, reliable cutter performance
- Inserts with at least four cutting edges help reduce the cost per part
- Insert geometries provide freer cutting operations in any type of material
- Optimised chip room for trouble free operation and enhanced productivity



335.25 disc milling cutter available with cassette for round insert dia 16 and 20mm



The new cassette for round insert fit 335.25 cutter body:

- With Round insert dia 16mm (both with regular and enlarged chip space)
- With Round insert dia 20mm (enlarged chip space)

335.25 Round 16 - Insert selection

SMG		f _z		
		30%	20%	10%
P1	RPHT1605M0T-ME11 F40M	0,19	0,22	0,28
P2	RPHT1605M0T-ME11 F40M	0,19	0,22	0,30
P3	RPHT1605M0T-ME11 F40M	0,18	0,20	0,28
P4	RPHT1605M0T-M12 F40M	0,19	0,22	0,30
P5	RPHT1605M0T-M12 F40M	0,19	0,22	0,28
P6	RPHT1605M0T-M12 F40M	0,19	0,22	0,28
P7	RPHT1605M0T-M12 MP2500	0,19	0,22	0,28
P8	RPHT1605M0T-M12 MP2500	0,20	0,22	0,30
P11	RPHT1605M0T-M12 F40M	0,19	0,22	0,28
M1	RPHT1605M0T-ME11 F40M	0,19	0,22	0,30
M2	RPHT1605M0T-ME11 F40M	0,17	0,20	0,26
M3	RPHT1605M0T-M12 F40M	0,15	0,17	0,24
M4	RPHT1605M0T-M12 F40M	0,13	0,15	0,20
M5	RPHT1605M0T-M12 F40M	0,13	0,15	0,20
K1	RPHT1605M0T-M18 MK2050	0,26	0,30	0,40
K2	RPHT1605M0T-M18 MK2050	0,24	0,26	0,36
K3	RPHT1605M0T-M18 MK2050	0,24	0,26	0,36
K4	RPHT1605M0T-M18 MK2050	0,24	0,26	0,36
K5	RPHT1605M0T-M18 MK2050	0,22	0,24	0,32
K6	RPHT1605M0T-M18 MK2050	0,24	0,26	0,36
K7	RPHT1605M0T-M18 MK2050	0,22	0,24	0,32
N1	RPKT1605M0T-ME11 F40M	0,24	0,28	0,36
N2	RPKT1605M0T-ME11 F40M	0,24	0,28	0,36
N3	RPKT1605M0T-ME11 F40M	0,24	0,28	0,36
N11	RPKT1605M0T-ME11 F40M	0,24	0,28	0,36
S1	RPHT1605M0T-M12 F40M	0,13	0,15	0,20
S2	RPHT1605M0T-M12 F40M	0,13	0,15	0,20
S3	RPHT1605M0T-M12 F40M	0,12	0,14	0,19
S11	RPHT1605M0T-ME11 F40M	0,14	0,16	0,22
S12	RPHT1605M0T-ME11 F40M	0,14	0,16	0,22
H5	RPKW1605M0T-MD20 F15M	0,22	0,24	0,32
H8	RPKW1605M0T-MD20 F15M	0,16	0,19	0,24
H11	RPKW1605M0T-MD20 F15M	0,22	0,24	0,32
H12	RPKW1605M0T-MD20 F15M	0,22	0,24	0,32
H21	RPKW1605M0T-MD20 F15M	0,16	0,19	0,24

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_φ/D_c = %

All cutting data are start values

335.25 Round 16 - Cutting data $v_c =$ (m/min)

SMG	MP1500			MP2500			T350M			F15M			F25M			F30M		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	255	275	310	245	260	290	215	225	250	—	—	—	190	205	230	190	205	230
P2	250	270	295	240	255	280	210	220	245	—	—	—	185	200	220	185	200	220
P3	220	235	260	205	225	245	180	195	215	—	—	—	165	175	190	165	175	190
P4	195	205	230	185	195	215	160	170	190	—	—	—	145	155	170	145	155	170
P5	185	200	220	175	185	210	155	165	185	—	—	—	135	150	165	135	150	165
P6	210	225	250	195	210	235	170	185	205	—	—	—	155	165	185	155	165	185
P7	195	215	235	185	200	220	160	175	195	—	—	—	145	160	175	150	155	175
P8	185	200	220	175	185	205	150	165	180	—	—	—	135	145	160	135	145	160
P11	190	210	230	180	195	215	155	170	190	—	—	—	140	155	170	145	155	170
M1	—	—	—	170	180	200	160	170	190	—	—	—	—	—	—	150	160	175
M2	—	—	—	140	150	170	130	140	155	—	—	—	—	—	—	125	135	145
M3	—	—	—	115	120	135	105	115	125	—	—	—	—	—	—	100	105	120
M4	—	—	—	90	95	105	85	90	100	—	—	—	—	—	—	75	80	90
M5	—	—	—	75	80	85	70	75	80	—	—	—	—	—	—	65	70	75
K1	200	210	235	190	200	220	—	—	—	130	140	155	145	155	175	150	160	175
K2	175	190	210	165	180	200	—	—	—	115	125	140	130	140	155	130	140	155
K3	150	160	180	140	150	170	—	—	—	100	105	120	110	120	130	110	120	130
K4	140	155	170	135	145	160	—	—	—	95	100	110	105	115	125	105	115	125
K5	85	95	105	80	90	100	—	—	—	60	60	70	65	70	75	65	70	75
K6	125	135	150	120	125	140	—	—	—	85	90	100	90	100	110	95	100	110
K7	110	120	135	105	115	125	—	—	—	75	80	90	80	90	100	85	90	100
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	39	41	46	—	—	—	—	—	—	36	38	42
S2	—	—	—	—	—	—	31	33	37	—	—	—	—	—	—	29	31	34
S3	—	—	—	—	—	—	27	29	32	—	—	—	—	—	—	25	27	30
S11	—	—	—	—	—	—	55	60	65	—	—	—	—	—	—	50	55	60
S12	—	—	—	—	—	—	38	40	44	—	—	—	—	—	—	35	38	42
S13	—	—	—	—	—	—	30	32	36	—	—	—	—	—	—	28	30	33
H5	42	45	50	35	38	42	34	36	40	28	30	33	31	33	37	30	32	36
H8	45	48	50	37	40	44	36	39	43	30	32	36	33	35	39	32	34	37
H11	55	55	65	45	48	55	43	46	50	35	38	42	39	42	47	39	41	45
H12	80	85	95	70	75	80	65	70	75	55	60	65	60	65	70	60	60	70
H21	45	48	50	37	40	44	36	39	43	30	32	36	33	35	39	32	34	37

335.25 Round 16 - Cutting data $v_c =$ (m/min)

SMG	F40M			MK2050			MM4500			MS2050			MS2500		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	185	195	220	225	240	270	150	160	175	205	210	220	270	285	315
P2	180	190	210	220	235	260	145	155	170	200	205	215	260	275	305
P3	155	170	185	195	205	225	125	135	150	170	170	185	225	245	265
P4	140	150	165	170	180	200	115	120	130	150	150	160	200	215	235
P5	135	140	160	160	175	195	110	115	130	140	145	150	190	205	230
P6	150	160	180	180	200	215	120	130	145	155	160	170	215	230	255
P7	140	150	170	170	185	205	115	120	135	150	155	160	205	215	240
P8	130	140	155	160	175	190	105	115	125	140	145	155	190	205	225
P11	135	145	165	165	180	200	110	120	135	145	150	155	195	210	235
M1	145	155	170	—	—	—	125	135	145	175	180	190	185	200	220
M2	120	130	145	—	—	—	105	110	125	135	140	145	155	165	185
M3	95	105	115	—	—	—	85	90	100	95	100	105	125	135	145
M4	75	80	90	—	—	—	65	70	75	65	70	70	95	105	115
M5	65	65	75	—	—	—	55	60	65	55	55	55	80	85	95
K1	145	150	170	235	250	280	—	—	—	—	—	—	—	—	—
K2	125	135	150	210	230	250	—	—	—	—	—	—	—	—	—
K3	105	115	130	175	195	210	—	—	—	—	—	—	—	—	—
K4	100	110	120	170	185	200	—	—	—	—	—	—	—	—	—
K5	60	65	75	105	110	125	—	—	—	—	—	—	—	—	—
K6	90	95	105	150	160	180	—	—	—	—	—	—	—	—	—
K7	80	85	95	130	145	160	—	—	—	—	—	—	—	—	—
N1	530	560	620	—	—	—	—	—	—	—	—	—	—	—	—
N2	425	455	500	—	—	—	—	—	—	—	—	—	—	—	—
N3	285	305	335	—	—	—	—	—	—	—	—	—	—	—	—
N11	325	345	385	—	—	—	—	—	—	—	—	—	—	—	—
S1	35	37	41	—	—	—	20	21	23	48	50	55	47	50	55
S2	28	30	33	—	—	—	16	17	19	39	41	45	38	40	45
S3	25	26	29	—	—	—	14	15	16	34	36	39	33	35	39
S11	49	50	55	—	—	—	28	30	32	65	70	75	65	70	75
S12	34	37	40	—	—	—	21	23	25	50	55	55	46	49	55
S13	27	29	32	—	—	—	17	18	20	41	43	48	37	39	43
H5	29	31	35	—	—	—	—	—	—	—	—	—	—	—	—
H8	31	34	37	—	—	—	—	—	—	—	—	—	—	—	—
H11	38	40	44	—	—	—	—	—	—	—	—	—	—	—	—
H12	55	60	65	—	—	—	—	—	—	—	—	—	—	—	—
H21	31	34	37	—	—	—	—	—	—	—	—	—	—	—	—

335.25 Round 20 - Insert selection

SMG		f _z		
		30%	20%	10%
P1	RPHT2006M0T-ME12 F40M	0,20	0,24	0,32
P2	RPHT2006M0T-ME12 F40M	0,20	0,24	0,32
P3	RPHT2006M0T-ME12 F40M	0,20	0,22	0,30
P4	RPHT2006M0T-ME12 F40M	0,19	0,22	0,30
P5	RPKT2006M0T-M15 F40M	0,24	0,28	0,36
P6	RPKT2006M0T-M15 F40M	0,24	0,26	0,36
P7	RPKT2006M0T-M15 MP2500	0,24	0,26	0,36
P8	RPKT2006M0T-M15 MP2500	0,24	0,28	0,38
P11	RPHT2006M0T-ME12 F40M	0,19	0,22	0,28
M1	RPHT2006M0T-ME12 F40M	0,20	0,24	0,32
M2	RPHT2006M0T-ME12 F40M	0,19	0,22	0,28
M3	RPHT2006M0T-ME12 F40M	0,15	0,17	0,24
M4	RPHT2006M0T-ME12 F40M	0,13	0,15	0,20
M5	RPHT2006M0T-ME12 F40M	0,13	0,15	0,20
K1	RPKT2006M0T-M20 MK2050	0,26	0,30	0,40
K2	RPKT2006M0T-M20 MK2050	0,24	0,28	0,36
K3	RPKT2006M0T-M20 MK2050	0,24	0,28	0,36
K4	RPKT2006M0T-M20 MK2050	0,24	0,28	0,36
K5	RPKT2006M0T-M20 MK2050	0,22	0,24	0,32
K6	RPKT2006M0T-M20 MK2050	0,24	0,28	0,36
K7	RPKT2006M0T-M20 MK2050	0,22	0,24	0,32
N1	RPHT2006M0T-ME12 F40M	0,26	0,30	0,40
N2	RPHT2006M0T-ME12 F40M	0,26	0,30	0,40
N3	RPHT2006M0T-ME12 F40M	0,26	0,30	0,40
N11	RPHT2006M0T-ME12 F40M	0,26	0,30	0,40
S1	RPHT2006M0T-ME12 F40M	0,13	0,15	0,20
S2	RPHT2006M0T-ME12 F40M	0,13	0,15	0,20
S3	RPHT2006M0T-ME12 F40M	0,12	0,14	0,19
S11	RPHT2006M0T-ME12 F40M	0,15	0,17	0,24
S12	RPHT2006M0T-ME12 F40M	0,15	0,17	0,24
H5	RPKW2006M0T-MD22 F15M	0,24	0,26	0,36
H8	RPKW2006M0T-MD22 F15M	0,18	0,20	0,28
H11	RPKW2006M0T-MD22 F15M	0,24	0,26	0,36
H12	RPKW2006M0T-MD22 F15M	0,24	0,26	0,36
H21	RPKW2006M0T-MD22 F15M	0,18	0,20	0,28

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_φ/D_c = %

All cutting data are start values








335.25 Round 20 - Cutting data $v_c =$ (m/min)

SMG	MP1500			MP2500			T350M			F15M			F25M			F30M		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	255	275	310	230	245	275	200	210	240	—	—	—	190	205	230	180	195	215
P2	250	270	295	220	235	265	195	205	230	—	—	—	185	200	220	175	190	210
P3	220	235	260	195	210	230	170	180	200	—	—	—	165	175	190	155	165	185
P4	195	205	230	170	185	205	150	160	180	—	—	—	145	155	170	135	145	160
P5	185	200	220	165	175	195	145	155	170	—	—	—	135	145	165	130	140	155
P6	210	225	250	185	200	220	160	175	190	—	—	—	155	165	185	145	155	175
P7	195	215	235	175	190	210	150	165	180	—	—	—	145	160	175	140	150	165
P8	185	200	220	165	175	195	145	155	170	—	—	—	135	145	160	130	140	155
P11	190	210	230	170	185	200	145	160	175	—	—	—	140	155	170	135	145	160
M1	—	—	—	160	170	190	150	160	175	—	—	—	—	—	—	145	150	170
M2	—	—	—	130	140	160	125	130	145	—	—	—	—	—	—	115	125	140
M3	—	—	—	105	115	130	100	105	120	—	—	—	—	—	—	95	100	110
M4	—	—	—	85	90	100	80	85	90	—	—	—	—	—	—	75	80	85
M5	—	—	—	70	75	80	65	70	75	—	—	—	—	—	—	60	65	70
K1	200	210	235	175	190	210	—	—	—	125	135	150	145	155	175	140	150	165
K2	175	190	210	155	165	185	—	—	—	115	120	135	130	140	155	125	135	145
K3	150	160	180	130	140	155	—	—	—	95	105	115	110	115	130	105	110	125
K4	140	150	170	125	135	150	—	—	—	90	100	110	105	110	125	100	105	120
K5	85	95	105	75	85	90	—	—	—	55	60	65	65	70	75	60	65	70
K6	125	135	150	110	120	130	—	—	—	80	85	95	90	100	110	90	95	105
K7	110	120	135	100	105	120	—	—	—	70	75	85	80	90	100	80	85	90
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	37	39	43	—	—	—	—	—	—	34	36	40
S2	—	—	—	—	—	—	30	31	34	—	—	—	—	—	—	28	29	32
S3	—	—	—	—	—	—	26	27	30	—	—	—	—	—	—	24	26	28
S11	—	—	—	—	—	—	50	55	60	—	—	—	—	—	—	48	50	55
S12	—	—	—	—	—	—	35	38	42	—	—	—	—	—	—	33	36	40
S13	—	—	—	—	—	—	29	30	34	—	—	—	—	—	—	27	28	32
H5	42	45	50	34	36	40	32	35	38	27	29	32	31	33	37	29	31	34
H8	45	48	50	36	38	42	35	37	40	29	31	34	33	35	39	31	32	36
H11	55	55	65	43	46	50	41	44	49	34	37	41	39	42	47	37	39	44
H12	80	85	95	65	70	75	60	65	75	50	55	60	60	65	70	55	60	65
H21	45	48	50	36	38	42	35	37	40	29	31	34	33	35	39	31	32	36

335.25 Round 20 - Cutting data $v_c =$ (m/min)

SMG	F40M			MK2050			MM4500			MS2050			MS2500			T25M		
	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%	30%	20%	10%
P1	195	205	225	225	240	270	155	165	185	205	210	225	250	265	300	210	225	250
P2	190	200	220	220	235	260	150	160	180	200	205	220	240	260	285	205	220	240
P3	160	175	190	195	205	225	130	140	155	170	175	185	215	225	250	175	190	210
P4	145	155	170	170	180	200	115	125	135	150	155	165	190	200	225	160	170	185
P5	140	145	165	160	175	195	110	120	135	140	145	155	180	190	215	150	160	180
P6	155	165	185	180	200	215	125	135	150	160	165	170	200	220	240	170	180	205
P7	145	155	175	170	185	205	120	125	140	150	155	165	190	205	225	160	170	190
P8	135	145	160	160	175	190	110	120	130	145	145	155	180	190	210	150	160	180
P11	140	150	170	165	180	200	115	120	135	145	150	160	185	200	220	155	165	185
M1	150	160	175	—	—	—	130	140	155	175	180	190	175	185	205	165	175	195
M2	125	130	150	—	—	—	105	115	130	140	145	150	145	155	170	135	145	165
M3	100	105	115	—	—	—	85	95	100	100	100	110	115	125	140	110	120	130
M4	80	85	90	—	—	—	65	70	80	70	70	75	90	95	105	85	90	100
M5	65	70	75	—	—	—	55	60	65	60	60	60	75	80	90	70	75	85
K1	150	155	175	235	250	280	—	—	—	—	—	—	—	—	—	—	—	—
K2	130	140	155	210	225	250	—	—	—	—	—	—	—	—	—	—	—	—
K3	110	120	130	175	190	210	—	—	—	—	—	—	—	—	—	—	—	—
K4	105	115	125	170	180	200	—	—	—	—	—	—	—	—	—	—	—	—
K5	65	70	75	105	110	125	—	—	—	—	—	—	—	—	—	—	—	—
K6	95	100	110	150	160	180	—	—	—	—	—	—	—	—	—	—	—	—
K7	85	90	100	130	145	160	—	—	—	—	—	—	—	—	—	—	—	—
N1	550	580	650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	440	470	520	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	295	315	350	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	335	360	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	36	39	43	—	—	—	21	22	24	46	49	55	45	47	50	—	—	—
S2	29	31	35	—	—	—	17	18	20	37	39	43	36	38	42	—	—	—
S3	26	27	30	—	—	—	15	15	17	33	35	37	32	33	37	—	—	—
S11	50	55	60	—	—	—	29	31	34	60	65	70	60	65	75	—	—	—
S12	35	38	42	—	—	—	22	24	26	47	50	55	43	46	50	—	—	—
S13	28	30	34	—	—	—	18	19	21	40	42	46	35	37	41	—	—	—
H5	31	33	36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H8	32	35	38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H11	39	41	46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H12	60	65	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H21	32	35	38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Spare parts for adjustable cutter (R)335.25 equipped with round insert dia 16 and 20mm

For adjustable cutter	Insert type	Insert locking screw/Nm 	Key for insert locking screw 	Wedge 	Wedge screw 	Key for wedge screw 	Adjusting screw 	Key for adjusting screw 	Cassettes	
									Right R335.25-...	Left L335.25-...
1317	RP..1605	C05010-T20P / 5N.m	T20P-4	335.25-612	LD6018F-T20P	T20P-4	SH6005-T09P	T09P-3	...16-R8-D5*	...16-R8-D5*
1317XL									...16XL-R8-D5	...16XL-R8-D5
1721XL	RP..2006	C05013-T20P / 5N.m	T20P-4	335.25-616	LD6018F-T20P	T20P-4	SH6005-T09P	T09P-3	...20XL-R10-D5	...20XL-R10-D5

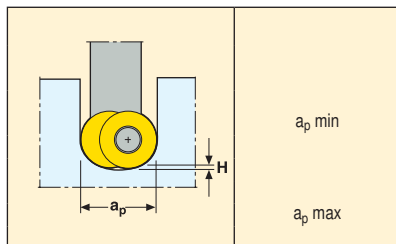
*Cassette compatible with adjustable disc milling cutter x335.18-xxx-1418 series to generate width of cut from 16 to 18,5 mm, generating nominal "Dc" diameter + 5 mm

Arbor screw for B type cutters

Adjustable cutter		
100	MC6S12X40	27
125	MC6S16X40	32
160	MLC6S20X40	40

Dimension of mounting: See Machining Navigator 2015 Milling - Page 247

Profiled machined with adjustable cutter 335.25 equipped with round inserts diameter 16 and 20 mm



Round 16	
a_p mm	Profile height H mm
16,03	0
16,5	0
17	0,02

Round 20	
a_p mm	Profile height H mm
20,03	0
20,5	0,01
21	0,02

R217/220.29-06 – Insert selection

SMG		a_p	f_z			
			100%	30%	10%	5%
P1	RPHT1204M0T-6-M08 T350M	2,5	0,24	0,26	0,42	0,60
P2	RPHT1204M0T-6-M08 T350M	2,5	0,26	0,28	0,42	0,60
P3	RPHT1204M0T-6-M08 T350M	2,5	0,24	0,26	0,40	0,55
P4	RPHT1204M0T-6-M08 T350M	2,5	0,24	0,26	0,40	0,55
P5	RPKT1204M0T-6-M15 MP2500	2,5	0,42	0,46	0,75	1,0
P6	RPKT1204M0T-6-M15 MP2500	2,5	0,42	0,46	0,70	1,0
P7	RPKT1204M0T-6-M15 MP2500	2,5	0,42	0,46	0,70	1,0
P8	RPKT1204M0T-6-M15 MP2500	2,5	0,44	0,48	0,75	1,1
P11	RPHT1204M0T-6-M08 MP2500	2,5	0,22	0,24	0,38	0,55
M1	RPHT1204M0T-6-ME07 T350M	2,5	0,22	0,24	0,36	0,50
M2	RPHT1204M0T-6-ME07 T350M	2,5	0,20	0,22	0,34	0,46
M3	RPHT1204M0T-6-ME07 T350M	1,9	0,18	0,20	0,30	0,42
M4	RPHT1204M0T-6-M08 T350M	1,5	0,20	0,22	0,34	0,48
M5	RPHT1204M0T-6-M08 T350M	1,5	0,20	0,22	0,34	0,48
K1	RPKT1204M0T-6-M15 MK2050	2,5	0,46	0,50	0,80	1,1
K2	RPKT1204M0T-6-M15 MK2050	2,5	0,42	0,46	0,75	1,0
K3	RPKT1204M0T-6-M15 MK2050	2,5	0,42	0,46	0,75	1,0
K4	RPKT1204M0T-6-M15 MK2050	2,5	0,42	0,46	0,75	1,0
K5	RPKT1204M0T-6-M15 MK2050	2,5	0,38	0,42	0,65	0,90
K6	RPKT1204M0T-6-M15 MK2050	2,5	0,42	0,46	0,75	1,0
K7	RPKT1204M0T-6-M15 MK2050	2,5	0,38	0,42	0,65	0,90
N1	RPHT1204M0-6-E05 H25	2,5	0,20	0,22	0,34	0,46
N2	RPHT1204M0-6-E05 H25	2,5	0,20	0,22	0,34	0,46
N3	RPHT1204M0-6-E05 H25	2,5	0,20	0,22	0,34	0,46
N11	RPHT1204M0-6-E05 H25	2,5	0,20	0,22	0,34	0,46
S1	RPHT1204M0T-6-M13 MS2500	1,5	0,34	0,36	0,55	0,80
S2	RPHT1204M0T-6-M13 MS2500	1,5	0,34	0,36	0,55	0,80
S3	RPHT1204M0T-6-M13 MS2500	1,5	0,32	0,34	0,55	0,75
S11	RPHT1204M0T-6-M13 MS2050	1,7	0,36	0,40	0,60	0,85
S12	RPHT1204M0T-6-M13 MS2050	1,7	0,36	0,40	0,60	0,85
S13	RPHT1204M0T-6-M13 MS2050	1,5	0,34	0,36	0,55	0,80
H5	RPHW1204M0T-6-MD12 MH1000	1,9	0,26	0,30	0,46	0,65
H8	RPHW1204M0T-6-MD12 MH1000	1,7	0,22	0,24	0,36	0,50
H11	RPHW1204M0T-6-MD12 MH1000	1,9	0,26	0,30	0,46	0,65
H12	RPHT1204M0T-6-M13 T350M	1,9	0,28	0,32	0,48	0,70
H21	RPHW1204M0T-6-MD12 MH1000	1,7	0,22	0,24	0,36	0,50

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_p/D_c = %

All cutting data are start values

R217/220.29-06 – Cutting data $v_c =$ (m/min)

SMG	MP1500				MP2500				MP3000				T350M				F40M			
	100%	30%	10%	5%	100%	30%	10%	5%	100%	30%	10%	5%	100%	30%	10%	5%	100%	30%	10%	5%
P1	310	435	520	560	335	465	550	600	315	440	520	570	290	405	480	520	255	355	420	455
P2	300	425	495	540	320	455	530	580	305	420	500	550	275	395	460	510	240	345	400	440
P3	260	370	435	475	280	390	460	510	265	370	435	475	245	340	405	440	210	295	350	385
P4	230	325	385	425	245	345	415	445	235	330	385	425	215	300	360	390	185	260	315	340
P5	225	315	375	410	240	335	395	430	225	315	370	405	210	290	345	375	180	255	300	325
P6	250	355	425	460	270	375	445	485	255	350	415	455	235	330	385	420	205	285	335	365
P7	235	335	400	430	255	355	420	455	240	330	390	430	220	310	365	400	195	270	315	345
P8	220	310	370	400	235	330	390	425	225	310	365	400	205	285	340	370	180	250	295	325
P11	230	325	390	420	245	345	405	445	235	325	380	415	215	300	355	385	185	260	310	335
M1	—	—	—	—	230	325	380	420	230	315	375	410	215	305	355	390	195	275	325	355
M2	—	—	—	—	195	270	315	345	190	260	310	340	180	250	295	325	165	230	270	295
M3	—	—	—	—	155	215	255	280	150	210	245	270	145	200	235	260	130	180	215	235
M4	—	—	—	—	120	165	195	215	115	160	190	205	110	150	180	200	100	140	165	180
M5	—	—	—	—	100	135	160	180	95	130	155	170	95	125	150	165	85	115	135	150
K1	240	335	395	430	250	360	420	460	240	335	400	435	—	—	—	—	190	270	320	350
K2	210	300	360	385	230	320	375	410	215	300	350	385	—	—	—	—	175	240	285	310
K3	180	255	305	330	195	270	315	345	180	250	295	325	—	—	—	—	145	205	240	260
K4	170	240	290	315	185	255	305	330	175	240	280	310	—	—	—	—	140	195	230	250
K5	105	150	175	195	110	155	185	200	105	145	170	185	—	—	—	—	85	120	140	155
K6	150	215	255	275	160	225	265	290	155	210	250	275	—	—	—	—	125	170	200	220
K7	135	190	225	245	145	200	235	260	135	185	220	240	—	—	—	—	110	150	175	195
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	710	1000	1200	1300
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	570	810	960	1050
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	385	540	640	700
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	440	610	730	800
S1	—	—	—	—	—	—	—	—	55	75	90	95	50	70	85	95	48	65	75	85
S2	—	—	—	—	—	—	—	—	44	60	70	80	42	55	70	75	38	50	60	70
S3	—	—	—	—	—	—	—	—	38	50	60	65	37	50	60	65	33	46	55	60
S11	—	—	—	—	—	—	—	—	75	105	125	135	75	100	120	130	65	90	110	120
S12	—	—	—	—	—	—	—	—	44	60	70	80	42	60	70	75	38	55	65	70
S13	—	—	—	—	—	—	—	—	35	48	55	60	34	46	55	60	31	42	50	55
H5	50	70	85	90	48	65	80	85	46	65	75	80	46	65	75	85	40	55	65	70
H8	55	75	90	100	50	70	85	90	49	65	80	85	49	65	80	85	43	60	70	75
H11	65	90	105	115	60	85	100	110	60	80	95	105	60	80	95	105	50	70	85	90
H12	95	135	160	175	90	130	150	165	90	120	145	155	90	120	145	160	75	105	125	140
H21	55	75	90	100	50	70	85	90	49	65	80	85	49	65	80	85	43	60	70	75

R217/220.29-06 – Cutting data $v_c =$ (m/min)

SMG	MK2050				MS2050				MS2500				H25						
	100%	30%	10%	5%	100%	30%	10%	5%	100%	30%	10%	5%	100%	30%	10%	5%			
P1	270	380	455	490	—	—	—	—	365	510	600	650	—	—	—	—			
P2	260	370	435	475	—	—	—	—	345	495	580	640	—	—	—	—			
P3	230	320	380	415	—	—	—	—	305	425	500	550	—	—	—	—			
P4	200	285	335	375	—	—	—	—	270	375	450	485	—	—	—	—			
P5	195	275	330	355	—	—	—	—	260	365	430	470	—	—	—	—			
P6	220	310	370	400	—	—	—	—	295	410	485	530	—	—	—	—			
P7	205	290	350	375	—	—	—	—	280	385	455	500	—	—	—	—			
P8	190	270	320	350	—	—	—	—	255	360	425	465	—	—	—	—			
P11	200	285	340	365	—	—	—	—	270	375	445	485	—	—	—	—			
M1	—	—	—	—	220	295	330	355	250	355	415	455	—	—	—	—			
M2	—	—	—	—	185	240	270	285	210	290	345	375	—	—	—	—			
M3	—	—	—	—	150	185	200	210	170	230	275	300	—	—	—	—			
M4	—	—	—	—	115	135	145	150	130	175	210	230	—	—	—	—			
M5	—	—	—	—	95	110	120	125	110	145	175	195	—	—	—	—			
K1	285	400	465	510	—	—	—	—	—	—	—	—	—	—	—	—			
K2	250	355	425	460	—	—	—	—	—	—	—	—	—	—	—	—			
K3	215	300	360	390	—	—	—	—	—	—	—	—	—	—	—	—			
K4	205	285	345	370	—	—	—	—	—	—	—	—	—	—	—	—			
K5	125	175	210	230	—	—	—	—	—	—	—	—	—	—	—	—			
K6	180	255	305	325	—	—	—	—	—	—	—	—	—	—	—	—			
K7	160	225	270	295	—	—	—	—	—	—	—	—	—	—	—	—			
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	790	1100	1300	1425
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	640	890	1050	1150
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	425	590	700	770
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	485	680	800	880
S1	—	—	—	—	38	55	65	70	65	85	105	115	—	—	—	—	—	—	—
S2	—	—	—	—	31	44	55	55	50	70	85	90	—	—	—	—	—	—	—
S3	—	—	—	—	28	39	47	50	45	60	75	80	—	—	—	—	—	—	—
S11	—	—	—	—	50	75	85	95	90	125	145	160	—	—	—	—	—	—	—
S12	—	—	—	—	38	55	65	75	50	70	85	90	—	—	—	—	—	—	—
S13	—	—	—	—	33	47	55	60	41	55	65	75	—	—	—	—	—	—	—
H5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

R217/220.29-08 – Insert selection

SMG		a_p	f_z			
			100%	30%	10%	5%
P1	RPHT1605M0T-ME11 T350M	3,0	0,36	0,38	0,60	0,85
P2	RPHT1605M0T-ME11 T350M	3,0	0,36	0,40	0,60	0,85
P3	RPHT1605M0T-ME11 T350M	3,0	0,34	0,38	0,60	0,80
P4	RPHT1605M0T-M18 MS2500	3,0	0,46	0,50	0,80	1,1
P5	RPHT1605M0T-M18 MS2500	3,0	0,46	0,50	0,75	1,1
P6	RPHT1605M0T-M18 MS2500	3,0	0,44	0,48	0,75	1,1
P7	RPHT1605M0T-M18 MS2500	3,0	0,44	0,48	0,75	1,1
P8	RPHT1605M0T-M18 MP2500	3,0	0,46	0,50	0,80	1,1
P11	RPHT1605M0T-M18 MS2500	3,0	0,44	0,48	0,75	1,1
M1	RPHT1605M0T-M12 T350M	3,0	0,40	0,44	0,65	0,95
M2	RPHT1605M0T-M12 T350M	3,0	0,36	0,40	0,60	0,85
M3	RPHT1605M0T-M12 T350M	2,5	0,32	0,34	0,55	0,75
M4	RPHT1605M0T-M12 T350M	1,9	0,32	0,34	0,55	0,75
M5	RPHT1605M0T-M12 T350M	1,9	0,32	0,34	0,55	0,75
K1	RPHT1605M0T-M18 MK2050	3,0	0,50	0,55	0,85	1,2
K2	RPHT1605M0T-M18 MK2050	3,0	0,46	0,50	0,75	1,1
K3	RPHT1605M0T-M18 MK2050	3,0	0,46	0,50	0,75	1,1
K4	RPHT1605M0T-M18 MK2050	3,0	0,46	0,50	0,75	1,1
K5	RPHT1605M0T-M18 MK2050	3,0	0,40	0,44	0,70	1,0
K6	RPHT1605M0T-M18 MK2050	3,0	0,46	0,50	0,75	1,1
K7	RPHT1605M0T-M18 MK2050	3,0	0,40	0,44	0,70	1,0
N1	RPHT1605M0T-ME11 F40M	3,0	0,46	0,50	0,80	1,1
N2	RPHT1605M0T-ME11 F40M	3,0	0,46	0,50	0,80	1,1
N3	RPHT1605M0T-ME11 F40M	3,0	0,46	0,50	0,80	1,1
N11	RPHT1605M0T-ME11 F40M	3,0	0,46	0,50	0,80	1,1
S1	RPHT1605M0T-M12 MS2500	1,9	0,32	0,34	0,55	0,75
S2	RPHT1605M0T-M12 MS2500	1,9	0,32	0,34	0,55	0,75
S3	RPHT1605M0T-M12 MS2500	1,9	0,30	0,32	0,50	0,70
S11	RPHT1605M0T-M12 MS2050	2,5	0,32	0,34	0,55	0,75
S12	RPHT1605M0T-M12 MS2050	2,5	0,32	0,34	0,55	0,75
S13	RPHT1605M0T-M12 MS2050	1,9	0,32	0,34	0,55	0,75
H5	RPKW1605M0T-MD20 F15M	2,5	0,44	0,48	0,75	1,1
H8	RPKW1605M0T-MD20 F15M	2,5	0,34	0,38	0,60	0,80
H11	RPKW1605M0T-MD20 F15M	2,5	0,44	0,48	0,75	1,1
H12	RPHT1605M0T-M12 T350M	2,5	0,26	0,30	0,46	0,65
H21	RPKW1605M0T-MD20 F15M	2,5	0,34	0,38	0,60	0,80

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_p/D_c = %

All cutting data are start values

R217/220.29-08 – Cutting data $v_c =$ (m/min)

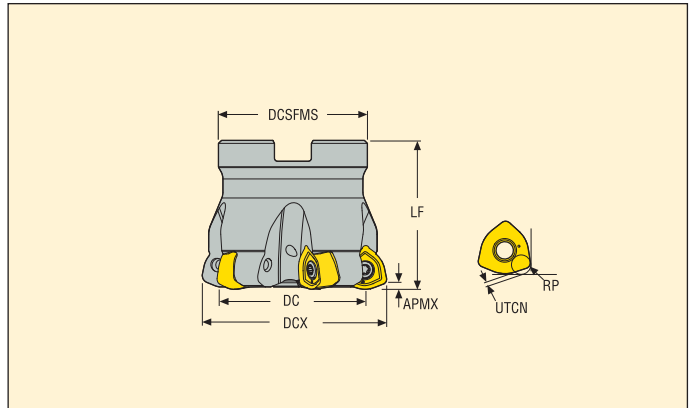
SMG	MP1500				MP2500				T350M				F40M			
	100%	30%	10%	5%	100%	30%	10%	5%	100%	30%	10%	5%	100%	30%	10%	5%
P1	310	440	520	570	275	390	460	510	275	385	460	500	240	335	400	435
P2	300	430	510	560	265	380	450	490	265	375	445	490	230	325	385	425
P3	265	375	445	485	235	330	395	430	235	330	390	420	205	285	340	365
P4	235	330	395	430	205	290	350	380	205	290	345	380	180	250	300	330
P5	225	320	375	410	195	280	330	360	195	275	330	360	170	240	285	315
P6	255	360	420	465	225	315	375	415	225	315	375	405	195	275	325	355
P7	240	340	395	440	210	300	350	390	210	300	355	385	185	260	305	335
P8	225	315	375	410	195	280	330	360	195	275	330	355	170	240	285	310
P11	230	330	385	430	205	290	340	380	205	290	345	375	180	250	300	325
M1	—	—	—	—	190	275	325	355	205	290	340	380	185	265	310	345
M2	—	—	—	—	160	225	265	290	170	240	285	310	155	215	255	285
M3	—	—	—	—	130	180	215	240	140	195	230	250	125	175	210	230
M4	—	—	—	—	100	140	170	190	105	150	180	195	95	135	160	175
M5	—	—	—	—	85	120	140	155	90	125	150	160	80	115	135	145
K1	235	340	400	440	210	300	355	390	—	—	—	—	185	260	305	335
K2	210	300	355	390	185	270	315	345	—	—	—	—	160	230	270	300
K3	180	255	300	330	160	225	265	290	—	—	—	—	135	195	230	255
K4	170	245	290	315	150	215	255	280	—	—	—	—	130	185	220	240
K5	105	150	175	195	95	135	155	170	—	—	—	—	80	115	135	145
K6	150	215	255	275	135	190	225	245	—	—	—	—	115	165	195	215
K7	135	190	225	250	120	170	200	220	—	—	—	—	105	145	175	190
N1	—	—	—	—	—	—	—	—	—	—	—	—	670	950	1125	1225
N2	—	—	—	—	—	—	—	—	—	—	—	—	540	770	920	1000
N3	—	—	—	—	—	—	—	—	—	—	—	—	365	510	610	670
N11	—	—	—	—	—	—	—	—	—	—	—	—	415	590	700	760
S1	—	—	—	—	—	—	—	—	50	70	85	90	45	65	75	85
S2	—	—	—	—	—	—	—	—	40	55	65	75	36	50	60	65
S3	—	—	—	—	—	—	—	—	36	49	60	65	33	45	55	60
S11	—	—	—	—	—	—	—	—	70	95	115	125	65	90	105	115
S12	—	—	—	—	—	—	—	—	41	55	65	75	37	50	60	65
S13	—	—	—	—	—	—	—	—	32	45	55	60	29	41	49	55
H5	50	70	85	95	41	55	70	75	45	60	75	80	39	55	65	70
H8	55	75	90	100	44	60	75	80	47	65	80	85	41	55	70	75
H11	65	90	110	120	50	70	85	95	55	80	95	105	49	70	80	90
H12	95	135	165	180	80	110	130	145	85	120	140	155	75	105	120	135
H21	55	75	90	100	44	60	75	80	47	65	80	85	41	55	70	75

R217/220.29-08 – Cutting data $v_c =$ (m/min)

SMG	MK2050				MM4500				MS2050				MS2500			
	100%	30%	10%	5%	100%	30%	10%	5%	100%	30%	10%	5%	100%	30%	10%	5%
P1	220	315	375	410	195	270	325	355	—	—	—	—	325	455	540	590
P2	215	300	365	400	190	265	315	345	—	—	—	—	310	440	530	570
P3	190	265	320	340	165	230	275	295	—	—	—	—	270	385	460	495
P4	165	235	280	310	145	205	245	265	—	—	—	—	245	345	405	445
P5	160	230	270	295	140	195	230	255	—	—	—	—	230	325	385	425
P6	180	260	300	330	160	225	265	285	—	—	—	—	260	365	440	480
P7	170	245	285	315	150	210	250	270	—	—	—	—	245	345	415	450
P8	160	225	270	290	140	195	230	250	—	—	—	—	230	320	385	420
P11	165	235	275	305	145	205	240	265	—	—	—	—	240	335	400	440
M1	—	—	—	—	160	225	270	295	225	295	335	355	225	315	380	405
M2	—	—	—	—	130	185	220	245	190	240	270	285	185	260	310	340
M3	—	—	—	—	110	150	180	195	150	185	195	205	150	210	250	280
M4	—	—	—	—	85	115	140	155	115	135	140	150	115	165	195	215
M5	—	—	—	—	70	95	115	125	95	110	115	125	95	135	165	175
K1	230	325	395	430	—	—	—	—	—	—	—	—	—	—	—	—
K2	205	295	350	385	—	—	—	—	—	—	—	—	—	—	—	—
K3	175	250	295	325	—	—	—	—	—	—	—	—	—	—	—	—
K4	165	240	280	310	—	—	—	—	—	—	—	—	—	—	—	—
K5	100	145	175	190	—	—	—	—	—	—	—	—	—	—	—	—
K6	145	210	250	270	—	—	—	—	—	—	—	—	—	—	—	—
K7	130	190	225	245	—	—	—	—	—	—	—	—	—	—	—	—
N1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S1	—	—	—	—	26	36	43	47	40	60	70	75	55	80	95	105
S2	—	—	—	—	21	29	34	38	33	46	55	60	46	65	75	85
S3	—	—	—	—	18	25	30	33	29	42	50	55	40	55	70	75
S11	—	—	—	—	36	50	60	65	55	75	90	100	80	110	135	145
S12	—	—	—	—	28	38	46	50	41	60	70	80	46	65	75	85
S13	—	—	—	—	22	31	37	40	35	50	60	65	37	50	60	65
H5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

R220.21-R230

High feed cutters



- For insert selection and cutting data recommendations, see page(s) 48-49
- For complete insert programme, see page(s) 61

Part No.	Type of mounting	Dimensions in mm							RMPX		KG		Insert
		APMX	DCX	DC	DCSFMS	LF	UTCN	RP					
R220.21 -0050-R230.4A	Arbor	1,8	50,0	35,6	42,0	40,0	0,83	3,32	0,9	4	0,3	12100	218.21-..
-0050-R230.5A	Arbor	1,8	50,0	35,6	42,0	40,0	0,83	3,32	0,9	5	0,3	12100	218.21-..
-0052-R230.5A	Arbor	1,8	52,0	37,6	42,0	40,0	0,83	3,32	0,9	5	0,3	11900	218.21-..
R220.21 -0063-R230.5A	Arbor	1,8	63,0	48,3	50,0	50,0	0,83	3,32	0,6	5	0,6	10800	218.21-..
-0063-R230.6A	Arbor	1,8	63,0	48,3	50,0	50,0	0,83	3,32	0,6	6	0,6	10800	218.21-..
-0066-R230.6A	Arbor	1,8	66,0	51,3	62,0	50,0	0,83	3,32	0,6	6	0,8	10600	218.21-..
R220.21 -0080-R230.6A	Arbor	1,8	80,0	65,6	62,0	50,0	0,87	3,32	0,4	6	1,0	9600	218.21-..
-0080-R230.7A	Arbor	1,8	80,0	65,6	62,0	50,0	0,87	3,32	0,4	7	1,0	9600	218.21-..
-0084-R230.8A	Arbor	1,8	84,0	69,6	77,0	50,0	0,87	3,32	0,4	8	1,3	9400	218.21-..
R220.21 -0100-R230.7A	Arbor	1,8	100,0	85,6	77,0	50,0	0,89	3,3	0,3	7	1,5	8600	218.21-..
-0100-R230.9A	Arbor	1,8	100,0	85,6	77,0	50,0	0,89	3,32	0,3	9	1,6	8600	218.21-..
R220.21 -0125-R230.9A	Arbor	1,8	125,0	110,2	90,0	63,0	0,88	3,32	0,2	9	2,8	7700	218.21-..
R220.21 -8160-R230.10A	Arbor	1,8	160,0	145,2	90,0	63,0	0,89	3,32	0,1	10	4,1	6800	218.21-..

UTCN = Uncut thickness, deviation between programmed corner radii (r_p) and generated machined profile.

RMPX = Ramping angle

Spare Parts

For cutter	Key (T-handle)	Insert screw	Insert key	Arbor screw
R220.21-0050	DOUBLE-T	C04011-T15P	H6B-T15P	220.17-692
R220.21-0063-0066	DOUBLE-T	C04011-T15P	H6B-T15P	MC6S12X35
R220.21-0080	DOUBLE-T	C04011-T15P	H6B-T15PL	MC6S12X35
R220.21-0084-0100	DOUBLE-T	C04011-T15P	H6B-T15PL	MLC6S16X35
R220.21-0125	DOUBLE-T	C04011-T15P	H6B-T15PL	MLC6S20X40
R220.21-8160	DOUBLE-T	C04011-T15P	H6B-T15PL	

Please check availability in current price and stock-list

Torque value 3,0 Nm. For dimension of mounting and torque key see page 672 MN 2015 Milling

R217/220.21-R230 – Insert selection

SMG		a_p	f_z		
			100%	70%	30%
P1	218.21-230TR-06-ME13 T350M	1,8	0,95	0,95	1,1
P2	218.21-230TR-06-ME13 T350M	1,8	1,0	1,0	1,1
P3	218.21-230TR-06-ME13 T350M	1,8	0,95	0,95	1,0
P4	218.21-230TR-06-M15 MP2500	1,8	1,0	1,0	1,1
P5	218.21-230TR-06-M15 MP2500	1,8	1,0	1,0	1,1
P6	218.21-230TR-06-M15 MP2500	1,8	1,0	1,0	1,1
P7	218.21-230TR-06-M15 MP2500	1,8	1,0	1,0	1,1
P8	218.21-230TR-06-M15 MP2500	1,8	1,0	1,0	1,1
P11	218.21-230TR-06-ME13 T350M	1,8	0,90	0,90	0,95
M1	218.21-230TR-06-ME13 T350M	1,8	1,0	1,0	1,1
M2	218.21-230TR-06-ME13 T350M	1,8	0,90	0,90	1,0
M3	218.21-230TR-06-ME13 T350M	1,4	0,80	0,80	0,90
M4	218.21-230TR-06-ME13 MM4500	1,0	0,85	0,85	0,90
M5	218.21-230TR-06-ME13 MM4500	1,0	0,85	0,85	0,90
K1	218.21-230TR-06-MD17 MK2050	1,8	1,4	1,4	1,5
K2	218.21-230TR-06-MD17 MK2050	1,8	1,2	1,2	1,3
K3	218.21-230TR-06-MD17 MK2050	1,8	1,2	1,2	1,3
K4	218.21-230TR-06-MD17 MK2050	1,8	1,2	1,2	1,3
K5	218.21-230TR-06-MD17 MK2050	1,8	1,1	1,1	1,2
K6	218.21-230TR-06-MD17 MK2050	1,8	1,2	1,2	1,3
K7	218.21-230TR-06-MD17 MK2050	1,8	1,1	1,1	1,2
S1	218.21-230TR-06-ME13 MS2500	1,0	0,85	0,85	0,90
S2	218.21-230TR-06-ME13 MS2500	1,0	0,85	0,85	0,90
S3	218.21-230TR-06-M15 F40M	1,0	0,90	0,90	0,95
S11	218.21-230TR-06-ME13 MS2050	1,2	0,90	0,90	0,95
S12	218.21-230TR-06-ME13 MS2050	1,2	0,90	0,90	0,95
S13	218.21-230TR-06-ME13 MS2050	1,0	0,85	0,85	0,90
H5	218.21-230TR-06-MD17 MP3000	1,1	0,90	0,90	1,0
H8	218.21-230TR-06-MD17 MP3000	0,98	0,75	0,75	0,80
H11	218.21-230TR-06-M15 T350M	1,1	0,75	0,75	0,85
H12	218.21-230TR-06-M15 T350M	1,1	0,75	0,75	0,85
H21	218.21-230TR-06-MD17 MP3000	0,98	0,75	0,75	0,80
H31	218.21-230TR-06-MD17 MP3000	—	—	—	—

SMG = Seco material group

f_z = mm/tooth

v_c = m/min

a_e/D_c = %

All cutting data are start values

R217/220.21-R230 – Cutting data $v_c =$ (m/min)

SMG	MP1500			MP2500			MP3000			T350M			F40M			MM4500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	240	285	340	245	285	350	205	235	285	215	250	305	185	215	265	160	190	225
P2	230	270	335	240	275	340	195	225	280	205	240	295	180	210	260	155	180	220
P3	205	235	295	210	245	300	170	200	245	185	215	265	160	185	230	135	160	195
P4	180	210	260	185	215	265	150	175	215	160	190	230	140	165	200	120	140	170
P5	175	205	250	175	205	255	145	170	210	155	180	220	135	155	190	115	135	165
P6	195	230	285	200	230	285	165	190	240	175	200	250	150	175	215	130	150	190
P7	185	215	265	190	220	270	155	180	225	165	190	235	140	165	205	125	145	175
P8	170	200	245	175	205	255	145	165	205	155	180	220	135	155	190	115	135	165
P11	180	210	260	185	215	260	150	175	220	160	185	225	140	160	200	120	140	170
M1	—	—	—	170	200	245	145	170	210	160	185	230	145	170	210	135	155	190
M2	—	—	—	145	165	205	125	145	175	135	155	190	120	140	175	110	130	160
M3	—	—	—	120	140	170	105	120	145	110	130	160	100	120	145	95	110	130
M4	—	—	—	95	110	135	80	95	115	90	100	125	80	95	115	75	85	105
M5	—	—	—	80	90	110	70	80	95	75	85	105	65	75	95	60	70	85
K1	180	215	265	190	220	270	155	180	220	—	—	—	145	165	205	155	180	225
K2	165	195	240	170	195	240	140	165	200	—	—	—	130	150	180	140	165	200
K3	140	165	205	140	165	205	120	140	170	—	—	—	110	125	155	120	140	170
K4	135	155	195	135	160	195	115	130	160	—	—	—	105	120	145	115	130	160
K5	80	95	120	85	100	120	70	80	100	—	—	—	65	75	90	70	80	100
K6	120	140	170	120	140	170	100	115	145	—	—	—	90	105	130	100	115	140
K7	105	125	150	105	125	150	90	105	125	—	—	—	80	95	115	90	105	125
S1	—	—	—	—	—	—	38	43	55	41	48	60	38	43	55	23	26	32
S2	—	—	—	—	—	—	30	35	43	33	38	47	30	35	43	18	21	26
S3	—	—	—	—	—	—	27	31	38	29	34	41	26	30	37	16	18	22
S11	—	—	—	—	—	—	55	60	75	55	65	80	50	60	75	31	36	44
S12	—	—	—	—	—	—	31	35	43	33	38	46	30	35	42	24	28	34
S13	—	—	—	—	—	—	24	28	34	27	31	38	24	28	34	19	22	27
H5	44	50	60	40	46	55	34	40	48	38	44	55	33	38	46	—	—	—
H8	47	55	65	43	49	60	37	42	50	41	47	55	36	41	50	—	—	—
H11	55	65	80	50	60	70	44	50	60	49	55	65	42	49	60	—	—	—
H12	130	150	180	130	150	180	110	125	150	115	130	155	100	115	135	—	—	—
H21	47	55	65	43	49	60	37	42	50	41	47	55	36	41	50	—	—	—
H31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

R217/220.21-R230 – Cutting data $v_c =$ (m/min)

SMG	MK2050			MS2050			MS2500		
	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	210	245	300	235	265	315	285	335	405
P2	200	235	290	225	250	310	275	320	395
P3	175	205	255	200	225	270	240	280	350
P4	155	180	225	180	200	240	215	250	305
P5	155	180	220	170	190	230	205	240	290
P6	170	200	245	190	215	260	230	270	335
P7	160	190	235	180	205	245	220	255	315
P8	150	175	215	165	185	230	200	235	290
P11	155	185	225	175	195	235	210	245	305
M1	—	—	—	195	220	270	195	230	280
M2	—	—	—	165	185	220	165	190	235
M3	—	—	—	140	160	175	140	160	195
M4	—	—	—	110	120	130	110	125	155
M5	—	—	—	90	100	110	90	105	130
K1	215	255	315	—	—	—	—	—	—
K2	200	230	285	—	—	—	—	—	—
K3	165	195	240	—	—	—	—	—	—
K4	160	185	230	—	—	—	—	—	—
K5	100	115	140	—	—	—	—	—	—
K6	140	165	200	—	—	—	—	—	—
K7	125	145	180	—	—	—	—	—	—
S1	—	—	—	36	39	50	55	60	75
S2	—	—	—	29	31	42	43	49	60
S3	—	—	—	26	28	38	38	43	55
S11	—	—	—	46	50	70	75	85	105
S12	—	—	—	35	38	55	43	49	60
S13	—	—	—	31	33	45	35	40	49
H5	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—	—
H11	—	—	—	—	—	—	—	—	—
H12	—	—	—	—	—	—	—	—	—
H21	—	—	—	—	—	—	—	—	—

LNK.06/08



Size	Dimensions in mm		
	LE	INSL	S
06	6,0	10,0	5,0
08	7,5	10,0	5,0
080520	6,7	10,0	5,0
080516	7,2	10,0	5,0
080524	6,7	10,0	5,0

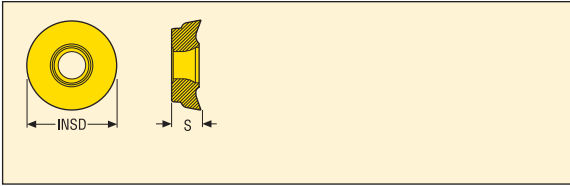


Part No.	RE	Cutting rake	Grades																
			Coated											Uncoated			Cermets		
			MP1500	MP2500	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T350M	F15M	F25M	F40M	HX	H15	H25	MP1020
LNKT 060504PPN-E05	0,4	23,0°																	
060508PPN-E05	0,8	23,0°																■	
LNKT 060504PPTN-M06	0,4	15,0°		■			■							■					
060508PPTN-M06	0,8	15,0°		■	■		■	■					■						
060516PPTN-M06	1,6	15,0°						■	■				■						
060531PPTN-M06	3,1	15,0°							■				■						
060540PPTL-M06	4,0	15,0°											■						
060540PPTR-M06	4,0	15,0°											■						
LNKT 080504PPN-E05	0,4	23,0°																■	
080508PPN-E05	0,8	23,0°																■	
080520PPN-E05	2,0	23,0°																■	
080531PPN-E05	3,1	23,0°																■	
LNKT 080504PPTN-M06	0,4	15,0°		■			■							■					
080508PPTN-M06	0,8	15,0°		■	■		■	■					■						
080516PPTN-M06	1,6	15,0°						■	■				■						
080520PPTN-M06	2,0	15,0°							■				■						
080524PPTN-M06	2,4	15,0°							■	■			■						
080531PPTN-M06	3,1	15,0°							■	■			■						
080540PPTL-M06	4,0	15,0°											■						
080540PPTR-M06	4,0	15,0°											■						
LNKW 060504PPN-MD08	0,4	0,0°								■									
060508PPN-MD08	0,8	0,0°		■					■	■									
LNKW 080504PPN-MD08	0,4	0,0°								■									
080508PPN-MD08	0,8	0,0°		■					■	■									

■ Stock standard
Subject to change refer to current price- and stock-list

Note: When using LNK insert with corner radius = 2,4, 3,1 and 4,0 mm please modify the external profile of the cutter by adding a corner radius or chamfer = 2,5 mm

RP..16/20



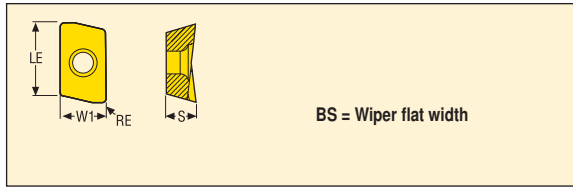
Size	Dimensions in mm	
	INSD	S
1605	16,0	5,56
2006	20,0	6,35



Part No.	Cutting rake	Grades															Uncoated			Cermet	
		Coated																			
		MP1500	MP2500	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T350M	F15M	F25M	F40M	HX	H15	H25	MP1020			
RPHT 1605M0T-ME11	21,0°					■			■	■	■										
1605M0T-M12	15,0°		■			■			■	■	■										
1605M0T-M18	15,0°	■	■					■		■	■			■	■						
RPKT 1605M0T-ME11	21,0°																		■		
RPKW 1605M0T-MD20	0,0°	■						■		■				■	■						
RPHW 1605M0T-MD08	0,0°																		■		
RPHT 2006M0T-ME12	20,0°		■			■			■	■	■								■		
RPKT 2006M0T-M15	15,0°		■							■	■								■		
2006M0T-M20	15,0°	■	■					■		■	■			■	■				■		
RPKW 2006M0-MD10	0,0°																		■		
2006M0T-MD22	0,0°	■						■		■				■	■						

■ Stock standard
 Subject to change refer to current price- and stock-list

XO.X10



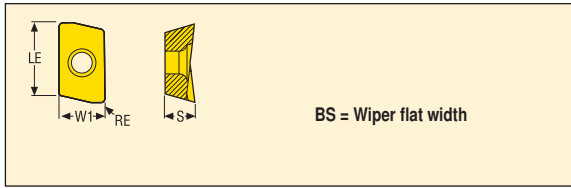
Size	Dimensions in mm		
	W1	LE	S
XOEX10..	6,87	9,5	3,8
XOMX10-ME07	6,86	9,3	3,83
XOMX10..	6,86	9,5	3,83



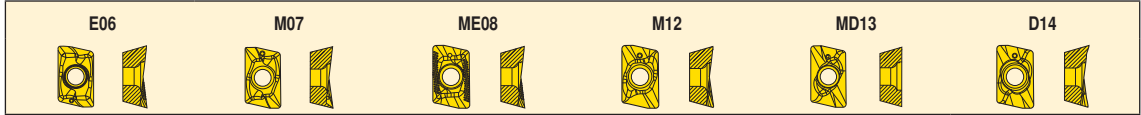
Part No.	RE	Cutting rake	BS	Grades																
				Coated										Uncoated				Cermet		
				MP1500	MP2500	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T350M	F15M	F25M	F40M	HX	HX	H15	H25
XOEX 10T304FR-E05	0,4	22,0°	1,3																	
10T308FR-E05	0,8	22,0°	1,3																	
10T312FR-E05	1,2	22,0°	1,3																	
10T316FR-E05	1,6	22,0°	1,0																	
10T320FR-E05	2,0	22,0°	0,6																	
10T324FR-E05	2,4	22,0°	0,3																	
10T331FR-E05	3,1	22,0°	0,3																	
XOEX 10T304R-M06	0,4	15,0°	1,3		■					■	■	■			■					■
10T308R-M06	0,8	15,0°	1,3		■			■		■	■	■			■					■
10T312R-M06	1,2	15,0°	1,3							■	■	■			■					
10T316R-M06	1,6	15,0°	1,0							■	■	■			■					
10T320R-M06	2,0	15,0°	0,6							■	■	■			■					
10T324R-M06	2,4	15,0°	0,2							■	■	■			■					
10T331R-M06	3,1	15,0°	0,4							■	■	■			■					
XOMX 10T304TR-ME07	0,4	20,0°	1,3	■	■	■		■	■			■	■		■					
10T308TR-ME07	0,8	20,0°	1,3	■	■	■		■	■			■	■		■					
10T312TR-ME07	1,2	20,0°	1,3		■	■		■	■			■	■		■					
10T316TR-ME07	1,6	20,0°	1,0		■	■		■	■			■	■		■					
10T320TR-ME07	2,0	20,0°	0,6		■	■		■	■			■	■		■					
10T324TR-ME07	2,4	20,0°	0,2		■							■	■		■					
10T331TR-ME07	3,1	20,0°	0,4		■							■	■		■					
XOMX 10T304TR-M09	0,4	11,0°	1,3	■	■	■		■	■	■		■	■		■					■
10T308TR-M09	0,8	11,0°	1,3	■	■	■		■	■	■		■	■		■					■
10T312TR-M09	1,2	10,0°	1,3							■					■					
10T316TR-M09	1,6	11,0°	1,0							■					■					
10T320TR-M09	2,0	11,0°	0,6							■					■					
10T324TR-M09	2,4	11,0°	0,2							■					■					
10T331TR-M09	3,1	11,0°	0,4							■					■					

■ Stock standard
 Subject to change refer to current price- and stock-list

XO.X12



Size	Dimensions in mm		
	W1	LE	S
XOEX12..	8,18	12,0	5,03
XOEX12-M07	8,24	12,0	5,03
XOEX12..ZZR	8,18	12,0	5,03
XOMX12..	8,18	12,0	5,05



Part No.	RE	Cutting rake	BS	Grades																		
				Coated								Uncoated				Cermets						
				MP1500	MP2500	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T350M	F15M	F25M	F40M	HX	HX	H15	H25	MP1020	
XOEX 120404FR-E06	0,4	22,0°	2,0																			
120408FR-E06	0,8	22,0°	1,6																			
120420FR-E06	2,0	22,0°	0,6																			
120424FR-E06	2,4	24,0°	0,6																			
120416FR-E06	1,6	22,0°	1,2																			
120431FR-E06	3,1	22,0°																				
XOEX 120402R-M07	0,2	15,0°	2,0																			
120404R-M07	0,4	15,0°	2,0																			
120408R-M07	0,8	15,0°	1,6																			
120416R-M07	1,6	15,0°	1,2																			
120424R-M07	2,4	15,0°	0,6																			
120431R-M07	3,1	15,0°																				
120440R-M07	4,0	15,0°																				
120463R-M07	6,3	15,0°																				
120450R-M07	5,0	15,0°																				
120408ZZR-M07	0,8	15,0°	6,6																			
XOMX 120404TR-ME08	0,4	20,0°	2,0																			
120408TR-ME08	0,8	20,0°	1,6																			
120412TR-ME08	1,2	20,0°	1,2																			
120416TR-ME08	1,6	20,0°	1,2																			
120420TR-ME08	2,0	20,0°	1,0																			
120424TR-ME08	2,4	20,0°	0,8																			
120431TR-ME08	3,1	20,0°	0,6																			
120440TR-ME08	4,0	20,0°	0,8																			
XOMX 120408TR-M12	0,8	10,0°	1,6																			
120416TR-M12	1,6	10,0°	1,2																			
120431TR-M12	3,1	10,0°	0,6																			
XOMX 120408TR-MD13	0,8	15,0°	1,6																			
120404TR-MD13	0,4	15,0°	2,0																			
120412TR-MD13	1,2	15,0°	1,2																			
120416TR-MD13	1,6	15,0°	1,2																			
XOMX 120408TR-D14	0,8	1,0°	1,6																			
120431TR-D14	3,1	1,0°	0,6																			

■ Stock standard
 Subject to change refer to current price- and stock-list

Name		JS564	JS565	JS720	JS730
Page		64-67	68-70	71-74	75-78
Family		JS ² -NXT	JS ² -NXT	JS ² -HXT	JS ² -HXT
Type of mill					
Shank	Cylindrical	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Weldon	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Safelock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of flutes		4	5	6	6
ICC					
Diameter range	Metric	3-20	3-20	6-25	6-25
	Inch				
Lengths available, based on length index		 2,3	 2,3	 2,3	 2,3
Operation					
SMG					
P1-8		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
P11		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
M1-3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
M4-5		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
K1-7		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
S1-3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
S11-13		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
N1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
N2-3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
N11		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
TS1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
TP1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
GR		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

Stock standard
 Weldon available, delivery time is 3 days.
 Safelock available, delivery time is 10 working days
 Preferred choice,
 Alternative choice

Name		JH112	JH142	JHF181
Page		79-82	83-86	87-89
Family		TORNADO	TORNADO	HFM
Type of mill				
Shank	Cylindrical	■	■	■
	Weldon			
Number of flutes		2	2-4-5-6	3-4-5
ICC				■
Diameter range	Metric	2-12	2-12	1-10
	Inch	1/16-1/2	1/16-1/2	
Lengths available, based on length index		 1,2,3,4,5	 2,3,6	 1,2,3,4
Operation				
SMG				
P1-8			●	●
P11				●
M1-3				
M4-5				
K1-7		●	●	●
S1-3				●
S11-13				●
H		●	●	●
N1				
N2-3				
N11				
TS1				
TP1				
GR				

■ Stock standard □ Weldon available, delivery time is 3 days.
● Preferred choice, ○ Alternative choice

Cutting data – JS564 Side milling $a_p/DC = 0,03$

SMG		a_p / DC	f_z								v_c
			4	5	6	8	10	12	16	20	
S1	E	2,5	0,028	0,036	0,042	0,055	0,070	0,085	0,10	0,12	60 (37 — 85)
S2	E	2,5	0,028	0,036	0,042	0,055	0,070	0,085	0,10	0,12	50 (30 — 70)
S3	E	2,5	0,026	0,032	0,038	0,050	0,065	0,075	0,095	0,11	43 (26 — 60)

Cutting data – JS564 Side milling advanced roughing $a_p/DC = 0,05$

SMG		a_p / DC	f_z								v_c
			4	5	6	8	10	12	16	20	
H8	M/A/D	2,5	0,024	0,028	0,034	0,046	0,060	0,070	0,085	0,10	155 (130 — 185)
H21	M/A/D	2,5	0,024	0,028	0,034	0,046	0,060	0,070	0,085	0,10	155 (130 — 185)
H31	M/A/D	2,5	0,020	0,024	0,030	0,040	0,050	0,060	0,075	0,085	120 (100 — 140)

Cutting data – JS564 Side milling advanced roughing $a_p/DC = 0,08$

SMG		a_p / DC	f_z								v_c
			4	5	6	8	10	12	16	20	
S11	E	2,5	0,028	0,034	0,042	0,055	0,070	0,085	0,10	0,12	165 (135 — 190)
S12	E	2,5	0,028	0,034	0,042	0,055	0,070	0,085	0,10	0,12	125 (105 — 145)
S13	E	2,0	0,024	0,030	0,036	0,048	0,060	0,070	0,090	0,10	100 (85 — 115)

For cutting data recalculations, see page 90

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

Cutting data – JS564 Side milling advanced roughing $a_p/DC = 0,10$

SMG		a_p / DC	f_z								v_c
			4	5	6	8	10	12	16	20	
M3	E	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	130 (110 – 150)
M4	E	1,9	0,034	0,044	0,050	0,070	0,085	0,10	0,13	0,15	100 (85 – 115)
M5	E	1,9	0,034	0,044	0,050	0,070	0,085	0,10	0,13	0,15	85 (70 – 95)
N3	E	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	500 (400 – 600)

Cutting data – JS564 Side milling advanced roughing $a_p/DC = 0,15$

SMG		a_p / DC	f_z								v_c
			4	5	6	8	10	12	16	20	
P1	E/M/A/D	2,5	0,042	0,055	0,065	0,085	0,11	0,13	0,16	0,18	305 (265 – 345)
P2	E/M/A/D	2,5	0,044	0,055	0,065	0,085	0,11	0,13	0,16	0,18	295 (260 – 335)
P3	E/M/A/D	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	260 (225 – 295)
P4	E/M/A/D	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	230 (200 – 260)
P5	E/M/A/D	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	215 (185 – 245)
P6	E/M/A/D	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	240 (210 – 275)
P7	E/M/A/D	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	230 (195 – 260)
P8	E/M/A/D	2,5	0,042	0,050	0,060	0,085	0,10	0,12	0,15	0,18	215 (185 – 245)
P11	E/M/A/D	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	220 (190 – 250)
M1	E	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	160 (140 – 180)
M2	E	2,5	0,036	0,046	0,055	0,075	0,090	0,11	0,13	0,15	130 (115 – 150)
K1	E	2,5	0,044	0,055	0,065	0,090	0,11	0,13	0,16	0,19	260 (225 – 295)
K2	E	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	230 (200 – 260)
K3	E	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	195 (170 – 220)
K4	E	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	185 (160 – 210)
K5	E	2,5	0,036	0,044	0,055	0,070	0,090	0,11	0,13	0,15	115 (100 – 130)
K6	E	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	165 (140 – 185)
K7	E	2,5	0,036	0,044	0,055	0,070	0,090	0,11	0,13	0,15	145 (125 – 165)
N1	E	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	700 (600 – 800)
N2	E	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	450 (385 – 510)
N11	E	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	350 (300 – 400)

For cutting data recalculations, see page 90

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min


f_z = mm

a_p (mm)/DC (mm)= factor


a_e (mm)/DC (mm)= factor

All cutting data are target values


Cutting data – JS565 Side milling advanced roughing $a_p/DC = 0,028$

SMG		a_p / DC	f_z								v_c
			4	5	6	8	10	12	16	20	
S1	E	2,5	0,028	0,036	0,042	0,055	0,070	0,085	0,10	0,12	60 (37 — 85)
S2	E	2,5	0,028	0,036	0,042	0,055	0,070	0,085	0,10	0,12	50 (30 — 70)
S3	E	2,5	0,026	0,032	0,038	0,050	0,065	0,075	0,095	0,11	43 (26 — 60)


Cutting data – JS565 Side milling advanced roughing $a_p/DC = 0,04$

SMG		a_p / DC	f_z								v_c
			4	5	6	8	10	12	16	20	
H8	M/A/D	2,5	0,018	0,022	0,028	0,036	0,046	0,055	0,065	0,075	145 (120 — 170)
H21	M/A/D	2,5	0,018	0,022	0,028	0,036	0,046	0,055	0,065	0,075	145 (120 — 170)
H31	M/A/D	2,5	0,016	0,019	0,024	0,032	0,038	0,046	0,055	0,065	115 (95 — 130)


Cutting data – JS565 Side milling advanced roughing $a_p/DC = 0,064$

SMG		a_p / DC	f_z								v_c
			4	5	6	8	10	12	16	20	
S11	E	2,5	0,026	0,032	0,040	0,055	0,065	0,080	0,095	0,11	165 (135 — 190)
S12	E	2,5	0,026	0,032	0,040	0,055	0,065	0,080	0,095	0,11	125 (105 — 145)
S13	E	2,0	0,022	0,028	0,034	0,046	0,055	0,070	0,085	0,095	100 (85 — 115)

Cutting data – JS565 Side milling advanced roughing $a_p/DC = 0,08$

SMG		a_p / DC	f_z								v_c
			4	5	6	8	10	12	16	20	
M3	E	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	130 (110 — 150)
M4	E	1,9	0,034	0,044	0,050	0,070	0,085	0,10	0,13	0,15	100 (85 — 115)
M5	E	1,9	0,034	0,044	0,050	0,070	0,085	0,10	0,13	0,15	85 (70 — 95)
N3	E	2,5	0,040	0,050	0,060	0,080	0,10	0,12	0,15	0,17	495 (395 — 590)

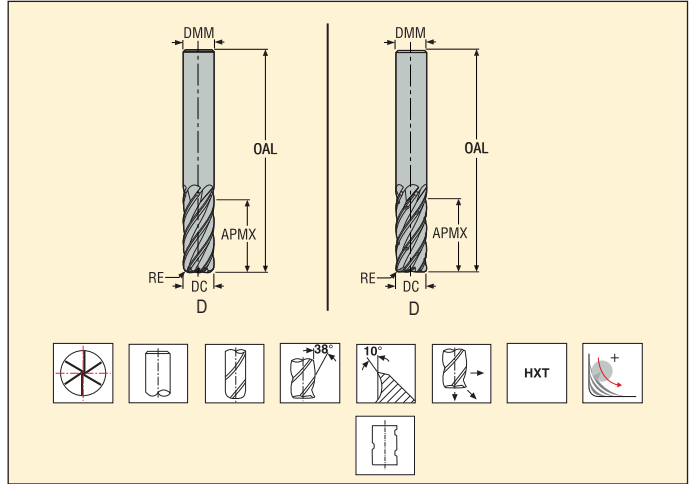
Cutting data – JS565 Side milling advanced roughing $a_p/DC = 0,12$

SMG		a_p / DC	f_z								v_c
			4	5	6	8	10	12	16	20	
P1	E/M/A/D	2,5	0,036	0,044	0,055	0,070	0,090	0,10	0,13	0,15	285 (250 — 325)
P2	E/M/A/D	2,5	0,036	0,046	0,055	0,070	0,090	0,11	0,13	0,15	280 (245 — 315)
P3	E/M/A/D	2,5	0,034	0,042	0,050	0,070	0,085	0,10	0,13	0,14	245 (210 — 275)
P4	E/M/A/D	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	215 (185 — 245)
P5	E/M/A/D	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	200 (175 — 230)
P6	E/M/A/D	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	225 (195 — 255)
P7	E/M/A/D	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	215 (185 — 240)
P8	E/M/A/D	2,5	0,034	0,044	0,050	0,070	0,085	0,10	0,13	0,15	200 (175 — 230)
P11	E/M/A/D	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	205 (180 — 235)
M1	E	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	150 (130 — 170)
M2	E	2,5	0,030	0,038	0,046	0,060	0,075	0,090	0,11	0,13	125 (110 — 140)
K1	E	2,5	0,036	0,046	0,055	0,075	0,090	0,11	0,14	0,16	245 (215 — 275)
K2	E	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	215 (185 — 245)
K3	E	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	180 (160 — 205)
K4	E	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	175 (150 — 195)
K5	E	2,5	0,030	0,038	0,046	0,060	0,075	0,090	0,11	0,13	105 (90 — 120)
K6	E	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	155 (135 — 175)
K7	E	2,5	0,030	0,038	0,046	0,060	0,075	0,090	0,11	0,13	135 (120 — 155)
N1	E	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	650 (560 — 750)
N2	E	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	420 (360 — 480)
N11	E	2,5	0,034	0,042	0,050	0,065	0,085	0,10	0,12	0,14	325 (280 — 375)

JS720 – Solid carbide end mill – cylindrical – six flute – titanium side milling – corner radius – unequal pitch



Tolerances:
 DMM=h5
 DC=e7
 Radius= +/-0,02
 Z6= no chip splitters
 Z6C= with chip splitters



Part No.	Length index	Tool shape	Dimensions in mm					CEDC	Cylindrical
			DC	DMM	APMX	OAL	RE		
JS720060D2R050.0Z6-HXT	2	D	6,0	6,0	17,0	57,0	0,5	6	■
JS720060D2R100.0Z6-HXT	2	D	6,0	6,0	17,0	57,0	1,0	6	■
JS720080D2R050.0Z6-HXT	2	D	8,0	8,0	23,0	63,0	0,5	6	■
JS720080D2R100.0Z6-HXT	2	D	8,0	8,0	23,0	63,0	1,0	6	■
JS720100D2R050.0Z6-HXT	2	D	10,0	10,0	26,0	72,0	0,5	6	■
JS720100D2R100.0Z6-HXT	2	D	10,0	10,0	26,0	72,0	1,0	6	■
JS720100D2R200.0Z6-HXT	2	D	10,0	10,0	26,0	72,0	2,0	6	■
JS720100D2R300.0Z6-HXT	2	D	10,0	10,0	26,0	72,0	3,0	6	■
JS720120D2R050.0Z6-HXT	2	D	12,0	12,0	30,0	83,0	0,5	6	■
JS720120D2R100.0Z6-HXT	2	D	12,0	12,0	30,0	83,0	1,0	6	■
JS720120D2R200.0Z6-HXT	2	D	12,0	12,0	30,0	83,0	2,0	6	■
JS720120D2R300.0Z6-HXT	2	D	12,0	12,0	30,0	83,0	3,0	6	■
JS720160D2R050.0Z6-HXT	2	D	16,0	16,0	44,0	99,0	0,5	6	■
JS720160D2R100.0Z6-HXT	2	D	16,0	16,0	44,0	99,0	1,0	6	■
JS720160D2R200.0Z6-HXT	2	D	16,0	16,0	44,0	99,0	2,0	6	■
JS720160D2R300.0Z6-HXT	2	D	16,0	16,0	44,0	99,0	3,0	6	■
JS720160D2R400.0Z6-HXT	2	D	16,0	16,0	44,0	99,0	4,0	6	■
JS720160D2R600.0Z6-HXT	2	D	16,0	16,0	44,0	99,0	6,0	6	■
JS720200D3R050.0Z6-HXT	3	D	20,0	20,0	62,0	121,0	0,5	6	■
JS720200D3R100.0Z6-HXT	3	D	20,0	20,0	62,0	121,0	1,0	6	■
JS720200D3R200.0Z6-HXT	3	D	20,0	20,0	62,0	121,0	2,0	6	■
JS720200D3R300.0Z6-HXT	3	D	20,0	20,0	62,0	121,0	3,0	6	■
JS720200D3R400.0Z6-HXT	3	D	20,0	20,0	62,0	121,0	4,0	6	■
JS720200D3R500.0Z6-HXT	3	D	20,0	20,0	62,0	121,0	5,0	6	■
JS720200D3R600.0Z6-HXT	3	D	20,0	20,0	62,0	121,0	6,0	6	■
JS720250D3R050.0Z6-HXT	3	D	25,0	25,0	78,0	146,0	0,5	6	■
JS720250D3R100.0Z6-HXT	3	D	25,0	25,0	78,0	146,0	1,0	6	■
JS720250D3R200.0Z6-HXT	3	D	25,0	25,0	78,0	146,0	2,0	6	■
JS720250D3R300.0Z6-HXT	3	D	25,0	25,0	78,0	146,0	3,0	6	■
JS720250D3R400.0Z6-HXT	3	D	25,0	25,0	78,0	146,0	4,0	6	■
JS720250D3R600.0Z6-HXT	3	D	25,0	25,0	78,0	146,0	6,0	6	■
JS720100D2R050.0Z6C-HXT	2	D	10,0	10,0	26,0	72,0	0,5	6	■
JS720120D2R050.0Z6C-HXT	2	D	12,0	12,0	30,0	83,0	0,5	6	■
JS720160D2R050.0Z6C-HXT	2	D	16,0	16,0	44,0	99,0	0,5	6	■
JS720200D3R050.0Z6C-HXT	3	D	20,0	20,0	62,0	121,0	0,5	6	■
JS720250D3R050.0Z6C-HXT	3	D	25,0	25,0	78,0	146,0	0,5	6	■

■ Stock standard. Subject to change refer to current price- and stock-list

JS720 – Solid carbide end mill – weldon – six flute – titanium side milling – corner radius – unequal pitch



Tolerances:

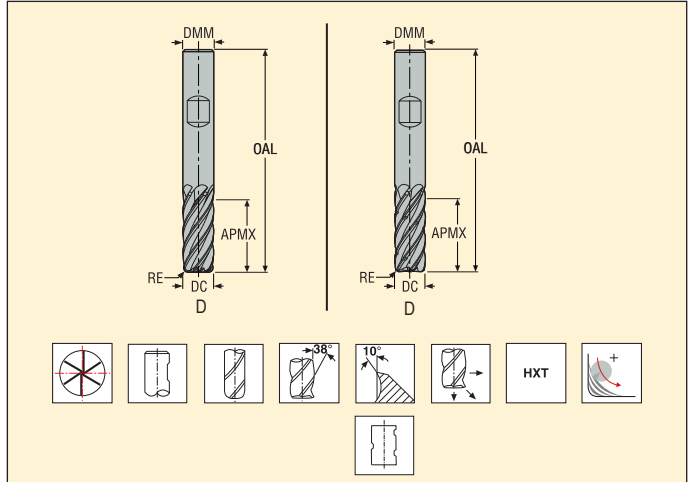
DMM=h5

DC=e7

Radius=+/-0,02

Z6= no chip splitters

Z6C= with chip splitters



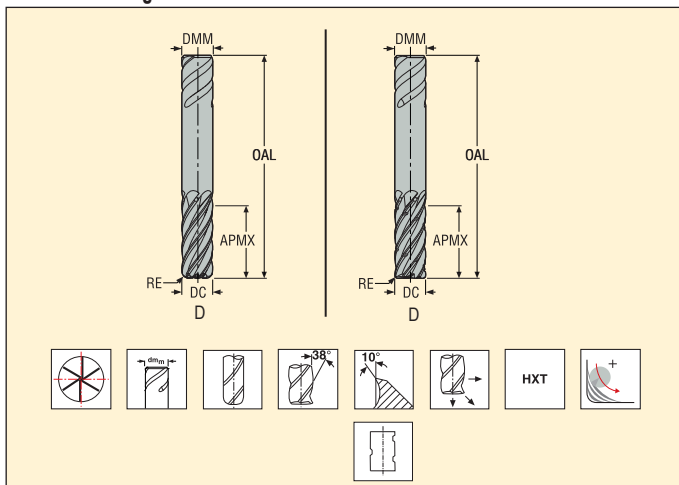
Part No.	Length index	Tool shape	Dimensions in mm					CEDC	Weldon
			DC	DMM	APMX	OAL	RE		
JS720060D2R050.3Z6-HXT	2	D	6,0	6,0	17,0	57,0	0,5	6	<input type="checkbox"/>
JS720060D2R100.3Z6-HXT	2	D	6,0	6,0	17,0	57,0	1,0	6	<input type="checkbox"/>
JS720080D2R050.3Z6-HXT	2	D	8,0	8,0	23,0	63,0	0,5	6	<input type="checkbox"/>
JS720080D2R100.3Z6-HXT	2	D	8,0	8,0	23,0	63,0	1,0	6	<input type="checkbox"/>
JS720100D2R050.3Z6-HXT	2	D	10,0	10,0	26,0	72,0	0,5	6	<input type="checkbox"/>
JS720100D2R100.3Z6-HXT	2	D	10,0	10,0	26,0	72,0	1,0	6	<input type="checkbox"/>
JS720100D2R200.3Z6-HXT	2	D	10,0	10,0	26,0	72,0	2,0	6	<input type="checkbox"/>
JS720100D2R300.3Z6-HXT	2	D	10,0	10,0	26,0	72,0	3,0	6	<input type="checkbox"/>
JS720120D2R050.3Z6-HXT	2	D	12,0	12,0	30,0	83,0	0,5	6	<input type="checkbox"/>
JS720120D2R100.3Z6-HXT	2	D	12,0	12,0	30,0	83,0	1,0	6	<input type="checkbox"/>
JS720120D2R200.3Z6-HXT	2	D	12,0	12,0	30,0	83,0	2,0	6	<input type="checkbox"/>
JS720120D2R300.3Z6-HXT	2	D	12,0	12,0	30,0	83,0	3,0	6	<input type="checkbox"/>
JS720160D2R050.3Z6-HXT	2	D	16,0	16,0	44,0	99,0	0,5	6	<input type="checkbox"/>
JS720160D2R100.3Z6-HXT	2	D	16,0	16,0	44,0	99,0	1,0	6	<input type="checkbox"/>
JS720160D2R200.3Z6-HXT	2	D	16,0	16,0	44,0	99,0	2,0	6	<input type="checkbox"/>
JS720160D2R300.3Z6-HXT	2	D	16,0	16,0	44,0	99,0	3,0	6	<input type="checkbox"/>
JS720160D2R400.3Z6-HXT	2	D	16,0	16,0	44,0	99,0	4,0	6	<input type="checkbox"/>
JS720160D2R600.3Z6-HXT	2	D	16,0	16,0	44,0	99,0	6,0	6	<input type="checkbox"/>
JS720200D3R050.3Z6-HXT	3	D	20,0	20,0	62,0	121,0	0,5	6	<input type="checkbox"/>
JS720200D3R100.3Z6-HXT	3	D	20,0	20,0	62,0	121,0	1,0	6	<input type="checkbox"/>
JS720200D3R200.3Z6-HXT	3	D	20,0	20,0	62,0	121,0	2,0	6	<input type="checkbox"/>
JS720200D3R300.3Z6-HXT	3	D	20,0	20,0	62,0	121,0	3,0	6	<input type="checkbox"/>
JS720200D3R400.3Z6-HXT	3	D	20,0	20,0	62,0	121,0	4,0	6	<input type="checkbox"/>
JS720200D3R500.3Z6-HXT	3	D	20,0	20,0	62,0	121,0	5,0	6	<input type="checkbox"/>
JS720200D3R600.3Z6-HXT	3	D	20,0	20,0	62,0	121,0	6,0	6	<input type="checkbox"/>
JS720250D3R050.3Z6-HXT	3	D	25,0	25,0	78,0	146,0	0,5	6	<input type="checkbox"/>
JS720250D3R100.3Z6-HXT	3	D	25,0	25,0	78,0	146,0	1,0	6	<input type="checkbox"/>
JS720250D3R200.3Z6-HXT	3	D	25,0	25,0	78,0	146,0	2,0	6	<input type="checkbox"/>
JS720250D3R300.3Z6-HXT	3	D	25,0	25,0	78,0	146,0	3,0	6	<input type="checkbox"/>
JS720250D3R400.3Z6-HXT	3	D	25,0	25,0	78,0	146,0	4,0	6	<input type="checkbox"/>
JS720250D3R600.3Z6-HXT	3	D	25,0	25,0	78,0	146,0	6,0	6	<input type="checkbox"/>
JS720100D2R050.3Z6C-HXT	2	D	10,0	10,0	26,0	72,0	0,5	6	<input type="checkbox"/>
JS720120D2R050.3Z6C-HXT	2	D	12,0	12,0	30,0	83,0	0,5	6	<input type="checkbox"/>
JS720160D2R050.3Z6C-HXT	2	D	16,0	16,0	44,0	99,0	0,5	6	<input type="checkbox"/>
JS720200D3R050.3Z6C-HXT	3	D	20,0	20,0	62,0	121,0	0,5	6	<input type="checkbox"/>
JS720250D3R050.3Z6C-HXT	3	D	25,0	25,0	78,0	146,0	0,5	6	<input type="checkbox"/>

Weldon available, delivery time is 3 days. Subject to change refer to current price list.

JS720 – Solid carbide end mill – safelock – six flute – titanium side milling – corner radius



Tolerances:
 DMM=h5
 DC=e7
 Radius=+/-0,02
 Z6= no chip splitters
 Z6C= with chip splitters



Part No.	Length index	Tool shape	Dimensions in mm					CEDC	Safelock
			DC	DMM	APMX	OAL	RE		
JS720060D2R050.9Z6-HXT	2	D	6,0	6,0	17,0	57,0	0,5	6	<input type="checkbox"/>
JS720060D2R100.9Z6-HXT	2	D	6,0	6,0	17,0	57,0	1,0	6	<input type="checkbox"/>
JS720080D2R050.9Z6-HXT	2	D	8,0	8,0	23,0	63,0	0,5	6	<input type="checkbox"/>
JS720080D2R100.9Z6-HXT	2	D	8,0	8,0	23,0	63,0	1,0	6	<input type="checkbox"/>
JS720100D2R050.9Z6-HXT	2	D	10,0	10,0	26,0	72,0	0,5	6	<input type="checkbox"/>
JS720100D2R100.9Z6-HXT	2	D	10,0	10,0	26,0	72,0	1,0	6	<input type="checkbox"/>
JS720100D2R200.9Z6-HXT	2	D	10,0	10,0	26,0	72,0	2,0	6	<input type="checkbox"/>
JS720100D2R300.9Z6-HXT	2	D	10,0	10,0	26,0	72,0	3,0	6	<input type="checkbox"/>
JS720120D2R050.9Z6-HXT	2	D	12,0	12,0	30,0	83,0	0,5	6	<input type="checkbox"/>
JS720120D2R100.9Z6-HXT	2	D	12,0	12,0	30,0	83,0	1,0	6	<input type="checkbox"/>
JS720120D2R200.9Z6-HXT	2	D	12,0	12,0	30,0	83,0	2,0	6	<input type="checkbox"/>
JS720120D2R300.9Z6-HXT	2	D	12,0	12,0	30,0	83,0	3,0	6	<input type="checkbox"/>
JS720160D2R050.9Z6-HXT	2	D	16,0	16,0	44,0	99,0	0,5	6	<input type="checkbox"/>
JS720160D2R100.9Z6-HXT	2	D	16,0	16,0	44,0	99,0	1,0	6	<input type="checkbox"/>
JS720160D2R200.9Z6-HXT	2	D	16,0	16,0	44,0	99,0	2,0	6	<input type="checkbox"/>
JS720160D2R300.9Z6-HXT	2	D	16,0	16,0	44,0	99,0	3,0	6	<input type="checkbox"/>
JS720160D2R400.9Z6-HXT	2	D	16,0	16,0	44,0	99,0	4,0	6	<input type="checkbox"/>
JS720160D2R600.9Z6-HXT	2	D	16,0	16,0	44,0	99,0	6,0	6	<input type="checkbox"/>
JS720200D3R050.9Z6-HXT	3	D	20,0	20,0	62,0	121,0	0,5	6	<input type="checkbox"/>
JS720200D3R100.9Z6-HXT	3	D	20,0	20,0	62,0	121,0	1,0	6	<input type="checkbox"/>
JS720200D3R200.9Z6-HXT	3	D	20,0	20,0	62,0	121,0	2,0	6	<input type="checkbox"/>
JS720200D3R300.9Z6-HXT	3	D	20,0	20,0	62,0	121,0	3,0	6	<input type="checkbox"/>
JS720200D3R400.9Z6-HXT	3	D	20,0	20,0	62,0	121,0	4,0	6	<input type="checkbox"/>
JS720200D3R500.9Z6-HXT	3	D	20,0	20,0	62,0	121,0	5,0	6	<input type="checkbox"/>
JS720200D3R600.9Z6-HXT	3	D	20,0	20,0	62,0	121,0	6,0	6	<input type="checkbox"/>
JS720250D3R050.9Z6-HXT	3	D	25,0	25,0	78,0	146,0	0,5	6	<input type="checkbox"/>
JS720250D3R100.9Z6-HXT	3	D	25,0	25,0	78,0	146,0	1,0	6	<input type="checkbox"/>
JS720250D3R200.9Z6-HXT	3	D	25,0	25,0	78,0	146,0	2,0	6	<input type="checkbox"/>
JS720250D3R300.9Z6-HXT	3	D	25,0	25,0	78,0	146,0	3,0	6	<input type="checkbox"/>
JS720250D3R400.9Z6-HXT	3	D	25,0	25,0	78,0	146,0	4,0	6	<input type="checkbox"/>
JS720250D3R600.9Z6-HXT	3	D	25,0	25,0	78,0	146,0	6,0	6	<input type="checkbox"/>
JS720100D2R050.9Z6C-HXT	2	D	10,0	10,0	26,0	72,0	0,5	6	<input type="checkbox"/>
JS720120D2R050.9Z6C-HXT	2	D	12,0	12,0	30,0	83,0	0,5	6	<input type="checkbox"/>
JS720160D2R050.9Z6C-HXT	2	D	16,0	16,0	44,0	99,0	0,5	6	<input type="checkbox"/>
JS720200D3R050.9Z6C-HXT	3	D	20,0	20,0	62,0	121,0	0,5	6	<input type="checkbox"/>
JS720250D3R050.9Z6C-HXT	3	D	25,0	25,0	78,0	146,0	0,5	6	<input type="checkbox"/>

Non stock standard item, SAFE-LOCK available, delivery time 2 weeks. Subject to change refer to current price list.

Cutting data – JS720 Side milling $a_p/DC = 0,4$

SMG		a_p / DC	f_z						v_c	
			6	8	10	12	16	20		25
M1	E	1,1	0,030	0,040	0,050	0,060	0,075	0,085	0,095	90 (120 – 70)
M2	E	1,1	0,028	0,036	0,046	0,055	0,065	0,075	0,085	75 (100 – 60)
M3	E	1,1	0,030	0,040	0,050	0,060	0,075	0,085	0,095	70 (100 – 55)
M4	E	0,80	0,026	0,034	0,044	0,050	0,065	0,075	0,085	55 (75 – 42)
M5	E	0,80	0,026	0,034	0,044	0,050	0,065	0,075	0,085	45 (65 – 35)
S11	E	1,1	0,030	0,040	0,050	0,060	0,075	0,085	0,095	105 (130 – 80)
S12	E	1,1	0,030	0,040	0,050	0,060	0,075	0,085	0,095	80 (100 – 60)
S13	E	0,90	0,026	0,034	0,044	0,050	0,065	0,075	0,085	65 (80 – 48)

Cutting data – JS720 Side milling advanced roughing $a_p/DC = 0,07$

SMG		a_p / DC	f_z						v_c	
			6	8	10	12	16	20		25
M1	E	2,5	0,050	0,065	0,080	0,095	0,12	0,14	0,16	110 (150 – 85)
M2	E	2,5	0,044	0,060	0,075	0,090	0,11	0,13	0,14	90 (120 – 70)
M3	E	2,5	0,050	0,065	0,080	0,095	0,12	0,14	0,16	85 (125 – 70)
M4	E	2,5	0,044	0,060	0,070	0,085	0,11	0,12	0,14	65 (95 – 55)
M5	E	2,5	0,044	0,060	0,070	0,085	0,11	0,12	0,14	55 (80 – 44)
S11	E	2,5	0,050	0,065	0,080	0,095	0,12	0,14	0,16	130 (160 – 95)
S12	E	2,5	0,050	0,065	0,080	0,095	0,12	0,14	0,16	100 (125 – 75)
S13	E	2,5	0,044	0,060	0,070	0,085	0,11	0,12	0,14	80 (100 – 60)

For cutting data recalculations, see page 90

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

Cutting data – JS730 Side milling roughing $a_p/DC = 0,2$

SMG		a_p / DC	f_z						v_c	
			6	8	10	12	16	20		25
M1	E	1,1	0,030	0,040	0,050	0,060	0,075	0,085	0,095	90 (120 – 70)
M2	E	1,1	0,028	0,036	0,046	0,055	0,065	0,075	0,085	75 (100 – 60)
M3	E	1,1	0,030	0,040	0,050	0,060	0,075	0,085	0,095	70 (100 – 55)
M4	E	0,80	0,026	0,034	0,044	0,050	0,065	0,075	0,085	55 (75 – 42)
M5	E	0,80	0,026	0,034	0,044	0,050	0,065	0,075	0,085	45 (65 – 35)
S11	E	1,1	0,030	0,040	0,050	0,060	0,075	0,085	0,095	105 (130 – 80)
S12	E	1,1	0,030	0,040	0,050	0,060	0,075	0,085	0,095	80 (100 – 60)
S13	E	0,90	0,026	0,034	0,044	0,050	0,065	0,075	0,085	65 (80 – 48)

Cutting data – JS730 Side milling advanced roughing $a_p/DC = 0,07$

SMG		a_p / DC	f_z						v_c	
			6	8	10	12	16	20		25
M1	E	1,8	0,060	0,080	0,10	0,12	0,15	0,17	0,19	110 (130 – 90)
M2	E	1,8	0,055	0,075	0,090	0,11	0,13	0,15	0,17	90 (110 – 75)
M3	E	1,8	0,060	0,080	0,10	0,12	0,15	0,17	0,19	90 (100 – 80)
M4	E	1,3	0,055	0,070	0,090	0,11	0,13	0,15	0,17	70 (80 – 65)
M5	E	1,3	0,055	0,070	0,090	0,11	0,13	0,15	0,17	60 (65 – 50)
S11	E	1,8	0,042	0,055	0,070	0,085	0,10	0,12	0,14	125 (155 – 95)
S12	E	1,8	0,042	0,055	0,070	0,085	0,10	0,12	0,14	95 (120 – 70)
S13	E	1,5	0,038	0,050	0,065	0,075	0,095	0,11	0,12	75 (95 – 55)

For cutting data recalculations, see page 90

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

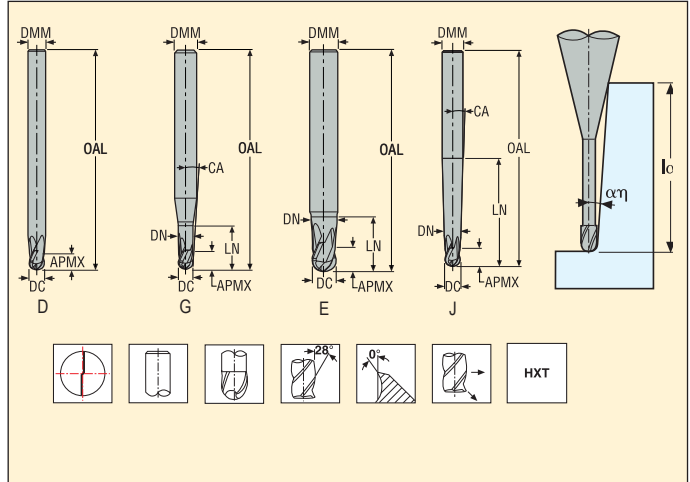
a_e (mm)/DC (mm)= factor

All cutting data are target values

JH112 – Solid carbide end mill – cylindrical – two flute – hardmilling – high precision – full radius



Tolerances:
Run-out= <0,005
DMM=h5
DC=0-0,01
Radius=+/-0.005



Part No.	Length index	Tool shape	Dimensions in mm									CEDC	Max. cut depth rel. to $\alpha\eta$ ($l_{\alpha\eta}$, ref)*				
			DC	DMM	APMX	OAL	LN	LN2	DN	CA	WDX0		WDX05	WDX1	WDX15	WDX2	WDX3
JH112020G1B.0Z2-HXT	1	G	2,0	4,0	2,0	40,0	4,0	9,9	1,9	6,45	2	4,66	4,84	5,03	5,24	5,47	6,03
JH112030G1B.0Z2-HXT	1	G	3,0	4,0	3,0	40,0	6,0	9,9	2,8	3,3	2	6,96	7,29	7,66	8,08	8,56	9,78
JH112040D1B.0Z2-HXT	1	D	4,0	4,0	4,0	40,0	-	-	-	-	2	4,0	∞	∞	∞	∞	∞
JH112050G1B.0Z2-HXT	1	G	5,0	6,0	5,0	50,0	10,0	18,0	4,6	2,0	2	12,09	12,96	14,01	15,29	16,89	∞
JH112060D1B.0Z2-HXT	1	D	6,0	6,0	6,0	50,0	-	-	-	-	2	6,0	∞	∞	∞	∞	∞
JH112080D1B.0Z2-HXT	1	D	8,0	8,0	8,0	65,0	-	-	-	-	2	8,0	∞	∞	∞	∞	∞
JH112100D1B.0Z2-HXT	1	D	10,0	10,0	10,0	65,0	-	-	-	-	2	10,0	∞	∞	∞	∞	∞
JH112020G2B.0Z2-HXT	2	G	2,0	3,0	2,0	50,0	10,0	12,0	1,9	2,5	2	10,79	11,1	11,42	11,77	∞	∞
JH112030D2B.0Z2-HXT	2	D	3,0	3,0	3,0	50,0	-	-	-	-	2	∞	∞	∞	∞	∞	∞
JH112040D2B.0Z2-HXT	2	D	4,0	4,0	4,0	60,0	-	-	-	-	2	4,0	∞	∞	∞	∞	∞
JH112050D2B.0Z2-HXT	2	D	5,0	5,0	5,0	60,0	-	-	-	-	2	5,0	∞	∞	∞	∞	∞
JH112060D2B.0Z2-HXT	2	D	6,0	6,0	6,0	75,0	-	-	-	-	2	6,0	∞	∞	∞	∞	∞
JH112020G3B.0Z2-HXT	3	G	2,0	6,0	2,0	60,0	4,0	15,6	1,9	8,12	2	4,66	4,84	5,03	5,24	5,47	6,03
JH112025G3B.0Z2-HXT	3	G	2,5	6,0	2,5	60,0	5,0	15,2	2,4	7,39	2	5,66	5,87	6,1	6,36	6,64	7,31
JH112030G3B.0Z2-HXT	3	G	3,0	6,0	3,0	60,0	6,0	18,1	2,8	5,5	2	6,97	7,31	7,7	8,14	8,65	9,95
JH112035G3B.0Z2-HXT	3	G	3,5	6,0	3,5	65,0	7,0	23,0	3,2	3,81	2	8,62	9,24	9,99	10,9	12,05	15,49
JH112040G3B.0Z2-HXT	3	G	4,0	6,0	4,0	65,0	8,0	21,1	3,7	3,34	2	9,62	10,31	11,14	12,15	13,42	17,25
JH112050G3B.0Z2-HXT	3	G	5,0	6,0	5,0	65,0	10,0	18,0	4,6	2,0	2	12,09	12,96	14,01	15,29	16,89	∞
JH112060G3B.0Z2-HXT	3	G	6,0	8,0	6,0	75,0	12,0	25,7	5,6	2,78	2	14,09	15,1	16,31	17,79	19,64	25,2
JH112080E3B.0Z2-HXT	3	E	8,0	8,0	8,0	75,0	16,0	-	7,4	-	2	16,0	∞	∞	∞	∞	∞
JH112100E3B.0Z2-HXT	3	E	10,0	10,0	10,0	80,0	20,0	-	9,4	-	2	20,0	∞	∞	∞	∞	∞
JH112120E3B.0Z2-HXT	3	E	12,0	12,0	12,0	90,0	24,0	-	11,4	-	2	24,0	∞	∞	∞	∞	∞
JH112020G4B.0Z2-HXT	4	G	2,0	6,0	2,0	80,0	20,0	31,6	1,9	3,82	2	20,66	21,59	22,61	23,73	24,98	27,94
JH112030G4B.0Z2-HXT	4	G	3,0	6,0	3,0	80,0	20,0	32,1	2,8	2,91	2	20,97	22,18	23,55	25,11	26,92	31,51
JH112040G4B.0Z2-HXT	4	G	4,0	6,0	4,0	80,0	20,0	33,1	3,7	1,97	2	21,62	23,39	25,53	28,13	∞	∞
JH112050G4B.0Z2-HXT	4	G	5,0	6,0	5,0	100,0	50,0	58,0	4,6	0,53	2	52,09	56,58	∞	∞	∞	∞
JH112060D4B.0Z2-HXT	4	D	6,0	6,0	6,0	100,0	-	-	-	-	2	6,0	∞	∞	∞	∞	∞
JH112080D4B.0Z2-HXT	4	D	8,0	8,0	8,0	110,0	-	-	-	-	2	8,0	∞	∞	∞	∞	∞
JH112100D4B.0Z2-HXT	4	D	10,0	10,0	10,0	125,0	-	-	-	-	2	10,0	∞	∞	∞	∞	∞
JH112120D4B.0Z2-HXT	4	D	12,0	12,0	12,0	125,0	-	-	-	-	2	12,0	∞	∞	∞	∞	∞
JH112020J5B.0Z2-HXT	5	J	2,0	6,0	2,0	80,0	35	-	1,9	3,3	2	3,09	3,43	3,91	4,63	5,81	14,63
JH112030J5B.0Z2-HXT	5	J	3,0	6,0	3,0	80,0	40	-	2,8	2,2	2	5,7	6,75	8,51	12,03	22,61	∞
JH112040J5B.0Z2-HXT	5	J	4,0	6,0	4,0	80,0	50	-	3,7	1,2	2	10,58	15,35	32,07	∞	∞	∞
JH112050J5B.0Z2-HXT	5	J	5,0	8,0	5,0	100,0	55	-	4,6	1,6	2	11,47	14,56	20,93	41,46	∞	∞

*The effective under-neck length for the various draft angles. Remark: ∞ = infinity, no collision in projection length area.

Cutting data – JH112 Copy milling finishing $a_p/DC = 0,02$

SMG		a_p / DC	f_z										v_c
			2	2.5	3	3.5	4	5	6	8	10	12	
K1	E	0,24	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	440 (415 – 630)
K2	E	0,24	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	380 (360 – 540)
K3	E	0,24	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	320 (305 – 460)
K4	E	0,24	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	305 (290 – 440)
K5	E	0,24	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	350 (310 – 520)
K6	E	0,24	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	520 (460 – 770)
K7	E	0,30	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	680 (670 – 960)
H3	M	0,10	0,028	0,036	0,042	0,048	0,055	0,070	0,085	0,11	0,14	0,17	130 (120 – 200)
H5	M	0,20	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	295 (290 – 415)
H7	M	0,095	0,028	0,036	0,042	0,048	0,055	0,070	0,085	0,11	0,14	0,17	130 (120 – 200)
H8	M	0,19	0,028	0,034	0,042	0,048	0,055	0,070	0,085	0,11	0,14	0,17	300 (295 – 420)
H21	M	0,19	0,028	0,034	0,042	0,048	0,055	0,070	0,085	0,11	0,14	0,17	300 (295 – 420)
H31	M	0,20	0,026	0,032	0,040	0,046	0,050	0,065	0,080	0,10	0,13	0,16	260 (250 – 375)

Cutting data – JH112 Copy milling roughing $a_p/DC = 0,20$

SMG		a_p / DC	f_z										v_c	
			2	2.5	3	3.5	4	5	6	8	10	12		
K4	E	0,18	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	0,24	230 (220 – 330)
K5	E	0,14	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	0,24	270 (240 – 395)
K6	E	0,14	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	0,24	395 (355 – 590)
K7	E	0,12	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	0,24	530 (520 – 750)
H3	M	0,040	0,028	0,036	0,042	0,048	0,055	0,070	0,085	0,11	0,14	0,17	0,22	100 (90 – 150)
H7	M	0,034	0,028	0,036	0,042	0,048	0,055	0,070	0,085	0,11	0,14	0,17	0,22	100 (90 – 150)

Cutting data – JH112 Copy milling roughing $a_p/DC = 0,3$

SMG		a_p / DC	f_z										v_c
			2	2.5	3	3.5	4	5	6	8	10	12	
K1	E	0,14	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	305 (290 – 435)
K2	E	0,14	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	265 (250 – 375)
K3	E	0,14	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	225 (210 – 320)
H5	M	0,095	0,030	0,038	0,044	0,050	0,060	0,075	0,090	0,12	0,15	0,18	205 (200 – 285)
H8	M	0,080	0,028	0,034	0,042	0,048	0,055	0,070	0,085	0,11	0,14	0,17	205 (205 – 290)
H21	M	0,080	0,028	0,034	0,042	0,048	0,055	0,070	0,085	0,11	0,14	0,17	205 (205 – 290)
H31	M	0,095	0,026	0,032	0,040	0,046	0,050	0,065	0,080	0,10	0,13	0,16	180 (175 – 260)

For cutting data recalculations, see page 90

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

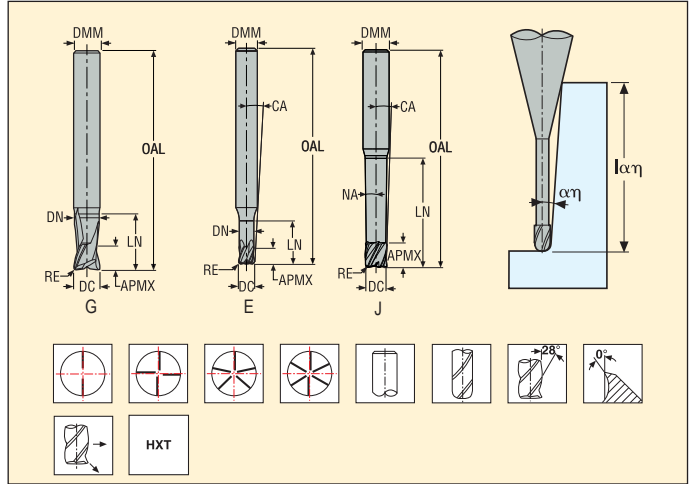
a_g (mm)/DC (mm)= factor

All cutting data are target values

JH142 – Solid carbide end mill – cylindrical – hardmilling – high precision – torical end mill CEDC 2,4,5,6



Tolerances:
Run-out= <0,005
DMM=h5
DC=0-0,01
Radius=+/-0,005



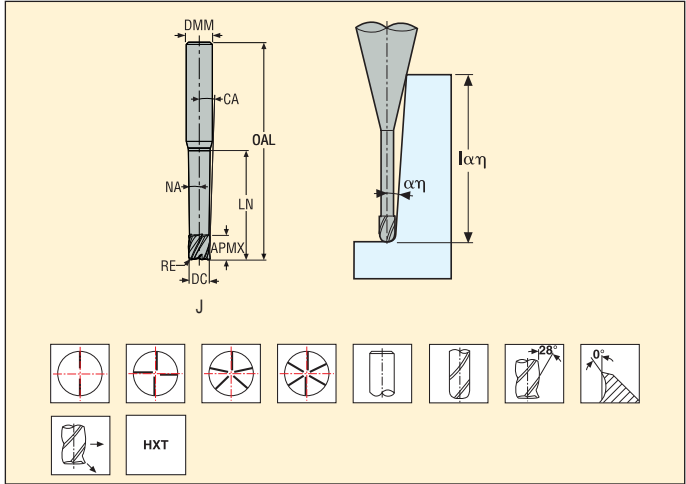
Part No.	Length index	Tool shape	Dimensions in mm										Max. cut depth rel. to $\alpha\eta$ ($l_{\alpha\eta}$, ref)*					
			DC	DMM	APMX	OAL	LN	DN	RE	CA	CEDC	WDX0	WDX05	WDX1	WDX15	WDX2	WDX3	
JH142020G2R030.0Z2-HXT	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,3	6,64	2	6,63	6,96	7,21	7,43	7,62	7,96	
JH142020G2R030.0Z4-HXT	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,3	6,64	4	6,63	6,96	7,21	7,43	7,62	7,96	
JH142020G2R050.0Z2-HXT	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,5	6,79	2	6,63	6,95	7,2	7,41	7,6	7,93	
JH142020G2R050.0Z4-HXT	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,5	6,79	4	6,63	6,95	7,2	7,41	7,6	7,93	
JH142030G2R050.0Z2-HXT	2	G	3,0	4,0	3,0	40,0	8,0	2,8	0,5	2,95	2	8,92	9,23	9,48	9,71	9,91	10,26	
JH142030G2R050.0Z4-HXT	2	G	3,0	4,0	3,0	40,0	8,0	2,8	0,5	2,95	4	8,92	9,23	9,48	9,71	9,91	10,26	
JH142030G2R100.0Z2-HXT	2	G	3,0	4,0	3,0	40,0	8,0	2,8	1,0	3,1	2	8,92	9,21	9,46	9,67	9,87	10,21	
JH142030G2R100.0Z4-HXT	2	G	3,0	4,0	3,0	40,0	8,0	2,8	1,0	3,1	4	8,92	9,21	9,46	9,67	9,87	10,21	
JH142040G2R030.0Z2-HXT	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,3	5,34	2	9,13	9,4	9,64	9,84	10,03	10,37	
JH142040G2R030.0Z4-HXT	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,3	5,34	4	9,13	9,4	9,64	9,84	10,03	10,37	
JH142040G2R050.0Z4-HXT	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,5	5,44	4	9,13	9,4	9,63	9,83	10,02	10,35	
JH142040G2R100.0Z4-HXT	2	G	4,0	6,0	4,0	50,0	8,0	3,7	1,0	5,69	4	9,13	9,38	9,6	9,8	9,98	10,3	
JH142060E2R050.0Z2-HXT	2	E	6,0	6,0	6,0	50,0	12,0	5,6	0,5	-	2	12,0	∞	∞	∞	∞	∞	
JH142060E2R050.0Z4-HXT	2	E	6,0	6,0	6,0	50,0	12,0	5,6	0,5	-	4	12,0	∞	∞	∞	∞	∞	
JH142060E2R100.0Z2-HXT	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,0	-	2	12,0	∞	∞	∞	∞	∞	
JH142060E2R100.0Z4-HXT	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,0	-	4	12,0	∞	∞	∞	∞	∞	
JH142060E2R100.0Z5-HXT	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,0	-	5	12,0	∞	∞	∞	∞	∞	
JH142060E2R150.0Z2-HXT	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,5	-	2	12,0	∞	∞	∞	∞	∞	
JH142060E2R150.0Z5-HXT	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,5	-	5	12,0	∞	∞	∞	∞	∞	
JH142060E2R200.0Z5-HXT	2	E	6,0	6,0	6,0	50,0	12,0	5,6	2,0	-	5	12,0	∞	∞	∞	∞	∞	
JH142080E2R050.0Z5-HXT	2	E	8,0	8,0	8,0	60,0	16,0	7,4	0,5	-	5	16,0	∞	∞	∞	∞	∞	
JH142080E2R100.0Z5-HXT	2	E	8,0	8,0	8,0	60,0	16,0	7,4	1,0	-	5	16,0	∞	∞	∞	∞	∞	
JH142080E2R150.0Z5-HXT	2	E	8,0	8,0	8,0	60,0	16,0	7,4	1,5	-	5	16,0	∞	∞	∞	∞	∞	
JH142080E2R200.0Z5-HXT	2	E	8,0	8,0	8,0	60,0	16,0	7,4	2,0	-	5	16,0	∞	∞	∞	∞	∞	
JH142080E2R300.0Z5-HXT	2	E	8,0	8,0	8,0	60,0	16,0	7,4	3,0	-	5	16,0	∞	∞	∞	∞	∞	
JH142100E2R050.0Z5-HXT	2	E	10,0	10,0	10,0	70,0	20,0	9,4	0,5	-	5	20,0	∞	∞	∞	∞	∞	
JH142100E2R100.0Z5-HXT	2	E	10,0	10,0	10,0	70,0	20,0	9,4	1,0	-	5	20,0	∞	∞	∞	∞	∞	
JH142100E2R200.0Z5-HXT	2	E	10,0	10,0	10,0	70,0	20,0	9,4	2,0	-	5	20,0	∞	∞	∞	∞	∞	
JH142100E2R250.0Z5-HXT	2	E	10,0	10,0	10,0	70,0	20,0	9,4	2,5	-	5	20,0	∞	∞	∞	∞	∞	
JH142120E2R100.0Z6-HXT	2	E	12,0	12,0	12,0	75,0	24,0	11,4	1,0	-	6	24,0	∞	∞	∞	∞	∞	
JH142120E2R200.0Z6-HXT	2	E	12,0	12,0	12,0	75,0	24,0	11,4	2,0	-	6	24,0	∞	∞	∞	∞	∞	
JH142120E2R300.0Z6-HXT	2	E	12,0	12,0	12,0	75,0	24,0	11,4	3,0	-	6	24,0	∞	∞	∞	∞	∞	
JH142120E2R400.0Z6-HXT	2	E	12,0	12,0	12,0	75,0	24,0	11,4	4,0	-	6	24,0	∞	∞	∞	∞	∞	

*The effective under-neck length for the various draft angles. Remark: ∞ = infinity, no collision in projection length area.

JH142 – Solid carbide end mill – cylindrical – hardmilling – high precision – torical end mill CEDC 2,4,5,6



Tolerances:
Run-out= <0,005
DMM=h5
DC=0-0,01
Radius=+/-0,005



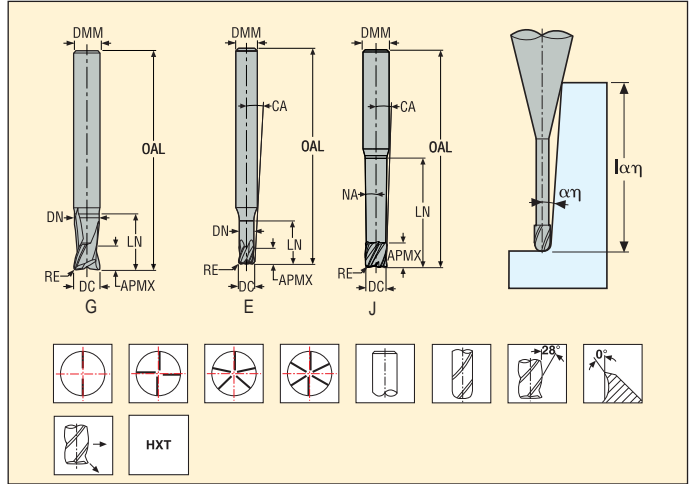
Part No.	Length index	Tool shape	Dimensions in mm									CEDC	Max. cut depth rel. to $\alpha\eta$ ($\alpha\eta$, ref)*					
			DC	DMM	APMX	OAL	LN	DN	RE	CA	WDX0		WDX05	WDX1	WDX15	WDX2	WDX3	
JH142020J3R030.02Z-HXT	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,3	6,72	2	5,23	10,27	10,95	11,31	11,69	12,54	
JH142020J3R030.024-HXT	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,3	6,72	4	5,23	10,27	10,95	11,31	11,69	12,54	
JH142020J3R050.02Z-HXT	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,5	6,79	2	5,23	10,24	10,94	11,29	11,66	12,5	
JH142020J3R050.024-HXT	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,5	6,79	4	5,23	10,24	10,94	11,29	11,66	12,5	
JH142040J3R030.024-HXT	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,3	2,45	4	13,87	20,79	21,52	22,23	22,99	∞	
JH142030J3R050.02Z-HXT	3	J	3,0	6,0	3,0	60,0	15,0	2,8	0,5	4,3	2	9,57	15,58	16,22	16,75	17,32	18,57	
JH142030J3R050.024-HXT	3	J	3,0	6,0	3,0	60,0	15,0	2,8	0,5	4,3	4	9,57	15,58	16,22	16,75	17,32	18,57	
JH142030J3R100.02Z-HXT	3	J	3,0	6,0	3,0	60,0	15,0	2,8	1,0	4,4	2	9,57	15,54	16,19	16,7	17,25	18,46	
JH142030J3R100.024-HXT	3	J	3,0	6,0	3,0	60,0	15,0	2,8	1,0	4,4	4	9,57	15,54	16,19	16,7	17,25	18,46	
JH142040J3R030.02Z-HXT	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,3	2,45	2	13,87	20,79	21,52	22,23	22,99	∞	
JH142040J3R050.024-HXT	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,5	2,48	4	13,87	20,78	21,51	22,21	22,97	∞	
JH142040J3R050.02Z-HXT	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,5	2,48	2	13,87	20,78	21,51	22,21	22,97	∞	
JH142040J3R100.02Z-HXT	3	J	4,0	6,0	4,0	60,0	20,0	3,7	1,0	2,53	2	13,87	20,76	21,48	22,16	22,9	∞	
JH142040J3R100.024-HXT	3	J	4,0	6,0	4,0	60,0	20,0	3,7	1,0	2,53	4	13,87	20,76	21,48	22,16	22,9	∞	
JH142060J3R050.024-HXT	3	J	6,0	8,0	6,0	75,0	30,0	5,6	0,5	1,75	4	19,15	30,85	31,88	32,93	∞	∞	
JH142060J3R050.025-HXT	3	J	6,0	8,0	6,0	75,0	30,0	5,6	0,5	1,75	5	19,15	30,85	31,88	32,93	∞	∞	
JH142060J3R100.024-HXT	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,0	1,77	4	19,15	30,83	31,85	32,88	∞	∞	
JH142060J3R100.025-HXT	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,0	1,77	5	19,15	30,83	31,85	32,88	∞	∞	
JH142060J3R150.025-HXT	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,5	1,8	5	19,15	30,8	31,82	32,83	∞	∞	
JH142060J3R200.025-HXT	3	J	6,0	8,0	6,0	75,0	30,0	5,6	2,0	1,83	5	19,15	30,78	31,78	32,78	∞	∞	
JH142080J3R050.025-HXT	3	J	8,0	10,0	8,0	85,0	40,0	7,4	0,5	1,34	5	27,67	41,12	42,44	∞	∞	∞	
JH142080J3R100.025-HXT	3	J	8,0	10,0	8,0	85,0	40,0	7,4	1,0	1,36	5	27,67	41,11	42,41	∞	∞	∞	
JH142080J3R150.025-HXT	3	J	8,0	10,0	8,0	85,0	40,0	7,4	1,5	1,37	5	27,67	41,09	42,38	∞	∞	∞	
JH142080J3R200.025-HXT	3	J	8,0	10,0	8,0	85,0	40,0	7,4	2,0	1,39	5	27,67	41,08	42,35	∞	∞	∞	
JH142100J3R050.025-HXT	3	J	10,0	12,0	10,0	100,0	50,0	9,4	0,5	1,1	5	29,67	50,97	52,62	∞	∞	∞	
JH142100J3R100.025-HXT	3	J	10,0	12,0	10,0	100,0	50,0	9,4	1,0	1,11	5	29,67	50,95	52,59	∞	∞	∞	
JH142100J3R200.025-HXT	3	J	10,0	12,0	10,0	100,0	50,0	9,4	2,0	1,13	5	29,67	50,91	52,53	∞	∞	∞	
JH142100J3R400.025-HXT	3	J	10,0	12,0	10,0	100,0	50,0	9,4	4,0	1,17	5	29,67	50,83	52,4	∞	∞	∞	
JH142020J6R030.024-HXT	6	J	2,0	6,0	2,0	75,0	20,0	1,9	0,3	4,33	4	5,23	11,4	21,0	21,71	22,45	24,11	
JH142020J6R050.024-HXT	6	J	2,0	6,0	2,0	75,0	20,0	1,9	0,5	4,36	4	5,23	11,14	20,99	21,69	22,43	24,06	
JH142030J6R050.024-HXT	6	J	3,0	6,0	3,0	75,0	30,0	2,8	0,5	2,52	4	9,57	20,92	31,32	32,35	33,46	∞	
JH142030J6R100.024-HXT	6	J	3,0	6,0	3,0	75,0	30,0	2,8	1,0	2,56	4	9,57	20,3	31,29	32,31	33,39	∞	
JH142040J6R030.024-HXT	6	J	4,0	6,0	4,0	80,0	40,0	3,7	0,3	1,36	4	13,87	30,85	41,65	∞	∞	∞	
JH142040J6R050.024-HXT	6	J	4,0	6,0	4,0	80,0	40,0	3,7	0,5	1,37	4	13,87	30,6	41,65	∞	∞	∞	
JH142040J6R100.024-HXT	6	J	4,0	6,0	4,0	80,0	40,0	3,7	1,0	1,38	4	13,87	29,98	41,6	∞	∞	∞	

*The effective under -neck length for the various draft angles. Remark: ∞ = infinity, no collision in projection length area.

JH142 – Solid carbide end mill – cylindrical – hardmilling – high precision – inch – torical end mill CEDC 2,4,5,6



Tolerances:
 Run-out= <0,005
 DMM=h5
 DC=0-0,01
 Radius=+/-0,005



Part No.	Length index	Tool shape	Dimensions in inch										Max. cut depth rel. to $\alpha\eta$ ($l_{\alpha\eta}$, ref)*					
			DC	DMM	APMX	OAL	LN	DN	RE	CA	CEDC	WDX0	WDX05	WDX1	WDX15	WDX2	WDX3	
JH142.063G1R.010.0Z4-HXT	1	G	.062	.250	.062	2.500	.125	.058	.010	8,54	4	.151	.158	.165	.173	.182	.204	
JH142.125G1R.018.0Z4-HXT	1	G	.125	.250	.125	2.500	.250	.117	.018	6,04	4	.287	.299	.313	.328	.346	.386	
JH142.188G1R.028.0Z4-HXT	1	G	.187	.250	.187	2.500	.375	.171	.028	3,17	4	.432	.451	.472	.495	.521	.582	
JH142.250E1R.038.0Z4-HXT	1	E	.250	.250	.250	2.500	.500	.234	.038	-	4	.500	-	-	-	-	-	
JH142.375E1R.056.0Z4-HXT	1	E	.375	.375	.375	3.000	.750	.351	.056	-	4	.750	-	-	-	-	-	
JH142.500E1R.075.0Z4-HXT	1	E	.500	.500	.500	3.000	1.000	.476	.075	-	4	1.000	-	-	-	-	-	
JH142.063J2R.010.0Z4-HXT	2	J	.062	.250	.062	2.500	.312	.058	.010	6,77	4	.192	.328	.347	.360	.372	.399	
JH142.125J2R.018.0Z4-HXT	2	J	.125	.250	.125	2.500	.625	.117	.018	3,88	4	.388	.647	.674	.696	.720	.772	
JH142.188J2R.028.0Z4-HXT	2	J	.187	.250	.187	2.500	.937	.171	.028	1,69	4	.713	.976	1.007	1.040	-	-	
JH142.250J2R.038.0Z4-HXT	2	J	.250	.375	.250	3.000	1.250	.234	.038	2,38	4	.776	1.282	1.324	1.368	1.414	-	
JH142.375J2R.056.0Z4-HXT	2	J	.375	.500	.375	4.000	1.875	.351	.056	1,71	4	1.162	1.914	1.975	2.039	-	-	

*The effective under-neck length for the various draft angles. Remark: ∞ = infinity, no collision in projection length area.

Cutting data – JH142 Copy milling roughing $a_p/DC = 0,03$

SMG		a_p / DC	f_z								v_c
			2	3	4	6	8	10	12	16	
H3	M/A	0,020	0,0060	0,0080	0,011	0,016	0,020	0,026	0,030	0,038	90 (70 – 115)
H5	M/A	0,040	0,011	0,016	0,020	0,030	0,042	0,050	0,060	0,075	360 (340 – 400)
H7	M/A	0,017	0,0065	0,0085	0,011	0,016	0,020	0,026	0,030	0,038	90 (70 – 115)
H8	M/A	0,040	0,0075	0,011	0,015	0,022	0,028	0,036	0,042	0,055	370 (350 – 410)
H21	M/A	0,040	0,0075	0,011	0,015	0,022	0,028	0,036	0,042	0,055	370 (350 – 410)
H31	M/A	0,030	0,0075	0,011	0,014	0,020	0,028	0,034	0,040	0,050	140 (120 – 170)

Cutting data – JH142 Copy milling roughing $a_p/DC = 0,05$

SMG		a_p / DC	f_z								v_c
			2	3	4	6	8	10	12	16	
P1	M/E	0,050	0,014	0,022	0,028	0,042	0,055	0,070	0,080	0,10	485 (455 – 540)
P2	M/E	0,050	0,015	0,022	0,028	0,042	0,055	0,070	0,085	0,10	470 (440 – 520)
P3	M/E	0,050	0,014	0,020	0,026	0,040	0,055	0,065	0,080	0,10	405 (385 – 450)
P4	M/E	0,050	0,014	0,020	0,026	0,040	0,050	0,065	0,075	0,095	360 (335 – 400)
P5	M/E	0,050	0,013	0,020	0,026	0,038	0,050	0,065	0,075	0,095	345 (325 – 385)
P6	M/E	0,050	0,013	0,019	0,026	0,038	0,050	0,065	0,075	0,095	385 (365 – 430)
P7	M/E	0,050	0,013	0,019	0,026	0,038	0,050	0,065	0,075	0,095	365 (345 – 405)
P8	M/E	0,050	0,014	0,020	0,026	0,040	0,055	0,065	0,080	0,10	345 (320 – 380)
P11	M/E	0,050	0,013	0,019	0,026	0,038	0,050	0,065	0,075	0,095	355 (335 – 395)
K1	A/E	0,050	0,013	0,020	0,026	0,038	0,050	0,065	0,075	0,095	345 (325 – 385)
K2	A/E	0,050	0,012	0,018	0,024	0,036	0,046	0,060	0,070	0,085	300 (285 – 335)
K3	A/E	0,050	0,012	0,018	0,024	0,036	0,046	0,060	0,070	0,085	255 (240 – 285)
K4	A/E	0,050	0,012	0,018	0,024	0,036	0,046	0,060	0,070	0,085	245 (230 – 270)
K5	A/E	0,050	0,013	0,020	0,026	0,038	0,050	0,065	0,075	0,095	345 (325 – 385)
K6	A/E	0,050	0,015	0,022	0,028	0,042	0,055	0,070	0,085	0,10	500 (475 – 560)
K7	A/E	0,050	0,013	0,020	0,026	0,038	0,050	0,065	0,075	0,095	440 (415 – 490)

For cutting data recalculations, see page 90

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

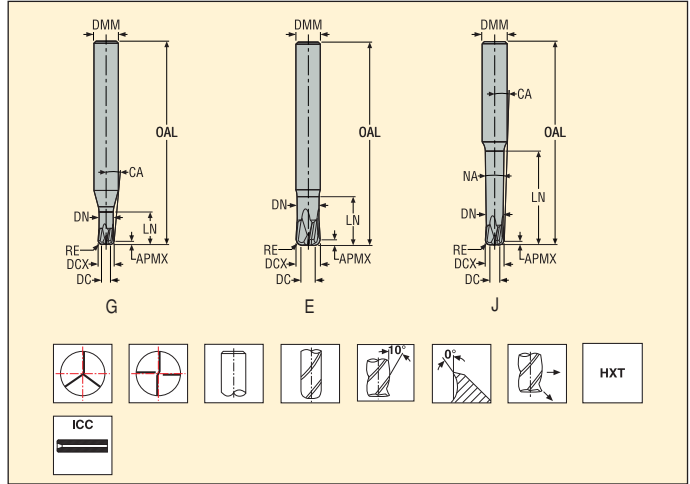
a_e (mm)/DC (mm)= factor

All cutting data are target values

JHF181 - Solid carbide end mill - cylindrical - high feed hard materials - corner radius - CEDC 3,4,5



Tolerances:
 DMM=-0,02-0,04
 Radius=+/-0,01



Part No.	Length index	Tool shape	Dimensions in mm										CEDC	ICC	Cylindrical
			DC	DCX	DMM	APMX	OAL	LN	DN	CA	NA	RE			
JHF181020G1R050.0Z4-HXT	1	G	1,0	2,0	6,0	0,5	50,0	4,0	1,8	10,0	15,0	0,5	4		■
JHF181030G1R075.0Z4-HXT	1	G	1,5	3,0	6,0	0,75	50,0	6,0	2,7	7,5	15,0	0,75	4		■
JHF181040G1R100.0Z4-HXT	1	G	2,0	4,0	6,0	1,0	50,0	8,0	3,6	5,0	15,0	1,0	4		■
JHF181060E1R150.0Z4-HXT	1	E	3,0	6,0	6,0	1,5	50,0	12,0	5,4	-	-	1,5	4		■
JHF181080E1R200.0Z4-HXT	1	E	4,0	8,0	8,0	2,0	55,0	16,0	7,3	-	-	2,0	4		■
JHF181100E1R200.0Z4-HXT	1	E	6,0	10,0	10,0	2,0	65,0	20,0	9,2	-	-	2,0	4		■
JHF181100E1R200.0Z5-HXT	1	E	6,0	10,0	10,0	2,0	65,0	20,0	9,2	-	-	2,0	5		■
JHF181120E1R300.0Z4-HXT	1	E	6,0	12,0	12,0	3,0	75,0	24,0	11,0	-	-	3,0	4		■
JHF181120E1R300.0Z5-HXT	1	E	6,0	12,0	12,0	3,0	75,0	24,0	11,0	-	-	3,0	5		■
JHF181160E1R300.0Z4-HXT	1	E	10,0	16,0	16,0	3,0	80,0	32,0	14,8	-	-	3,0	4		■
JHF181020G2R050.0Z4-HXT	2	G	1,0	2,0	6,0	0,5	50,0	8,0	1,8	7,5	15,0	0,5	4		■
JHF181030G2R075.0Z4-HXT	2	G	1,5	3,0	6,0	0,75	50,0	12,0	2,7	5,0	15,0	0,75	4		■
JHF181040G2R100.0Z4-HXT	2	G	2,0	4,0	6,0	1,0	50,0	16,0	3,6	3,0	15,0	1,0	4		■
JHF181060E2R150.0Z4A-HXT	2	E	3,0	6,0	6,0	1,5	65,0	24,0	5,4	-	-	1,5	4	■	■
JHF181060E2R150.0Z4-HXT	2	E	3,0	6,0	6,0	1,5	65,0	24,0	5,4	-	-	1,5	4		■
JHF181080E2R200.0Z4A-HXT	2	E	4,0	8,0	8,0	2,0	70,0	32,0	7,3	-	-	2,0	4	■	■
JHF181080E2R200.0Z4-HXT	2	E	4,0	8,0	8,0	2,0	70,0	32,0	7,3	-	-	2,0	4		■
JHF181100E2R200.0Z4A-HXT	2	E	6,0	10,0	10,0	2,0	85,0	40,0	9,2	-	-	2,0	4	■	■
JHF181100E2R200.0Z4-HXT	2	E	6,0	10,0	10,0	2,0	85,0	40,0	9,2	-	-	2,0	4		■
JHF181120E2R300.0Z4A-HXT	2	E	6,0	12,0	12,0	3,0	100,0	48,0	11,0	-	-	3,0	4	■	■
JHF181120E2R300.0Z4-HXT	2	E	6,0	12,0	12,0	3,0	100,0	48,0	11,0	-	-	3,0	4		■
JHF181020J3R050.0Z4-HXT	3	J	1,0	2,0	6,0	0,5	50,0	10,0	1,8	6,8	0,9	0,5	4		■
JHF181030J3R075.0Z4-HXT	3	J	1,5	3,0	6,0	0,75	50,0	15,0	2,7	4,4	0,9	0,75	4		■
JHF181040J3R100.0Z4-HXT	3	J	2,0	4,0	6,0	1,0	60,0	20,0	3,6	2,6	0,9	1,0	4		■
JHF181060J3R150.0Z4A-HXT	3	J	3,0	6,0	8,0	1,5	65,0	30,0	5,4	1,9	0,9	1,5	4	■	■
JHF181060J3R150.0Z4-HXT	3	J	3,0	6,0	8,0	1,5	65,0	30,0	5,4	1,9	0,9	1,5	4		■
JHF181080J3R200.0Z4A-HXT	3	J	4,0	8,0	10,0	2,0	85,0	40,0	7,3	1,5	0,9	2,0	4	■	■
JHF181080J3R200.0Z4-HXT	3	J	4,0	8,0	10,0	2,0	85,0	40,0	7,3	1,5	0,9	2,0	4		■
JHF181100J3R200.0Z4A-HXT	3	J	6,0	10,0	12,0	2,0	100,0	50,0	9,2	1,2	0,9	2,0	4	■	■
JHF181100J3R200.0Z4-HXT	3	J	6,0	10,0	12,0	2,0	100,0	50,0	9,2	1,2	0,9	2,0	4		■
JHF181020J4R050.0Z3-HXT	4	J	1,0	2,0	6,0	0,5	50,0	14,0	1,8	5,6	0,9	0,5	3		■
JHF181030J4R075.0Z3-HXT	4	J	1,5	3,0	6,0	0,75	60,0	21,0	2,7	3,4	0,9	0,75	3		■
JHF181040J4R100.0Z3-HXT	4	J	2,0	4,0	6,0	1,0	65,0	28,0	3,6	2,0	0,9	1,0	3		■
JHF181060J4R150.0Z3-HXT	4	J	3,0	6,0	8,0	1,5	80,0	42,0	5,4	1,4	0,9	1,5	3		■
JHF181080J4R200.0Z3-HXT	4	J	4,0	8,0	10,0	2,0	100,0	56,0	7,3	1,1	0,9	2,0	3		■
JHF181100J4R200.0Z3-HXT	4	J	6,0	10,0	12,0	2,0	125,0	70,0	9,2	0,9	0,9	2,0	3		■

■ Stock standard. Subject to change refer to current price- and stock-list

Cutting data – JHF180 Slotting CEDC 3, 4, 5

SMG		a_p / DCX	f_z							v_c
			2	3	4	6	8	10	12	
P6	E/M/A	0,024	0,048	0,065	0,090	0,13	0,18	0,20	0,20	270 (240 – 300)
P7	E/M/A	0,024	0,048	0,065	0,090	0,13	0,18	0,20	0,20	255 (225 – 285)
P8	E/M/A	0,024	0,050	0,065	0,090	0,13	0,18	0,20	0,22	240 (215 – 270)
P11	E/M/A	0,024	0,048	0,065	0,090	0,13	0,18	0,20	0,20	250 (220 – 275)
K1	E/M/A	0,024	0,055	0,070	0,090	0,13	0,18	0,22	0,24	190 (160 – 215)
K2	E/M/A	0,024	0,055	0,070	0,090	0,13	0,18	0,20	0,22	165 (140 – 185)
K3	E/M/A	0,024	0,055	0,070	0,090	0,13	0,18	0,20	0,22	140 (120 – 155)
K4	E/M/A	0,024	0,055	0,070	0,090	0,13	0,18	0,20	0,22	130 (115 – 150)
K5	E/M/A	0,024	0,050	0,060	0,070	0,090	0,11	0,14	0,17	135 (110 – 160)
K6	E/M/A	0,024	0,050	0,060	0,070	0,090	0,11	0,14	0,17	200 (160 – 240)
K7	E/M/A	0,024	0,050	0,060	0,070	0,090	0,11	0,14	0,17	175 (140 – 205)
H3	M/A/D	0,017	0,060	0,075	0,085	0,11	0,13	0,16	0,20	75 (50 – 95)
H5	M/A/D	0,028	0,065	0,080	0,090	0,13	0,18	0,22	0,26	135 (105 – 160)
H7	M/A/D	0,015	0,065	0,080	0,095	0,11	0,13	0,16	0,20	75 (50 – 95)
H8	M/A/D	0,024	0,055	0,070	0,090	0,13	0,18	0,22	0,24	135 (110 – 160)
H21	M/A/D	0,024	0,055	0,070	0,090	0,13	0,18	0,22	0,24	135 (110 – 160)
H31	M/A/D	0,024	0,050	0,065	0,090	0,13	0,18	0,20	0,20	100 (80 – 120)

For cutting data recalculations, see page 90

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

a_s (mm)/DC (mm)= factor

All cutting data are target values

Cutting data – JHF181 Side roughing $a_e/DC = 0,3$

SMG		a_p / DCX	f_z													v_c
			2	3	4	6	7	8	9	10	11	12	13	16		
P6	E/M/A	0,050	0,20	0,24	0,28	0,34	0,36	0,38	0,38	0,40	0,40	0,40	0,40	0,40	0,40	355 (315 — 395)
P7	E/M/A	0,050	0,20	0,24	0,28	0,34	0,36	0,38	0,38	0,40	0,40	0,40	0,40	0,40	0,40	335 (295 — 370)
P8	E/M/A	0,050	0,20	0,26	0,30	0,36	0,38	0,40	0,40	0,42	0,42	0,42	0,42	0,44	0,44	310 (275 — 345)
P11	E/M/A	0,050	0,20	0,24	0,28	0,34	0,36	0,38	0,38	0,40	0,40	0,40	0,40	0,40	0,40	325 (290 — 360)
K1	E/M/A	0,050	0,20	0,24	0,28	0,34	0,36	0,38	0,40	0,40	0,40	0,40	0,42	0,42	0,42	245 (210 — 280)
K2	E/M/A	0,050	0,18	0,22	0,26	0,32	0,34	0,34	0,36	0,36	0,36	0,38	0,38	0,38	0,38	215 (185 — 245)
K3	E/M/A	0,050	0,18	0,22	0,26	0,32	0,34	0,34	0,36	0,36	0,36	0,38	0,38	0,38	0,38	180 (155 — 210)
K4	E/M/A	0,050	0,18	0,22	0,26	0,32	0,34	0,34	0,36	0,36	0,36	0,38	0,38	0,38	0,38	175 (150 — 200)
K5	E/M/A	0,050	0,17	0,22	0,26	0,32	0,34	0,34	0,36	0,36	0,36	0,38	0,38	0,38	0,38	165 (135 — 200)
K6	E/M/A	0,050	0,17	0,24	0,28	0,34	0,36	0,38	0,40	0,40	0,40	0,42	0,42	0,42	0,42	240 (195 — 290)
K7	E/M/A	0,050	0,17	0,22	0,26	0,32	0,34	0,34	0,36	0,36	0,36	0,38	0,38	0,38	0,38	210 (170 — 255)
H3	M/A/D	0,034	0,16	0,20	0,22	0,28	0,30	0,30	0,32	0,32	0,32	0,34	0,34	0,34	0,34	95 (65 — 120)
H5	M/A/D	0,055	0,24	0,30	0,36	0,42	0,46	0,48	0,50	0,50	0,50	0,50	0,50	0,50	0,50	165 (135 — 200)
H7	M/A/D	0,030	0,17	0,20	0,24	0,30	0,32	0,32	0,34	0,34	0,34	0,36	0,36	0,36	0,36	95 (65 — 120)
H8	M/A/D	0,050	0,20	0,24	0,28	0,34	0,36	0,38	0,40	0,40	0,40	0,40	0,42	0,42	0,42	175 (140 — 210)
H21	M/A/D	0,050	0,20	0,24	0,28	0,34	0,36	0,38	0,40	0,40	0,40	0,40	0,42	0,42	0,42	175 (140 — 210)
H31	M/A/D	0,050	0,17	0,22	0,24	0,30	0,32	0,34	0,34	0,34	0,36	0,36	0,36	0,36	0,36	135 (110 — 165)

For cutting data recalculations, see page 90

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

Recalculation (all values are percentages of original (100%) cutting data.)

STRAIGHT	Use original standard version advanced roughing cutting data then re-calculate parameters!									Use original standard version advanced roughing then re-calculate parameters						
	Slotting		Side Rough			Side Finish				Ramping		Helical		Drilling		
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	$a_p/360^\circ$ (% of DC)	Hole \varnothing (\approx % of DC)	f_z	a_p (% of DC)
JS564 Standard (2) L (3)	X	X	100	100	100	110	3	55	100	X	X	100	2	130	X	X
	X	X	38	105	140	110	3	55	140	X	X	60	1,5	130	X	X
JS565 Standard (2) L (3)	X	X	100	100	100	110	3	55	100	X	X	100	2	130	X	X
	X	X	38	105	140	110	3	55	140	X	X	60	1,5	130	X	X





STRAIGHT	Use original standard version side rough cutting data then re-calculate parameters!									Use original standard version side rough cutting data then recalculate parameters!						
	Slotting		Side Rough			Side Finish				Ramping		Helical		Drilling		
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	$a_p/360^\circ$ (% of DC)	Hole \varnothing (\approx % of DC)	f_z	a_p (% of DC)
JH112 (1)	X	X	100	100	100	110	2	70	100	X	X	20	2	130	X	X
	X	X	100	100	100	110	2	70	100	X	X	20	2	130	X	X
	X	X	100	100	100	110	1,6	55	100	X	X	X	X	X	X	X
	X	X	100	100	100	130	1,4	55	100	X	X	X	X	X	X	X
	X	X	100	100	100	130	1,4	50	100	X	X	X	X	X	X	X
	X	X	100	100	100	130	1	35	100	X	X	X	X	X	X	X
JH142 (2)	X	X	100	100	100	110	3	80	70	X	X	30	2	130	X	X
	X	X	100	100	100	110	3	80	70	X	X	20	1	130	X	X
	X	X	100	100	100	110	3	80	70	X	X	10	1	130	X	X

Recalculation (all values are percentages of original (100%) cutting data.)

STRAIGHT	Use original standard version side rough cutting data then recalculate parameters!									Use original standard version side rough cutting data then recalculate parameters!						
	Slotting		Side Rough			Side Finish				Ramping		Helical		Drilling		
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	$a_p/360^\circ$ (% of DC)	hole ϕ (\geq % of DC)	f_z	a_p (% of DC)
J5720	X	X	100	100	100	110	2	65	100	X	X	100	2	130	X	X

STRAIGHT	Use original standard version side rough cutting data then recalculate parameters!									Use original standard version side rough cutting data then recalculate parameters!								
	Slotting		Side Rough			Side Finish				Ramping		Helical		Plunging				
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	$a_p/360^\circ$ (% of DCX)	hole ϕ (\geq % of DCX)	v_c	a_e (% of DCX)	f_z	plunge depth (% of DCX)
JHF181 (1)	100	100	100	100	100	X	X	X	X	X	X	100	3,4	130	X	X	X	X
JHF181 (1)	80	85	100	85	80	X	X	X	X	X	X	85	3,0	130	X	X	X	X
JHF181 (1)	60	70	100	70	60	X	X	X	X	X	X	70	2,5	130	X	X	X	X

CVD coated grades

<p>TK0501</p> 		<p>Duratomic® technology coated grade. A extremely wear resistant optimized grade choice for machining of grey cast iron and easier ductile cast irons.</p> <p>Ti(C,N) + Al₂O₃ + Used Edge Detection (Chrome)</p>
<p>TK1501</p> 		<p>Duratomic® technology coated grade. A highly wear resistant grade for cast irons in general as well as in steels. The grade is particularly capable in machining of ductile (nodular) cast irons also in more demanding setups and interrupted cuts.</p> <p>Ti(C,N) + Al₂O₃ + Used Edge Detection (Chrome)</p>

Universal insert: CCMT09T308-M5

Tool life = 15 min

a_p = 1 mm

Holder: C4-SCLCL-17090-09

SMG	TK0501			TK1501			TP1501		
	f (mm/r)			f (mm/r)			f (mm/r)		
	0,2	0,3	0,4	0,2	0,3	0,4	0,2	0,3	0,4
K1	600	560	520	530	475	440	455	470	460
K2	465	435	415	455	420	400	395	405	400
K3	395	365	350	385	355	340	335	345	340
K4	375	350	335	365	340	325	320	330	325
K5	225	210	200	220	205	190	190	195	195
K6	375	340	320	325	295	270	280	290	285
K7	285	265	255	280	260	245	245	250	245

Universal insert: CNMG120412-MR7

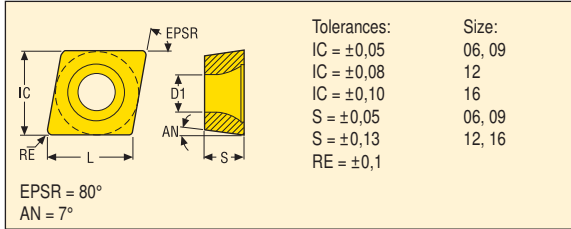
Tool life = 15 min

a_p = 3 mm

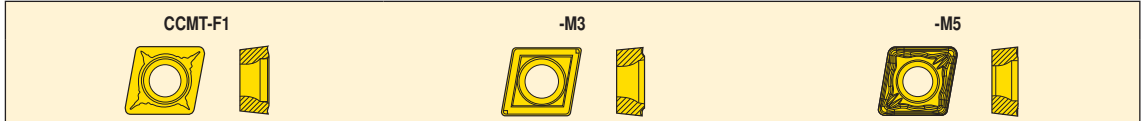
Holder: A40U-PCLNL12

SMG	TK0501			TK1501			TP1501		
	f (mm/r)			f (mm/r)			f (mm/r)		
	0,2	0,35	0,5	0,2	0,35	0,5	0,2	0,35	0,5
K1	570	495	455	480	405	355	450	435	405
K2	420	380	355	420	375	345	390	380	350
K3	355	320	300	355	315	290	330	320	295
K4	340	305	285	340	300	280	315	305	280
K5	205	180	170	200	180	165	185	180	170
K6	350	305	280	295	250	220	275	270	250
K7	260	235	215	260	230	210	240	235	215

CCMT



Size	Dimensions in mm			
	IC	L	S	D1
0602	6,35	6,5	2,38	2,9
0903	9,53	9,7	3,18	4,5
09T3	9,53	9,7	3,97	4,5
1204	12,70	12,9	4,76	5,6
1605	15,88	16,1	5,56	5,6

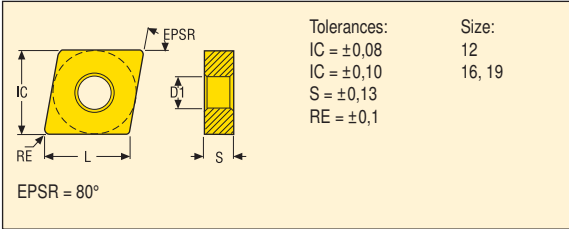


Inserts	Part No.	RE	Grades																								
			Coated														Uncoated		Cermet								
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020
CCMT-F1	CCMT 060202-F1	0,2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	060204-F1	0,4	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	060208-F1	0,8	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	CCMT 09T302-F1	0,2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	09T304-F1	0,4	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	09T308-F1	0,8	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	CCMT 120404-F1	0,4	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	120408-F1	0,8	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	120412-F1	1,2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
CCMT-M3	CCMT 060202-M3	0,2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	060204-M3	0,4	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	060208-M3	0,8	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	CCMT 090304-M3	0,4	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	CCMT 09T302-M3	0,2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	09T304-M3	0,4	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	09T308-M3	0,8	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	09T312-M3	1,2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	CCMT 120404-M3	0,4	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	120408-M3	0,8	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	120412-M3	1,2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	CCMT 160508-M3	0,8	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
160512-M3	1,2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
CCMT-M5	CCMT 09T304-M5	0,4	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	09T308-M5	0,8	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	CCMT 120408-M5	0,8	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	120412-M5	1,2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	CCMT 160512-M5	1,2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	160516-M5	1,6	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

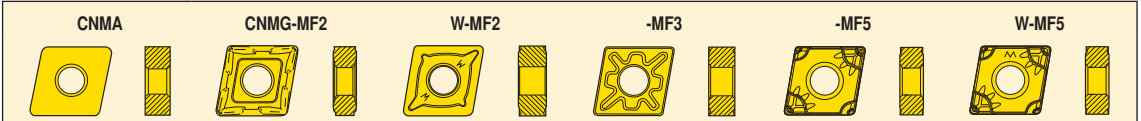
■ Stock standard

Subject to change refer to current price- and stock-list

CNMA, CNMG



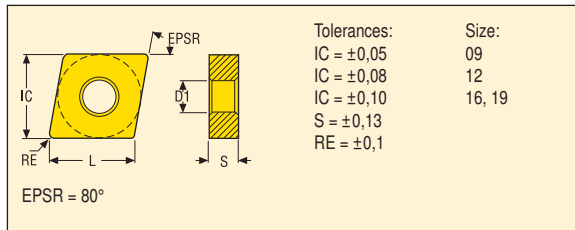
Size	Dimensions in mm			
	IC	L	S	D1
1204	12,70	12,9	4,76	5,2
1606	15,88	16,1	6,35	6,4
1906	19,05	19,3	6,35	7,9



Inserts	Part No.	RE	Grades																								
			Coated																Uncoated			Cermets					
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TMA000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020
CNMA	CNMA 120404	0,4										■	■														
	120408	0,8										■	■	■	■												
	120412	1,2										■	■	■	■												
	120416	1,6										■	■	■	■												
	CNMA 160608	0,8										■	■	■	■												
	160612	1,2										■	■	■	■												
	160616	1,6										■	■	■	■												
	CNMA 190612	1,2										■	■	■	■												
190616	1,6										■	■	■	■													
CNMG-MF2	CNMG 120404-MF2	0,4	■	■	■	■						■	■	■	■											■	■
	120408-MF2	0,8	■	■	■	■			■	■		■	■	■	■											■	■
	120412-MF2	1,2	■	■	■	■			■	■		■	■	■	■											■	■
CNMG...W-MF2	CNMG 120404W-MF2	0,4		■	■																					■	
	120408W-MF2	0,8	■	■	■									■	■											■	
	120412W-MF2	1,2	■																							■	
CNMG-MF3	CNMG 120404-MF3	0,4				■					■																
	120408-MF3	0,8				■	■	■			■			■	■												
	CNMG 120412-MF3	1,2				■		■																			
CNMG-MF5	CNMG 120408-MF5	0,8	■	■	■	■			■	■		■				■		■									
	120412-MF5	1,2	■	■	■	■			■	■		■			■		■										
	120416-MF5	1,6		■	■																						
CNMG...W-MF5	CNMG 120408W-MF5	0,8		■	■				■	■		■	■														

■ Stock standard
 Subject to change refer to current price- and stock-list

CNMG



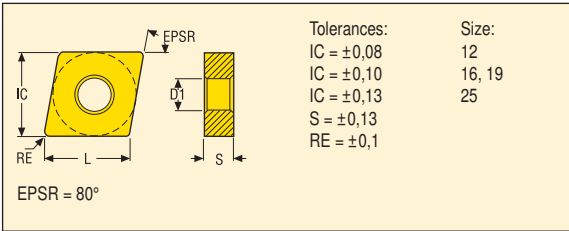
Size	Dimensions in mm			
	IC	L	S	D1
0903	9,53	9,7	3,18	3,8
1204	12,70	12,9	4,76	5,2
1606	15,88	16,1	6,35	6,4
1906	19,05	19,3	6,35	7,9



Inserts	Part No.	RE	Grades																									
			Coated														Uncoated			Cermet								
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030
CNMG-M3	CNMG 090304-M3	0,4			■																							
	090308-M3	0,8			■																							
	CNMG 120404-M3	0,4			■	■	■	■																				
	120408-M3	0,8	■	■	■	■	■			■				■	■													
	120412-M3	1,2	■	■	■	■	■	■																				
	120416-M3	1,6		■	■																							
	CNMG 160608-M3	0,8		■	■	■																						
	160612-M3	1,2	■	■	■	■																						
	CNMG 190608-M3	0,8		■	■	■																						
190612-M3	1,2		■	■	■																							
190616-M3	1,6		■	■	■																							
CNMG...W-M3	CNMG 120408W-M3	0,8	■	■	■										■	■												
	120412W-M3	1,2	■	■	■										■	■												
CNMG-M4	CNMG 120408-M4	0,8										■	■	■	■													
	120412-M4	1,2										■	■	■	■													
CNMG-M5	CNMG 120404-M5	0,4			■	■																						
	120408-M5	0,8	■	■	■	■	■	■			■	■	■	■	■	■												
	120412-M5	1,2	■	■	■	■	■	■	■		■	■	■	■	■	■												
	120416-M5	1,6		■	■	■		■																				
	CNMG 160608-M5	0,8		■	■	■									■	■												
	160612-M5	1,2	■	■	■	■	■	■			■	■			■	■												
	160616-M5	1,6	■	■	■	■	■	■				■			■	■												
	CNMG 190608-M5	0,8		■	■	■	■	■																				
	190612-M5	1,2		■	■	■	■	■																				
	190616-M5	1,6		■	■	■	■	■				■																

■ Stock standard
 Subject to change refer to current price- and stock-list

CNMG



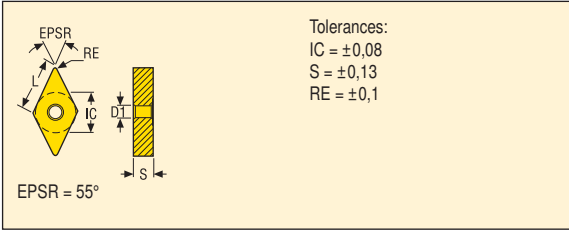
Size	Dimensions in mm			
	IC	L	S	D1
1204	12,70	12,9	4,76	5,2
1606	15,88	16,1	6,35	6,4
1906	19,05	19,3	6,35	7,9
2509	25,40	25,8	9,52	9,1



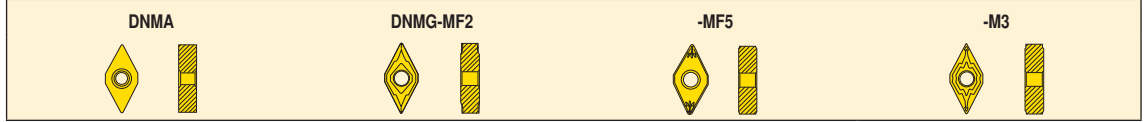
Inserts	Part No.	RE	Grades																									
			Coated															Uncoated			Cermets							
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TMA000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030
CNMG-M6	CNMG 120408-M6	0,8	■	■	■																							
	120412-M6	1,2	■	■	■																							
	120416-M6	1,6	■	■	■																							
	CNMG 160612-M6	1,2	■	■	■	■																						
	160616-M6	1,6	■	■	■	■																						
	160624-M6	2,4	■	■	■																							
	CNMG 190612-M6	1,2	■	■	■																							
	190616-M6	1,6	■	■	■																							
	190624-M6	2,4	■	■	■																							
CNMG-MR7	CNMG 120408-MR7	0,8	■	■	■	■					■	■	■	■	■													
	120412-MR7	1,2	■	■	■	■					■	■	■	■	■													
	120416-MR7	1,6	■	■	■	■					■	■	■	■	■													
	CNMG 160608-MR7	0,8				■																						
	160612-MR7	1,2	■	■	■	■					■	■	■	■	■													
	160616-MR7	1,6	■	■	■	■					■	■	■	■	■													
	160624-MR7	2,4	■	■	■						■	■	■	■	■													
	CNMG 190608-MR7	0,8				■																						
	190612-MR7	1,2	■	■	■	■					■	■	■	■	■													
	190616-MR7	1,6	■	■	■	■					■	■	■	■	■													
	190624-MR7	2,4	■	■	■						■	■	■	■	■													
	CNMG 250924-MR7	2,4	■	■	■	■																						

■ Stock standard
 Subject to change refer to current price- and stock-list

DNMA, DNMG



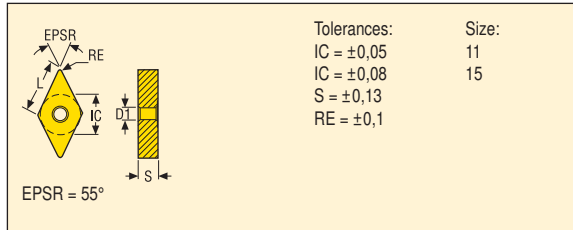
Size	Dimensions in mm			
	IC	L	S	D1
1504	12,70	15,5	4,76	5,2
1506	12,70	15,5	6,35	5,2



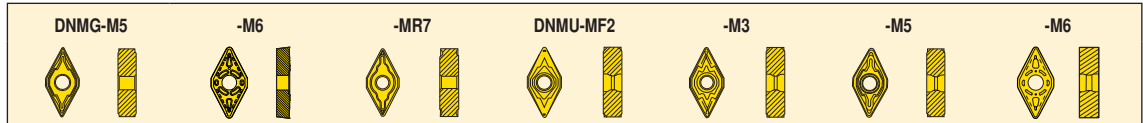
Inserts	Part No.	RE	Grades																									
			Coated																	Uncoated		Cermet						
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TMA000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030
DNMA	DNMA 150408	0,8										■	■		■													
	DNMA 150608	0,8										■	■		■													
	150612	1,2										■	■															
	150616	1,6										■	■															
DNMG-MF2	DNMG 150404-MF2	0,4	■	■	■	■																						
	150408-MF2	0,8	■	■	■	■		■								■												
	150412-MF2	1,2			■																							
	DNMG 150604-MF2	0,4		■	■	■	■																				■	■
	150608-MF2	0,8	■	■	■	■	■		■	■			■		■												■	■
	150612-MF2	1,2	■	■	■	■	■		■	■			■		■	■												
DNMG-MF5	DNMG 150408-MF5	0,8		■	■			■	■			■				■			■									
	150412-MF5	1,2		■	■			■	■							■			■									
	150416-MF5	1,6																										
	DNMG 150608-MF5	0,8	■	■	■			■	■			■	■			■			■									
	150612-MF5	1,2	■	■	■			■	■			■	■			■			■									
	150616-MF5	1,6			■																							
DNMG-M3	DNMG 150404-M3	0,4		■	■	■																						
	150408-M3	0,8	■	■	■	■	■																					
	150412-M3	1,2	■	■	■	■																						
	DNMG 150604-M3	0,4		■	■	■	■	■																				
	150608-M3	0,8	■	■	■	■	■	■																				
	150612-M3	1,2	■	■	■	■	■																					
	150616-M3	1,6		■	■																							

■ Stock standard
 Subject to change refer to current price- and stock-list

DNMG, DNMU



Size	Dimensions in mm			
	IC	L	S	D1
1104	9,53	11,6	4,76	3,8
1504	12,70	15,5	4,76	5,2
1506	12,70	15,5	6,35	5,2



Inserts	Part No.	RE	Grades																									
			Coated														Uncoated			Cermet								
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030
DNMG-M5	DNMG 150404-M5	0,4				■																						
	150408-M5	0,8	■	■	■	■				■				■	■													
	150412-M5	1,2		■	■	■					■																	
	DNMG 150604-M5	0,4			■	■																						
	150608-M5	0,8	■	■	■	■	■				■	■	■	■	■	■												
	150612-M5	1,2	■	■	■	■	■				■	■	■	■	■	■												
150616-M5	1,6	■	■	■	■																							
DNMG-M6	DNMG 150408-M6	0,8		■	■																							
	150412-M6	1,2		■	■	■																						
	150416-M6	1,6			■																							
	DNMG 150608-M6	0,8			■	■								■	■													
	150612-M6	1,2	■	■	■	■	■							■	■	■												
	150616-M6	1,6		■	■																							
DNMG-MR7	DNMG 150608-MR7	0,8		■				■																				
	150612-MR7	1,2	■	■		■									■	■												
DNMU-MF2	DNMU 110404-MF2	0,4	■	■	■	■	■	■				■	■														■	
	110408-MF2	0,8	■	■	■	■	■	■				■	■		■	■											■	
	110412-MF2	1,2			■						■																	■
DNMU-M3	DNMU 110402-M3	0,2		■	■																							
	110404-M3	0,4		■	■	■	■			■	■																	
	110408-M3	0,8	■	■	■	■	■			■	■																	
	110412-M3	1,2	■	■																								
DNMU-M5	DNMU 110408-M5	0,8		■																								
	110412-M5	1,2		■																								
DNMU-M6	DNMU 110408-M6	0,8		■	■																							
	110412-M6	1,2		■	■																							

■ Stock standard

Subject to change refer to current price- and stock-list

RCMT

Tolerances:
 INSD = $\pm 0,05$
 INSD = $\pm 0,08$
 INSD = $\pm 0,10$
 S = $\pm 0,05$
 S = $\pm 0,13$

Size:
 06, 08, 10
 12
 16
 06, 08, 10
 12, 16

AN = 7°

Size	Dimensions in mm		
	INSD	S	D1
0602	6,00	2,38	2,9
0803	8,00	3,18	3,5
10T3	10,00	3,97	4,5
1204	12,00	4,76	4,5
1606	16,00	6,35	5,6

RCMT-F1

-M3

Inserts	Part No.	RE	Grades																								
			Coated															Uncoated			Cermet						
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020
RCMT-F1	RCMT 0602M0-F1	-			■																■						
	RCMT 0803M0-F1	-			■																	■					
	RCMT 10T3M0-F1	-			■	■																■					
	RCMT 1204M0-F1	-		■	■	■									■	■						■					
	RCMT 1606M0-F1	-	■	■	■																						
RCMT-M3	RCMT 0602M0-M3	-			■																						
	RCMT 0803M0-M3	-			■	■																					
	RCMT 10T3M0-M3	-			■	■																					
	RCMT 1204M0-M3	-			■	■									■	■	■	■									
	RCMT 1606M0-M3	-	■	■	■																						

■ Stock standard
 Subject to change refer to current price- and stock-list

RCMX

Tolerances:
 INSD = ±0,08
 INSD = ±0,10
 S = ±0,13

Size:
 12, 16, 20
 25, 32

AN = 7°

Size	Dimensions in mm		
	INSD	S	D1
1204	12,00	4,76	4,2
1606	16,00	6,35	5,2
2006	20,00	6,35	6,5
2507	25,00	7,94	7,2
3209	32,00	9,52	9,5

RCMX-RR94

-RR97

Inserts	Part No.	RE	Grades																									
			Coated																	Uncoated		Cermet						
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TMA000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030
RCMX-RR94	RCMX 120400-RR94	-			■																							
	RCMX 160600-RR94	-		■	■																							
	RCMX 200600-RR94	-	■	■	■																							
	RCMX 250700-RR94	-	■	■	■				■					■	■													
	RCMX 320900-RR94	-	■	■	■				■					■	■													
RCMX-RR97	RCMX 200600-RR97	-	■	■									■															
	RCMX 250700-RR97	-	■	■									■															
	RCMX 320900-RR97	-	■	■																								

■ Stock standard
 Subject to change refer to current price- and stock-list

SCMT

Tolerances:
 L = ±0,05
 L = ±0,08
 S = ±0,05
 S = ±0,13
 RE = ±0,1

Size:
 06, 07, 09
 12
 06, 07, 09
 12

AN = 7°

Size	Dimensions in mm		
	L	S	D1
0602	6,35	2,38	2,9
0703	7,94	3,18	3,5
09T3	9,52	3,97	4,5
1204	12,70	4,76	5,6

SCMT-F1

-M3

-M5

Inserts	Part No.	RE	Grades																											
			Coated															Uncoated			Cermets									
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TMA000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030		
SCMT-F1	SCMT 09T304-F1	0,4		■	■															■										
	09T308-F1	0,8		■	■	■								■	■					■								■		
	09T312-F1	1,2			■																									
	SCMT 120408-F1	0,8		■	■															■										
	120412-F1	1,2	■				■													■										
SCMT-M3	SCMT 060204-M3	0,4		■																										
	SCMT 070308-M3	0,8		■																										
	SCMT 09T304-M3	0,4		■																										
	09T308-M3	0,8	■	■									■	■	■	■														
	SCMT 120408-M3	0,8	■	■									■	■	■	■														
	120412-M3	1,2																												
SCMT-M5	SCMT 120408-M5	0,8	■	■	■		■						■	■																

■ Stock standard
 Subject to change refer to current price- and stock-list

SNMA, SNMG

Tolerances:
 L = ±0,05
 L = ±0,08
 L = ±0,10
 S = ±0,13
 RE = ±0,1

Size:
 09
 12
 15, 19

Size	Dimensions in mm		
	L	S	D1
0903	9,53	3,18	3,8
1204	12,70	4,76	5,2
1506	15,88	6,35	6,4
1906	19,05	6,35	7,9

SNMA

SNMG-M3

-M5

Inserts	Part No.	RE	Grades																									
			Coated															Uncoated			Cermet							
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030
SNMA	SNMA 090308	0,8										■	■															
	SNMA 120408	0,8										■	■	■	■													
	120412	1,2										■	■	■														
	120416	1,6										■	■	■														
	SNMA 150612	1,2										■	■	■	■													
	SNMA 190612	1,2										■	■	■														
	190616	1,6										■	■	■	■													
SNMG-M3	SNMG 120404-M3	0,4			■	■																						
	120408-M3	0,8		■	■	■	■	■																				
	120412-M3	1,2		■	■	■	■	■																				
	120416-M3	1,6		■	■																							
	SNMG 150612-M3	1,2		■	■																							
	SNMG 190612-M3	1,2			■	■																						
	190616-M3	1,6			■																							
SNMG-M5	SNMG 090308-M5	0,8			■	■																						
	SNMG 120408-M5	0,8			■	■	■	■	■		■	■	■	■	■	■												
	120412-M5	1,2			■	■	■	■	■		■	■	■	■	■	■												
	120416-M5	1,6			■	■	■																					
	SNMG 150608-M5	0,8			■																							
	150612-M5	1,2			■	■	■	■				■																
	150616-M5	1,6		■	■	■	■	■				■																
	SNMG 190612-M5	1,2			■	■	■	■	■		■	■	■	■	■	■												
	190616-M5	1,6		■	■	■	■	■	■		■	■	■	■	■	■												

■ Stock standard
 Subject to change refer to current price- and stock-list

SNMG

Tolerances:
 $L = \pm 0,08$
 $L = \pm 0,10$
 $L = \pm 0,13$
 $S = \pm 0,13$
 $RE = \pm 0,1$

Size:
 12
 15, 19
 25

Size	Dimensions in mm		
	L	S	D1
1204	12,70	4,76	5,2
1506	15,88	6,35	6,4
1906	19,05	6,35	7,9
2509	25,40	9,52	9,1

SNMG-M6

-MR7

Inserts	Part No.	RE	Grades																									
			Coated																Uncoated			Cermets						
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TMA000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030
SNMG-M6	SNMG 120408-M6	0,8		■	■																							
	120412-M6	1,2		■	■																							
	SNMG 150612-M6	1,2		■	■																							
	150616-M6	1,6	■	■	■																							
	SNMG 190612-M6	1,2	■	■	■																							
	190616-M6	1,6	■	■	■																							
SNMG-MR7	SNMG 120408-MR7	0,8		■	■	■		■			■																	
	120412-MR7	1,2		■	■		■			■		■	■															
	120416-MR7	1,6		■																								
	SNMG 150612-MR7	1,2		■	■		■					■	■															
	150616-MR7	1,6		■			■					■	■															
	SNMG 190612-MR7	1,2		■	■		■				■																	
	190616-MR7	1,6	■	■	■	■	■				■																	
	190624-MR7	2,4		■																								
	SNMG 250924-MR7	2,4	■	■	■	■	■																					

■ Stock standard
 Subject to change refer to current price- and stock-list

TNMA, TNMG

Tolerances: Size:
 IC = ±0,05 16
 IC = ±0,08 22
 IC = ±0,10 27
 S = ±0,13
 RE = ±0,1

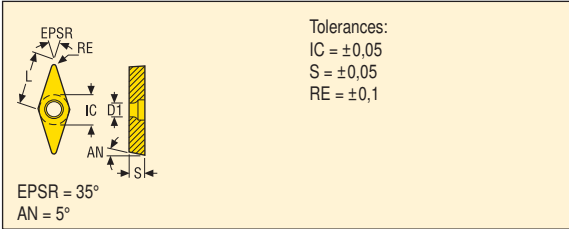
Size	Dimensions in mm			
	IC	L	S	D1
1603	9,53	16,5	3,18	3,8
1604	9,53	16,5	4,76	3,8
2204	12,70	22,0	4,76	5,2
2706	15,88	27,5	6,35	6,4



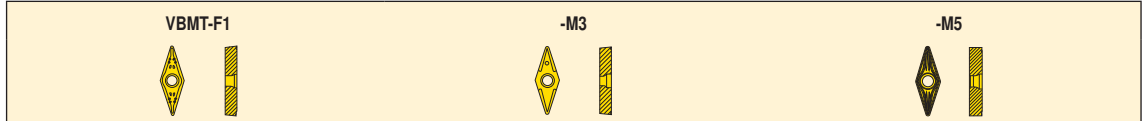
Inserts	Part No.	RE	Grades																									
			Coated																	Uncoated			Cermet					
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TMA000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030
TNMA	TNMA 160404	0,4										■	■															
	160408	0,8										■	■	■	■													
	160412	1,2										■	■	■	■													
	160416	1,6										■	■															
	TNMA 220408	0,8										■	■															
	220412	1,2										■	■	■	■													
220416	1,6										■	■		■														
TNMG-M3	TNMG 160404-M3	0,4		■	■	■	■	■																				
	160408-M3	0,8	■	■	■	■	■	■																				
	160412-M3	1,2		■	■	■	■	■																				
	TNMG 220408-M3	0,8		■	■	■	■	■																				
	220412-M3	1,2		■	■	■																						
	TNMG 270612-M3	1,2			■	■	■																					
TNMG-M4	TNMG 160408-M4	0,8												■	■													
TNMG-M5	TNMG 160308-M5	0,8				■		■																				
	TNMG 160404-M5	0,4			■	■																						
	160408-M5	0,8	■	■	■	■	■	■		■	■	■	■	■	■													
	160412-M5	1,2	■	■	■	■									■	■												
	160416-M5	1,6													■	■												
	TNMG 220404-M5	0,4			■	■																						
	220408-M5	0,8	■	■	■	■	■	■		■	■																	
	220412-M5	1,2	■	■	■	■				■	■																	
	220416-M5	1,6	■	■	■	■		■																				
	TNMG 270608-M5	0,8				■		■																				
	270612-M5	1,2		■	■	■	■	■																				
	270616-M5	1,6		■	■	■	■	■																				

■ Stock standard
 Subject to change refer to current price- and stock-list

VBMT



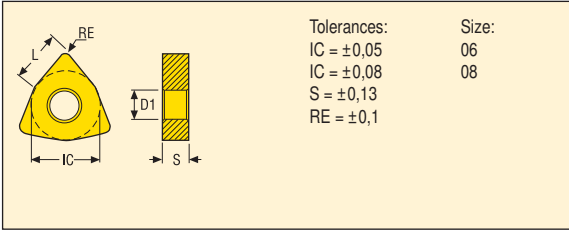
Size	Dimensions in mm			
	IC	L	S	D1
1102	6,35	11,1	2,38	2,9
1103	6,35	11,1	3,18	2,9
1604	9,53	16,6	4,76	4,5



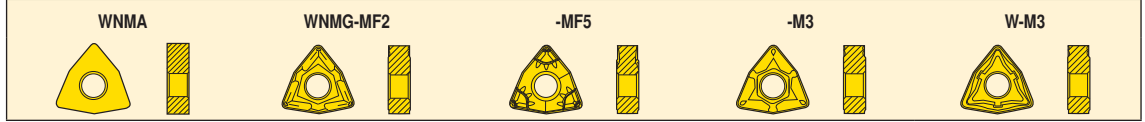
Inserts	Part No.	RE	Grades																										
			Coated														Uncoated		Cermet										
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TMA000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030	
VBMT-F1	VBMT 110202-F1	0,2			■	■														■								■	
	110204-F1	0,4			■	■														■							■	■	
	110208-F1	0,4			■		■													■									
	VBMT 110302-F1	0,2			■	■														■									
	110304-F1	0,4			■	■														■									
	110308-F1	0,8			■															■									
	VBMT 160402-F1	0,2			■	■														■									
	160404-F1	0,4		■	■	■	■		■		■					■				■	■						■	■	
	160408-F1	0,8		■	■	■			■		■	■		■	■	■				■	■						■	■	
160412-F1	1,2		■	■	■																								
VBMT-M3	VBMT 160404-M3	0,4		■	■							■	■	■	■														
	160408-M3	0,8	■	■	■																								
	160412-M3	1,2		■	■																								
VBMT-M5	VBMT 160408-M5	0,8	■	■	■	■		■					■	■															

■ Stock standard
 Subject to change refer to current price- and stock-list

WNMA, WNMG



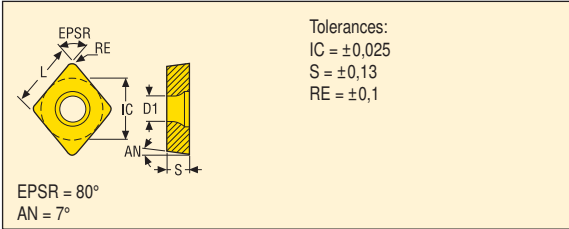
Size	Dimensions in mm			
	IC	L	S	D1
0604	9,53	6,5	4,76	3,8
0804	12,70	8,7	4,76	5,2



Inserts	Part No.	RE	Grades																								
			Coated															Uncoated			Cermet						
			TP0501	TP1501	TP2501	TP3500	TP200	TP40	TH1000	TH1500	TM2000	TMA000	TK0501	TK1001	TK1501	TK2001	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020
WNMA	WNMA 060408	0,8										■	■														
	060412	1,2											■	■													
	WNMA 080408	0,8										■	■	■													
	080412	1,2										■	■	■													
	080416	1,6										■	■	■													
WNMG-MF2	WNMG 060404-MF2	0,4		■	■	■																				■	■
	060408-MF2	0,8		■	■	■		■																			■
	060412-MF2	1,2			■																						
	WNMG 080404-MF2	0,4		■	■																						
	080408-MF2	0,8		■	■	■		■	■																		
	080412-MF2	1,2		■																							
WNMG-MF5	WNMG 060404-MF5	0,4			■																						
	060408-MF5	0,8			■	■																					
	060412-MF5	1,2		■	■																						
	WNMG 080408-MF5	0,8	■	■	■	■		■	■								■		■								
	080412-MF5	1,2	■	■	■	■		■	■							■		■									
	080416-MF5	1,6			■																						
WNMG-M3	WNMG 060402-M3	0,2				■																					
	060404-M3	0,4		■	■	■	■																				
	060408-M3	0,8	■	■	■	■	■		■																		
	060412-M3	1,2	■	■	■	■	■		■																		
	WNMG 080404-M3	0,4		■	■	■	■																				
	080408-M3	0,8	■	■	■	■	■		■																		
080412-M3	1,2	■	■	■	■																						
080416-M3	1,6			■																							
WNMG...W-M3	WNMG 060408W-M3	0,8		■	■										■	■											
	060412W-M3	1,2		■	■																						
	WNMG 080408W-M3	0,8	■	■	■										■	■											
	080412W-M3	1,2	■	■	■										■	■											

■ Stock standard
 Subject to change refer to current price- and stock-list

CCGW



Size	Dimensions in mm			
	IC	L	S	D1
0602	6,350	6,50	2,38	2,9
09T3	9,525	9,70	3,97	4,5
1204	12,700	12,90	4,76	5,6

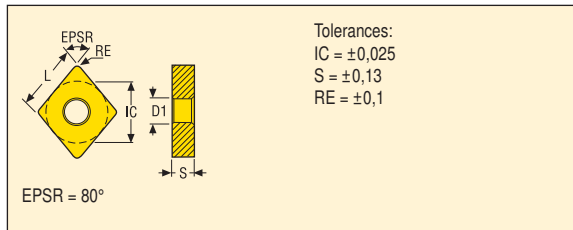


Inserts	Part No.	RE	Grades												Toolholders				
			Coated						Uncoated						External	Internal			
			CH0550	CBN010P	CBN060K	CH2540	CBN160C	CH3515	CBN300P	CBN400C	CBN010	CBN150	CBN170	CBN200			CBN300	CBN500	CBN600
CCGW	060204E-L1-B	0,4			■					■								SCLCR/L..06	SCLCR/L06
	060208E-L1-B	0,8																..-SCFCR/L06	SCACL..06
	060204S-01020-L1-B	0,4								■								SCDCR/L..06	SCECL..06
	060204S-01525-L1-B	0,4	■		■													SCFCR/L..06	..-SCDCL06
	060208S-01525-L1-B	0,8				■	■											SCACR/L..06	
	060208S-02020-L1-B	0,8																SCECL..06	
	060202S-01020-LF	0,2																	
	060204S-01020-LF	0,4								■									
	060208S-01020-LF	0,8																	
	060208S-L1-WZP-B	0,8	■		■													SCLCR/L..06	...-SCLCR/L06
	09T304E-L1-B	0,4			■					■								SCLCR/L..09	SCLCR/L09
	09T308E-L1-B	0,8			■					■								..-SCFCR/L09	SCACL..09
	09T304S-01020-L1-B	0,4								■								SCDCR/L..09	SCECL..09
	09T304S-01525-L1-B	0,4	■		■													SCFCR/L..09	..-SCDCL09
	09T308S-01020-L1-B	0,8								■	■							SCACR/L..09	
	09T308S-01525-L1-B	0,8	■		■	■	■											SCECL..09	
	09T308S-02020-L1-B	0,8																	
	09T304S25-02020-L1B	0,4																	
	09T308S25-02020-L1B	0,8																	
	09T304S-01020-LF	0,4								■									
	09T308S-01020-LF	0,8																	
	09T304E-L1-WZ-B	0,4								■								SCLCR/L..09	..-SCLCR/L09
	09T304S-01020-L1WZB	0,4								■									
	09T304S-01525L1WZB	0,4	■		■														
	09T308S-01525L1WZB	0,8			■														
	09T304S-L1-WZP-B	0,4	■		■														
	09T308S-L1-WZP-B	0,8	■		■														
	120404S-01020-L1-B	0,4								■								SCLCR/L..12	***
	120408S-01020-L1-B	0,8								■									
	120408S-02020-L1-B	0,8																	

■ Stock standard
 Subject to change refer to current price- and stock-list
 ***For information, contact your local Seco office

Tip sizes, see MN Turning catalogue 2015 page(s) 70
 Edge preparation, see MN Turning catalogue 2015 page(s) 67

CNGA



Size	Dimensions in mm			
	IC	L	S	D1
1204	12,700	12,90	4,76	5,15

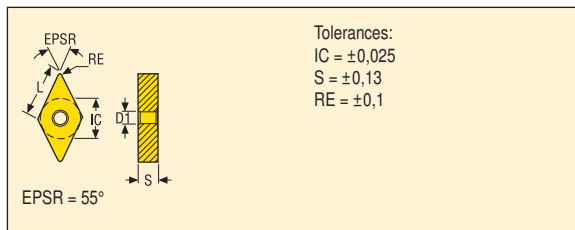


Inserts	Part No.	RE	Grades												Toolholders				
			Coated						Uncoated						External	Internal			
			CH0550	CBN010P	CBN060K	CH2540	CBN160C	CH3515	CBN300P	CBN400C	CBN010	CBN150	CBN170	CBN200			CBN300	CBN500	CBN600
CNGA	CNGA 120408E-L1-B	0,8																DCLNR/L...12	...PCLNR/L12
CNGA	CNGA 120404S-01020-L1-B	0,4																PCLNR/L...12	...MCLNR/L12
	120404S-01525-L1-B	0,4	■																
	120404S-02020-L1-B	0,4						■											
	120408S-01015-L1-B	794,0	■																
	120408S-01020-L1-B	0,8																	
	120408S-01525-L1-B	0,8	■		■	■	■												
	120408S-02020-L1-B	0,8																	
	120412S-01015-L1-B	1,2	■																
	120412S-01020-L1-B	1,2																	
	120412S-01525-L1-B	1,2	■		■	■	■												
	120412S-02020-L1-B	1,2																	
	120408S25-02020-L1B	0,8																	
CNGA	CNGA 120408E25-L1-U	0,8																	
CNGA	CNGA 120404S-01525-L1-U	0,4			■														
	120408S-01020-L1-U	0,8																	
	120408S-01525-L1-U	0,8	■		■														
	120412S-01525-L1-U	1,2	■		■														
CNGA	CNGA 120404S-02020-L1WZB	0,4																	
	120408S-01020-L1WZB	0,8																	
	120408S-01525L1WZB	0,8	■		■	■	■												
	120412S-01525-L1WZB	1,2	■																
	120412S-01525L1WZB	1,2				■	■												
CNGA	CNGA 120408S-01020-L1WZU	0,8																	
	120408S-01525L1WZU	0,8			■														
	120412S-01525L1WZU	1,2			■														
CNGA	CNGA 120408S-L1-WZN-B	0,8			■														
	120408S-L1-WZP-B	0,8	■		■														
CNGA	CNGA 120408S-L1-WZN-U	0,8			■														

■ Stock standard
 Subject to change refer to current price- and stock-list
 ***For information, contact your local Seco office

Tip sizes, see MN Turning catalogue 2015 page(s) 70
 Edge preparation, see MN Turning catalogue 2015 page(s) 67

DNGA



Size	Dimensions in mm			
	IC	L	S	D1
1504	12,700	15,00	4,76	5,15
1506	12,700	15,00	6,35	5,15




Inserts	Part No.	RE	Grades												Toolholders				
			Coated						Uncoated						External	Internal			
			CH0550	CBN010P	CBN060K	CH2540	CBN160C	CH3515	CBN300P	CBN400C	CBN010	CBN150	CBN170	CBN200			CBN300	CBN500	CBN600
DNGA	150404S-01020-L1-B	0,4								■								DDJNR/L...15*	A32T-PDUNR/L15**
	150408S-01020-L1-B	0,8								■								DDHNR/L...15	A40U-PDUNR/L15**
	150408S-01525-L1-B	0,8	■		■	■	■				■							PDJNR/L...15	A50V-PDUNR/L15**
	150408S-02020-L1-B	0,8				■	■						■					DDJNR/L...15	
	150412S-01525-L1-B	1,2																	
DNGA	150408S25-02020-L1B	0,8											■						
DNGA	150408S-01525-L1-U	0,8			■														
DNGA	150408S-01525L1WZB	0,8	■																
DNGA	150604S-01020-L1-B	0,4								■								PDJNR/L...15	A32T-PDUNR/L15
	150604S-01525-L1-B	0,4	■															DDJNR/L...15	A40U-PDUNR/L15
	150608S-01020-L1-B	0,8								■									A50V-PDUNR/L15
	150608S-01525-L1-B	0,8	■		■	■	■				■								S32U-PDUNR/L15
	150608S-02020-L1-B	0,8											■						S40V-PDUNR/L15
	150612S-01020-L1-B	1,2								■									S50W-PDUNR/L15
	150612S-01525-L1-B	1,2					■	■											
DNGA	150608E25-L1-U	0,8												■					
DNGA	150604S-01525-L1-U	0,4			■														
	150608S-01525-L1-U	0,8			■														
	150612S-01525-L1-U	1,2			■														
DNGA	150608S01020L1WZ93B	0,8								■									
	150608S01525L1WZ93B	0,8				■	■												
DNGA	150608S-L1-WZP-B	0,8	■																

■ Stock standard
 Subject to change refer to current price- and stock-list
 ***For information, contact your local Seco office

Tip sizes, see MN Turning catalogue 2015 page(s) 70
 Edge preparation, see MN Turning catalogue 2015 page(s) 67
 *Shim DDN150616 for insert DN..1504.., to be ordered separately
 **Shim PDD150412 for insert DN..1504.., to be ordered separately

Grades

TGH1050		<p>Very hard supermicrograin grade intended for partly hardened steel components as well as generally work-piece materials such as superalloys and cast-iron and due to remarkable edge toughness it also provides high performance in interrupted cuts and hard-surface removal.</p> <p>Ti-Al-Si-N nanolaminate coating</p>
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ISO classification of the grades

Grades	P					M				K				N				S				H						
	P01	P10	P20	P30	P40	P50	M01	M10	M20	M30	M40	K01	K10	K20	K30	K40	N01	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20	H30
TGP25																												
TGK1500																												
TGH1050																												
CP200																												
CP500																												
CP600																												
890																												
883																												

LCMF

Tolerances:
 CW = $\pm 0,05$
 IGL = $\pm 0,08$
 S = $\pm 0,05$
 S = $\pm 0,08$

Size:
 16
 30

IGL = Distance cutting edge-rear support

Size	Inch version	Dimensions in mm		
		CW	IGL	S
1603		3,00	15,90	4,50
1604		4,00	15,90	4,50
1605		5,00	15,90	4,50
1606		6,00	15,90	4,50
3008-08		8,00	29,06	5,57
3008-10		10,00	29,21	5,57
1603	■	3,18	15,90	4,50
1605	■	4,76	15,90	4,50
1606	■	6,35	15,90	4,50

LCMF-FT

Inserts	Part No.	RE	Grades																		
			Coated						Uncoated												
			CP200	CP500	CP600	TGH1050	TGK1500	TGP25			883	890									
LCMF-FT mm-version	LCMF 160304-0300-FT	0,4	■			■		■													
	LCMF 160404-0400-FT	0,4	■	■		■		■													
	160408-0400-FT	0,8		■				■													
	LCMF 160508-0500-FT	0,8		■					■												
	LCMF 160604-0600-FT	0,4		■					■												
	160610-0600-FT	1,0		■					■												
	LCMF 300804-0800-FT	0,4		■					■					■							
	300808-0800-FT	0,8		■					■					■							
	300808-1000-FT	0,8		■					■												
	LCMF 160302-0300-FT	0,2		■	■					■											
	LCMF 160402-0400-FT	0,2			■					■											
	LCMF 160504-0500-FT	0,4		■	■			■		■											
	LCMF 160608-0600-FT	0,8		■	■					■										■	
	LCMF 300812-0800-FT	1,2			■					■	■									■	
	300812-1000-FT	1,2			■															■	
LCMF-FT inch-version	LCMF 160302-0318-FT	0,2	■	■																	
	LCMF 160505-0476-FT	0,5	■	■																	
	LCMF 160605-0635-FT	0,5	■	■																	

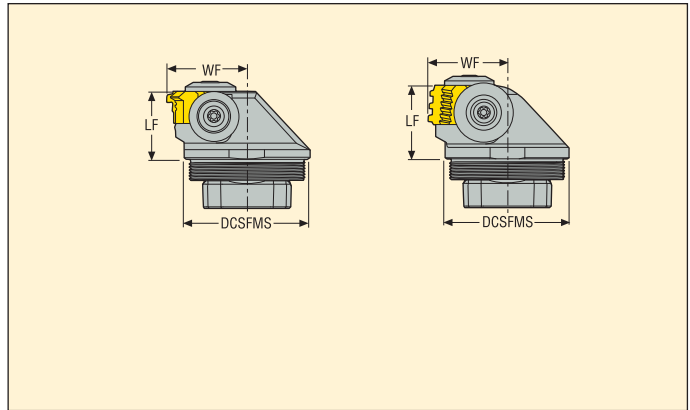
■ Stock standard
 Subject to change refer to current price- and stock-list

Toolholders with GL connection for S-inserts

Snap-Tap®



• For inserts programme, see page 126



Application	Part No.	Dimensions in mm			KG	INSL
		DCSFMS	LF	WF		
	GL50- CNL-32035-9-I	50,0	35	32,0	0,5	12.700
	CNL-32038-1-X	50,0	38	32,0	0,5	15.875
	CNL-32044-5-X	50,0	44	32,0	0,5	25.000
	GL50- CNR-32035-9-I	50,0	35	32,0	0,5	12.700
	CNR-32038-1-X	50,0	38	32,0	0,5	15.875
	CNR-32044-5-X	50,0	44	32,0	0,5	20.000

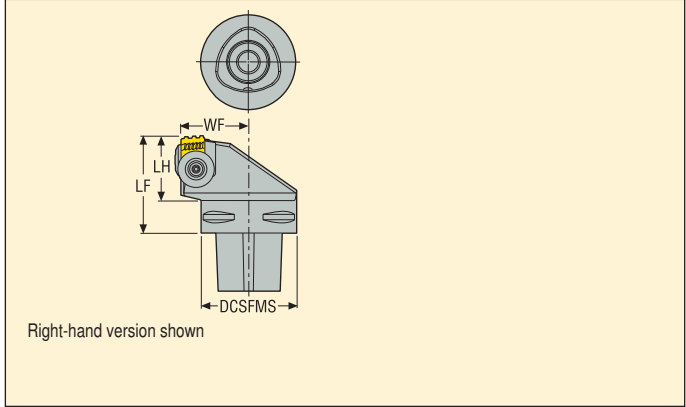
Spare Parts, Parts included in delivery

For size	Key, top clamp	Key, side clamp	Clamp kit top	Clamp kit side
CNL-I	-	T20P-7	-	W200613-T20P
CNL-X	T20P-7	T25P-7	W200613-T20P	W240618-T25P
CNR-I	-	T20P-7	-	W200613-T20P
CNR-X	T20P-7	T25P-7	W200613-T20P	W240618-T25P

Please check availability in current price and stock-list

Toolholders for Seco-Capto™ chasers

Snap-Tap®



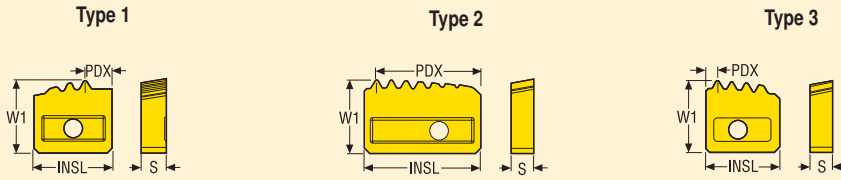
- For inserts programme, see page(s) 126

Application	Part No.	Dimensions in mm				KG	INSL
		DCSFMS	WF	LF	LH		
	C6-CER -45065-1-X	63,0	45,0	65,0	0,0	1,3	15.875
	-45065-5-X	63,0	45,0	65,0	0,0	1,4	25.000
	C8-CER -55080-1-X	80,0	55,0	80,0	0,0	2,7	15.875
	-55080-5-X	80,0	55,0	80,0	0,0	2,8	25.000
	C6-CNR -27115-1-X	63,0	27,0	115,0	88,0	1,9	15.875
	-27115-5-X	63,0	27,0	115,0	88,0	1,9	25.000
	-45065-1-X	63,0	45,0	65,0	0,0	1,4	15.875
	-45065-5-X	80,0	45,0	65,0	0,0	1,4	25.000
	C6-CNL -27115-1C-X	63,0	27,0	115,0	88,0	1,9	15.875
	-27115-5C-X	63,0	27,0	115,0	88,0	1,9	25.000
	-45065-1C-X	63,0	45,0	65,0	0,0	1,4	15.875
	-45065-5C-X	63,0	45,0	65,0	0,0	1,4	25.000
	C8-CNR -55080-1-X	80,0	55,0	80,0	0,0	2,9	15.875
	-55080-5-X	80,0	55,0	80,0	0,0	2,9	25.000
	C8-CNL -55080-1C-X	80,0	55,0	80,0	0,0	2,9	15.875
	-55080-5C-X	80,0	55,0	80,0	0,0	2,9	25.000
	C8-CNR -36190-27HD-OG	80,0	36,28	190,0	160,0	4,9	27

Toolholder/ Insert dimension	Spring	Locking key	Key, top clamp	Key, side clamp	Insert shim (S)	Floating wedge clamp	Clamp screw	Clamp kit top	Clamp kit side
C6/C8-X	–	–	T20P-7	T25P-7	–	–	–	W200613-T20P	W240618-T25P
C8-OG	S7616	T20P-7	–	–	VX27-1	CHD27	L86025-T20P		

Please check availability in current price and stock-list

Chasers



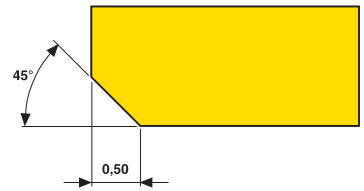
Pitch	Int./Ext.	Type	Dimensions in mm				NT	Part No.	Thread Form Product	Grades		
			INSL	W1	S	PDX				Coated		
										CP250T	CP500T	TP150T
8	Internal	3	15,875	15,875	4,76	2,5	4	8- 1128	API_RD_8TPI_INT.	■		
8	External	1	15,875	15,875	4,76	5,6	3	1116	API_RD_CAS_8TPI_EXT.	■		
8	External	1	16,0	14,62	5,2	7,697	3	2115-1	API_RD_8TPI_CAS_3/4_TPF_1PMC	■		
8	External	1	16,0	14,87	5,2	6,638	3	2115-2	API_RD_8TPI_CAS_3/4_TPF_2PMC	■		
8	External	1	16,0	15,0	5,2	5,58	3	2115-3	API_RD_8TPI_CAS_3/4_TPF_3PMC	■		
8	External	1	20,0	15,875	4,76	10,19	3	4133-1	API_RD_8TPI_EXT_CASING_1	■		
8	External	1	20,0	15,875	4,76	8,6	3	4133-2	API_RD_8TPI_EXT_CASING_2	■		
8	External	1	16,0	14,62	5,2	7,697	3	8- 2118-1	API_RD_8TPI_TUB_3/4_TPF_1PMC	■		
8	External	1	16,0	14,87	5,2	6,638	3	2118-2	API_RD_8TPI_TUB_3/4_TPF_2PMC	■		
8	External	1	16,0	15,0	5,2	5,58	3	2118-3	API_RD_8TPI_TUB_3/4_TPF_3PMC	■		
8	External	1	15,875	15,875	4,76	5,6	3	1117	API_RD_TUBING_8TPI_EXT.	■		
8	External	1	15,875	15,54	4,76	5,99	3	1132-1	API_RD_8TPI_TUBING_EXT_1	■		
8	External	1	15,875	15,84	4,76	4,4	3	1132-2	API_RD_8TPI_TUBING_EXT_2	■		
8	Internal	3	25,0	15,875	5,0	2,5	7	5111	API_RD_8TPI_INT	■		
8	Internal	2	25,0	15,875	5,0	22,5	7	5114	API_RD_8TPI_INTPULLING	■		
10	External	1	15,875	15,15	4,76	5,67	3	10- 1133-1	API_RD_10TPI_TUB_EXT_1	■		
10	External	1	15,875	15,875	4,76	4,4	3	1133-2	API_RD_10TPI_TUB_EXT_2	■		
10	Internal	3	15,875	15,875	4,76	5,0	4	1120	API_RD_10TPI_TUB_INT	■		
5	External	1	15,875	15,875	4,76	2,1	3	5- 1102	API_BUTT_5TPI_1/16_EXT	■		
5	Internal	2	15,875	15,875	4,76	13,375	3	1134	API_BUTT_5TPI_CAS_1/16_INTPUL	■		
5	Internal	3	15,875	15,875	4,76	2,5	3	1113	API_BUTTRESS_5TPI_1/16_INT.	■		
5	External	1	17,0	14,57	4,76	5,552	3	3105-1	API_BUTTRESS_5TPI_1/16_EXT_1	■		
5	External	1	17,0	14,825	4,76	3,858	3	3105-2	API_BUTTRESS_5TPI_1/16_EXT_2	■		
5	External	1	17,0	14,98	4,76	2,165	3	3105-3	API_BUTTRESS_5TPI_1/16_EXT_3	■		
5	External	1	20,0	15,692	4,76	4,84	3	4131-1	API_BUTTRESS_1/16_5TPI_EXT_1	■		
5	External	1	20,0	15,875	4,76	2,3	4	4131-2	API_BUTTRESS_1/16_5TPI_EXT_2	■		
5	External	1	20,0	15,669	4,76	4,82	3	4135-1	API_BUTTRESS_5TPI_1/12_EXT_1	■		
5	External	1	20,0	15,875	4,76	2,28	4	4135-2	API_BUTTRESS_5TPI_1/12_EXT_2	■		
5	Internal	3	25,0	15,875	5,0	1,964	5	5112-C	API_BUTTRESS_5TPI_1/16_INT	■	■	
5	Internal	3	25,0	15,875	5,0	2,5	5	5108	API_BUTTRESS_5TPI_1/16_INT	■		
5	Internal	2	25,0	15,875	5,0	22,5	5	5110	API_BUTT_5TPI_1/16_INTPULLING	■		
5	External	1	25,0	15,875	5,0	2,0	5	5102	API_BUTRESS_5_TPI_1/16_EXT.	■	■	■
5	Internal	3	15,875	15,875	4,76	2,5	3	5- 1703	GOSTOTTM5TPIINT.	■		
5	Internal	2	15,875	15,875	4,76	13,375	3	1705	GOSTOTTM5TPIINT,PULLING	■		
5	External	1	15,875	15,875	4,76	2,1	3	1706	GOSTOTTM5TPIEXT.	■		
5	External	1	25,0	15,875	5,0	2,0	5	5704	GOSTOTTM5TPIEXT.	■		
5	External	1	20,0	15,692	4,76	4,84	3	4701-1	GOSTOTTM5TPIEXT.1	■		
5	External	1	20,0	15,875	4,76	2,3	4	4701-2	GOSTOTTM5TPIEXT.2	■		



Lead geometries and grades – Applications

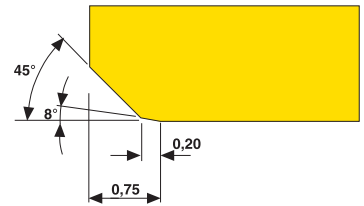
Lead geometry - EB45

Chip control +++
 Surface Finish + (R_a 0,8 - 1,2 μm)
 Versatile



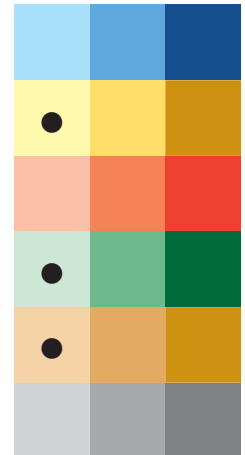
Lead geometry - EB845

Chip control ++
 Surface finish+++ (R_a 0,2 - 0,8 μm)



Grades

	RN2010	A sub-micrograin uncoated grade with optimized geometries for N-materials (non ferrous).
	RM2020	A tough coated grade suitable for fine reaming operation with optimized geometries for M materials.
	RM2090	A wear resistant coated grade with specific geometries for M materials. Optimisation in M materials.
	RS2090	A wear resistant coated grade with specific geometries for S materials. Optimisation in S materials.



Cutting data – NF/NS...-EB45

SMG		a_p (Ø)		f		V_c			
		z=4	z=6	z=4	z=6	RN2010	RM2020	RM2090	RS2090
M1	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	-	25 (15-40)	40 (20-60)	-
M2	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	-	25 (15-40)	40 (20-60)	-
M3	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	-	25 (15-40)	40 (20-60)	-
M4	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	-	20 (10-30)	30 (15-40)	-
M5	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,50	-	20 (10-30)	30 (15-40)	-
N1	NF/NS-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	-	-
N2	NF/NS-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	-	-
N3	NF/NS-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	-	-
N11	NF/NS-EB45	0,10-0,20	0,10-0,30	0,10-0,30	0,20-0,60	50 (20-80)	-	-	-
S1	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	-	-	-	20 (10-25)
S2	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	-	-	-	20 (10-25)
S3	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	-	-	-	25 (10-25)
S11	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	-	-	-	30 (20-50)
S12	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	-	-	-	30 (20-50)
S13	NF/NS-EB45	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	-	-	-	30 (20-50)

Cutting data – NF/NS...-EB845

SMG		a_p (Ø)		f		V_c
		z=4	z=6	z=4	z=6	RN2090
S1	NF/NS-EB845	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	25 (10-25)
S2	NF/NS-EB845	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	25 (10-25)
S3	NF/NS-EB845	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	25 (10-25)
S11	NF/NS-EB845	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	50 (20-50)
S12	NF/NS-EB845	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	50 (20-50)
S13	NF/NS-EB845	0,08-0,15	0,10-0,15	0,10-0,20	0,20-0,30	50 (20-50)

SMG = Seco material group

a_p = mm

f = mm/rev

V_c = m/min

All cutting data are start values

Custom design – No waiting for quotation - Short delivery time

Custom Design is also available for Nanofix reamers and tool holders.

You can now quote for your own intermediate \varnothing reamer and tailor made Nanofix tool holder using the Seco Custom Design software.

Easy to use concept: Just indicate component min/max \varnothing or use ISO tolerance system available in the software.

Nanofix head designation is created automatically.

Custom Design gives you a number of advantages:

- No waiting for quotation! Price and delivery time is available instantly!
- Directly visualize your needs. No risk for misunderstandings
- Short delivery time

The screenshot displays the SECO CUSTOM DESIGN software interface. The main window is titled "CUSTOM DESIGN" and shows "Step 1: Tool Specification" and "Step 2: Request for Quotation". On the left, there are technical drawings of a reamer and its holder, with a callout for the "EB45" reamer tip. The right side features a configuration panel with various parameters:

Parameter	Min	Max
Material cutting choice	[Dropdown menu]	
Tolerance	[Dropdown menu]	
ISO Class	[Dropdown menu]	
ISO Quality	[Dropdown menu]	
Workpiece Diameter D	2.97	12.06
Geometry	[Dropdown menu]	
Grade	[Dropdown menu]	
Reamer diameter D position	45% of the workpiece tolerance	
Length of the reamer	[Dropdown menu]	
Number of Cutting edges Z	4	
DNM	8	
LUX	60	
OAL1	80	
OAL2	145	
LPR	80	
ED	16	
NFGF Holder Size	NFGF06	

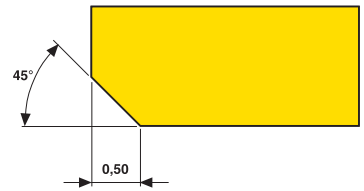
Below the configuration panel, there are buttons for "Previous", "Request quotation", and "Save Parts". At the bottom, the "Designation" is shown as "NF06-6MT-EB45 RM000" and the "Delivery Time" section includes a "Quantity" input field (set to 10) and a "Send request" button, with "Min Quantity: 3" and "Max Quantity: 25" displayed below.



Geometry choice – Applications

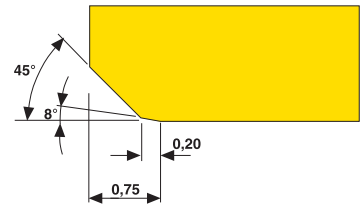
Lead geometry - EB45

Chip control +++
 Surface Finish + (R_a 0,8 - 1,2 μm)
 Versatile



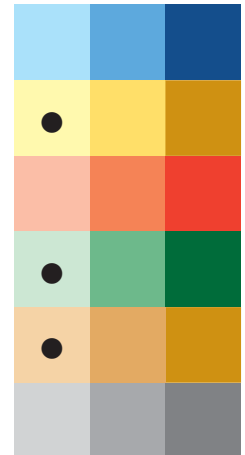
Lead geometry - EB845

Chip control ++
 Surface finish+++ (R_a 0,2 - 0,8 μm)



Grades

	RN2010	A sub-micrograin uncoated grade with optimized geometries for N-materials (non ferrous).
	RM2020	A tough coated grade suitable for fine reaming operation with optimized geometries for M materials.
	RM2090	A wear resistant coated grade with specific geometries for M materials. Optimisation in M materials.
	RS2090	A wear resistant coated grade with specific geometries for S materials. Optimisation in S materials.



Cutting data – PM Plus...-EB45

SMG		$a_p (\varnothing)$		f			V_c			
		z=6	z=8 /z=10	z=6	z=8	z=10	RN2010	RM2020	RM2090	RS2090
M1	PMX5/PMX6-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	-	25 (15-40)	40 (25-80)	-
M2	PMX5/PMX6-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	-	25 (15-40)	40 (25-80)	-
M3	PMX5/PMX6-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	-	25 (15-40)	40 (25-80)	-
M4	PMX5/PMX6-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	-	20 (10-30)	30 (20-60)	-
M5	PMX5/PMX6-EB45	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	-	20 (10-30)	30 (20-60)	-
N1	PMX5/PMX6-EB45	0,10-0,20	0,10-0,30	0,30-0,90	0,40-1,20	0,50-1,50	50 (30-100)	-	-	-
N2	PMX5/PMX6-EB45	0,10-0,20	0,10-0,30	0,30-0,90	0,40-1,20	0,50-1,50	50 (30-100)	-	-	-
N3	PMX5/PMX6-EB45	0,10-0,20	0,10-0,30	0,30-0,90	0,40-1,20	0,50-1,50	50 (30-100)	-	-	-
N11	PMX5/PMX6-EB45	0,10-0,20	0,10-0,30	0,30-0,90	0,40-1,20	0,50-1,50	50 (30-100)	-	-	-
S1	PMX5/PMX6-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	-	25 (12-30)
S2	PMX5/PMX6-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	-	25 (12-30)
S3	PMX5/PMX6-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	-	25 (12-30)
S11	PMX5/PMX6-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	-	50 (25-65)
S12	PMX5/PMX6-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	-	50 (25-65)
S13	PMX5/PMX6-EB45	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	-	50 (25-65)

Cutting data – PM Plus...-EB845

SMG		$a_p (\varnothing)$		f			V_c		
		z=6	z=8 /z=10	z=6	z=8	z=10	RM2020	RM2090	RS2090
M1	PMX5/PMX6-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	25 (15-40)	35 (20-70)	-
M2	PMX5/PMX6-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	25 (15-40)	35 (20-70)	-
M3	PMX5/PMX6-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	25 (15-40)	35 (20-70)	-
M4	PMX5/PMX6-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	20 (10-30)	25 (15-50)	-
M5	PMX5/PMX6-EB845	0,08-0,15	0,10-0,20	0,20-0,60	0,30-0,80	0,35-1,00	20 (10-30)	25 (15-50)	-
S1	PMX5/PMX6-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	25 (12-30)
S2	PMX5/PMX6-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	25 (12-30)
S3	PMX5/PMX6-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	25 (12-30)
S11	PMX5/PMX6-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	50 (25-65)
S12	PMX5/PMX6-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	50 (25-65)
S13	PMX5/PMX6-EB845	0,08-0,15	0,10-0,15	0,20-0,60	0,30-0,80	0,35-1,00	-	-	50 (25-65)

SMG = Seco material group

a_p = mm

f = mm/rev

V_c = m/min

All cutting data are start values

No waiting for quotations – Short delivery time

Custom Design is also available for Precimaster Plus reamers and tool holders.

You can now quote for your own intermediate \varnothing reamer and tailor made Precimaster Plus tool holder using the Seco Custom Design software.

Easy to use concept: Just indicate component min/max \varnothing or use ISO tolerance system available in the software.

Precimaster Plus head designation is created automatically.

Custom Design gives you a number of advantages:

- No waiting for quotations! Price and delivery time available instantly!
- Directly visualises your needs. No risk of misunderstandings
- Short delivery time

Please contact your local Seco representative for more information.



Hydraulic chucks, EPB 5831

Designed with a long and slim workpiece side profile, the EPB 5831 is ideal for drilling operations or finishing and semi-finishing milling operations where access is restricted by narrow cavities in the workpiece (eg. for Mould & Die applications). These slim hydraulic chucks are fine balanced to make them suitable for HSM, while the hydraulic system offers a damping effect during machining.

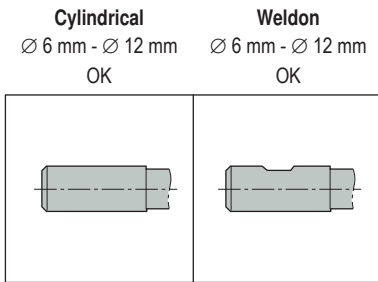
Chucks are delivered with a length setting stop end screw with a coolant channel with front groove.

An internal piston pressurises hydraulic fluid into a chamber surrounding the holder bore. The high pressure is uniformly applied to grip 360° around the tool shank. Cutting tools are held with excellent precision. The bore has a helical groove where dirt, oil or grease can collect when it has inadvertently been left on the tool shank. The pressurising screw must be tightened until stop.

PLEASE NOTE: NEVER TIGHTEN THE CHUCK WITHOUT A TOOL IN PLACE.

This would damage the chamber and make the chuck unusable.

Tool shanks: Suitable tool shanks for direct fitting: Cylindrical DIN 1835-1 Form A/ DIN 6535 Form HA, \varnothing 6 to 12 mm and Weldon DIN 1835-1 Form B/ DIN 6535 Form HB, \varnothing 6 to 12 mm. Additional tool shank diameters can be clamped using reduction sleeves (see next page or MN Tooling Systems catalogue chapter Additional equipment).



Shank tolerance
h6 maximum.

Run-out
Maximum run-out when measured at a gauge projection of 3 x \varnothing DCB in relation to the external taper is 5 μ m.

Balancing
Fine-balanced as standard.

Clamp \varnothing (mm)	Minimum static transmittable torque (Nm)	Operating temperature	Max. coolant pressure	Hydraulic system Max RPM*
6	20	10-50° C	50 bar	40 000
8	30			40 000
10	40			40 000
12	70			40 000

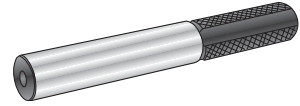
* The maximum RPM for holders equipped with this clamping system is often restricted by the holder's machine side taper type and size.

To reach maximum transmittable torque, the tool shank and bore must be clean and dry.

Hydraulic chucks, EPB 5831

Control gauges, see MN Tooling Systems catalogue chapter Additional equipment

To check that the pressure of hydraulic chucks remains sufficient, it is recommended to regularly test the chucks with suitable gauges, shown in MN Tooling Systems catalogue chapter Additional equipment.



Hydraulic chuck EPB 5831 control instructions summary, using a control gauge:

Insert the control gauge into the chuck.

Tighten the clamping screw until you cannot turn the control gauge.

Then it should be possible to complete a minimum of four full turns of the pressurising screw, before completely tightening.

This will confirm that the clamping capability is adequate.

Note: Detailed control instructions are part of the operating instruction sheet delivered with the hydraulic chucks.

Reduction sleeves for hydraulic chucks, see MN Tooling Systems catalogue chapter Additional equipment

The reduction sleeves for hydraulic chucks act as split collets allowing more shank types and sizes to be gripped (see below).

The run-out of EPB 5831 chucks with a sleeve is maximum 8 µm at 3 x ØDCB.

Suitable tool shanks when using reduction sleeves:

Cylindrical

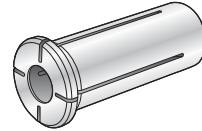
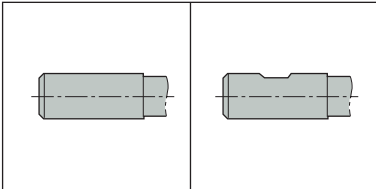
Ø 3 mm - Ø 10 mm

OK

Weldon

Ø 6 mm - Ø 10 mm

OK



Reduction sleeves, range (see also MN Tooling Systems catalogue chapter Additional equipment)

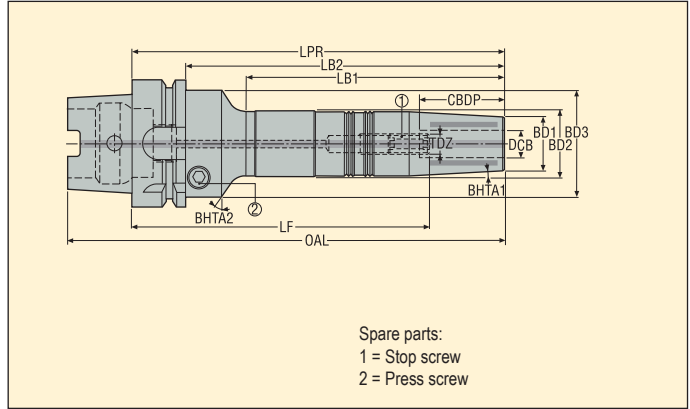
Reduction sleeves		
Part No.	Machine side Ø mm	Workpiece side Ø mm
05F5832 12 03	12	3
05F5832 12 04	12	4
05F5832 12 05	12	5
05F5832 12 06	12	6
05F5832 12 08	12	8
05F5832 12 10	12	10

EPB 5831 – Hydraulic chucks, slim

HSK-A/ ISO 12164-1-A



- Run-out 5 µm maximum at 3 x ∅DCB



Machine side	Work-piece side	Part No.	Dimensions in mm										TDZ	BHTA1°	BHTA2°	Balancing	KG
			Taper	DCB mm	LPR	BD1	BD2	BD3	OAL	LB1	LB2	CBDP					
HSK-A63	6	E9304583106150	150	21	26,0	53	182	94,3	124	37	123-113	M5	3	30	1	1,30	
	6	E9304583106200	200	21	26,5	53	232	144,3	174	37	173-163	M5	3	30	1	1,60	
	8	E9304583108150	150	23	28,0	53	182	94,3	124	37	123-113	M6	3	30	1	1,40	
	8	E9304583108200	200	23	28,5	53	232	144,3	174	37	173-163	M6	3	30	1	1,70	
	10	E9304583110150	150	25	30,0	53	182	94,3	124	42	118-108	M8	3	30	1	1,50	
	10	E9304583110200	200	25	30,5	53	232	144,3	174	42	168-158	M8	3	30	1	1,80	
	12	E9304583112150	150	27	32,0	53	182	94,3	124	47	113-103	M10	3	30	1	1,60	
12	E9304583112200	200	27	32,5	53	232	141,3	174	47	163-153	M10	3	30	1	1,90		
HSK-A100	6	E9306583106150	150	21	26,0	53	200	91,3	121	37	123-113	M5	3	30	1	2,70	
	6	E9306583106200	200	21	26,5	53	250	141,3	171	37	173-163	M5	3	30	1	2,90	
	8	E9306583108150	150	23	28,0	53	200	91,3	121	37	123-113	M6	3	30	1	2,70	
	8	E9306583108200	200	23	28,5	53	250	141,3	171	37	173-163	M6	3	30	1	3,00	
	10	E9306583110150	150	25	30,0	53	200	91,3	121	42	118-108	M8	3	30	1	2,80	
	10	E9306583110200	200	25	30,5	35	250	141,3	171	42	168-158	M8	3	30	1	3,00	
	12	E9306583112150	150	27	32,0	53	200	91,3	121	47	113-103	M10	3	30	1	2,90	
	12	E9306583112200	200	27	32,5	53	250	141,3	171	47	163-153	M10	3	30	1	3,20	

For reduction sleeves and control gauges, see MN Tooling Systems catalogue chapter Additional equipment

Accessories

For DCB	Locking key
6	H04-4
8	H04-4
10	H04-4
12	H04-4

Spare Parts

For DCB	Press screw	Stop screw
6	950AF1010010	19LS0516A
8	950AF1010010	19LS0620A
10	950AF1010010	19LS0820A
12	950AF1010010	19LS1020A

Please check availability in current price and stock-list

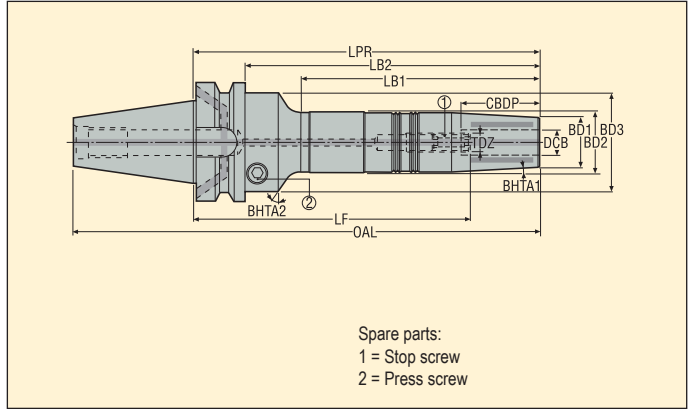
For HSK sealing plugs, coolant tubes and tube spanners, see MN Tooling Systems catalogue chapter Additional equipment

EPB 5831 – Hydraulic chucks, slim

BT JIS B 6339-ADB



- Run-out 5 µm maximum at 3 x ∅DCB



Machine side	Work-piece side	Part No.	Dimensions in mm										TDZ	BHTA1°	BHTA2°	Balancing	KG
			LPR	BD1	BD2	BD3	OAL	LB1	LB2	CBDP	LF min-max						
BT40 ADB	6	E3414583106150	150	21	26,0	53	215	93,3	123	37	123-113	M5	3	30	1	1,70	
	6	E3414583106200	200	21	26,5	53	265	143,3	173	37	173-163	M5	3	30	1	1,90	
	8	E3414583108150	150	23	28,0	53	215	93,3	123	37	123-113	M6	3	30	1	1,70	
	8	E3414583108200	200	23	28,5	53	265	143,3	173	37	173-163	M6	3	30	1	2,00	
	10	E3414583110150	150	25	30,0	53	215	93,3	123	42	118-108	M8	3	30	1	1,80	
	10	E3414583110200	200	25	30,5	53	265	143,3	173	42	168-158	M8	3	30	1	2,10	
	12	E3414583112150	150	27	32,0	53	215	93,3	123	47	113-103	M10	3	30	1	2,90	
	12	E3414583112200	200	27	32,5	53	265	143,3	173	47	163-153	M10	3	30	1	2,20	

For reduction sleeves and control gauges, see MN Tooling Systems catalogue chapter Additional equipment

Accessories

For DCB	Locking key
6	H04-4
8	H04-4
10	H04-4
12	H04-4

Spare Parts

For DCB	Plug	Press screw	Stop screw
6	950A0406	950AF1010010	19LS0516A
8	950A0406	950AF1010010	19LS0620A
10	950A0406	950AF1010010	19LS0820A
12	950A0406	950AF1010010	19LS1020A

Please check availability in current price and stock-list

ER to Combimaster holders

Compact, this tooling system allows face, side and disc milling operations via Combimaster milling cutters as opposed to solid end mills. This achieves higher material removal rates due to larger cutting diameter capacities and shorter overhangs.

The adapters are ready to use assemblies made of an ER OD shaped collet, assembled into a nut with a ball bearing.

To be fitted onto ER machine spindles eg. turrets of turning machines, or onto ER collet chucks.

Available as standard in three ER machine side sizes and five Combimaster workpiece side sizes. Further ER and Combimaster sizes are available on request, please enquire.

Dynamometric roller spanners are recommended to tighten at recommended torque value. Classic roller spanners or hook spanners can also be used. Hook spanners, classic roller spanners or dynamometric roller spanners are available as Accessories, to be ordered separately. See Product page(s) 147.



Cutter diameter comparison when using an ER collet or an ER to Combimaster holder and recommended tightening torque for the ER collet nut and the Combimaster tool of ER to Combimaster holder

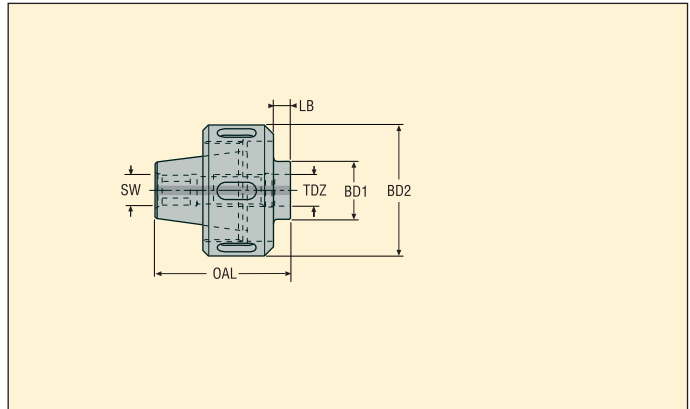
Cutter \varnothing comparison				Tightening torque	
ER Collet size	ER Collet bore \varnothing mm	Combimaster size	Cutting \varnothing mm for side and face milling	ER Collet nut tightening torque	Combimaster tool tightening torque
ER 25	1-16 mm max.	M8	16 mm	60 Nm	25 Nm
		M10	20 mm		40 Nm
		M12	25 mm		60 Nm
ER 32	2-20 mm max.	M10	20 mm	90 Nm	40 Nm
		M12	25 mm		60 Nm
		M16	32 mm		80 Nm
ER 40	3-26 mm max.	M12	25 mm	120 Nm	60 Nm
		M16	32 mm		80 Nm
		M20	40 mm		120 Nm



Multi-task machine, rotating turret with ER spindle, equipped with an ER to Combimaster adapter and a Combimaster milling cutter.

EPB 5820 – ER to Combimaster holders

ER/ ISO 15488



- Ready to use assembly
- To equip ER machine spindles or ER collet chucks

Machine side	Workpiece side	Part No.	Dimensions in mm					KG
			Size	Combimaster size TDZ	OAL	LB	BD1	
ER 25	M8	BE025582008005	39,5	5	13,5	41,6	10	0,19
	M10	BE025582010005	39,5	5	18,5	41,6	10	0,20
	M12	BE025582012005	39,5	5	23,0	41,6	10	0,20
ER 32	M10	BE032582010005	46,5	5	18,5	49,6	10	0,34
	M12	BE032582012005	46,5	5	23,0	49,6	10	0,40
	M16	BE032582016005	46,5	5	30,0	49,6	10	0,40
ER 40	M12	BE040582012005	52,5	5	23,0	63,0	10	0,63
	M16	BE040582016005	52,5	5	30,0	63,0	10	0,62
	M20	BE040582020005	52,5	5	36,5	63,0	10	0,70

Accessories*

For size	Socket	Spanner 1	Spanner 2	Torque key
ER 25	03ER042	03B587312	03BR042	03DYD020200
ER 32	03ER050	03B587316	03BR050	03DYD020200
ER 40	03ER063	03B587325	03BR063	03DYD020200

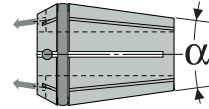
Please check availability in current price and stock-list

* A dynamometric roller spanner requires a torque key and a socket

For tightening torques, see Guide pages. Sockets and spanners 2 use the reliable roller clamping technique

ER High Precision collets with coolant supply channels towards the tool, type 5672 for collet chucks EPB 5672

The collet designation 'ER HP' indicates that the collet type 5672 is based on the external design of ISO 15488-B (ER collet taper angle: $\alpha = 16^\circ$), but equipped with a distinguishing plastic ring in the locking groove to avoid confusing it with a classic ER collet that would not provide the run-out mentioned below.



Features:

ER HP sealed collets with 4 coolant supply channels towards the tool can be used with internal coolant supply up to 120 bar. The colored ring has no sealing function, only for identification.

Run-out:

Maximum run-out is $3 \mu\text{m}$ (up to a maximum of 50mm) when measured at a gauge projection of $3 \times \varnothing\text{DCB}$ in relation to the external taper of the high precision collet chuck type 5672.

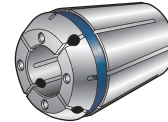
Tool shanks:

Tool shank diameter to be same as collet's bore (no clamping capacity) and tolerance h10 max.

Range:

A selection of ER HP collets type 5672, sealed, with coolant supply channels towards the tool, in most current diameters is available as standard, as listed on page(s) 149.

As shown below, further diameters are available on request, please enquire.



Collet size	Sealed with 4 coolant supply channels		
	From \varnothing (mm)	To \varnothing (mm)	\varnothing steps (mm)
ER HP 16*	3	8	1
ER HP 25	3	14	1
ER HP 32	3	20	1

* The collet size ER HP 16 is suitable for both chuck sizes HP 16R and HP 16.

Dynamometric roller spanners and classic roller spanners for EPB 5672 high precision collet chucks, EPB 5675 collet chucks, EPB 5450 collet chuck extensions and ER to Combimaster holders

Roller spanners are required to tighten and release the plain cylindrical collet nuts of EPB 5672 high precision collet chucks, and are an option to the hook spanners for EPB 5675 chucks, EPB 5450 collet chuck extensions and ER to Combimaster holders (see table below). Classic roller spanners and dynamometric roller spanners are available as Accessories, to be ordered separately.

The use of a dynamometric roller spanner is recommended for collet nut tightening: reliable application of the recommended clamping torque guarantees high transmittable torque to the tool and prevents nut or collet deformation.

For nut releasing, it is recommended to use a classic roller spanner: Dynamometric roller spanner's key mechanism could be damaged by possible required higher untightening torque compared to the set torque for tightening.



Dynamometric roller spanner =
Torque key + Socket



Classic roller spanner



Recommended tightening torque for the collet nut

Chuck type	Collet chuck size	Nut \varnothing mm	Capacity d mm	Recommended tightening torque*	Dynamometric roller spanner*		Classic roller spanner*	Hook spanner
					Socket	Torque key		
EPB 5672	ER HP 11	16	1-7	10 Nm	03ER016	03DYD010100	03BR016	–
	ER HP 16R	24	1	10 Nm	03ER024	03DYD010100	03BR024	–
			1,5-3,5	15-20 Nm				–
			4-10	25-30 Nm				–
	ER HP 16	30	1	10 Nm	03ER030	03DYD010100	03BR030	–
			1,5-3,5	25-30 Nm				–
			4-10	50-55 Nm				–
	ER HP 25	40	2-3	25-30 Nm	03ER040	03DYD020200	03BR040	–
			3,5-6,5	35-40 Nm				–
			7-10	55-60 Nm				–
			10,5-16	80-90 Nm				–
	ER HP 32	50	2-3	30-35 Nm	03ER050	03DYD020200	03BR050	–
3,5-6,5			55-60 Nm	–				
7-15,5			110-120 Nm	–				
16-20			130-140 Nm	–				
EPB 5450	ER 08R	12	0,5-5	12 Nm	–	–	–	03B545008
	ER 11R	16	0,5-7	25 Nm	03ER016	03DYD010100	03BR016	03B545011
	ER 16R	22	0,5-10	35 Nm	03ER022	03DYD010100	03BR022	03B545016
	ER 25R	35	1-16	45 Nm	03ER035	03DYD010100	03BR035	03B545025
EPB 5675	ER 16	32	0,5-10	60 Nm	03ER032	03DYD010100	03BR032	03B587516
	ER 25	42	1-16	110 Nm	03ER042	03DYD020200	03BR042	03B587525
	ER 32	50	2-20	160 Nm	03ER050	03DYD020200	03BR050	03B587532
	ER 40	63	3-26	180 Nm	03ER063	03DYD020200	03BR063	03B587540
EPB 5820	ER 25 Combimaster	41,6	M8, M10, M12	60 Nm	03ER042	03DYD020200	03BR042	03B587312
	ER 32 Combimaster	49,6	M10, M12, M16	90 Nm	03ER050	03DYD020200	03BR050	03B587316
	ER 40 Combimaster	63	M12, M16, M20	120 Nm	03ER063	03DYD020200	03BR063	03B587325
OZ 32	OZ 32	72	4-32	140 Nm	–	–	–	03B587332

* Suitable roller spanner, classic and dynamometric types are available as Accessories, see Product pages.

Operating instructions: To ensure optimal use of the high precision collet chucks, the detailed operating instructions delivered with the holders must be respected.

Steels, ferritic and martensitic stainless steels

SMG	Description	Properties	Reference
P1	Free-cutting steels	$360 < R_m < 880$	11 SMn30 $R_m = 385 \text{ N/mm}^2$
P2	Low alloy ferritic steels, $C < 0.25\%$ wt Low alloy weldable general structural steels	$320 < R_m < 600$	S235JRG2 $R_m = 420 \text{ N/mm}^2$
P3	Ferritic & ferritic/pearlitic steels, $C < 0.25\%$ wt Weldable general structural steels Case hardening steels	$430 < R_m < 610$	16 MnCr 5 $R_m = 550 \text{ N/mm}^2$
P4	Low alloy general structural steels, $0.25\% < C < 0.67\%$ wt Low alloy Quench & Temper steels	$520 < R_m < 1200$	C 45E $R_m = 660 \text{ N/mm}^2$
P5	Structural steels, $0.25\% < C < 0.67\%$ wt Quench & Temper steels	$550 < R_m < 1200$	42 CrMo 4 $R_m = 700 \text{ N/mm}^2$
P6	Low alloy through hardening steels, $C > 0.67\%$ wt Low alloy spring and bearing steels	$520 < R_m < 1200$	C 100S $R_m = 600 \text{ N/mm}^2$
P7	Through hardening steels, $C > 0.67\%$ wt Spring and bearing steels	$600 < R_m < 1200$	100 Cr 6 $R_m = 650 \text{ N/mm}^2$
P8	Tool steels High Speed Steels (HSS)	$600 < R_m < 1200$	X 40 CrMoV 5 1 $R_m = 700 \text{ N/mm}^2$
P11	Ferritic & martensitic stainless steels	$415 < R_m < 1200$	X 20 Cr 13 $R_m = 675 \text{ N/mm}^2$

Free-cutting, austenitic and duplex stainless steels

SMG	Description	Properties	Reference
M1	Free-cutting austenitic stainless steels		X 10 CrNiS 18 9
M2	Low alloy austenitic stainless steels		X 5 CrNi 18 10
M3	Medium alloy austenitic stainless steels		X 2 CrNiMo 18 14 3
M4	High alloy austenitic and duplex stainless steels		X 2 CrNiMoN 22 5 3
M5	Difficult high alloy austenitic and duplex stainless steels		X 2 CrNiMoN 25 7 4

Cast irons

SMG	Description	Properties	Reference
K1	Grey cast irons (GCI)		EN-GJL-250
K2	Compacted graphite irons (CGI)		EN-GJV-400
K3	Malleable cast irons (MCI)		EN-GJMB-550-4
K4	Nodular cast irons (SGI)		EN-GJS-500-7
K5	Austempered ductile irons (ADI)		EN-GJS-1000-5
K6	Austenitic lamellar cast irons		EN-GJLA-XNiCuCr15-6-2
K7	Austenitic nodular cast irons		EN-GJSA-XNiMn23-4

Non-ferrous metals

SMG	Description	Properties	Reference
N1	Aluminium alloys, Si < 9%		AW-7075
N2	Aluminium alloys, 9% < Si < 16%		AC-44200 Si = 12%
N3	Aluminium alloys, Si > 16%		AlSi17Cu5
N11	Copper alloys		CW614N

Superalloys and titanium

SMG	Description	Properties	Reference
S1	Iron based superalloys		Disalloy
S2	Cobalt based superalloys		Stellite 21
S3	Nickel based superalloys		Inconel 718
S11	Titanium, low alloyed, (α)		Ti
S12	Titanium, medium alloyed, (α + β)		TiAl6V4
S13	Titanium, high alloyed, (near β and β)		Ti10V2Fe3Al

Hard materials

SMG	Description	Properties	Reference
H3	Case hardened steels	58 < HRC < 62	16 MnCr 5 60 HRC
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC
H7	Quenched & Tempered steels Bearing steels	56 < HRC < 64	100 Cr 6 60 HRC
H8	Tool steels High Speed Steels	38 < HRC < 64	X 40 CrMoV 5 1 50 HRC
H11	Martensitic stainless steels	38 < HRC < 50	X 20 Cr 13 45 HRC
H12	Precipitation hardened stainless steels	33 < HRC < 50	X 5 CrNiCuNb 16 4 35 HRC
H21	Manganese steels	23 < HRC < 64	X 120 Mn 12 50 HRC
H31	White cast irons	50 < HRC < 64	EN-GJN-HV600(XCr11) 55 HRC

Other difficult materials

SMG	Description	Properties	Reference
PM1	Low alloy PM materials		F-0008 Fe-0.7C
PM2	Medium alloy PM materials		FLC-4608 Fe2Cu1.8Ni0.5Mo0.2Mn0.8C
PM3	High alloy PM materials Exhaust valve seat materials		
HF1	Hard facing alloys Welded or plasma deposited iron based alloys		
HF2	Hard facing alloys Welded or plasma deposited cobalt and nickel based alloys		
CC1	Sintered tungsten carbide, Co >13%		G50

Plastics and Composites

SMG	Description	Properties	Reference
TS1	Thermosetting polymers		Urea formaldehyde (UF)
TS2	Thermosetting Carbon fibre composites		T300 T700 T800 HTA-S IMA - Epoxy (M21)...
TS3	Thermosetting Glass fibre composites		Epoxy - HX..(42..)/E glass (7781...)...
TS4	Thermosetting Aramide fibre composites		Kevlar 49
TP1	Thermoplastic polymers		Polycarbonate (PC)
TP2	Thermoplastic Carbon fibre composites		PPS/PEEK - T300..
TP3	Thermoplastic Glass fibre composites		PPS/PEEK - E glass or A glass...
TP4	Thermoplastic Aramide fibre composites		

Graphite

SMG	Description	Properties	Reference
GR1	Graphite		R 8500

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
P1	11 SMn30	1.0715	1.0715	9 SMn 28	S 250	230 M 07	CF 9 SMn 28	SUM 22	1912	G12130
	11 SMnPb30	1.0718	1.0718	9 SMnPb 28	S 250 Pb		CF 9 SMnPb 28	SUM 22 L	1914	G12134
	10 S 20	1.0721	1.0721	10 S 20	10 F 1	210 M 15	CF 10 S 20			
			1.0722	10 SPb 20	10 PbF 2		CF 10 SPb 20			
	15 SMn13	1.0725	1.0723	15 S 20		210 A 15		SUM 32	1922	
	35 S 20	1.0726	1.0726	35 S 20	35 MF 4	212 M 36			1957	G11400
	46 S 20	1.0727	1.0727	46 S 20	45 MF 4	212 M 44			1973	G11460
	11 SMn37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	11 SMnPb 37	1.0737	1.0737	9 SMnPb 36	S 300 Pb		CF 9 SMnPb 36		1926	G12144
	S235JR	1.0037	1.0037	St 37-2	E 24-2		Fe 360 B	STKM 12 C	1311	
	S235JRG2	1.0038	1.0116	St 37-3	E 24-3, E 24-4	4360-40 C	Fe 360 D FF		1312, 1313	
S275J2G3	1.0144	1.0144	St 44-3 N	E 28-3, E 28-4	4360-43 C	Fe 430 D FF	SM 41 C	1412, 1414		
C 10	1.0301	1.0301	C 10	AF 34 C 10, XC 10	045 M 10	C 10	S 10 C		G10100	
		1.0401	C 15	AF3 7 C 12, XC 18	080 M 15	C 15, C 16		1350	G10170	
C22+N	1.0402	1.0402	C 22	C 20	050 A 20	C 20, C 21		1450	G10200	
S355JR	1.0570	1.0570	St 52-3	E 36-3, E 36-4	4360-50 C	Fe 510 B	SM 50 YA	2172, 2132		
C 15R	1.1141	1.1141	Ck 15	XC 15, XC 18	080 M 15	C 15, C 16	S 15 C, S 15 CK	1370	G10170	
		1.1158	Ck 25	XC 25	060 A 25	C 25	S 25 C		G10250	
		1.2162	21 MnCr 5	20 NC 5			SCR 420 H			
16 Mo 3	1.5415	1.5415	15 Mo 3	15 D 3	1501-240	16 Mo 3		2912		
		1.5423	16 Mo 5		1503-245-420	16 Mo 5	SB 450 M		G45200	
14 NiCr 14	1.5752	1.5752	14 NiCr 14	12 NC 15	655 M 13		SNC 815 (H)		G33106	
		1.5919	15 CrNi 6	16 NC 6	S 107	16 CrNi 4				
18 NiCrMo 7 6	1.6587	1.6587	18 CrNiMo 7 6	18 NCD 6	820 A 16	18 NiCrMo 7				
16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170	
16 MnCrS 5	1.7139	1.7139	16 MnCrS 5							
20 MnCr 5	1.7147	1.7147	20 MnCr 5	20 MC 5		20 MnCr 5	SMnC 420 (H)		G51200	
20 MnCrS 5	1.7149	1.7149	20 MnCrS 5	20 MnCrS 5			SMnC 21 H			
13 CrMo 4 5	1.7335	1.7335	13 CrMo 4 4	15 CD 3,5	1501-620 Gr. 27	14 CrMo 4 5		2216		
		1.7337	16 CrMo 4 4	15 CD 4,5	1501-620 Gr. 27	14 CrMo 4 5		2216		
10 CrMo 9 10	1.7380	1.7380	10 CrMo 9 10	10 CD 9,10	1501-622 Gr. 31	12 CrMo 9 10		2218	J21890	
C35+N		1.0501	C 35	AF 55 C 35	060 A 35	C 35		1550	G10350	
E 335	1.0503	1.0503	C 45	AF 65 C 45	80 M 46	C 45	S 45 C	1650	G10430	
C40+N		1.0511	C 40	AF 60 C 40	080 M 40	C 40	S 40 C			
E 360	1.0070	1.0535	St 70-2	A 70-2		Fe 690		1655		
C60+N	1.0601	1.0601	C 60	CC 55	080 A 62	C 60			G10600	
		1.1157	40 Mn 4	35 M 5	150 M 36				G10390	
G 28 Mn6	1.1165	1.1165	30 Mn 5		120 M 36		SMn 1 H, SCMn 2		G13300	
G 28 Mn6+QT	1.1165	1.1167	36 Mn 5	40 M 5	150 M 36		SMn 438 (H), SCMn 3	2120	G13350	
C 35E	1.1181	1.1181	Ck 35	XC 38 H1	080 M 36	C 35	S 35 C	1572	G10340	
C 45E	1.1191	1.1191	Ck 45	XC 42	080 M 46	C 45	S 45 C	1672	G10420	
C 60E	1.1221	1.1221	Ck 60	XC 60	080 A 62	C 60	S 58 C	1665, 1678	G10640	
		1.1740	C 60 W	Y3 55			SK 7			
55 SiCr7	1.7100	1.0904	55 Si 7	55 S 7	250 A 53	55 Si 8		2085, 2090		
42 CrMo 4	1.7225	1.1201	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400	
42 CrMo 4	1.7225	1.1201	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400	
		1.2330	35 CrMo 4	34 CD 4	708 A 37	35 CrMo 4		2234	T51620	
		1.2542	45 WCrV 7		BS 1	45 WCrV 8 KU		2710	T41901	
	1.2714	1.2714	56 NiCrMoV 7		BH 224-5	56 NiCrMoV7-KU	SKT 4		T61206	
		1.5121	46 MnSi 4							
		1.5710	36 NiCr 6	35 NC 6	640 A 35					
		1.5736	36 NiCr 10	35 NC 11		35 NiCr 9	SNC 631 (H)			
36CrNiMo4+TA	1.6511	1.6511	36 CrNiMo 4	40 NCD 3	816 M 40	38 NiCrMo 4 (KB)			G98400	
34 CrNiMo 6	1.6582	1.6582	34 CrNiMo 6	35 NCD 6	817 M 40	35 NiCrMo 6 (KW)	SNCM 447	2541		
34 Cr 4	1.7033	1.7033	34 Cr 4	32 C 4	530 A 32	34 Cr 4 (KB)	SCR 430 (H)		G51320	
41 Cr 4	1.7035	1.7035	41 Cr 4	42 C 4	530 M 40	41 Cr 4	SCR 440 (H)		G51400	
25 CrMo 4	1.7218	1.7218	25 CrMo 4	25 CD 4 S	708 M 25	25 CrMo 4 (KB)	SCM 425	2225	G41300	
		1.7361	32 CrMo 12	30 CD 12	722 M 24	32 CrMo 12		2240		
50 CrV 4	1.8159	1.8159	50 CrV 4	50 CV 4	735 A 50	51 CrV 4	SUP 10	2230	H61500	
41 CrAlMo 7 10	1.8509	1.8509	41 CrAlMo 7	40 CAD 6.12	905 M 39	41 CrAlMo 7	SACM 645	2940	K24065	
C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700	
C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950	
C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880		
		1.1645	C 105 W2	Y1 105		C 100 KU	SK 3			
		1.1663	C 125 W	Y2 120		C 120 KU	SK 2			

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	Misc. Brands	Condition	Structure
	1213			Annealed	
	12 L 13			Annealed	
	1108			Annealed	
	11 L 08			Annealed	
				Annealed	
	1140	40		Annealed	
	1146			Annealed	
	1215			Annealed	
	12 L 14			Annealed	
		16D		Annealed	
	A 573 Gr. 58	18kp		Annealed	
	A 573 Gr. 70	St14kP		Annealed	
	1010	10		Annealed	
F.1110	1015	15		Annealed	
	1023	20		Annealed	
		17G1S		Annealed	
F.1511	1015	15		Annealed	
F.1120	1025	25		Annealed	
				Annealed	
	A 204 Gr. A			Annealed	
	4520			Annealed	
	3310, 9314	20X2H4A		Annealed	
	4320			Annealed	
				Annealed	
F.1516	5115	12KHN2		Annealed	
		18HG		Annealed	
	5120	20KH		Annealed	
	5120 H	20KH		Annealed	
	A 182-F11, F12	12KHM		Annealed	
	A 387 Gr. 12 Cl. 2			Annealed	
F.155	A 182-F22	12KH8		Annealed	
F.1130	1035	35		Annealed	
F.5110	1045	45		Annealed	
	1040	40		Annealed	
F.1150	1055	55		Annealed	
	1060	60		Annealed	
	1039	40G		Annealed	
	1330	30G2		Annealed	
F.411	1335	35G2		Annealed	
F.1135	1035	35		Annealed	
F.1140	1045	45		Annealed	
F.1150	1064	60		Annealed	
	1060	60		Annealed	
F.144	9255	55S2		Annealed	
F.1252	4142, 4140	38HM		Annealed	
F.1252	4142, 4140	38HM		Quenched & Tempered	
F.1250	4135	35KHM		Annealed	
F.5241	S1	5KHV2S		Annealed	
	L6	5KHNV		Annealed	
	5045			Annealed	
	3135			Quenched & Tempered	
	3435			Annealed	
	9840			Quenched & Tempered	
F.1280	4340	38H2N2MA		Annealed	
	5132	35KH		Quenched & Tempered	
	5140	40H		Quenched & Tempered	
F.1251	4130	20KHM		Quenched & Tempered	
				Quenched & Tempered	
F.143	6150	50KHFA		Quenched & Tempered	
F.1740	A 355 Cl. A			Annealed	
F.5103	1070	70		Annealed	
F.5117	1095			Annealed	
F.5118	W1	U10A		Annealed	
		U10		Annealed	
	W1	U13		Annealed	

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
P7	107 CrV 3		1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
			1.2510	100 MnCrV 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
P8	X 210 Cr 12	1.2080	1.2080	X 210 Cr 12	Z 200 C 12	BD 3	X 210 Cr 13 KU	SKD 1		T30403
			1.2343	X 38 CrMoV 5 1	Z 38 CDV 5	BH 11	X 37 CrMoV 5 1 KU	SKD 6		T20811
	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
			1.2365	X 32 CrMoV 3 3	32 DCV 28	BH 10	30 CrMoV 12 27 KU	SKD 7		T20810
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2		2312
			1.2601	X 165 CrMoV 12			X 165 CrMoV 12 KU			2310
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55		2723
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCW 09-08-04	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-1-2-5	1.3255	1.3255	S 18-1-2-5	Z 80 WKCV 18-05-04-01	BT 4	HS 18-1-1-5	SKH 3		T12004
HS 6-5-2	1.3343	1.3343	S 6-5-2	Z 85 WDCV 06-05-04-02	BM 2	HS 6-5-2	SKH 9, SKH 51	2722	T11302	
HS 2-9-2	1.3348	1.3348	S 2-9-2	Z 100 DCWV 09-04-02-02		HS 2-9-2	SKH 58		2782	
HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001	
P11	X 6 Cr 13	1.4000	1.4000	X 6 Cr 13	Z 6 C 12	403 S 17	X 6 Cr 13	SUS 403	2301	S41008
	X 12 Cr 13	1.4006	1.4006	X 10 Cr 13	Z 10 C 13	410 S 21	X 12 Cr 13	SUS 410	2302	S41000
	X 6 Cr 17	1.4016	1.4016	X 6 Cr 17	Z 8 C 17	430 S 15	X 8 Cr 17	SUS 430	2320	S43000
	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 39 Cr 13	1.4031	1.4031	X 40 Cr 13	Z 40 C 14	420 S 45	X 40 Cr 14	SUS 420	2304	S40280
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
	X 3 CrNiMo 13 3	1.4313	1.4313	X 5 CrNi 13 4	Z 5 CN 13.4	425 C 11	X 6 CrNi 13 04	SCS 5		2385
	X 18 CrN 28	1.4749	1.4749	X 18 CrN 28	Z 18 C 25					2322
M1	X 10 CrNiS 18 9	1.4305	1.4305	X 10 CrNiS 18 9	Z 10 CNF 18.09	303 S 31	X 10 CrNi 18 09	SUS 303	2346	S30300
M2	X 12 CrNi 18 8	1.4300	1.4300	X 12 CrNi 18 8	Z 12 CN 18	302 S 25		SUS 302	2331	S30200
	X 5 CrNi 18 9	1.4301	1.4301	X 6 CrNi 18 10	Z 6 CN 18.09	304 S 31	X 5 CrNi 18 11	SUS 304	2333	S30400
	X 2 CrNi 19 11	1.4306	1.4306	X 2 CrNi 19 11	Z 2 CN 18.10	304 S 12	X 3 Cr Ni 18 11	SUS 304 L	2352	S30403
	X 9 CrNi 18 8	1.4310	1.4310	X 12 CrNi 17 7	Z 12 CN 17.07	301 S 21	X 12 CrNi 17 07	SUS 301	(2331)	S30100
	X 5 CrNiMo 17 12 2	1.4401	1.4401	X 5 CrNiMo 17 12 2	Z 3 CND 17.11.1	316 S 31	X 5 CrNiMo 17 12	SUS 316	2347	S31600
	X 6 CrNiNb 18 10	1.4550	1.4550	X 6 CrNiNb 18 10	Z 6 CNNb 18.10	347 S 31	X 6 CrNiNb 18 11	SUS 347	2338	S34700
M3	X 2 CrNiN 18 10	1.4311	1.4311	X 2 CrNiN 19 11	Z 2 CN 18 10 Az	304 S 62	X 2 CrNiN 18 11	SUS 304 LN	2371	S30453
	X 12 CrNi 25 21	1.4335	1.4335	X 12 CrNi 25 21	Z 12 CN 25.20	310 S 24	X 6 CrNi 26 20	SUH 310, SUS 310 S	2361	S31008
	X 2 CrNiMoN 17 13 3	1.4429	1.4429	X 2 CrNiMoN 17 13 3	Z 2 CND 17.13 Az	316 S 62	X 2 CrNiMoN 17 13 3	SUS 316 LN	2375	S31653
	X 2 CrNiMo 18 14 3	1.4435	1.4435	X 2 CrNiMo 18 14 3	Z 2 CND 17.13	316 S 12	X 2 CrNiMo 17 13 2	SCS 16, SUS 316 L	2353	S31603
	X 3 CrNiMo 18 12 3	1.4466	1.4466	X 5 CrNi 18 15		317 S 16	X 5 CrNi 18 15	SUS 317		2366
X 9 CrNiSiN 21 11 2	1.4835	1.4893	X 9 CrNiSiN 21 11 2		310 S 31				2368	
M4	X 2 CrNiMoSi 19 5	1.4424	1.4417	X 2 CrNiMoSi 19 5	Z 2 CND 18.05.03					2376
	X 3 CrNiMo 27 5 2	1.4460	1.4460	X 4 CrNiMo 27 5 2	Z 3 CND 25.7 Az		X 3 CrNiMo 27 5 2	SUS 329 J 1	2324	S32900
	X 2 CrNiMoN 22 5 3	1.4462	1.4462	X 2 CrNiMoN 22 5	Z 2 CND 22.05 Az	332 S 15	X 2 CrNiMoN 22 5			2377
	X 2 NiCrMoCu 25 20 5	1.4539	1.4539	X 2 NiCrMoCu 25 20 5	Z 2 NCDU 25 20	904 S 13				2562
M5	X 2 CrNiMoN 25 7 4	1.4410	1.4410	X 2 CrNiMoN 25 7 4	Z 3 CND 25.07 Az		X 2 CrNiMoN 25 7 4		2328	S32750
	X 1 CrNiMoN 20 18 7	1.4547	1.4529	X 1 CrNiMoN 20 18 7	Z 1 CNDU 20.18.05 Az		X 1 CrNiMoN 20 18 7		2778	S31254
	X 6 NiCrTiMoV 25 15	1.4534	1.4534	X 3 CrNiMoAl 13 8 2						S13800
		1.4540	1.4540	X 4 CrNiCuNb 16 4	Z 4 CNUNb 16.4 M					S15500
	X 3 CrNiMoAl 13 8 2	1.4568	1.4568	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 1 CrNiMoN 25 22 8	1.4652	1.4652	X 2 CrNiMoN 25 22 7						S32654
X 10 NiCrAlTi 32 20	1.4876	1.4876	X 10 NiCrAlTi 32 20	Z 10 NC 32.21			NCF 800		N08800	
X 5 CrNiCuNb 16 4	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286	

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	Misc. Brands	Condition	Structure
F.520L	L2	11KHf		Annealed	
F.5220	O1	9KHVG		Annealed	
	O2	9G2F		Annealed	
F.5230	52100	SHKH15		Annealed	
F.5212	D3	KH12		Annealed	
	H11	4KH5MFS		Annealed	
F.5318	H13	4KH5MF1S		Annealed	
F.5227	A2	9KH5VF		Annealed	
	H10	3KH3M3F		Annealed	
F.5213		KH12		Annealed	
		KH12MF		Annealed	
F.520.S	L6	5KHNM		Annealed	
F.5613	M35	R6M5K5		Annealed	
	M42	R2AM9K5		Annealed	
	T4	R18K5F2		Annealed	
F.5603	M2	R6M5		Annealed	
	M7			Annealed	
	T1	R18		Annealed	
	403	08KH13		Annealed	Ferrite
F.3401	410, CA-15	12KH13, 08KH13		Annealed	Martensite
F.3113	430	12KH17		Annealed	Ferrite
F.5261	420	20KH13		Annealed	Martensite
F.3404	420	40KH13		Annealed	Martensite
	440 A			Annealed	Martensite
	440 B	95KH18		Annealed	Martensite
	440 C	95KH18		Annealed	Martensite
			F6NM	Annealed	Martensite
	446	15KH28		Annealed	Ferrite
F.3508	303	12KH19N9		Annealed	Austenite
	302	12KH18N9		Annealed	Austenite
F.3504	304, 304 H	08KH18N10		Annealed	Austenite
F.3504	304 L	03KH18N11		Annealed	Austenite
F.3517	301	07KH16N6		Annealed	Austenite
F.3534	316	08KH17H13M2T		Annealed	Austenite
F.3524	347	08KH18N12B		Annealed	Austenite
F.3541	304 LN	03KH18N11		Annealed	Austenite
	310 S	12KH25N20		Annealed	Austenite
	316 LN	03KH16N15M3		Annealed	Austenite
F.3533	316 L	03KH17N14M3		Annealed	Austenite
	317	08KH17H15M3T		Annealed	Austenite
			253 MA	Annealed	Austenite
			3RE60	Annealed	Duplex
	329			Annealed	Duplex
	329 LN		SAF 2205	Annealed	Duplex
	904L			Annealed	Super austenite
	F 53		SAF 2507	Annealed	Super duplex
			254 SMO	Annealed	Super austenite
	XM-13		PH13-8Mo	Solution treated	Austenite
	XM-12		15-5-PH	Solution treated	Martensite
	AMS 5528	09KH17N7YU1		Solution treated	Austenite/ferrite
			654 SMO	Annealed	Super austenite
			Alloy 800	Annealed	Austenite
	660		A286	Solution treated	Austenite

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
K1	EN-GJL-150	0.6150	0.6150	GG-15	Fl 15 D	Grade 150	G15	FC 150	01 15-00	F11601
	EN-GJL-200	0.6200	0.6200	GG-20	Fl 20 D	Grade 220	G20	FC 200	01 20-00	F12101
	EN-GJL-215			GG-220 HB					02 19	
	EN-GJL-250	0.6250	0.6250	GG-25	Fl 25 D	Grade 260	G25	FC 250	01 25-00	F12401
	EN-GJL-300	0.6300	0.6300	GG-30	Fl 30 D	Grade 300	G30	FC 300	01 30-00	F13101
EN-GJL-350	0.6350	0.6350	GG-35	Fl 35 D	Grade 350	G35	FC 350	01 35-00	F13502	
K2	EN-GJV-300			GJV-300						
	EN-GJV-350			GJV-350						
	EN-GJV-400			GJV-400						
	EN-GJV-450			GJV-450						
	EN-GJV-500			GJV-500						
K3	EN-GJMB-550-4	0.8155		GTS-55-04	P 540/5	P 540/5	P 55-04	PCMP55-04	08 54-00	F24130
K4	EN-GJS-350-22	0.7033	0.7033	GGG-35.3	FGS 370-17	Grade 350/22		FCD 350-22L	07 17-15	
	EN-GJS-400-15	0.7040	0.7040	GGG-40	FGS 400-12	Grade 420/12	GS 400-12	FCD 400-18L	07 17-02	F32800
	EN-GJS-400-18	0.7043	0.7043	GGG-40.3	FGS 370-17	Grade 370/17	GSO 42/17		07 17-12	F32800
	EN-GJS-500-7	0.7050	0.7050	GGG-50	FGS 500-7	Grade 500/7	GS 500-7	FCD 500-7	07 27-02	F33800
	EN-GJS-600-3	0.7060	0.7060	GGG-60	FGS 600-3	Grade 600/3	GS 600-3	FCD 600-3	07 32-03	F34100
	EN-GJS-700-2	0.7070	0.7070	GGG-70	FGS 700-2	Grade 700/2	GS 700-2	FCD 700-2	07 37-01	F34800
K5	-									ADI grade 5
	EN-GJS-1000-5			GJS-1000-5						ADI grade 2
	EN-GJS-1200-2			GJS-1200-2						ADI grade 3
	EN-GJS-1400-1			GJS-1400-1						ADI grade 4
	EN-GJS-800-8			GJS-800-8						ADI grade 1
K6	EN-GJLA-XNiCr 20-2	0.6660	0.6660	GGL-NiCr 20 2	FGL N20 Cr2	Grade F2			05 23-00	F41002
	EN-GJLA-XNiCr 30-3	0.6676	0.6676	GGL-NiCr 30 3	FGL N30 Cr3	Grade F3				F41004
	EN-GJLA-XNiCuCr15-6-2	0.6655	0.6655	GGL-NiCuCr 15 6 2	FGL Ni15 Cu6 Cr2	Grade F1				F41000
K7	EN-GJSA-XNi35	0.7683	0.7683	GGG-Ni 35	FGS Ni35					F43006
	EN-GJSA-XNiCr20-2	0.7660	0.7660	GGG-NiCr 20 2	FGS N20 Cr2	Grade S2				F43000
	EN-GJSA-XNiCr30-3	0.7676	0.7676	GGG-NiCr 30 3	FGS N30 Cr3	Grade S3				F43003
	EN-GJSA-XNiMn13-7	0.7652	0.7652	GGG-NiMn 13 7	FGS Ni13 Mn7	Grade S6			07 72-00	-
	EN-GJSA-XNiMn23-4	0.7673	0.7673	GGG-NiMn 23 4	FGS Ni23 Mn4	Grade S2M				F43010
N1	AW-1050A	Al99.5	3.0255	Al99.5	A-5/1050A	1B		(A1050)	4007	AA1050A
	AW-3103	AlMn1	3.0515	AlMn1		N3			4054	AA3103
	AW-3003	AlMn1Cu	3.0517	AlMn1Cu	A-M1/3003			A3003		AA3003
	AW-2014	AlCuSiMn	3.1255	AlCuSiMn	A-U4SG/2014	H15			4338	AA2014
	AW-2011	AlCuBiPb	3.1655	AlCuBiPb	A-USPbBi/2011	FC1		A2011	4355	AA2011
	AC-46200	AlSi8Cu3(Si)	3.2161	G-AlSi8Cu3					4251	A13800
	AC-42000		3.2341	G-AlSi6Mg	A-S7G	LM25	3599	AC 4C	4244	
	AW-6060	AlMgSi0.5	3.3206	AlMgSi0.5	A-GS/6060	(H9)			4103	AA6060
	AW-6063	AlMgSi0.7	3.3210	AlMgSi0.7	A-GSUC/6061	(H10)		(A6063)	4104,4107	AA6005
	AW-5005	AlMg1	3.3315	AlMg1	A-G0.6	N41			4106	AA5005
	AW-7020	AlZn4.5Mg1	3.4335	AlZn4.5Mg1	A-Z5G/7020	H17			4425	AA7020
	AW-7075		3.4365	AlZnMgCu1.5	A-Z5G/7075	2L95/2L96		A7075		AA7075
	MN65120	MgSe3Zn2Zr1	3.5103	G-MgSe3Zn2Zr1	ZRE1	MAG6-TE				M12330
	MG-P-63	MgAl6Zn	3.5612	G-MgAl6Zn	G-A6-Z1	MAG-E-121				M11600
	MG-P-61	MgAl8Zn	3.5812	G-MgAl8Zn	(G-A7-Z1)					
N2	AW-6082	AlMgSi1	3.2315	AlMgSi1	A-SGM0.7/6082	H30			4212	AA6082
	AC-43400	AlSi10Mg(Fe)	3.2381	G-AlSi10Mg	A-S10G	LM9			4253	A13600
	AC-44200	AlSi12	3.2382	GD-AlSi12						
N3		AlSi17Cu5						ADC14		
N11	CC331G		2.0940.01	CuAl10Fe	CuAl10Fe	AB1			5710	C95200
	CC333G		2.0975.01	CuAl10Ni	CuAl10Ni5Fe5	AB2			5716	C95500
			2.0872	CuNi10Fe1Mn	CuNi10Fe1Mn	CN102			5667	C70600
				CuNi10Zn45						
			2.0790	CuNi18Zn19Pb	CuNi18Zn19Pb1					C76300
	CW352H		2.1176	CuPb10Sn	CuSn10Pb10	LB2			5640	C93700
	CC480K		2.1050.01	CuSn10	CuSn10	CT1			5443	C90700
			2.1087	CuSn10Zn					5458	C90500
	CW452K	CuSn6	2.1020	CuSn6	CuSn6	PB103		C5191	5428	C51900
	CW502L	CuZn15	2.0240	CuZn15	CuZn15	CZ102		C2300	5112	C23000
	CW706R	CuZn28Sn1	2.0470	CuZn28Sn1	CuZn29Sn1				5220	C44300
	CW508L	CuZn37	2.0321	CuZn37		CZ108			5150	C27200
	CW717R	CuZn38Sn1	2.0530	CuZn38Sn1						C46400
	CW614N	CuZn39Pb3	2.0401	CuZn39Pb3	CuZn39Pb3	CZ121			5170	C38500
	CW612N	CuZn40Pb2	2.0402	CuZn40Pb2	CuZn39Pb2	CZ120			5168	C37800
CW622N	CuZn44Pb2	2.0410	CuZn44Pb2		CZ104			5272	C68700	

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS	
S1											
S2											
S3	NiMo30		2.4810							N10002	
	NiMo16Cr15W		2.4819							N10276	
	NiCr19Fe19Nb5Mo3		2.4668							N07718	
			2.4669							N07750	
	NiCr20TiAl		2.4631							N07080	
	NiCr19Co18Mo4Ti3Al3									N07500	
			2.4654							N07001	
			3.7024								
S11										R54620	
										R56320	
S12	TiAl6V4		3.7164							R56400	
S13				TiV10Fe2Al3							
H3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr5	SCR 415	2511	G51170	
H5	42 CrMo 4	1.7225	1.1201	42 CrMo 4	42 CD 4	708 M40	42 CrMo 4	SCM 440 (H)	2244	G41400	
	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700	
	C 75S	1.1248	1.1248	Ck 75	XC 75	060 A 78	C 75		1774, 1778	G10780	
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950	
	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880		
			1.2550	60 WCrV 7	55 WC 20		55 WCrV 8 KU				
55 Cr 3	1.7176	1.7176	55 Cr 3	55 C 3	527 A 60	55 Cr 3	SUP 9 (A)	2253	G51550		
H7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202	
			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501	
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502	
100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986		
H8	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813	
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102	
	X 155 CrVMo 12 1		1.2379	X 155 CrVMo 12 1	Z 160 CDV 12	BD 2	X 155 CrVMo 12 1 KU	SKD 11		T30402	
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2		2312	
			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU			2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4			T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723		
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-04	BM 42	HS 2-9-1-8	SKH 51			T11342
	HS 6-5-2	1.3343	1.3343	S 6-5-2	Z 85 WDCV 06-05-04-0	BM 2	HS 6-5-2	SKH 9, SKH 51	2722		T11302
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2			T12001
H11	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000	
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002	
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003	
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004	
	X 3 CrNiMoAl 13 8 2	1.4534	1.4534	X 3 CrNiMoAl 13 8 2						S13800	
H12	X 5 CrNiCuNb 16 4	1.4548	1.4542	X 5 CrNiCuNb 17 4	Z 6 CNU 17.4			SCS 24, SUS 630		S17400	
	X 7 CrNiAl 17 7	1.4568	1.4568	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700	
	X 6 NiCrTiMoV 25 15	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286	
	X 120 Mn 12	1.3401	1.3401	X 120 Mn 12	Z 120 M 12	BW 10		SC MnH 1	2183		
H31	EN-GJN-HV520	0.9620	G-X330 NiCr 4 2	FB Ni4 Cr2 BC	Grade 2 A	Grade 2 A			05 12-00	F45001	
	EN-GJN-HV550	0.9625	G-X260 NiCr 4 2	FB Ni4 Cr2 HC	Grade 2 B	Grade 2 B			05 13-00	F45000	
	EN-GJN-HV600(XCr11)	0.9630	G-X300 CrNiSi 9 5 2	FB Cr9 Ni5	Grade 2 C, D, E	Grade 2 C, D, E			04 57-00	F45003	

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	Misc. Brands	Condition	Structure
			Discalloy	Precipitation hardened	
			Haynes 25		
			Stellite 21		
			Stellite 31		
			Hastelloy C		
		KHN65MV	Hastelloy C-276		
			IN 100		
			Inconel 718		
			Inconel X-750	Solution treated	
			Nimonic 80A		
			René 41		
			Udimet 500		
			Waspalloy		
			Ti	Commercially pure	Ti (α)
	AMS 4919		Ti 6-2-4-2	Annealed	Ti (α)
	AMS 4943		Ti 3Al-2.5V (grd 9)	Annealed	Ti ($\alpha+\beta$)
	AMS 4920, Grd 5	VT6	Ti 6Al-4V	Annealed	Ti ($\alpha+\beta$)
	AMS 4986		Ti 10V-2Fe-3Al	Annealed	Ti (β)
F.1516	5115	12KHN2		Case hardened	
F.1252	4142, 4140	38HM		Quenched & Tempered	
F.5103	1070	70		Quenched & Tempered	
F.5107	1078, 1080	75		Quenched & Tempered	
F.5117	1095			Quenched & Tempered	
F.5118	W 1	U10A		Quenched & Tempered	
	S1	5KHV2SF		Quenched & Tempered	
	5155			Quenched & Tempered	
F.520L	L2	11KHF		Quenched & Tempered	
F.5220	O1	9KHVG		Quenched & Tempered	
	O2	9G2F		Quenched & Tempered	
F.5230	52100	SHKH15		Quenched & Tempered	
F.5318	H13	4KH5MF1S		Quenched & Tempered	
F.5227	A2	9KH5VF		Quenched & Tempered	
F.5211	D2	KH12MF		Quenched & Tempered	
F.5213		KH12		Quenched & Tempered	
		KH12MF		Quenched & Tempered	
F.520.S	L6	5KHNM		Quenched & Tempered	
F.5613	M35	R6M5K5		Quenched & Tempered	
	M42	R2AM9K5		Quenched & Tempered	
F.5603	M2	R6M5		Quenched & Tempered	
	T1	R18		Quenched & Tempered	
F.5261	420	20KH13		Quenched & Tempered	Martensite
	440 A			Quenched & Tempered	Martensite
	440 B	95KH18		Quenched & Tempered	Martensite
	440 C	95KH18		Quenched & Tempered	Martensite
	XM-13		PH13-8Mo	Precipitation hardened	Martensite
	630		17-4-PH	Precipitation hardened	Martensite
	AMS 5528	09KH17N7YU1	17-7-PH	Precipitation hardened	Austenite/ferrite
	660		A286	Precipitation hardened	Austenite
	A128 Grade A				
	A532 IB (NiCr-LC)		Ni-Hard 2		White cast iron
	A532 IA (NiCr-HC)		Ni-Hard 1		White cast iron
	A532 ID (Ni-HiCr)		Ni-Hard 4		White cast iron

Cemented carbide inserts and insert carriers

Cemented carbide inserts and cemented carbide insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.

These products meet all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.

Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:

Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:

Seco Tools will buy back used inserts and solid carbide tools for recycling. Inserts and solid carbide tools should be separated from other metal waste (steel, aluminium, copper etc).

All packing material is fully recyclable.

CBN and PCD inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.

This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.

Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:

Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:

Seco Tools will buy back used CBN- or PCD-tipped inserts for recycling. Inserts should be separated from other metal waste (steel, aluminium, copper etc). Solid CBN-inserts may be discarded as landfill waste.

All packing material is fully recyclable.

Black oxide insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.

This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.

Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Disposal:

Used insert carriers may be sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.

All packing material is fully recyclable.

Cermet inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.

This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.

Cermet grade C15M inserts do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is higher than specified in norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin. These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for cermet inserts. Persons with known allergic reactions to nickel are advised to wear protective gloves when handling cermet inserts.

Regrinding:

Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:

Used inserts may be recycled. Inserts should be separated from other metal waste (steel, aluminium, copper, etc) including cemented carbide inserts.

All packing material is fully recyclable.

Nickel coated insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.

This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.

Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Insert carriers do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is not higher than norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin.

These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for insert carriers. Persons with known allergic reactions to nickel are advised to wear protective gloves when handling nickel coated insert carriers.

Disposal:

Used tools maybe sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.

All packing material is fully recyclable.

Intentionally added alloying elements

Grade	Cemented carbide										Coating						
	W	Ti	Ta	Nb	Co	Cr	Ni	Mo	C	N	Ti	Al	C	N	O	Si	Nb
CP20	■				■						■						
CP200	■				■	■					■	■		■			
CP300	■	■	■	■	■						■	■		■			
CP500	■				■	■					■	■		■			
CP600	■				■	■					■	■		■			
C15M	■	■	■	■	■		■	■	■	■							
CF	■		■		■		■	■	■								
CM	■		■		■		■	■	■								
DP2000	■		■	■	■				■		■	■	■	■	■		
DP3000	■	■	■	■	■				■	■	■	■	■	■	■		
F15M	■				■	■					■	■		■			
F25M	■	■	■	■	■						■	■		■			
F30M	■				■	■					■	■		■			
F40M	■				■	■					■	■		■			
HX	■		■		■						■						
H02	■		■		■	■					■						
H15	■				■	■					■						
H25	■				■	■					■						
KX	■				■	■					■						
MH1000	■				■	■					■	■		■			
MK1500	■		■		■						■	■	■	■	■		
MK2050	■		■		■	■					■	■		■		■	
MM4500	■				■	■					■	■	■	■	■		
MP1020	■	■	■	■	■						■			■	■		
MP1500	■		■	■	■						■	■	■	■	■		
MP2500	■		■	■	■						■	■	■	■	■		
MP3000	■				■	■					■	■		■	■		
MS2500	■		■	■	■						■	■	■	■	■		
MS2050	■				■	■					■	■		■			■
RX1500	■		■		■		■	■	■		■	■		■			
RX2000	■		■		■	■					■	■		■			
T350M	■		■	■	■						■	■	■	■	■		
T25M	■		■	■	■						■	■	■	■			
TGH1050	■				■	■					■	■		■			■
TGK1500	■		■		■						■	■	■	■	■		
TGP25	■	■	■	■	■						■	■	■	■	■		
TGP35	■		■	■	■						■	■	■	■	■		
TGP45	■		■	■	■						■	■	■	■	■		
TH1000	■				■	■					■	■		■			■
TH1500	■				■	■					■	■	■	■	■		
TK1001	■				■	■					■	■	■	■	■		
TK2001	■		■		■	■					■	■	■	■	■		
TM2000	■	■	■	■	■						■	■	■	■	■		
TM4000	■	■	■	■	■						■	■	■	■	■		
TP0501	■	■	■	■	■	■					■	■	■	■	■		
TP1020	■	■	■	■	■						■	■					
TP1030	■	■	■	■	■						■	■		■			■
TP1500	■	■	■	■	■						■	■	■	■	■		
TP1501	■	■	■	■	■						■	■	■	■	■		
TP200	■	■	■	■	■						■	■	■	■	■		
TP2500	■	■	■	■	■						■	■	■	■	■		
TP3500	■	■	■	■	■						■	■	■	■	■		
TP2501	■	■	■	■	■	■					■	■	■	■	■		
TP40	■		■	■	■						■		■	■			
TS2000	■				■	■					■	■		■			
TS2050	■				■	■					■	■		■			■
TS2500	■		■		■						■	■		■			
T250D	■				■	■					■	■		■			
T400D	■				■	■					■	■		■			
T100R	■		■		■	■					■	■		■			
T60M	■	■	■	■	■						■	■		■			
883	■		■		■						■						
890	■				■	■					■						

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