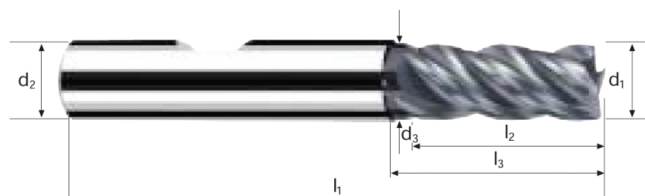
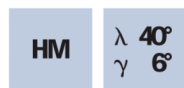


Cylindrical end mills

Smooth-edged, normal version with short neck



Roughing

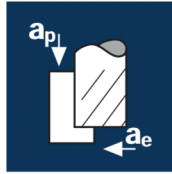
Finishing



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless	Ti Titanium	GG(G) Tool Steel Nickel Alloys
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[illegible]

Application



Material

Steel
< 850 N/mm²

Steel
850 - 1100 N/mm²

Stainless steel
[Cr-Ni/1.4301]

Cast iron
(lamellar / spheroidal)

d1 [mm]	z	v _c [m/min]	f _z [mm]	a _p [mm]	a _e [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]
3	4	180	0.015	4.5	1.2	19100	1145	6.0
4	4	180	0.020	6.0	1.6	14325	1145	11.0
5	4	180	0.025	7.5	2.0	11460	1145	17.0
6	4	180	0.030	9.0	2.4	9550	1145	24.5
8	4	180	0.040	12.0	3.2	7160	1145	44.0
10	4	180	0.050	15.0	4.0	5730	1145	68.5
12	4	180	0.060	18.0	4.8	4775	1145	99.0
16	4	180	0.075	24.0	6.4	3580	1075	165.0
20	4	180	0.095	30.0	8.0	2865	1090	261.5

3	4	130	0.015	4.5	1.2	13795	830	4.5
4	4	130	0.020	6.0	1.6	10345	830	8.0
5	4	130	0.025	7.5	2.0	8275	830	12.5
6	4	130	0.030	9.0	2.4	6895	825	18.0
8	4	130	0.040	12.0	3.2	5175	830	32.0
10	4	130	0.050	15.0	4.0	4140	830	50.0
12	4	130	0.060	18.0	4.8	3450	830	71.5
16	4	130	0.075	24.0	6.4	2585	775	119.0
20	4	130	0.095	30.0	8.0	2070	785	188.5

3	4	60	0.010	4.5	1.2	6365	255	1.5
4	4	60	0.015	6.0	1.6	4775	285	2.5
5	4	60	0.020	7.5	2.0	3820	305	4.5
6	4	60	0.025	9.0	2.4	3185	320	7.0
8	4	60	0.030	12.0	3.2	2385	285	11.0
10	4	60	0.040	15.0	4.0	1910	305	18.5
12	4	60	0.050	18.0	4.8	1590	320	27.5
16	4	60	0.060	24.0	6.4	1195	285	44.0
20	4	60	0.075	30.0	8.0	955	285	68.5

3	4	160	0.015	4.5	1.2	16975	1020	5.5
4	4	160	0.020	6.0	1.6	12735	1020	10.0
5	4	160	0.030	7.5	2.0	10185	1220	18.5
6	4	160	0.035	9.0	2.4	8490	1190	25.5
8	4	160	0.045	12.0	3.2	6365	1145	44.0
10	4	160	0.055	15.0	4.0	5095	1120	67.0
12	4	160	0.065	18.0	4.8	4245	1105	95.5
16	4	160	0.085	24.0	6.4	3185	1085	166.5
20	4	160	0.105	30.0	8.0	2545	1070	257.0

Application



Material

Steel
< 850 N/mm²

Steel
850 - 1100 N/mm²

Stainless steel
[Cr-Ni/1.4301]

Cast iron
(lamellar / spheroidal)

d1 [mm]	z	v _c [m/min]	f _z [mm]	a _p [mm]	a _e [mm]	n [min ⁻¹]	v _f [mm/min]	Q [cm ³ /min]
3	4	160	0.010	3.0	3	16975	680	6.0
4	4	160	0.015	4.0	4	12735	765	12.0
5	4	160	0.020	5.0	5	10185	815	20.5
6	4	160	0.025	6.0	6	8490	850	30.5
8	4	160	0.030	8.0	8	6365	765	49.0
10	4	160	0.040	10.0	10	5095	815	81.5
12	4	160	0.045	12.0	12	4245	765	110.0
16	4	160	0.055	8.0	16	3185	700	89.5
20	4	160	0.070	10.0	20	2545	715	143.0

3	4	110	0.010	3.0	3	11670	465	4.0
4	4	110	0.015	4.0	4	8755	525	8.5
5	4	110	0.020	5.0	5	7005	560	14.0
6	4	110	0.025	6.0	6	5835	585	21.0
8	4	110	0.030	8.0	8	4375	525	33.5
10	4	110	0.040	10.0	10	3500	560	56.0
12	4	110	0.045	12.0	12	2920	525	75.5
16	4	110	0.055	8.0	16	2190	480	61.5
20	4	110	0.070	10.0	20	1750	490	98.0

3	4	45	0.010	2.1	3	4775	190	1.0
4	4	45	0.010	2.8	4	3580	145	1.5
5	4	45	0.015	3.5	5	2865	170	3.0
6	4	45	0.020	4.2	6	2385	190	5.0
8	4	45	0.025	8.0	8	1790	180	11.5
10	4	45	0.030	10.0	10	1430	170	17.0
12	4	45	0.040	12.0	12	1195	190	27.5
16	4	45	0.045	8.0	16	895	160	20.5
20	4	45	0.055	10.0	20	715	155	31.0

3	4	145	0.010	3.0	3	15385	615	5.5
4	4	145	0.015	4.0	4	11540	690	11.0
5	4	145	0.025	5.0	5	9230	925	23.0
6	4	145	0.025	6.0	6	7695	770	27.5
8	4	145	0.035	8.0	8	5770	810	52.0
10	4	145	0.040	10.0	10	4615	740	74.0
12	4	145	0.050	12.0	12	3845	770	111.0
16	4	145	0.065	8.0	16	2885	750	96.0
20	4	145	0.080	10.0	20	2310	740	148.0