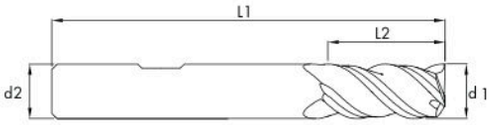
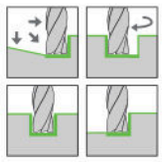
SOLID CARBIDE END MILLS

VOLLHARTMETALLFRÄSER

KARBÜR FREZE OPTIMO





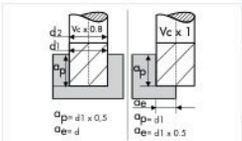


OPTIMO

<52 HRC



$d_1(e_8)$	L_2	L_1	$d_2(h_6)$	Z	Uncoated Code	Coated Code
2	3	57	6	3	4005520	4005530
3	5	57	6	3	4005540	4005550
4	7	57	6	3	4005560	4005570
5	8	57	6	3	4005580	4005590
6	10	57	6	3	4005600	4005610
8	16	63	8	3	4005620	4005630
10	22	72	10	3	4005640	4005650
12	26	83	12	3	4005660	4005670
14	28	83	14	3	4005680	4005690
16	32	92	16	3	4005700	4005710
18	32	92	18	3	4005720	4005730
20	38	104	20	3	4005740	4005750



			P (20-30 Hrc)			P (30-40 Hrc)			M			GG			AL			CU			Titan			< 52 HRC		
			1.0050-2 1.0060-2 1.0070-2			1.5864 1.6580 1.7225			1.4405 1.4460 1.4505			0.6035 0.7080 0.8055			3.2151 3.2373 3.2382			2.1247 2.0580 2.0598			3.7035 3.7055 3.7065			1.3255 1.3265 1.3333		
			Vc= 90 m/dk.			Vc = 70 m/dk.			Vc = 50 m/dk.			Vc= 130 m/dk.			Vc = 390 m/dk.			Vc = 220 m/dk.			Vc = 40 m/dk.			Vc = 40 m/dk.		
d1	ap	ae	fz	n	Vf	fz	n	Vf	fz	n	Vf	fz	n	Vf	fz	n	Vf	fz	n	Vf	fz	n	Vf	fz	n	Vf
2	1,0	1,0	0,020	14331	285xZ	0.015	11145	165xZ	0,006	7962	50xZ	0.008	20700	170xZ	0,020	62100	1100xZ	0.012	35032	420xZ	0,008	6370	50 xZ	0,008	6370	45 xZ
3	1,5	1,5	0,030	9554	285xZ	0.022	7431	165xZ	0,009	5308	50xZ	0.012	13800	170xZ	0.026	41400	1100xZ	0.018	23355	420xZ	0,012	4246	50 xZ	0,012	4246	45 xZ
4	2,0	2,0	0,040	7135	285xZ	0,030	5573	165xZ	0,013	3981	50xZ	0.016	10350	170xZ	0,035	31050	1100xZ	0.024	17516	420xZ	0,016	3185	50 xZ	0,016	3183	45 xZ
5	2,5	2,5	0,050	5732	285xZ	0.037	4458	165xZ	0,016	3185	50xZ	0,020	8280	170xZ	0,044	24804	1100xZ	0.030	14013	420xZ	0,020	1548	50 xZ	0,020	2548	45 xZ
6	3,0	3,0	0,060	4777	285xZ	0.045	3715	165xZ	0,019	2654	50xZ	0,025	6900	170xZ	0,053	20700	1100xZ	0.036	11677	420xZ	0,023	2123	50 xZ	0,023	2123	45 xZ
8	4,0	4,0	0,080	3583	285xZ	0.059	2786	165xZ	0,025	1990	50xZ	0,033	5175	170xZ	0,171	15525	1100xZ	0.048	8758	420xZ	0,031	1592	50 xZ	0,031	1592	45 xZ
10	5,0	5,0	0,100	2866	285xZ	0.074	2229	165xZ	0,032	1592	50xZ	0,041	4140	170xZ	0,188	12420	1100xZ	0.060	7006	420xZ	0,039	1274	50 xZ	0,039	1274	45 xZ
12	6,0	6,0	0,120	2388	285xZ	0,089	1858	165xZ	0,038	1327	50xZ	0,049	3450	170xZ	0,106	10350	1100xZ	0.172	5839	420xZ	0,047	1062	50 xZ	0,047	1062	45 xZ
14	7,0	7,0	0,140	2047	285xZ	0.104	1592	165xZ	0,044	1137	50xZ	0,057	2957	170xZ	0,124	8871	1100xZ	0.184	5005	420xZ	0,055	910	50 xZ	0,055	910	45 xZ
16	8,0	8,0	0,160	1791	285xZ	0,118	1393	165xZ	0,050	995	50xZ	0,066	2588	170xZ	0,142	7762	1100xZ	0.196	4379	420xZ	0,063	796	50 xZ	0,063	796	45 xZ
18	9,0	9,0	0,179	1592	285xZ	0,133	1238	165xZ	0,056	885	50xZ	0,074	2300	170xZ	0,159	6900	1100xZ	0.108	3892	420xZ	0,071	708	50 xZ	0,071	708	45 xZ
20	10,0	10,0	0,200	1433	285xZ	0,145	1115	165xZ	0,063	796	50xZ	0,082	2070	170xZ	0,177	6210	1100xZ	0,120	3503	420xZ	0,078	637	50 xZ	0,078	637	45 xZ