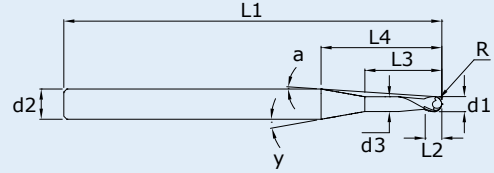


Solid carbide ball nose end mills - Mini Hard
VHM - Radiusfräser - Mini Hart
Fraises a rayon carbure - Mini Dure
Karbür Küre Freze - Mini Sert



F	H	0100	R	2	N	50	A	50	N	020
END MILL	MG-08		DIN 6928							
TYPE	QUALITY	DIAMETER	BALL NOSE	FLUTES	SHAFT TYPE	FULL LENGTH	HELICAL	RADIUS	COATED	FLUTE LENGTH

d1(+0.003/-0.005)	L2	L3	L4	d3	L1	d2(h6)	Z	y°	a°	R	Coated Code	Price (Euro)
0.2	0.3	0.4	15.98	0.19	50	4	2	7.00°	6.78°	0.10	FH0020R2N50A10N004	
0.2	0.3	0.8	16.38	0.19	50	4	2	7.00°	6.62°	0.10	FH0020R2N50A10N008	
0.2	0.3	1.2	12.08	0.19	50	4	2	10.00°	8.94°	0.10	FH0020R2N50A10N012	
0.2	0.3	2.0	12.88	0.19	50	4	2	10.00°	8.39°	0.10	FH0020R2N50A10N020	
0.3	0.5	0.6	15.85	0.29	50	4	2	7.00°	6.66°	0.15	FH0030R2N50A15N006	
0.3	0.5	1.2	11.85	0.29	50	4	2	10.00°	8.88°	0.15	FH0030R2N50A15N012	
0.3	0.5	2.4	13.05	0.29	50	4	2	10.00°	8.70°	0.15	FH0030R2N50A15N024	
0.3	0.5	3.0	13.65	0.29	50	4	2	10.00°	7.72°	0.15	FH0030R2N50A15N030	
0.4	0.6	0.8	15.66	0.38	50	4	2	7.00°	6.55°	0.20	FH0040R2N50A20N008	
0.4	0.6	1.6	12.01	0.38	50	4	2	10.00°	8.52°	0.20	FH0040R2N50A20N016	
0.4	0.6	3.2	13.61	0.38	50	4	2	10.00°	7.53°	0.20	FH0040R2N50A20N032	
0.4	0.6	4.0	14.41	0.38	50	4	2	10.00°	6.92°	0.20	FH0040R2N50A20N040	
0.5	0.8	1.0	15.55	0.48	50	4	2	7.00°	6.42°	0.25	FH0050R2N50A25N010	
0.5	0.8	2.0	12.18	0.48	50	4	2	10.00°	8.17°	0.25	FH0050R2N50A25N020	
0.5	0.8	4.0	14.18	0.48	50	4	2	10.00°	7.03°	0.25	FH0050R2N50A25N040	
0.5	0.8	6.0	16.18	0.48	50	4	2	10.00°	6.17°	0.25	FH0050R2N50A25N060	
0.6	0.9	1.2	15.35	0.57	50	4	2	10.00°	6.32°	0.30	FH0060R2N50A30N012	
0.6	0.9	2.0	11.95	0.57	50	4	2	10.00°	8.09°	0.30	FH0060R2N50A30N020	
0.6	0.9	4.0	13.95	0.57	50	4	2	10.00°	6.94°	0.30	FH0060R2N50A30N040	
0.6	0.9	8.0	17.95	0.57	50	4	2	10.00°	5.41°	0.30	FH0060R2N50A30N080	
0.7	1.1	1.4	15.18	0.67	50	4	2	7.00°	6.20°	0.35	FH0070R2N50A35N014	
0.7	1.1	2.5	12.21	0.67	50	4	2	10.00°	7.69°	0.35	FH0070R2N50A35N025	
0.7	1.1	5.0	14.71	0.67	50	4	2	10.00°	6.40°	0.35	FH0070R2N50A35N050	
0.7	1.1	8.0	17.71	0.67	50	4	2	10.00°	5.32°	0.35	FH0070R2N50A35N080	
0.8	1.2	1.6	11.10	0.76	50	4	2	10.00°	8.20°	0.40	FH0080R2N50A40N016	
0.8	1.2	3.0	12.50	0.76	50	4	2	10.00°	7.29°	0.40	FH0080R2N50A40N030	
0.8	1.2	6.0	15.50	0.76	50	4	2	10.00°	5.89°	0.40	FH0080R2N50A40N060	
0.8	1.2	10.0	19.50	0.76	50	4	2	10.00°	4.69°	0.40	FH0080R2N50A40N100	
1.0	1.5	2.0	11.01	0.95	50	4	2	10.00°	7.75°	0.50	FH0100R2N50A50N020	
1.0	1.5	4.0	13.01	0.95	50	4	2	10.00°	6.57°	0.50	FH0100R2N50A50N040	
1.0	1.5	8.0	17.01	0.95	50	4	2	10.00°	5.03°	0.50	FH0100R2N50A50N080	
1.0	1.5	12.0	21.01	0.95	50	4	2	10.00°	4.08°	0.50	FH0100R2N50A50N120	
1.0	1.5	16.0	25.01	0.95	50	4	2	10.00°	3.43°	0.50	FH0100R2N50A50N160	
1.0	1.5	20.0	29.01	0.95	50	4	2	10.00°	2.96°	0.50	FH0100R2N50A50N200	
1.2	1.8	2.0	10.54	1.14	50	4	2	10.00°	7.56°	0.60	FH0120R2N50A60N020	
1.2	1.8	4.0	12.54	1.14	50	4	2	10.00°	6.37°	0.60	FH0120R2N50A60N040	
1.5	2.3	4.0	11.85	1.43	50	4	2	10.00°	6.02°	0.75	FH0150R2N50A75N040	
1.5	2.3	8.0	15.85	1.43	50	4	2	10.00°	4.50°	0.75	FH0150R2N50A75N080	
1.5	2.3	12.0	19.85	1.43	50	4	2	10.00°	3.60°	0.75	FH0150R2N50A75N120	
1.5	2.3	20.0	27.85	1.43	50	4	2	10.00°	2.57°	0.75	FH0150R2N50A75N200	
2.0	3.0	4.0	10.68	1.90	50	4	2	10.00°	5.35°	1.00	FH0200R2N50A10N040	
2.0	3.0	8.0	14.68	1.90	50	4	2	10.00°	3.09°	1.00	FH0200R2N50A10N080	
2.0	3.0	12.0	18.68	1.90	50	4	2	10.00°	3.06°	1.00	FH0200R2N50A10N120	
2.0	3.0	16.0	22.68	1.90	50	4	2	10.00°	2.52°	1.00	FH0200R2N50A10N160	
2.0	3.0	20.0	26.68	1.90	50	4	2	10.00°	2.14°	1.00	FH0200R2N50A10N200	
2.5	3.8	5.0	10.51	2.38	50	4	2	10.00°	4.08°	1.25	FH0250R2N50A13N050	
2.5	3.8	8.0	13.51	2.38	50	4	2	10.00°	3.17°	1.25	FH0250R2N50A13N080	
2.5	3.8	12.0	17.51	2.38	50	4	2	10.00°	2.45°	1.25	FH0250R2N50A13N120	
2.5	3.8	16.0	21.51	2.38	50	4	2	10.00°	1.99°	1.25	FH0250R2N50A13N160	
2.5	3.8	20.0	25.51	2.38	50	4	2	10.00°	1.68°	1.25	FH0250R2N50A13N200	
3.0	4.5	6.0	10.34	2.85	50	4	2	10.00°	2.76°	1.50	FH0300R2N50A15N060	
3.0	4.5	8.0	12.34	2.85	50	4	2	10.00°	2.32°	1.50	FH0300R2N50A15N080	
3.0	4.5	12.0	16.34	2.85	50	4	2	10.00°	1.75°	1.50	FH0300R2N50A15N120	
3.0	4.5	16.0	20.34	2.85	50	4	2	10.00°	1.40°	1.50	FH0300R2N50A15N160	
3.0	4.5	20.0	24.34	2.85	50	4	2	10.00°	1.17°	1.50	FH0300R2N50A15N200	

			HRC <50			HRC <53			HRC <56			HRC <59			HRC <61			HRC <63			HRC <65			HRC <68		
1.5860-1.6587 1.6587-1.7326 $a_p = d_1 \times 0,1$ $a_e = d_1$			1.1520-1.1525 1.1545-1.1820 $V_c = 45$ m/dk.			1.2002-1.2003 1.2082-1.2344 $V_c = 42$ m/dk.			1.2002-1.2003 1.2082-1.2344 $V_c = 39$ m/dk.			1.1563-1.2004 1.2056-1.2057 36m/dk.			1.2365-1.2379 1.2601-1.2622 $V_c = 33$ m/dk.			1.3343-1.3344 1.3348-1.3355 $V_c = 30$ m/dk.			1.3302-1.3318 1.3333-1.3334 $V_c = 27$ m/dk.			1.2067-1.3343 1.3344-1.3355 $V_c = 24$ 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
0.5	0.5	0.05	0.006	28800	346	0.005	26880	269	0.006	24960	300	0.005	23040	230	0.005	21120	211	0.005	19200	192	0.004	17280	138	0.004	15360	123
1.0	1.0	0.10	0.009	14400	259	0.009	13440	242	0.009	12480	225	0.007	11520	161	0.007	10560	148	0.006	9600	115	0.005	8640	86	0.005	7680	77
1.5	1.5	0.15	0.012	9600	230	0.012	8960	215	0.012	8320	200	0.009	7680	138	0.010	7040	141	0.008	6400	102	0.006	5760	69	0.006	5120	61
2.0	2.0	0.20	0.015	7200	216	0.015	6720	202	0.015	6240	187	0.011	5760	127	0.012	5280	127	0.009	4800	86	0.008	4320	69	0.007	3840	54
2.5	2.5	0.25	0.019	5760	219	0.019	5376	204	0.019	4992	190	0.013	4608	120	0.015	4224	127	0.011	3840	84	0.009	3456	62	0.008	3072	49
3.0	3.0	0.30	0.023	4800	221	0.023	4480	206	0.023	4160	191	0.015	3840	115	0.017	3520	120	0.013	3200	83	0.010	2880	58	0.009	2560	46