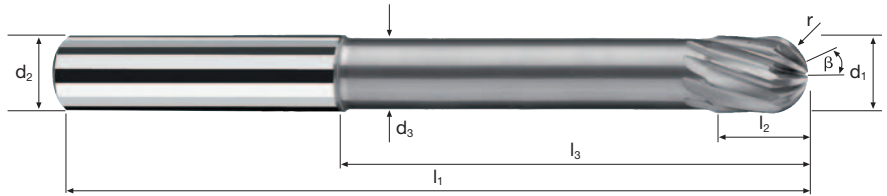


Ball nose end mills Sphero-XF Multi

Tolerance $r \pm 0.005, 6xd$



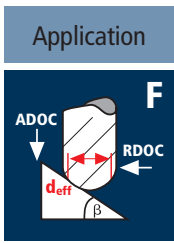
HM XA $\lambda \text{ } 30^\circ$
 $\gamma \text{ } -10^\circ$



HRC 24-34	HRC 34-42	HRC 42-48	HRC 48-56	HRC 56-60	HRC > 60	Ti Titanium	Copper
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Order-N°	d1 0/-0.01	d2 h5	d3	l1	l2	l3	r ± 0.005	β	fl	ReTool®	X-AL
											\$
X7464300	6	6	5.5	80	7	43	3.0	25°	8		101.00
X7464391	8	8	7.4	90	9	53	4.0	25°	10		126.00
X7464450	10	10	9.2	105	11	64	5.0	25°	12		171.00
X7464501	12	12	11.0	120	13	74	6.0	25°	16		212.00

VII



Material

Hardened tool steel
42 - 48 HRC

d1 [mm]	fl	Speed [m/min]	FPT [mm]	ADOC [mm]	RDOC [mm]	d _{eff} [mm]	RPM [min ⁻¹]	Feed [mm/min]	β [°]
6	8	300	0.055	0.12	0.12	5.26	18155	7990	45°
8	10	300	0.060	0.14	0.14	6.94	13760	8255	45°
10	12	300	0.065	0.16	0.16	8.62	11080	8640	45°
12	16	300	0.070	0.18	0.18	10.29	9280	10395	45°

Hardened tool steel
48 - 52 HRC

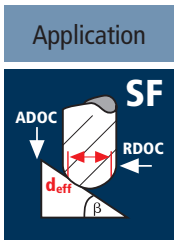
6	8	250	0.050	0.12	0.12	5.26	15130	6050	45°
8	10	250	0.055	0.14	0.14	6.94	11465	6305	45°
10	12	250	0.060	0.16	0.16	8.62	9230	6645	45°
12	16	250	0.065	0.18	0.18	10.29	7735	8045	45°

Hardened tool steel
52 - 56 HRC

6	8	200	0.050	0.12	0.12	5.26	12105	4840	45°
8	10	200	0.055	0.14	0.14	6.94	9175	5045	45°
10	12	200	0.060	0.16	0.16	8.62	7385	5315	45°
12	16	200	0.065	0.18	0.18	10.29	6185	6430	45°

Hardened tool steel
56 - 60 HRC

6	8	150	0.045	0.12	0.12	5.26	9080	3270	45°
8	10	150	0.050	0.14	0.14	6.94	6880	3440	45°
10	12	150	0.055	0.16	0.16	8.62	5540	3655	45°
12	16	150	0.060	0.18	0.18	10.29	4640	4455	45°



Material

Hardened tool steel
42 - 48 HRC

d1 [mm]	fl	Speed [m/min]	FPT [mm]	ADOC [mm]	RDOC [mm]	d _{eff} [mm]	RPM [min ⁻¹]	Feed [mm/min]	β [°]
6	8	400	0.030	0.03	0.03	4.80	26525	6365	45°
8	10	400	0.035	0.03	0.03	6.31	20180	7065	45°
10	12	400	0.035	0.04	0.04	7.91	16095	6760	45°
12	16	400	0.040	0.04	0.04	9.41	13530	8660	45°

Hardened tool steel
48 - 52 HRC

6	8	350	0.030	0.03	0.03	4.80	23210	5570	45°
8	10	350	0.035	0.03	0.03	6.31	17655	6180	45°
10	12	350	0.035	0.04	0.04	7.91	14085	5915	45°
12	16	350	0.040	0.04	0.04	9.41	11840	7580	45°

Hardened tool steel
52 - 56 HRC

6	8	280	0.025	0.03	0.03	4.80	18570	3715	45°
8	10	280	0.030	0.03	0.03	6.31	14125	4240	45°
10	12	280	0.030	0.04	0.04	7.91	11270	4055	45°
12	16	280	0.035	0.04	0.04	9.41	9470	5305	45°

Hardened tool steel
56 - 60 HRC

6	8	180	0.025	0.03	0.03	4.80	11935	2385	45°
8	10	180	0.030	0.03	0.03	6.31	9080	2725	45°
10	12	180	0.030	0.04	0.04	7.91	7245	2610	45°
12	16	180	0.035	0.04	0.04	9.41	6090	3410	45°