

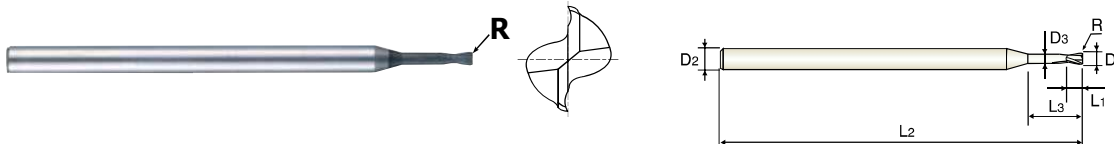


CARBIDE, 2 FLUTE MINIATURE CORNER RADIUS with NECK

🇩🇪 VOLLHARTMETALL, 2 SCHNEIDEN MINI ECKENRADIUS mit ABGESETZTEM SCHAFTTETEL
🇫🇷 Fraise carbure, 2 dents, torique, détalonnée, micro-fraise
🇮🇹 2 TAGLIENTI, TORICA, SERIE MINI, SCARICATA

- ▶ Higher hardness of film and excellent wear-resistance increase the tool life surprisingly.
- ▶ Ultra fine film of YG-1's diamond coated carbide end mills ensure the smooth and excellent surface on work materials.
- ▶ High performance on graphite, wrought aluminum, bakelite, plastics, wood, brass etc. YG-1's diamond coated carbide end mills have good result for the machining of non-ferrous metals and non-metallic materials.

- ▶ Höhere Härte der Beschichtung und ausgezeichnete Verschleißfestigkeit verlängern die Standzeit beachtlich.
- ▶ Ultrafeiner Film auf YG-1 Diamant - beschichteten Hartmetall Schaftfräser gewährleisten eine glatte und ausgezeichnete Oberflächengüte.
- ▶ Hohe Leistungsfähigkeit bei Graphit, Aluminium ohne Silicon, Bakelit, Plastik, Holz, Messing, etc. YG-1 Diamant - Beschichtete Hartmetall Schaftfräser zeigen gute Ergebnisse beim Bearbeiten von NE - Metallen und Nichtmetall - Werkstoffen.



Unit : mm

EDP No.	Corner Radius	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
	R	D1	D2	L1	L3	L2	D3
E199600200000	-	0.2	3	0.3	-	40	-
E199600300000	-	0.3	3	0.5	-	40	-
E199600400000	-	0.4	3	0.6	-	40	-
E199600505025	R0.05	0.5	3	0.7	2.5	40	0.45
E199600505040	R0.05	0.5	3	0.7	4	40	0.45
E1996006	R0.05	0.6	3	0.9	3	40	0.55
E199600605050	R0.05	0.6	3	0.9	5	40	0.55
E1996008	R0.05	0.8	3	1.2	4	40	0.75
E199600805070	R0.05	0.8	3	1.2	7	40	0.75
E1996010	R0.1	1.0	3	1.5	5	40	0.95
E1996904	R0.1	1.0	3	1.5	8.5	40	0.95
E199601010120	R0.1	1.0	3	1.5	12	40	0.95
E1996012	R0.1	1.2	3	1.8	6	50	1.15
E199601210100	R0.1	1.2	3	1.8	10	50	1.15
E1996015	R0.15	1.5	3	2.2	7.5	50	1.4
E1996907	R0.15	1.5	3	2.2	12	50	1.4
E199601515180	R0.15	1.5	3	2.2	18	50	1.4
E1996020	R0.15	2.0	3	2.2	10	60	1.9
E1996909	R0.15	2.0	3	2.2	16	60	1.9
E199602015250	R0.15	2.0	3	2.2	25	60	1.9
E199603020100	R0.2	3.0	4	3	10	65	2.9
E199603020150	R0.2	3.0	4	3	15	65	2.9
E199603020200	R0.2	3.0	4	3	20	65	2.9
E199603020250	R0.2	3.0	4	3	25	75	2.9

Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
0 ~ - 0.02	h5

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO Material Description	P											M			K						
	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommend																					
ISO Material Description	N										S							H			
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend	○	○	○	○	○					◎											

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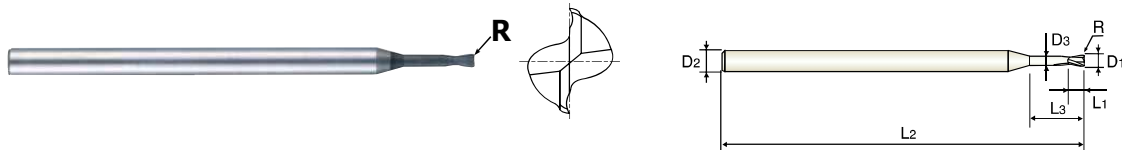
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	R	D1	D2	L1	L3	L2	D3
E199603020300	R0.2	3.0	4	3	30	75	2.9
E199604020200	R0.2	4.0	6	4	20	65	3.9
E199604020300	R0.2	4.0	6	4	30	75	3.9
E199604020400	R0.2	4.0	6	4	40	90	3.9
E199605030200	R0.3	5.0	6	5	20	75	4.9
E199605030300	R0.3	5.0	6	5	30	75	4.9
E199605030400	R0.3	5.0	6	5	40	90	4.9
E199605030500	R0.3	5.0	6	5	50	90	4.9
E199606030300	R0.3	6.0	6	6	30	75	5.9
E199606030400	R0.3	6.0	6	6	40	90	5.9
E199606030500	R0.3	6.0	6	6	50	90	5.9
E199606030600	R0.3	6.0	6	6	60	100	5.9

Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
0 ~ - 0.02	h5

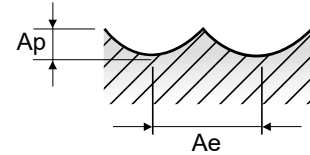
◎ : Excellent ○ : Good

ISO	P										M				K								
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
HRc	13	25	28	32	10	29	32	38	15	35	12	23	10	10	26	3	25	25	21				
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230			
Recommend																							
ISO	N					S					H												
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41		
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34	55	60	55	60	42	55		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550		
Recommend	○	○	○	○	○				◎														

Vc = m/min.
fz = mm/tooth
RPM = rev./min.
FEED = mm/min.

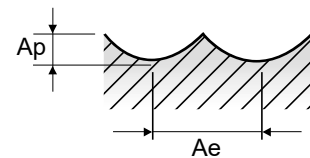
EI997, EIB93, EIB87 SERIES 2 FLUTE BALL NOSE

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)										
						0.4	0.6	0.8	1.0	1.2	1.5	2.0	3.0	4.0	5.0	6.0
N	29.2	Graphite	0.2D	0.2D	Vc	50	75	100	125	150	190	250	255	250	250	265
					fz	0.008	0.010	0.012	0.015	0.018	0.020	0.025	0.041	0.073	0.091	0.104
					RPM	39789	39789	39789	39789	39789	40319	39789	27056	19894	15915	14059
					FEED	637	796	955	1194	1432	1613	1989	2219	2905	2897	2924



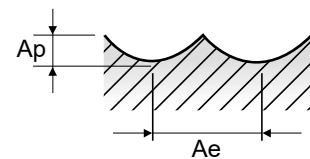
EI880, EI451, EI450 SERIES 2 FLUTE BALL NOSE

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)									
						2.0	2.5	3.0	3.5	4.0	5.0	6.0	8.0	10.0	12.0
N	29.2	Graphite	0.2D	0.2D	Vc	100	125	150	175	200	245	285	325	360	395
					fz	0.025	0.035	0.045	0.055	0.066	0.082	0.098	0.115	0.133	0.150
					RPM	15915	15915	15915	15915	15915	15597	15120	12931	11459	10478
					FEED	796	1114	1432	1751	2101	2558	2963	2974	3048	3143



EI881 SERIES 3 FLUTE BALL NOSE

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)									
						2.0	2.5	3.0	3.5	4.0	5.0	6.0	8.0	10.0	12.0
N	29.2	Graphite	0.2D	0.2D	Vc	100	125	150	175	200	245	285	325	360	395
					fz	0.025	0.035	0.045	0.055	0.065	0.082	0.099	0.115	0.133	0.151
					RPM	15915	15915	15915	15915	15915	15597	15120	12931	11459	10478
					FEED	1194	1671	2149	2626	3104	3837	4491	4461	4572	4746



EI996, EIB86 SERIES 2 FLUTE CORNER RADIUS - SLOTTING

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)										
						0.4	0.6	0.8	1.0	1.2	1.5	2.0	3.0	4.0	5.0	6.0
N	29.2	Graphite	1.0D	0.5D	Vc	50	75	100	125	150	190	250	255	250	250	265
					fz	0.008	0.008	0.010	0.012	0.015	0.018	0.020	0.035	0.058	0.072	0.082
					RPM	39789	39789	39789	39789	39789	40319	39789	27056	19894	15915	14059
					FEED	637	637	796	955	1194	1451	1592	1894	2308	2292	2306

