

CARBIDE, 2 FLUTE EXTRA LONG LENGTH BALL NOSE

- **VOLLHARTMETALL, 2 SCHNEIDEN EXTRA LANG STIRNRADIUS**
- () Fraise carbure, 2 dents, hémisphérique, extra-longue
- () 2 TAGLIENTI, SEMISFERICA, SERIE EXTRA LUNGA
- ▶ Suitable for dry milling applications at high temperatures.
- ► Excellent high-performance end mills.
- ▶ Designed for milling of radius bottom slots, fillets and special contours.
- ► Für die Trockenbearbeitung.
- ► Hervorragendes Preis Leistungsverhältnis.
- ▶ Bestimmt für das Fräsen von Nuten mit konvexem Grund, Sonderprofilen und zum Kopieren.



















					Unit : mm	
EDP No.	Radius of Ball Nose	Mill Diameter	Shank Diameter	Length of Cut	Overall Length	
	R (±0.02)					
G9455903	R1.5	3.0	3	20	60	
G9455030	R1.5	3.0	3	30	75	
G9455904	R2.0	4.0	4	20	60	
G9455040	R2.0	4.0	4	30	75	
G9455905	R2.5	5.0	5	25	75	
G9455050	R2.5	5.0	5	40	100	
G9455906	R3.0	6.0	6	30	75	
G9455060	R3.0	6.0	6	50	150	
G9455908	R4.0	8.0	8	30	75	
G9455080	R4.0	8.0	8	50	150	
G9455910	R5.0	10.0	10	40	100	
G9455100	R5.0	10.0	10	60	150	
G9455912	R6.0	12.0	12	45	100	
G9455120	R6.0	12.0	12	75	150	
G9455914	R7.0	14.0	14	45	100	
G9455140	R7.0	14.0	14	75	150	
G9455916	R8.0	16.0	16	45	100	
G9455160	R8.0	16.0	16	75	150	
G9455918	R9.0	18.0	18	45	100	
G9455180	R9.0	18.0	18	75	150	
G9455920	R10.0	20.0	20	45	100	
G9455200	R10.0	20.0	20	75	150	

Mill Dia.	Shank Dia.					
Tolerance(mm)	Tolerance					
0 ~ - 0.03	h5					

⊚:Excellent ○:Good

ISO	P											M K									
Material Description	Non-alloy steel						Low alloy steel High alloyed steel and tool steel					eel, I	Stainle	ess stee	el	Grey ca	Nodul ire	ar cast	Malleable cast iron		
VDI 3323	1	2	3	4	5	6	6 7 8 9		9	10) 11		12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15				23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	20	0 32	5 2	00 2	240	180	180	260	160	250	130	230
Recommend	0	0	0	0	0	0	0	0	0	0) (0	()	0	0	0	0	0	0	0	0
ISO					N									S						Н	
Material Description	Alumi wrough	inum- ht alloy	Aluminu	ım-cast,	alloyed		and Copp onze / Bra		Non Me Mater		He	at Resi	istant Su		oys	Titaniu	m Alloys	Hard ste		Chilled	Hardened Cast Iron
Material			Aluminu 23	ım-cast, 24	alloyed 25						He	at Resi	33		oys 35	Titaniu 36	m Alloys			Chilled	Cast Iron 41
Material Description	wrough	ht alloy	23		alloyeu	(Bro	onze / Bra 27	28	Mater	ials	31 15	32 30	33 25	iper Allo 34 38	35 34		37	38 55	39 60	Chilled Cast Iron 40 42	Cast Iron 41 55
Material Description VDI 3323	wrough	ht alloy			alloyeu	(Bro	onze / Bra	ass)	Mater	ials	31	32	33	iper Allo	35		37	38 55	eel 39	Chilled Cast Iron 40	Cast Iron 41

CBN

HSS

i-Xmill END MILLS

MODULAR END MILLS

X5070 END MILLS

4G MILL END MILLS

X-POWER PRO END MILLS

TitaNox-POWER END MILLS

JET-POWER END MILLS

V7 PLUS END MILLS

ALU-POWER HPC END MILLS

ALU-POWER END MILLS

GRAPHITE END MILLS D-POWER

POLITERS

CRX S END MILLS

K-2 END MILLS

ONLY ONE COATED PM60 END MILLS

TANK-POWER END MILLS

GENERAL HSS END MILLS

MILLING CUTTERS

TECHNICA DATA



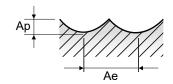
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDPARAMETER

G9624, G9A70, G9437, G9438, G9454, G9455 SERIES 2 FLUTE BALL NOSE

$$\label{eq:Vc = m/min.} \begin{split} Vc &= m/min. \\ fz &= mm/tooth \\ RPM &= rev./min. \\ FEED &= mm/min. \\ Ap &= mm \end{split}$$

				_		_	_	_	_	MILD:	. (6)	_	_	_	Ap=	mm		
ISO	VDI	Material	Ae	Ae Parameter Parameter														
	3323	Description	,		2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0		
				Vc	80	105	110	125	135	155	170	190	200	205	215	225		
				fz	0.026	0.025	0.035	0.045	0.06	0.089	0.122	0.15	0.165	0.18	0.188	0.201		
	1-4		0.2D	RPM	12732	11141	8754	7958	7162	6167	5411	5040	4547	4078	3802	3581		
				FEED	662	557	613	716	859	1098	1320	1512	1501	1468	1430	1440		
-				Ар	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
		Non-alloy steel		Vc	55	80	90	95	110	125	135	150	160	160	170	175		
				fz	0.023	0.023	0.031	0.04	0.06	0.08	0.1	0.12	0.128	0.141	0.148	0.158		
	5		0.2D	RPM	8754	8488	7162	6048	5836	4974	4297	3979	3638	3183	3006	2785		
				FEED	403	390	444	484	700	796	859	955	931	898	890	880		
				Ар	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
				Vc	80	105	110	125	135	155	170	190	200	205	215	225		
				fz	0.026	0.025	0.035	0.045	0.06	0.089	0.122	0.15	0.165	0.18	0.188	0.201		
	6-7		0.2D	RPM	12732	11141	8754	7958	7162	6167	5411	5040	4547	4078	3802	3581		
	0,		0.20	FEED	662	557	613	716	859	1098	1320	1512	1501	1468	1430	1440		
				Ap	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
P		Low alloy steel		Vc	55	80	90	95	110	125	135	150	160	160	170	175		
				fz	0.023	0.023	0.031	0.04	0.06	0.08	0.1	0.12	0.128	0.141	0.148	0.158		
	8-9		0.2D	RPM	8754	8488	7162	6048	5836	4974	4297	3979	3638	3183	3006	2785		
	0-9		0.20	FEED	403	390	444	484	700	796	859	955	931	898	890	880		
				Ap	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
				Vc	80	105	110	125	135	155	170	190	200	205	215	225		
			0.2D	fz	0.026	0.025	0.035	0.045	0.06	0.089	0.122	0.15	0.165	0.18	0.188	0.201		
	10	High alloyed		RPM	12732	11141	8754	7958	7162	6167	5411	5040	4547	4078	3802	3581		
	10																	
				FEED	662	557	613	716	859	1098	1320	1512	1501	1468	1430	1440		
		steel,		Ар	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
		and tool steel		Vc	55	80	90	95	110	125	135	150	160	160	170	175		
	11.1		0.00	fz	0.023	0.023	0.031	0.04	0.06	0.08	0.1	0.12	0.128	0.141	0.148	0.158		
	11.2		0.2D	RPM	8754	8488	7162	6048	5836	4974	4297	3979	3638	3183	3006	2785		
	11.2			FEED	403	390	444	484	700	796	859	955	931	898	890	880		
				Ар	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
			0.7D	Vc	65	65	65	65	65	65	65	65	60	65	60	65		
17	45.00	Grey cast iron		fz	0.01	0.016	0.028	0.04	0.053	0.092	0.112	0.131	0.164	0.177	0.209	0.2		
K	15-20	Nodular cast iron		RPM	10345	6897	5173	4138	3448	2586	2069	1724	1364	1293	1061	1035		
		Malleable cast iron		FEED	207	221	290	331	366	476	463	452	447	458	444	414		
				Ар	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
		Aluminum-		Vc	195	195	195	190	195	200	195	195	190	195	190	185		
	24 22			fz	0.006	0.01	0.013	0.019	0.023	0.034	0.044	0.061	0.073	0.07	0.079	0.092		
	21~22	wrought alloy		RPM	31035	20690	15518	12096	10345	7958	6207	5173	4320	3879	3360	2944		
		w.oug.icuio)		FEED	372	414	403	460	476	541	546	631	631	543	531	542		
N				Ар	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
			0.7D	Vc	195	195	195	190	195	200	195	195	190	195	190	185		
		Aluminum-cast,		fz	0.006	0.01	0.013	0.019	0.023	0.034	0.044	0.061	0.073	0.07	0.079	0.092		
	23~25	alloved		RPM	31035	20690	15518	12096	10345	7958	6207	5173	4320	3879	3360	2944		
		alloyea		FEED	372	414	403	460	476	541	546	631	631	543	531	542		
				Ар	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
				Vc	25	35	45	50	50	50	55	55	55	60	60	60		
	204		0.2D	fz	0.016	0.016	0.021	0.024	0.03	0.046	0.054	0.07	0.081	0.091	0.1	0.111		
	38.1	Hardened steel		RPM	3979	3714	3581	3183	2653	1989	1751	1459	1251	1194	1061	955		
				FEED	127	119	150	153	159	183	189	204	203	217	212	212		
н				Ар	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
				Vc	55	80	90	95	110	125	135	150	160	160	170	175		
		Chilled Cast		fz	0.023	0.023	0.031	0.04	0.06	0.08	0.1	0.12	0.128	0.141	0.148	0.158		
	40	Iron	0.2D	RPM	8754	8488	7162	6048	5836	4974	4297	3979	3638	3183	3006	2785		
				FEED	403	390	444	484	700	796	859	955	931	898	890	880		
				Ар	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3		

% The FEED, in long & extra long types, should be reduced by around 50%



HSS

4G MILL

X-POWER

K-2 END MILLS

ONLY ONE COATED PM60

TANK-POWER

HSS END MILLS

DATA