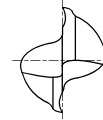


CARBIDE, 2 FLUTE EXTRA LONG LENGTH

- VOLLHARTMETALL, 2 SCHNEIDEN EXTRA LANG
- Fraise carbure, 2 dents, extra-longue
- 2 TAGLIANTI, SERIE EXTRA LUNGA

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 2 flute design for slotting.

- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ 2 Schneiden zum Nutenfräsen.



Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9452903	3.0	3	20	60
G9452030	3.0	3	30	75
G9452904	4.0	4	20	60
G9452040	4.0	4	30	75
G9452905	5.0	5	25	75
G9452050	5.0	5	40	100
G9452906	6.0	6	30	75
G9452060	6.0	6	50	150
G9452908	8.0	8	30	75
G9452080	8.0	8	50	150
G9452910	10.0	10	40	100
G9452100	10.0	10	60	150
G9452912	12.0	12	45	100
G9452120	12.0	12	75	150
G9452914	14.0	14	45	100
G9452140	14.0	14	65	150
G9452916	16.0	16	45	100
G9452160	16.0	16	65	150
G9452918	18.0	18	45	100
G9452180	18.0	18	65	150
G9452920	20.0	20	45	100
G9452200	20.0	20	65	150

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

◎ : 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	125	130	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	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

G9424, G9G44, G9A68, G9444, G9527, G9445, G9G45, G9452 SERIES

2 FLUTE - SLOTTING

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Mill Diameter (Ø)															
						1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	20.0			
P	1-4	Non-alloy steel	1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	45	45	50	55	65	70	70	70	70	70	75	75	70			
					fz	0.004	0.008	0.01	0.015	0.025	0.031	0.039	0.057	0.064	0.065	0.063	0.062	0.063			
	RPM				14324	9549	7958	5836	5173	4456	3714	2785	2228	1857	1705	1492	1114				
	FEED				115	153	159	175	259	276	290	318	285	241	215	185	140				
	Vc				25	25	30	35	40	40	45	45	40	45	45	50	45				
	fz				0.004	0.008	0.01	0.016	0.025	0.031	0.041	0.05	0.05	0.048	0.048	0.05	0.05				
	RPM	7958	5305	4775	3714	3183	2546	2387	1790	1273	1194	1023	995	716							
	FEED	64	85	95	119	159	158	196	179	127	115	98	99	72							
	5	Low alloy steel	1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	45	45	50	55	65	70	70	70	70	75	75	70				
					fz	0.004	0.008	0.01	0.015	0.025	0.031	0.039	0.057	0.064	0.065	0.063	0.062	0.063			
	RPM				14324	9549	7958	5836	5173	4456	3714	2785	2228	1857	1705	1492	1114				
	FEED				115	153	159	175	259	276	290	318	285	241	215	185	140				
Vc	25				25	30	35	40	40	45	45	40	45	45	50	45					
fz	0.004				0.008	0.01	0.016	0.025	0.031	0.041	0.05	0.05	0.048	0.048	0.05	0.05					
RPM	7958	5305	4775	3714	3183	2546	2387	1790	1273	1194	1023	995	716								
FEED	64	85	95	119	159	158	196	179	127	115	98	99	72								
6-7	High alloyed steel, and tool steel	1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	45	45	50	55	65	70	70	70	70	75	75	70					
				fz	0.004	0.008	0.01	0.015	0.025	0.031	0.039	0.057	0.064	0.065	0.063	0.062	0.063				
RPM				14324	9549	7958	5836	5173	4456	3714	2785	2228	1857	1705	1492	1114					
FEED				115	153	159	175	259	276	290	318	285	241	215	185	140					
Vc				25	25	30	35	40	40	45	45	40	45	45	50	45					
fz				0.004	0.008	0.01	0.016	0.025	0.031	0.041	0.05	0.05	0.048	0.048	0.05	0.05					
RPM	7958	5305	4775	3714	3183	2546	2387	1790	1273	1194	1023	995	716								
FEED	64	85	95	119	159	158	196	179	127	115	98	99	72								
8-9	Stainless steel	1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	45	45	50	55	65	70	70	70	70	75	75	70					
				fz	0.004	0.008	0.01	0.015	0.025	0.031	0.039	0.057	0.064	0.065	0.063	0.062	0.063				
RPM				14324	9549	7958	5836	5173	4456	3714	2785	2228	1857	1705	1492	1114					
FEED				115	153	159	175	259	276	290	318	285	241	215	185	140					
Vc				25	25	30	35	40	40	45	45	40	45	45	50	45					
fz				0.004	0.008	0.01	0.016	0.025	0.031	0.041	0.05	0.05	0.048	0.048	0.05	0.05					
RPM	7958	5305	4775	3714	3183	2546	2387	1790	1273	1194	1023	995	716								
FEED	64	85	95	119	159	158	196	179	127	115	98	99	72								
10	Grey cast iron Nodular cast iron Malleable cast iron	1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	20	25	25	30	35	35	35	35	35	35	35	35					
				fz	0.003	0.007	0.009	0.016	0.025	0.031	0.04	0.053	0.059	0.058	0.059	0.068	0.064				
RPM				6366	5305	3979	3183	2785	2228	1857	1393	1114	928	796	696	557					
FEED				38	74	72	102	139	138	149	148	131	108	94	95	71					
Vc				60	55	60	55	60	55	55	55	60	55	55	55	55					
fz				0.005	0.008	0.012	0.018	0.024	0.03	0.043	0.063	0.077	0.102	0.119	0.145	0.189					
RPM	19099	11671	9549	5836	4775	3501	2918	2188	1910	1459	1251	1094	875								
FEED	191	187	229	210	229	210	251	276	294	298	298	317	331								
11.1 - 11.2	Aluminum-wrought alloy	1.0D	1.0D	Vc	140	130	140	145	140	145	145	145	145	140	145	145	140				
				fz	0.004	0.007	0.01	0.015	0.021	0.025	0.032	0.043	0.053	0.065	0.073	0.085	0.11				
RPM				44563	27587	22282	15385	11141	9231	7692	5769	4615	3714	3297	2885	2228					
FEED				357	386	446	462	468	462	492	496	489	483	481	490	490					
Vc				140	130	140	145	140	145	145	145	145	140	145	145	140					
fz				0.004	0.007	0.01	0.015	0.021	0.025	0.032	0.043	0.053	0.065	0.073	0.085	0.11					
RPM	44563	27587	22282	15385	11141	9231	7692	5769	4615	3714	3297	2885	2228								
FEED	357	386	446	462	468	462	492	496	489	483	481	490	490								
21~22	Aluminum-cast, alloyed	1.0D	1.0D	Vc	80	95	105	105	110	105	105	110	105	105	110	105					
				fz	0.004	0.007	0.01	0.015	0.019	0.025	0.033	0.043	0.055	0.066	0.078	0.085	0.11				
RPM				25465	20160	16711	11141	8754	6685	5570	4377	3342	2785	2387	2188	1671					
FEED				204	282	334	334	333	334	368	376	368	368	372	372	368					
Vc				80	95	105	105	110	105	105	110	105	105	105	110	105					
fz				0.004	0.007	0.01	0.015	0.019	0.025	0.033	0.043	0.055	0.066	0.078	0.085	0.11					
RPM	25465	20160	16711	11141	8754	6685	5570	4377	3342	2785	2387	2188	1671								
FEED	204	282	334	334	333	334	368	376	368	368	372	372	368								
23~25	Copper and Copper Alloys (Bronze / Brass)	1.0D	1.0D	Vc	80	95	105	105	110	105	105	110	105	105	110	105					
				fz	0.004	0.007	0.01	0.015	0.019	0.025	0.033	0.043	0.055	0.066	0.078	0.085	0.11				
RPM				25465	20160	16711	11141	8754	6685	5570	4377	3342	2785	2387	2188	1671					
FEED				204	282	334	334	333	334	368	376	368	368	372	372	368					
Vc				80	95	105	105	110	105	105	110	105	105	105	110	105					
fz				0.004	0.007	0.01	0.015	0.019	0.025	0.033	0.043	0.055	0.066	0.078	0.085	0.11					
RPM	25465	20160	16711	11141	8754	6685	5570	4377	3342	2785	2387	2188	1671								
FEED	204	282	334	334	333	334	368	376	368	368	372	372	368								
26-28	Non Metallic Materials	1.0D	1.0D	Vc	80	95	105	105	110	105	105	110	105	105	110	105					
				fz	0.004	0.007	0.01	0.015	0.019	0.025	0.033	0.043	0.055	0.066	0.078	0.085	0.11				
RPM				25465	20160	16711	11141	8754	6685	5570	4377	3342	2785	2387	2188	1671					
FEED				204	282	334	334	333	334	368	376	368	368	372	372	368					
Vc				80	95	105	105	110	105	105	110	105	105	105	110	105					
fz				0.004	0.007	0.01	0.015	0.019	0.025	0.033	0.043	0.055	0.066	0.078	0.085	0.11					
RPM	25465	20160	16711	11141	8754	6685	5570	4377	3342	2785	2387	2188	1671								
FEED	204	282	334	334	333	334	368	376	368	368	372	372	368								
29.1	Chilled Cast Iron	1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	25	25	30	35	40	40	45	45	40	45	45	50	45				
				fz	0.004	0.008	0.01	0.016	0.025	0.031	0.041	0.05	0.05	0.048	0.048	0.05	0.05				
RPM				7958	5305	4775	3714	3183	2546	2387	1790	1273	1194	1023	995	716					
FEED				64	85	95	119	159	158	196	179	127	115	98	99	72					
Vc				25	25	30	35	40	40	45	45	40	45	45	50	45					
fz				0.004	0.008	0.01	0.016	0.025	0.031	0.041	0.05	0.05	0.048	0.048	0.05	0.05					
RPM	7958	5305	4775	3714	3183	2546	2387	1790	1273	1194	1023	995	716								
FEED	64	85	95	119	159	158	196	179	127	115	98	99	72								
40	Milling Cutters	1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	25	25	30	35	40	40	45	45	40	45	45	50	45				
				fz	0.004	0.008	0.01	0.016	0.025	0.031	0.041	0.05	0.05	0.048	0.048	0.05	0.05				
RPM				7958	5305	4775	3714	3183	2546	2387	1790	1273	1194	1023	995	716					
FEED				64	85	95	119	159	158	196	179	127	115	98	99	72					
Vc				25	25	30	35	40	40	45	45	40	45	45	50	45					
fz				0.004	0.008	0.01	0.016	0.025	0.031	0.041	0.05	0.05	0.048	0.048	0.05	0.05					
RPM	7958	5305	4775	3714	3183	2546	2387	1790	1273	1194	1023	995	716								
FEED	64	85	95	119	159	158	196	179	127	115	98	99	72								

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

