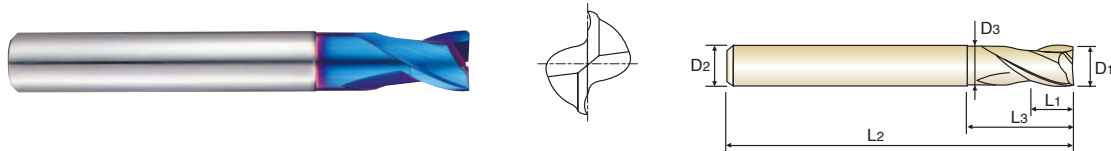


# CARBIDE, 2 FLUTE with EXTENDED NECK

## VOLLHARTMETALL, 2 SCHNEIDEN mit ABGESETZTEM SCHAFTTEIL

- ▶ Designed to machine high hardened materials
- ▶ Suitable for dry cutting, high speed cutting thanks to newly developed raw-material and new coating.
- ▶ Excellent workpiece finish.
- ▶ Designed for high precision milling operation.
- ▶ Higher wear-resistance.

- ▶ Geeignet zum Fräsen hochgehärteter Stähle.
- ▶ Geeignet zum Trockenfräsen und HSC-Fräsen dank neuentwickeltem Material und Beschichtung.
- ▶ Excellente Werkstückoberflächen.
- ▶ Geeignet für hochpräzises Fräsen.
- ▶ Höhere Verschleißfestigkeit.



Unit : mm

EDP No.	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2	Neck Diameter D3
G8A01001	0.1	4	0.2	-	40	-
G8A01002	0.2	4	0.4	-	40	-
G8A01003	0.3	4	0.6	-	40	-
G8A01004	0.4	4	0.8	-	40	-
G8A01005	0.5	4	1	-	40	-
G8A01006	0.6	4	1.2	-	40	-
G8A01007	0.7	4	1.4	-	40	-
G8A01008	0.8	4	1.6	-	40	-
G8A01009	0.9	4	2	-	40	-
G8A01010	1.0	6	1.5	3	50	0.95
G8A01015	1.5	6	1.7	4	50	1.45
G8A01020	2.0	6	2	5	50	1.95
G8A01025	2.5	6	2.5	6	55	2.4
G8A01030	3.0	6	3	8	55	2.85
G8A01035	3.5	6	3.5	9	55	3.35
G8A01040	4.0	6	4	10	55	3.85
G8A01050	5.0	6	5	13	55	4.85
G8A01060	6.0	6	6	15	55	5.85
G8A01080	8.0	8	8	20	65	7.7
G8A01100	10.0	10	10	25	75	9.7
G8A01120	12.0	12	12	28	85	11.7
G8A01160	16.0	16	16	32	90	15.7
G8A01200	20.0	20	20	40	105	19.7

Due to the characteristics of blue decoration layer which might be erased during short term using, the color layer might not be uniform moreover.  
However, it doesn't effect on performance of tool.

Size	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to Ø6	0~-0.012	h6
over Ø6	0~-0.015	

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70									
		○	○	◎	◎									

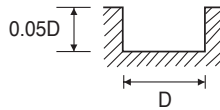


**RECOMMENDED CUTTING CONDITIONS  
EMPFOHLENE SCHNEIDKONDITIONEN**

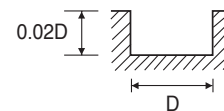
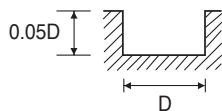
**CARBIDE, 2 FLUTE - SLOTTING  
VOLLHARTMETALL, 2 SCHNEIDEN - NUTENFRÄSEN**

**G8A01, G8A36 SERIES**

MATERIAL HARDNESS DIAMETER	ALLOY STEELS HEAT RESISTANT STEELS				HARDENED STEELS							
	HRc 30 ~ HRc 40				HRc 40 ~ HRc 50				HRc 50 ~ HRc 55			
	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
0.2	50000	130	30	0.001	45000	115	30	0.001	40000	95	25	0.001
0.3	50000	190	45	0.002	45000	140	40	0.002	40000	115	40	0.001
0.4	50000	235	65	0.002	45000	180	55	0.002	40000	140	50	0.002
0.5	50000	370	80	0.004	45000	280	70	0.003	40000	220	65	0.003
0.6	50000	470	95	0.005	45000	360	85	0.004	40000	285	75	0.004
0.8	50000	600	125	0.006	40000	440	100	0.006	30000	295	75	0.005
0.9	49000	655	140	0.007	39000	520	110	0.007	27800	330	80	0.006
1.0	48000	750	150	0.008	38000	570	120	0.008	25500	360	80	0.007
2.0	33300	850	210	0.013	26000	680	165	0.013	17500	420	110	0.012
3.0	21800	850	205	0.019	17300	680	165	0.020	11500	420	110	0.018
4.0	16700	880	210	0.026	13200	700	165	0.027	8800	440	110	0.025
5.0	15700	1000	245	0.032	12500	805	195	0.032	8300	500	130	0.030
6.0	13100	950	245	0.036	10350	770	195	0.037	6900	480	130	0.035
8.0	9880	930	250	0.047	7800	720	195	0.046	5200	445	130	0.043
10.0	7800	850	245	0.054	6150	680	195	0.055	4100	415	130	0.051
12.0	6650	850	250	0.064	5250	680	200	0.065	3500	415	130	0.059
16.0	4900	730	245	0.074	3900	580	195	0.074	2600	365	130	0.070
20.0	3900	660	245	0.085	3100	525	195	0.085	2050	335	130	0.082



MATERIAL HARDNESS DIAMETER	HARDENED STEELS											
	HRc 55 ~ HRc 60				HRc 60 ~ HRc 65				HRc 65 ~ HRc 70			
	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
0.2	33000	60	20	0.001	33000	45	20	0.001	26400	30	15	0.750
0.3	33000	70	30	0.001	25000	50	25	0.001	20000	35	20	0.700
0.4	33000	90	40	0.001	25000	55	30	0.001	20000	40	25	0.667
0.5	33000	140	50	0.002	25000	85	40	0.002	20000	60	30	0.750
0.6	30000	160	55	0.003	25000	105	45	0.002	20000	75	40	0.833
0.8	25000	185	65	0.004	19000	110	50	0.003	15200	80	40	0.800
0.9	22700	205	65	0.005	17500	125	50	0.004	14000	90	40	0.900
1.0	20500	215	65	0.005	16000	135	50	0.004	12500	85	40	0.850
2.0	14500	260	90	0.009	11000	160	70	0.007	9500	115	60	0.821
3.0	9500	260	90	0.014	7500	160	70	0.011	6400	115	60	0.821
4.0	7200	270	90	0.019	5600	170	70	0.015	4750	118	60	0.843
5.0	6400	285	100	0.022	5100	180	80	0.018	4450	132	70	0.825
6.0	5300	280	100	0.026	4200	180	80	0.021	3700	130	70	0.813
8.0	4000	255	100	0.032	3200	165	80	0.026	2800	120	70	0.750
10.0	3200	240	100	0.038	2550	155	80	0.030	2200	112	70	0.700
12.0	2650	240	100	0.045	2100	155	80	0.037	1860	112	70	0.700
16.0	2000	210	100	0.053	1600	135	80	0.042	1400	95	70	0.594
20.0	1600	195	100	0.061	1300	125	80	0.048	1100	85	70	0.531



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

HSS

CBN  
END MILLS

i-Xmill  
END MILLS

i-HS mill  
END MILLS

X5070  
END MILLS

4G MILL  
END MILLS

X-SPEED  
ROUGHER  
END MILLS

X-POWER  
END MILLS

JET-POWER  
END MILLS

TN MILL  
END MILLS

V7 Mill  
END MILLS

ALU-POWER  
END MILLS

CRX S  
END MILLS

D-POWER  
GRAPHITE  
END MILLS

D-POWER  
CFRP  
END MILLS

ROUTERS

K-2 CARBIDE  
END MILLS

GENERAL  
CARBIDE  
END MILLS

TANK-POWER  
END MILLS

GENERAL  
HSS  
END MILLS

MILLING  
CUTTERS

TECHNICAL  
DATA



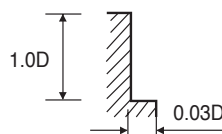
**RECOMMENDED CUTTING CONDITIONS**  
**EMPFOHLENE SCHNEIDKONDITIONEN**

**CARBIDE, 2 FLUTE - SIDE CUTTING**  
**VOLLHARTMETALL, 2 SCHNEIDEN - SEITENFRÄSEN**

**G8A01, G8A36 SERIES**

MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS					HARDENED STEELS							
	HARDNESS DIAMETER	HRc 30 ~ HRc 40				HRc 40 ~ HRc 50				HRc 50 ~ HRc 55			
		RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
1.0	48000	1050	150	0.011	38000	820	120	0.011	25500	510	80	0.010	
2.0	33300	1200	210	0.018	26000	970	165	0.019	17500	600	110	0.017	
3.0	21800	1200	205	0.028	17300	970	165	0.028	11500	600	110	0.026	
4.0	16700	1250	210	0.037	13200	1000	165	0.038	8800	625	110	0.036	
5.0	15700	1450	245	0.046	12500	1150	195	0.046	8300	710	130	0.043	
6.0	13100	1350	245	0.052	10350	1100	195	0.053	6900	690	130	0.050	
8.0	9880	1320	250	0.067	7800	1030	195	0.066	5200	635	130	0.061	
10.0	7800	1200	245	0.077	6150	970	195	0.079	4100	590	130	0.072	
12.0	6650	1200	250	0.090	5250	970	200	0.092	3500	590	130	0.084	
16.0	4900	1050	245	0.107	3900	840	195	0.108	2600	520	130	0.100	
20.0	3900	950	245	0.122	3100	750	195	0.121	2050	475	130	0.116	

MATERIAL	HARDENED STEELS												
	HARDNESS DIAMETER	HRc 55 ~ HRc 60				HRc 60 ~ HRc 65				HRc 65 ~ HRc 70			
		RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
1.0	20500	310	65	0.008	16000	190	50	0.006	12500	125	40	1.250	
2.0	14500	370	90	0.013	11000	230	70	0.010	9500	165	60	1.179	
3.0	9500	370	90	0.019	7500	230	70	0.015	6400	165	60	1.179	
4.0	7200	385	90	0.027	5600	240	70	0.021	4750	170	60	1.214	
5.0	6400	410	100	0.032	5100	260	80	0.025	4450	190	70	1.188	
6.0	5300	400	100	0.038	4200	255	80	0.030	3700	185	70	1.156	
8.0	4000	365	100	0.046	3200	235	80	0.037	2800	170	70	1.063	
10.0	3200	340	100	0.053	2550	220	80	0.043	2200	160	70	1.000	
12.0	2650	340	100	0.064	2100	220	80	0.052	1860	160	70	1.000	
16.0	2000	300	100	0.075	1600	190	80	0.059	1400	140	70	0.875	
20.0	1600	275	100	0.086	1300	175	80	0.067	1100	125	70	0.781	



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