

K-2 CARBIDE END MILLS

G9F45^{SERIES}
PLAIN SHANK

G9F46^{SERIES}
PLAIN SHANK

CARBIDE, 4&6 FLUTE 45° HELIX SHORT / LONG LENGTH
VOLLHARTMETALL, 4&6 SCHNEIDEN 45° RECHTSSPIRALE KURZ / LANG

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.

- ▶ Für die Trockenbearbeitung geeignet.
- ▶ Exzellente Hochleistungs Mühlen.

G9F45 / G9F46
Sharp Corner



SHORT

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length	No of Flute
G9F45030	3.0	4	8	50	4
G9F45040	4.0	4	11	50	4
G9F45050	5.0	6	13	50	6
G9F45060	6.0	6	16	50	6
G9F45080	8.0	8	19	60	6
G9F45100	10.0	10	22	75	6
G9F45120	12.0	12	26	75	6
G9F45140	14.0	14	30	90	6
G9F45160	16.0	16	32	100	6
G9F45180	18.0	18	38	100	6
G9F45200	20.0	20	38	100	6

LONG

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length	No of Flute
G9F46120	12.0	12	50	100	6
G9F46160	16.0	16	65	150	6
G9F46200	20.0	20	70	150	6

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

◎ : 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									
	○	◎	◎	○				○					

K-2 CARBIDE END MILLS

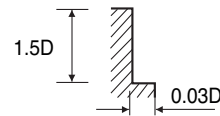
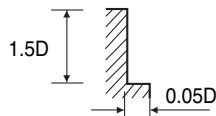
CARBIDE, 4&6 FLUTE 45° HELIX SIDE CUTTING

VOLLHARTMETALL, 4&6 SCHNEIDEN 45° RECHTSSPIRALE SEITENFRASEN

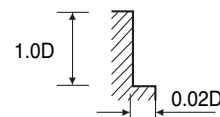
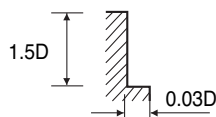
RECOMMENDED CUTTING CONDITIONS

G9F45, G9F46 SERIES

MATERIAL	P							
	NON-ALLOYED STEELS ALLOY STEELS CAST IRON				ALLOY STEELS HEAT RESISTANT STEELS			
HARDNESS	~ HRc 30				HRc 30 ~ HRc 50			
STRENGTH	~1000N/mm ²				1000 ~ 1750N/mm ²			
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
3.0	8650	825	82	0.024	5750	555	54	0.024
4.0	6600	858	83	0.033	4400	581	55	0.033
5.0	6250	990	98	0.026	4150	660	65	0.027
6.0	5175	924	98	0.030	3450	627	65	0.030
8.0	3900	891	98	0.038	2600	594	65	0.038
10.0	3075	831	97	0.045	2050	555	64	0.045
12.0	2625	831	99	0.053	1750	555	66	0.053
14.0	2230	770	98	0.058	1500	515	66	0.057
16.0	1950	726	98	0.062	1300	482	65	0.062
18.0	1720	670	97	0.065	1150	455	65	0.066
20.0	1550	641	97	0.069	1025	429	64	0.070



MATERIAL	P							
	HARDENED STEELS							
HARDNESS	HRc 50 ~ HRc 60				HRc 60 ~ HRc 65			
STRENGTH	1750 ~ 2080N/mm ²				2080N/mm ²			
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
3.0	4750	344	45	0.018	3750	212	35	0.014
4.0	3600	357	45	0.025	2800	221	35	0.020
5.0	3200	383	50	0.020	2550	245	40	0.016
6.0	2650	369	50	0.023	2100	231	40	0.018
8.0	2000	344	50	0.029	1600	218	40	0.023
10.0	1600	317	50	0.033	1275	204	40	0.027
12.0	1825	317	69	0.029	1050	198	40	0.031
14.0	1130	280	50	0.041	900	185	40	0.034
16.0	1000	278	50	0.046	800	179	40	0.037
18.0	880	265	50	0.050	700	165	40	0.039
20.0	800	251	50	0.052	650	165	41	0.042



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

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