

# CARBIDE



Being the best through innovation




















# K-2 CARBIDE

## K-2 VOLLHARTMETALL FRÄSER











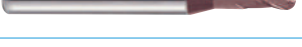



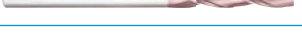
- General Purpose as Coating.  
Conventional or High Speed Milling, Wet or Dry Cutting.
- Beschichtet für allgemeinen Einsatz.  
Konventionelles oder HSC-Fräsen, Nass- oder Trockenfräsen.

# SELECTION GUIDE

ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
<b>G9424</b>		CARBIDE, 2 FLUTE SHORT LENGTH VOLLHARTMETALL, 2 SCHNEIDEN KURZ	D1.0	D20.0	<b>784</b>
<b>G9A68</b>		CARBIDE, 2 FLUTE SHORT LENGTH VOLLHARTMETALL, 2 SCHNEIDEN KURZ	D1.0	D20.0	<b>785</b>
<b>G9444</b>		CARBIDE, 2 FLUTE SHORT LENGTH VOLLHARTMETALL, 2 SCHNEIDEN KURZ	D2.0	D20.0	<b>786</b>
<b>G9527</b>		CARBIDE, 2 FLUTE LONG LENGTH VOLLHARTMETALL, 2 SCHNEIDEN LANG	D3.5	D20.0	<b>787</b>
<b>G9445</b>		CARBIDE, 2 FLUTE LONG LENGTH VOLLHARTMETALL, 2 SCHNEIDEN LANG	D2.0	D20.0	<b>788</b>
<b>G9452</b>		CARBIDE, 2 FLUTE EXTRA LONG LENGTH VOLLHARTMETALL, 2 SCHNEIDEN EXTRA LANG	D3.0	D20.0	<b>789</b>
<b>G9553</b> <b>G9410</b>		CARBIDE, 3 FLUTE SHORT LENGTH THROW AWAY VOLLHARTMETALL, 3 SCHNEIDEN KURZ EINWEGFRÄSER	D0.5	D20.0	<b>790</b>
<b>G9425</b>		CARBIDE, 3 FLUTE SHORT LENGTH VOLLHARTMETALL, 3 SCHNEIDEN KURZ	D1.0	D20.0	<b>791</b>
<b>G9439</b>		CARBIDE, 3 FLUTE SHORT LENGTH VOLLHARTMETALL, 3 SCHNEIDEN KURZ	D2.0	D20.0	<b>792</b>
<b>G9528</b>		CARBIDE, 3 FLUTE LONG LENGTH VOLLHARTMETALL, 3 SCHNEIDEN LANG	D3.5	D20.0	<b>793</b>
<b>G9433</b>		CARBIDE, 3 FLUTE LONG LENGTH VOLLHARTMETALL, 3 SCHNEIDEN LANG	D3.0	D20.0	<b>794</b>
<b>G9447</b>		CARBIDE, 3 FLUTE 45° HELIX LONG LENGTH VOLLHARTMETALL, 3 SCHNEIDEN 45° RECHTSSPIRALE LANG	D3.0	D20.0	<b>795</b>
<b>G9432</b>		CARBIDE, 4 FLUTE SHORT LENGTH VOLLHARTMETALL, 4 SCHNEIDEN KURZ	D1.0	D20.0	<b>796</b>
<b>G9A69</b>		CARBIDE, 4 FLUTE SHORT LENGTH VOLLHARTMETALL, 4 SCHNEIDEN KURZ	D1.0	D20.0	<b>797</b>
<b>G9448</b>		CARBIDE, 4 FLUTE SHORT LENGTH VOLLHARTMETALL, 4 SCHNEIDEN KURZ	D2.0	D20.0	<b>798</b>
<b>G9540</b>		CARBIDE, 4 FLUTE LONG LENGTH VOLLHARTMETALL, 4 SCHNEIDEN LANG	D3.5	D20.0	<b>799</b>
<b>G9449</b>		CARBIDE, 4 FLUTE LONG LENGTH VOLLHARTMETALL, 4 SCHNEIDEN LANG	D2.0	D20.0	<b>800</b>



# SELECTION GUIDE

ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
<b>G9453</b>		CARBIDE, 4 FLUTE EXTRA LONG LENGTH VOLLHARTMETALL, 4 SCHNEIDEN EXTRA LANG	D3.0	D20.0	<b>801</b>
<b>G9624</b>		CARBIDE, 2 FULTE SHORT LENGTH BALL NOSE VOLLHARTMETALL, 2 SCHNEIDEN KURZ STIRNRADIUS	R1.0	R10.0	<b>802</b>
<b>G9A70</b>		CARBIDE, 2 FULTE SHORT LENGTH BALL NOSE VOLLHARTMETALL, 2 SCHNEIDEN KURZ STIRNRADIUS	R0.5	R10.0	<b>803</b>
<b>G9437</b>		CARBIDE, 2 FLUTE SHORT LENGTH BALL NOSE VOLLHARTMETALL, 2 SCHNEIDEN KURZ STIRNRADIUS	R1.0	R10.0	<b>804</b>
<b>G9438</b>		CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE VOLLHARTMETALL, 2 SCHNEIDEN LANG STIRNRADIUS	R1.0	R10.0	<b>805</b>
<b>G9454</b>		CARBIDE, 2 FLUTE LONG REACH BALL NOSE VOLLHARTMETALL, 2 SCHNEIDEN GROÙE REICHWEITE STIRNRADIUS	R1.5	R10.0	<b>806</b>
<b>G9455</b>		CARBIDE, 2 FLUTE EXTRA LONG LENGTH BALL NOSE VOLLHARTMETALL, 2 SCHNEIDEN EXTRA LANG STIRNRADIUS	R1.5	R10.0	<b>807</b>
<b>G9634</b>		CARBIDE, 4 FLUTE SHORT LENGTH BALL NOSE VOLLHARTMETALL, 4 SCHNEIDEN KURZ STIRNRADIUS	R1.0	R10.0	<b>808</b>
<b>G9A42</b>		CARBIDE, MULTI FLUTE LONG LENGTH ROUGHING - COARSE PITCH VOLLHARTMETALL, MEHRSCHEIDEN LANG SCHRUPPFÄSER - GROB	D6.0	D25.0	<b>809</b>
<b>G9B80</b>		CARBIDE, 2 FLUTE RIB PROCESSING VOLLHARTMETALL, 2 SCHNEIDEN SCHMALE RIPPEN	D0.4	D4.0	<b>810</b>
<b>G9B81</b>		CARBIDE, 2 FLUTE BALL NOSE RIB PROCESSING VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS SCHMALE RIPPEN	R0.2	R2.0	<b>812</b>
<b>G9B82</b>		CARBIDE, 2 FLUTE SHORT LENGTH CORNER RADIUS VOLLHARTMETALL, 2 SCHNEIDEN KURZ ECKENRADIUS	D2.0	D12.0	<b>814</b>
<b>G9B83</b>		CARBIDE, 2 FLUTE LONG REACH CORNER RADIUS VOLLHARTMETALL, 2 SCHNEIDEN GROÙE REICHWEITE ECKENRADIUS	D3.0	D12.0	<b>816</b>
<b>G9B84</b>		CARBIDE, 4 FLUTE SHORT LENGTH CORNER RADIUS VOLLHARTMETALL, 4 SCHNEIDEN KURZ ECKENRADIUS	D2.0	D12.0	<b>817</b>
<b>G9B85</b>		CARBIDE, 4 FLUTE LONG REACH CORNER RADIUS VOLLHARTMETALL, 4 SCHNEIDEN GROÙE REICHWEITE ECKENRADIUS	D3.0	D12.0	<b>819</b>
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN					<b>820</b>

# K-2 CARBIDE END MILLS

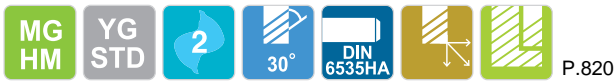
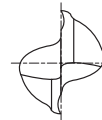
◎ : Excellent, ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
			HRc40~45	HRc45~55								
-HB225	HB225-325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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**CARBIDE, 2 FLUTE SHORT LENGTH**  
**VOLLHARTMETALL, 2 SCHNEIDEN KURZ**

- ▶ 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
G9424010	1.0	4	3	40
G9424015	1.5	4	4.5	40
G9424020	2.0	2	8	32
G9424025	2.5	2.5	8	32
G9424030	3.0	3	12	32
G9424035	3.5	3.5	12	32
G9424040	4.0	4	12	40
G9424045	4.5	4.5	14	50
G9424050	5.0	5	14	50
G9424055	5.5	5.5	16	50
G9424060	6.0	6	16	50
G9424070	7.0	7	20	60
G9424080	8.0	8	20	60
G9424090	9.0	9	20	60
G9424100	10.0	10	22	70
G9424120	12.0	12	22	70
G9424140	14.0	14	25	75
G9424160	16.0	16	25	75
G9424200	20.0	20	32	100

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

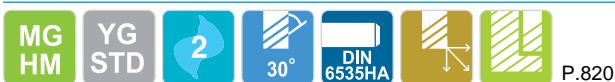
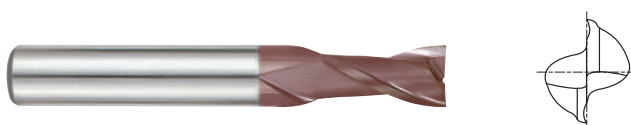
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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◎ : Excellent ○ : Good

**CARBIDE, 2 FLUTE SHORT LENGTH**  
**VOLLHARTMETALL, 2 SCHNEIDEN KURZ**

- ▶ 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
G9A68010	1.0	3	3	39
G9A68015	1.5	3	5	39
G9A68020	2.0	3	7	39
G9A68025	2.5	3	7	39
G9A68030	3.0	3	9	39
G9A68040	4.0	4	14	51
G9A68050	5.0	5	16	51
G9A68060	6.0	6	19	64
G9A68080	8.0	8	21	64
G9A68100	10.0	10	22	70
G9A68120	12.0	12	25	76
G9A68160	16.0	16	32	89
G9A68200	20.0	20	38	102

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
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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**CARBIDE, 2 FLUTE SHORT LENGTH**  
**VOLLHARTMETALL, 2 SCHNEIDEN KURZ**

- ▶ 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.



MG HM DIN 6527 2  $\approx 30^\circ$  DIN 6535HB P.820

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9444020	2.0	6	3	50
G9444030	3.0	6	4	50
G9444035	3.5	6	4	50
G9444040	4.0	6	5	54
G9444045	4.5	6	5	54
G9444050	5.0	6	6	54
G9444060	6.0	6	7	54
G9444070	7.0	8	8	58
G9444080	8.0	8	9	58
G9444090	9.0	10	10	66
G9444100	10.0	10	11	66
G9444120	12.0	12	12	73
G9444140	14.0	14	14	75
G9444160	16.0	16	16	82
G9444180	18.0	18	18	84
G9444200	20.0	20	20	92

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

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

◎ : Excellent ○ : Good



**CARBIDE, 2 FLUTE LONG LENGTH**  
**VOLLHARTMETALL, 2 SCHNEIDEN LANG**

- ▶ 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
G9527035	3.5	3.5	7	50
G9527040	4.0	4	8	50
G9527045	4.5	4.5	8	50
G9527050	5.0	5	10	50
G9527055	5.5	5.5	10	57
G9527060	6.0	6	10	57
G9527065	6.5	6.5	13	60
G9527070	7.0	7	13	60
G9527075	7.5	7.5	16	63
G9527080	8.0	8	16	63
G9527085	8.5	8.5	16	67
G9527090	9.0	9	16	67
G9527095	9.5	9.5	19	72
G9527100	10.0	10	19	72
G9527110	11.0	11	22	83
G9527120	12.0	12	22	83
G9527130	13.0	13	22	83
G9527140	14.0	14	22	83
G9527150	15.0	15	26	92
G9527160	16.0	16	26	92
G9527180	18.0	18	26	92
G9527200	20.0	20	32	104

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
-HB225	HB225~325	HRC30~40	HRC40~45	HRC45~55	HRC55~70							
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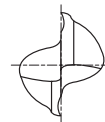
**YG K-2 CARBIDE END MILLS**

**G9445 SERIES**

PLAIN SHANK  
GLATTER ZYLINDERSCHAFT  
FLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN

**CARBIDE, 2 FLUTE LONG LENGTH  
VOLLHARTMETALL, 2 SCHNEIDEN LANG**

- ▶ 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.



MG HM DIN 6527 2  $\approx 30^\circ$  DIN 6535HA DIN 6535HB P.820

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9445901	2.0	● 3	6	38
G9445028	2.8	6	7	57
G9445030	3.0	6	7	57
G9445035	3.5	6	7	57
G9445038	3.8	6	8	57
G9445040	4.0	6	8	57
G9445045	4.5	6	8	57
G9445048	4.8	6	10	57
G9445050	5.0	6	10	57
G9445957	5.75	6	10	57
G9445060	6.0	6	10	57
G9445967	6.75	8	13	63
G9445070	7.0	8	13	63
G9445977	7.75	8	16	63
G9445080	8.0	8	16	63
G9445087	8.7	10	16	72
G9445090	9.0	10	16	72
G9445097	9.7	10	19	72
G9445100	10.0	10	19	72
G9445117	11.7	12	22	83
G9445120	12.0	12	22	83
G9445137	13.7	14	22	83
G9445140	14.0	14	22	83
G9445157	15.7	16	26	92
G9445160	16.0	16	26	92
G9445177	17.7	18	26	92
G9445180	18.0	18	26	92
G9445197	19.7	20	32	104
G9445200	20.0	20	32	104

● with plain shank

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
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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**CARBIDE, 2 FLUTE EXTRA LONG LENGTH**  
**VOLLHARTMETALL, 2 SCHNEIDEN EXTRA LANG**

- ▶ 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.



MG HM
YG STD
2
30°
DIN 6535HA
P.820

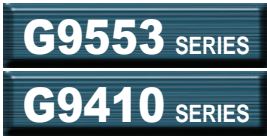
Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9452903	3.0	3	20	60
G9452904	4.0	4	20	60
G9452905	5.0	5	25	75
G9452906	6.0	6	30	75
G9452908	8.0	8	30	75
G9452910	10.0	10	40	100
G9452912	12.0	12	45	100
G9452914	14.0	14	45	100
G9452916	16.0	16	45	100
G9452918	18.0	18	45	100
G9452920	20.0	20	45	100

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
-HB225	HB225~325	HRC30~40	HRC40~45	HRC45~55	HRC55~70							
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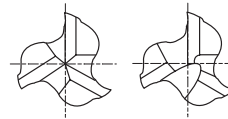
PLAIN SHANK  
GLATTER ZYLINDERSCHAFT

FLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN

## CARBIDE, 3 FLUTE SHORT LENGTH THROW AWAY VOLLHARTMETALL, 3 SCHNEIDEN KURZ EINWEGFRÄSER

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 3 flute design possess the advantage of 2 flute and 4 flute end mill.

- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ 3 Schneiden verbinden die Vorteile von 2 - und 4 - schneidigen Schaftfräsern.



under Ø2

from Ø2



Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9553005	0.5	● 3	1.5	38
G9553006	0.6	● 3	1.5	38
G9553008	0.8	● 3	2	38
G9553010	1.0	● 3	2	38
G9553012	1.2	● 3	2	38
G9553015	1.5	● 3	2	38
G9553018	1.8	● 3	2	38
G9410020	2.0	6	4	35
G9410025	2.5	6	5	36
G9410030	3.0	6	5	36
G9410035	3.5	6	6	37
G9410040	4.0	6	7	38
G9410045	4.5	6	8	38
G9410050	5.0	6	8	39
G9410055	5.5	6	8	39
G9410957	5.75	6	8	39
G9410060	6.0	6	8	39
G9410967	6.75	8	10	42
G9410070	7.0	8	10	42
G9410977	7.75	8	10	42
G9410080	8.0	8	11	43
G9410087	8.7	10	11	48
G9410090	9.0	10	11	48
G9410097	9.7	10	11	48
G9410100	10.0	10	13	50
G9410120	12.0	12	15	55
G9410140	14.0	14	15	58
G9410160	16.0	16	18	62
G9410180	18.0	18	20	70
G9410200	20.0	20	22	75

● with plain shank

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

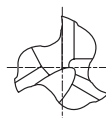
◎ : Excellent ○ : Good

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

**CARBIDE, 3 FLUTE SHORT LENGTH**  
**VOLLHARTMETALL, 3 SCHNEIDEN KURZ**

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 3 flute design possess the advantage of 2 flute and 4 flute end mill.

- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ 3 Schneiden verbinden die Vorteile von 2 - und 4 - schneidigen Schaftfräsern.



Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9425010	1.0	4	3	40
G9425015	1.5	4	4.5	40
G9425020	2.0	2	8	32
G9425025	2.5	2.5	8	32
G9425030	3.0	3	12	32
G9425035	3.5	3.5	12	32
G9425040	4.0	4	12	40
G9425045	4.5	4.5	14	50
G9425050	5.0	5	14	50
G9425055	5.5	5.5	16	50
G9425060	6.0	6	16	50
G9425070	7.0	7	20	60
G9425080	8.0	8	20	60
G9425090	9.0	9	20	60
G9425100	10.0	10	22	70
G9425120	12.0	12	22	70
G9425140	14.0	14	25	75
G9425160	16.0	16	25	75
G9425200	20.0	20	32	100

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

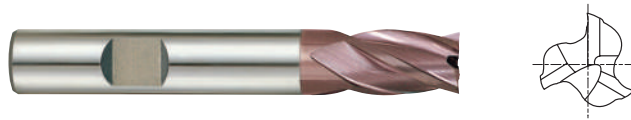
◎ : Excellent ○ : Good

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



**CARBIDE, 3 FLUTE SHORT LENGTH**  
**VOLLHARTMETALL, 3 SCHNEIDEN KURZ**

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 3 flute design possess the advantage of 2 flute and 4 flute end mill.
- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ 3 Schneiden verbinden die Vorteile von 2 - und 4 - schneidigen Schaftfräsern.



Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9439020	2.0	6	3	50
G9439030	3.0	6	4	50
G9439035	3.5	6	4	50
G9439040	4.0	6	5	54
G9439045	4.5	6	5	54
G9439050	5.0	6	6	54
G9439060	6.0	6	7	54
G9439070	7.0	8	8	58
G9439080	8.0	8	9	58
G9439090	9.0	10	10	66
G9439100	10.0	10	11	66
G9439120	12.0	12	12	73
G9439140	14.0	14	14	75
G9439160	16.0	16	16	82
G9439180	18.0	18	18	84
G9439200	20.0	20	20	92

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

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

◎ : Excellent ○ : Good

**CARBIDE, 3 FLUTE LONG LENGTH**  
**VOLLHARTMETALL, 3 SCHNEIDEN LANG**

- ▶ Suitable for dry milling applications at high temperatures.
  - ▶ Excellent high-performance end mills.
  - ▶ 3 flute design possess the advantage of 2 flute and 4 flute end mill.
- ▶ Für die Trockenbearbeitung.
  - ▶ Hervorragendes Preis - Leistungsverhältnis.
  - ▶ 3 Schneiden verbinden die Vorteile von 2 - und 4 - schneidigen Schafffräsern.



Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9528035	3.5	3.5	7	50
G9528040	4.0	4	8	50
G9528045	4.5	4.5	8	50
G9528050	5.0	5	10	50
G9528055	5.5	5.5	10	57
G9528060	6.0	6	10	57
G9528065	6.5	6.5	13	60
G9528070	7.0	7	13	60
G9528075	7.5	7.5	16	63
G9528080	8.0	8	16	63
G9528085	8.5	8.5	16	67
G9528090	9.0	9	16	67
G9528095	9.5	9.5	19	72
G9528100	10.0	10	19	72
G9528110	11.0	11	22	83
G9528120	12.0	12	22	83
G9528130	13.0	13	22	83
G9528140	14.0	14	22	83
G9528150	15.0	15	26	92
G9528160	16.0	16	26	92
G9528180	18.0	18	26	92
G9528200	20.0	20	32	104

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

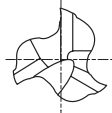
◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
-HB225	HB225~325	HRC30~40	HRC40~45	HRC45~55	HRC55~70							
◎	◎	◎				○		○	○	○	○	○



**CARBIDE, 3 FLUTE LONG LENGTH**  
**VOLLHARTMETALL, 3 SCHNEIDEN LANG**

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 3 flute design possess the advantage of 2 flute and 4 flute end mill.
- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ 3 Schneiden verbinden die Vorteile von 2 - und 4 - schneidigen Schaftfräsern.



MG HM DIN 6527 3  $\approx 30^\circ$  DIN 6535HB P.821

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9433030	3.0	6	7	57
G9433040	4.0	6	8	57
G9433050	5.0	6	10	57
G9433060	6.0	6	10	57
G9433080	8.0	8	16	63
G9433090	9.0	10	16	72
G9433100	10.0	10	19	72
G9433120	12.0	12	22	83
G9433140	14.0	14	22	83
G9433160	16.0	16	26	92
G9433180	18.0	18	26	92
G9433200	20.0	20	32	104

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

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

◎ : Excellent ○ : Good

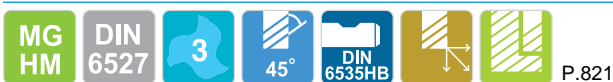
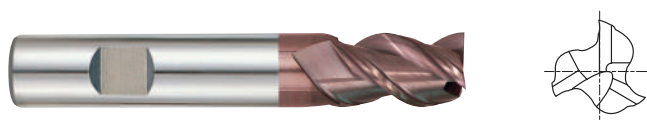


# CARBIDE, 3 FLUTE 45° HELIX, LONG LENGTH

## VOLLHARTMETALL, 3 SCHNEIDEN 45° RECHTSSPIRALE LANG

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

- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.



Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9447030	3.0	6	7	57
G9447035	3.5	6	7	57
G9447040	4.0	6	8	57
G9447045	4.5	6	8	57
G9447050	5.0	6	10	57
G9447060	6.0	6	10	57
G9447070	7.0	8	13	63
G9447080	8.0	8	16	63
G9447090	9.0	10	16	72
G9447100	10.0	10	19	72
G9447120	12.0	12	22	83
G9447140	14.0	14	22	83
G9447160	16.0	16	26	92
G9447180	18.0	18	26	92
G9447200	20.0	20	32	104

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

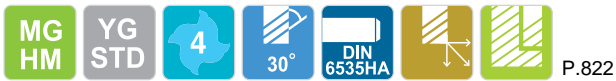
◎ : Excellent ○ : Good

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



**CARBIDE, 4 FLUTE SHORT LENGTH**  
**VOLLHARTMETALL, 4 SCHNEIDEN KURZ**

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 4 flute allows for better work piece finishes.
- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ 4 Schneiden erzeugen eine bessere Oberflächengüte des Werkstücks.



Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9432010	1.0	4	3	40
G9432015	1.5	4	4.5	40
G9432020	2.0	2	8	32
G9432025	2.5	2.5	8	32
G9432030	3.0	3	12	32
G9432035	3.5	3.5	12	32
G9432040	4.0	4	12	40
G9432045	4.5	4.5	14	50
G9432050	5.0	5	14	50
G9432055	5.5	5.5	16	50
G9432060	6.0	6	16	50
G9432070	7.0	7	20	60
G9432080	8.0	8	20	60
G9432090	9.0	9	20	60
G9432100	10.0	10	22	70
G9432120	12.0	12	22	70
G9432140	14.0	14	25	75
G9432160	16.0	16	25	75
G9432200	20.0	20	32	100

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

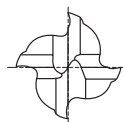
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	○	○				○		○	○	○	○	○

◎ : Excellent ○ : Good

**CARBIDE, 4 FLUTE SHORT LENGTH**  
**VOLLHARTMETALL, 4 SCHNEIDEN KURZ**

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 4 flute allows for better work piece finishes.

- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ 4 Schneiden erzeugen eine bessere Oberflächengüte des Werkstücks.



Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9A69010	1.0	3	3	39
G9A69015	1.5	3	5	39
G9A69020	2.0	3	7	39
G9A69025	2.5	3	7	39
G9A69030	3.0	3	10	39
G9A69040	4.0	4	14	51
G9A69050	5.0	5	16	51
G9A69060	6.0	6	19	64
G9A69080	8.0	8	21	64
G9A69100	10.0	10	22	70
G9A69120	12.0	12	25	76
G9A69160	16.0	16	32	89
G9A69200	20.0	20	38	102

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
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○	○	○



**CARBIDE, 4 FLUTE SHORT LENGTH**  
**VOLLHARTMETALL, 4 SCHNEIDEN KURZ**

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 4 flute allows for better work piece finishes.
- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ 4 Schneiden erzeugen eine bessere Oberflächengüte des Werkstücks.



MG HM DIN 6527 4  $\approx 30^\circ$  DIN 6535HB P.822

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9448020	2.0	6	4	50
G9448025	2.5	6	4	50
G9448030	3.0	6	5	50
G9448035	3.5	6	6	50
G9448040	4.0	6	8	54
G9448045	4.5	6	8	54
G9448050	5.0	6	9	54
G9448060	6.0	6	10	54
G9448070	7.0	8	11	58
G9448080	8.0	8	12	58
G9448090	9.0	10	13	66
G9448100	10.0	10	14	66
G9448120	12.0	12	16	73
G9448140	14.0	14	18	75
G9448160	16.0	16	22	82
G9448180	18.0	18	24	84
G9448200	20.0	20	26	92

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

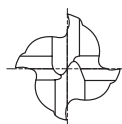
◎ : Excellent ○ : Good

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

**CARBIDE, 4 FLUTE LONG LENGTH**  
**VOLLHARTMETALL, 4 SCHNEIDEN LANG**

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 4 flute allows for better work piece finishes.

- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ 4 Schneiden erzeugen eine bessere Oberflächengüte des Werkstücks.



Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9540035	3.5	3.5	10	50
G9540040	4.0	4	11	50
G9540045	4.5	4.5	11	50
G9540050	5.0	5	13	50
G9540055	5.5	5.5	13	57
G9540060	6.0	6	13	57
G9540065	6.5	6.5	16	60
G9540070	7.0	7	16	60
G9540075	7.5	7.5	19	63
G9540080	8.0	8	19	63
G9540085	8.5	8.5	19	67
G9540090	9.0	9	19	67
G9540095	9.5	9.5	22	72
G9540100	10.0	10	22	72
G9540110	11.0	11	26	83
G9540120	12.0	12	26	83
G9540130	13.0	13	26	83
G9540140	14.0	14	26	83
G9540150	15.0	15	32	92
G9540160	16.0	16	32	92
G9540180	18.0	18	32	92
G9540200	20.0	20	38	104

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
-HB225	HB225~325	HRC30~40	HRC40~45	HRC45~55	HRC55~70							
◎	◎	◎				○		○	○	○	○	○

**YG K-2 CARBIDE END MILLS**

**G9449 SERIES**

PLAIN SHANK  
GLATTER ZYLINDERSCHAFT  
FLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN

**CARBIDE, 4 FLUTE LONG LENGTH  
VOLLHARTMETALL, 4 SCHNEIDEN LANG**

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 4 flute allows for better work piece finishes.
- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ 4 Schneiden erzeugen eine bessere Oberflächengüte des Werkstücks.



MG HM DIN 6527 4  $\approx 30^\circ$  DIN 6535HA DIN 6535HB P.822

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9449901	2.0	● 3	7	38
G9449030	3.0	6	8	57
G9449035	3.5	6	10	57
G9449040	4.0	6	11	57
G9449045	4.5	6	11	57
G9449050	5.0	6	13	57
G9449060	6.0	6	13	57
G9449070	7.0	8	16	63
G9449080	8.0	8	19	63
G9449090	9.0	10	19	72
G9449100	10.0	10	22	72
G9449120	12.0	12	26	83
G9449140	14.0	14	26	83
G9449160	16.0	16	32	92
G9449180	18.0	18	32	92
G9449200	20.0	20	38	104

● with plain shank

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
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○	○	○

**CARBIDE, 4 FLUTE EXTRA LONG LENGTH**  
**VOLLHARTMETALL, 4 SCHNEIDEN EXTRA LANG**

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 4 flute allows for better work piece finishes.

- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ 4 Schneiden erzeugen eine bessere Oberflächengüte des Werkstücks.



Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9453903	3.0	3	20	60
G9453904	4.0	4	20	60
G9453905	5.0	5	25	75
G9453906	6.0	6	30	75
G9453908	8.0	8	30	75
G9453910	10.0	10	40	100
G9453912	12.0	12	45	100
G9453914	14.0	14	45	100
G9453916	16.0	16	45	100
G9453918	18.0	18	45	100
G9453920	20.0	20	45	100

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

◎ : Excellent ○ : Good

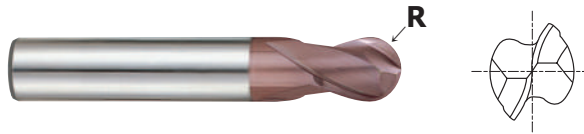
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
-HB225	HB225~325	HRC30~40	HRC40~45	HRC45~55	HRC55~70							
◎	◎	◎				○		○	○	○	○	○

**YG K-2 CARBIDE END MILLS**

**G9624 SERIES PLAIN SHANK GLATTER ZYLINDERSCHAFT**

**CARBIDE, 2 FULTE SHORT LENGTH BALL NOSE  
VOLLHARTMETALL, 2 SCHNEIDEN KURZ STIRNRADIUS**

- ▶ 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.



MG HM
YG STD
2
30°
R ±0.02
DIN 6535HA
P.823

Unit : mm

EDP No.	Radius of Ball Nose R (±0.02)	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9624020	R 1.0	2.0	6	4	48
G9624025	R 1.25	2.5	6	4	48
G9624030	R 1.5	3.0	6	4	48
G9624040	R 2.0	4.0	6	6	50
G9624901	R 2.0	4.0	4	12	40
G9624050	R 2.5	5.0	6	7	51
G9624902	R 2.5	5.0	5	14	50
G9624060	R 3.0	6.0	6	7	51
G9624080	R 4.0	8.0	8	9	59
G9624100	R 5.0	10.0	10	10	60
G9624120	R 6.0	12.0	12	14	71
G9624140	R 7.0	14.0	14	14	71
G9624160	R 8.0	16.0	16	16	76
G9624180	R 9.0	18.0	18	18	76
G9624200	R 10.0	20.0	20	20	82

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

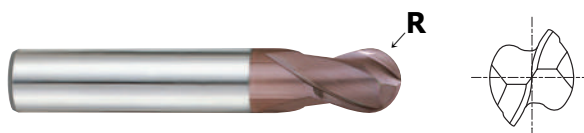
◎ : Excellent    ○ : Good

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



**CARBIDE, 2 FLUTE SHORT LENGTH BALL NOSE**  
**VOLLHARTMETALL, 2 SCHNEIDEN KURZ STIRNRADIUS**

- ▶ 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 R (±0.02)	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9A70010	R 0.5	1.0	3	3	39
G9A70015	R 0.75	1.5	3	5	39
G9A70020	R 1.0	2.0	3	7	39
G9A70025	R 1.25	2.5	3	7	39
G9A70030	R 1.5	3.0	3	9	39
G9A70040	R 2.0	4.0	4	14	51
G9A70050	R 2.5	5.0	5	16	51
G9A70060	R 3.0	6.0	6	19	64
G9A70080	R 4.0	8.0	8	21	64
G9A70100	R 5.0	10.0	10	22	70
G9A70110	R 5.5	11.0	11	25	70
G9A70120	R 6.0	12.0	12	25	76
G9A70160	R 8.0	16.0	16	32	89
G9A70200	R 10.0	20.0	20	38	102

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

◎ : Excellent ○ : Good

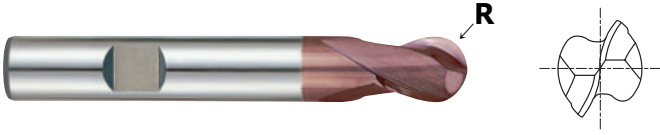
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○	○		○		○	○	○	○	○

**YG K-2 CARBIDE END MILLS**

**G9437 SERIES** FLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN

**CARBIDE, 2 FULTE SHORT LENGTH BALL NOSE**  
**VOLLHARTMETALL, 2 SCHNEIDEN KURZ STIRNRADIUS**

- ▶ 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.



MG HM DIN 6527 2  $\approx 30^\circ$  R  $\pm 0.02$  DIN 6535HB P.823

Unit : mm

EDP No.	Radius of Ball Nose R ( $\pm 0.02$ )	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9437020	R 1.0	2.0	6	3	50
G9437030	R 1.5	3.0	6	4	50
G9437040	R 2.0	4.0	6	5	54
G9437050	R 2.5	5.0	6	6	54
G9437060	R 3.0	6.0	6	7	54
G9437080	R 4.0	8.0	8	9	58
G9437100	R 5.0	10.0	10	11	66
G9437120	R 6.0	12.0	12	12	73
G9437140	R 7.0	14.0	14	14	75
G9437180	R 9.0	18.0	18	18	84
G9437200	R 10.0	20.0	20	20	92

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
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○	○		○		○	○	○	○	○

# CARBIDE, 2 FLUTE LONG LENGTH BALL NOSE

## VOLLHARTMETALL, 2 SCHNEIDEN LANG STIRNRADIUS

- ▶ 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.



P.823

Unit : mm

EDP No.	Radius of Ball Nose R (±0.02)	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9438020	R 1.0	2.0	● 3	6	38
G9438030	R 1.5	3.0	6	7	57
G9438040	R 2.0	4.0	6	8	57
G9438050	R 2.5	5.0	6	10	57
G9438060	R 3.0	6.0	6	10	57
G9438080	R 4.0	8.0	8	16	63
G9438100	R 5.0	10.0	10	19	72
G9438120	R 6.0	12.0	12	22	83
G9438140	R 7.0	14.0	14	22	83
G9438160	R 8.0	16.0	16	26	92
G9438180	R 9.0	18.0	18	26	92
G9438200	R 10.0	20.0	20	32	104

● with plain shank

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
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○	○		○		○	○	○	○	○

# K-2 CARBIDE END MILLS

**G9454** SERIES PLAIN SHANK  
GLATTER ZYLINDERSCHAFT

## CARBIDE, 2 FLUTE LONG REACH BALL NOSE VOLLHARTMETALL, 2 SCHNEIDEN GROÙE REICHWEITE STIRNRADIUS

- ▶ 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.











P.823

Unit : mm

EDP No.	Radius of Ball Nose R (±0.02)	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
<b>G9454030</b>	R 1.5	<b>3.0</b>	3	5	75
<b>G9454040</b>	R 2.0	<b>4.0</b>	4	8	75
<b>G9454050</b>	R 2.5	<b>5.0</b>	5	9	75
<b>G9454060</b>	R 3.0	<b>6.0</b>	6	10	100
<b>G9454080</b>	R 4.0	<b>8.0</b>	8	12	100
<b>G9454100</b>	R 5.0	<b>10.0</b>	10	14	100
<b>G9454120</b>	R 6.0	<b>12.0</b>	12	16	100
<b>G9454140</b>	R 7.0	<b>14.0</b>	14	18	100
<b>G9454160</b>	R 8.0	<b>16.0</b>	16	22	150
<b>G9454200</b>	R 10.0	<b>20.0</b>	20	26	150

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
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○	○		○		○	○	○	○	○

**CARBIDE, 2 FLUTE EXTRA LONG LENGTH BALL NOSE**  
**VOLLHARTMETALL, 2 SCHNEIDEN EXTRA LANG STIRNRADIUS**

- ▶ 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 R (±0.02)	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9455903	R 1.5	3.0	3	20	60
G9455904	R 2.0	4.0	4	20	60
G9455905	R 2.5	5.0	5	25	75
G9455906	R 3.0	6.0	6	30	75
G9455908	R 4.0	8.0	8	30	75
G9455910	R 5.0	10.0	10	40	100
G9455912	R 6.0	12.0	12	45	100
G9455914	R 7.0	14.0	14	45	100
G9455916	R 8.0	16.0	16	45	100
G9455918	R 9.0	18.0	18	45	100
G9455920	R 10.0	20.0	20	45	100

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

◎ : Excellent ○ : Good

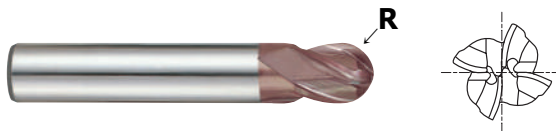
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○	○		○		○	○	○	○	○

# YG K-2 CARBIDE END MILLS

**G9634** SERIES PLAIN SHANK  
GLATTER ZYLINDERSCHAFT

## CARBIDE, 4 FLUTE SHORT LENGTH BALL NOSE VOLLHARTMETALL, 4 SCHNEIDEN KURZ STIRNRADIUS

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 4 flute allows for better work piece finishes.
- ▶ Designed for milling of radius bottom slots, fillets and special contours.
- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ 4 Schneiden erzeugen eine bessere Oberflächengüte des Werkstücks.
- ▶ Bestimmt für das Fräsen von Nuten mit konvexem Grund, Sonderprofilen und zum Kopieren.



MG HM YG STD 4 30° R ±0.02 DIN 6535HA P.823

Unit : mm

EDP No.	Radius of Ball Nose R (±0.02)	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9634020	R 1.0	2.0	6	4	48
G9634030	R 1.5	3.0	6	4	48
G9634040	R 2.0	4.0	6	6	50
G9634050	R 2.5	5.0	6	7	51
G9634060	R 3.0	6.0	6	7	51
G9634080	R 4.0	8.0	8	9	59
G9634100	R 5.0	10.0	10	10	60
G9634120	R 6.0	12.0	12	14	71
G9634140	R 7.0	14.0	14	14	71
G9634160	R 8.0	16.0	16	16	76
G9634180	R 9.0	18.0	18	18	76
G9634200	R 10.0	20.0	20	20	82

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
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○	○		○		○	○	○	○	○

# CARBIDE, MULTI FLUTE LONG LENGTH ROUGHING - COARSE PITCH

## VOLLHARTMETALL, MEHRSCHEIDEN LANG SCHRUPPFRÄSER - GROB

- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ Fast chip ejection.
- ▶ Für die Trockenbearbeitung.
- ▶ Hervorragendes Preis - Leistungsverhältnis.
- ▶ Guter Spanauswurf.



MG HM YG STD COARSE 3-5 30° DIN 6535HB P.822

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length	No. of Flute
	h10	h6			
G9A42060	6.0	6	16	57	3
G9A42080	8.0	8	16	63	3
G9A42100	10.0	10	22	72	4
G9A42120	12.0	12	26	83	4
G9A42140	14.0	14	26	83	4
G9A42160	16.0	16	32	92	4
G9A42180	18.0	18	32	92	4
G9A42200	20.0	20	38	104	4
G9A42250	25.0	25	45	121	5

**Tolerances according to DIN 7160 & 7161**  
**Toleranzen nach DIN 7160 & 7161**

Tolerance range in $\mu\text{m}$ / Toleranzwerte in $\mu\text{m}$					
Nominal-Diameter in mm / Nennmaßbereich in mm					
	from 1 to 3 von 1 bis 3	over 3 to 6 über 3 bis 6	over 6 to 10 über 6 bis 10	over 10 to 18 über 10 bis 18	over 18 to 30 über 18 bis 30
<b>h10</b>	0 - 40	0 - 48	0 - 58	0 - 70	0 - 84
<b>h6</b>	0 - 6	0 - 8	0 - 9	0 - 11	0 - 13

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
-HB225	HB225~325	HRC30~40	HRC40~45	HRC45~55	HRC55~70							
◎	◎	◎				○		○	○	○	○	○

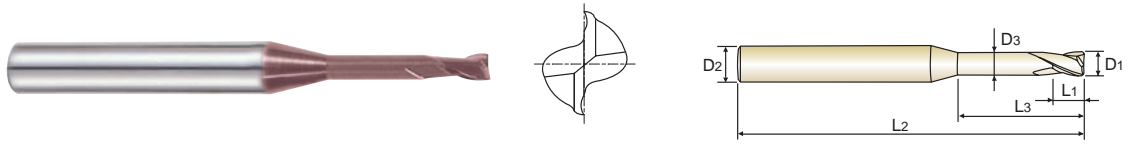
- CARBIDE
- HSS
- CBN END MILLS
- i-Xmill END MILLS
- X5070 END MILLS
- X-POWER END MILLS
- JET-POWER END MILLS
- V7 Mill INOX END MILLS
- V7 Mill STEEL END MILLS
- ALU-POWER END MILLS
- D-POWER END MILLS
- K-2 CARBIDE END MILLS
- GENERAL CARBIDE END MILLS
- TANK-POWER END MILLS
- GENERAL HSS END MILLS
- MILLING CUTTERS
- TECHNICAL DATA

**YG K-2 CARBIDE END MILLS**

**G9B80 SERIES PLAIN SHANK GLATTER ZYLINDERSCHAFT**

**CARBIDE, 2 FLUTE RIB PROCESSING  
VOLLHARTMETALL, 2 SCHNEIDEN SCHMALE RIPPEN**

- ▶ 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.



MG HM YG STD 2 30° DIN 6535HA P.824

Unit : mm

EDP No.	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2	Neck Diameter D3
G9B80004	0.4	4	0.7	2	50	0.37
G9B80901	0.4	4	0.7	4	50	0.37
G9B80005	0.5	4	0.75	2	50	0.45
G9B80902	0.5	4	0.75	4	50	0.45
G9B80903	0.5	4	0.75	6	50	0.45
G9B80006	0.6	4	0.9	2	50	0.55
G9B80904	0.6	4	0.9	4	50	0.55
G9B80905	0.6	4	0.9	6	50	0.55
G9B80007	0.7	4	1.1	4	50	0.65
G9B80906	0.7	4	1.1	6	50	0.65
G9B80008	0.8	4	1.2	4	50	0.75
G9B80907	0.8	4	1.2	6	50	0.75
G9B80908	0.8	4	1.2	8	50	0.75
G9B80009	0.9	4	1.4	6	50	0.85
G9B80909	0.9	4	1.4	8	50	0.85
G9B80910	0.9	4	1.4	10	50	0.85
G9B80010	1.0	4	1.5	6	50	0.95
G9B80911	1.0	4	1.5	8	50	0.95
G9B80912	1.0	4	1.5	10	50	0.95
G9B80913	1.0	4	1.5	12	50	0.95
G9B80012	1.2	4	1.8	6	50	1.15
G9B80914	1.2	4	1.8	8	50	1.15
G9B80915	1.2	4	1.8	10	50	1.15
G9B80916	1.2	4	1.8	12	50	1.15
G9B80015	1.5	4	2.3	6	50	1.45
G9B80917	1.5	4	2.3	8	50	1.45
G9B80918	1.5	4	2.3	10	50	1.45
G9B80919	1.5	4	2.3	12	50	1.45
G9B80920	1.5	4	2.3	14	50	1.45
G9B80921	1.5	4	2.3	16	50	1.45

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

◎ : Excellent ○ : Good

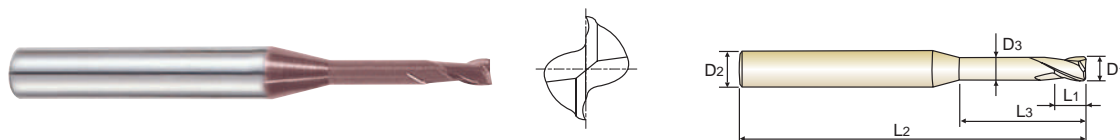


# CARBIDE, 2 FLUTE RIB PROCESSING

## VOLLHARTMETALL, 2 SCHNEIDEN SCHMALE RIPPEN

- ▶ 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	Length Below Shank	Overall Length	Neck Diameter
	D1	D2	L1	L3	L2	D3
G9B80922	1.5	4	2.3	18	50	1.45
G9B80923	1.5	4	2.3	20	50	1.45
G9B80020	2.0	4	3	6	50	1.95
G9B80924	2.0	4	3	8	50	1.95
G9B80925	2.0	4	3	10	50	1.95
G9B80926	2.0	4	3	12	50	1.95
G9B80927	2.0	4	3	14	50	1.95
G9B80928	2.0	4	3	16	50	1.95
G9B80929	2.0	4	3	18	50	1.95
G9B80930	2.0	4	3	20	50	1.95
G9B80025	2.5	4	3.7	8	50	2.40
G9B80931	2.5	4	3.7	12	50	2.40
G9B80932	2.5	4	3.7	16	50	2.40
G9B80933	2.5	4	3.7	20	50	2.40
G9B80030	3.0	6	4.5	8	50	2.85
G9B80934	3.0	6	4.5	12	50	2.85
G9B80935	3.0	6	4.5	16	60	2.85
G9B80936	3.0	6	4.5	20	60	2.85
G9B80937	3.0	6	4.5	25	75	2.85
G9B80040	4.0	6	6	12	50	3.85
G9B80938	4.0	6	6	16	60	3.85
G9B80939	4.0	6	6	20	75	3.85
G9B80940	4.0	6	6	25	75	3.85
G9B80941	4.0	6	6	30	75	3.85
G9B80942	4.0	6	6	35	75	3.85

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

◎ : Excellent ○ : Good

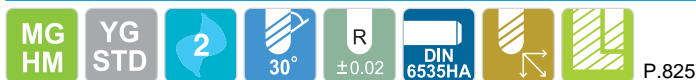
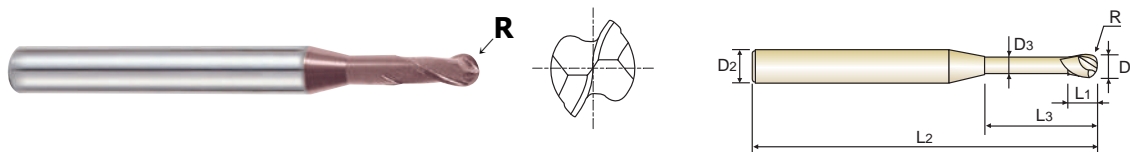
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
-HB225	HB225~325	HRC30~40	HRc40~45	HRc45~55	HRC55~70							
◎	◎	◎				○		○	○	○	○	○

**YG K-2 CARBIDE END MILLS**

**G9B81 SERIES PLAIN SHANK GLATTER ZYLINDERSCHAFT**

**CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING  
VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS für SCHMALE RIPPEN**

- ▶ 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 R (±0.02)	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2	Neck Diameter D3
G9B81004	RO.2	0.4	4	0.7	2	50	0.37
G9B81005	RO.25	0.5	4	0.75	2	50	0.45
G9B81901	RO.25	0.5	4	0.75	4	50	0.45
G9B81902	RO.25	0.5	4	0.75	6	50	0.45
G9B81006	RO.3	0.6	4	0.9	2	50	0.55
G9B81903	RO.3	0.6	4	0.9	4	50	0.55
G9B81904	RO.3	0.6	4	0.9	6	50	0.55
G9B81008	RO.4	0.8	4	1.2	4	50	0.75
G9B81905	RO.4	0.8	4	1.2	6	50	0.75
G9B81906	RO.4	0.8	4	1.2	8	50	0.75
G9B81010	RO.5	1.0	4	1.5	6	50	0.95
G9B81907	RO.5	1.0	4	1.5	8	50	0.95
G9B81908	RO.5	1.0	4	1.5	10	50	0.95
G9B81909	RO.5	1.0	4	1.5	12	50	0.95
G9B81012	RO.6	1.2	4	1.8	8	50	1.15
G9B81910	RO.6	1.2	4	1.8	12	50	1.15
G9B81014	RO.7	1.4	4	2.1	16	50	1.35
G9B81015	RO.75	1.5	4	2.3	6	50	1.45
G9B81911	RO.75	1.5	4	2.3	8	50	1.45
G9B81912	RO.75	1.5	4	2.3	10	50	1.45
G9B81913	RO.75	1.5	4	2.3	12	50	1.45
G9B81914	RO.75	1.5	4	2.3	16	50	1.45
G9B81915	RO.75	1.5	4	2.3	20	50	1.45
G9B81016	RO.8	1.6	4	2.4	8	50	1.55
G9B81916	RO.8	1.6	4	2.4	12	50	1.55
G9B81917	RO.8	1.6	4	2.4	16	50	1.55

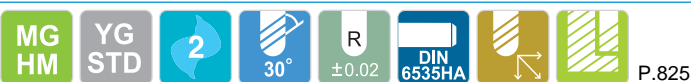
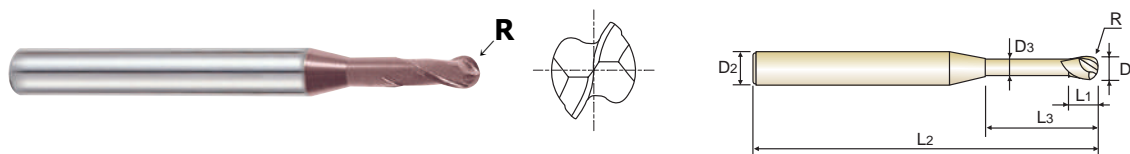
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○	○	○

# CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING

## VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS für SCHMALE RIPPEN

- ▶ 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 R (±0.02)	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2	Neck Diameter D3
G9B81918	R0.8	1.6	4	2.4	20	50	1.55
G9B81020	R1.0	2.0	4	3	8	50	1.95
G9B81919	R1.0	2.0	4	3	10	50	1.95
G9B81920	R1.0	2.0	4	3	12	50	1.95
G9B81921	R1.0	2.0	4	3	14	50	1.95
G9B81922	R1.0	2.0	4	3	16	50	1.95
G9B81923	R1.0	2.0	4	3	20	50	1.95
G9B81030	R1.5	3.0	6	4.5	10	50	2.85
G9B81924	R1.5	3.0	6	4.5	12	50	2.85
G9B81925	R1.5	3.0	6	4.5	16	60	2.85
G9B81926	R1.5	3.0	6	4.5	20	60	2.85
G9B81927	R1.5	3.0	6	4.5	25	75	2.85
G9B81040	R2.0	4.0	6	6	12	50	3.85
G9B81928	R2.0	4.0	6	6	16	60	3.85
G9B81929	R2.0	4.0	6	6	20	75	3.85
G9B81930	R2.0	4.0	6	6	25	75	3.85
G9B81931	R2.0	4.0	6	6	30	75	3.85

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
-HB225	HB225~325	HRC30~40	HRC40~45	HRC45~55	HRC55~70							
◎	◎	◎				○		○	○	○	○	○

**YG K-2 CARBIDE END MILLS**

**G8B82** SERIES PLAIN SHANK GLATTER ZYLINDERSCHAFT

**CARBIDE, 2 FLUTE SHORT LENGTH CORNER RADIUS  
VOLLHARTMETALL, 2 SCHNEIDEN KURZ ECKENRADIUS**

- ▶ 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.



MG HM YG STD 2 30° DIN 6535HA P.826

Unit : mm

EDP No.	Corner Radius R	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9B82020	RO.2	2.0	4	4	50
G9B82901	RO.3	2.0	4	4	50
G9B82902	RO.5	2.0	4	4	50
G9B82025	RO.2	2.5	4	5	50
G9B82903	RO.3	2.5	4	5	50
G9B82904	RO.5	2.5	4	5	50
G9B82030	RO.2	3.0	4	6	50
G9B82905	RO.3	3.0	4	6	50
G9B82906	RO.5	3.0	4	6	50
G9B82907	R1.0	3.0	4	6	50
G9B82040	RO.2	4.0	4	8	50
G9B82908	RO.3	4.0	4	8	50
G9B82909	RO.5	4.0	4	8	50
G9B82910	R1.0	4.0	4	8	50
G9B82050	RO.2	5.0	6	10	50
G9B82911	RO.3	5.0	6	10	50
G9B82912	RO.5	5.0	6	10	50
G9B82913	R1.0	5.0	6	10	50
G9B82060	RO.2	6.0	6	12	50
G9B82914	RO.3	6.0	6	12	50
G9B82915	RO.5	6.0	6	12	50
G9B82916	R1.0	6.0	6	12	50

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

◎ : Excellent ○ : Good

# CARBIDE, 2 FLUTE SHORT LENGTH CORNER RADIUS

## VOLLHARTMETALL, 2 SCHNEIDEN KURZ ECKENRADIUS

- ▶ 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.



MG HM
YG STD
2
30°
DIN 6535HA
P.826

Unit : mm

EDP No.	Corner Radius R	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9B82080	R0.5	8.0	8	16	60
G9B82917	R1.0	8.0	8	16	60
G9B82918	R1.5	8.0	8	16	60
G9B82919	R2.0	8.0	8	16	60
G9B82920	R2.5	8.0	8	16	60
G9B82100	R0.5	10.0	10	20	75
G9B82921	R1.0	10.0	10	20	75
G9B82922	R1.5	10.0	10	20	75
G9B82923	R2.0	10.0	10	20	75
G9B82924	R2.5	10.0	10	20	75
G9B82120	R0.5	12.0	12	24	75
G9B82925	R1.0	12.0	12	24	75
G9B82926	R1.5	12.0	12	24	75
G9B82927	R2.0	12.0	12	24	75
G9B82928	R2.5	12.0	12	24	75

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
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○	○	○

**YG K-2 CARBIDE END MILLS**

**G8B83 SERIES**

PLAIN SHANK  
GLATTER ZYLINDERSCHAFT

**CARBIDE, 2 FLUTE LONG REACH CORNER RADIUS**  
**VOLLHARTMETALL, 2 SCHNEIDEN GROÙE REICHWEITE ECKENRADIUS**

- ▶ 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.



MG HM YG STD 2 30° DIN 6535HA P.826

Unit : mm

EDP No.	Corner Radius R	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9B83030	R0.5	3.0	4	6	75
G9B83901	R1.0	3.0	4	6	75
G9B83040	R0.5	4.0	4	8	75
G9B83902	R1.0	4.0	4	8	75
G9B83050	R0.5	5.0	6	10	75
G9B83903	R1.0	5.0	6	10	75
G9B83060	R0.5	6.0	6	12	75
G9B83904	R1.0	6.0	6	12	75
G9B83080	R0.5	8.0	8	16	100
G9B83905	R1.0	8.0	8	16	100
G9B83906	R1.5	8.0	8	16	100
G9B83907	R2.0	8.0	8	16	100
G9B83908	R2.5	8.0	8	16	100
G9B83100	R0.5	10.0	10	20	100
G9B83909	R1.0	10.0	10	20	100
G9B83910	R1.5	10.0	10	20	100
G9B83911	R2.0	10.0	10	20	100
G9B83912	R2.5	10.0	10	20	100
G9B83120	R0.5	12.0	12	24	100
G9B83913	R1.0	12.0	12	24	100
G9B83914	R1.5	12.0	12	24	100
G9B83915	R2.0	12.0	12	24	100
G9B83916	R2.5	12.0	12	24	100

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
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		○	○	○	○	○

# CARBIDE, 4 FLUTE SHORT LENGTH CORNER RADIUS

## VOLLHARTMETALL, 4 SCHNEIDEN KURZ ECKENRADIUS

- ▶ 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.	Corner Radius R	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9B84020	RO.2	2.0	4	4	50
G9B84901	RO.3	2.0	4	4	50
G9B84902	RO.5	2.0	4	4	50
G9B84025	RO.2	2.5	4	5	50
G9B84903	RO.3	2.5	4	5	50
G9B84904	RO.5	2.5	4	5	50
G9B84030	RO.2	3.0	4	6	50
G9B84905	RO.3	3.0	4	6	50
G9B84906	RO.5	3.0	4	6	50
G9B84907	R1.0	3.0	4	6	50
G9B84040	RO.2	4.0	4	8	50
G9B84908	RO.3	4.0	4	8	50
G9B84909	RO.5	4.0	4	8	50
G9B84910	R1.0	4.0	4	8	50
G9B84050	RO.2	5.0	6	10	50
G9B84911	RO.3	5.0	6	10	50
G9B84912	RO.5	5.0	6	10	50
G9B84913	R1.0	5.0	6	10	50
G9B84060	RO.2	6.0	6	12	50
G9B84914	RO.3	6.0	6	12	50
G9B84915	RO.5	6.0	6	12	50
G9B84916	R1.0	6.0	6	12	50

◎ : Excellent ○ : Good

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

**YG K-2 CARBIDE END MILLS**

**G8B84 SERIES PLAIN SHANK GLATTER ZYLINDERSCHAFT**

**CARBIDE, 4 FLUTE SHORT LENGTH CORNER RADIUS  
VOLLHARTMETALL, 4 SCHNEIDEN KURZ ECKENRADIUS**

- ▶ 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.



MG HM YG STD 4 30° DIN 6535HA P.826

Unit : mm

EDP No.	Corner Radius R	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9B84080	R0.5	8.0	8	16	60
G9B84917	R1.0	8.0	8	16	60
G9B84918	R1.5	8.0	8	16	60
G9B84919	R2.0	8.0	8	16	60
G9B84920	R2.5	8.0	8	16	60
G9B84100	R0.5	10.0	10	20	75
G9B84921	R1.0	10.0	10	20	75
G9B84922	R1.5	10.0	10	20	75
G9B84923	R2.0	10.0	10	20	75
G9B84924	R2.5	10.0	10	20	75
G9B84120	R0.5	12.0	12	24	75
G9B84925	R1.0	12.0	12	24	75
G9B84926	R1.5	12.0	12	24	75
G9B84927	R2.0	12.0	12	24	75
G9B84928	R2.5	12.0	12	24	75

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

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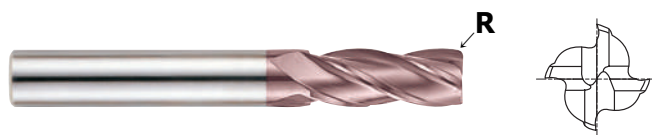
◎ : Excellent ○ : Good



# CARBIDE, 4 FLUTE LONG REACH CORNER RADIUS

## VOLLHARTMETALL, 4 SCHNEIDEN GROÙE REICHWEITE ECKENRADIUS

- ▶ 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.	Corner Radius R	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
G9B85030	R0.5	3.0	4	6	75
G9B85901	R1.0	3.0	4	6	75
G9B85040	R0.5	4.0	4	8	75
G9B85902	R1.0	4.0	4	8	75
G9B85050	R0.5	5.0	6	10	75
G9B85903	R1.0	5.0	6	10	75
G9B85060	R0.5	6.0	6	12	75
G9B85904	R1.0	6.0	6	12	75
G9B85080	R0.5	8.0	8	16	100
G9B85905	R1.0	8.0	8	16	100
G9B85906	R1.5	8.0	8	16	100
G9B85907	R2.0	8.0	8	16	100
G9B85908	R2.5	8.0	8	16	100
G9B85100	R0.5	10.0	10	20	100
G9B85909	R1.0	10.0	10	20	100
G9B85910	R1.5	10.0	10	20	100
G9B85911	R2.0	10.0	10	20	100
G9B85912	R2.5	10.0	10	20	100
G9B85120	R0.5	12.0	12	24	100
G9B85913	R1.0	12.0	12	24	100
G9B85914	R1.5	12.0	12	24	100
G9B85915	R2.0	12.0	12	24	100
G9B85916	R2.5	12.0	12	24	100

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
-HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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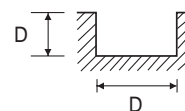
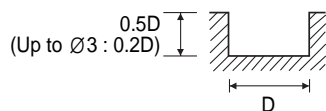
**YG K-2 CARBIDE END MILLS**

**RECOMMENDED CUTTING CONDITIONS  
EMPFOHLENE SCHNEIDKONDITIONEN**

**CARBIDE, 4 FLUTE  
VOLLHARTMETALL, 4 SCHNEIDEN**

**G9424, G9A68, G9444, G9527, G9445, G9452 SERIES**

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS, HEAT RESISTANT STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ Hrc 30		Hrc 30 ~ Hrc 45									
STRENGTH	~1000N/mm <sup>2</sup>		1000~1500N/mm <sup>2</sup>									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	14300	105	8500	65	7150	50	18700	205	44000	330	24700	200
1.5	9350	150	5550	85	5600	80	12100	205	27500	385	20300	300
2.0	7850	160	5150	100	4300	80	9350	220	22000	460	16500	340
3.0	6100	180	3800	120	3150	100	6050	220	15400	460	11000	340
4.0	5150	255	3150	155	2650	130	4600	220	11000	460	8800	340
5.0	4300	270	2550	160	2150	135	3650	220	9150	460	6800	340
6.0	3800	300	2300	190	1950	155	2950	255	7600	485	5700	375
8.0	2850	325	1700	170	1450	155	2200	275	5700	485	4400	375
10.0	2200	280	1350	135	1150	135	1850	285	4600	485	3400	375
12.0	1850	240	1150	110	950	110	1450	295	3750	485	2850	375
14.0	1700	215	1050	100	850	100	1300	310	3300	485	2400	375
16.0	1500	185	950	95	700	95	1100	320	2850	485	2200	375
20.0	1150	145	700	70	550	70	900	340	2200	485	1700	375



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

RPM = rev./min.  
FEED = mm/min.



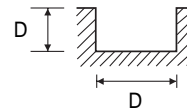
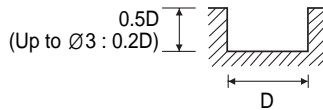
# K-2 CARBIDE END MILLS

## RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN

### CARBIDE, 3 FLUTE FINISH SLOTTING VOLLHARTMETALL, 3 SCHNEIDEN SCHLICHTEN NUTENFRÄSEN

#### G9553, G9410, G9425, G9439, G9528, G9433, G9447 SERIES

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS, HEAT RESISTANT STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER, BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 30		HRc 30 ~ HRc 45									
STRENGTH	~1000N/mm <sup>2</sup>		1000~1500N/mm <sup>2</sup>									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	14300	75	8500	45	7150	35	18700	185	44000	300	24700	180
1.5	12750	105	5550	60	5600	55	12100	185	27500	345	20300	270
2.0	7850	110	5150	70	4300	55	9350	200	22000	420	16500	310
3.0	6100	125	3800	85	3150	70	6050	200	15400	430	11000	310
4.0	5150	180	3150	110	2650	90	4600	185	11000	420	8800	310
5.0	4300	190	2550	110	2150	95	3650	200	9150	420	6800	310
6.0	3800	210	2300	135	1950	110	2950	230	7600	440	5700	340
8.0	2850	230	1700	120	1450	110	2200	240	5700	440	4400	330
10.0	2200	195	1350	95	1150	95	1850	255	4600	440	3400	330
12.0	1850	170	1150	75	950	75	1450	275	3750	430	2850	330
14.0	1700	150	1050	70	850	70	1300	285	3300	430	2400	330
16.0	1500	130	950	65	700	65	1100	285	2850	430	2200	330
20.0	1150	100	700	50	550	50	900	310	2200	430	1700	330



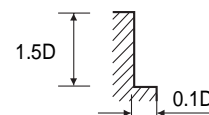
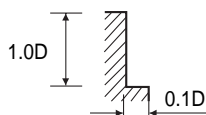
※ The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min. FEED = mm/min.

### CARBIDE, 3 FLUTE FINISH SIDE CUTTING VOLLHARTMETALL, 3 SCHNEIDEN SCHLICHTEN SEITENFRÄSEN

#### G9553, G9410, G9425, G9439, G9528, G9433, G9447 SERIES

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS, HEAT RESISTANT STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER, BRASS NON-FERROUS METALS	
HARDNESS	~ HRc 30		HRc 30 ~ HRc 45									
STRENGTH	~1000N/mm <sup>2</sup>		1000~1500N/mm <sup>2</sup>									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	17600	110	10250	65	8650	55	18700	460	44000	750	24700	450
1.5	11800	160	7050	85	7050	90	12100	460	27500	860	20300	675
2.0	9850	180	6450	120	5350	100	9350	475	22000	1035	16500	770
3.0	7600	205	4750	130	3950	105	6050	475	15400	990	11000	760
4.0	6450	365	3950	220	3300	180	4600	485	11000	1035	8800	770
5.0	5350	385	3200	230	2700	195	3650	485	9150	1010	6800	760
6.0	4750	425	2850	265	2400	215	2950	570	7600	1100	5700	825
8.0	3550	450	2150	245	1800	225	2200	615	5700	1100	4400	825
10.0	2750	390	1700	195	1450	195	1850	640	4600	1100	3400	825
12.0	2350	330	1450	160	1150	155	1450	670	3750	1100	2850	825
14.0	2100	465	1300	145	1050	140	1300	705	3300	1100	2400	825
16.0	1850	265	1150	130	900	130	1100	725	2850	1100	2200	825
20.0	1450	205	900	100	700	100	900	770	2200	1100	1700	825



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

RPM = rev./min. FEED = mm/min.

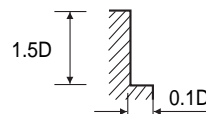
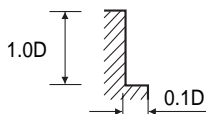
**YG K-2 CARBIDE END MILLS**

**RECOMMENDED CUTTING CONDITIONS  
EMPFOHLENE SCHNEIDKONDITIONEN**

**CARBIDE, 4 FLUTE FINISH SIDE CUTTING  
VOLLHARTMETALL, 4 SCHNEIDEN SCHLICHTEN SEITENFRÄSEN**

**G9432, G9A69, G9448, G9540, G9449, G9453 SERIES**

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER. BRASS NON-FERROUS METALS	
HARDNESS	~ HRC 30		HRC 30 ~ HRC 45									
STRENGTH	~1000N/mm <sup>2</sup>		1000~1500N/mm <sup>2</sup>									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	17600	150	10250	85	8650	75	18700	620	44000	1050	24700	605
1.5	11800	215	7050	115	7050	120	12100	620	27500	1160	20300	910
2.0	9850	240	6450	145	5350	120	9350	640	22000	1320	16500	1035
3.0	7600	270	4750	170	3950	145	6050	640	15400	1320	11000	1035
4.0	6450	485	3950	300	3300	240	4600	640	11000	1320	8800	1035
5.0	5350	510	3200	305	2700	255	3650	640	9150	1320	6800	1035
6.0	4750	560	2850	350	2400	280	2950	770	7600	1430	5700	1100
8.0	3550	605	2150	325	1800	300	2200	815	5700	1430	4400	1100
10.0	2750	520	1700	255	1450	255	1850	860	4600	1430	3400	1100
12.0	2350	440	1450	215	1150	205	1450	900	3750	1430	2850	1100
14.0	2100	395	1300	195	1050	190	1300	945	3300	1430	2400	1100
16.0	1850	350	1150	170	950	170	1100	970	2850	1430	2200	1100
20.0	1450	270	900	135	700	130	900	1035	2200	1430	1700	1100



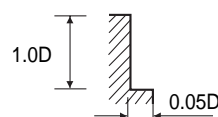
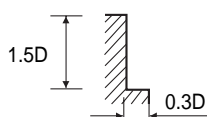
\* The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min. FEED = mm/min.

**CARBIDE, MULTI FLUTE ROUGHING SIDE CUTTING  
VOLLHARTMETALL, MULTI SCHNEIDEN SCHRUPPFRÄSER SEITENFRÄSEN**

**G9A42 SERIES**

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		INCONEL	
HARDNESS	~ HRC30		HRC30 ~ HRC38		HRC38 ~ HRC45			
STRENGTH	1000N/mm <sup>2</sup>		1000 ~ 1200N/mm <sup>2</sup>		1200 ~ 1400N/mm <sup>2</sup>			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	13250	1970	10550	710	7150	480	2050	160
8.0	9850	1970	7800	710	5350	480	1550	150
10.0	7800	1970	6450	710	4350	480	1100	160
12.0	6800	2040	5100	680	3550	480	1000	160
14.0	5800	2040	4400	710	3050	480	750	110
16.0	5100	2040	4100	650	2800	430	700	90
18.0	4400	1970	3750	610	2300	360	600	90
20.0	4100	1840	3050	480	2050	310	550	90
25.0	3650	1830	2700	530	1850	350	500	90



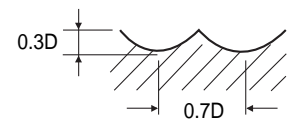
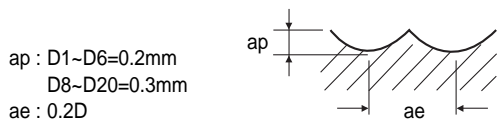
\* The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min. FEED = mm/min.

## CARBIDE, 2 FLUTE BALL NOSE VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS

### G9624, G9A70, G9437, G9438, G9454, G9455 SERIES

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		HARDENED STEELS		CAST IRON		ALUMINUM ALLOYS	
HARDNESS	~ HRc 30		HRc 30 ~ HRc 45		HRc 45 ~ HRc 50					
STRENGTH	~1000N/mm <sup>2</sup>		1000~1500N/mm <sup>2</sup>		1500N/mm <sup>2</sup> ~					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	12350	640	9150	415	4000	125	10500	220	30800	395
3.0	11400	575	8550	390	3800	125	7050	230	20500	395
4.0	8950	630	7150	450	3600	150	5150	285	15400	395
5.0	7800	700	6200	490	3100	150	4150	330	12100	470
6.0	7250	870	5900	705	2700	160	3400	360	10300	470
8.0	6100	1090	4900	785	2050	190	2500	460	7900	540
10.0	5450	1330	4350	870	1750	190	2050	460	6150	540
12.0	4990	1500	3950	950	1500	210	1750	460	5150	630
14.0	4530	1495	3600	925	1300	210	1400	460	4300	630
16.0	4085	1470	3200	905	1150	210	1300	460	3850	540
18.0	3800	1425	3000	890	1050	210	1100	460	3400	540
20.0	3550	1425	2800	885	950	210	1050	420	2950	540



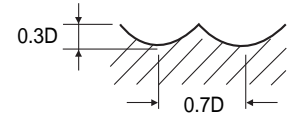
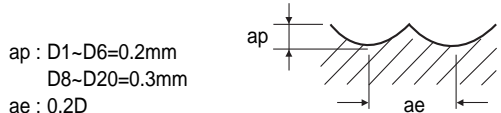
※ The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min. FEED = mm/min.

## CARBIDE, 4 FLUTE BALL NOSE VOLLHARTMETALL, 4 SCHNEIDEN STIRNRADIUS

### G9634 SERIES

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		HARDENED STEELS		CAST IRON		ALUMINUM ALLOYS	
HARDNESS	~ HRc 30		HRc 30 ~ HRc 45		HRc 45 ~ HRc 50					
STRENGTH	~1000N/mm <sup>2</sup>		1000~1500N/mm <sup>2</sup>		1500N/mm <sup>2</sup> ~					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	13300	680	10000	405	4100	135	10500	330	30800	605
3.0	11500	870	8550	585	3850	190	7050	340	20500	605
4.0	8950	950	7150	680	3600	230	5150	430	15400	605
5.0	7800	1045	6200	745	3100	230	4150	495	12100	715
6.0	7250	1330	5900	1090	2700	235	3400	540	10300	715
8.0	6100	1660	4900	1185	2100	285	2500	680	7900	820
10.0	5450	1950	4350	1330	1750	290	2050	680	6150	820
12.0	4985	2230	4000	1425	1500	320	1750	680	5150	945
14.0	4500	2230	3600	1425	1300	320	1400	700	4300	945
16.0	4085	2230	3200	1380	1100	320	1300	700	3850	820
18.0	3800	2135	3000	1330	1050	320	1100	700	3400	820
20.0	3550	2135	2800	1330	950	320	1050	630	2950	820



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

RPM = rev./min. FEED = mm/min.



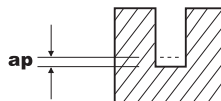
**RECOMMENDED CUTTING CONDITIONS**  
**EMPFOHLENE SCHNEIDKONDITIONEN**

**CARBIDE, 2 FLUTE for RIB PROCESSING**  
**VOLLHARTMETALL, 2 SCHNEIDEN für SCHMALE RIPPEN**

**G9B80** SERIES

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS			ALLOY STEELS HEAT RESISTANT STEELS		
HARDNESS	~ HRC30			HRC30 ~ HRC45		
STRENGTH	~ 1000N/mm <sup>2</sup>			1000 ~ 1500N/mm <sup>2</sup>		
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
0.4	26500~34000	170~370	0.007~0.018	19000~24000	72~290	0.007~0.018
0.5	26500~34000	170~370	0.009~0.022	19000~24000	72~290	0.009~0.022
0.6	26500~34000	210~485	0.011~0.026	19000~24000	95~365	0.011~0.026
0.7	26500~34000	210~485	0.012~0.031	19000~24000	95~365	0.012~0.031
0.8	23000~30000	240~535	0.014~0.035	16500~21000	100~410	0.014~0.035
0.9	21500~27000	240~610	0.030~0.060	15000~19000	135~460	0.030~0.060
1.0	19000~24000	240~690	0.045~0.090	13500~17000	160~510	0.045~0.090
1.2	15500~19000	240~765	0.055~0.100	11000~14000	160~510	0.055~0.100
1.4	13600~17000	240~765	0.062~0.125	9800~12000	160~510	0.062~0.125
1.5	12500~15500	240~765	0.070~0.135	8950~11500	160~510	0.070~0.135
1.6	12000~15000	240~765	0.075~0.145	8700~10900	160~510	0.075~0.145
1.8	11000~14000	240~765	0.080~0.160	7800~9800	160~510	0.080~0.160
2.0	10000~12500	240~765	0.090~0.180	7000~8950	160~510	0.090~0.180
2.5	8000~10000	240~765	0.112~0.235	5700~7200	160~510	0.112~0.235
3.0	6800~8500	240~765	0.135~0.270	4700~6000	160~510	0.135~0.270
4.0	5100~6500	240~765	0.180~0.360	3500~4500	160~510	0.180~0.360

(Depth of Cut per one pass)



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

RPM = rev./min.  
FEED = mm/min.

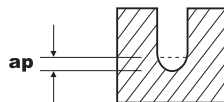
### CARBIDE, 2 FLUTE BALL NOSE for RIB PROCESSING

### VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS für SCHMALE RIPPEN

#### G9B81 SERIES

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS			ALLOY STEELS HEAT RESISTANT STEELS		
	HARDNESS	~ HRC30			HRC30 ~ HRC45	
STRENGTH	~ 1000N/mm <sup>2</sup>			1000 ~ 1500N/mm <sup>2</sup>		
DIAMETER	RPM	FEED	ap (mm)	RPM	FEED	ap (mm)
0.4	26350~34000	150~415	0.018~0.036	19100~24200	75~230	0.018~0.036
0.5	26350~34000	150~415	0.023~0.045	19100~24200	75~230	0.023~0.045
0.6	26350~34000	190~535	0.027~0.054	19100~24200	95~300	0.027~0.054
0.8	26350~34000	190~535	0.036~0.072	19100~24200	95~300	0.036~0.072
1.0	24650~31000	210~595	0.045~0.090	17400~22100	105~330	0.045~0.090
1.2	20500~26000	210~665	0.055~0.100	14500~18300	105~330	0.055~0.100
1.4	18000~22000	210~665	0.062~0.125	12800~15300	105~330	0.062~0.125
1.5	16000~20500	210~665	0.070~0.135	11500~14900	105~330	0.070~0.135
1.6	15500~20000	210~665	0.075~0.145	11200~14000	105~330	0.075~0.145
1.8	14500~18200	210~665	0.080~0.160	10200~12800	105~330	0.080~0.160
2.0	13000~16000	210~665	0.090~0.180	9400~11500	105~330	0.090~0.180
3.0	9000~11000	210~665	0.135~0.270	6000~11500	105~330	0.135~0.270
4.0	7200~9350	210~665	0.180~0.360	5000~6600	105~330	0.180~0.360

(Depth of Cut per one pass)



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

RPM = rev./min.  
FEED = mm/min.

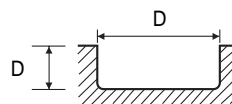
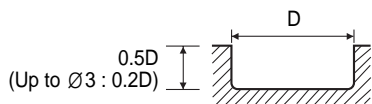
**YG K-2 CARBIDE END MILLS**

**RECOMMENDED CUTTING CONDITIONS  
EMPFOHLENE SCHNEIDKONDITIONEN**

**CARBIDE, 2 FLUTE CORNER RADIUS FINISH SLOTTING  
VOLLHARTMETALL, 2 SCHNEIDEN ECKENRADIUS SCHLICHTEN NUTENFRÄSEN**

**G9B82, G9B83 SERIES**

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS, HEAT RESISTANT STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER, BRASS NON-FERROUS METALS	
HARDNESS	~ Hrc 30		HRc 30 ~ HRc 45									
STRENGTH	~1000N/mm <sup>2</sup>		1000~1500N/mm <sup>2</sup>									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	14300	105	8500	65	7150	50	18700	205	44000	330	24700	200
1.5	9350	150	5550	85	5600	80	12100	205	27500	385	20300	300
2.0	7850	160	5150	100	4300	80	9350	220	22000	460	16500	340
3.0	6100	180	3800	120	3150	100	6050	220	15400	460	11000	340
4.0	5150	255	3150	155	2650	130	4600	220	11000	460	8800	340
5.0	4300	270	2550	160	2150	135	3650	220	9150	460	6800	340
6.0	3800	300	2300	190	1950	155	2950	255	7600	485	5700	375
8.0	2850	325	1700	170	1450	155	2200	275	5700	485	4400	375
10.0	2200	280	1350	135	1150	135	1850	285	4600	485	3400	375
12.0	1850	240	1150	110	950	110	1450	295	3750	485	2850	375



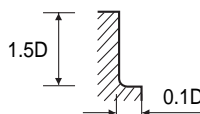
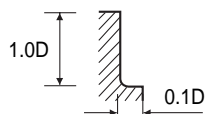
※ The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min. FEED = mm/min.

**CARBIDE, 4 FLUTE CORNER RADIUS FINISH SIDE CUTTING  
VOLLHARTMETALL, 4 SCHNEIDEN ECKENRADIUS SCHLICHTEN SEITENFRÄSEN**

**G9B84, G9B85 SERIES**

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS, HEAT RESISTANT STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM ALLOYS		COPPER, BRASS NON-FERROUS METALS	
HARDNESS	~ Hrc 30		HRc 30 ~ HRc 45									
STRENGTH	~1000N/mm <sup>2</sup>		1000~1500N/mm <sup>2</sup>									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1.0	17600	150	10250	85	8650	75	18700	620	44000	1050	24700	605
1.5	11800	215	7050	115	7050	120	12100	620	27500	1160	20300	910
2.0	9850	240	6450	145	5350	120	9350	640	22000	1320	16500	1035
3.0	7600	270	4750	170	3950	145	6050	640	15400	1320	11000	1035
4.0	6450	485	3950	300	3300	240	4600	640	11000	1320	8800	1035
5.0	5350	510	3200	305	2700	255	3650	640	9150	1320	6800	1035
6.0	4750	560	2850	350	2400	280	2950	770	7600	1430	5700	1100
8.0	3550	605	2150	325	1800	300	2200	815	5700	1430	4400	1100
10.0	2750	520	1700	255	1450	255	1850	860	4600	1430	3400	1100
12.0	2350	440	1450	215	1150	205	1450	900	3750	1430	2850	1100



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

RPM = rev./min. FEED = mm/min.