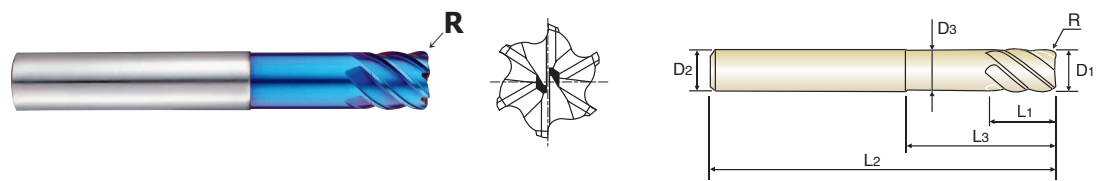


# CARBIDE, 6 FLUTE 45° HELIX CORNER RADIUS with EXTENDED NECK

## VOLLHARTMETALL, 6 SCHNEIDEN 45° RECHTSSPIRALE ECKENRADIUS 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.
- ▶ Deep slotting is possible by reduced neck.
- ▶ Corner radius for preventing the chipping in high speed machining
- ▶ Higher wear-resistance.

- ▶ Geeignet zum Fräsen hochgehärteter Stähle.
- ▶ Geeignet zum Trockenfräsen und HSC-Fräsen dank neuentwickeltem Material und Beschichtung.
- ▶ Excellente Werkstückoberflächen.
- ▶ Abgesetzter Schaft für größere Reichweite.
- ▶ Schneidkantenschutz durch definierten Radius.
- ▶ Höhere Verschleißfestigkeit.



Ø6 Ø8-Ø20

Unit : mm

| EDP No.  | Corner Radius | Mill Diameter | Shank Diameter | Length of Cut | Length Below Shank | Overall Length | Neck Diameter |
|----------|---------------|---------------|----------------|---------------|--------------------|----------------|---------------|
|          | R             | D1            | D2             | L1            | L3                 | L2             | D3            |
| G8A39916 | RO.25         | 6.0           | 6              | 6             | 14                 | 50             | 5.85          |
| G8A39060 | RO.5          | 6.0           | 6              | 6             | 14                 | 50             | 5.85          |
| G8A39901 | RO.5          | 6.0           | 6              | 13            | -                  | 70             | -             |
| G8A39910 | RO.5          | 6.0           | * 6            | 26            | -                  | 70             | -             |
| G8A39080 | RO.5          | 8.0           | 8              | 8             | 24                 | 60             | 7.7           |
| G8A39902 | RO.5          | 8.0           | 8              | 19            | -                  | 90             | -             |
| G8A39911 | RO.5          | 8.0           | * 8            | 36            | -                  | 90             | -             |
| G8A39903 | RO.5          | 10.0          | 10             | 22            | -                  | 100            | -             |
| G8A39100 | R1.0          | 10.0          | 10             | 10            | 30                 | 70             | 9.7           |
| G8A39904 | R1.0          | 10.0          | 10             | 22            | -                  | 100            | -             |
| G8A39912 | R1.0          | 10.0          | * 10           | 46            | -                  | 100            | -             |
| G8A39905 | RO.5          | 12.0          | 12             | 26            | -                  | 110            | -             |
| G8A39120 | R1.0          | 12.0          | 12             | 12            | 30                 | 75             | 11.7          |
| G8A39906 | R1.0          | 12.0          | 12             | 26            | -                  | 110            | -             |
| G8A39913 | R1.0          | 12.0          | * 12           | 56            | -                  | 110            | -             |
| G8A39160 | R1.0          | 16.0          | 16             | 32            | -                  | 130            | -             |
| G8A39907 | R1.5          | 16.0          | 16             | 32            | -                  | 130            | -             |
| G8A39914 | R1.5          | 16.0          | * 16           | 66            | -                  | 130            | -             |
| G8A39200 | R1.0          | 20.0          | 20             | 38            | -                  | 140            | -             |
| G8A39908 | R1.5          | 20.0          | 20             | 38            | -                  | 140            | -             |
| G8A39909 | R2.0          | 20.0          | 20             | 38            | -                  | 140            | -             |
| G8A39915 | R2.0          | 20.0          | * 20           | 76            | -                  | 140            | -             |

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     | Corner Radius Tolerance (mm) | Mill Dia. Tolerance (mm)    | Shank Dia. Tolerance |
|----------|------------------------------|-----------------------------|----------------------|
| up to Ø6 | ±0.010                       | 0~-0.02                     | h6                   |
| over Ø6  | ±0.015                       | (*Extra Long Type: 0~-0.03) |                      |

◎ : 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             |        |          |           |          |                  |          |         |         |      |
|               |              | ○                  | ○                 | ◎                    |        |          |           |          |                  |          |         |         |      |

- CARBIDE
- 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

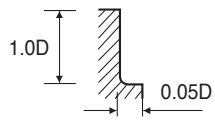


**RECOMMENDED CUTTING CONDITIONS**  
**EMPFOHLENE SCHNEIDKONDITIONEN**

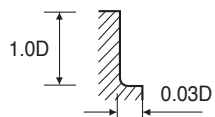
**CARBIDE, 6 FLUTE 45° HELIX CORNER RADIUS**  
**VOLLHARTMETALL, 6 SCHNEIDEN 45° RECHTSSPIRALE, ECKENRADIUS**

**G8A39 SERIES**

| MATERIAL | ALLOY STEELS<br>HEAT RESISTANT STEELS |                 |      |       |       | HARDENED STEELS |      |       |       |                 |      |       |    |
|----------|---------------------------------------|-----------------|------|-------|-------|-----------------|------|-------|-------|-----------------|------|-------|----|
|          | HARDNESS<br>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 |
| 6.0      | 24800                                 | 5350            | 465  | 0.036 | 23500 | 4900            | 445  | 0.035 | 16000 | 4900            | 300  | 0.051 |    |
| 8.0      | 20000                                 | 5500            | 505  | 0.046 | 19000 | 5000            | 480  | 0.044 | 12000 | 4600            | 300  | 0.064 |    |
| 10.0     | 16000                                 | 4900            | 505  | 0.051 | 15500 | 4500            | 485  | 0.048 | 9500  | 4100            | 300  | 0.072 |    |
| 12.0     | 13000                                 | 4500            | 490  | 0.058 | 12500 | 4100            | 470  | 0.055 | 8000  | 3800            | 300  | 0.079 |    |
| 16.0     | 10000                                 | 4000            | 505  | 0.067 | 9700  | 3700            | 490  | 0.064 | 6000  | 3400            | 300  | 0.094 |    |
| 20.0     | 8000                                  | 3350            | 505  | 0.070 | 7800  | 3400            | 490  | 0.073 | 4800  | 3200            | 300  | 0.111 |    |



| MATERIAL | ALLOY STEELS<br>HEAT RESISTANT STEELS |                 |      |       |       | HARDENED STEELS |      |       |      |                 |      |       |    |
|----------|---------------------------------------|-----------------|------|-------|-------|-----------------|------|-------|------|-----------------|------|-------|----|
|          | HARDNESS<br>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 |
| 6.0      | 13500                                 | 3300            | 255  | 0.041 | 10500 | 2100            | 200  | 0.033 | 8000 | 1450            | 150  | 1.208 |    |
| 8.0      | 10000                                 | 3100            | 250  | 0.052 | 8000  | 2000            | 200  | 0.042 | 6000 | 1400            | 150  | 1.167 |    |
| 10.0     | 8000                                  | 2900            | 250  | 0.060 | 6400  | 1800            | 200  | 0.047 | 4800 | 1300            | 150  | 1.083 |    |
| 12.0     | 6600                                  | 2500            | 250  | 0.063 | 5300  | 1600            | 200  | 0.050 | 4000 | 1150            | 150  | 0.958 |    |
| 16.0     | 5000                                  | 2300            | 250  | 0.077 | 4000  | 1250            | 200  | 0.052 | 3000 | 870             | 150  | 0.725 |    |
| 20.0     | 4000                                  | 2100            | 250  | 0.088 | 3200  | 1020            | 200  | 0.053 | 2400 | 690             | 150  | 0.575 |    |



※ 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