# 4G MILL END MILLS

X-SPEED ROUGHER

PLAIN SHANK **G9D75** SERIES

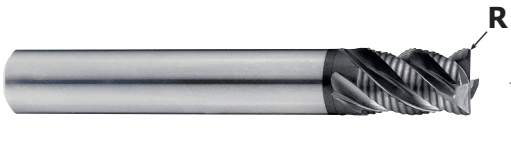
FLAT SHANK **G9D67** SERIES

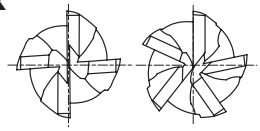
## CARBIDE, 4&5 FLUTE MULTIPLE HELIX CORNER RADIUS - SHORT LENGTH

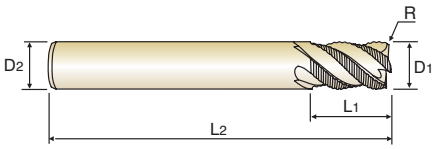
### VOLLHARTMETALL, 4&5 SCHNEIDEN MEHRSPIRAL Fräser KURZ ECKENRADIUS
### Fraise carbure, 4&5 dents, torique, hélice multiple, courte
### MD, 4 & 5 TAGLIENTI, TORICA, SERIE CORTA

- Unique flute design for excellent chip evacuation and vibration reduction.
- Optimal roughing tooth profile to reduce cutting forces.
- Special tool geometry for high feed rate and heavy cutting.
- Strong end tooth design for plunge and pocket milling.
- Custom engineered coating to allow long tool life and excellent chip evacuation.

- einzigartige Nutengeometrie für hervorragenden Spänetransport und Vibrationsreduzierung
- neuartiges Schruppprofil zur reduzierung der Schnittkräfte
- Spezielle Werkzeuggeometrie für Hochvorschub- und Schwerzerspanung geeignet
- speziell entwickelte Schneidengeometrie für Tauch- und Taschenfräsen
- YG-1 eigene Beschichtung um lange lebensdauer und sehr guten Spänetransport zu gewährleisten






CARBIDE | 4&5 | 44°~45° | PLAIN | FLAT | X Coating

p.C386

| Recommended ToolHolder | Flat Shank | Plain Shank |
|---|---|---|
| | END MILL HOLDER | HYDRAULIC CHUCK SHRINK FIT HOLDER |
| | - | POWER MILLING CHUCK |
| | - | ER COLLET CHUCK SK SLIM CHUCK |

Unit : mm

| EDP No. | | Corner Radius | Mill Diameter | Shank Diameter | Length of Cut | Overall Length | No. of Flute |
|---|---|---|---|---|---|---|---|
| PLAIN | FLAT | R | $D_1$ | $D_2$ | $L_1$ | $L_2$ | |
| **G9D75060** | **G9D67060** | R0.5 | **6.0** | 6 | 9 | 57 | 4 |
| **G9D75080** | **G9D67080** | R0.5 | **8.0** | 8 | 12 | 63 | 4 |
| **G9D75100** | **G9D67100** | R0.5 | **10.0** | 10 | 15 | 72 | 4 |
| **G9D75120** | **G9D67120** | R0.5 | **12.0** | 12 | 18 | 83 | 4 |
| **G9D75160** | **G9D67160** | R1.0 | **16.0** | 16 | 24 | 92 | 5 |
| **G9D75200** | **G9D67200** | R1.0 | **20.0** | 20 | 30 | 104 | 5 |

| Mill Dia. Tolerance (mm) | Shank Dia. Tolerance |
|---|---|
| 0 ~ - 0.05 | h5 |

◎ : Excellent ○ : Good

| ISO | P | | | | | | | | | | | M | | | K | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Non-alloy steel | | | | | Low alloy steel | | | | High alloyed steel, and tool steel | | Stainless steel | | | Grey cast iron | | Nodular cast iron | | Malleable cast iron | |
| VDI 3323 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| HRc | | 13 | 25 | 28 | 32 | 10 | 29 | 32 | 38 | 15 | 35 | 15 | 23 | 10 | 10 | 26 | 3 | 25 | | 21 |
| HB | 125 | 190 | 250 | 270 | 300 | 180 | 275 | 300 | 350 | 200 | 325 | 200 | 240 | 180 | 180 | 260 | 160 | 250 | 130 | 230 |
| Recommend | ○ | ○ | ◎ | ◎ | ◎ | ○ | ◎ | ◎ | ◎ | ○ | ◎ | ○ | ○ | ○ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ |

| ISO | N | | | | | | | | | | S | | | | | | | H | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Description | Aluminum-wrought alloy | | Aluminum-cast, alloyed | | | Copper and Copper Alloys (Bronze / Brass) | | | Non Metallic Materials | | Heat Resistant Super Alloys | | | | | Titanium Alloys | | Hardened steel | | Chilled Cast Iron | Hardened Cast Iron |
| VDI 3323 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| HRc | | | | | | | | | | | 15 | 30 | 25 | 38 | 34 | | | 55 | 60 | 42 | 55 |
| HB | 60 | 100 | 75 | 90 | 130 | 110 | 90 | 100 | | | 200 | 280 | 250 | 350 | 320 | 400 Rm | 1050 Rm | 550 | 630 | 400 | 550 |
| Recommend | | | | | | ○ | ○ | ○ | | | | | | | | | | | | | |