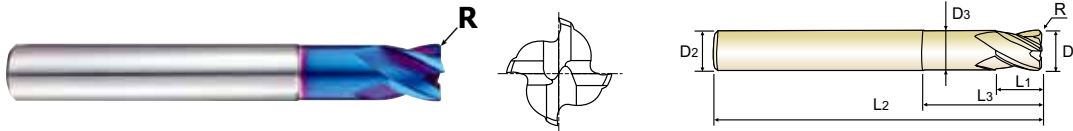


**CARBIDE, 4 FLUTE CORNER RADIUS with EXTENDED NECK**
**● VOLLHARTMETALL, 4 SCHNEIDEN ECKENRADIUS mit ABGESETZTEM SCHAFTTEIL**
**● Fraise carbure, 2 dents, torique, micro-fraise**
**● 4 TAGLIENTI, TORICA**

- ▶ 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.



|                                   | Plain Shank             | Page |
|-----------------------------------|-------------------------|------|
| HYDRAULIC CHUCK SHRINK FIT HOLDER | D15 - 46<br>D47 - 72    |      |
| POWER MILLING CHUCK               | D161 - 176              |      |
| ER COLLET CHUCK SK SLIM CHUCK     | D73 - 116<br>D183 - 201 |      |

Unit : mm

| EDP No.  | Corner Radius<br>R (±0.010) | Mill Diameter<br>D1 | Shank Diameter<br>D2 | Length of Cut<br>L1 | Length Below Shank<br>L3 | Overall Length<br>L2 | Neck Diameter<br>D3 |
|----------|-----------------------------|---------------------|----------------------|---------------------|--------------------------|----------------------|---------------------|
| G8A47916 | R0.3                        | 3.0                 | 6                    | 4                   | 12                       | 55                   | 2.85                |
| G8A47917 | R0.3                        | 3.0                 | 6                    | 4                   | 16                       | 55                   | 2.85                |
| G8A47918 | R0.3                        | 3.0                 | 6                    | 4                   | 20                       | 55                   | 2.85                |
| G8A47030 | R0.5                        | 3.0                 | 6                    | 4                   | 10                       | 55                   | 2.85                |
| G8A47901 | R0.5                        | 3.0                 | 6                    | 4                   | 16                       | 55                   | 2.85                |
| G8A47902 | R0.5                        | 3.0                 | 6                    | 4                   | 20                       | 55                   | 2.85                |
| G8A47919 | R0.3                        | 4.0                 | 6                    | 5                   | 12                       | 55                   | 3.85                |
| G8A47920 | R0.3                        | 4.0                 | 6                    | 5                   | 16                       | 55                   | 3.85                |
| G8A47921 | R0.3                        | 4.0                 | 6                    | 5                   | 20                       | 55                   | 3.85                |
| G8A47040 | R0.5                        | 4.0                 | 6                    | 5                   | 12                       | 55                   | 3.85                |
| G8A47903 | R0.5                        | 4.0                 | 6                    | 5                   | 16                       | 55                   | 3.85                |
| G8A47904 | R0.5                        | 4.0                 | 6                    | 5                   | 20                       | 55                   | 3.85                |
| G8A47922 | R1.0                        | 4.0                 | 6                    | 5                   | 12                       | 55                   | 3.85                |
| G8A47060 | R0.5                        | 6.0                 | 6                    | 7                   | 20                       | 60                   | 5.85                |
| G8A47905 | R1.0                        | 6.0                 | 6                    | 7                   | 20                       | 60                   | 5.85                |
| G8A47906 | R1.5                        | 6.0                 | 6                    | 7                   | 20                       | 60                   | 5.85                |
| G8A47910 | R0.5                        | 8.0                 | 8                    | 9                   | 25                       | 60                   | 7.7                 |
| G8A47080 | R1.0                        | 8.0                 | 8                    | 9                   | 25                       | 60                   | 7.7                 |
| G8A47907 | R1.5                        | 8.0                 | 8                    | 9                   | 25                       | 60                   | 7.7                 |
| G8A47913 | R2.0                        | 8.0                 | 8                    | 9                   | 25                       | 60                   | 7.7                 |
| G8A47911 | R0.5                        | 10.0                | 10                   | 11                  | 32                       | 70                   | 9.7                 |
| G8A47100 | R1.0                        | 10.0                | 10                   | 11                  | 32                       | 70                   | 9.7                 |
| G8A47908 | R1.5                        | 10.0                | 10                   | 11                  | 32                       | 70                   | 9.7                 |
| G8A47914 | R2.0                        | 10.0                | 10                   | 11                  | 32                       | 70                   | 9.7                 |
| G8A47912 | R0.5                        | 12.0                | 12                   | 12                  | 38                       | 80                   | 11.7                |
| G8A47120 | R1.0                        | 12.0                | 12                   | 12                  | 38                       | 80                   | 11.7                |
| G8A47909 | R1.5                        | 12.0                | 12                   | 12                  | 38                       | 80                   | 11.7                |
| G8A47915 | R2.0                        | 12.0                | 12                   | 12                  | 38                       | 80                   | 11.7                |

Due to the characteristics of the blue decoration layer, it might be erased during short term use and the color layer might not be uniformed. However, it doesn't affect the performance of the tool.

| Size     | Corner Radius Tolerance (mm) | Mill Dia. Tolerance (mm) | Shank Dia. Tolerance |
|----------|------------------------------|--------------------------|----------------------|
| up to Ø6 | ± 0.010                      | 0 ~ - 0.012              | h5                   |
| over Ø6  | ± 0.015                      | 0 ~ - 0.015              |                      |

◎ : Excellent ○ : Good

| ISO                  | P                      |     |     |     |     |                        |     |     |     |     | M                                         |     |     |     |     | K                      |         |     |     |     |
|----------------------|------------------------|-----|-----|-----|-----|------------------------|-----|-----|-----|-----|-------------------------------------------|-----|-----|-----|-----|------------------------|---------|-----|-----|-----|
| Material Description | Non-alloy steel        |     |     |     |     | Low alloy steel        |     |     |     |     | High alloyed steel, and tool steel        |     |     |     |     | Stainless steel        |         |     |     |     |
| 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  | 30  | 10                     | 29  | 32  | 38  | 15  | 35                                        | 15  | 23  | 10  | 10  | 26                     | 3       | 25  | 42  | 55  |
| 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                                         |     |     |     |     |                        |         |     |     |     |
| Material Description | Aluminum-wrought alloy |     |     |     |     | Aluminum-cast, alloyed |     |     |     |     | Copper and Copper Alloys (Bronze / Brass) |     |     |     |     | Non Metallic Materials |         |     |     |     |
| VDI 3323             | 21                     | 22  | 23  | 24  | 25  | 26                     | 27  | 28  | 29  | 30  | 31                                        | 32  | 33  | 34  | 35  | 36                     | 37      | 38  | 39  | 40  |
| HRc                  | 60                     | 100 | 75  | 90  | 130 | 110                    | 90  | 100 |     |     | 15                                        | 30  | 25  | 38  | 34  | 400 Rm                 | 1050 Rm | 55  | 60  | 42  |
| HB                   | 60                     | 100 | 75  | 90  | 130 | 110                    | 90  | 100 |     |     | 200                                       | 280 | 250 | 350 | 320 | 400 Rm                 | 1050 Rm | 550 | 630 | 400 |
| Recommend            |                        |     |     |     |     |                        |     |     |     |     |                                           |     |     |     |     |                        |         | ◎   | ◎   | ○   |