

**Garant**
**Machine reamer H7, uncoated, Nominal Ø DC: 3,9mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 163000 3,9    |
| GTIN         | 4045197252777 |
| Item class   | 110           |

**Description**
**Version:**

With long flutes and left-hand helix.  
 From size 1.8 even number of teeth and uneven spacing.  
 Up to size 3.7 both ends with external centres;  
 from size 3.9 both ends with internal centres.

**Reamers finish ground for fit H7.**
**Application:**

For reaming through holes. Also suitable for blind holes (from 3.9 mm Ø) due to short chamfer lead.

**Note:**

- **Straight flute machine chucking reamers – available ex-stock.**
- **For reamers with other diameters and fits see No. 162951.**

**Technical description**

|   |              |
|---|--------------|
| Nominal Ø D <sub>c</sub>                | 3.9 mm       |
| Feed f in steel < 750 N/mm <sup>2</sup> | 0.15 mm/rev. |
| Overhang L <sub>1</sub>                 | 46 mm        |
| Shank tolerance                         | h9           |
| Shank Ø D <sub>s</sub>                  | 4 mm         |
| Overall length L                        | 75 mm        |
| Flute length L <sub>c</sub>             | 19 mm        |
| Number of cutting edges Z               | 6            |

|                                  |                     |
|----------------------------------|---------------------|
| Tolerance                        | H7                  |
| Reaming oversize in diameter     | 0.1 mm              |
| Coating                          | uncoated            |
| Tool material                    | HSS E               |
| Standard                         | DIN 212 B           |
| Through-coolant                  | no                  |
| Shank                            | Plain shank with h9 |
| Application for type of drilling | for through holes   |
| Colour ring                      | without             |
| Type of product                  | Phillips bit        |

## User data

|                                | Suitability                               | V <sub>c</sub> | ISO code |
|--------------------------------|---|----------------|----------|
| Aluminium                      | suitable                                  | 20 m/min       | N        |
| Aluminium (short chipping)     | suitable                                  | 20 m/min       | N        |
| Steel < 500 N/mm <sup>2</sup>  | suitable                                  | 15 m/min       | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 10 m/min       | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 7 m/min        | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 5 m/min        | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable only under restricted conditions | 4 m/min        | P        |
| INOX < 900 N/mm <sup>2</sup>   | suitable                                  | 5 m/min        | M        |
| INOX > 900 N/mm <sup>2</sup>   | suitable only under restricted conditions | 5 m/min        | M        |
| Ti > 850 N/mm <sup>2</sup>     | suitable only under restricted conditions | 5 m/min        | S        |
| GG(G)                          | suitable only under restricted conditions | 5 m/min        | K        |
| CuZn                           | suitable only under restricted conditions | 13 m/min       | N        |

|             |          |
|-------------|----------|
| Uni         | suitable |
| Oil         | suitable |
| wet maximum | suitable |