

**Garant**
**Machine reamer H7, uncoated, Nominal  $\varnothing$  DC: 2,9mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 163000 2,9    |
| GTIN         | 4045197252685 |
| 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  $\varnothing$ ) 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**

|  |             |
|--|-------------|
| Overhang $L_1$                           | 29 mm       |
| Shank tolerance                          | h9          |
| Feed $f$ in steel $< 750 \text{ N/mm}^2$ | 0.2 mm/rev. |
| Nominal $\varnothing D_c$                | 2.9 mm      |
| Shank $\varnothing D_s$                  | 3 mm        |
| Overall length $L$                       | 61 mm       |
| Flute length $L_c$                       | 15 mm       |
| Number of cutting edges $Z$              | 6           |

|                                  |                     |
|----------------------------------|---------------------|
| Tolerance                        | H7                  |
| Reaming oversize in diameter     | 0.05 - 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 |