

**Garant**
**NC reamer, uncoated, Nominal Ø DC: 4,70mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 162902 4,70   |
| GTIN         | 4062406139278 |
| Item class   | 110           |

**Description**
**Version:**
**Reamers such as 162900, but in 1/100 sizes.**
**Version suitable for NC similar to DIN 212 with straight shank Ø for standard chucking especially in hydraulic chucks or high precision collet chucks. For highest concentricity and process reliability. No need to order special collets.**

With long flutes and left-hand helix.

**Tolerance specifications:**

 Size 1.01 – 5.5: Manufacturing or cutting edge tolerance **0 / +0.004 mm**.

 Size 5.51 – 12.05: Manufacturing or cutting edge tolerance **0 / +0.005 mm**.

**Ordering example:**

Desired dia. 6.24 mm – ordering particulars: article number 162902 6.24.

The 6.24 mm reamer with tolerance 0 / +0.005 mm is supplied.

Depending on availability, delivery time is from stock or max. 1 working week.

To determine which diameter you need for your desired fit, please see the following table (page 231). Often one reamer also covers further fits, since the tolerance bands overlap.

**Note:**

 Reamers in whole number sizes and 1/10 sizes for **H7 fit** see **No. 162900**.

 For reamers with diameters and **fits to specification** see **No. 162951**.

**Technical description**

|   |              |
|---|--------------|
| Overall length L                        | 80 mm        |
| Number of cutting edges Z               | 6            |
| Flute length L <sub>c</sub>             | 21 mm        |
| Feed f in steel < 750 N/mm <sup>2</sup> | 0.15 mm/rev. |

|                                  |                         |
|----------------------------------|-------------------------|
| Shank $\varnothing D_s$          | 5 mm                    |
| Tolerance                        | 0 / 0.004               |
| Nominal $\varnothing D_c$        | 4.7 mm                  |
| Overhang $L_1$                   | 51 mm                   |
| Reaming oversize in diameter     | 0.1 mm                  |
| Coating                          | uncoated                |
| Tool material                    | HSS E                   |
| Standard                         | Manufacturer's standard |
| Through-coolant                  | no                      |
| Shank                            | DIN 1835 A to h6        |
| Application for type of drilling | for through holes       |
| Colour ring                      | green                   |
| Type of product                  | Phillips bit            |

## User data

|                                | Suitability                               | $V_c$    | 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                                  |          |   |