

**Garant**
**Solid carbide NC machine reamer, TiAlN, Nominal Ø DC: 2,99mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 164341 2,99   |
| GTIN         | 4045197464187 |
| Item class   | 11P           |

**Description**
**Version:**

**Version suitable for NC** similar to DIN 8093 **with straight shank Ø** for **standard chucking** especially in **hydraulic chucks** or **high precision collet chucks**. This ensures **the highest concentricity**.

**Tolerance specifications:**

Size 0.6 – 0.9: Manufacturing or cutting edge tolerance **0/+0.004 mm**.

Size 0.98 – 20: Reamer manufacturing or cutting edge tolerance to DIN1420 for **H7 bore tolerance**.

**No need to procure special collets when using GARANT-NC reamers.** With long flutes and left-hand helix.

**Application:**

For reaming through holes, as the chips are evacuated in the cutting direction. Lead taper is suitable also for blind holes.

**Note:**

For reamers like No. 164340 and 164341 but with other diameters and fits see No. 164344 and 164345.

**Technical description**

|  |             |
|--|-------------|
| Feed f in steel < 1100 N/mm <sup>2</sup> | 0.1 mm/rev. |
| Overhang L <sub>1</sub>                  | 30 mm       |
| Shank tolerance                          | h6          |
| Nominal Ø D <sub>c</sub>                 | 2.99 mm     |
| Shank Ø D <sub>s</sub>                   | 4 mm        |
| Overall length L                         | 64 mm       |

|                                  |                         |
|----------------------------------|-------------------------|
| Flute length $L_c$               | 17 mm                   |
| Number of cutting edges Z        | 4                       |
| Tolerance                        | H7                      |
| Reaming oversize in diameter     | 0.05 - 0.1 mm           |
| Coating                          | TiAlN                   |
| Tool material                    | Solid carbide           |
| Standard                         | Manufacturer's standard |
| Through-coolant                  | no                      |
| Shank                            | DIN 6535 HA with 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                                  | 35 m/min | N        |
| Aluminium (short chipping)     | suitable                                  | 30 m/min | N        |
| Alu > 10% Si                   | suitable only under restricted conditions | 25 m/min | N        |
| Steel < 500 N/mm <sup>2</sup>  | suitable                                  | 30 m/min | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 25 m/min | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 20 m/min | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 15 m/min | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable                                  | 10 m/min | P        |
| INOX < 900 N/mm <sup>2</sup>   | suitable                                  | 15 m/min | M        |
| INOX > 900 N/mm <sup>2</sup>   | suitable                                  | 12 m/min | M        |
| Ti > 850 N/mm <sup>2</sup>     | suitable only under restricted conditions | 10 m/min | S        |
| GG(G)                          | suitable                                  | 10 m/min | K        |

|             |          |          |   |
|-------------|----------|----------|---|
| CuZn        | suitable | 25 m/min | N |
| Uni         | suitable |          |   |
| wet maximum | suitable |          |   |