## Garant

Solid carbide drill plain shank DIN 6535 HA 180°, TiAIN, Ø DC m7: 4,4mm



## Order data

| Order number | 122506 4,4    |
|--------------|---------------|
| GTIN         | 4045197743909 |
| Item class   | 11E           |

## Description

#### Version:

Special point geometry for generating **180° flat-bottomed holes.** Low radial forces even when spot drilling on faces with up to 45° slope. Flute geometry for optimum chip evacuation. With 4 guide chamfers to stabilise the drill in the hole.

#### Advantage:

The 180° point angle permits drilling and counterboring in a single operation.

#### **Recommendation:**

When using the solid carbide 180° drill it is absolutely essential for process reliability:

- $\cdot$  when spot drilling on flat surfaces to drill a pilot hole 1×D using pilot drill No. 122736.
- when spot drilling on sloping surfaces up to 15°: reduce the feed rate f to 50%, up to 30°: reduce the feed rate f to 40% and up to 45°: reduce the feed rate f to 25% of the stated value. After spot drilling, the normal feed rate value can be used.

#### Note:

Flute length  $L_c = L_2 + 1.5 \times D_c$ .

Form HB and HE supplied at the same price as HA.

Form **HB:** order with **No. 122506 + 129100HB**.

Form **HE:** order with **No. 122506 + 129100HE**.

180° solid carbide drills for machining aluminium available on request.

Not suitable for generating counterbores for socket-head screws to DIN974-1.

## **Technical description**

| Shank tolerance           | h6     |
|---------------------------|--------|
| Flute length $L_c$        | 24 mm  |
| Number of cutting edges Z | 2      |
| Nominal Ø D <sub>c</sub>  | 4.4 mm |

| Standard                                 | Manufacturer's standard       |  |
|--|-------------------------------|--|
| Overall length L                         | 66 mm                         |  |
| Feed f in steel < 900 N/mm <sup>2</sup>  | 0.08 mm/rev.                  |  |
| Tolerance nominal Ø                      | m7                            |  |
| Shank Ø D <sub>s</sub>                   | 6 mm                          |  |
| recommended maximum drilling depth $L_2$ | 17.4 mm                       |  |
| Coating                                  | TiAIN                         |  |
| Tool material                            | Solid carbide                 |  |
| Version                                  | 3×D                           |  |
| Point angle                              | 180 degrees                   |  |
| Shank                                    | DIN 6535 HA to h6             |  |
| Use for drilling                         | limited convexity             |  |
| Use for drilling                         | limited cross-drilling        |  |
| Use for drilling                         | limited oblique spot drilling |  |
| Through-coolant                          | yes, with 25 bar              |  |
| Pilot drill required                     | yes, pilot drill              |  |
| Semi-Standard                            | yes                           |  |
| Colour ring                              | green                         |  |
| Type of product                          | Jobber drill                  |  |

# User data

|                                | Suitability                               | V <sub>c</sub> | ISO code |
|--------------------------------|---|----------------|----------|
| Steel < 500 N/mm <sup>2</sup>  | suitable                                  | 85 m/min       | Р        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 75 m/min       | Р        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 60 m/min       | Р        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 50 m/min       | Р        |
| INOX < 900 N/mm <sup>2</sup>   | suitable only under restricted conditions | 45 m/min       | М        |
| GG(G)                          | suitable                                  | 90 m/min       | К        |

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| Uni                        | suitable |  |
|----------------------------|----------|--|
| wet maximum                | suitable |  |
| wet minimum                | suitable |  |
| <del>Air</del><br>Services | suitable |  |
| JEIVICES                   |          |  |
|                            |          |  |

| Shank grinding Type HB | 129100 HB |
|------------------------|-----------|
| Shank grinding Type HE | 129100 HE |