

**Garant**
**Stub drill HSS-E N, uncoated, Ø DC h8: 1,5mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 113150 1,5    |
| GTIN         | 4045197004130 |
| Item class   | 11B           |

**Description**
**Version:**

Particularly robust and strong due to strengthened core.

Ground flutes, with high concentricity.

Bright finish.

**Advantage:**

**Ideal for drilling shallow holes (approx. 2 - 4×D)** on NC machines and automatic machines.

**Recommendation:**
**Maximum drilling depth:**

$$L_2 = L_c - 1.5 \times D_c.$$

**Technical description**

|   |              |
|---|--------------|
| Nominal Ø D <sub>c</sub>                          | 1.5 mm       |
| Feed f in steel < 900 N/mm <sup>2</sup>           | 0.03 mm/rev. |
| Number of cutting edges Z                         | 2            |
| Flute length L <sub>c</sub>                       | 9 mm         |
| Tolerance nominal Ø                               | h8           |
| Shank Ø D <sub>s</sub>                            | 1.5 mm       |
| Overall length L                                  | 32 mm        |
| Standard  | DIN 1897     |
| recommended maximum drilling depth L <sub>2</sub> | 6.8 mm       |
| Point angle                                       | 130 degrees  |

|                 |              |
|-----------------|--------------|
| Shank           | Plain shank  |
| Coating         | uncoated     |
| Tool material   | HSS E        |
| Type            | N            |
| Through-coolant | no           |
| Colour ring     | without      |
| Type of product | Jobber drill |

### User data

|                                | Suitability                               | $V_c$    | ISO code |
|--------------------------------|---|----------|----------|
| Alu plastics                   | suitable only under restricted conditions | 80 m/min | N        |
| Aluminium (short chipping)     | suitable only under restricted conditions | 45 m/min | N        |
| Alu > 10% Si                   | suitable only under restricted conditions | 50 m/min | N        |
| Steel < 500 N/mm <sup>2</sup>  | suitable                                  | 40 m/min | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 30 m/min | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 25 m/min | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable only under restricted conditions | 10 m/min | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable only under restricted conditions | 8 m/min  | P        |
| INOX < 900 N/mm <sup>2</sup>   | suitable                                  | 12 m/min | M        |
| INOX > 900 N/mm <sup>2</sup>   | suitable only under restricted conditions | 8 m/min  | M        |
| Ti > 850 N/mm <sup>2</sup>     | suitable only under restricted conditions | 5 m/min  | S        |
| GG(G)                          | suitable                                  | 25 m/min | K        |
| CuZn                           | suitable only under restricted conditions | 80 m/min | N        |

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