

**Garant**
**NC spotting drill HSS-E 120° N, uncoated, Ø DC h6: 20mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 112103 20     |
| GTIN         | 4045197959461 |
| Item class   | 11A           |

**Description**
**Version:**

≥ Ø 6 mm with **drive flat to DIN 1835-B**.

Precision centred ground point with thin chisel edge - gives easy spot drilling and high accuracy of the centre hole form. Very sturdy due to short flutes.

**Application:**

**Point angle 120°** so that the cutting edges of the following drill engage easily.

**Note:**

Use speed for the actual hole Ø  
(not necessarily the speed for the drill outer Ø).

**Technical description**

|   |                         |
|---|-------------------------|
| Nominal Ø D <sub>c</sub>                | 20 mm                   |
| Feed f in steel < 900 N/mm <sup>2</sup> | 0.07 mm/rev.            |
| Overall length L                        | 131 mm                  |
| Shank tolerance                         | h6                      |
| Shank                                   | DIN 1835 B to h6        |
| Shank Ø D <sub>s</sub>                  | 20 mm                   |
| Flute length L <sub>c</sub>             | 40 mm                   |
| Coating                                 | uncoated                |
| Tool material                           | HSS E                   |
| Standard                                | Manufacturer's standard |

|                                 |                |
|---------------------------------|----------------|
| Type                            | N              |
| Tolerance nominal $\varnothing$ | h6             |
| Point angle                     | 120 degrees    |
| Number of cutting edges Z       | 2              |
| Through-coolant                 | no             |
| Colour ring                     | without        |
| Type of product                 | Spotting drill |

### User data

|                                | Suitability | $V_c$    | ISO code |
|--------------------------------|-------------|----------|----------|
| Alu plastics                   | suitable    | 70 m/min | N        |
| Aluminium (short chipping)     | suitable    | 45 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    | 10 m/min | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable    | 8 m/min  | P        |
| INOX < 900 N/mm <sup>2</sup>   | suitable    | 12 m/min | M        |
| INOX > 900 N/mm <sup>2</sup>   | suitable    | 8 m/min  | M        |
| CuZn                           | suitable    | 80 m/min | N        |
| Uni                            | suitable    |          |          |
| Oil                            | suitable    |          |          |
| wet maximum                    | suitable    |          |          |