

**Garant**
**Solid carbide NC spotting drill 90° extra long spiral flutes, TiAlN, Ø DC h6: 16mm**

**Order data**

Order number	121051 16
GTIN	4062406120757
Item class	11E

**Description**
**Version:**

Exactly **central ground point**. **Easy spot drilling** and **high shape accuracy** of the centre hole. Sturdy due to short flutes.

**Extra long version.**
**Application:**

Point angle **90°** for spot drilling and countersinking in one operation when a drill of smaller Ø is used afterwards.

**Note:**

HB and HE shanks are available at the same price as HA. (from Ø 6 mm)

form **HB**: order with **No. 121050**.

Form **HE**: order with **No. 121051 + 129100 HE**.

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

**Technical description**

Flute length $L_c$	29 mm
Overall length $L$	200 mm
Nominal Ø $D_c$	16 mm
Shank Ø $D_s$	16 mm
Feed $f$ in steel < 1100 N/mm <sup>2</sup>	0.03 mm/rev.
Shank tolerance	h6
Shank	DIN 6535 HA to h6
Coating	TiAlN

Tool material	Solid carbide
Standard	Manufacturer's standard
Tolerance nominal $\varnothing$	h6
Point angle	90 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	260 m/min	N
Aluminium (short chipping)	suitable	240 m/min	N
Alu > 10% Si	suitable	200 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	90 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	80 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	65 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	55 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	35 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	30 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable	40 m/min	S
GG(G)	suitable	90 m/min	K
CuZn	suitable	200 m/min	N
Uni	suitable		
Oil	suitable		
wet maximum	suitable		
dry	suitable only under restricted conditions		

## Services

Shank grinding Type HB	129100 HB
Shank grinding Type HE	129100 HE