

**Garant**
**Solid carbide drill plain shank DIN 6535 HA 180°, TiAlN, Ø DC m7: 4,5mm**

**Order data**

Order number	122506 4,5
GTIN	4045197743916
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:

- **when spot drilling on flat surfaces to drill a pilot hole 1xD 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**

Overall length L	66 mm
Shank tolerance	h6
Standard	Manufacturer's standard
Feed f in steel < 900 N/mm <sup>2</sup>	0.08 mm/rev.

Number of cutting edges Z	2
Flute length $L_c$	24 mm
Shank $\varnothing D_s$	6 mm
Tolerance nominal $\varnothing$	m7
Nominal $\varnothing D_c$	4.5 mm
recommended maximum drilling depth $L_2$	17.3 mm
Coating	TiAlN
Tool material	Solid carbide
Version	3xD
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	$V_c$	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable	85 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	75 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	60 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	50 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable only under restricted conditions	45 m/min	M
GG(G)	suitable	90 m/min	K

Uni	suitable
wet maximum	suitable
wet minimum	suitable
Air	suitable
<b>Services</b>	

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