

Garant
Solid carbide drill plain shank DIN 6535 HA 180°, TiAlN, Ø DC m7: 20mm

Order data

Order number	122506 20
GTIN	4045197647498
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 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
Feed f in steel < 900 N/mm ²	0.23 mm/rev.
Nominal Ø D _c	20 mm
Flute length L _c	77 mm

Number of cutting edges Z	2
Tolerance nominal \varnothing	m7
Shank $\varnothing D_s$	20 mm
Overall length L	129 mm
Standard	Manufacturer's standard
recommended maximum drilling depth L_2	47 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 ²	suitable	85 m/min	P
Steel < 750 N/mm ²	suitable	75 m/min	P
Steel < 900 N/mm ²	suitable	60 m/min	P
Steel < 1100 N/mm ²	suitable	50 m/min	P
INOX < 900 N/mm ²	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
Services	

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