

**Garant**
**HiPer-Drill base body, 10xD, Ø DC: 13 mm**

**Order data**

Order number	231617 13
GTIN	4045197868121
Item class	21S

**Description**
**Version:**

- **Very high feed rates and maximum performance due to optimally matched geometries and materials.**
- **Precise positioning of the cutter insert due to Vee insert seating and secure clamping by the centre bore.**
- **High concentricity when assembled.**
- **Shank support for optimum stability in operation.**

Polished flutes.

**Application:**

For stationary and rotating use. For holes up to IT9 accuracy.

**Recommendation:**

Drill the pilot hole.

**Note:**

Clamp in a hydraulic chuck (such as No. 302026 size 20) for optimum radial run-out.

For optimum stability, clamp the drill so the overhang is as short as possible.

Further sizes up to Ø 50.99 mm available on request.

The insert screw must be replaced after every fifth change of cutter insert.

Reduce feed rates  $f$  by 10 % and  $v_c$  values by 30 %.

For process reliability when using the drill, initial pilot drilling to 1.5xD with the drill No. 231600 with the same cutter insert size and type is necessary. **The generation of a pilot hole improves process reliability.**

Number of cutting edges Z: 2

Dia. range  $D_c$ : 13 - 13.49 mm

Reach  $L_1$ : 135 mm

Shank Ø  $D_s$ : 16 mm

Shank length  $L_s$ : 48 mm

Clamping screw: 231999\_7IP (0.6 Nm)

## Technical description

Clamping screw	231999_7IP (0.6 Nm)
Dia. range $D_c$	13 - 13.49 mm
Shank $\varnothing D_s$	16 mm
Shank length $L_s$	48 mm
Reach $L_1$	135 mm
Number of cutting edges Z	2
Drill depth up to	10xD
Shank	ISO 9766
Use for drilling	limited drilling through a stack
Use for drilling	limited drilling with oblique exit
Use for drilling	limited cross-drilling
Use for drilling	limited oblique spot drilling
Through-coolant	yes
Type of product	Indexable drill

## Accessories

Torx Plus® screw Drive 7IP	231999 7IP
Torque screwdriver, fixed setting set torque 0,6 Nm	211750 0,6
PrecisionBit for Torx Plus®, shank E 6.3 Torx Plus® profile 7IP	674252 7IP