

**Garant**
**HiPer-Drill base body, 10×D, Ø DC: 28mm**

**Order data**

Order number	231617 28
GTIN	4045197869098
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.

**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 1.5×D with the drill No. 231600 with the same cutter insert size and type is necessary. **The generation of a pilot hole improves process reliability.**

**Technical description**

Shank Ø $D_s$	32 mm
Reach $L_1$	290 mm
Dia. range $D_c$	28 - 28.99 mm
Shank length $L_s$	60 mm

Clamping screw	231999 15IP1 (5.7 Nm)
Series	HiPer-Drill
Number of cutting edges Z	2
Overall length L	391 mm
Version	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

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## Accessories

Torx Plus® screw Drive 15IP	231999 15IP
PrecisionBit for Torx Plus®, 1/4 inch E 6.3 Torx Plus® profile 15IP	674252 15IP
Torque screwdriver, fixed setting set torque 5,0 N·m	211750 5,0