

Garant
GARANT Master Steel DEEP solid carbide deep-hole drill, plain shank DIN 6535 HA 20×D, TiAlN, Ø DC: 13 mm

Order data

Order number	123890 13
GTIN	4062406268350
Item class	10E

Description
Version:

Excellent chip evacuation due to the unequal helical pitch of the flutes, guide rings and additional guide chamfers for very high precision when drilling. **Maximum process reliability** due to exactly matching tools within the overall system. Drilling up to the maximum depth without a pilot drill. **Significantly increased tool stability** due to the substantially strengthened core. **Increased metal removal rates** and **outstanding tool lives** lead to an economical high-end drilling process.

Recommendation:
Maximum drilling depth:

flute length (see table) less 1.5×nominal Ø.

Note:

For process reliability when using the 16×D deep-hole drill, an initial centre drilling with No. 121068 – 121130 or at least 4×D pilot drilling operation with pilot drill No. 123885 is necessary. For deep holes greater than 20×D, a pilot hole to the maximum drilling depth hole with pilot drill No. 123885 is absolutely essential. The generation of a pilot hole improves process reliability. **The specified L/D ratio gives the minimum achievable depth of hole with the respective deep-hole drill.**

Flute length $L_c = L_2 + 1.5 \times D_c$.

Standard: Manufacturer's standard

Tolerance nominal Ø: j6

Number of cutting edges Z: 2

Tolerance nominal Ø: j6

recommended maximum drilling depth L_2 : 272.5 mm

Overall length L: 343 mm

Shank Ø D_s : 14 mm

Feed f in steel < 900 N/mm²: 0.24 mm/rev.

Technical description

recommended maximum drilling depth L_2	272.5 mm
Overall length L	343 mm
Number of cutting edges Z	2
Feed f in steel < 900 N/mm ²	0.24 mm/rev.
Standard	Manufacturer's standard
Shank $\varnothing D_s$	14 mm
Flute length L_c	292 mm
Nominal $\varnothing D_c$	13 mm
Tolerance nominal \varnothing	j6
Series	GARANT Master Steel
Coating	TiAlN
Tool material	Solid carbide
Drill depth up to	20xD
Point angle	140 degrees
Shank	DIN 6535 HA to h5
Through-coolant	yes, with 40 bar
Machining strategy	HPC
Pilot drill required	yes, pilot drill
Type of product	Jobber drill