Garant

GARANT Master Steel SPEED solid carbide drill, Weldon shank DIN 6535 HB, TiAlN, ⌀ DC h7: 16,5 mm

Order data

Order number	123226 16,5
GTIN	4045197848314
Item class	11E

Description

Version:
Developed for use with **very high cutting speeds**. Outstandingly suitable for machines with **low installed power** and high speeds.
· **Clear reduction in cutting forces due to special cutter geometry.**
· **Coating for best wear resistance even at high process temperatures.**
· **Polished flutes for good chip clearance.**
A **slim chisel point** and the **special arrangement of the 4 guide chamfers** ensure **high positioning and alignment accuracy**. Optimised micro-geometry for increased working life and performance capability.
Recommendation:
Maximum drilling depth:
Flute length (see table) less 1.5×nominal ⌀.
Note:
Flute length $L_C = L_2 + 1.5 \times D_C$.
For process reliability when using the 12×D deep-hole drill, an initial centre drilling with No. 121068 – 121130 or 3×D pilot drilling operation with No. 122736 is necessary.
Standard: Manufacturer's standard
Tolerance nominal ⌀: h7
Number of cutting edges Z: 2
Tolerance nominal ⌀: h7
recommended maximum drilling depth L_2: 209.3 mm
Overall length L: 285 mm
Shank ⌀ D_s: 18 mm
Feed f in steel < 1100 N/mm^2: 0.29 mm/rev.

Technical description

Standard	Manufacturer's standard
Feed f in steel < 1100 N/mm²	0.29 mm/rev.
Nominal Ø D_C	16.5 mm
Shank Ø D_s	18 mm
Overall length L	285 mm
Flute length L_c	234 mm
recommended maximum drilling depth L_2	209.3 mm
Number of cutting edges Z	2
Tolerance nominal Ø	h7
Series	GARANT Master Steel
Coating	TiAlN
Tool material	Solid carbide
	12×D
Point angle	135 °
Shank	DIN 6535 HB to h6
Through-coolant	yes, to 25 bar
Machining strategy	HPC
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/mm²	suitable	160 m/min	P
Steel < 750 N/mm²	suitable	125 m/min	P
Steel < 900 N/mm²	suitable	115 m/min	P
Steel < 1100 N/mm²	suitable	105 m/min	P
Steel < 1400 N/mm²	suitable	65 m/min	P

INOX < 900 N/mm²	suitable only under restricted conditions	55 m/min	M
GG	suitable	100 m/min	K
GGG	suitable	95 m/min	K
Uni	suitable		
wet maximum	suitable		
wet minimum	suitable		