

## Garant

### GARANT Master Steel DEEP solid carbide deep hole drill, plain shank DIN 6535 HA 20×D, TiAlN, Ø DC: 3,3mm



#### Order data

Order number	123890 3,3
GTIN	4062406267995
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.

##### Note:

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

For process reliability when using the 16×D deep-hole drill, initial centre drilling with No. 121068 – 121121 or a pilot hole of at least 4×D with pilot drill No. 122736 is necessary. For deep holes greater than 20×D, a pilot hole to the maximum drilling depth with pilot drill No. 122736 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.**

#### Technical description

Flute length $L_c$	79 mm
Overall length L	122 mm
Standard	Manufacturer's standard
Shank $\varnothing D_s$	6 mm
Nominal $\varnothing D_c$	3.3 mm
Number of cutting edges Z	2

recommended maximum drilling depth $L_2$	74.1 mm
Tolerance nominal $\varnothing$	j6
Feed $f$ in steel < 900 N/mm <sup>2</sup>	0.09 mm/rev.
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Version	20xD
Point angle	138 degrees
Shank	DIN 6535 HA to h6
Through-coolant	yes, with 40 bar
Machining strategy	HPC
Pilot drill required	yes, pilot drill
Colour ring	green
Type of product	Jobber drill

## User data

	Suitability	$V_c$	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable	120 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	110 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	105 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	105 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	85 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	65 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable only under restricted conditions	60 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable only under restricted conditions	25 m/min	S
GG(G)	suitable	110 m/min	K
Uni	suitable		

wet maximum	suitable
wet minimum	suitable only under restricted conditions