

**Garant**
**GARANT Master Steel solid carbide high-performance drill DIN 6535 HA, TiAlN, Ø DC h7: 20mm**

**Order data**

Order number	122761 20
GTIN	4067263122067
Item class	11E

**Description**
**Version:**

**Robust drill design and optimised special point geometry** for the **best possible chip formation and reliable chip breakage** with **higher feed rates at the same time**. **Advanced micro-geometry, convex cutting edge and conical profile grinding** to provide additional stability for the main cutting edge. **Optimised flute geometry and patented face geometry** for **reliable chip evacuation** in steel materials and cast material. **High-performance coating** of the latest generation.

**Note:**

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

HB and HE shanks are available at the same price as HA.

**HB shanks:** order with **No. 122762**.

**HE shank:** order with **No. 122761 + 129100HE**.

**Technical description**

Overall length L	155 mm
recommended maximum drilling depth $L_2$	71 mm
Nominal $\varnothing D_c$	20 mm
Tolerance nominal $\varnothing$	h7
Standard	DIN 6537
Number of cutting edges Z	2
Flute length $L_c$	101 mm

Shank $\varnothing D_s$	20 mm
Feed f in steel < 1100 N/mm <sup>2</sup>	0.44 mm/rev.
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Version	6xD
Point angle	140 degrees
Shank	DIN 6535 HA to h6
Through-coolant	yes, with 25 bar
Machining strategy	HPC
Semi-Standard	yes
Type of product	Jobber drill

## User data

	Suitability	V <sub>c</sub>	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable	170 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	155 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	145 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	130 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	110 m/min	P
Steel < 55 HRC	suitable	60 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable only under restricted conditions	55 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable only under restricted conditions	45 m/min	M
GG	suitable	130 m/min	K
GGG	suitable	90 m/min	K
Uni	suitable		
wet maximum	suitable		

wet minimum	suitable
Air	suitable