

**Garant**
**GARANT Master Steel FEED solid carbide drill, plain shank DIN 6535 HA, TiAlN, Ø DC h7: 10,9mm**

**Order data**

Order number	123235 10,9
GTIN	4045197840905
Item class	11E

**Description**
**Version:**

**3-flute drill**, specially developed for **use at very high feed rates**. Outstandingly suitable for **machines with high installed power** and stable operating conditions.

- **Special cutter geometry with stable cutting edges and large clearance at the centre enables very high feed rates.**
- **The patented tip is optimised for chip flow and generates low cutting pressure with good chip breakage.**

The **sector-leading technology of the drill point** guarantees **optimum self-centring behaviour**. 3 guide chamfers guarantee a stable exit from the hole and an exact roundness of the hole.

**Note:**

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

For process reliability when using the 12xD drill, an initial centre drilling with an NC spotting drill No. 121130 with **155° point angle** is necessary.

**Technical description**

Tolerance nominal Ø	h7
Feed f in steel < 1100 N/mm <sup>2</sup>	0.5 mm/rev.
recommended maximum drilling depth L <sub>2</sub>	139.7 mm
Flute length L <sub>c</sub>	156 mm
Nominal Ø D <sub>c</sub>	10.9 mm
Number of cutting edges Z	3

Standard	Manufacturer's standard
Shank $\varnothing D_s$	12 mm
Overall length L	204 mm
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Version	12xD
Point angle	140 degrees
Shank	DIN 6535 HA to h6
Through-coolant	yes, to 25 bar
Machining strategy	HPC
Semi-Standard	yes
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	100 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	90 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	70 m/min	P
Steel < 55 HRC	suitable	60 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable	55 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	50 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable only under restricted conditions	40 m/min	S
GG	suitable	120 m/min	K
GGG	suitable	80 m/min	K

Uni	suitable
wet maximum	suitable
wet minimum	suitable

**Services**

Shank grinding Type HE	129100 HE
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