

**Garant**
**GARANT Master Steel FEED solid carbide stepped drill, TiAlN, for threads: M16**

**Order data**

Order number	125035 M16
GTIN	4062406066529
Item class	11E

**Description**
**Version:**

For generation of **optimum tapping holes**. Creates **ideal machining conditions** for the subsequent tapping tool. The cutter  $\varnothing$  of the drill is matched to the thread that is to be produced, in order to achieve a threads true to gauge and for **high process reliability of the tapping process**. The 90° counterbore for the thread is produced **in the same operation** as drilling the tapping hole.

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

Diameter tolerance first level: h7.

Thread type: M

No. of teeth Z: 3

Through-coolant: yes, with 25 bar

Thread pitch: 2

$\varnothing D_1$  1st step: 14.15 mm

$\varnothing D_2$  2nd step with chamfer h7: 17.6 mm

Step height  $L_1$  1st step: 38.5 mm

Flute length  $L_c$ : 73 mm

Overall length L: 123 mm

**Technical description**

Flute length $L_c$	73 mm
for threads	M16
Feed f in steel < 1100 N/mm <sup>2</sup>	0.56 mm/rev.
$\varnothing D_2$ 2nd step with chamfer h7	17.6 mm

Overall length L	123 mm
Shank $\varnothing D_s$	18 mm
Thread pitch	2
Through-coolant	yes, with 25 bar
No. of teeth Z	3
Thread type	M
$\varnothing D_1$ 1st step	14.15 mm
Step height $L_1$ 1st step	38.5 mm
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Tolerance nominal $\varnothing$	m7
Point angle	145 °
Shank	DIN 6535 HA to h6
Countersink angle	90 °
Machining strategy	HPC
Colour ring	green
Application for type of drilling	for blind hole and through hole
Type of product	Stepped drill

## User data

	Suitability	$V_c$	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable	160 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	140 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	130 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	110 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	90 m/min	P
Steel < 55 HRC	suitable	60 m/min	H

INOX < 900 N/mm <sup>2</sup>	suitable	60 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	130 m/min	K
GGG	suitable	80 m/min	K
Uni	suitable		
wet maximum	suitable		
wet minimum	suitable		