

## Garant

### GARANT Master TM plain shank thread mill with countersink 2.5×D, TiAlN, MF: 4X0,5



#### Order data

Order number	139683 4X0,5
GTIN	4045197956927
Item class	11D

#### Description

##### Version:

Solid carbide thread milling cutters **with irregular cutting edge spacing and an increased number of cutting edges**. Due to the **irregular cutting edge spacing** they achieve very **smooth running** and **long tool life**.

**Newly developed universal geometry** and **high-performance coating** for use across a wide spectrum of materials.

- **Significantly reduced vibration due to irregular cutting edge spacing.**
- **Increased number of cutting edges.**
- **New coating for optimum wear resistance.**
- **Corrected thread profile for avoidance of profile distortions.**

##### Advantage:

Incorporating a countersink profile for a 90° countersink and thread milling in a single operation.

##### Note:

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

Order **HB** shank: with **No. 139683 + 129100 HB**

Order **HE** shank: with **No. 139683 + 129100 HE**

Through-coolant: yes

No. of teeth Z: 4

Thread pitch: 0.5 mm

Nominal  $\varnothing D_c$ : 3.29 mm

Flute length  $L_c$ : 10.25 mm

Shank length  $L_s$ : 36 mm

Overall length L: 58 mm

Shank  $\varnothing D_s$ : 6 mm

#### Technical description

Shank length $L_s$	36 mm
Through-coolant	yes
Thread pitch	0.5 mm
Shank $\varnothing D_s$	6 mm
No. of teeth Z	4
Feed $f_z$ in steel < 750 N/mm <sup>2</sup>	0.02 mm
Overall length L	58 mm
Number of clamping slots	4
Thread depth	8 mm
Thread size	M4×0.5
Nominal $\varnothing D_c$	3.29 mm
Flute length $L_c$	10.25 mm
Programming value for countersink $L_1$	10.86 mm
Neck $\varnothing D_1$	4.5 mm
Coating	TiAlN
Thread type	MF
Thread type	MF-LH
Flank angle	60 °
Tool material	Solid carbide
Thread standard	DIN 13
Shank	DIN 6535 HA to h6
Application for type of drilling	up to 2×D for blind holes
Application for type of drilling	up to 2.5×D for through holes
Spacing of the cutters	unequal spacing
Countersink angle	90 °
Colour ring	green
Internal/external application	Internal
Series	Master TM
Type of product	thread milling cutter

## User data

	Suitability	$V_c$	ISO code
Alu plastics	suitable	200 m/min	N
Aluminium (short chipping)	suitable	190 m/min	N
Alu > 10% Si	suitable	160 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	125 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	115 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	110 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	80 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	70 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	75 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	70 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable	45 m/min	S
GG(G)	suitable	105 m/min	K
CuZn	suitable	175 m/min	N
Uni	suitable		
wet maximum	suitable		
wet minimum	suitable		
Air	suitable		

## Services

Shank grinding Type HB	129100 HB
Shank grinding Type HE	129100 HE