

## Garant

### GARANT Master TM plain shank thread mill with countersink 2.5×D, TiAlN, M: M5



#### Order data

Order number	139654 M5
GTIN	4045197957825
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. 139654 + 129100 HB**.

Order **HE** shank: with **No. 139654 + 129100 HE**.

#### Technical description

Number of clamping slots	4
Thread depth	13.2 mm
Feed $f_z$ in steel < 750 N/mm <sup>2</sup>	0.035 mm
Shank length $L_s$	36 mm

Through-coolant	yes
Shank $\varnothing D_s$	6 mm
No. of teeth Z	4
Overall length L	64 mm
Thread pitch	0.8 mm
Thread size	M5
Nominal $\varnothing D_c$	3.9 mm
Flute length $L_c$	13.2 mm
Programming value for countersink $L_1$	14 mm
Neck $\varnothing D_1$	5.5 mm
Coating	TiAlN
Thread type	M
Thread type	M-LH
Flank angle	60 degrees
Tool material	Solid carbide
Thread standard	DIN 13
Shank	DIN 6535 HA to h6
Application for type of drilling	up to 2xD for blind holes
Application for type of drilling	up to 2.5xD for through holes
Spacing of the cutters	unequal spacing
Countersink angle	90 degrees
Shank tolerance	h6
Colour ring	green
Internal/external application	Indvendig
Series	Master TM
Type of product	thread milling cutter

## User data

	Suitability	$V_c$	ISO code
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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