

**Garant**
**GARANT Master TM plain shank thread mill with countersink 2×D, AlTiN, UNF: 5/16-24**

**Order data**

Order number	139738 5/16-24
GTIN	4067263129264
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.**
- **Corrected thread profile for avoidance of profile distortions.**
- **Increased number of cutting edges.**
- **The latest generation of AlTiN-based HiPIMS coating.**
- **increased number of cutting edges**
- **new coating for optimum wear resistance**

**Advantage:**

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

**Application:**

For **UNF unified fine threads** ASME-B1.1.

**Note:**

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

Order **HB** shank: with **No. 139738 + 129100 HB**

Order **HE** shank: with **No. 139738 + 129100 HE**

**Technical description**

Thread type	UNF
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Thread type	UNF-LH
Threads per inch	24
Shank $\varnothing D_s$	10 mm
Programming value for countersink $L_1$	17.33 mm
Overall length $L$	75 mm
Thread pitch	1.058 mm
Neck $\varnothing D_1$	8.5 mm
Thread size	5/16-24 UNF
Feed $f_z$ in steel $< 750 \text{ N/mm}^2$	0.07 mm
Nominal $\varnothing D_c$	6.5 mm
Shank length $L_s$	43.7 mm
Thread $\varnothing$	7.94 mm
No. of teeth $Z$	4
Number of clamping slots	4
Flute length $L_c$	16.36 mm
Series	Master TM
Coating	AlTiN
Flank angle	60 degrees
Tool material	Solid carbide
Shank	DIN 6535 HA to h6
Through-coolant	yes
Cutting direction	right-hand
Application for type of drilling	up to $2 \times D$ for blind holes
Application for type of drilling	up to $2 \times D$ for through holes
Spacing of the cutters	unequal spacing
Countersink angle	90 degrees
Shank tolerance	h6
Colour ring	green
Internal/external application	Internal

Type of product

thread milling cutter

**User data**

	<b>Suitability</b>	<b>V<sub>c</sub></b>	<b>ISO code</b>
Alu plastics	suitable	220 m/min	N
Aluminium (short chipping)	suitable	220 m/min	N
Alu > 10% Si	suitable	180 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	140 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	130 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	120 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	90 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	80 m/min	P
Steel < 50 HRC	suitable only under restricted conditions	45 m/min	H
TOOLOX 33	suitable	85 m/min	H
TOOLOX 44	suitable	50 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable	82 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	75 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable	50 m/min	S
GG(G)	suitable	120 m/min	K
CuZn	suitable	200 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

