

Garant
GARANT Master TM plain shank thread mill with countersink 2×D, AlTiN, UNC: 1/2-13

Order data

Order number	139733 1/2-13
GTIN	4067263129110
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.**
- **The latest generation of AlTiN-based HiPIMS coating.**
- **Corrected thread profile for avoidance of profile distortions.**

Advantage:

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

Application:

For **UNC unified coarse threads** ASME-B1.1.

Note:

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

Order **HB** shank: with **No. 139733 + 129100 HB**

Order **HE** shank: with **No. 139733 + 129100 HE**

Technical description

Thread type	UNC
Thread type	UNC-LH
Flute length L _c	26.32 mm

Thread size	1/2-13 UNC
Thread Ø	12.7 mm
Feed f_z in steel $< 750 \text{ N/mm}^2$	0.09 mm
Threads per inch	13
Programming value for countersink L_1	27.77 mm
Thread pitch	1.954 mm
Shank length L_s	50.6 mm
Shank Ø D_s	14 mm
Neck Ø D_1	13.5 mm
No. of teeth Z	6
Overall length L	94 mm
Number of clamping slots	6
Nominal Ø D_c	10.3 mm
Thread profile	Full profile
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 through holes
Application for type of drilling	up to $2 \times D$ for blind 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

	Suitability	V _c	ISO code
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 ²	suitable	140 m/min	P
Steel < 750 N/mm ²	suitable	130 m/min	P
Steel < 900 N/mm ²	suitable	120 m/min	P
Steel < 1100 N/mm ²	suitable	90 m/min	P
Steel < 1400 N/mm ²	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 ²	suitable	82 m/min	M
INOX > 900 N/mm ²	suitable	75 m/min	M
Ti > 850 N/mm ²	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

