

# HELICOIL® machine taps

spiral fluted 45° | For blind holes

Type 0141.4 HELICOIL® machine tap to create holding threads for HELICOIL® thread inserts with UNC threads as per NASM33527. The tap is suited for blind holes.



**Properties:**

- Spiral flute 45° right-hand spiral
- 2-pitch chamfer
- 15 % cutting angle
- For wrought aluminium alloys with 500 N/mm<sup>2</sup> strength max.
- Also for cast aluminium alloys with very low Si content (≤ 2 %)
- Tolerance class 2B

**Note:**

- Up to UNC 8-32 2-flute
- From UNC 10-24 3-flute and additionally for soft steels with 450 N/mm<sup>2</sup> strength max.

Technical information can be found on the last page.

Diameter (d)	Article number	Pitch (P)	Nominal length t <sub>2</sub>
UNC 1/4"-20	01414746152	1.27	6.4
UNC 5/16"-18	01414766152	1.41	7.9
UNC 3/8"-16	01414776152	1.58	9.5
UNC 1/2"-13	01414796152	1.95	25.4
UNC 2-56	01414636152	0.43	2.2
UNC 4-40	01414656152	0.63	2.2
UNC 6-32	01414676152	0.79	8.8
UNC 8-32	01414686152	0.79	4.2
UNC 10-24	01414696152	1.05	5.5

All technical data refer to the measure mm



## HELICOIL® Plus thread inserts



W and  $d_1$  are the control values for thread inserts (Free Running and Screwlock) before they have been installed. The length can only be measured for installed thread inserts.

### Holding thread



### Assembly



tang not broken off

Prior to tapping, counter-bore 90° and deburr.  
Outside diameter of countersink =  $D_{HC} + 0.1 \text{ mm}$ .

- d = Nominal thread diameter
- P = Thread pitch
- $d_1$  = Outside diameter of thread insert prior to installation
- W = Number of threads prior to installation
- $D_{HC}$  = Outside diameter of the parent thread
- $D_{1HC}$  = Crest diameter
- B = Suitable twist drill diameter. Please note:  $D_{1HC}$  is critical for selecting the correct twist drill diameter.
- $t_1$  = Minimum depth of tapped hole according to DIN 76 – Part 1 (guide value)
- $t_2$  = The nominal length of the thread insert corresponds to the minimum length of the full parent thread for blind holes or the minimum plate thickness for a through hole.
- $t_3$  = Maximum screw-in depth when the tang is not removed
- $t_5$  = Distance of the thread insert from the joint face = 0.25 to 0.5 P, if  $t_2$  corresponds to the above-mentioned minimum value

When you use HELICOIL® Plus thread inserts for volume production, we recommend to add at least  $1 \times P$  to values  $t_1$  and  $t_2$ .

All technical data refer to the measure mm

