HELICOIL® manual taps

Type 0140.0 | Metric standard and fine thread



Short machine tap to create a holding thread (acc. to DIN 8140-2) for HELICOIL® coil thread inserts.

Properties:

- For through holes
- For blind holes (only if sufficient chip space is provided)
- Machining of materials with 700 N/mm² strength max.
- Tolerance class 6H mod. corresponds with 5H

Note:

Only suited for blind holes if sufficient chip space is provided. Minimum requirement: 1 d deeper than the full thread length.

The short machine tap can also be used as a machine tap.

Technical information can be found on the last page.

Diameter (d)	Article number	Version	Pitch (P)	D_{HC} min.	d_2 nominal size	d_3 nominal size	d_4	L_1	L_2	L_3	L_4	K
M 2	01400020104	A	0.40	2.5	2.8	2	–	40	9	5	–	2.1
M 2.5	01400250104	B	0.45	3.1	3.5	2.5	2.6	40	10	6	13.5	2.7
M 3	01400030104	B	0.50	3.6	4	3	3.1	45	10	6	13.5	3.0
M 3.5	01400350104	B	0.60	4.3	4.5	3.5	3.6	45	12	6	15.5	3.4
M 4	01400040104	B	0.70	4.9	6	4	4.2	50	14	8	17.5	4.9
M 5	01400050104	B	0.80	6.0	6	5	5.2	50	16	8	19.5	4.9
M 6	01400060104	C	1.00	7.3	6	6	–	56	19	8	–	4.9
M 7	01400070104	C	1.00	8.3	7	7	–	63	19	8	–	5.5
M 8	01400080104	C	1.25	9.6	7	8	–	70	22	8	–	5.5
M 8x1	01400083104	C	1.00	9.3	7	8	–	63	19	8	–	5.5
M 9	01400090104	C	1.25	10.6	8	9	–	70	24	9	–	6.2
M 10	01400100104	C	1.50	11.9	9	10	–	75	27	10	–	7.0
M 10x1	01400103104	C	1.00	11.3	9	10	–	70	22	10	–	7.0
M 10x1.25	01400109104	C	1.25	11.6	10	9	–	70	22	10	–	7.0
M 11	01400110104	C	1.50	12.9	11	11	–	70	22	12	–	9.0
M 12	01400120104	C	1.75	14.3	11	12	–	80	30	12	–	9.0
M 12x1	01400123104	C	1.00	13.3	11	12	–	70	22	12	–	9.0
M 12x1.25	01400129104	C	1.25	13.6	11	12	–	70	22	12	–	9.0
M 12x1.5	01400124104	C	1.50	14.0	11	12	–	70	22	12	–	9.0
M 14	01400140104	C	2.00	16.6	12	14	–	80	32	12	–	9.0
M 14x1	01400143104	C	1.00	15.3	12	14	–	70	22	12	–	9.0
M 14x1.25	01400149104	C	1.25	15.6	12	14	–	70	22	12	–	9.0
M 14x1.5	01400144104	C	1.50	16.0	12	14	–	70	22	12	–	9.0
M 16	01400160104	C	2.00	18.6	14	16	–	80	22	14	–	11.0
M 16x1.5	01400164104	C	1.50	18.0	14	16	–	80	22	14	–	11.0
M 18x1.5	01400184104	C	1.50	20.0	16	18	–	80	22	15	–	12.0
M 18x2	01400185104	C	2.00	20.6	16	18	–	80	22	15	–	12.0
M 20x1.5	01400204104	C	1.50	22.0	18	20	–	80	22	17	–	14.5
M 20x2	01400205104	C	2.00	22.6	18	20	–	80	22	17	–	14.5
M 22x1.5	01400224104	C	1.50	24.0	18	22	–	90	22	17	–	14.5

All technical data refer to the measure mm

All technical data without obligation. Subject to technical changes and errors.

HELICOIL® manual taps

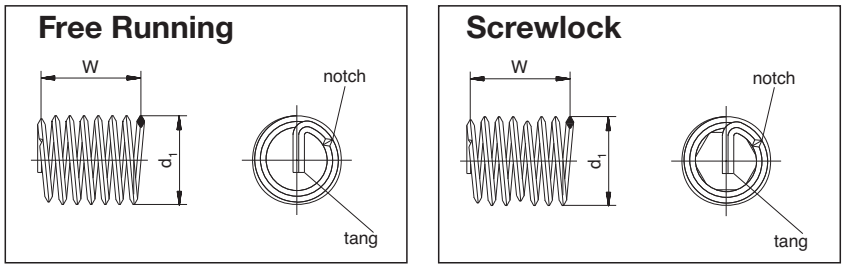
Type 0140.0 | Metric standard and fine thread

Diameter (d)	Article number	Version	Pitch (P)	D_{HC} min.	d_2 nominal size	d_3 nominal size	d_4	L_1	L_2	L_3	L_4	K
M 22x2	01400225104	C	2.00	24.6	18	22	–	90	22	17	–	14.5
M 24x1.5	01400244104	C	1.50	26.0	18	24	–	90	22	17	–	14.5
M 24x2	01400245104	C	2.00	26.6	20	24	–	90	22	19	–	16.0
M 26x1.5	01400264104	C	1.50	28.0	20	26	–	90	22	19	–	16.0
M 27x1.5	01400274104	C	1.50	29.0	22	27	–	90	22	21	–	18.0
M 27x2	01400275104	C	2.00	29.6	22	27	–	90	22	21	–	18.0
M 28x1.5	01400284104	C	1.50	30.0	22	28	–	90	22	21	–	18.0
M 30x1.5	01400304104	C	1.50	32.0	22	30	–	90	22	21	–	18.0
M 30x2	01400305104	C	2.00	32.6	25	30	–	100	22	23	–	20.0
M 33x2	01400335104	C	2.00	35.6	28	33	–	125	40	25	–	22.0
M 36x1.5	01400364104	C	1.50	38.0	28	36	–	100	25	25	–	22.0
M 36x2	01400365104	C	2.00	38.6	32	36	–	125	40	27	–	24.0
M 36x3	01400366104	C	3.00	39.9	32	36	–	125	40	27	–	24.0

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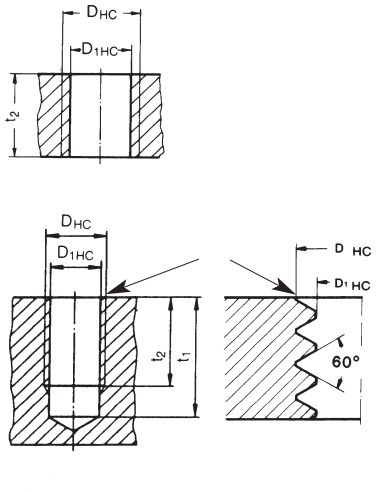
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HELICOIL® Plus thread inserts

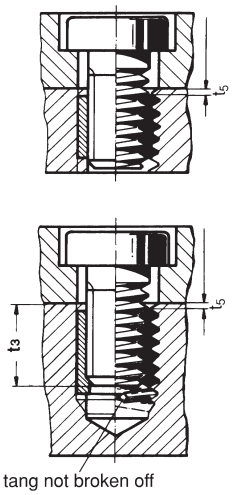


W and d_1 are the control values for thread inserts (Free Running and Screwlock) before they have been installed. The length can only be measured for installed thread inserts.

Holding thread



Assembly



Prior to tapping, counter-bore 90° and deburr.
Outside diameter of **countersink = D_{HC} + 0.1 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 x P to values t_1 and t_2.

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