HELICOIL® manual taps

Type 0140.1 | Metric standard and fine thread

Taper tap (product type 0140.1)

Manual tap for through holes and blind holes to create holding threads (acc. to DIN 8140-2) for HELICOIL® coil thread inserts. A manual tap, a finishing tap (product type 0140.2), is required in addition.

Properties:

- 4-pitch chamfer
- Machining of materials with 700 N/mm² strength max.
- Tolerance class 6H mod. corresponds with 5H

Note:

The finishing tap (product type 0140.2) must be ordered as a separate item.

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	01401020104	A	0.40	2.5	2.8	2	–	40	9	5	–	2.1
M 2.5	01401250104	B	0.45	3.1	3.5	2.5	2.6	40	10	6	13.5	2.7
M 3	01401030104	B	0.50	3.6	4	3	3.1	45	10	6	13.5	3.0
M 3.5	01401350104	B	0.60	4.3	4.5	3.5	3.6	45	12	6	15.5	3.4
M 4	01401040104	B	0.70	4.9	6	4	4.2	50	14	8	17.5	4.9
M 5	01401050104	B	0.80	6.0	6	5	5.2	50	16	8	19.5	4.9
M 6	01401060104	C	1.00	7.3	6	6	–	56	19	8	–	4.9
M 7	01401070104	C	1.00	8.3	7	7	–	63	19	8	–	5.5
M 8	01401080104	C	1.25	9.6	7	8	–	70	22	8	–	5.5
M 8x1	01401083104	C	1.00	9.3	7	8	–	63	19	8	–	5.5
M 9	01401090104	C	1.25	10.6	8	9	–	70	24	9	–	6.2
M 10	01401100104	C	1.50	11.9	9	10	–	75	27	10	–	7.0
M 10x1	01401103104	C	1.00	11.3	9	10	–	70	22	10	–	7.0
M 10x1.25	01401109104	C	1.25	11.6	10	9	–	70	22	10	–	7.0
M 11	01401110104	C	1.50	12.9	11	11	–	70	22	12	–	9.0
M 12	01401120104	C	1.75	14.3	11	12	–	80	30	12	–	9.0
M 12x1	01401123104	C	1.00	13.3	11	12	–	70	22	12	–	9.0
M 12x1.25	01401129104	C	1.25	13.6	11	12	–	70	22	12	–	9.0
M 12x1.5	01401124104	C	1.50	14.0	11	12	–	70	22	12	–	9.0
M 14	01401140104	C	2.00	16.6	12	14	–	80	32	12	–	9.0
M 14x1.25	01401149104	C	1.25	15.6	12	14	–	70	22	12	–	9.0
M 14x1.5	01401144104	C	1.50	16.0	12	14	–	70	22	12	–	9.0
M 16	01401160104	C	2.00	18.6	14	16	–	80	22	14	–	11.0
M 16x1.5	01401164104	C	1.50	18.0	14	16	–	80	22	14	–	11.0
M 18	01401180104	C	2.50	21.3	16	18	–	95	40	15	–	12.0
M 18x1.5	01401184104	C	1.50	20.0	16	18	–	80	22	15	–	12.0
M 20	01401200104	C	2.50	20.0	16	18	–	80	22	15	–	12.0
M 20x1.5	01401204104	C	1.50	22.0	18	20	–	80	22	17	–	14.5
M 20x2	01401205104	C	2.00	22.0	18	20	–	80	22	17	–	14.5
M 22	01401220104	C	2.50	25.3	18	22	–	110	50	17	–	14.5
M 22x1.5	01401224104	C	1.50	24.0	18	22	–	90	22	17	–	14.5
M 24	01401240104	C	3.00	27.9	20	24	–	110	50	19	–	16.0

All technical data refer to the measure mm

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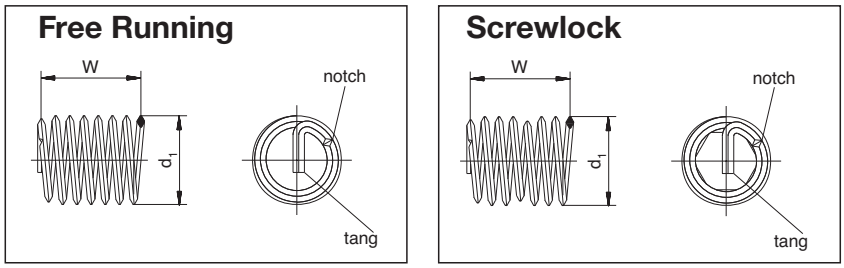
M 24x1.5	01401244104	C	1.50	26.0	18	24	–	90	22	17	–	14.5
M 24x2	01401245104	C	2.00	26.6	20	24	–	90	22	19	–	16.0
M 27	01401270104	C	3.00	30.9	22	27	–	125	56	21	–	18.0
M 30	01401300104	C	3.50	34.6	28	30	–	125	40	25	–	22.0
M 30x2	01401305104	C	2.00	32.6	25	30	–	100	22	23	–	20.0
M 33	01401330104	C	3.50	37.6	28	33	–	125	40	25	–	22.0
M 33x2	01401335104	C	2.00	35.6	28	33	–	125	40	25	–	22.0
M 36x3	01401366104	C	3.00	39.9	32	36	–	125	40	27	–	24.0

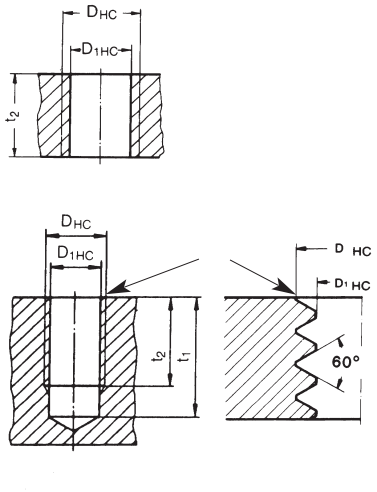
All technical data refer to the measure mm

HELICOIL® Plus thread inserts

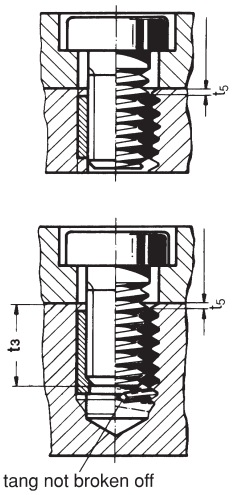


W and d_1 are the control values for thread inserts (Free Running and Screwlock) before they have been installed. The length can only be measured for installed thread inserts.

Holding thread



Assembly



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.

All technical data refer to the measure mm