HELICOIL® machine taps

spiral fluted 40° | For blind holes

Type 0141.5 HELICOIL® machine tap to create holding threads for HELICOIL® thread inserts with metric normal and fine screw threads as per DIN 8140-2. The tap is suited for blind holes and blind holes with a deeper tap hole.



Properties:
- Spiral flute 40° right-hand spiral
- 2-3-pitch chamfer
- 10 % cutting angle
- For steels with 500–850 N/mm² strength
- Also for cast aluminium alloys with an Si content up to 10 %
- Tolerance class 5H (6H mod.)

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	01415020102	A	0.40	2.5	2.8	2	–	50	4	5	–	2.1
M 2.5	01415250102	B	0.45	3.1	3.5	2.5	2.6	56	5	6	18	2.7
M 3	01415030102	B	0.50	3.7	4	3	3.1	56	6	6	20	2.7
M 3.5	01415350102	B	0.60	4.3	4.5	3.5	3.6	63	7	6	21	3.1
M 4	01415040102	B	0.70	4.9	6	4	4.2	70	8	8	25	4.9
M 5	01415050102	B	0.80	6.0	6	5	5.2	80	10	8	30	4.9
M 6	01415060102	B	1.00	7.3	8	6	6.2	90	12	9	35	6.2
M 7	01415070102	B	1.00	8.3	9	7	7.2	90	12	10	35	7.0
M 8	01415080102	B	1.25	9.6	10	8	8.3	100	14	11	39	8.0
M 8x1	01415083102	B	1.00	9.3	9	8	8.2	90	12	10	35	7.0
M 10	01415100102	C	1.50	12.0	9	10	–	110	16	10	–	7.0
M 10x1	01415103102	C	1.00	11.3	9	10	–	100	16	10	–	7.0
M 10x1.25	01415109102	C	1.25	11.6	9	10	–	100	16	10	–	7.0
M 11	01415110102	C	1.50	13.0	11	11	–	100	20	11	–	9.0
M 12	01415120102	C	1.75	14.3	11	12	–	110	20	12	–	9.0
M 12x1	01415123102	C	1.00	13.3	11	12	–	100	20	12	–	9.0
M 12x1.25	01415129102	C	1.25	13.6	11	12	–	100	20	12	–	9.0
M 12x1.5	01415124102	C	1.50	14.0	11	12	–	100	20	12	–	9.0
M 14	01415140102	C	2.00	16.6	12	14	–	110	20	12	–	9.0
M 14x1	01415143102	C	1.00	15.3	12	14	–	100	20	12	–	9.0
M 14x1.5	01415144102	C	1.50	16.0	12	14	–	100	20	12	–	9.0
M 16	01415160102	C	2.00	18.6	14	16	–	125	25	14	–	11.0
M 16x1.5	01415164102	C	1.50	18.0	14	16	–	110	25	14	–	11.0
M 18	01415180102	C	2.50	21.3	16	18	–	140	25	15	–	12.0
M 18x1.5	01415184102	C	1.50	20.0	16	18	–	125	25	15	–	12.0
M 18x2	01415185102	C	2.00	20.6	16	18	–	140	25	15	–	12.0
M 20	01415200102	C	2.50	23.3	18	20	–	140	25	17	–	14.5
M 20x1.5	01415204102	C	1.50	22.0	18	20	–	125	25	17	–	14.5
M 20x2	01415205102	C	2.00	22.6	18	20	–	140	25	17	–	14.5
M 22	01415220102	C	2.50	25.3	18	22	–	160	30	17	–	14.5
M 22x1.5	01415224102	C	1.50	24.0	18	22	–	140	28	17	–	14.5
M 24	01415240102	C	3.00	27.9	20	24	–	160	30	19	–	16.0
M 24x1.5	01415244102	C	1.50	26.0	18	24	–	140	28	17	–	14.5
M 24x2	01415245102	C	2.00	26.6	20	24	–	140	28	19	–	16.0

All technical data refer to the measure mm

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

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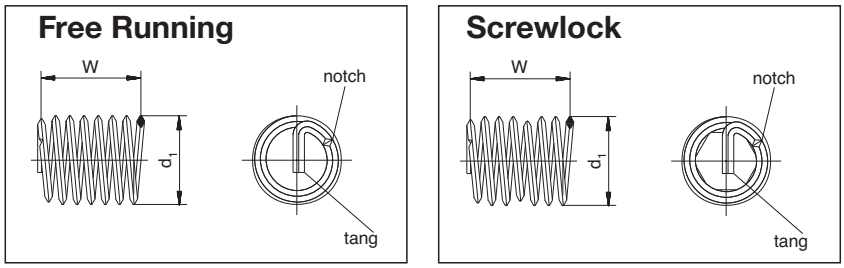
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Diameter (d)	Article number	Version	Pitch (P)	D_{HC} min.	d_2 nominal size	d_3 nominal size	d_4	L_1	L_2	L_3	L_4	K
M 26x1.5	01415264102	C	1.50	28.0	20	26	–	140	28	19	–	16.0
M 27	01415270102	C	3.00	30.9	22	27	–	180	50	21	–	18.0
M 27x2	01415275102	C	2.00	29.6	22	27	–	150	28	21	–	18.0
M 30	01415300102	C	3.50	34.5	28	30	–	200	56	25	–	22.0
M 30x1.5	01415304102	C	1.50	32.0	22	30	–	150	28	21	–	18.0
M 30x2	01415305102	C	2.00	32.6	25	30	–	160	28	23	–	20.0
M 33	01415330102	C	3.50	37.5	28	33	–	200	56	25	–	22.0
M 33x2	01415335102	C	2.00	35.6	28	33	–	170	30	25	–	22.0
M 36	01415360102	C	4.00	41.2	32	36	–	200	60	27	–	24.0
M 36x2	01415365102	C	2.00	38.6	32	36	–	170	30	27	–	24.0
M 36x3	01415366102	C	3.00	39.9	32	36	–	200	60	27	–	24.0

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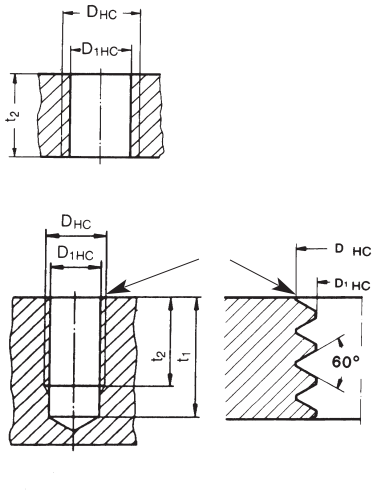
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HELICOIL® Plus thread inserts

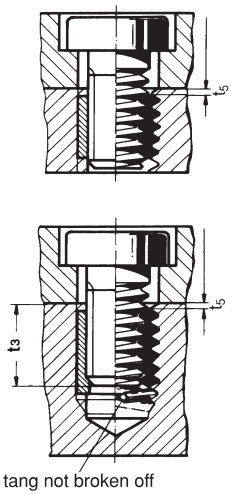


W and d_1 are the control values for thread inserts (Free Running and Screwlock) before they have been installed. The length can only be measured for installed thread inserts.

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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