



**Black Oxide  
Metric Coarse, Semi-Bottoming,  
Modified Bottoming  
427X71**

Thread Size	Thread Length	Overall Length	75% Thread Drill Size	Thread Limit / Class of Fit	Brand	Item No.
<b>Black Oxide</b>						
<b>Metric Coarse, Modified Bottom, Semi-Bottoming</b>						
M3x0.5	9.00 mm	56.00 mm	2.50 mm	6HX / 6HX	Walter Prototyp	427X66
M3.5x0.6	11.00 mm	56.00 mm	2.90 mm	6HX / 6HX	Walter Prototyp	427X67
M4x0.7	12.00 mm	63.00 mm	3.30 mm	6HX / 6HX	Walter Prototyp	427X68
M5x0.8	13.00 mm	70.00 mm	4.20 mm	6HX / 6HX	Walter Prototyp	427X69
M6x1	15.00 mm	80.00 mm	5.00 mm	6HX / 6HX	Walter Prototyp	427X70
M8x1.25	18.00 mm	90.00 mm	H	6HX / 6HX	Walter Prototyp	427X71
M10x1.5	20.00 mm	100.00 mm	8.50 mm	6HX / 6HX	Walter Prototyp	427X65
<b>Bright (Uncoated)</b>						
<b>Metric Coarse, Bottoming</b>						
M4x0.7	3/4 in	2 1/4 in	3.30 mm	—	OSG	6WGHA
M8x1.25	1 1/8 in	2 23/32 in	H	—	OSG	6WGJ2
M10x1.5	1 1/4 in	2 19/16 in	8.50 mm	—	OSG	6WGJ5
M12x1.75	1 1/2 in	3 in	7/16 in	—	OSG	6WGJ7
<b>Metric, Bottoming, Taper</b>						
M3x0.5	7.95 mm	49.28 mm	2.75 mm	D5	Widia GTD	13X314
M4x0.7	9.53 mm	54.10 mm	3.65 mm	D6	Widia GTD	13X313
M6x1	15.88 mm	63.50 mm	5.50 mm	D8	Widia GTD	13X311
M8x1.25	17.48 mm	69.09 mm	L	D9	Widia GTD	13X310
<b>UNC, Bottoming</b>						
#2-56	7/16 in	1 3/4 in	1.73 mm	2B	OSG	6WG6C3
#2-56	7/16 in	1 3/4 in	1.95 mm	H2 / 2B	Cleveland	435V96
#4-40	9/16 in	1 7/8 in	2.20 mm	2B	OSG	6WG67
#6-32	3/8 in	2 in	3.10 mm	H3	Widia GTD	2XUC4
#6-32	3/8 in	2 in	3.10 mm	H5 / 2B-3B	Greenfield Threading	15X001
#8-32	3/8 in	2 1/8 in	3.75 mm	H3 / 2B	Cleveland	435W07
#10-24	1/2 in	2 3/8 in	4.27 mm	H6 / 2B-3B	Cleveland	435W13
1/4"-20	5/8 in	2 1/2 in	5.70 mm	H4	Widia GTD	2XUC6
1/4"-20	5/8 in	2 1/2 in	5.70 mm	H4 / 2B	Cleveland	435W19
1/4"-20	5/8 in	2 1/2 in	5.70 mm	H6 / 2B	Cleveland	435W21
1/4"-20	1 in	2 1/2 in	5.70 mm	2B	OSG	6WG6E1
5/16"-18	1 1/8 in	2 23/32 in	F	2B	OSG	6WG67
3/8"-16	3/4 in	2 19/16 in	11/32 in	H5	Widia GTD	2XUC31
1/2"-14	1 1/4 in	2 19/16 in	9/16 in	2B	OSG	6WG69
7/16"-14	1 1/8 in	3 5/8 in	2 in	H3	Widia GTD	6WG69F
7/16"-13	1 1/2 in	3 in	27/64 in	2B	OSG	6WG65
7/16"-20	1 5/8 in	3 3/8 in	12.05 mm	H5	Widia GTD	2XUD4
5/8"-11	1 1/8 in	3 13/16 in	37/64 in	H7	Widia GTD	2XUD5



## High-Performance Chip-Free Thread-Forming Taps

- Right-hand flute direction

High-performance chip-free taps are harder and more wear-resistant than general purpose chip-free taps. They provide better precision and accuracy than general purpose taps when used in designated materials.



**Multiple Material  
Tapping,  
UNF, TiCN,  
DIN/ANSI  
UNF, Plug  
54MC84**

Thread Size	Thread Length	Overall Length	Thread Limit / Class of Fit	Tap Material	Brand	Item No.
<b>Multiple Material Tapping, Metric Coarse, T1CN, DIN/ANSI</b>						
<b>Metric Coarse, Bottoming</b>						
M1.2x0.25	5.00 mm	40.00 mm	D5 / 6H	Cobalt	OSG	54MC89
M6x1	10.00 mm	80.00 mm	D8	Cobalt	OSG	54MD28
M7x1	12.00 mm	80.00 mm	D8	Cobalt	OSG	54MD20
M16x2	20.00 mm	110.00 mm	D12 / 6H	Cobalt	OSG	54MD62
<b>Metric Coarse, Modified Bottom, Semi-Bottoming</b>						
M4.5x0.75	9.00 mm	70.00 mm	D4	Cobalt	OSG	33VU54
M16x2	20.00 mm	110.00 mm	D7 / 6H	Cobalt	OSG	33VU39
M30x3.5	21.00 mm	180.00 mm	D15	Cobalt	OSG	54MD99
<b>Metric Coarse, Plug</b>						
M1x0.25	40.00 mm	40.00 mm	D5 / 6H	Cobalt	OSG	54MC94
M12x7.5	17.00 mm	110.00 mm	D11 / 6H	Cobalt	OSG	54MD55
<b>Multiple Material Tapping, UNC, Bright (Uncoated)</b>						
<b>UNC, Modified Bottom, Semi-Bottoming</b>						
#2-56	3/8 in	1 3/4 in	H5	Cobalt	OSG	2TTU1
#6-32	3/8 in	2 in	H3 / 3B	Cobalt	OSG	2TTZ2
#10-24	1/2 in	2 3/4 in	H10	Cobalt	OSG	33WH02
1/4-20	5/8 in	2 1/2 in	H2	Cobalt	OSG	33WH58
3/8-16	3/4 in	2 1/2 in	H4	Cobalt	OSG	33WL28
1/2-13	7/8 in	3 3/8 in	H4	Cobalt	OSG	33WN20
3/4-10	1 in	3 3/8 in	H10	Cobalt	OSG	33W10
9/16-12	1 in	3 3/4 in	H6	Cobalt	OSG	33WP17
5/8-11	1 1/8 in	3 13/16 in	H6	Cobalt	OSG	33WR14
5/8-11	1 1/8 in	3 13/16 in	H5	Cobalt	OSG	33WR10
3/4-10	1 3/8 in	4 1/4 in	H6	Cobalt	OSG	33WT02
<b>UNC, Plug</b>						
#4-40	1/4 in	1 5/64 in	H3 / 3B	Cobalt	OSG	2TTY8
3/8-16	3/4 in	2 1/8 in	H4	Cobalt	OSG	33VL44
9/16-12	1 in	3 3/64 in	H7 / 3B	Cobalt	OSG	33WP45
3/4-10	1 1/8 in	4 1/4 in	H10 / 2B	Cobalt	OSG	2TTY9
1 3/4-10	1 3/8 in	4 1/4 in	H10	Cobalt	OSG	33WY68
<b>Multiple Material Tapping, UNC, T1CN, DIN/ANSI</b>						
<b>UNC, Bottoming</b>						
1/2-13	3/4 in	4 2/64 in	H8 / 2B	Cobalt	OSG	54MC40
9/16-12	13/16 in	4 2/64 in	H7 / 3B	Cobalt	OSG	54MC51
5/8-11	7/8 in	4 2/64 in	H10 / 2B	Cobalt	OSG	54MC58



## General Purpose Chip-Free Thread-Forming Taps

- Right-hand thread direction

General purpose chip-free taps are made from high-speed steel and can create threads in a wide range of materials.

Thread Size	Thread Length	Overall Length	75% Thread Drill Size	Thread Limit / Class of Fit	Brand	Item No.
<b>UNC, Plug</b>						
#4-40	5/16 in	1 7/8 in	—	H3 / 2B	Cleveland	435V97
#10-24	1/2 in	2 3/8 in	4.27 mm	H4 / 2B	Greenfield Threading	15J976
<b>UNC, Plug, Taper</b>						
#4-40	5/16 in	1 7/8 in	2.52 mm	H3	Widia GTD	2XTX7
#6-32	3/8 in	2 in	3.10 mm	H3	Widia GTD	2XTY1
5/8-11	1 1/8 in	3 13/16 in	37/64 in	H7	Widia GTD	2XUA1
<b>UNC, UNCJ, Bottoming, Taper</b>						
#6-32	3/8 in	2 in	3.10 mm	H3	Widia GTD	13X307
#12-24	1/2 in	2 3/8 in	4.95 mm	H4	Widia GTD	13X406
1/4-20	5/8 in	2 1/2 in	5.70 mm	H4	Widia GTD	13X282
3/8-16	3/4 in	2 1/8 in	1 1/2 in	H7	Widia GTD	13X265
1/2-13	1 1/8 in	3 3/8 in	11.70 mm	H5	Widia GTD	13X258
5/8-13	1 5/8 in	3 3/8 in	11.70 mm	H7	Widia GTD	13X259
<b>UNF, Plug, Taper</b>						
#10-32	1/2 in	2 3/8 in	4.40 mm	H4	Widia GTD	2XTY5
3/8-24	3/4 in	2 15/16 in	9.00 mm	H8	Widia GTD	2XTZ3
<b>TICN</b>						
<b>Metric, Bottoming, Taper</b>						
M3x0.5	7.95 mm	49.28 mm	2.75 mm	D5	Widia GTD	12E991
M4x0.7	9.53 mm	54.10 mm	3.65 mm	D6	Widia GTD	12F194
M5x0.8	12.70 mm	60.45 mm	4.60 mm	D7	Widia GTD	12F132
M6x1	15.88 mm	63.50 mm	5.50 mm	D8	Widia GTD	12E988
M6x1.25	17.48 mm	69.09 mm	L	D9	Widia GTD	12F128
<b>UNC, Bottoming</b>						
#3-48	1/2 in	1 13/16 in	2.00 mm	2B	OSG	6WG6CE
#6-32	3/8 in	2 in	3.10 mm	H3	Widia GTD	12F004
#6-32	1 1/8 in	2 in	3.10 mm	2B	OSG	6WG0D1
#8-32	3/4 in	2 1/8 in	3.40 mm	2B	OSG	6WG0D4
#10-24	7/8 in	2 3/8 in	4.27 mm	2B	OSG	6WG0D7
1/4-20	5/8 in	2 1/2 in	5.70 mm	H4	Widia GTD	12E997
<b>UNC, Bottoming, Taper</b>						
#6-32	3/8 in	2 in	3.10 mm	H5	Widia GTD	12F184
#10-24	1/2 in	2 3/8 in	4.27 mm	H4	Widia GTD	12F170
3/8-16	3/4 in	2 1/8 in	1 1/2 in	H7	Widia GTD	12F146
1/2-13	1 1/8 in	3 1/8 in	11.70 mm	H5	Widia GTD	12F139
<b>UNF, Bottoming</b>						
#8-32	7/8 in	1 5/8 in	1.20 mm	2B	OSG	6WG6C2
#10-32	1/2 in	2 3/8 in	4.40 mm	H4	Widia GTD	12E998
1/16-20	1 1/8 in	3 3/32 in	9.95 mm	2B	OSG	6WG6G4
#10-32	7/8 in	2 3/8 in	4.40 mm	2B	OSG	6WG6G6

Thread Size	Thread Length	Overall Length	Thread Limit / Class of Fit	Tap Material	Brand	Item No.
<b>UNC, Modified Bottom, Semi-Bottoming</b>						
5/16-18	1/2 in	3 1/32 in	H5 / 3B	Cobalt	OSG	33VT67
1 1/4"-7	13/16 in	3 7/64 in	H13 / 2B	Cobalt	OSG	54MC71
<b>UNC, Plug</b>						
5/16-18	1/2 in	4 1/32 in	H7 / 2B	Cobalt	OSG	54MC28
1/2-13	3/4 in	4 2/64 in	H8 / 2B	Cobalt	OSG	54MC41
9/16-12	13/16 in	4 2/64 in	H7 / 3B	Cobalt	OSG	54MC59
5/8-11	7/8 in	4 2/64 in	H10 / 2B	Cobalt	OSG	54MC50
1-8	1 1/4 in	6 1/64 in	H11 / 2B	Cobalt	OSG	54MC80
<b>Multiple Material Tapping, UNC, TIN</b>						
<b>UNC, Bottoming</b>						
#4-10	1/4 in	1 55/64 in	H7	Cobalt	OSG	33WG51
#10-24	1/2 in	2 23/64 in	H6 / 2B	Cobalt	OSG	33WG61
1/4-20	5/8 in	2 1/2 in	H6 / 2B	Cobalt	OSG	2TTV5
<b>UNC, Modified Bottom, Semi-Bottoming</b>						
#4-40	1/4 in	1 55/64 in	H3 / 3B	Cobalt	OSG	2TTP2
#6-32	3/8 in	2 in	H6	Cobalt	OSG	4APW4
#6-32	3/8 in	2 in	H8	Cobalt	OSG	33WA65
#8-32	3/8 in	2 1/8 in	H9	Cobalt	OSG	33WC90
#10-24	1/2 in	2 23/64 in	H7	Cobalt	OSG	33WH6
1/4-20	5/8 in	2 1/2 in	H7	Cobalt	OSG	33WE4
1/4-20	5/8 in	2 1/2 in	H6 / 2B	Cobalt	OSG	2TTR
5/16-18	1 1/8 in	2 23/64 in	H3	Cobalt	OSG	2TTR
5/16-18	5/8 in	2 23/64 in	H5 / 3B	Cobalt	OSG	2TTR6
3/8-16	3/4 in	2 15/16 in	H6	Cobalt	OSG	33WL34
5/8-11	1 1/8 in	3 13/16 in	H10 / 2B	Cobalt	OSG	33WX94
5/8-11	1 1/8 in	3 13/16 in	H6	Cobalt	OSG	33WR16
3/4-10	1 3/8 in	4 1/4 in	H8	Cobalt	OSG	33WT12
<b>UNC, Plug</b>						
#6-32	3/8 in	2 in	H10	Cobalt	OSG	33WG75
<b>Multiple Material Tapping, UNF, T1CN, DIN/ANSI</b>						
<b>UNF, Bottoming</b>						
#4-16	1 in	4 2 1/4 in	H10 / 2B	Cobalt	OSG	54MC83
<b>UNF, Modified Bottom, Semi-Bottoming</b>						
#10-32	1/2 in	2 3/4 in	H4 / 3B	Cobalt	OSG	33VT58
<b>UNF, Plug</b>						
3/4-16	1 in	4 2 1/4 in	H10 / 2B	Cobalt	OSG	54MC84
<b>Steel Tapping Metric Coarse, Black Oxide</b>						
<b>Metric Coarse, Modified Bottom, Semi-Bottoming</b>						
M1.2x0.25	5.50 mm	40.00 mm	6HX / 5HX	High Speed Steel	Walter Prototype	427X42
M1.4x0.3	7.00 mm	40.00 mm	6HX / 5HX	High Speed Steel	Walter Prototype	427X43
M1.6x0.35	8.00 mm	40.00 mm	6HX / 6HX	High Speed Steel	Walter Prototype	427X44
M2.0x4	6.00 mm	45.00 mm	6HX / 6HX	High Speed Steel	Walter Prototype	427X46
M2.5x0.45	8.00 mm	50.00 mm	6HX / 6HX	High Speed Steel	Walter Prototype	427X47
M3.0x5	9.00 mm	56.00 mm	6HX / 6HX	High Speed Steel	Walter Prototype	427X48
M4.0x8	11.00 mm	63.00 mm	6HX / 6HX	High Speed Steel	Walter Prototype	427X49
M5.0x8	13.00 mm	70.00 mm	6HX / 6HX	High Speed Steel	Walter Prototype	427X50
M6x1	15.00 mm	80.00 mm	6HX / 6HX	High Speed Steel	Walter Prototype	427X51
M8x1.25	18.00 mm	90.00 mm	6HX / 6HX	High Speed Steel	Walter Prototype	427X52
M10x1.5	20.00 mm	100.00 mm	6HX / 6HX	High Speed Steel	Walter Prototype	427X45