

Metric Hand Taps

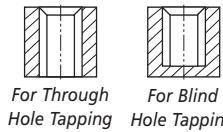
Features/Benefits:

- the most popular style of tap
- manufactured from select high-speed steel for increased wear life
- straight flute design
- can be used by hand or for tapping under power
- versatile taps for use in general machine tapping or CNC tapping applications
- use for through hole or blind hole tapping
- standard in right hand sizes in Unified and American National thread form
- hand taps store chips in their flutes next to the chamfered teeth during the threading operation
- for deep-hole threading more than 1 1/2 diameters of the tap-in depth, use a hand tap with fewer flutes for increased chip handling capabilities

Hand taps are available in three chamfer lengths for through hole or blind hole tapping:

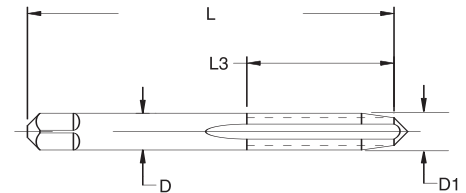
- taper (7-10 pitches) - longest standard chamfer ensures easier starting and requires less tapping torque because of more working teeth
- plug (3-5 pitches) - the most universally used chamfer for hand or machine tapping in through or blind holes
- bottoming (1-2 pitches) - for threading close to the bottom of blind holes; the least efficient standard chamfer

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous



Application Information:

- steels < 30Rc (TiN, TiCN, SH50)
- stainless steel < 30Rc (TiN, TiCN)
- cast iron and ductile iron (TiN, TiCN, SH50)
- non-ferrous materials (uncoated, MAXI)
- cast iron (uncoated, MAXI)
- aluminum (TiN+Cr/C)



D1 = Tap Size D = Shank Diameter
L = Overall Length L3 = Thread Length

HIGH-PERFORMANCE TAPS

THREAD MILLS

PRODUCTION TAPS

MAINTENANCE TOOLS

GAGES

TECHNICAL INFORMATION & INDEX

Metric Hand Taps

Taper Chamfer 7-10 Pitches

Series No. 5353 Uncoated

EDP Number - Taper Chamfer

Size	L	L3	D	Flutes	Pitch Dia. Limit	Uncoated
M2 x 0,4	1.75	.438	.141	3	D3	14725
M3 x 0,5	1.94	.625	.141	3	D3	14741
M4 x 0,7	2.13	.750	.168	4	D4	14757
M5 x 0,8	2.38	.875	.194	4	D4	14773
M6 x 1	2.50	1.000	.255	4	D5	14781
M7 x 1	2.72	1.125	.318	4	D5	14789
M8 x 1,25	2.72	1.125	.318	4	D5	14797
M10 x 1,5	2.94	1.250	.381	4	D6	14813
M12 x 1,75	3.38	1.656	.367	4	D6	14829
M14 x 2	3.59	1.656	.429	4	D7	14845
M16 x 2	3.81	1.813	.480	4	D7	14861
M18 x 2,5	4.03	1.063	.542	4	D7	14877
M20 x 2,5	4.47	2.000	.652	4	D7	14893
M24 x 3	4.91	2.219	.760	4	D8	14909
M30 x 3,5	5.44	2.563	1.021	4	D9	14925
M36 x 4	6.06	3.000	1.233	4	D9	14941

Metric taps for 6H class of fit are suitable for MJ Aerospace internal threading applications.

Metric taps are manufactured to USCTI specifications and dimensions.

Metric tap blank dimensions are equivalent to inch taps.

Metric hand taps with plug chamfer begin on the next page.

Metric Hand Taps

For Through Holes in General Machining Applications



HIGH-PERFORMANCE TAPS

Metric Hand Taps

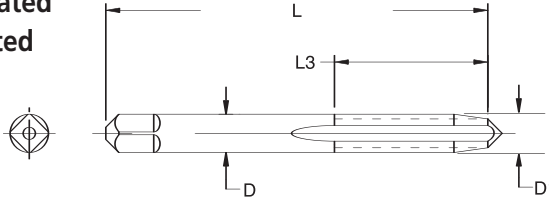
Plug Chamfer 3 to 5 Pitches

- Series No. 5353TC TiCN Coated
- Series No. 2353 TiN Coated
- Series No. 5353 Uncoated

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous



For Through Hole Tapping



D1 = Tap Size D = Shank Diameter
L = Overall Length L3 = Thread Length

Alternate Coatings Available.

(Full package quantities only)



THREAD MILLS

PRODUCTION TAPS

MAINTENANCE TOOLS

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EDP Number - Plug Chamfer

Size	L	L3	D	Flutes	Pitch Dia. Limit	TiCN	TiN	Uncoated
M1,6 x 0,35	1.63	.313	.141	2	D3	—	—	14718
M2 x 0,4	1.75	.438	.141	3	D3	—	—	14726
M2,5 x 0,45	1.81	.500	.141	3	D3	—	—	14734
M3 x 0,5	1.94	.625	.141	3	D3	19217	15471	14742
M3,5 x 0,6	2.00	.688	.141	3	D4	—	—	14750
M4 x 0,7	2.13	.750	.168	4	D4	19219	15473	14758
M4,5 x 0,75	2.38	.875	.194	4	D4	—	—	14766
M5 x 0,8	2.38	.875	.194	4	D4	19222	19906	14774
M6 x 1	2.50	1.000	.255	4	D5	19224	19909	14782
M7 x 1	2.72	1.125	.318	4	D5	—	—	14790
M8 x 1,25	2.72	1.125	.318	4	D5	19225	19912	14798
M10 x 1,5	2.94	1.250	.381	4	D6	19227	19915	14814
M12 x 1,75	3.38	1.656	.367	4	D6	19229	19955	14830
M14 x 2	3.59	1.656	.429	4	D7	—	—	14846
M16 x 2	3.81	1.813	.480	4	D7	—	—	14862
M18 x 2,5	4.03	1.063	.542	4	D7	—	—	14878
M20 x 2,5	4.47	2.000	.652	4	D7	—	—	14894
M24 x 3	4.91	2.219	.760	4	D8	—	—	14910
M30 x 3,5	5.44	2.563	1.021	4	D9	—	—	14926
M36 x 4	6.06	3.000	1.233	4	D9	—	—	14942

Metric taps for 6H class of fit are suitable for MJ Aerospace internal threading applications. Metric taps are manufactured to USCTI specifications and dimensions.

Metric tap blank dimensions are equivalent to inch taps. Metric taps for 6H class of fit are suitable for MJ Aerospace internal threading applications.

Coating Information:

TiCN (Titanium Carbonitride) coated taps:

- TiCN coating enables higher tapping speeds for increased productivity and excellent tool life
- for tapping under power with extended tap wear life
- appropriate for a wide array of ferrous (steel) materials

TiN (Titanium Nitride) coated taps:

- TiN coating provides increased tap wear life and improved product thread finish
- higher tapping speeds may be possible with TiN coated taps
- for hand tapping or tapping under power
- appropriate for a wide array of ferrous materials

SH50 steam oxide treated taps:

- SH50 oxide treatment provides increased lubricity; applied primarily to prevent galling and loading in steels
- ideal for tapping a wide array of ferrous materials

TiN+Cr/C (Titanium Nitride plus Chromium Carbide Carbon) coated taps:

- combines the wear resistance of TiN with a lubricous top layer of chromium carbide carbon
- proprietary coating for both ferrous and non-ferrous materials
- effective in stainless steel (304, 316 only) and aluminum

SH50 steam oxide treated taps:

- SH50 oxide treatment provides increased lubricity; applied primarily to prevent galling and loading in steels
- ideal for tapping a wide array of ferrous materials



Metric Hand Taps

For Blind Holes in General Machining Applications

HIGH-PERFORMANCE TAPS

THREAD MILLS

PRODUCTION TAPS

MAINTENANCE TOOLS

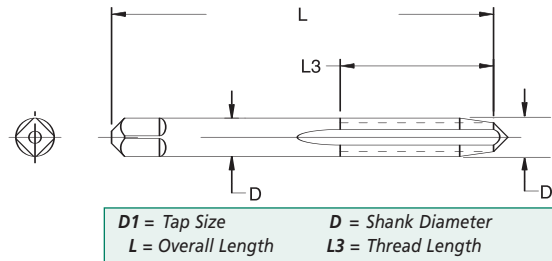
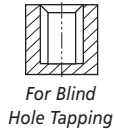
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Metric Hand Taps

Bottoming Chamfer 1 to 2 Pitches

- Series No. 5353TC TiCN Coated
- Series No. 2353 TiN Coated
- Series No. 5353 Uncoated



Alternate Coatings Available.
(Full package quantities only)



EDP Number - Bottoming Chamfer

Size	L	L3	D	Flutes	Pitch Dia. Limit	TiCN	TiN	Uncoated
M2 x 0,4	1.75	.438	.141	3	D3	—	—	14727
M3 x 0,5	1.94	.625	.141	3	D3	19201	15472	14743
M4 x 0,7	2.13	.750	.168	4	D4	19203	15474	14759
M5 x 0,8	2.38	.875	.194	4	D4	19205	19907	14775
M6 x 1	2.50	1.000	.255	4	D5	19206	19910	14783
M7 x 1	2.72	1.125	.318	4	D5	—	—	14791
M8 x 1,25	2.72	1.125	.318	4	D5	19212	19913	14799
M10 x 1,5	2.94	1.250	.381	4	D6	19214	19916	14815
M12 x 1,75	3.38	1.656	.367	4	D6	19215	19918	14831
M14 x 2	3.59	1.656	.429	4	D7	—	—	14847
M16 x 2	3.81	1.813	.480	4	D7	—	—	14863
M18 x 2,5	4.03	1.063	.542	4	D7	—	—	14879
M20 x 2,5	4.47	2.000	.652	4	D7	—	—	14895
M24 x 3	4.91	2.219	.760	4	D8	—	—	14911
M30 x 3,5	5.44	2.563	1.021	4	D9	—	—	14927
M36 x 4	6.06	3.000	1.233	4	D9	—	—	14943

Metric taps for 6H class of fit are suitable for MJ Aerospace internal threading applications.
 Metric taps are manufactured to USCTI specifications and dimensions.
 Metric tap blank dimensions are equivalent to inch taps.
 Metric hand taps sets begin on the next page.

Greenfield LIGHTNING® SERVICE Available



Metric Hand Taps

For Through or Blind Holes in General Machining Applications

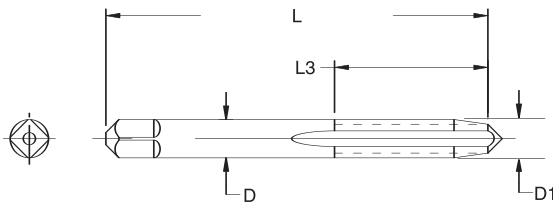
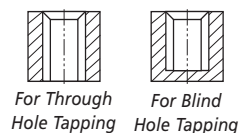
Metric Hand Taps, Sets of One Each, Taper, Plug, Bottoming Chamfer

■ Series No. 5353 Uncoated

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous

HIGH-PERFORMANCE TAPS

THREAD MILLS



D1 = Tap Size D = Shank Diameter
L = Overall Length L3 = Thread Length



Set of One Each Taper, Plug, and Bottoming Chamfer

EDP Number - Set of One Each Taper, Plug, Bottoming Chamfer

PRODUCTION TAPS

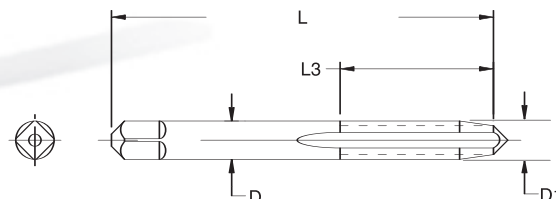
Size	L	L3	D	Flutes	Pitch Dia. Limit	Uncoated
M2 x 0,4	1.75	.438	.141	3	D3	14728
M3 x 0,5	1.94	.625	.141	3	D3	14744
M4 x 0,7	2.13	.750	.168	4	D4	14760
M5 x 0,8	2.38	.875	.194	4	D4	14777
M6 x 1	2.50	1.000	.255	4	D5	14784
M7 x 1	2.72	1.125	.318	4	D5	14792
M8 x 1,25	2.72	1.125	.318	4	D5	14800
M10 x 1,5	2.94	1.250	.381	4	D6	14816
M12 x 1,75	3.38	1.656	.367	4	D6	14832
M14 x 2	3.59	1.656	.429	4	D7	14848
M16 x 2	3.81	1.813	.480	4	D7	14864
M18 x 2,5	4.03	1.063	.542	4	D7	14880
M20 x 2,5	4.47	2.000	.652	4	D7	14896
M24 x 3	4.91	2.219	.760	4	D8	14912
M30 x 3,5	5.44	2.563	1.021	4	D9	14928
M36 x 4	6.06	3.000	1.233	4	D9	14944

MAINTENANCE TOOLS

Metric Spark Plug Taps

Features/Benefits:

- ground thread, straight flute design
- plug chamfer 3-5 pitches
- standard sizes for spark plugs
- made from select high-speed steel
- SH50 steam oxide surface treatment standard



D1 = Tap Size D = Shank Diameter
L = Overall Length L3 = Thread Length

Application Information:

- steel < 30Rc
- stainless steel < 30Rc
- cast iron and ductile iron

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Series 5353 Metric Spark Plug Taps, Surface Treated, Plug Chamfer

Size	L	L3	D	Flutes	Pitch Dia. Limit	EDP Number SH50 Oxide
M14 x 1,25	3.594	1.656	.429	4	H4	14586
M18 x 1,5	4.031	1.063	.542	4	H4	14590

Dies



High-Speed Steel Round Adjustable

High-Speed Steel Round Adjustable Dies

Features/Benefits:

- made from high-speed steel for improved wear life
- chamfered on both faces, 2 to 3 threads on one face and 1 to 2 1/2 threads on the other for threading close to the shoulder
- beveled screw slot to remove screw when die is used in a machine holder; range of adjustment of round dies is slight

Application Information:

- ideal for maintenance in the shop or in the field
- use in round die stocks, Series 1750, or Series 1790 (see page 130)
- for minor size adjustments, fine pitch screw adjusts edges of the die closer together or further apart



D1 = Cutting Size

High-Speed Steel Round Adjustable Dies

Series 6382

MACHINE SCREW

D1	NC/UNC	NF/UNF	EDP Number	
			13/16" Die O.D. 1/4" Thickness	1" Die O.D. 3/8" Thickness
5	40	-	23710	—
5	-	44	23712	—
6	32	-	23713	23730
6	-	40	23715	—
8	32	-	23716	23731
8	-	36	23718	—
10	24	-	23719	23732
10	-	32	23720	23733
12	24	-	23722	23735
12	-	28	23723	—

FRACTIONAL

D1	NC/UNC	NF/UNF	EDP Number			
			13/16" Die O.D. 1/4" Thickness	1" Die O.D. 3/8" Thickness	1" Die O.D. 1/2" Thickness	2" Die O.D. 5/8" Thickness
1/4	20	-	23724	23739	23761	—
1/4	-	28	23725	23742	23764	—
5/16	18	-	23727	23746	23768	—
5/16	-	24	23728	23748	23770	—
3/8	16	-	—	23751	23773	—
3/8	-	24	—	23753	23776	—
7/16	14	-	—	23757	23779	—
7/16	-	20	—	23758	23781	—
1/2	13	-	—	—	23785	—
1/2	-	20	—	—	23787	—
9/16	12	-	—	—	23792	—
9/16	-	18	—	—	23793	—
5/8	11	-	—	—	23796	23811
5/8	-	18	—	—	23798	23813
3/4	10	-	—	—	—	23816
3/4	-	16	—	—	—	23818
7/8	9	-	—	—	—	23823
7/8	-	14	—	—	—	23824

Sizes and/or dimensions not listed and left hand dies are available as specials.



High-Speed Steel Round Adjustable Dies

■ Series 6385

METRIC Size	EDP Number		
	13/16" Die O.D. 1/4" Thickness	1" Die O.D. 3/8" Thickness	1 1/2" Die O.D. 1/2" Thickness
M2,5 x 0,45	23855	—	—
M3 x 0,5	23857	—	—
M3,5 x 0,6	23859	—	—
M4 x 0,7	23861	—	—
M4,5 x 0,75	23863	—	—
M5 x 0,8	23865	—	—
M6 x 1	23867	23869	—
M7 x 1	—	23871	—
M8 x 1,25	—	23873	—
M10 x 1,5	—	23877	—
M12 x 1,75	—	23881	—
M14 x 2	—	—	23885
M16 x 2	—	—	23889
M18 x 1,5	—	—	23893
M20 x 2,5	—	—	23897

Sizes and/or dimensions not listed and left hand dies are available as specials.