REGAL 24-hour special TAP shipment

REGAL CUTTING TOOLS

SPECIAL TAPS
CUSTOM TAPS

MADE IN U.S.A.

Dimensional Catalog

INNOVATION BY DESIGN

We at Regal Cutting Tools are extremely excited to introduce the 2019 edition of our Popular Special Taps catalog. Included are many unique additions based on our distributor requests to what is already considered the most extensive special tap offering in the world. Micro-finish edge prep is now applied to all taps under one inch, which greatly improves thread quality and extends tool life.

Regal recently introduced our Standard SuperTuf Material Specific tap line. We now offer custom-designed material-specific taps in either USCTI 302A or DIN/ANSI standards. A variety of performance steel alloys are utilized, and taps are designed using our proprietary in-house CAD system, ensuring that you receive the optimum tap for your toughest jobs.

Within ten days, that's right, TEN days, we will ship material-specific taps coated to your exact requirements. This enhances our current 24-hour program and adds another dimension to Regal's outstanding commitment to service.

The custom SuperTuf program is possible only because of the dedication of everyone involved, from Jeannie (35 years of service) in the blank department to Dan (42 years) in our in-house surface and heat treat systems to Tom (35 years) in fluting and Donny (35 years) in our CNC threading operations. Youth has picked up this commitment, too. Kassie (9 years) has mastered setup and operating CNC spiral point grinders, and Kristin (7 years) controls the CNC laser marking machines. Monica (7 years) ensures shipments are accurate and on time. These dedicated employees represent the entire team that is focused on delivering quality tools when you need them.

We believe you will find this catalog provides all the solutions to your custom tapping needs.

The Regal Team

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SELECTION PROCESS

Several factors should be considered to determine the best tap to provide optimum thread quality and maximum tool life for ensuring the highest possible productivity. Whether you select Regal Premium, SuperTuf or Carbide, you can be assured you are receiving the finest American-made cutting tools.

Our years of experience assure you we can design the ideal tool that will deliver cost effectiveness if we know the following:

- Diameter, threads per inch or pitch in millimeters, class of fit
- Shank size and length
- Material to be threaded and condition or hardness
- Drilled hole size and depth, through or blind hole, and thread depth
- Type of machine used and horizontal or vertical
- Coolant type: synthetic, water soluble or oil, or dry

This information allows us to calculate the degree of hook or rake on the tap, number of flutes, land width, and the best surface treatment or coating. We will determine the chamfer point diameter, length of chamfer and back taper based on the material, hole size and depth.

SAME DAY SHIPMENT

Order the Popular Special Taps on pages 2-21 before 6:00 p.m. Central Time and receive same day shipment.

To order visit
www.regalcuttingtools.com,
phone 1-800-435-2948, or
fax 1-800-992-1674.

SPECIAL TAPS & DIES

#00-90 To #4-40

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
#00-90 NS	Spiral Pt.	H1	0		011150AS		1.63	0.31	0.19	0.1410	0.110
#00-96 NS	Spiral Pt.	H1	0		011155AS		1.63	0.31	0.19	0.1410	0.110
#0-80 NF*	Hand Tap	H3	2		011162AS		1.63	0.31	0.19	0.1410	0.110
	Spiral Pt.	H3	0		011157AS		1.63	0.31	0.19	0.1410	0.110
	Spiral Pt.	H3	2		099421AS		1.63	0.31	0.19	0.1410	0.110
	LH Hand Tap	H1	2		017015AS		1.63	0.31	0.19	0.1410	0.110
	LH Spiral Pt.	H1	0		011159AS		1.63	0.31	0.19	0.1410	0.110
	LH Spiral Pt.	H1	2		011160AS		1.63	0.31	0.19	0.1410	0.110
	Micrograin Carbide	H2	2	018009RS	018010RS	018011RS	1.63	0.31	0.19	0.1410	0.110
#1-56 NS	Hand Tap	H1	2	011164AS	011165AS	011166AS	1.69	0.38	0.19	0.1410	0.110
	Spiral Pt.	H1	0		011158AS		1.69	0.38	0.19	0.1410	0.110
#1-64 NC*	1" O.D. Die				041201AS						
#1-72 NF*	1" O.D. Die				041202AS						
#2-56 NC*	Hand Tap	H4	2		011167AS	011168AS	1.75	0.44	0.19	0.1410	0.110
	Spiral Pt.	H3	2		099400AS		1.75	0.44	0.19	0.1410	0.110
	Spiral Pt.	H4	2		011002AS		1.75	0.44	0.19	0.1410	0.110
	Spiral Pt.	H5	2		099401AS		1.75	0.44	0.19	0.1410	0.110
	+.003 Spiral Pt.	H7	2		011004AS		1.75	0.44	0.19	0.1410	0.110
	LH Hand Tap	H2	2	017023AS	017024AS	017025AS	1.75	0.44	0.19	0.1410	0.110
	LH Spiral Pt.	H2	2		017022AS		1.75	0.44	0.19	0.1410	0.110
	Micrograin Carbide	H2	2	018072RS	018073RS	018074RS	1.75	0.44	0.19	0.1410	0.110
	Micrograin Carbide Spiral Pt.	H2	2		018075RS		1.75	0.44	0.19	0.1410	0.110
	LH 1" O.D. Die				041003AS						
#3-48 NC*	Spiral Pt.	H3	2		099402AS		1.81	0.50	0.19	0.1410	0.110
	Spiral Pt.	H5	2		099403AS		1.81	0.50	0.19	0.1410	0.110
	LH Hand Tap	H2	3	017026AS	017027AS	017028AS	1.81	0.50	0.19	0.1410	0.110
	LH Spiral Pt.	H2	2		017055AS		1.81	0.50	0.19	0.1410	0.110
	1 O.D. Die				041205AS						
	LH 1" O.D. Die				041005AS						
#4-32 NS	Hand Tap	H2	3	011169AS	011170AS	011171AS	1.88	0.56	0.19	0.1410	0.110
#4-36 NS*	1" O.D. Die				041208AS						
#4-40 NC*	Hand Tap	H3	3		011173AS	011175AS	1.88	0.56	0.19	0.1410	0.110
	Hand Tap	H4	3		011005AS		1.88	0.56	0.19	0.1410	0.110
	Hand Tap	H5	3		011006AS		1.88	0.56	0.19	0.1410	0.110
	Hand Tap	H6	3		011007AS		1.88	0.56	0.19	0.1410	0.110
	+.003 Hand Tap	H7	3		011008AS		1.88	0.56	0.19	0.1410	0.110
	+.005 Hand Tap	H11	3		011009AS		1.88	0.56	0.19	0.1410	0.110
	Spiral Pt.	H3	2		099404AS		1.88	0.56	0.19	0.1410	0.110
	Spiral Pt.	H4	2		011011AS		1.88	0.56	0.19	0.1410	0.110
	Spiral Pt.	H5	2		099405AS		1.88	0.56	0.19	0.1410	0.110
	Spiral Pt.	H6	2		011013AS		1.88	0.56	0.19	0.1410	0.110
	Spiral Pt.	H8	2		011014AS		1.88	0.56	0.19	0.1410	0.110
	Spiral Pt.	H9	2		011015AS		1.88	0.56	0.19	0.1410	0.110
	+.005 Spiral Pt.	H11	2		011016AS		1.88	0.56	0.19	0.1410	0.110

*The most popular limits and flute configurations, both Right- and Left-Hand sizes, are shown in our Industrial Metalworking catalog and on our website.

#4-40 To #6-32

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
#4-40 NC*	LH Hand Tap	H2	3	017029AS	017030AS	017031AS	1.88	0.56	0.19	0.1410	0.110
	LH Spiral Pt.	H2	2		017032AS		1.88	0.56	0.19	0.1410	0.110
	Micrograin Carbide	H2	2		018190RS	018191RS	1.88	0.56	0.19	0.1410	0.110
	Micrograin Carbide Spiral Pt.	H2	2		018192RS		1.88	0.56	0.19	0.1410	0.110
	1" O.D. Die				041209AS						
	LH 1" O.D. Die				041008AS						
#4-48 NF*	+.003 Hand Tap	H7	3		011017AS		1.88	0.56	0.19	0.1410	0.110
	Spiral Pt.	H3	2		011018AS		1.88	0.56	0.19	0.1410	0.110
	Spiral Pt.	H5	2		011019AS		1.88	0.56	0.19	0.1410	0.110
	+.003 Spiral Pt.	H7	2		011020AS		1.88	0.56	0.19	0.1410	0.110
	LH Hand Tap	H2	3		017057AS	011012AS	1.88	0.56	0.19	0.1410	0.110
	LH Spiral Pt.	H2	2		017058AS		1.88	0.56	0.19	0.1410	0.110
	Micrograin Carbide	H2	2		018220RS	018221RS	1.88	0.56	0.19	0.1410	0.110
	Micrograin Carbide Spiral Pt.	H2	2		018222RS		1.88	0.56	0.19	0.1410	0.110
	1" O.D. Die				041210AS						
#5-40 NC*	Hand Tap	H6	3		011022AS		1.94	0.56	0.19	0.1410	0.110
	+.003 Hand Tap	H7	3		011023AS		1.94	0.63	0.19	0.1410	0.110
	+.005 Hand Tap	H11	3		011024AS		1.94	0.63	0.19	0.1410	0.110
	Spiral Pt.	H3	2		011025AS		1.94	0.63	0.19	0.1410	0.110
	Spiral Pt.	H4	2		011026AS		1.94	0.63	0.19	0.1410	0.110
	Spiral Pt.	H5	2		099406AS		1.94	0.63	0.19	0.1410	0.110
	Spiral Pt.	H6	2		011028AS		1.94	0.63	0.19	0.1410	0.110
	+.003 Spiral Pt.	H7	2		008122AS		1.94	0.63	0.19	0.1410	0.110
	+.005 Spiral Pt.	H11	2		011029AS		1.94	0.63	0.19	0.1410	0.110
	LH Hand Tap	H2	3	017033AS	017034AS	017035AS	1.94	0.63	0.19	0.1410	0.110
	LH Spiral Pt.	H2	2		017059AS		1.94	0.63	0.19	0.1410	0.110
	Micrograin Carbide	H2	3		018248RS	018249RS	1.94	0.63	0.19	0.1410	0.110
	Micrograin Carbide Spiral Pt.	H2	2		018250RS		1.94	0.63	0.19	0.1410	0.110
	LH 1" O.D. Die				041010AS						
#6-32 NC*	Hand Tap	H4	3		011030AS		2.00	0.69	0.19	0.1410	0.110
	Hand Tap	H5	3	011178AS	011179AS	011180AS	2.00	0.69	0.19	0.1410	0.110
	Hand Tap	H6	3		011031AS		2.00	0.69	0.19	0.1410	0.110
	+.005 Hand Tap	H11	3		014503AS	014504AS	2.00	0.69	0.19	0.1410	0.110
	Spiral Pt.	H4	2		011174AS		2.00	0.69	0.19	0.1410	0.110
	Spiral Pt.	H5	2		011177AS		2.00	0.69	0.19	0.1410	0.110
	Spiral Pt.	H6	2		011033AS		2.00	0.69	0.19	0.1410	0.110
	Spiral Pt.	H8	2		011034AS		2.00	0.69	0.19	0.1410	0.110
	Spiral Pt.	H9	2		011035AS		2.00	0.69	0.19	0.1410	0.110
	+.005 Spiral Pt.	H11	2		014500AS		2.00	0.69	0.19	0.1410	0.110
	Spiral Flute	H3	3		011036AS	011037AS	2.00	0.69	0.19	0.1410	0.110
	LH Spiral Pt.	H3	2		017039AS		2.00	0.69	0.19	0.1410	0.110
	Micrograin Carbide	H3	3		018309RS	018310RS	2.00	0.69	0.19	0.1410	0.110
	Micrograin Carbide Spiral Pt.	H3	2		018307RS		2.00	0.69	0.19	0.1410	0.110
	LH 1" O.D. Die				041012AS						

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SPECIAL TAPS & DIES

REGAL 24-hour special TAP shipment

#6-40 To #10-24

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
#6-40 NF*	Spiral Pt.	H3	2		011182AS		2.00	0.69	0.19	0.1410	0.110
	Spiral Pt.	H4	2		011038AS		2.00	0.69	0.19	0.1410	0.110
	Spiral Pt.	H5	2		011039AS		2.00	0.69	0.19	0.1410	0.110
	LH Hand Tap	H2	3	017042AS	017043AS	017044AS	2.00	0.69	0.19	0.1410	0.110
	Micrograin Carbide	H2	3		018355RS	018356RS	2.00	0.69	0.19	0.1410	0.110
	LH 1" O.D. Die				041013AS						
#6-48 NS	Hand Tap	H2	3	011184AS	011185AS	011186AS	2.00	0.69	0.19	0.1410	0.110
	Spiral Pt.	H2	2		011187AS		2.00	0.69	0.19	0.1410	0.110
	1" O.D. Die				041211AS						
#8-24 NS	Hand Tap	H3	4	011189AS	011190AS	011191AS	2.13	0.75	0.25	0.1680	0.110
#8-32 NC*	Hand Tap	H1	3		099407AS		2.13	0.75	0.25	0.1680	0.131
	Hand Tap	H4	4		011041AS		2.13	0.75	0.25	0.1680	0.131
	Hand Tap	H5	4	011209AS	011210AS	011211AS	2.13	0.75	0.25	0.1680	0.131
	Hand Tap	H6	4		011042AS		2.13	0.75	0.25	0.1680	0.131
	+.005 Hand Tap	H11	4		014517AS	014518AS	2.13	0.75	0.25	0.1680	0.131
	LH Spiral Pt.	H3	2		017051AS		2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	H4	2		011205AS		2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	H5	2		011208AS		2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	H6	2		011043AS		2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	H8	2		011044AS		2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	H9	2		011045AS		2.13	0.75	0.25	0.1680	0.131
	+.005 Spiral Pt.	H11	2		014514AS		2.13	0.75	0.25	0.1680	0.131
	Micrograin Carbide	H3	4		018406RS	018407RS	2.13	0.75	0.25	0.1680	0.131
	Micrograin Carbide Spiral Pt.	H3	2		018401RS		2.13	0.75	0.25	0.1680	0.131
	LH 1" O.D. Die				041014AS						
#8-36 NF*	Spiral Pt.	H1	2		011046AS		2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	H3	2		011216AS		2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	H4	2		011048AS		2.13	0.75	0.25	0.1680	0.131
	LH Hand Tap	H2	4		011215AS	011047AS	2.13	0.75	0.25	0.1680	0.131
	LH Spiral Pt.	H2	2		017061AS		2.13	0.75	0.25	0.1680	0.131
	Micrograin Carbide	H2	4		018450RS	018451RS	2.13	0.75	0.25	0.1680	0.131
	1" O.D. Die				041015AS						
#8-40 NS	Hand Tap	H2	4	011217AS	011220AS	011218AS	2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	H2	2		011219AS		2.13	0.75	0.25	0.1680	0.131
	1" O.D. Die				041212AS						
#10-24 NC*	Hand Tap	H4	2		011050AS		2.38	0.88	0.25	0.1940	0.152
	Hand Tap	H4	4		011051AS		2.38	0.88	0.25	0.1940	0.152
	Hand Tap	H5	4	011221AS	011222AS	011223AS	2.38	0.88	0.25	0.1940	0.152
	Hand Tap	H6	4		011052AS		2.38	0.88	0.25	0.1940	0.152
	+.003 Hand Tap	H7	3		011053AS		2.38	0.88	0.25	0.1940	0.152
	+.005 Hand Tap	H11	4		014531AS	014532AS	2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	H5	2		011224AS		2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	H6	2		011055AS		2.38	0.88	0.25	0.1940	0.152
	+.005 Spiral Pt.	H11	2		014528AS		2.38	0.88	0.25	0.1940	0.152
	LH Spiral Pt.	H3	2		017069AS		2.38	0.88	0.25	0.1940	0.152

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#10-24 To #14-24

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
#10-24 NC*	Micrograin Carbide	H3	4		018497RS	018498RS	2.38	0.88	0.25	0.1940	0.152
	Micrograin Carbide Spiral Pt.	H3	2		018492RS		2.38	0.88	0.25	0.1940	0.152
	Double Lead	H3	4		017080AS	017081AS	2.38	0.88	0.25	0.1940	0.152
	LH 1" O.D. Die				041016AS						
#10-28 NS	Hand Tap	H3	4	011228AS	011229AS	011230AS	2.38	0.88	0.25	0.1940	0.152
#10-30 NS	Hand Tap	H3	4	011236AS	011237AS	011238AS	2.38	0.88	0.25	0.1940	0.152
#10-32 NF*	Hand Tap	H5	4	011248AS	011249AS	011250AS	2.38	0.88	0.25	0.1940	0.152
	Hand Tap	H6	4		011058AS		2.38	0.88	0.25	0.1940	0.152
	+.005 Hand Tap	H11	4		014538AS	014539AS	2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	H4	2		011244AS		2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	H5	2		011247AS		2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	H6	2		011059AS		2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	H8	2		011060AS		2.38	0.88	0.25	0.1940	0.152
	+.005 Spiral Pt.	H11	2		014535AS		2.38	0.88	0.25	0.1940	0.152
	LH Spiral Pt.	H3	2		017079AS		2.38	0.88	0.25	0.1940	0.152
	Micrograin Carbide	H3	4		018557RS	018558RS	2.38	0.88	0.25	0.1940	0.152
	Micrograin Carbide Spiral Pt.	H3	2		018552RS		2.38	0.88	0.25	0.1940	0.152
	Double Lead	H3	4	014918AS	014919AS	014920AS	2.38	0.88	0.25	0.1940	0.152
	LH 1" O.D. Die				041017AS						
#10-36 NS	Hand Tap	H2	4	011259AS	011260AS	011261AS	2.38	0.88	0.25	0.1940	0.152
	1" O.D. Die				041214AS						
#10-40 NS	Hand Tap	H2	4	011268AS	011269AS	011270AS	2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	H2	2		011267AS		2.38	0.88	0.25	0.1940	0.152
	1" O.D. Die				041215AS						
#10-48 NS	Hand Tap	H2	4	011274AS	011275AS	011276AS	2.38	0.88	0.25	0.1940	0.152
	1" O.D. Die				041216AS						
#10-56 NS	Hand Tap	H2	4	011284AS	011285AS	011286AS	2.38	0.88	0.25	0.1940	0.152
	1" O.D. Die				041217AS						
#10-64 NS	Hand Tap	H2	4	011308AS	011309AS	011310AS	2.38	0.88	0.25	0.1940	0.152
#12-24 NC*	LH Hand Tap	H3	4	017082AS	017083AS	017084AS	2.38	0.94	0.28	0.2200	0.165
	Micrograin Carbide	H3	4		018604RS	018605RS	2.38	0.94	0.28	0.2200	0.165
	Micrograin Carbide Spiral Pt.	H3	2		018603RS		2.38	0.94	0.28	0.2200	0.165
	LH 1" O.D. Die				041018AS						
#12-28 NF*	LH Hand Tap	H3	4	017097AS	017098AS	017099AS	2.38	0.94	0.28	0.2200	0.165
	Micrograin Carbide	H3	4		018617RS	018618RS	2.38	0.94	0.28	0.2200	0.165
	Micrograin Carbide Spiral Pt.	H3	2		018616RS		2.38	0.94	0.28	0.2200	0.165
	LH 1" O.D. Die				041019AS						
#12-32 NEF	Hand Tap	H3	4	011358AS	011359AS	011360AS	2.38	0.94	0.28	0.2200	0.165
	Spiral Pt.	H3	2		011361AS		2.38	0.94	0.28	0.2200	0.165
	1" O.D. Die				041218AS						
#12-36 NS	Hand Tap	H2	4	011371AS	011372AS	011373AS	2.38	0.94	0.28	0.2200	0.165
	1" O.D. Die				041219AS						
#14-20 NS	Hand Tap	H3	4	011413AS	011414AS	011415AS	2.50	1.00	0.31	0.2550	0.191
	1" O.D. Die				041221AS						
#14-24 NS	Hand Tap	H3	4	011427AS	011428AS	011429AS	2.50	1.00	0.31	0.2550	0.191
	1" O.D. Die				041222AS						

*The most popular limits and flute configurations, both Right- and Left-Hand sizes, are shown in our Industrial Metalworking catalog and on our website.

SPECIAL TAPS & DIES

1/16-27 To 1/4-24

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
1/16-27 NPTF*	LH Pipe		4		017521AS		2.13	0.69	0.38	0.3125	0.234
	Micrograin Carbide Pipe		4		018900RS		2.13	0.69	0.38	0.3125	0.234
1/8-27 NPSI	Straight Pipe		4		015850AS		2.13	0.75	0.38	0.3125	0.234
1/8-27 NPTF*	LH Pipe		4		017522AS		2.13	0.75	0.38	0.3125	0.234
	Carbo-Clad Pipe		4		019381US		2.13	0.75	0.38	0.3125	0.234
1/8-27 NPSF*	Carbide Pipe		4		018902RS		2.13	0.75	0.38	0.3125	0.234
1/8-28 BSPT	55° Mod. Whit Taper		4		015730AS		2.13	0.75	0.38	0.3125	0.234
	55° Full Form Taper		4		015729AS	015717AS	2.13	0.75	0.38	0.3125	0.234
1/8-28 BSPP	55° Mod. Whit Parallel		4		015700AS		2.13	0.75	0.38	0.3125	0.234
	55° Full Form Parallel		4		015690AS	015718AS	2.13	0.75	0.38	0.3125	0.234
5/32-32 NS	Hand Tap	H3	4	011432AS	011433AS	011434AS	2.13	0.75	0.25	0.1680	0.131
3/16-24 NS	Hand Tap	H3	4	011437AS	011438AS	011439AS	2.38	0.88	0.25	0.1940	0.152
3/16-32 NS	Hand Tap	H3	4	011455AS	011456AS	011457AS	2.38	0.88	0.25	0.1940	0.152
.210-36 NS	Hand Tap	H3	4		011061AS	011062AS	2.38	0.94	0.28	0.2200	0.165
	Hand Tap	H4	4		011063AS	011064AS	2.38	0.94	0.28	0.2200	0.165
7/32-32 NS	Hand Tap	H3	4	011501AS	011502AS	011503AS	2.38	0.94	0.28	0.2200	0.165
1/4-18 NPSI	Straight Pipe		4		015852AS		2.44	1.06	0.44	0.5625	0.421
1/4-18 NPTF*	LH Pipe		4		017524AS		2.44	1.06	0.44	0.5625	0.421
1/4-18 PTF-SAE	Short Proj .361		4		015660AS	015661AS	2.44	1.06	0.44	0.5625	0.421
1/4-18 NPT	Carbo-Clad Pipe		4		019382US		2.44	1.06	0.44	0.5625	0.421
1/4-19 BSPT	55° Mod. Whit Taper		4		015732AS		2.44	1.06	0.44	0.5625	0.421
	55° Full Form Taper		4		015731AS	015719AS	2.44	1.06	0.44	0.5625	0.421
1/4-19 BSPP	55° Mod. Whit Parallel		4		015702AS		2.44	1.06	0.44	0.5625	0.421
	55° Full Form Parallel		4		015701AS	015720AS	2.44	1.06	0.44	0.5625	0.421
1/4-20 NC*	Hand Tap	H6	4		011066AS		2.50	1.00	0.31	0.2550	0.191
	+.003 Hand Tap	H7	4	011533AS	011534AS	011535AS	2.50	1.00	0.31	0.2550	0.191
	+.005 Hand Tap	H11	4			017778AS	2.50	1.00	0.31	0.2550	0.191
	+.010 Hand Tap	H21	4	014670AS	014671AS	014672AS	2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	H6	2		011067AS		2.50	1.00	0.31	0.2550	0.191
	+.003 Spiral Pt.	H7	2		011532AS		2.50	1.00	0.31	0.2550	0.191
	LH Spiral Pt.	H3	2		017108AS		2.50	1.00	0.31	0.2550	0.191
1/4-20 BSW	55° Mod. Whit Hand Tap	H3	4		015630AS	015631AS	2.50	1.00	0.31	0.2550	0.191
1/4-20 NC*	Micrograin Carbide	H3	4		018636RS	018637RS	2.50	1.00	0.31	0.2550	0.191
	Micrograin Carbide Spiral Pt.	H3	2		018631RS		2.50	1.00	0.31	0.2550	0.191
	Double Lead	H3	4	014930AS	014931AS	014932AS	2.50	1.00	0.31	0.2550	0.191
	LH 1" O.D. Die				041022AS						
1/4-24 NS	Hand Tap	H3	4	011551AS	011552AS	011553AS	2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	H3	2		011548AS		2.50	1.00	0.31	0.2550	0.191
	1" O.D. Die				041226AS						

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1/4-26 To 5/16-18

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
1/4-26 BSF	55° Mod. Whitworth	H3	4		015770AS	015771AS	2.50	1.00	0.31	0.2550	0.191
1/4-27 NS	Hand Tap	H3	4	011556AS	011557AS	011558AS	2.50	1.00	0.31	0.2550	0.191
	1" O.D. Die				041227AS						
1/4-28 NF*	Hand Tap	H1	4	011068AS			2.50	1.00	0.31	0.2550	0.191
	Hand Tap	H5	4	011568AS	011569AS	011570AS	2.50	1.00	0.31	0.2550	0.191
	+.003 Hand Tap	H7	4	011580AS	011581AS	011582AS	2.50	1.00	0.31	0.2550	0.191
	+.005 Hand Tap	H11	4		014552AS	014553AS	2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	H5	2		011069AS		2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	H6	2		011070AS		2.50	1.00	0.31	0.2550	0.191
	+.003 Spiral Pt.	H7	2		011578AS		2.50	1.00	0.31	0.2550	0.191
	+.005 Spiral Pt.	H11	2		014549AS		2.50	1.00	0.31	0.2550	0.191
	LH Spiral Pt.	H3	2		017120AS		2.50	1.00	0.31	0.2550	0.191
	Micrograin Carbide	H3	4		018661RS	018662RS	2.50	1.00	0.31	0.2550	0.191
	Micrograin Carbide Spiral Pt.	H3	2		018656RS		2.50	1.00	0.31	0.2550	0.191
	Double Lead	H3	4		014933AS	014934AS	2.50	1.00	0.31	0.2550	0.191
	LH 1" O.D. Die				041025AS						
1/4-32 NEF	Hand Tap	H3	4	011596AS	011597AS	011598AS	2.50	1.00	0.31	0.2550	0.191
	Hand Tap	H5	4	011600AS	011601AS	011602AS	2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	H3	2		011594AS		2.50	1.00	0.31	0.2550	0.191
	LH Hand Tap	H3	4		017018AS	017019AS	2.50	1.00	0.31	0.2550	0.191
	1" O.D. Die				041228AS						
1/4-36 NS	Hand Tap	H2	4	011609AS	011610AS	011611AS	2.50	1.00	0.31	0.2550	0.191
	Hand Tap	H3	4		011071AS	011072AS	2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	H2	2		011073AS		2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	H3	2		011074AS		2.50	1.00	0.31	0.2550	0.191
	1" O.D. Die				041229AS						
1/4-40 NS	Hand Tap	H2	4	011621AS	011622AS	011623AS	2.50	1.00	0.31	0.2550	0.191
	Hand Tap	H3	4	011624AS	011625AS	011626AS	2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	H2	2		011620AS		2.50	1.00	0.31	0.2550	0.191
	1" O.D. Die				041230AS						
1/4-48 NS	Hand Tap	H2	4	011632AS	011633AS	011634AS	2.50	1.00	0.31	0.2550	0.191
	1" O.D. Die				041231AS						
1/4-56 NS	Hand Tap	H2	4	011643AS	011644AS	011645AS	2.50	1.00	0.31	0.2550	0.191
	1" O.D. Die				041232AS						
1/4-80 NS	Hand Tap	H2	4	011660AS	011661AS	011662AS	2.50	1.00	0.31	0.2550	0.191
	1" O.D. Die				041233AS						
9/32-32 NS	Hand Tap	H3	4	011672AS	011673AS	011674AS	2.72	1.13	0.38	0.3180	0.238
5/16-18 NC*	Hand Tap	H1	3		011075AS		2.72	1.13	0.38	0.3180	0.238
	Hand Tap	H5	2		011076AS		2.72	1.13	0.38	0.3180	0.238
	Hand Tap	H5	3		011077AS	011078AS	2.72	1.13	0.38	0.3180	0.238
	Hand Tap	H6	4		011079AS		2.72	1.13	0.38	0.3180	0.238
	+.003 Hand Tap	H7	4	011720AS	011721AS	011722AS	2.72	1.13	0.38	0.3180	0.238
	+.010 Hand Tap	H21	4	014678AS	014679AS	014680AS	2.72	1.13	0.38	0.3180	0.238

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SPECIAL TAPS & DIES

5/16-18 To 3/8-16

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
5/16-18 NC*	LH Spiral Pt.	H3	2		017146AS		2.72	1.13	0.38	0.3180	0.238
	Spiral Pt.	H6	2		011080AS		2.72	1.13	0.38	0.3180	0.238
	+.003 Spiral Pt.	H7	2		011723AS		2.72	1.13	0.38	0.3180	0.238
5/16-18 BSW	55° Mod. Whitworth	H3	4		015632AS	015633AS	2.72	1.13	0.38	0.3180	0.238
5/16-18 NC*	Micrograin Carbide	H3	4		018695RS	018696RS	2.72	1.13	0.38	0.3180	0.238
	Micrograin Carbide Spiral Pt.	H3	2		018690RS		2.72	1.13	0.38	0.3180	0.238
	Double Lead	H3	4		014935AS	014936AS	2.72	1.13	0.38	0.3180	0.238
	LH 1" O.D. Die				041027AS						
5/16-20 NS	Hand Tap	H3	4	011731AS	011732AS	011733AS	2.72	1.13	0.38	0.3180	0.238
	1" O.D. Die				041236AS						
5/16-22 BSF	55° Mod. Whitworth	H3	4		015772AS	015773AS	2.72	1.13	0.38	0.3180	0.238
5/16-24 NF*	Hand Tap	H1	3		011081AS		2.72	1.13	0.38	0.3180	0.238
	Hand Tap	H4	4	011082AS			2.72	1.13	0.38	0.3180	0.238
	Hand Tap	H5	4		011083AS	011084AS	2.72	1.13	0.38	0.3180	0.238
	Hand Tap	H6	4		011085AS	011086AS	2.72	1.13	0.38	0.3180	0.238
	+.003 Hand Tap	H7	4	011758AS	011759AS	011760AS	2.72	1.13	0.38	0.3180	0.238
	+.005 Hand Tap	H11	4		014568AS	014569AS	2.72	1.13	0.38	0.3180	0.238
	Spiral Pt.	H5	2		011087AS		2.72	1.13	0.38	0.3180	0.238
	Spiral Pt.	H6	2		011088AS		2.72	1.13	0.38	0.3180	0.238
	+.005 Spiral Pt.	H11	2		014565AS		2.72	1.13	0.38	0.3180	0.238
	LH Spiral Pt.	H3	2		017157AS		2.72	1.13	0.38	0.3180	0.238
	Micrograin Carbide	H3	4		018729RS	018730RS	2.72	1.13	0.38	0.3180	0.238
	Micrograin Carbide Spiral Pt.	H3	2		018727RS		2.72	1.13	0.38	0.3180	0.238
	LH 1" O.D. Die				041029AS						
5/16-27 NS	Hand Tap	H3	4	011772AS	011773AS	011774AS	2.72	1.13	0.38	0.3180	0.238
	1" O.D. Die				041237AS						
5/16-28 NS	Hand Tap	H3	4	011785AS	011786AS	011787AS	2.72	1.13	0.38	0.3180	0.238
5/16-32 NEF	Hand Tap	H3	4	011804AS	011805AS	011806AS	2.72	1.13	0.38	0.3180	0.238
	Hand Tap	H5	4	011814AS	011815AS	011816AS	2.72	1.13	0.38	0.3180	0.238
	Spiral Pt.	H3	2		011801AS		2.72	1.13	0.38	0.3180	0.238
	1" O.D. Die				041238AS						
5/16-40 NS	Hand Tap	H2	4	011821AS	011822AS	011823AS	2.72	1.13	0.38	0.3180	0.238
	1" O.D. Die				041239AS						
11/32-32 NS	Hand Tap	H3	4	011850AS	011851AS	011852AS	2.94	1.25	0.44	0.3810	0.286
3/8-12 ACME	Acme Tandem Unipass	2G	4		015000AS		4.06	2.13	0.31	0.2550	0.191
3/8-16 NC*	Hand Tap	H1	3		011089AS	011090AS	2.94	1.25	0.44	0.3810	0.286
	Hand Tap	H5	3		011092AS	011093AS	2.94	1.00	0.44	0.3810	0.286
	+.003 Hand Tap	H7	4	011899AS	011900AS	011901AS	2.94	1.25	0.44	0.3810	0.286
	+.010 Hand Tap	H21	4	014686AS	014687AS	014688AS	2.94	1.25	0.44	0.3810	0.286
	Small Shank Hand	H3	4	011870AS	011871AS	011872AS	2.94	1.25	0.44	0.3810	0.286
	Spiral Pt.	H3	2		011884AS		2.94	1.25	0.44	0.3810	0.286
	Spiral Pt.	H6	3		011200AS		2.94	1.25	0.44	0.3810	0.286
	+.003 Spiral Pt.	H7	3		011201AS		2.94	1.25	0.44	0.3810	0.286

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3/8-16 To 7/16-14

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
3/8-16 NC*	LH Spiral Pt.	H3	3		017174AS		2.94	1.25	0.44	0.3810	0.286
	Micrograin Carbide	H3	4		018756RS	018757RS	2.94	1.25	0.44	0.3810	0.286
	Micrograin Carbide Spiral Pt.	H3	3		018751RS		2.94	1.25	0.44	0.3810	0.286
	Double Lead	H3	4	014954AS	014955AS	014956AS	2.94	1.25	0.44	0.3810	0.286
	LH 1" O.D. Die				041032AS						
3/8-18 NS	Hand Tap	H3	4	011916AS	011917AS	011918AS	2.94	1.25	0.44	0.3810	0.286
3/8-18 NPSI*	Straight Pipe		4		015854AS						
3/8-18 NPTF*	LH Pipe		4		017526AS		2.56	1.06	0.50	0.7000	0.531
	Carbo-Clad Pipe		4		019383US		2.56	1.06	0.50	0.7000	0.531
	1" O.D. Die				041242AS		2.56	1.06	0.50	0.7000	0.531
3/8-19 BSPT	55° Mod. Whit Taper		4		015734AS		2.56	1.06	0.50	0.7000	0.531
	55° Full Form Taper		4		015733AS	015721AS	2.56	1.06	0.50	0.7000	0.531
3/8-19 BSPP	55° Mod. Whit Parallel		4		015704AS		2.56	1.06	0.50	0.7000	0.531
	55° Full Form Parallel		4		015703AS	015722AS	2.56	1.06	0.50	0.7000	0.531
3/8-20 NS	Hand Tap	H3	4	011924AS	011925AS	011926AS	2.94	1.25	0.44	0.3810	0.286
3/8-20 BSF	55° Mod. Whitworth	H3	4		015774AS	015775AS	2.94	1.25	0.44	0.3810	0.286
	1" O.D. Die				041243AS						
3/8-24 NF*	Hand Tap	H5	4	011932AS	011933AS	011934AS	2.94	1.25	0.44	0.3810	0.286
	+.003 Hand Tap	H7	4	011944AS	011945AS	011946AS	2.94	1.25	0.44	0.3810	0.286
	Hand Tap	H8	4		011096AS	011097AS	2.94	1.25	0.44	0.3810	0.286
	+.005 Hand Tap	H11	4		014582AS	014583AS	2.94	1.25	0.44	0.3810	0.286
	Spiral Pt.	H5	3		011098AS		2.94	1.25	0.44	0.3810	0.286
	Spiral Pt.	H6	3		011099AS		2.94	1.25	0.44	0.3810	0.286
	+.003 Spiral Pt.	H7	3		011100AS		2.94	1.25	0.44	0.3810	0.286
	+.005 Spiral Pt.	H11	3		014579AS		2.94	1.25	0.44	0.3810	0.286
	LH Spiral Pt.	H3	3		017189AS		2.94	1.25	0.44	0.3810	0.286
	Micrograin Carbide	H3	4		018792RS	018793RS	2.94	1.25	0.44	0.3810	0.286
	Micrograin Carbide Spiral Pt.	H3	3		018791RS		2.94	1.25	0.44	0.3810	0.286
	LH 1" O.D. Die				041034AS						
3/8-27 NS	Hand Tap	H3	4	011958AS	011959AS	011960AS	2.94	1.25	0.44	0.3810	0.286
	1" O.D. Die				041244AS						
3/8-28 NS	Hand Tap	H3	4	011977AS	011978AS	011979AS	2.94	1.25	0.44	0.3810	0.286
3/8-32 NEF	Hand Tap	H3	4	012003AS	012004AS	012005AS	2.94	1.25	0.44	0.3810	0.286
	Hand Tap	H5	4	012013AS	012014AS	012015AS	2.94	1.25	0.44	0.3810	0.286
	Spiral Pt.	H3	3		012002AS		2.94	1.25	0.44	0.3810	0.286
	1" O.D. Die				041246AS						
3/8-40 NS	Hand Tap	H2	4	012026AS	012027AS	012028AS	2.94	1.25	0.44	0.3810	0.286
	Hand Tap	H3	4	012031AS	012032AS	012033AS	2.94	1.25	0.44	0.3810	0.286
	1" O.D. Die				041248AS						
3/8-48 NS	Hand Tap	H2	4	012039AS	012040AS	012041AS	2.94	1.25	0.44	0.3810	0.286
13/32-32 NS	Hand Tap	H3	4	012073AS	012074AS	012075AS	3.16	1.44	0.41	0.3230	0.242
7/16-14 NC*	Hand Tap	H2	4		011101AS		3.16	1.44	0.41	0.3230	0.242
	+.010 Hand Tap	H21	4	014694AS	014695AS	014696AS	3.16	1.44	0.41	0.3230	0.242
	LH Spiral Pt.	H3	3		017203AS		3.16	1.44	0.41	0.3230	0.242

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SPECIAL TAPS & DIES

7/16-14 To 1/2-13

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
7/16-14 NC*	Carbo-Clad	H3	4		019049US	019050US	3.16	1.44	0.41	0.3230	0.242
	Micrograin Carbide Spiral Pt.	H3	3		018732RS		3.16	1.44	0.41	0.3230	0.242
	LH 1-1/2" O.D. Die				041050AS						
7/16-16 NS	Hand Tap	H3	4	012099AS	012100AS	012101AS	3.16	1.44	0.41	0.3230	0.242
	1-1/2" O.D. Die				041275AS						
7/16-18 NS	Hand Tap	H3	4	012110AS	012111AS	012112AS	3.16	1.44	0.41	0.3230	0.242
	1-1/2" O.D. Die				041276AS						
7/16-20 NF*	Hand Tap	H2	4		011103AS		3.16	1.44	0.41	0.3230	0.242
	Hand Tap	H6	4		011105AS	011106AS	3.16	1.44	0.41	0.3230	0.242
	+.005 Hand Tap	H11	4		014596AS	014597AS	3.16	1.44	0.41	0.3230	0.242
	+.005 Spiral Pt.	H11	3		014593AS		3.16	1.44	0.41	0.3230	0.242
	Carbo-Clad	H3	4		019062US	019063US	3.16	1.44	0.41	0.3230	0.242
	LH 1-1/2" O.D. Die				041051AS						
7/16-24 NS	Hand Tap	H3	4	012141AS	012142AS	012143AS	3.16	1.44	0.41	0.3230	0.242
	Hand Tap	H5	4	012152AS	012153AS	012154AS	3.16	1.44	0.41	0.3230	0.242
	1-1/2" O.D. Die				041277AS						
7/16-27 NS	Hand Tap	H3	4	012164AS	012165AS	012166AS	3.16	1.44	0.41	0.3230	0.242
	1-1/2" O.D. Die				041278AS						
7/16-28 NEF	Hand Tap	H3	4	012176AS	012177AS	012178AS	3.16	1.44	0.41	0.3230	0.242
	Hand Tap	H5	4	012186AS	012187AS	012188AS	3.16	1.44	0.41	0.3230	0.242
	1-1/2" O.D. Die				041279AS						
7/16-32 NS	Hand Tap	H3	4	012199AS	012200AS	012201AS	3.16	1.44	0.41	0.3230	0.242
	1-1/2" O.D. Die				041280AS						
7/16-40 NS	Hand Tap	H2	4	012218AS	012219AS	012220AS	3.16	1.44	0.41	0.3230	0.242
	1-1/2" O.D. Die				041282AS						
15/32-32 NS	Hand Tap	H3	6	012233AS	012234AS	012235AS	3.38	1.66	0.44	0.3670	0.275
	Spiral Pt.	H3	3		011107AS		3.38	1.66	0.44	0.3670	0.275
1/2-10 ACME	Acme Hand	2G	4		015240AS		3.38	1.66	0.44	0.3670	0.275
	LH Acme Tap	2G	4		017630AS		3.38	1.66	0.44	0.3670	0.275
	Acme Tandem Unipass	2G	4		015002AS		5.00	2.56	0.44	0.3670	0.275
	LH Acme Tandem Unipass	2G	4		017602AS		5.00	2.56	0.44	0.3670	0.275
1/2-12 NS	Hand Tap	H3	4	012241AS	012242AS	012243AS	3.38	1.66	0.44	0.3670	0.275
1/2-12 BSW	55° Mod. Whitworth	H3	4	015640AS	015641AS	015642AS	3.38	1.66	0.44	0.3670	0.275
1/2-12 NS	1-1/2" O.D. Die				041284AS						
1/2-13 NC*	+.003 Hand Tap	H7	4		011108AS	011109AS	3.38	1.66	0.44	0.3670	0.275
	+.010 Hand Tap	H21	4	014702AS	014703AS	014704AS	3.38	1.66	0.44	0.3670	0.275
	LH Spiral Pt.	H3	3		017231AS		3.38	1.66	0.44	0.3670	0.275
	Carbo-Clad	H3	4		019081US	019082US	3.38	1.66	0.44	0.3670	0.275
	Micrograin Carbide Spiral Pt.	H3	3		018738RS		3.38	1.66	0.44	0.3670	0.275
	Double Lead	H3	4		014957AS	014958AS	3.38	1.66	0.44	0.3670	0.275

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1/2-13 To 9/16-18

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
1/2-13 NC*	LH 1-1/2" O.D. Die				041055AS						
1/2-14 NS	Hand Tap	H3	4	012274AS	012275AS	012276AS	3.38	1.66	0.44	0.3670	0.275
1/2-14 NPSI*	Straight Pipe		4		015856AS		3.13	1.38	0.63	0.6875	0.515
1/2-14 NPTF*	LH Pipe		4		017528AS		3.13	1.38	0.63	0.6875	0.515
1/2-14 BSPT	55° Mod. Whit Taper		4		015736AS		3.13	1.38	0.63	0.6875	0.515
	55° Full Form Taper		4		015735AS	015723AS	3.13	1.38	0.63	0.6875	0.515
1/2-14 BSPP	55° Mod. Whit Parallel		4		015706AS		3.13	1.38	0.63	0.6875	0.515
	55° Full Form Parallel		4		015705AS	015724AS	3.13	1.38	0.63	0.6875	0.515
1/2-14 NPTF	Carbo-Clad Pipe		4		019384US		3.13	1.38	0.63	0.6875	0.515
1/2-14 NS	1-1/2" O.D. Die				041285AS						
1/2-16 NS	Hand Tap	H3	4	012288AS	012289AS	012290AS	3.38	1.66	0.44	0.3670	0.275
	1-1/2" O.D. Die				041286AS						
1/2-18 NS	Hand Tap	H3	4	012295AS	012296AS	012297AS	3.38	1.66	0.44	0.3670	0.275
	1-1/2" O.D. Die				041287AS						
1/2-20 NF*	+.003 Hand Tap	H7	4	012328AS	012329AS	012330AS	3.38	1.66	0.44	0.3670	0.275
	+.005 Spiral Pt.	H11	3		014607AS		3.38	1.66	0.44	0.3670	0.275
	+.005 Hand Tap	H11	4		014614AS	014615AS	3.38	1.66	0.44	0.3670	0.275
	LH Spiral Pt.	H3	3		017244AS		3.38	1.66	0.44	0.3670	0.275
	Carbo-Clad	H3	4		019086US	019087US	3.38	1.66	0.44	0.3670	0.275
	Micrograin Carbide Spiral Pt.	H3	3		018741RS		3.38	1.66	0.44	0.3670	0.275
	LH 1-1/2" O.D. Die				041056AS						
1/2-24 NS	Hand Tap	H3	4	012336AS	012337AS	012338AS	3.38	1.66	0.44	0.3670	0.275
	1-1/2" O.D. Die				041288AS						
1/2-27 NS	Hand Tap	H3	4		011111AS	011112AS	3.38	1.66	0.44	0.3670	0.275
	Hand Tap	H3	6	012343AS	012344AS	012345AS	3.38	1.66	0.44	0.3670	0.275
	1-1/2" O.D. Die				041289AS						
1/2-28 NEF	Hand Tap	H3	4	012357AS	012358AS	012359AS	3.38	1.66	0.44	0.3670	0.275
	Hand Tap	H5	4	012372AS	012373AS	012374AS	3.38	1.66	0.44	0.3670	0.275
	Spiral Pt.	H3	3		012356AS		3.38	1.66	0.44	0.3670	0.275
	1-1/2" O.D. Die				041290AS						
1/2-32 NS	Hand Tap	H3	6	012390AS	012391AS	012392AS	3.38	1.66	0.44	0.3670	0.275
	1-1/2" O.D. Die				041291AS						
1/2-40 NS	Hand Tap	H2	6	012397AS	012398AS	012399AS	3.38	1.66	0.44	0.3670	0.275
	1-1/2" O.D. Die				041292AS						
33/64-13 NS	Hand Tap	H3	4	012404AS	012405AS	012406AS	3.59	1.66	0.50	0.4290	0.322
9/16-12 NC*	Hand Tap	H1	4	011113AS			3.59	1.66	0.50	0.4290	0.322
	Fast Spiral Flute	H3	3		012533AS	012534AS	3.59	1.66	0.50	0.4290	0.322
	Carbo-Clad	H3	4		019096US	019097US	3.59	1.66	0.50	0.4290	0.322
	LH 1-1/2" O.D. Die				041058AS						
9/16-16 NS	Hand Tap	H3	4	012437AS	012438AS	012439AS	3.59	1.66	0.50	0.4290	0.322
	1-1/2" O.D. Die				041293AS						
9/16-18 NF	Hand Tap	H1	4		011115AS		3.59	1.66	0.50	0.4290	0.322

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9/16-18 To 5/8-28

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
9/16-18 NF*	+.005 Hand Tap	H11	4		014618AS	014619AS	3.59	1.66	0.50	0.4290	0.322
	Fast Spiral Flute	H3	3		012535AS	012538AS	3.59	1.66	0.50	0.4290	0.322
	+.005 Spiral Pt.	H11	3		012459AS		3.59	1.66	0.50	0.4290	0.322
	Carbo-Clad	H3	4		019104US	019105US	3.59	1.66	0.50	0.4290	0.322
	LH 1-1/2" O.D. Die				041059AS						
9/16-20 NS	Hand Tap	H3	4	012455AS	012456AS	012457AS	3.59	1.66	0.50	0.4290	0.322
	Spiral Pt.	H3	3		012460AS		3.59	1.66	0.50	0.4290	0.322
	1-1/2" O.D. Die				041294AS						
9/16-24 NEF	Hand Tap	H3	4	012467AS	012468AS	012469AS	3.59	1.66	0.50	0.4290	0.322
	Hand Tap	H5	4	012482AS	012483AS	012484AS	3.59	1.66	0.50	0.4290	0.322
	1-1/2" O.D. Die				041295AS						
9/16-27 NS	Hand Tap	H3	6	012494AS	012495AS	012496AS	3.59	1.66	0.50	0.4290	0.322
	1-1/2" O.D. Die				041296AS						
9/16-32 NS	Hand Tap	H3	6	012509AS	012510AS	012511AS	3.59	1.66	0.50	0.4290	0.322
	1-1/2" O.D. Die				041297AS						
5/8-8 ACME	Acme Hand	2G	4		015241AS		3.81	1.81	0.56	0.4800	0.360
	LH Acme Tap	2G	4		017632AS		3.81	1.81	0.56	0.4800	0.360
	Acme Tandem Unipass	2G	4		015007AS		6.25	3.19	0.56	0.4800	0.360
	LH Acme Tandem Unipass	2G	4		017604AS		6.25	3.19	0.56	0.4800	0.360
5/8-10 NS	Hand Tap	H3	4	012524AS	012525AS	012526AS	3.81	1.81	0.56	0.4800	0.360
5/8-11 NC*	+.010 Hand Tap	H21	4	014710AS	014711AS	014712AS	3.81	1.81	0.56	0.4800	0.360
	Spiral Flute	H3	4		012536AS	012537AS	3.81	1.81	0.56	0.4800	0.360
	LH Spiral Pt.	H3	3		017287AS		3.81	1.81	0.56	0.4800	0.360
5/8-11 BSW	55° Mod. Whitworth	H3	4	015648AS	015649AS	015650AS	3.81	1.81	0.56	0.4800	0.360
5/8-11 NC*	Carbo-Clad	H3	4		019112US	019113US	3.81	1.81	0.56	0.4800	0.360
	LH 1-1/2" O.D. Die				041060AS						
5/8-12 NS	Hand Tap	H3	4	012542AS	012543AS	012544AS	3.81	1.81	0.56	0.4800	0.360
	1-1/2" O.D. Die				041299AS						
5/8-16 NS	Hand Tap	H3	4	012557AS	012558AS	012559AS	3.81	1.81	0.56	0.4800	0.360
	1-1/2" O.D. Die				041301AS						
5/8-18 NF*	+.003 Hand Tap	H7	4		011118AS	011119AS	3.81	1.81	0.56	0.4800	0.360
	Hand Tap	H8	4		011120AS	011121AS	3.81	1.81	0.56	0.4800	0.360
	+.005 Hand Tap	H11	4		014627AS	014628AS	3.81	1.81	0.56	0.4800	0.360
	+.005 Spiral Pt.	H11	3		012461AS		3.81	1.81	0.56	0.4800	0.360
	Spiral Flute	H3	4		012564AS	012565AS	3.81	1.81	0.56	0.4800	0.360
	Carbo-Clad	H3	4		019120US	019121US	3.81	1.81	0.56	0.4800	0.360
	LH 1-1/2" O.D. Die				041061AS						
5/8-20 NS	Hand Tap	H3	4	012576AS	012577AS	012578AS	3.81	1.81	0.56	0.4800	0.360
	1-1/2" O.D. Die				041302AS						
5/8-24 NEF	Hand Tap	H3	6	012588AS	012589AS	012590AS	3.81	1.81	0.56	0.4800	0.360
	Hand Tap	H5	6	012598AS	012599AS	012600AS	3.81	1.81	0.56	0.4800	0.360
	1-1/2" O.D. Die				041303AS						
5/8-27 NS	Hand Tap	H3	6	012610AS	012611AS	012612AS	3.81	1.81	0.56	0.4800	0.360
	1-1/2" O.D. Die				041304AS						
5/8-28 NS	Hand Tap	H3	6	012617AS	012618AS	012619AS	3.81	1.81	0.56	0.4800	0.360

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5/8-28 To 3/4-16

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
5/8-28 NS	1-1/2" O.D. Die				041305AS						
5/8-32 NS	Hand Tap	H3	6	012625AS	012626AS	012627AS	3.81	1.81	0.56	0.4800	0.360
	1-1/2" O.D. Die				041306AS						
41/64-11 NS	Hand Tap	H4	4	012640AS	012641AS	012642AS	4.03	1.81	0.63	0.5420	0.406
11/16-18 NS	Hand Tap	H3	6	012680AS	012681AS	012682AS	4.03	1.81	0.63	0.5420	0.406
	LH Hand Tap	H3	4		017291AS	017292AS	4.03	1.81	0.63	0.5420	0.406
	2" O.D. Die				041326AS						
11/16-20 NS	Hand Tap	H3	6	012699AS	012700AS	012701AS	4.03	1.81	0.63	0.5420	0.406
	2" O.D. Die				041327AS						
11/16-24 NEF	Hand Tap	H3	6	012716AS	012717AS	012718AS	4.03	1.81	0.63	0.5420	0.406
	Hand Tap	H5	6	012726AS	012727AS	012728AS	4.03	1.81	0.63	0.5420	0.406
	2" O.D. Die				041328AS						
11/16-28 NS	Hand Tap	H3	6	012739AS	012740AS	012741AS	4.03	1.81	0.63	0.5420	0.406
11/16-32 NS	Hand Tap	H3	6	012749AS	012750AS	012751AS	4.03	1.81	0.63	0.5420	0.406
	2" O.D. Die				041330AS						
3/4-5 ACME	Acme Hand	2G	4		015242AS	015247AS	4.25	2.00	0.69	0.5900	0.442
3/4-6 ACME	Acme Hand	2G	4		015243AS		4.25	2.00	0.69	0.5900	0.442
	LH Acme Tap	2G	4		017634AS		4.25	2.00	0.69	0.5900	0.442
	Acme Tandem Unipass	2G	4		015004AS		7.94	4.31	0.63	0.5420	0.406
	LH Acme Tandem Unipass	2G	4		017606AS		7.94	4.31	0.63	0.5420	0.406
3/4-8 ACME	Acme Hand	2G	4		015244AS		4.25	2.00	0.69	0.5900	0.442
	Acme Tandem Unipass	2G	4		015006AS		7.94	4.31	0.63	0.5420	0.406
	LH Acme Tandem Unipass	2G	4		017608AS		7.94	4.31	0.63	0.5420	0.406
3/4-10 NC*	Hand Tap	H1	4		011122AS	011124AS	4.25	2.00	0.69	0.5900	0.442
	+.005 Hand Tap	H11	4		014631AS	014632AS	4.25	2.00	0.69	0.5900	0.442
	+.010 Hand Tap	H21	4	014718AS	014719AS	014720AS	4.25	2.00	0.69	0.5900	0.442
	+.005 Spiral Pt.	H11	3		008603AS		4.25	2.00	0.69	0.5900	0.442
	Spiral Flute	H3	4		012780AS	012781AS	4.25	2.00	0.69	0.5900	0.442
	Carbo-Clad	H3	4		019140US	019141US	4.25	2.00	0.69	0.5900	0.442
3/4-10 ACME	Acme Hand	2G	4		015245AS		4.25	2.00	0.69	0.5900	0.442
	LH 2" O.D. Die				041078AS						
3/4-11-1/2 NH	Garden Hose		4		015965AS	015966AS	4.25	2.00	0.69	0.5900	0.442
3/4-12 NS	Hand Tap	H4	4	012818AS	012819AS	012820AS	4.25	2.00	0.69	0.5900	0.442
	2" O.D. Die				041331AS						
3/4-14 NPSI	Straight Pipe		5		015858AS		3.25	1.38	0.50	0.9063	0.531
3/4-14 NPTF	LH Pipe		5		017530AS		3.25	1.38	0.50	0.9063	0.531
3/4-14 BSPT	55° Mod. Whit. Taper		5		015738AS		3.25	1.38	0.50	0.9063	0.531
	55° Full Form Taper		5		015737AS	015725AS	3.25	1.38	0.50	0.9063	0.531
3/4-14 BSPP	55° Mod. Whit. Parallel		5		015708AS		3.25	1.38	0.50	0.9063	0.531
	55° Full Form Parallel		5		015707AS	015726AS	3.25	1.38	0.50	0.9063	0.531
3/4-14 NPT	Carbo-Clad Pipe		5		019385US		3.25	1.38	0.50	0.9063	0.531
3/4-16 NF*	+.003 Hand Tap	H7	4		011126AS	011127AS	4.25	2.00	0.69	0.5900	0.442
	Hand Tap	H8	4		011128AS	011129AS	4.25	2.00	0.69	0.5900	0.442
	+.005 Hand Tap	H11	4		014635AS	014636AS	4.25	2.00	0.69	0.5900	0.442

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SPECIAL TAPS & DIES

3/4-16 To 7/8-9

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
3/4-16 NF*	Spiral Pt.	H5	3		099412AS		4.25	2.00	0.69	0.5900	0.442
	+.005 Spiral Pt.	H11	3		012841AS		4.25	2.00	0.69	0.5900	0.442
	LH Hand Tap	H5	4		017300AS	017293AS	4.25	2.00	0.69	0.5900	0.442
	Spiral Flute	H3	4		012833AS	012834AS	4.25	2.00	0.69	0.5900	0.442
	Carbo-Clad	H3	4		019148US	019149US	4.25	2.00	0.69	0.5900	0.442
	LH 2" O.D. Die				041079AS						
3/4-18 NS	Hand Tap	H3	4	012858AS	012859AS	012860AS	4.25	2.00	0.69	0.5900	0.442
	2" O.D. Die				041333AS						
3/4-20 NEF	Hand Tap	H3	6	012870AS	012871AS	012872AS	4.25	2.00	0.69	0.5900	0.442
	Hand Tap	H5	6	012880AS	012881AS	012882AS	4.25	2.00	0.69	0.5900	0.442
	LH Hand Tap	H3	6		017294AS	017295AS	4.25	2.00	0.69	0.5900	0.442
	2" O.D. Die				041334AS						
3/4-24 NS	Hand Tap	H3	6	012887AS	012888AS	012889AS	4.25	2.00	0.69	0.5900	0.442
	2" O.D. Die				041335AS						
3/4-27 NS	Hand Tap	H3	6	012906AS	012907AS	012908AS	4.25	2.00	0.69	0.5900	0.442
	2" O.D. Die				041336AS						
3/4-32 NS	Hand Tap	H3	6	012921AS	012922AS	012923AS	4.25	2.00	0.69	0.5900	0.442
	2" O.D. Die				041337AS						
3/4-40 NS	Hand Tap	H3	6	012928AS	012929AS	012930AS	4.25	2.00	0.69	0.5900	0.442
49/64-10 NS	Hand Tap	H4	4	012936AS	012937AS	012938AS	4.47	2.00	0.69	0.6520	0.489
25/32-10 NS	Hand Tap	H4	4	012944AS	012945AS	012946AS	4.47	2.00	0.69	0.6520	0.489
.800-36 AMO	55° Mod. Whitworth	H2	6	015656AS	015657AS	015658AS	4.47	2.00	0.69	0.6520	0.489
13/16-10 NS	Hand Tap	H4	4	012952AS	012953AS	012954AS	4.47	2.00	0.69	0.6520	0.489
13/16-12 NS	Hand Tap	H4	4	012960AS	012961AS	012962AS	4.47	2.00	0.69	0.6520	0.489
13/16-16 NS	Hand Tap	H3	4	012974AS	012975AS	012976AS	4.47	2.00	0.69	0.6520	0.489
	2" O.D. Die				041340AS						
13/16-18 NS	Hand Tap	H3	4	012981AS	012982AS	012983AS	4.47	2.00	0.69	0.6520	0.489
	2" O.D. Die				041341AS						
13/16-20 NEF	Hand Tap	H3	6	012993AS	012994AS	012995AS	4.47	2.00	0.69	0.6520	0.489
	Hand Tap	H5	6	013003AS	013004AS	013005AS	4.47	2.00	0.69	0.6520	0.489
	2" O.D. Die				041342AS						
13/16-24 NS	Hand Tap	H3	6	013015AS	013016AS	013017AS	4.47	2.00	0.69	0.6520	0.489
	2" O.D. Die				041343AS						
7/8-6 ACME	Acme Hand	2G	4		015246AS		4.69	2.22	0.75	0.6970	0.523
	LH Acme Tap	2G	4		015009AS		4.69	2.22	0.75	0.6970	0.523
	Acme Tandem Unipass	2G	4		015008AS		8.63	4.38	0.75	0.6970	0.523
	LH Acme Tandem Unipass	2G	4		017610AS		8.63	4.38	0.75	0.6970	0.523
7/8-9 NC*	Hand Tap	H1	4			011131AS	4.69	2.22	0.75	0.6970	0.523
	Hand Tap	H2	4		011132AS		4.69	2.22	0.75	0.6970	0.523
	+.005 Hand Tap	H11	4		014639AS	014640AS	4.69	2.22	0.75	0.6970	0.523
	Spiral Pt.	H4	3		013033AS		4.69	2.22	0.75	0.6970	0.523
	Spiral Flute	H4	4		013034AS	013035AS	4.69	2.22	0.75	0.6970	0.523
	Carbo-Clad	H4	4		019156US	019157US	4.69	2.22	0.75	0.6970	0.523
	LH 2" O.D. Die				041081AS						

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7/8-10 To 1"-8

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
7/8-10 NS	Hand Tap	H4	4	013040AS	013041AS	013042AS	4.69	2.22	0.75	0.6970	0.523
7/8-12 NS	Hand Tap	H4	4	013054AS	013055AS	013056AS	4.69	2.22	0.75	0.6970	0.523
	2" O.D. Die				041345AS						
7/8-14 NF*	Hand Tap	H5	4		011134AS	011135AS	4.69	2.22	0.75	0.6970	0.523
	+.005 Hand Tap	H11	4		014643AS	014644AS	4.69	2.22	0.75	0.6970	0.523
	Spiral Pt.	H4	3		013060AS		4.69	2.22	0.75	0.6970	0.523
	Carbo-Clad	H4	4		019166US	019167US	4.69	2.22	0.75	0.6970	0.523
	LH 2" O.D. Die				041082AS						
7/8-16 NS	Hand Tap	H3	4	013075AS	013076AS	013077AS	4.69	2.22	0.75	0.6970	0.523
	2" O.D. Die				041346AS						
7/8-18 NS	Hand Tap	H3	6	013094AS	013095AS	013096AS	4.69	2.22	0.75	0.6970	0.523
	2" O.D. Die				041347AS						
7/8-20 NEF	Hand Tap	H3	6	013101AS	013102AS	013103AS	4.69	2.22	0.75	0.6970	0.523
	Hand Tap	H5	6	013106AS	013107AS	013108AS	4.69	2.22	0.75	0.6970	0.523
	2" O.D. Die				041348AS						
7/8-24 NS	Hand Tap	H3	6	013113AS	013114AS	013115AS	4.69	2.22	0.75	0.6970	0.523
	2" O.D. Die				041349AS						
7/8-27 NS	Hand Tap	H3	6	013121AS	013122AS	013123AS	4.69	2.22	0.75	0.6970	0.523
7/8-32 NS	Hand Tap	H3	6	013129AS	013130AS	013131AS	4.69	2.22	0.75	0.6970	0.523
	2" O.D. Die				041350AS						
15/16-12 NS	Hand Tap	H4	4	013137AS	013138AS	013139AS	4.91	2.22	0.75	0.7600	0.570
	2" O.D. Die				041351AS						
15/16-14 NS	Hand Tap	H4	4	013144AS	013145AS	013146AS	4.91	2.22	0.75	0.7600	0.570
	2" O.D. Die				041352AS						
15/16-16 NS	Hand Tap	H3	6	013152AS	013153AS	013154AS	4.91	2.22	0.75	0.7600	0.570
	2" O.D. Die				041353AS						
15/16-18 NS	Hand Tap	H3	6	013159AS	013160AS	013161AS	4.91	2.22	0.75	0.7600	0.570
	2" O.D. Die				041354AS						
15/16-20 NEF	Hand Tap	H3	6	013166AS	013167AS	013168AS	4.91	2.22	0.75	0.7600	0.570
	Hand Tap	H5	6	013176AS	013177AS	013178AS	4.91	2.22	0.75	0.7600	0.570
	2" O.D. Die				041355AS						
15/16-32 NS	Hand Tap	H3	6	013183AS	013184AS	013185AS	4.91	2.22	0.75	0.7600	0.570
	2" O.D. Die				041356AS						
1-5 ACME	Acme Hand	2G	4		015248AS		5.13	2.50	0.81	0.8000	0.600
	LH Acme Tap	2G	4		017638AS		5.13	2.50	0.81	0.8000	0.600
	Acme Tandem Unipass	2G	4		015010AS		10.13	5.25	0.88	0.6970	0.523
	LH Acme Tandem Unipass	2G	4		017612AS		10.13	5.25	0.88	0.6970	0.523
1-8 NC*	Hand Tap	H1	4		011137AS	011138AS	5.13	2.50	0.81	0.8000	0.600
	+.005 Hand Tap	H11	4		014647AS	014648AS	5.13	2.50	0.81	0.8000	0.600
	Spiral Pt.	H4	3		013191AS		5.13	2.50	0.81	0.8000	0.600
	Spiral Flute	H4	4		013194AS	013195AS	5.13	2.50	0.81	0.8000	0.600
	Carbo-Clad	H4	4		019176US	019177US	5.13	2.50	0.81	0.8000	0.600
1-8 ACME	Acme Hand	2G	4		015249AS		5.13	2.50	0.81	0.8000	0.600
	2" O.D. Die				041357AS						
	LH 2" O.D. Die				041084AS						

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SPECIAL TAPS & DIES

1-10 To 1-1/16 - 24

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
1-10 NS	Hand Tap	H4	4	013200AS	013201AS	013202AS	5.13	2.50	0.81	0.8000	0.600
1-11 BSPP	55° Mod. Whit. Parallel		5		015710AS		3.75	1.75	0.81	1.1250	0.843
	55° Full Form Parallel		5		015709AS	015728AS	3.75	1.75	0.81	1.1250	0.843
1-11 BSPT	55° Mod. Whit. Taper		5		015740AS		3.75	1.75	0.81	1.1250	0.843
	55° Full Form Taper		5		015739AS	015727AS	3.75	1.75	0.81	1.1250	0.843
1-11-1/2 NPTF	LH Pipe		5		017532AS		3.75	1.75	0.81	1.1250	0.843
	Carbo-Clad Pipe		5		019386US		3.75	1.75	0.81	1.1250	0.843
1-12 NF*	Hand Tap	H1	4		011136AS		5.13	2.50	0.81	0.8000	0.600
	Hand Tap	H6	4	013214AS	013215AS	013216AS	5.13	2.50	0.81	0.8000	0.600
	+.005 Hand Tap	H11	4		014651AS	014652AS	5.13	2.50	0.81	0.8000	0.600
	Spiral Pt.	H4	3		013227AS		5.13	2.50	0.81	0.8000	0.600
	Carbo-Clad	H4	4		019186US	019187US	5.13	2.50	0.81	0.8000	0.600
	LH 2" O.D. Die				041085AS						
1-14 NS	Hand Tap	H6	4	013228AS	013229AS	013230AS	5.13	2.50	0.81	0.8000	0.600
	+.005 Hand Tap	H11	4		014655AS	014656AS	5.13	2.50	0.81	0.8000	0.600
	Spiral Pt.	H4	3		013231AS		5.13	2.50	0.81	0.8000	0.600
	LH 2" O.D. Die				041086AS						
1-16 NS	Hand Tap	H3	6	013236AS	013237AS	013238AS	5.13	2.50	0.81	0.8000	0.600
	LH Hand Tap	H3	6		017296AS	017297AS	5.13	2.50	0.81	0.8000	0.600
	2" O.D. Die				041360AS						
1-18 NS	Hand Tap	H3	6	013243AS	013244AS	013245AS	5.13	2.50	0.81	0.8000	0.600
	2" O.D. Die				041361AS						
1-20 NEF	Hand Tap	H3	6	013250AS	013251AS	013252AS	5.13	2.50	0.81	0.8000	0.600
	Hand Tap	H5	6	013260AS	013261AS	013262AS	5.13	2.50	0.81	0.8000	0.600
	LH Hand Tap	H3	6		017298AS	017299AS	5.13	2.50	0.81	0.8000	0.600
	2" O.D. Die				041362AS						
1-24 NS	Hand Tap	H3	6	013267AS	013268AS	013269AS	5.13	2.50	0.81	0.8000	0.600
	2" O.D. Die				041363AS						
1-27 NS	Hand Tap	H3	6	013274AS	013275AS	013276AS	5.13	2.50	0.81	0.8000	0.600
	2" O.D. Die				041364AS						
1-32 NS	Hand Tap	H3	6	013286AS	013287AS	013288AS	5.13	2.50	0.81	0.8000	0.600
	2" O.D. Die				041365AS						
1-1/16-12 NS	Hand Tap	H4	4		011140AS	011141AS	5.13	2.50	0.88	0.8960	0.672
	Hand Tap	H5	4	013289AS	013290AS	013291AS	5.13	2.50	0.88	0.8960	0.672
	Hand Tap	H7	4	013297AS	013298AS	013299AS	5.13	2.50	0.88	0.8960	0.672
1-1/16-14 NS	Hand Tap	H5	6	013301AS	013302AS	013303AS	4.00	1.50	0.88	0.8960	0.672
1-1/16-16 NS	Hand Tap	H4	6	013308AS	013309AS	013310AS	4.00	1.50	0.88	0.8960	0.672
	Hand Tap	H6	6	013318AS	013319AS	013320AS	4.00	1.50	0.88	0.8960	0.672
1-1/16-18 NEF	Hand Tap	H4	6	013330AS	013331AS	013332AS	4.00	1.50	0.88	0.8960	0.672
	Hand Tap	H6	6	013340AS	013341AS	013342AS	4.00	1.50	0.88	0.8960	0.672
1-1/16-20 NS	Hand Tap	H4	6	013347AS	013348AS	013349AS	4.00	1.50	0.88	0.8960	0.672
1-1/16-24 NS	Hand Tap	H4	6	013352AS	013353AS	013354AS	4.00	1.50	0.88	0.8960	0.672

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1-1/8-5 To 1-1/4-7

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
1-1/8-5 ACME	Acme Hand	2G	4		015250AS		5.44	2.56	0.88	0.8960	0.672
	LH Acme Tap	2G	4		017640AS		5.44	2.56	0.88	0.8960	0.672
	Acme Tandem Unipass	2G	4		015012AS		10.75	5.25	0.81	0.8000	0.600
	LH Acme Tandem Unipass	2G	4		017614AS		10.75	5.25	0.81	0.8000	0.600
1-1/8-7 NC*	2-1/2" O.D. Die				041390AS						
	LH 2-1/2" O.D. Die				041100AS						
1-1/8-10 NS	Hand Tap	H5	4	013364AS	013365AS	013366AS	5.44	2.56	0.88	0.8960	0.672
1-1/8-12 NF*	Hand Tap	H6	4	013374AS	013375AS	013376AS	4.00	1.50	0.88	0.8960	0.672
	+.005 Hand Tap	H12	4		011142AS	011143AS	4.00	1.50	0.88	0.8960	0.672
	2-1/2" O.D. Die				041392AS						
	LH 2-1/2" O.D. Die				041101AS						
1-1/8-14 NS	Hand Tap	H5	6	013381AS	013382AS	013383AS	4.00	1.50	0.88	0.8960	0.672
	2-1/2" O.D. Die				041393AS						
1-1/8-16 NS	Hand Tap	H4	6	013388AS	013389AS	013390AS	4.00	1.50	0.88	0.8960	0.672
	2-1/2" O.D. Die				041394AS						
1-1/8-18 NEF	Hand Tap	H4	6	013400AS	013401AS	013402AS	4.00	1.50	0.88	0.8960	0.672
	Hand Tap	H6	6	013410AS	013411AS	013412AS	4.00	1.50	0.88	0.8960	0.672
	2-1/2" O.D. Die				041395AS						
1-1/8-20 NS	Hand Tap	H4	6	013417AS	013418AS	013419AS	4.00	1.50	0.88	0.8960	0.672
	2-1/2" O.D. Die				041396AS						
1-1/8-24 NS	Hand Tap	H4	6	013422AS	013423AS	013424AS	4.00	1.50	0.88	0.8960	0.672
1-1/8-28 NS	Hand Tap	H4	6	013427AS	013428AS	013429AS	4.00	1.50	0.88	0.8960	0.672
1-1/8-32 NS	Hand Tap	H4	6	013432AS	013433AS	013434AS	4.00	1.50	0.88	0.8960	0.672
1-3/16-12 NS	Hand Tap	H5	6	013439AS	013440AS	013441AS	5.44	2.56	1.00	1.0210	0.766
	2-1/2" O.D. Die				041397AS						
1-3/16-14 NS	Hand Tap	H5	6	013446AS	013447AS	013448AS	4.00	1.50	1.00	1.0210	0.766
	2-1/2" O.D. Die				041398AS						
1-3/16-16 NS	Hand Tap	H4	6	013453AS	013454AS	013455AS	4.00	1.50	1.00	1.0210	0.766
	Hand Tap	H6	6	013463AS	013464AS	013465AS	4.00	1.50	1.00	1.0210	0.766
1-3/16-18 NEF	Hand Tap	H4	6	013475AS	013476AS	013477AS	4.00	1.50	1.00	1.0210	0.766
	Hand Tap	H6	6		011144AS	011145AS	4.00	1.50	1.00	1.0210	0.766
	2-1/2" O.D. Die				041399AS						
1-3/16-20 NS	Hand Tap	H4	6	013492AS	013493AS	013494AS	4.00	1.50	1.00	1.0210	0.766
1-1/4-5 ACME	Acme Hand	2G	4		015251AS		5.75	2.56	1.00	1.0210	0.766
	LH Acme Tap	2G	4		017642AS		5.75	2.56	1.00	1.0210	0.766
	Acme Tandem Unipass	2G	4		015014AS		11.13	5.25	0.88	0.8960	0.672
	LH Acme Tandem Unipass	2G	4		017616AS		11.13	5.25	0.88	0.8960	0.672
1-1/4-7 NC*	Hand Tap	H8	4	013504AS	013505AS	013506AS	5.75	2.56	1.00	1.0210	0.766
	+.005 Hand Tap	H12	4		011146AS	011147AS	5.75	2.56	1.00	1.0210	0.766
	Spiral Pt.	H4	3		013232AS		5.75	2.56	1.00	1.0210	0.766
	Carbo-Clad	H4	4		019216US	019217US	5.75	2.56	1.00	1.0210	0.766
	2-1/2" O.D. Die				041401AS						
	LH 2-1/2" O.D. Die				041102AS						

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SPECIAL TAPS & DIES

1-1/4-10 To 1-3/8-16

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
1-1/4-10 NS	Hand Tap	H5	4	013518AS	013519AS	013520AS	5.75	2.56	1.00	1.0210	0.766
1-1/4-11 BSPT	55° Mod. Whit. Taper		5		015742AS		4.00	1.75	0.94	1.3125	0.984
	55° Full Form Taper		5		015741AS	015750AS	4.00	1.75	0.94	1.3125	0.984
1-1/4-11 BSPP	55° Mod. Whit. Parallel		5		015712AS		4.00	1.75	0.94	1.3125	0.984
	55° Full Form Parallel		5		015711AS	015751AS	4.00	1.75	0.94	1.3125	0.984
1-1/4-11-1/2 NPS*	Straight Pipe		5		015951AS		4.00	1.75	0.94	1.3125	0.984
1-1/4-11-1/2 NPSF*	Straight Pipe		5		015950AS		4.00	1.75	0.94	1.3125	0.984
1-1/4-11-1/2 NPTF*	LH Pipe		5		017534AS		4.00	1.75	0.94	1.3125	0.984
	Carbo-Clad Pipe		5		019387US		4.00	1.75	0.94	1.3125	0.984
1-1/4-12 NF*	Hand Tap	H6	6	013530AS	013531AS	013532AS	5.75	2.56	1.00	1.0210	0.766
	2-1/2" O.D. Die				041403AS						
	LH 2-1/2" O.D. Die				041103AS						
1-1/4-14 NS	Hand Tap	H5	6	013537AS	013538AS	013539AS	4.00	1.50	1.00	1.0210	0.766
1-1/4-16 NS	Hand Tap	H4	6	013544AS	013545AS	013546AS	4.00	1.50	1.00	1.0210	0.766
	2-1/2" O.D. Die				041404AS						
1-1/4-18 NEF	Hand Tap	H4	6	013556AS	013557AS	013558AS	4.00	1.50	1.00	1.0210	0.766
	Hand Tap	H6	6	013566AS	013567AS	013568AS	4.00	1.50	1.00	1.0210	0.766
	2-1/2" O.D. Die				041405AS						
1-1/4-20 NS	Hand Tap	H4	6	013573AS	013574AS	013575AS	4.00	1.50	1.00	1.0210	0.766
	2-1/2" O.D. Die				041406AS						
1-1/4-24 NS	Hand Tap	H4	6	013580AS	013581AS	013582AS	4.00	1.50	1.00	1.0210	0.766
	2-1/2" O.D. Die				041407AS						
1-1/4-32 NS	Hand Tap	H4	6	013587AS	013588AS	013589AS	4.00	1.50	1.00	1.0210	0.766
1-5/16-12 NS	Hand Tap	H5	6	013594AS	013595AS	013596AS	5.75	2.56	1.06	1.1080	0.831
	Hand Tap	H8	6	013609AS	013610AS	013611AS	5.75	2.56	1.06	1.1080	0.831
	2-1/2" O.D. Die				041408AS						
1-5/16-14 NS	Hand Tap	H5	6	013613AS	013614AS	013615AS	4.00	1.50	1.00	1.1080	0.831
	2-1/2" O.D. Die				041409AS						
1-5/16-16 NS	Hand Tap	H4	6	013618AS	013619AS	013620AS	4.00	1.50	1.00	1.1080	0.831
	Hand Tap	H6	6	013628AS	013629AS	013630AS	4.00	1.50	1.00	1.1080	0.831
	2-1/2" O.D. Die				041410AS						
1-5/16-18 NEF	Hand Tap	H4	6	013640AS	013641AS	013642AS	4.00	1.50	1.00	1.1080	0.831
	Hand Tap	H6	6	013650AS	013651AS	013652AS	4.00	1.50	1.00	1.1080	0.831
	2-1/2" O.D. Die				041411AS						
1-5/16-20 NS	Hand Tap	H4	6	013655AS	013656AS	013657AS	4.00	1.50	1.00	1.1080	0.831
1-3/8-4 ACME	Acme Hand	2G	4		015252AS		6.06	3.00	1.06	1.1080	0.831
	LH Acme Tap	2G	4		017644AS		6.06	3.00	1.06	1.1080	0.831
	Acme Tandem Unipass	2G	4		015016AS		12.25	5.88	1.25	1.1080	0.831
	LH Acme Tandem Unipass	2G	4		017618AS		12.25	5.88	1.25	1.1080	0.831
1-3/8-6 NC*	2-1/2" O.D. Die				041412AS						
	LH 2-1/2" O.D. Die				041104AS						
1-3/8-10 NS	Hand Tap	H5	6	013667AS	013668AS	013669AS	6.06	3.00	1.06	1.1080	0.831
1-3/8-12 NF*	Carbo-Clad	H4	4		019240US	019241US	6.06	3.00	1.06	1.1080	0.831
	2-1/2" O.D. Die				041414AS						
	LH 2-1/2" O.D. Die				041105AS						
1-3/8-16 NS	Hand Tap	H4	6	013674AS	013675AS	013676AS	4.00	1.50	1.00	1.1080	0.831

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1-3/8-16 To 1-5/8-12

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
1-3/8-16 NS	2-1/2" O.D. Die				041416AS						
1-3/8-18 NEF	Hand Tap	H4	6	013686AS	013689AS	013690AS	4.00	1.50	1.00	1.1080	0.831
	Hand Tap	H6	6	013692AS	013695AS	013697AS	4.00	1.50	1.00	1.1080	0.831
	2-1/2" O.D. Die				041417AS						
1-3/8-20 NS	Hand Tap	H4	6	013705AS	013706AS	013707AS	4.00	1.50	1.00	1.1080	0.831
	2-1/2" O.D. Die				041418AS						
1-7/16-18 NEF	Hand Tap	H4	6	013729AS	013730AS	013731AS	4.00	1.50	1.00	1.2330	0.925
	Hand Tap	H6	6	013739AS	013740AS	013741AS	4.00	1.50	1.00	1.2330	0.925
	2-1/2" O.D. Die				041422AS						
1-1/2-4 ACME	Acme Hand	2G	4		015253AS		6.38	3.00	1.13	1.2330	0.925
	LH Acme Tap	2G	4		017646AS		6.38	3.00	1.13	1.2330	0.925
	Acme Tandem Unipass	2G	4		015020AS		12.63	5.88	1.13	1.2330	0.925
	LH Acme Tandem Unipass	2G	4		017620AS		12.63	5.88	1.13	1.2330	0.925
1-1/2-6 NC*	Carbo-Clad	H4	4		019248US	019249US	6.38	3.00	1.13	1.2330	0.925
	2-1/2" O.D. Die				041424AS						
	LH 2-1/2" O.D. Die				041106AS						
1-1/2-10 NS	Hand Tap	H5	6	013751AS	013752AS	013753AS	6.38	3.00	1.13	1.2330	0.925
1-1/2-11 BSPT	55° Mod. Whit. Taper		7		015744AS		4.25	1.75	1.00	1.5000	1.125
	55° Full Form Taper		7		015743AS	015752AS	4.25	1.75	1.00	1.5000	1.125
1-1/2-11 BSPP	55° Mod. Whit. Parallel		7		015714AS		4.25	1.75	1.00	1.5000	1.125
	55° Full Form Parallel		7		015713AS	015753AS	4.25	1.75	1.00	1.5000	1.125
1-1/2-11-1/2 NPS	Straight Pipe		7		015952AS		4.25	1.75	1.00	1.5000	1.125
1-1/2-11-1/2 NPTF	LH Pipe		7		017536AS		4.25	1.75	1.00	1.5000	1.125
	Carbo-Clad Pipe		7		019388US		4.25	1.75	1.00	1.5000	1.125
1-1/2-12 NF	Hand Tap	H6	6	013761AS	013762AS	013763AS	6.38	3.00	1.13	1.2330	0.925
	2-1/2" O.D. Die				041426AS						
	LH 2-1/2" O.D. Die				041107AS						
1-1/2-16 NS	Hand Tap	H4	6	013768AS	013769AS	013770AS	4.00	1.50	1.00	1.2330	0.925
	2-1/2" O.D. Die				041428AS						
1-1/2-18 NEF	Hand Tap	H4	6	013780AS	013781AS	013782AS	4.00	1.50	1.00	1.2330	0.925
	Hand Tap	H6	6	013790AS	013791AS	013792AS	4.00	1.50	1.00	1.2330	0.925
	2-1/2" O.D. Die				041429AS						
1-1/2-20 NS	Hand Tap	H4	6	013797AS	013798AS	013799AS	4.00	1.50	1.00	1.2330	0.925
	2-1/2" O.D. Die				041430AS						
1-1/2-24 NS	Hand Tap	H4	6	013804AS	013805AS	013806AS	4.00	1.50	1.00	1.2330	0.925
1-9/16-16 NS	Hand Tap	H5	6	013811AS	013812AS	013813AS	5.00	2.00	1.13	1.3050	0.979
	3" O.D. Die				041451AS						
1-9/16-18 NEF	Hand Tap	H5	6	013816AS	013817AS	013818AS	5.00	2.00	1.13	1.3050	0.979
	3" O.D. Die				041452AS						
1-5/8-5-1/2 NS	Hand Tap	H7	6	013823AS	013824AS	013825AS	6.69	3.19	1.13	1.3050	0.979
1-5/8-12 NS	Hand Tap	H4	6		011148AS	011149AS	5.00	2.00	1.13	1.3050	0.979

*The most popular limits and flute configurations, both Right- and Left-Hand sizes, are shown in our Industrial Metalworking catalog and on our website.

SPECIAL TAPS & DIES

1-5/8-12 To 2-1/4-16

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
1-5/8-12 NS	Hand Tap	H6	6	013833AS	013834AS	013835AS	5.00	2.00	1.13	1.3050	0.979
	3" O.D. Die				041455AS						
1-5/8-16 NS	Hand Tap	H5	6	013838AS	013839AS	013840AS	5.00	2.00	1.13	1.3050	0.979
	3" O.D. Die				041456AS						
1-5/8-18 NEF	Hand Tap	H5	6	013843AS	013844AS	013845AS	5.00	2.00	1.13	1.3050	0.979
	3" O.D. Die				041457AS						
1-3/4-5 NC	Hand Tap	H7	6	013857AS	013858AS	013859AS	7.00	3.19	1.25	1.4300	1.072
	3" O.D. Die				041460AS						
1-3/4-10 NS	Hand Tap	H6	6	013882AS	013883AS	013884AS	5.00	2.00	1.25	1.4300	1.072
1-3/4-12 NS	Hand Tap	H6	6	013887AS	013888AS	013889AS	5.00	2.00	1.25	1.4300	1.072
	Hand Tap	H8	6	013897AS	013898AS	013899AS	5.00	2.00	1.25	1.4300	1.072
	3" O.D. Die				041462AS						
1-3/4-16 NS	Hand Tap	H5	6	013902AS	013903AS	013904AS	5.00	2.00	1.25	1.4300	1.072
	Hand Tap	H7	6	013912AS	013913AS	013914AS	5.00	2.00	1.25	1.4300	1.072
	3" O.D. Die				041464AS						
1-3/4-18 NS	Hand Tap	H5	6	013917AS	013918AS	013919AS	5.00	2.00	1.25	1.4300	1.072
1-7/8-5 NS	Hand Tap	H7	6	013924AS	013925AS	013926AS	7.31	3.56	1.25	1.5190	1.139
	3" O.D. Die				041470AS						
1-7/8-12 NS	Hand Tap	H6	6	013934AS	013935AS	013936AS	5.00	2.00	1.25	1.5190	1.139
	Hand Tap	H8	6	013944AS	013945AS	013946AS	5.00	2.00	1.25	1.5190	1.139
	3" O.D. Die				041473AS						
1-7/8-16 NS	Hand Tap	H5	6	013949AS	013950AS	013951AS	5.00	2.00	1.25	1.5190	1.139
	3" O.D. Die				041474AS						
2-4 ACME	Acme Tandem Unipass	2G	6		015022AS		14.88	6.50	1.38	1.6440	1.233
	LH Acme Tandem Unipass	2G	6		017652AS		14.88	6.50	1.38	1.6440	1.233
2-4-1/2 NC	Hand Tap	H7	6	013956AS	013957AS	013958AS	7.63	3.56	1.38	1.6440	1.233
	3" O.D. Die				041478AS						
2-11 BSPT	55° Mod. Whit. Taper		7		015746AS		4.50	1.75	1.13	1.8750	1.406
	55° Full Form Taper		7		015745AS	015754AS	4.50	1.75	1.13	1.8750	1.406
2-11 BSPP	55° Mod. Whit. Parallel		7		015716AS		4.50	1.75	1.13	1.8750	1.406
	55° Full Form Parallel		7		015715AS	015755AS	4.50	1.75	1.13	1.8750	1.406
2-11-1/2 NPS	Straight Pipe		7		015953AS		4.50	1.75	1.13	1.8750	1.406
2-11-1/2 NPTF	LH Pipe		7		017538AS		4.50	1.75	1.13	1.8750	1.406
2-12 NS	Hand Tap	H6	6	013966AS	013967AS	013968AS	5.00	2.00	1.38	1.6440	1.233
	Hand Tap	H8	6	013976AS	013977AS	013978AS	5.00	2.00	1.38	1.6440	1.233
	3" O.D. Die				041482AS						
2-16 NS	Hand Tap	H5	6	013983AS	013984AS	013985AS	5.00	2.00	1.38	1.6440	1.233
	3" O.D. Die				041484AS						
2-20 NS	Hand Tap	H5	6	013993AS	013994AS	013995AS	5.00	2.00	1.38	1.6440	1.233
	3" O.D. Die				041486AS						
2-1/8-12 NS	Hand Tap	H6	6	014005AS	014006AS	014007AS	5.25	2.00	1.38	1.7690	1.327
2-1/8-16 NS	Hand Tap	H5	6	014010AS	014011AS	014012AS	5.25	2.00	1.38	1.7690	1.327
2-1/4-4-1/2 NC	Hand Tap	H7	6	014017AS	014018AS	014019AS	8.25	3.56	1.44	1.8940	1.420
2-1/4-12 NS	Hand Tap	H6	6	014027AS	014028AS	014029AS	5.25	2.00	1.44	1.8940	1.420
2-1/4-16 NS	Hand Tap	H5	6	014032AS	014033AS	014034AS	5.25	2.00	1.44	1.8940	1.420

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2-3/8-12 To 6-12

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	GH#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
2-3/8-12 NS	Hand Tap	H6	6	014039AS	014040AS	014041AS	5.25	2.00	1.44	2.0190	1.514
2-3/8-16 NS	Hand Tap	H5	6	014044AS	014045AS	014046AS	5.25	2.00	1.44	2.0190	1.514
2-1/2-4 NC	Hand Tap	H7	6	014051AS	014052AS	014053AS	8.75	4.00	1.50	2.1000	1.575
2-1/2-8 NPTF	Taper Pipe		7		015935AS		5.50	2.56	1.25	2.2500	1.687
	Interrupted Taper Pipe		7		015993AS		5.50	2.56	1.25	2.2500	1.687
2-1/2-12 NS	Hand Tap	H6	6	014061AS	014062AS	014063AS	5.25	2.00	1.50	2.1000	1.575
2-1/2-16 NS	Hand Tap	H5	6	014066AS	014067AS	014068AS	5.25	2.00	1.50	2.1000	1.575
2-3/4-12 NS	Hand Tap	H7	6	014078AS	014079AS	014080AS	5.50	2.00	1.50	2.3500	1.575
3-4 NC	Hand Tap	H9	6	014092AS	014093AS	014094AS	9.75	4.56	1.91	2.5430	1.625
3-8 NPTF	Taper Pipe		7		015936AS		6.00	2.68	1.38	2.6250	1.968
	Interrupted Taper Pipe		7		015994AS		6.00	2.68	1.38	2.6250	1.968
3-12 NS	Hand Tap	H7	8	014102AS	014103AS	014104AS	5.50	2.00	1.50	2.5430	1.575
3-16 NS	Hand Tap	H7	8	014107AS	014108AS	014109AS	5.50	2.00	1.50	2.5430	1.575
3-1/8-12 NS	Hand Tap	H7	8		014110AS	014111AS	5.75	2.00	1.50	2.6680	1.575
3-1/4-12 NS	Hand Tap	H7	8		014121AS	014122AS	5.75	2.00	1.50	2.7930	1.575
3-1/2-4 NC	Hand Tap	H9	6		014123AS	014124AS	10.25	4.94	2.00	3.0080	2.256
3-1/2-8 NPTF	Taper Pipe		9		015937AS		6.50	2.69	1.50	2.8125	2.108
	Interrupted Taper Pipe		9		015996AS		6.50	2.69	1.50	2.8125	2.108
3-1/2-12 NS	Hand Tap	H7	8		014127AS	014128AS	5.75	2.00	1.50	3.0080	1.575
3-3/4-4 NC	Hand Tap	H9	6		014129AS	014130AS	10.50	5.31	2.13	3.2170	2.413
3-3/4-12 NS	Hand Tap	H7	8		014133AS	014134AS	6.00	2.00	1.75	3.2170	1.575
4-4 NC	Hand Tap	H9	8		014135AS	014136AS	10.75	5.31	2.25	3.4670	2.600
4-8 NPTF	Taper Pipe		9		015938AS		6.75	2.75	1.63	3.0000	2.250
	Interrupted Taper Pipe		9		015995AS		6.75	2.75	1.63	3.0000	2.250
4-12 NS	Hand Tap	H7	8		014139AS	014140AS	6.00	2.00	1.75	3.4670	1.575
4-1/4-8 NS	Hand Tap	H8	10		014141AS		10.75	5.31	2.25	3.4670	2.600
4-1/4-12 NS	Hand Tap	H7	10		014142AS		6.00	2.00	1.75	3.4670	1.575
4-1/2-8 NS	Hand Tap	H8	10		014143AS		10.75	5.31	2.25	3.8250	2.868
4-1/2-12 NS	Hand Tap	H7	10		014144AS		6.00	2.00	1.75	3.8250	1.575
4-3/4-8 NS	Hand Tap	H8	10		014145AS		10.75	5.31	2.25	3.9500	2.965
4-3/4-12 NS	Hand Tap	H7	10		014146AS		6.00	2.00	1.75	3.9500	1.575
5-8 NS	Hand Tap	H8	10		014147AS		11.75	5.50	2.50	4.2000	3.150
5-12 NS	Hand Tap	H7	10		014148AS		6.50	2.50	2.00	4.2000	1.575
5-1/4-8 NS	Hand Tap	H8	10		014149AS		11.75	5.50	2.50	4.4500	3.340
5-1/4-12 NS	Hand Tap	H7	10		014150AS		6.50	2.50	2.00	4.4500	2.600
5-1/2-8 NS	Hand Tap	H8	10		014151AS		12.00	5.75	2.75	4.7000	3.525
5-1/2-12 NS	Hand Tap	H7	10		014152AS		6.50	2.50	2.00	4.7000	2.600
5-3/4-8 NS	Hand Tap	H8	10		014153AS		12.00	5.75	2.75	4.9500	3.715
5-3/4-12 NS	Hand Tap	H7	10		014154AS		6.50	2.50	2.00	4.9500	2.600
6-8 NS	Hand Tap	H8	10		014155AS		12.25	6.00	2.75	5.2000	3.900
6-12 NS	Hand Tap	H7	10		014156AS		7.00	3.00	2.00	5.2000	2.785

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M1.5 x 0.35 To M5 x 0.5

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	D#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
M1.5 x 0.35	Hand Tap	D1	2	025000AS	025001AS	025002AS	1.63	0.31	0.19	0.1410	0.110
M1.6 x 0.35*	Hand Tap	D1	2	020008AS	020009AS	020010AS	1.63	0.31	0.19	0.1410	0.110
M1.8 x 0.35*	Hand Tap	D1	2	020024AS	020025AS	020026AS	1.69	0.38	0.19	0.1410	0.110
M2 x 0.4*	Hand Tap	D1	3	020040AS	020041AS	020042AS	1.75	0.44	0.19	0.1410	0.110
	LH 25.4mm O.D. Die				045750AS						
M2 x 0.45	Hand Tap	D2	3	025048AS	025049AS	025050AS	1.75	0.44	0.19	0.1410	0.110
M2.2 x 0.45*	Hand Tap	D1	3	020056AS	020057AS	020058AS	1.75	0.44	0.19	0.1410	0.110
M2.5 x 0.45*	Hand Tap	D1	3	020072AS	020073AS	020074AS	1.81	0.50	0.19	0.1410	0.110
	Spiral Pt.	D1	2		020075AS		1.81	0.50	0.19	0.1410	0.110
M2.6 x 0.45	Hand Tap	D2	3	025096AS	025097AS	025098AS	1.88	0.50	0.19	0.1410	0.110
	Hand Tap	D3	3		025099AS	025100AS	1.88	0.50	0.19	0.1410	0.110
	25.4mm O.D. Die				045406AS						
M3 x 0.5*	Hand Tap	D1	3	020088AS	020089AS	020090AS	1.94	0.63	0.19	0.1410	0.110
	Spiral Pt.	D1	2		020091AS		1.94	0.63	0.19	0.1410	0.110
	Spiral Pt.	D5	2		020092AS		1.94	0.63	0.19	0.1410	0.110
	Spiral Pt.	D7	2		020093AS		1.94	0.63	0.19	0.1410	0.110
	Micrograin Carbide	D3	3		018794RS	018795RS	1.94	0.63	0.19	0.1410	0.110
	Micrograin Carbide Spiral Pt.	D3	2		018796RS		1.94	0.63	0.19	0.1410	0.110
	LH 25.4mm O.D. Die				045756AS						
M3 x 0.6	Hand Tap	D2	3	025120AS	025121AS	025122AS	1.94	0.63	0.19	0.1410	0.110
	25.4mm O.D. Die				045408AS						
M3.5 x 0.6*	Hand Tap	D1	3	020104AS	020105AS	020106AS	2.00	0.69	0.19	0.1410	0.110
	Spiral Pt.	D1	2		020107AS		2.00	0.69	0.19	0.1410	0.110
	Spiral Pt.	D11	2		024275AS		2.00	0.69	0.19	0.1410	0.110
	Micrograin Carbide	D4	3		018797RS	018798RS	2.00	0.69	0.19	0.1410	0.110
	Micrograin Carbide Spiral Pt.	D4	2		018799RS		2.00	0.69	0.19	0.1410	0.110
	LH 25.4mm O.D. Die				045758AS						
M4 x 0.7*	Hand Tap	D2	4	020120AS	020121AS	020122AS	2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	D1	2		020124AS		2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	D2	2		020123AS		2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	D5	2		020125AS		2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	D7	2		020126AS		2.13	0.75	0.25	0.1680	0.131
	Spiral Pt.	D11	2		024276AS		2.13	0.75	0.25	0.1680	0.131
	Micrograin Carbide	D4	4		018800RS	018802RS	2.13	0.75	0.25	0.1680	0.131
	Micrograin Carbide Spiral Pt.	D4	2		018830RS		2.13	0.75	0.25	0.1680	0.131
	LH 25.4mm O.D. Die				045760AS						
M4 x 0.75	Hand Tap	D4	4		020127AS	020128AS	2.13	0.75	0.25	0.1680	0.131
M4.5 x 0.75*	Hand Tap	D2	4	020136AS	020137AS	020138AS	2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	D2	2		020139AS		2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	D11	2		024277AS		2.38	0.88	0.25	0.1940	0.152
	Micrograin Carbide	D4	4		018815RS	018816RS	2.38	0.88	0.25	0.1940	0.152
	Micrograin Carbide Spiral Pt.	D4	2		018831RS		2.38	0.88	0.25	0.1940	0.152
M5 x 0.5	Hand Tap	D3	4		020140AS	020141AS	2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	D3	2		020150AS		2.38	0.88	0.25	0.1940	0.152

*The most popular D limits and flute configurations for Metric, both Right- and Left-Hand sizes, are shown in our Industrial Metalworking catalog and on our website.

M5 x 0.8 To M9 x 1.0

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	D#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
M5 x 0.8*	Hand Tap	D2	4	020152AS	020153AS	020154AS	2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	D1	2		020156AS		2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	D2	2		020155AS		2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	D7	2		020157AS		2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	D11	2		024278AS		2.38	0.88	0.25	0.1940	0.152
	Micrograin Carbide	D4	4		018803RS	018804RS	2.38	0.88	0.25	0.1940	0.152
	Micrograin Carbide Spiral Pt.	D4	2		018833RS		2.38	0.88	0.25	0.1940	0.152
	LH 25.4mm O.D. Die				045764AS						
M5 x 0.9	Hand Tap	D3	4	025181AS	025182AS	025183AS	2.38	0.88	0.25	0.1940	0.152
	Spiral Pt.	D3	2		025184AS		2.38	0.88	0.25	0.1940	0.152
	25.4mm O.D. Die				045414AS						
M5.5 x 0.9	Hand Tap	D3	4	025213AS	025214AS	025215AS	2.38	0.94	0.28	0.2200	0.165
	Spiral Pt.	D3	2		025216AS		2.38	0.94	0.28	0.2200	0.165
	25.4mm O.D. Die				045416AS						
M6 x 0.50	Hand Tap	D3	4		020175AS	020176AS	2.50	1.00	0.31	0.2550	0.191
M6 x 0.75	Hand Tap	D3	4	025229AS	025230AS	025231AS	2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	D3	2		025232AS		2.50	1.00	0.31	0.2550	0.191
	25.4mm O.D. Die				045418AS						
M6 x 1*	Hand Tap	D3	4	020168AS	020169AS	020170AS	2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	D3	2		020171AS		2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	D11	2		024279AS		2.50	1.00	0.31	0.2550	0.191
	Micrograin Carbide	D5	4		018805RS	018807RS	2.50	1.00	0.31	0.2550	0.191
	Micrograin Carbide Spiral Pt.	D5	2		018835RS		2.50	1.00	0.31	0.2550	0.191
	LH 25.4mm O.D. Die				045768AS						
M6.3 x 1.0	Hand Tap	D5	4		090946AS	090948AS	2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	D3	2		020187AS		2.50	1.00	0.31	0.2550	0.191
	Spiral Pt.	D5	2		020179AS		2.50	1.00	0.31	0.2550	0.191
M7 x 1*	Hand Tap	D3	4	020200AS	020201AS	020202AS	2.72	1.13	0.38	0.3180	0.238
	Spiral Pt.	D3	2		020203AS		2.72	1.13	0.38	0.3180	0.238
	Spiral Pt.	D11	2		024280AS		2.72	1.13	0.38	0.3180	0.238
	Micrograin Carbide	D5	4		018814RS	018813RS	2.72	1.13	0.38	0.3180	0.238
	Micrograin Carbide Spiral Pt.	D5	2		018836RS		2.72	1.13	0.38	0.3180	0.238
M8 x 0.5	Hand Tap	D4	4		020220AS	020221AS	2.72	1.13	0.38	0.3180	0.238
M8 x 0.75	Hand Tap	D5	4		020222AS	020223AS	2.72	1.13	0.38	0.3180	0.238
M8 x 1*	Hand Tap	D3	4	020232AS	020233AS	020234AS	2.72	1.13	0.38	0.3180	0.238
	Spiral Pt.	D3	2		020235AS		2.72	1.13	0.38	0.3180	0.238
	Spiral Pt.	D11	2		024282AS		2.72	1.13	0.38	0.3180	0.238
	Micrograin Carbide	D5	4		018808RS	018809RS	2.72	1.13	0.38	0.3180	0.238
M8 x 1.25*	Hand Tap	D3	4	020216AS	020217AS	020218AS	2.72	1.13	0.38	0.3180	0.238
	Spiral Pt.	D3	2		020219AS		2.72	1.13	0.38	0.3180	0.238
	Spiral Pt.	D11	2		024281AS		2.72	1.13	0.38	0.3180	0.238
	Micrograin Carbide	D5	4		018810RS	018812RS	2.72	1.13	0.38	0.3180	0.238
	Micrograin Carbide Spiral Pt.	D5	3		018840RS		2.72	1.13	0.38	0.3180	0.238
M9 x 1.0	Hand Tap	D5	4		020236AS	020237AS	2.94	1.25	0.44	0.3810	0.286

*The most popular D limits and flute configurations for Metric, both Right- and Left-Hand sizes, are shown in our Industrial Metalworking catalog and on our website.

M9 x 1.25 To M16 x 1.5

Size/Pitch	Type	D#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
M9 x 1.25	Hand Tap	D3	4		090966AS	090968AS	2.94	1.25	0.44	0.3810	0.286
	Hand Tap	D5	4		090970AS	090972AS	2.94	1.25	0.44	0.3810	0.286
M10 x 1.0	Hand Tap	D3	4		020240AS	020241AS	2.94	1.25	0.44	0.3810	0.286
	LH Hand Tap	D5	4		029220AS	029221AS	2.94	1.25	0.44	0.3810	0.286
	Spiral Pt.	D5	3		025306AS		2.94	1.25	0.44	0.3810	0.286
	Hand Tap	D5	4	025312AS	025308AS	025310AS	2.94	1.25	0.44	0.3810	0.286
M10 x 1.25*	Hand Tap	D3	4	020264AS	020265AS	020266AS	2.94	1.25	0.44	0.3810	0.286
	Spiral Pt.	D3	3		020267AS		2.94	1.25	0.44	0.3810	0.286
	Spiral Pt.	D11	3		024284AS		2.94	1.25	0.44	0.3810	0.286
	Micrograin Carbide	D5	4		018825RS	018827RS	2.94	1.25	0.44	0.3810	0.286
	Micrograin Carbide Spiral Pt.	D5	3		018855RS		2.94	1.25	0.44	0.3810	0.286
M10 x 1.5*	Hand Tap	D3	4	020248AS	020249AS	020250AS	2.94	1.25	0.44	0.3810	0.286
	Spiral Pt.	D3	3		020251AS		2.94	1.25	0.44	0.3810	0.286
	Spiral Pt.	D7	3		020252AS		2.94	1.25	0.44	0.3810	0.286
	Spiral Pt.	D11	3		024283AS		2.94	1.25	0.44	0.3810	0.286
	Micrograin Carbide	D6	4		018820RS	018822RS	2.94	1.25	0.44	0.3810	0.286
	Micrograin Carbide Spiral Pt.	D6	3		018858RS		2.94	1.25	0.44	0.3810	0.286
	LH 38mm O.D. Die				045800AS						
M11 x 1.0	Hand Tap	D5	4		020270AS	020271AS	3.16	1.44	0.41	0.3230	0.242
M11 x 1.5*	Hand Tap	D5	4	025317AS	025318AS	025319AS	3.16	1.44	0.41	0.3230	0.242
	Spiral Pt.	D5	3		025320AS		3.16	1.44	0.41	0.3230	0.242
	38mm O.D. Die				045452AS						
M12 x 1.0	Hand Tap	D3	4		090978AS	090980AS	3.38	1.66	0.44	0.3670	0.275
	Hand Tap	D5	4		020254AS	020253AS	3.38	1.66	0.44	0.3670	0.275
	Spiral Pt.	D5	3		020290AS		3.38	1.66	0.44	0.3670	0.275
M12 x 1.25*	Hand Tap	D3	4	020296AS	020297AS	020298AS	3.38	1.66	0.44	0.3670	0.275
	Spiral Pt.	D3	3		020299AS		3.38	1.66	0.44	0.3670	0.275
M12 x 1.5	Hand Tap	D5	4		090986AS	090988AS	3.38	1.66	0.44	0.3670	0.275
	Hand Tap	D6	4		020300AS	020301AS	3.38	1.66	0.44	0.3670	0.275
	Spiral Pt.	D6	3		020302AS		3.38	1.66	0.44	0.3670	0.275
M12 x 1.75*	Hand Tap	D3	4	020280AS	020281AS	020282AS	3.38	1.66	0.44	0.3670	0.275
	Spiral Pt.	D3	3		020283AS		3.38	1.66	0.44	0.3670	0.275
	Spiral Pt.	D11	3		024285AS		3.38	1.66	0.44	0.3670	0.275
	Carbo-Clad	D6	4		018859US	018860US	3.38	1.66	0.44	0.3670	0.275
	Micrograin Carbide Spiral Pt.	D6	3		018861RS		3.38	1.66	0.44	0.3670	0.275
	LH 38mm O.D. Die				045804AS						
M14 x 1.0	Hand Tap	D5	4		020317AS	020318AS	3.59	1.66	0.50	0.4290	0.322
M14 x 1.25	Hand Tap	D6	4	020320AS	020321AS	020322AS	3.59	1.66	0.50	0.4290	0.322
	Spark Plug	D4	4		029002AS	029003AS	3.59	1.66	0.50	0.4290	0.322
M14 x 1.5*	Hand Tap	D3	4	020328AS	020329AS	020330AS	3.59	1.66	0.50	0.4290	0.322
	Spiral Pt.	D3	3		020331AS		3.59	1.66	0.50	0.4290	0.322
M14 x 2*	Hand Tap	D3	4	020312AS	020313AS	020314AS	3.59	1.66	0.50	0.4290	0.322
	Spiral Pt.	D3	3		020315AS		3.59	1.66	0.50	0.4290	0.322
	LH 38mm O.D. Die				045806AS						
M15 x 1.0	Hand Tap	D5	4		020352AS	020353AS	3.81	1.81	0.56	0.4800	0.360
M16 x 1.0	Hand Tap	D5	4		020350AS	020351AS	3.81	1.81	0.56	0.4800	0.360
M16 x 1.5	Hand Tap	D3	4	020360AS	020361AS	020362AS	3.81	1.81	0.56	0.4800	0.360
	Spiral Pt.	D3	3		020363AS		3.81	1.81	0.56	0.4800	0.360

*The most popular D limits and flute configurations for Metric, both Right- and Left-Hand sizes, are shown in our Industrial Metalworking catalog and on our website.

M16 x 2 To M42 x 4.5

Call for pricing on Special Gages for these taps.

Size/Pitch	Type	D#	#Fl	Taper	Plug	Bottom	Overall Length	Thread Length	Square Length	Shank Diameter	Size Of Square
M16 x 2*	Hand Tap	D4	4	020344AS	020345AS	020346AS	3.81	1.81	0.56	0.4800	0.360
	Spiral Pt.	D4	3		020347AS		3.81	1.81	0.56	0.4800	0.360
	Spiral Pt.	D11	3		024286AS		3.81	1.81	0.56	0.4800	0.360
	LH 38mm O.D. Die				045810AS						
M18 x 1.0	Hand Tap	D5	4		020380AS	020381AS	4.03	1.81	0.63	0.5420	0.406
M18 x 1.5*	Hand Tap	D3	4	020393AS	020394AS	020395AS	4.03	1.81	0.63	0.5420	0.406
	Spark Plug	D4	4		029004AS	029005AS	4.03	1.81	0.63	0.5420	0.406
	LH 38mm O.D. Die				045814AS						
M18 x 2.5*	Hand Tap	D4	4	020375AS	020376AS	020377AS	4.03	1.81	0.63	0.5420	0.406
	LH 38mm O.D. Die				045812AS						
M20 x 1.0	Hand Tap	D6	4		020420AS	020421AS	4.47	2.00	0.69	0.6520	0.489
M20 x 1.5	Hand Tap	D3	4	020429AS	020430AS	020431AS	4.47	2.00	0.69	0.6520	0.489
M20 x 2	Hand Tap	D6	4	025491AS	025492AS	025493AS	4.47	2.00	0.69	0.6520	0.489
	50.8mm O.D. Die				045482AS						
M20 x 2.5*	Hand Tap	D4	4	020411AS	020412AS	020413AS	4.47	2.00	0.69	0.6520	0.489
M22 x 1.5*	Hand Tap	D3	4	020465AS	020466AS	020467AS	4.69	2.22	0.75	0.6970	0.523
M22 x 2.5*	Hand Tap	D4	4	020447AS	020448AS	020449AS	4.69	2.22	0.75	0.6970	0.523
M24 x 1.5	Hand Tap	D6	4		020450AS	020451AS	4.91	2.22	0.75	0.7600	0.570
M24 x 2*	Hand Tap	D4	4	020501AS	020502AS	020503AS	4.91	2.22	0.75	0.7600	0.570
M24 x 3*	Hand Tap	D4	4	020483AS	020484AS	020485AS	4.91	2.22	0.75	0.7600	0.570
	Spiral Pt.	D8	3		020486AS		4.91	2.22	0.75	0.7600	0.570
M25 x 1.5	Hand Tap	D6	4		020505AS	020506AS	5.13	2.50	0.81	0.8000	0.600
M26 x 1.5	Hand Tap	D6	6		020507AS	020508AS	4.00	1.50	0.88	0.8960	0.672
M27 x 1.5	Hand Tap	D6	6		020509AS	020510AS	4.00	1.50	0.88	0.8960	0.672
M27 x 2*	Hand Tap	D5	4	020537AS	020538AS	020539AS	5.13	2.50	0.88	0.8960	0.672
M27 x 3*	Hand Tap	D5	4	020519AS	020520AS	020521AS	5.13	2.50	0.88	0.8960	0.672
	Hand Tap	D9	4		020522AS		5.13	2.50	0.88	0.8960	0.672
	Hand Tap LH	D5	4	029242AS	029243AS	029244AS	5.13	2.50	0.88	0.8960	0.672
M30 x 1.5	Hand Tap	D6	6		020577AS	020578AS	5.44	2.56	1.00	1.0210	0.766
M30 x 2*	Hand Tap	D5	4	020573AS	020574AS	020575AS	4.00	1.50	1.00	1.0210	0.766
M30 x 3.5	Hand Tap	D5	4	020555AS	020556AS	020557AS	4.00	1.50	1.00	1.0210	0.766
	Hand Tap LH	D5	4	029261AS	029262AS	029263AS	4.00	1.50	1.00	1.0210	0.766
M32 x 1.5	Hand Tap	D6	6		020561AS	020562AS	5.75	2.56	1.00	1.0210	0.766
M32 x 2	Hand Tap	D7	6	025706AS	025707AS	025708AS	4.00	1.50	1.00	1.0210	0.766
M33 x 2*	Hand Tap	D5	4	020609AS	020610AS	020611AS	4.00	1.50	1.00	1.0210	0.766
M33 x 3.5*	Hand Tap	D5	4	020591AS	020592AS	020593AS	4.00	1.50	1.00	1.1080	0.831
M35 x 1.5	Hand Tap	D6	6		020600AS	020601AS	6.06	3.00	1.06	1.1080	0.831
M36 x 1.5	Hand Tap	D6	6		020602AS	020603AS	6.06	3.00	1.06	1.2330	0.831
M36 x 2	Hand Tap	D7	6		020604AS	020605AS	4.00	1.50	1.00	1.2330	0.831
M36 x 3*	Hand Tap	D5	4	020645AS	020646AS	020647AS	4.00	1.50	1.00	1.2330	0.831
M36 x 4*	Hand Tap	D5	4	020627AS	020628AS	020629AS	4.00	1.50	1.00	1.2330	0.831
M39 x 3*	Hand Tap	D6	6	020681AS	020682AS	020683AS	5.00	2.00	1.13	1.3050	0.979
M39 x 4*	Hand Tap	D6	6	020663AS	020664AS	020665AS	5.00	2.00	1.13	1.3050	0.979
M40 x 1.5	Hand Tap	D6	6		020690AS	020691AS	6.69	3.19	1.13	1.3050	0.979
M42 x 1.5	Hand Tap	D6	6		020692AS	020693AS	7.00	3.19	1.25	1.4300	1.072
M42 x 4.5	Hand Tap	D10	6		020694AS	020695AS	5.00	2.00	1.25	1.4300	1.072

*The most popular D limits and flute configurations for Metric, both Right- and Left-Hand sizes, are shown in our Industrial Metalworking catalog and on our website.

SPECIAL TAPS FROM BLANKS

SPECIAL STRAIGHT FLUTE & SPIRAL POINT TAPS

From Blanks

REGAL 24-hour special TAP shipment

Quantities 1 to 48

Right and left taps available. Special Gages available. Call for pricing.

Straight Flute

Size	Max. Thread per Inch	Max. Decimal	Size (mm)	Min. Pitch (mm)	Overall Length	Thread Length	Square Length	Shank Diameter	Size of Square
0	100	.065	–	0.3	1-5/8	5/16	3/16	.141	.110
1	100	.078	M1.8	0.3	1-11/16	3/8	3/16	.141	.110
2	100	.091	M2, M2.2	0.3	1-3/4	7/16	3/16	.141	.110
3	100	.104	M2.3, M2.5, M2.6	0.3	1-13/16	1/2	3/16	.141	.110
4	100	.117	–	–	1-7/8	9/16	3/16	.141	.110
5	100	.130	M3	0.3	1-15/16	5/8	3/16	.141	.110
6	100	.145	M3.5	0.3	2	11/16	3/16	.141	.110
8	100	.171	M4	0.3	2-1/8	3/4	1/4	.168	.131
10	100	.197	M4.5, M5	0.3	2-3/8	7/8	1/4	.194	.152
12	100	.223	M5.5	0.3	2-3/8	15/16	9/32	.220	.165
14	80	.260	M6	0.3	2-1/2	1	5/16	.255	.191
1/4	80	.260	–	–	2-1/2	1	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	2-23/32	1-1/8	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	2-15/16	1-1/4	7/16	.381	.286
7/16	80	.448	M11	0.3	3-5/32	1-7/16	13/32	.323	.242
1/2	80	.510	M12	0.3	3-3/8	1-21/32	7/16	.367	.275
9/16	64	.573	M14	0.4	3-19/32	1-21/32	1/2	.429	.322
5/8	64	.635	M16	0.4	3-13/16	1-13/16	9/16	.480	.360
11/16	64	.709	M18	0.4	4-1/32	1-13/16	5/8	.542	.406
3/4	64	.760	–	–	4-1/4	2	11/16	.590	.442
13/16	64	.823	M20	0.4	4-15/32	2	11/16	.652	.489
7/8	64	.885	M22	0.4	4-11/16	2-7/32	3/4	.697	.523
15/16	64	.948	M24	0.4	4-29/32	2-7/32	3/4	.760	.570
1"	64	1.010	M25	0.4	5-1/8	2-1/2	13/16	.800	.600

Spiral Point

Size	Max. Thread per Inch	Max. Decimal	Size (mm)	Min. Pitch (mm)	Overall Length	Thread Length	Square Length	Shank Diameter	Size of Square
0	100	.065	–	0.3	1-5/8	5/16	3/16	.141	.110
1	100	.078	M1.8	0.3	1-11/16	3/8	3/16	.141	.110
2	100	.091	M2, M2.2	0.3	1-3/4	7/16	3/16	.141	.110
3	100	.104	M2.3, M2.5, M2.6	0.3	1-13/16	1/2	3/16	.141	.110
4	100	.117	–	–	1-7/8	9/16	3/16	.141	.110
5	100	.130	M3	0.3	1-15/16	5/8	3/16	.141	.110
6	100	.145	M3.5	0.3	2	11/16	3/16	.141	.110
8	100	.171	M4	0.3	2-1/8	3/4	1/4	.168	.131
10	100	.197	M4.5, M5	0.3	2-3/8	7/8	1/4	.194	.152
12	100	.223	M5.5	0.3	2-3/8	15/16	9/32	.220	.165
14	80	.260	M6	0.3	2-1/2	1	5/16	.255	.191
1/4	80	.260	–	–	2-1/2	1	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	2-23/32	1-1/8	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	2-15/16	1-1/4	7/16	.381	.286
7/16	80	.448	M11	0.3	3-5/32	1-7/16	13/32	.323	.242
1/2	80	.510	M12	0.3	3-3/8	1-21/32	7/16	.367	.275
9/16	64	.573	M14	0.4	3-19/32	1-21/32	1/2	.429	.322
5/8	64	.635	M16	0.4	3-13/16	1-13/16	9/16	.480	.360
11/16	64	.709	M18	0.4	4-1/32	1-13/16	5/8	.542	.406
3/4	64	.760	–	–	4-1/4	2	11/16	.590	.442
13/16	64	.823	M20	0.4	4-15/32	2	11/16	.652	.489
7/8	64	.885	M22	0.4	4-11/16	2-7/32	3/4	.697	.523
15/16	64	.948	M24	0.4	4-29/32	2-7/32	3/4	.760	.570
1"	64	1.010	M25	0.4	5-1/8	2-1/2	13/16	.800	.600

Dimensions as shown in Table 302 on page 43.

SPECIAL TAPS FROM BLANKS

SPECIAL STRAIGHT FLUTE TAPS

From Blanks

Up to 2-7/8" quantitiy of 12. 3" to 4" quantities up to 3.

Right and left taps available. Special Gages available. Call for pricing.

Size	Max. Thread per Inch	Size (mm)	Min. Pitch (mm)	Length Overall	Length of Full Thread	Long Table 302/ Short Table 303	No. of Flutes	Shank Diameter	Square Length	Size of Square
1-1/16	13	M27	2	5-1⁄8	2-1⁄2	L	4	0.896	7/8	.672
	55	M27	0.5	4	1-1⁄2	S	6	0.896	7/8	.672
1-1/8	13			5-7⁄16	2-9⁄16	L	4	0.896	7/8	.672
	55			4	1-1⁄2	S	6	0.896	7/8	.672
1-3/16	13	M30	2	5-7⁄16	2-9⁄16	L	4, 6	1.021	1	.766
	55	M30	0.5	4	1-1⁄2	S	6	1.021	1	.766
1-1/4	13			5-3⁄4	2-9⁄16	L	4, 6	1.021	1	.766
	55			4	1-1⁄2	S	6	1.021	1	.766
1-5/16	13	M33	2	5-3⁄4	2-9⁄16	L	4, 6	1.108	1-1/16	.831
	55	M33	0.5	4	1-1⁄2	S	6	1.108	1	.831
1-3/8	13			6-1⁄16	3	L	4, 6	1.108	1-1/16	.831
	55			4	1-1⁄2	S	6	1.108	1	.831
1-7/16	13	M36	2	6-1⁄16	3	L	4, 6	1.233	1-1/8	.925
	55	M36	0.5	4	1-1⁄2	S	6	1.233	1	.925
1-1/2	13	M38	2	6-3⁄8	3	L	4, 6	1.233	1-1/8	.925
	55	M38	0.5	4	1-1⁄2	S	6	1.233	1	.925
1-5/8	9	M39	3	6-11⁄16	3-3⁄16	L	6	1.305	1-1/8	.979
	55	M39	0.5	5	2	S	6	1.305	1-1/8	.979
1-3/4	9	M42	3	7	3-3⁄16	L	6	1.430	1-1/4	1.072
	55	M42	0.5	5	2	S	6	1.430	1-1/4	1.072
1-7/8	9	M45	3	7-5⁄16	3-9⁄16	L	6	1.519	1-1/4	1.139
	55	M45	0.5	5	2	S	6	1.519	1-1/4	1.139
2"	9	M48	3	7-5⁄8	3-9⁄16	L	6	1.644	1-3/8	1.233
	47	M48	0.5	5	2	S	6	1.644	1-3/8	1.233
2-1/8	9			8	3-9⁄16	L	6	1.769	1-3/8	1.327
	47			5-1⁄4	2	S	6	1.769	1-3/8	1.327
2-1/4	9	M56	3	8-1⁄4	3-9⁄16	L	6	1.894	1-7/16	1.420
	47	M56	0.5	5-1⁄4	2	S	6	1.894	1-7/16	1.420
2-3/8	9			8-1⁄2	4	L	6	2.019	1-7/16	1.514
	47			5-1⁄4	2	S	6	2.019	1-7/16	1.514
2-1/2	9			8-3⁄4	4	L	6	2.100	1-1/2	1.575
	47			5-1⁄4	2	S	6	2.100	1-1/2	1.575
2-5/8	9	M64	3	8-3⁄4	4	L	6	2.225	1-1/2	1.669
	47	M64	0.5	5-1⁄2	2	S	6	2.100	1-1/2	1.575
2-3/4	9			9-1⁄4	4	L	6	2.350	1-9/16	1.762
	47			5-1⁄2	2	S	6	2.100	1-1/2	1.575
2-7/8	9	M72	3	9-1⁄4	4	L	6	2.475	1-9/16	1.856
	47	M72	0.5	5-1⁄2	2	S	6	2.100	1-1/2	1.575
3"	9			9-3⁄4	4-9⁄16	L	6	2.543	1-5/8	1.907
	47			5-1⁄2	2	S	8	2.100	1-1/2	1.575
3-1/8	9			9-3⁄4	4-9⁄16	L	6	2.668	1-5/8	2.001
	35			5-3⁄4	2	S	8	2.100	1-1/2	1.575
3-1/4	9	M80	3	10	4-9⁄16	L	6	2.793	1-3/4	2.095
	35	M80	0.7	5-3/4	2	S	8	2.100	1-1/2	1.575
3-1/2	9			10-1⁄4	4-15⁄16	L	6	3.008	2	2.256
	35			5-3⁄4	2	S	8	2.100	1-1/2	1.575
3-5/8	9	M90	3	10-1⁄4	4-15⁄16	L	6	3.133	2	2.350
	35	M90	0.7	6	2	S	8	2.100	1-3/4	1.575
3-3/4	9			10-1⁄2	5-5⁄16	L	6	3.217	2-1/8	2.413
	35			6	2	S	8	2.100	1-3/4	1.575
3-7/8	9			10-1⁄2	5-5⁄16	L	6	3.342	2-1/8	2.506
	35			6	2	S	8	2.100	1-3/4	1.575
4"	9	M100	3	10-3⁄4	5-5⁄16	L	8	3.467	2-1/4	2.600
	35	M100	0.7	6	2	S	8	2.100	1-3/4	1.575

Dimensions as shown in Table 302/303 on page 44.

SPECIAL TAPS FROM BLANKS

SPECIAL STRAIGHT FLUTE TAPS (CON'T)

From Blanks

Up to 2-7/8" quantitiy of 12. 3" to 4" quantities up to 3.

Right and left taps available. Special Gages available. Call for pricing.

Size	Max. Thread per Inch	Size (mm)	Min. Pitch (mm)	Length Overall	Length of Full Thread	Long/Short	No. of Flutes	Shank Diameter	Square Length	Size of Square
4-1/8	9			10-3⁄4	5-5⁄16	L	10	3.467	2-1/4	2.600
	24			6	2	S	10	2.100	1-3/4	1.575
4-1/4	9			10-3⁄4	5-5⁄16	L	10	3.467	2-1/4	2.600
	24			6	2	S	10	2.100	1-3/4	1.575
4-1/2	9			10-3⁄4	5-5⁄16	L	10	3.825	2-1/4	2.868
	24			6	2	S	10	2.100	1-3/4	1.575
4-3/4	9			10-3⁄4	5-5⁄16	L	10	3.950	2-1/4	2.965
	24			6	2	S	10	2.100	1-3/4	1.575
5"	9			11-3⁄4	5-1/2	L	10	4.200	2-1/2	3.150
	24			6-1/2	2-1/2	S	10	3.467	2	2.600
5-1/4	9			11-3⁄4	5-1/2	L	10	4.450	2-1/2	3.340
	24			6-1/2	2-1/2	S	10	3.467	2	2.600
5-1/2	9			12	5-3/4	L	10	4.700	2-3/4	3.525
	24			6-1/2	2-1/2	S	10	3.467	2	2.600
5-3/4	9			12	5-3/4	L	10	4.950	2-3/4	3.715
	24			6-1/2	2-1/2	S	10	3.467	2	2.600
6"	9			12	6	L	10	5.200	2-3/4	3.900
	24			7	3	S	10	3.715	2	2.785

Dimensions shown on page 44.

Fast Delivery Special Taps

The key to Regal's successful Fast Delivery Special Program has always been the use of semi-finished blanks. Unfluted blanks are stocked and ready to be fluted, thread ground, and chamfered to meet specific requirements on a timely basis.

Special Features:

- Surface Treatments
- K-grinds
- Interrupted Threads
- Multiple Leads

To order, call: 1-800-435-2948

SPECIAL TAPS FROM BLANKS

CARBIDE SPECIAL STRAIGHT FLUTE & SPIRAL POINT TAPS

From Blanks

Right and left taps available. Special Gages available. Call for pricing.

Straight Flute

Size	Max. Thread per Inch	Max. Decimal Size	Size (mm)	Min. Pitch (mm)	Overall Length	Thread Length	Square Length	Shank Diameter	Size of Square
0	80	.065	–	0.3	1-5/8	5/16	3/16	.141	.110
1	80	.078	M1.8	0.3	1-11/16	3/8	3/16	.141	.110
2	64	.091	M2, M2.2	0.3	1-3/4	7/16	3/16	.141	.110
3	64	.104	M2.3, M2.5, M2.6	0.3	1-13/16	1/2	3/16	.141	.110
4	55	.117	–	–	1-7/8	9/16	3/16	.141	.110
5	47	.130	M3	0.3	1-15/16	5/8	3/16	.141	.110
6	47	.145	M3.5	0.3	2	11/16	3/16	.141	.110
8	47	.171	M4	0.3	2-1/8	3/4	1/4	.168	.131
10	47	.197	M4.5, M5	0.3	2-3/8	7/8	1/4	.194	.152
12	47	.223	M5.5	0.3	2-3/8	15/16	9/32	.220	.165
14	47	.260	M6	0.3	2-1/2	1	5/16	.255	.191
1/4	47	.260	–	–	2-1/2	1	5/16	.255	.191
5/16	35	.323	M7, M8	0.3	2-23/32	1-1/8	3/8	.318	.238
3/8	35	.385	M9, M10	0.3	2-15/16	1-1/4	7/16	.381	.286
7/16	–	.448	M11	0.3	3-5/32	1-7/16	13/32	.323	.242
1/2*	–	.510	M12	0.3	3-3/8	1-21/32	7/16	.367	.275

*Carbo-clad carbide tipped blank. Dimensions as shown in Table 302 on page 43.

Spiral Point

Size	Max. Thread per Inch	Max. Decimal Size	Size (mm)	Min. Pitch (mm)	Overall Length	Thread Length	Square Length	Shank Diameter	Size of Square
0	80	.065	–	0.3	1-5/8	5/16	3/16	.141	.110
1	80	.078	M1.8	0.3	1-11/16	3/8	3/16	.141	.110
2	64	.091	M2, M2.2	0.3	1-3/4	7/16	3/16	.141	.110
3	64	.104	M2.3, M2.5, M2.6	0.3	1-13/16	1/2	3/16	.141	.110
4	55	.117	–	–	1-7/8	9/16	3/16	.141	.110
5	47	.130	M3	0.3	1-15/16	5/8	3/16	.141	.110
6	47	.145	M3.5	0.3	2	11/16	3/16	.141	.110
8	47	.171	M4	0.3	2-1/8	3/4	1/4	.168	.131
10	47	.197	M4.5, M5	0.3	2-3/8	7/8	1/4	.194	.152
12	47	.223	M5.5	0.3	2-3/8	15/16	9/32	.220	.165
14	47	.260	M6	0.3	2-1/2	1	5/16	.255	.191
1/4	47	.260	–	–	2-1/2	1	5/16	.255	.191
5/16	35	.323	M7, M8	0.3	2-23/32	1-1/8	3/8	.318	.238
3/8	35	.385	M9, M10	0.3	2-15/16	1-1/4	7/16	.381	.286
7/16	–	.448	M11	0.3	3-5/32	1-7/16	13/32	.323	.242
1/2*	–	.510	M12	0.3	3-3/8	1-21/32	7/16	.367	.275

*Carbo-clad carbide tipped blank. Dimensions as shown in Table 302 on page 43.

SPECIAL EXTENSION TAPS

From Blanks

REGAL 24-hour special TAP shipment

Quantities 1 to 24

Right and left taps available. Special Gages available. Call for pricing.

Straight Flute

Machine Screw/Fractional		Max. Decimal Size	Metric		Length Overall (inches)	Thread Length	Square Length	Shank Diameter	Size of Square
Size	Max. Thread per Inch		Size (mm)	Min. Pitch (mm)					
1/4	80	.260	–	–	4	1	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	4	1-1/8	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	4	1-1/4	7/16	.381	.286
1/4	80	.260	–	–	6	1	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	6	1-1/8	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	6	1-1/4	7/16	.381	.286
7/16	80	.448	M11	0.3	6	1-7/16	13/32	.323	.242
1/2	80	.510	M12	0.3	6	1-21/32	7/16	.367	.275
9/16	64	.573	M14	0.4	6	1-21/32	1/2	.429	.322
5/8	64	.635	M16	0.4	6	1-13/16	9/16	.480	.360
3/4	64	.760	–	–	6	2	11/16	.590	.442
7/8	64	.885	M22	0.4	6	2-7/32	3/4	.697	.523
1/4	80	.260	–	–	8	1	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	8	1-1/8	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	8	1-1/4	7/16	.381	.286
1/2	80	.510	M12	0.3	8	1-21/32	7/16	.367	.275
5/8	64	.635	M16	0.4	8	1-13/16	9/16	.480	.360
3/4	64	.760	–	–	8	2	11/16	.590	.442
1"	64	1.010	M25	0.4	8	2-1/2	13/16	.800	.600
3/8	80	.385	M9, M10	0.3	10	1-1/4	7/16	.381	.286
3/4	64	.760	–	–	10	2	11/16	.590	.442
1"	64	1.010	M25	0.4	10	2-1/2	13/16	.800	.600
1"	64	1.010	M25	0.4	12	2-1/2	13/16	.800	.600

Spiral Point

Machine Screw/Fractional		Max. Decimal Size	Metric		Length Overall (inches)	Thread Length	Square Length	Shank Diameter	Size of Square
Size	Max. Thread per Inch		Size (mm)	Min. Pitch (mm)					
1/4	80	.260	–	–	4	1	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	4	1-1/8	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	4	1-1/4	7/16	.381	.286
1/4	80	.260	–	–	6	1	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	6	1-1/8	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	6	1-1/4	7/16	.381	.286
7/16	80	.448	M11	0.3	6	1-7/16	13/32	.323	.242
1/2	80	.510	M12	0.3	6	1-21/32	7/16	.367	.275
5/8	64	.635	M16	0.4	6	1-13/16	9/16	.480	.360
3/4	64	.760	–	–	6	2	11/16	.590	.442

Dimensions as shown in Table 303A on page 45.

SPECIAL TAPS FROM BLANKS

SPECIAL SPIRAL FLUTE TAPS

From Blanks

Quantities 1 to 48

Right and left taps available. Special Gages available. Call for pricing.

Slow Spiral - 30° Helix
Available in Plug or Bottoming. RH or LH.

Hi - Spiral
Available in Bottoming and Semi-Bottoming. For Plug, add 10%. RH listed. For LH, consult factory.

Size (Inches)	Max. Thread per Inch	Size (mm)	Min. Pitch (mm)	Overall Length	Thread Length	Square Length	Shank Diameter	Size of Square
3	100	M2.3, M2.5, M2.6	0.3	1-13/16	1/2	3/16	.141	.110
4	100	—	—	1-7/8	9/16	3/16	.141	.110
5	100	M3	0.3	1-15/16	5/8	3/16	.141	.110
6	100	M3.5	0.3	2	11/16	3/16	.141	.110
8	100	M4	0.3	2-1/8	3/4	1/4	.168	.131
10	100	M.4.5, M5	0.3	2-3/8	7/8	1/4	.194	.152
12	100	M5.5	0.3	2-3/8	15/16	9/32	.220	.165
14	80	M6	0.3	2-1/2	1	5/16	.255	.191
1/4	80	—	—	2-1/2	1	5/16	.255	.191
5/16	80	M7, M8	0.3	2-23/32	1-1/8	3/8	.318	.238
3/8	80	M9, M10	0.3	2-15/16	1-1/4	7/16	.381	.286
7/16	80	M11	0.3	3-5/32	1-7/16	13/32	.323	.242
1/2	80	M12	0.3	3-3/8	1-21/32	7/16	.367	.275
9/16	64	M14	0.4	3-19/32	1-21/32	1/2	.429	.322
5/8	64	M16	0.4	3-13/16	1-13/16	9/16	.480	.360
11/16	64	M18	0.4	4-1/32	1-13/16	5/8	.542	.406
3/4	64	—	—	4-1/4	2	11/16	.590	.442
7/8	64	M22	0.4	4-11/16	2-7/32	3/4	.697	.523
1"	64	M25	0.4	5-1/8	2-1/2	13/16	.800	.600

Dimensions as shown in Table 302 on page 43.

SPECIAL MET-FLO COLD FORMING TAPS

From Blanks

Size (Inches)	Max. Thread per Inch	Size (mm)	Min. Pitch (mm)	Overall Length	Thread Length	Square Length	Shank Diameter	Size of Square
#2	100	M2, M2.2	0.091	1-3/4	7/16	3/16	.141	.110
#3	100	M2.3, M2.5, M2.6	0.3	1-13/16	1/2	3/16	.141	.110
#4	100	—	—	1-7/8	9/16	3/16	.141	.110
#5	100	M3	0.3	1-15/16	5/8	3/16	.141	.110
#6	100	M3.5	0.3	2	11/16	3/16	.141	.110
#8	100	M4	0.3	2-1/8	3/4	1/4	.168	.131
#10	100	M4.5, M5	0.3	2-3/8	7/8	1/4	.194	.152
#12	100	M5.5	0.3	2-3/8	15/16	9/32	.220	.165
1/4	80	M6	0.3	2-1/2	1	5/16	.255	.191
5/16	80	M7, M8	0.3	2-23/32	1-1/8	3/8	.318	.238
3/8	80	M9, M10	0.3	2-15/16	1-1/4	7/16	.381	.286
7/16	80	M11	0.3	3-5/32	1-7/16	13/32	.323	.242
1/2	80	M12	0.3	3-3/8	1-21/32	7/16	.367	.275
9/16	64	M14	0.4	3-19/32	1-21/32	1/2	.429	.322
5/8	64	M16	0.4	3-13/16	1-13/16	9/16	.480	.360
11/16	64	M18	0.4	4-1/32	1-13/16	5/8	.542	.406
3/4	64	—	—	4-1/4	2	11/16	.590	.442
13/16	64	M20	0.4	4-15/32	2	11/16	.652	.489
7/8	64	M22	0.4	4-11/16	2-7/32	3/4	.697	.523
15/16	64	M24	0.4	4-29/32	2-7/32	3/4	.760	.570
1"	64	M25	0.4	5-1/8	2-1/2	13/16	.800	.600

Dimensions as shown in Table 302 on page 43.

SPECIAL TAPS FROM BLANKS

SPECIAL MET-FLO COLD FORMING TAPS

From Blanks HSSE 302A

Right and left taps available. Special Gages available. Call for pricing.

Size (Inches)	Max. Thread per Inch	Size (mm)	Min. Pitch (mm)	Overall Length	Thread Length	Neck Length	Square Length	Shank Diameter	Size of Square
#2	100	M2, M2.2	0.091	1-3/4	5/16	.25	3/16	.141	.110
#3	100	M2.3, M2.5, M2.6	0.3	1-13/16	5/16	.25	3/16	.141	.110
#4	100	—	—	1-7/8	5/16	.25	3/16	.141	.110
#5	100	M3	0.3	1-15/16	5/16	.25	3/16	.141	.110
#6	100	M3.5	0.3	2	3/8	.31	3/16	.141	.110
#8	100	M4	0.3	2-1/8	3/8	.38	1/4	.168	.131
#10	100	M4.5, M5	0.3	2-3/8	1/2	.38	1/4	.194	.152
#12	100	M5.5	0.3	2-3/8	1/2	.38	9/32	.220	.165
1/4	80	M6	0.3	2-1/2	5/8	.38	5/16	.255	.191
5/16	80	M7, M8	0.3	2-23/32	11/16	.44	3/8	.318	.238
3/8	80	M9, M10	0.3	2-15/16	3/4	.50	7/16	.381	.286
7/16	80	M11	0.3	3-5/32	7/8	-	13/32	.323	.242
1/2	80	M12	0.3	3-3/8	15/16	-	7/16	.367	.275
9/16	64	M14	0.4	3-19/32	1	-	1/2	.429	.322
5/8	64	M16	0.4	3-13/16	1-3/32	-	9/16	.480	.360
11/16	64	M18	0.4	4-1/32	1-3/32	-	5/8	.542	.406
3/4	64	—	—	4-1/4	1-7/32	-	11/16	.590	.442
13/16	64	M20	0.4	4-15/32	1-7/32	-	11/16	.652	.489
7/8	64	M22	0.4	4-11/16	1-11/32	-	3/4	.697	.523
15/16	64	M24	0.4	4-29/32	1-11/32	-	3/4	.760	.570
1"	64	M25	0.4	5-1/8	1-1/2	-	13/16	.800	.600

SPECIAL MET-FLO COLD FORMING TAPS

From Blanks PMX 302A

Size (Inches)	Max. Thread per Inch	Size (mm)	Min. Pitch (mm)	Overall Length	Thread Length	Neck Length	Square Length	Shank Diameter	Size of Square
#2	100	M2, M2.2	0.091	1-3/4	5/16	.25	3/16	.141	.110
#3	100	M2.3, M2.5, M2.6	0.3	1-13/16	5/16	.25	3/16	.141	.110
#4	100	—	—	1-7/8	5/16	.25	3/16	.141	.110
#5	100	M3	0.3	1-15/16	5/16	.25	3/16	.141	.110
#6	100	M3.5	0.3	2	3/8	.31	3/16	.141	.110
#8	100	M4	0.3	2-1/8	3/8	.38	1/4	.168	.131
#10	100	M4.5, M5	0.3	2-3/8	1/2	.38	1/4	.194	.152
#12	100	M5.5	0.3	2-3/8	1/2	.38	9/32	.220	.165
1/4	80	M6	0.3	2-1/2	5/8	.38	5/16	.255	.191
5/16	80	M7, M8	0.3	2-23/32	11/16	.44	3/8	.318	.238
3/8	80	M9, M10	0.3	2-15/16	3/4	.50	7/16	.381	.286
7/16	80	M11	0.3	3-5/32	7/8	-	13/32	.323	.242
1/2	80	M12	0.3	3-3/8	15/16	-	7/16	.367	.275
9/16	64	M14	0.4	3-19/32	1	-	1/2	.429	.322
5/8	64	M16	0.4	3-13/16	1-3/32	-	9/16	.480	.360
11/16	64	M18	0.4	4-1/32	1-3/32	-	5/8	.542	.406
3/4	64	—	—	4-1/4	1-7/32	-	11/16	.590	.442
13/16	64	M20	0.4	4-15/32	1-7/32	-	11/16	.652	.489
7/8	64	M22	0.4	4-11/16	1-11/32	-	3/4	.697	.523
15/16	64	M24	0.4	4-29/32	1-11/32	-	3/4	.760	.570
1"	64	M25	0.4	5-1/8	1-1/2	-	13/16	.800	.600

Dimensions as shown in Table 302A on page 45.

SPECIAL PIPE TAPS

From Blanks

Call for avaialbilty.

Available with special projections, right hand and left hand, tapered or straight threads. For interrupted threads add 15%.

Size	Standard Projection	Minimum Projection	Pipe Tap Drill Size		Overall Length	Thread Length	Square Length	Shank Diameter	Size of Square
			NPT	NPS					
1/16-27	.312	Flush (“0” Proj)	D	1/4	2-1/8	11/16	3/8	.3125	.234
1/8-27	.312	Flush (“0” Proj)	Q	11/32	2-1/8	3/4	3/8	.4375	.328
1/4-18	.459	.218	7/16	7/16	2-7/16	1-1/16	7/16	.5625	.421
3/8-18	.454	.150	9/16	37/64	2-9/16	1-1/16	1/2	.7000	.531
1/2-14	.579	.260	45/64	23/32	3-1/8	1-3/8	5/8	.6875	.515
3/4-14	.565	.245	29/32	59/64	3-1/4	1-3/8	11/16	.9063	.679
1"-11-1/2	.678	.275	1-9/64	1-5/32	3-3/4	1-3/4	13/16	1.1250	.843
1-1/4-11-1/2	.686	.285	1-31/64	1-1/2	4	1-3/4	15/16	1.3125	.984
1-1/2-11-1/2	.699	.300	1-47/64	1-3/4	4-1/4	1-3/4	1	1.5000	1.125
2"-11-1/2	.667	.267	2-13/16	2-7/32	4-1/2	1-3/4	1-1/8	1.8750	1.406
2-1/2-8	.925	.525	2-5/8	2-21/32	5-1/2	2-9/16	1-1/4	2.2500	1.687
3"-8	.925	.525	3-1/4	3-1/4	6	2-5/8	1-3/8	2.6250	1.968
3-1/2-8	.938	.525	3-3/4	–	6-1/2	2-11/16	1-1/2	2.8125	2.108
4"-8	.950	.525	4-1/4	4-1/4	6-3/4	2-3/4	1-5/8	3.0000	2.250

Dimensions as shown in Table 311 on page 46. For interrupted threads, add 15%.

SPECIAL EXTENSION PIPE TAPS

From Blanks

Size	Standard Projection	Minimum Projection	Overall Length (Inches)	Pipe Tap Drill Size		Thread Length	Square Length	Shank Diameter	Size of Square
				NPT	NPS				
1/8-27	.312	Flush (“0” Proj)	4	Q	11/32	3/4	3/8	.4375	.328
1/4-18	.459	.218	4	7/16	7/16	1-1/16	7/16	.5625	.421
1/8-27	.312	Flush (“0” Proj)	6	Q	11/32	3/4	3/8	.4375	.328
1/4-18	.459	.218	6	7/16	7/16	1-1/16	7/16	.5625	.421
3/8-18	.454	.150	6	9/16	37/64	1-1/16	1/2	.7000	.531
1/2-14	.579	.260	6	45/64	23/32	1-3/8	5/8	.6875	.515
3/4-14	.565	.245	6	29/32	59/64	1-3/8	11/16	.9063	.679
1"-11-1/2	.678	.275	6	1-9/64	1-5/32	1-3/4	13/16	1.1250	.843
1/8-27	.312	Flush (“0” Proj)	8	Q	11/32	3/4	3/8	.4375	.328
1/4-18	.459	.218	8	7/16	7/16	1-1/16	7/16	.5625	.421
3/8-18	.454	.150	8	9/16	37/64	1-1/16	1/2	.7000	.531
1/2-14	.579	.260	8	45/64	23/32	1-3/8	5/8	.6875	.515
3/4-14	.565	.245	8	29/32	59/64	1-3/8	11/16	.9063	.679
1/8-27	.312	Flush (“0” Proj)	10	Q	11/32	3/4	3/8	.4375	.328
1/4-18	.459	.218	10	7/16	7/16	1-1/16	7/16	.5625	.421
3/8-18	.454	.150	10	9/16	37/64	1-1/16	1/2	.7000	.531
1/2-14	.579	.260	10	45/64	23/32	1-3/8	5/8	.6875	.515
3/4-14	.565	.245	10	29/32	59/64	1-3/8	11/16	.9063	.679
1"-11-1/2	.678	.275	10	1-9/64	1-5/32	1-3/4	13/16	1.1250	.843
1/8-27	.312	Flush (“0” Proj)	12	Q	11/32	3/4	3/8	.4375	.328
1/4-18	.459	.218	12	7/16	7/16	1-1/16	7/16	.5625	.421

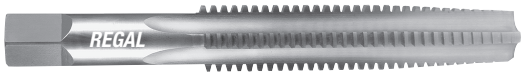
For interrupted threads, add 15%.

SPECIAL TAPS FROM BLANKS

SPECIAL ACME TANDEM & ACME PLUS LENGTH TAPS From Blanks

Right and left taps available. Special Gages available. Call for pricing.

Threads of these types are widely used for producing traversing motions on machine tools and are also extensively employed in the manufacture of valves, jacks and other mechanisms.



Longer length Acmes for the tough jobs.

Size	Overall Length	Length Thread End	Round Shank		Square	
			Length	Diameter	Length	Across Flats
1/4	3	1-3/4	1	.168	1/4	.131
5/16	3-13/32	1-7/8	1-1/4	.220	9/32	.165
3/8	4-1/16	2-1/8	1-5/8	.255	5/16	.191
1/2	5	2-9/16	2	.367	7/16	.275
5/8	6-1/4	3-3/16	2-1/2	.480	9/16	.360
3/4	7-15/16	4-5/16	3	.542	5/8	.406
7/8	8-5/8	4-3/8	2-1/2	.697	3/4	.523
1"	10-1/8	5-1/4	4	.697	7/8	.523
1-1/8	10-3/4	5-1/4	4-1/2	.800	1	.600
1-1/4	11-1/8	5-1/4	4-3/4	.896	1-1/8	.672
1-3/8	12-1/4	5-7/8	5-1/8	1.108	1-1/4	.831
1-1/2	12-5/8	5-7/8	5-1/2	1.233	1-1/4	.925
1-3/4	13-3/8	5-7/8	6-1/4	1.430	1-1/4	1.072
2"	14-7/8	6-1/2	7	1.644	1-3/8	1.233

3-day shipment.

SPECIAL ACME HAND TAPS

From Blanks

Size	Max. Thread per Inch	Max. Decimal Size	Metric		Overall Length	Thread Length	Square Length	Shank Diameter	Size of Square
			Size (mm)	Min. Pitch (mm)					
1/2	80	.510	M12	0.3	3-3/8	1-21/32	7/16	.367	.275
5/8	64	.635	M16	0.4	3-13/16	1-13/16	9/16	.480	.360
3/4	64	.760	–	–	4-1/4	2	11/16	.590	.442
7/8	64	.885	M22	0.4	4-11/16	2-7/32	3/4	.697	.523
1"	64	1.010	M25	0.4	5-1/8	2-1/2	13/16	.800	.600
1-1/8	13	–	–	–	5-7/16	2-9/16	7/8	.896	.672
1-1/4	13	–	–	–	5-3/4	2-9/16	1	1.021	.766
1-3/8	13	–	–	–	6-1/16	3	1-1/16	1.108	.831
1-1/2	13	–	M38	2.0	6-3/8	3	1-1/8	1.233	.925

Dimensions as shown in Table 302 on page 43. 3-day shipment.

How to Order Special Acmes

Be prepared with this information:

- Nominal size
- Threads per inch
- Right hand or left hand thread
- Class of fit (if not to commercial standards)
- Tapping depth
- Material to be tapped
- Diameter of the hole before tapping
- Will tap be backed out of hole?
- Type of tapping machine used
- Are taps to be used for sizing only of rough chased threads?
- Will fixture used affect length of tap?

SUPERTUF HSSE SPIRAL POINT TAPS

From Blanks

Size	Max. Thread per Inch	Max. Decimal Size	Metric		Overall Length	Thread Length	Neck Length	Square Length	Shank Diameter	Size of Square
			Size (mm)	Min. Pitch (mm)						
#4	100	.117	–	–	1-7/8	5/16	.25	3/16	.141	.110
#6	100	.145	M3.5	0.3	2	3/8	.31	3/16	.141	.110
#8	100	.171	M4	0.3	2-1/8	3/8	.38	1/4	.168	.131
#10	100	.197	M4.5, M5	0.3	2-3/8	1/2	.38	1/4	.194	.152
1/4	80	.260	–	–	2-1/2	5/8	.38	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	2-23/32	11/16	.44	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	2-15/16	3/4	.50	7/16	.381	.286
7/16	80	.448	M11	0.3	3-5/32	7/8	-	13/32	.323	.242
1/2	80	.510	M12	0.3	3-3/8	15/16	-	7/16	.367	.275
5/8	64	.635	M16	0.4	3-13/16	1-3/32	-	9/16	.480	.360
3/4	64	.760	–	–	4-1/4	1-7/32	-	11/16	.590	.442
1"	64	1.010	M25	0.4	5-1/8	1-1/2	-	3/4	.800	.600

Dimensions as shown in Table 302A on page 45. 10-day shipment of all quantities.

SUPERTUF HSSE SPIRAL FLUTE TAPS

From Blanks

Size	Max. Thread per Inch	Max. Decimal Size	Metric		Overall Length	Thread Length	Neck Length	Square Length	Shank Diameter	Size of Square
			Size (mm)	Min. Pitch (mm)						
#4	100	.117	–	–	1-7/8	5/16	.25	3/16	.141	.110
#6	100	.145	M3.5	0.3	2	3/8	.31	3/16	.141	.110
#8	100	.171	M4	0.3	2-1/8	3/8	.38	1/4	.168	.131
#10	100	.197	M4.5, M5	0.3	2-3/8	1/2	.38	1/4	.194	.152
1/4	80	.260	–	–	2-1/2	5/8	.38	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	2-23/32	11/16	.44	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	2-15/16	3/4	.50	7/16	.381	.286
7/16	80	.448	M11	0.3	3-5/32	7/8	-	13/32	.323	.242
1/2	80	.510	M12	0.3	3-3/8	15/16	-	7/16	.367	.275
5/8	64	.635	M16	0.4	3-13/16	1-3/32	-	9/16	.480	.360
3/4	64	.760	–	–	4-1/4	1-7/32	-	11/16	.590	.442
1"	64	1.010	M25	0.4	5-1/8	1-1/2	-	3/4	.800	.600

Dimensions as shown in Table 302A on page 45. 10-day shipment of all quantities.

SPECIAL TAPS FROM BLANKS

SUPERTUF PMX SPIRAL POINT SPECIAL TAPS

From Blanks

Size	Max. Thread per Inch	Max. Decimal Size	Metric		Overall Length	Thread Length	Neck Length	Square Length	Shank Diameter	Size of Square
			Size (mm)	Min. Pitch (mm)						
#4	100	.117	–	–	1-7/8	5/16	.25	3/16	.141	.110
#6	100	.145	M3.5	0.3	2	3/8	.31	3/16	.141	.110
#8	100	.171	M4	0.3	2-1/8	3/8	.38	1/4	.168	.131
#10	100	.197	M4.5, M5	0.3	2-3/8	1/2	.38	1/4	.194	.152
1/4	80	.260	–	–	2-1/2	5/8	.38	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	2-23/32	11/16	.44	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	2-15/16	3/4	.50	7/16	.381	.286
7/16	80	.448	M11	0.3	3-5/32	7/8	-	13/32	.323	.242
1/2	80	.510	M12	0.3	3-3/8	15/16	-	7/16	.367	.275
5/8	64	.635	M16	0.4	3-13/16	1-3/32	-	9/16	.480	.360
3/4	64	.760	–	–	4-1/4	1-7/32	-	11/16	.590	.442
1"	64	1.010	M25	0.4	5-1/8	1-1/2	-	3/4	.800	.600

Dimensions as shown in Table 302A on page 45. 10-day shipment of all quantities.

SUPERTUF PMX SPIRAL FLUTE SPECIAL TAPS

From Blanks

Size	Max. Thread per Inch	Max. Decimal Size	Metric		Overall Length	Thread Length	Neck Length	Square Length	Shank Diameter	Size of Square
			Size (mm)	Min. Pitch (mm)						
#4	100	.117	–	–	1-7/8	5/16	.25	3/16	.141	.110
#6	100	.145	M3.5	0.3	2	3/8	.31	3/16	.141	.110
#8	100	.171	M4	0.3	2-1/8	3/8	.38	1/4	.168	.131
#10	100	.197	M4.5, M5	0.3	2-3/8	1/2	.38	1/4	.194	.152
1/4	80	.260	–	–	2-1/2	5/8	.38	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	2-23/32	11/16	.44	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	2-15/16	3/4	.50	7/16	.381	.286
7/16	80	.448	M11	0.3	3-5/32	7/8	-	13/32	.323	.242
1/2	80	.510	M12	0.3	3-3/8	15/16	-	7/16	.367	.275
5/8	64	.635	M16	0.4	3-13/16	1-3/32	-	9/16	.480	.360
3/4	64	.760	–	–	4-1/4	1-7/32	-	11/16	.590	.442
1"	64	1.010	M25	0.4	5-1/8	1-1/2	-	3/4	.800	.600

Dimensions as shown in Table 302A on page 45. 10-day shipment of all quantities.

SUPERTUF HSSE DIN/ANSI SPIRAL POINT TAPS

From Blanks

Size	Max. Thread per Inch	Max. Decimal Size	Metric		Overall Length	Thread Length	Neck Length	Square Length	Shank Diameter	Size of Square
			Size (mm)	Min. Pitch (mm)						
#4	100	.117	–	–	2-7/32	5/16	.25	3/16	.141	.110
#6	100	.145	M3.5	0.3	2-7/32	3/8	.31	3/16	.141	.110
#8	100	.171	M4	0.3	2-1/2	3/8	.38	1/4	.168	.131
#10	100	.197	M4.5, M5	0.3	2-3/4	1/2	.38	1/4	.194	.152
1/4	80	.260	–	–	3-5/32	5/8	.38	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	3-35/64	11/16	.44	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	3-15/16	3/4	.50	7/16	.381	.286
7/16	80	.448	M11	0.3	3-15/16	7/8	-	13/32	.323	.242
1/2	80	.510	M12	0.3	4-21/64	15/16	-	7/16	.367	.275
5/8	64	.635	M16	0.4	4-21/64	1-3/32	-	9/16	.480	.360
3/4	64	.760	–	–	5	1-7/32	-	11/16	.590	.442
1"	64	1.010	M25	0.4	6-19/64	1-1/2	-	3/4	.800	.600

10-day shipment of all quantities.

SUPERTUF HSSE DIN/ANSI SPIRAL FLUTE TAPS

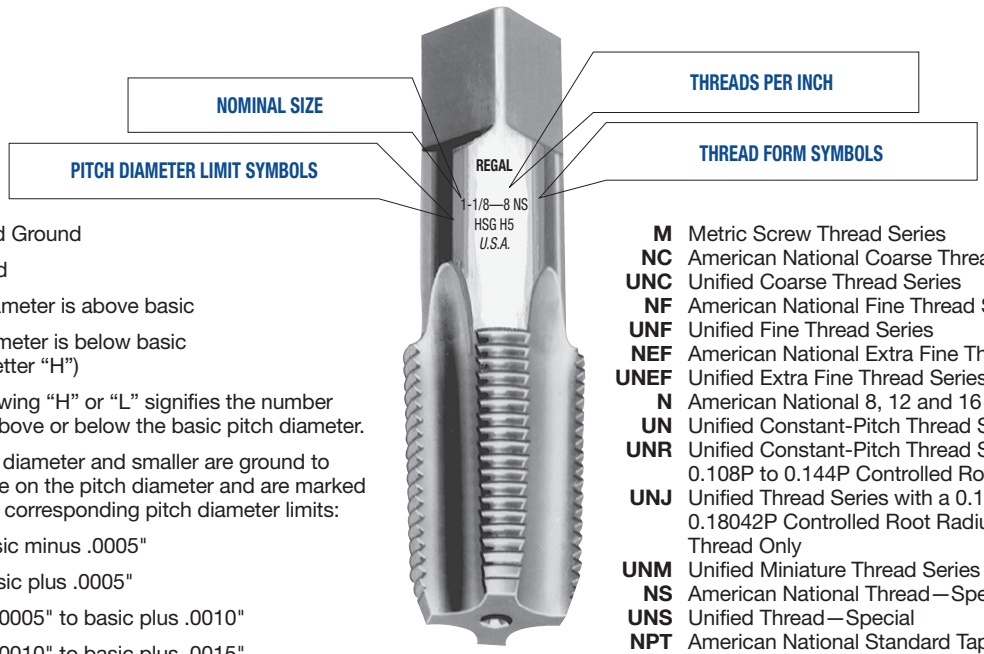
From Blanks

Size	Max. Thread per Inch	Max. Decimal Size	Metric		Overall Length	Thread Length	Neck Length	Square Length	Shank Diameter	Size of Square
			Size (mm)	Min. Pitch (mm)						
#4	100	.117	–	–	2-7/32	5/16	.25	3/16	.141	.110
#6	100	.145	M3.5	0.3	2-7/32	3/8	.31	3/16	.141	.110
#8	100	.171	M4	0.3	2-1/2	3/8	.38	1/4	.168	.131
#10	100	.197	M4.5, M5	0.3	2-3/4	1/2	.38	1/4	.194	.152
1/4	80	.260	–	–	3-5/32	5/8	.38	5/16	.255	.191
5/16	80	.323	M7, M8	0.3	3-35/64	11/16	.44	3/8	.318	.238
3/8	80	.385	M9, M10	0.3	3-15/16	3/4	.50	7/16	.381	.286
7/16	80	.448	M11	0.3	3-15/16	7/8	-	13/32	.323	.242
1/2	80	.510	M12	0.3	4-21/64	15/16	-	7/16	.367	.275
5/8	64	.635	M16	0.4	4-21/64	1-3/32	-	9/16	.480	.360
3/4	64	.760	–	–	5	1-7/32	-	11/16	.590	.442
1"	64	1.010	M25	0.4	6-19/64	1-1/2	-	3/4	.800	.600

10-day shipment of all quantities.

STANDARD SYSTEM OF MARKING GROUND THREAD TAPS

Recognizing the importance of a standard system of marking, most tap manufacturers mark their product with the nominal size, number of threads per inch and the proper symbols to identify the thread form and the pitch diameter. Shown below are some of the symbols used.



HSG: High Speed Ground

G: Ground Thread

H: High; pitch diameter is above basic

L: Low; pitch diameter is below basic (replaces the letter "H")

The number following "H" or "L" signifies the number of .0005" steps above or below the basic pitch diameter.

Standard taps 1" diameter and smaller are ground to a .0005" tolerance on the pitch diameter and are marked with one of these corresponding pitch diameter limits:

L1 = Basic to basic minus .0005"

H1 = Basic to basic plus .0005"

H2 = Basic plus .0005" to basic plus .0010"

H3 = Basic plus .0010" to basic plus .0015"

H4 = Basic plus .0015" to basic plus .0020"

H5 = Basic plus .0020" to basic plus .0025"

H6 = Basic plus .0025" to basic plus .0030"

Standard taps larger than 1" diameter are ground to a .0010" tolerance on the pitch diameter and are marked with this pitch diameter limit:

H4 = Basic plus .0010" to basic .0020"

SPECIAL TAPS

This catalog has been developed to easily locate the diameter and number of threads for special taps and dies. If the tap you need is not listed call your nearest Regal manufacturing facility.

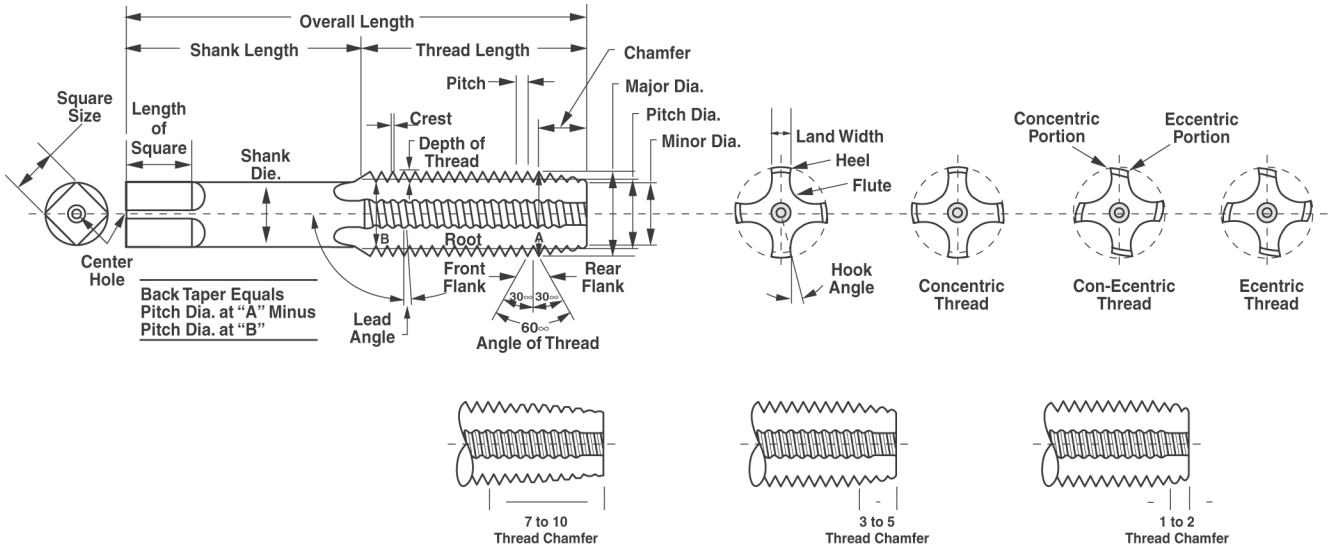
- All hand taps conform to Table 302 and the National Standards for overall length, shank diameter, squares and flute lengths.
- Thread tolerances conform to United States Cutting Tool Institute (USCTI) Standards.
- All pipe taps and extension pipe tap shank dimensions conform to USCTI standards.
- All stock Acme taps are 2G; for any variations, consult the nearest plant.
- All taps are straight flute unless otherwise specified in the "type" column.
- British pipe taps have 55° modified threads; full form threads available on request.
- Tools in larger quantities or special features not shown may be priced through your nearest Regal manufacturing facility.

M	Metric Screw Thread Series
NC	American National Coarse Thread Series
UNC	Unified Coarse Thread Series
NF	American National Fine Thread Series
UNF	Unified Fine Thread Series
NEF	American National Extra Fine Thread Series
UNEF	Unified Extra Fine Thread Series
N	American National 8, 12 and 16 Thread Series
UN	Unified Constant-Pitch Thread Series
UNR	Unified Constant-Pitch Thread Series with a 0.108P to 0.144P Controlled Root Radius
UNJ	Unified Thread Series with a 0.15011P to 0.18042P Controlled Root Radius—External Thread Only
UNM	Unified Miniature Thread Series
NS	American National Thread—Special
UNS	Unified Thread—Special
NPT	American National Standard Taper Pipe Thread
NPTF	Dryseal American National Standard Taper Pipe Thread (Fuel)
PTF	Dryseal SAE Short Taper Pipe Thread
ANPT	Aeronautical National Form Taper Pipe Thread (MIL-P-7105)
NPS	For Tap Marking Only (see NPSC, NPSM)
NPSC	American National Standard Straight Pipe Thread in Pipe Couplings (tap marked NPS)
NPSF	Dryseal American National Standard Internal Straight Pipe Thread (Fuel)
NPSH	American National Standard Straight Pipe Thread for Hose Couplings and Nipples
NPSI	Dryseal American National Standard Intermediate Internal Straight Pipe Thread
NPSL	American National Standard Straight Pipe Thread for Loose Fitting Mechanical Joints with Locknuts
NPSM	American National Standard Straight Pipe Thread for Free Fitting Mechanical Joints for Fixtures (tap marked NPS)
NPTR	American National Standard Taper Pipe Thread for Railing Joints (tap marked NPT)
NGO	National Gas Outlet Thread
NH	American National Hose Coupling and Fire Hose Coupling Threads
AMO	American Standard Microscope Objective Thread
ACME C	Acme Thread—Centralizing
ACME G	Acme Thread—General Purpose
N BUTT	American Buttress Screw Thread
STI	Special Threads for Helical Coil Wire Screw Thread Inserts

Symbols used for British Threads are:

BSW	British Standard Whitworth Coarse Thread Series
BSF	British Standard Fine Thread Series
BSP (BSP.TR)	British Standard Taper Pipe Thread
BSPP (BSP.PL)	British Standard Pipe (Parallel) Thread
WHIT	Whitworth Standard Special Thread
BA	British Association Standard Thread

TAP TERMINOLOGY



Angle of Thread – The angle included between the flanks of the thread measured in an axial plane.

Back Taper – A slight axial relief of the tap which makes the pitch diameter of the thread near the shank somewhat smaller than that of the chamfered end.

Basic – The theoretical or nominal standard size from which all variations are made.

Chamfer – The tapering of the threads at the front end of each land of a tap by cutting away and relieving the crest of the first few teeth to distribute the cutting action over several teeth. When the tapering amounts to 7 to 10 threads, the tap is called a "taper" tap; 3 to 5 threads, a "plug" tap; and 1 to 2 threads, a "bottoming" tap.

Chamfer Relief – The gradual decrease in land height from cutting edge to heel on the chamfered portion. Provides clearance for the cutting action as the tap advances.

Crest – The top surface joining the two flanks of a thread. The crest of an external thread is at its major diameter, while the crest of an internal thread is at its minor diameter.

Cutting Face – The leading side of the land in the direction of rotation for cutting on which the chip impinges.

Dryseal – A pipe threaded fuel connection for both external and internal application designed for use where the assembled product must withstand high fluid or gas pressures without the use of a sealing compound, or where a sealer is functionally objectionable.

Flutes – The longitudinal channels formed in a tap to create cutting edges on the thread profile and to provide chip spaces and cutting fluid passages.

Height of Thread – The distance between the crest and the base of a thread measured normal to the axis.

Helical Flute – A flute with uniform axial lead and constant helix in a helical path around the axis of a cylindrical tap.

Hook Face – A concave cutting face, usually specified either as chordal hook or tangential hook.

Chordal Hook Angle – The angle between the chord passing through the root and crest of a thread form at the cutting face and a radial line through the crest at the cutting edge.

Tangential Hook Angle – The angle between a line tangent to a hook cutting face at the cutting edge and a radial line to the same point.

Interrupted Thread – A tap having an odd number of lands, with every other tooth along the thread helix removed.

Lead – The distance a screw thread advances axially in one complete turn. On a single lead screw or tap, the lead and pitch are identical. On a double lead screw or tap, the lead is twice the pitch, etc.

Threads Per Inch – The number of threads in one inch of length.

Pitch – The distance from any point on a screw or tap thread to a corresponding point on the next thread, measured parallel to the axis. The pitch equals one divided by the number of threads per inch.

Pitch Diameter – On a straight thread, the diameter of an imaginary coaxial cylinder, the surface of which would pass through the thread profile at such points as to make equal the width of the threads and the width of the spaces cut by the surface of the cylinder.

On a taper thread, the diameter at a given distance from a reference plane perpendicular to the axis of an imaginary coaxial cone, the surface of which would pass through the thread profile at such points as to make equal the width of the threads and the width of the spaces cut by the surface of the cone.

Rake – Any deviation of a straight cutting face of the tooth from a radial line. Positive rake means that the crest of the cutting face is angularly advanced ahead of the balance of the face of the tooth. Negative rake means that the same point is angularly behind the balance of the cutting face of the tooth. Zero rake means that the cutting face is directly on the center line.

Root – The bottom surface joining the flanks of two adjacent threads. The root of an external thread is at its minor diameter, while the root of an internal thread is at its major diameter.

Spiral Point (Chip Driver) – A supplementary angular fluting cut in the cutting face of the land at the chamfer end. It is slightly longer than the chamfer on the tap and of the opposite hand to that of rotation.

Thread Relief – The clearance produced by removal of metal from behind the cutting edge. When the thread angle is relieved from the heel to cutting edge, the tap is said to have "eccentric" relief. If relieved from the heel for only a portion of land width, the tap is said to have "con-eccentric" relief.

GROUND THREAD TAP LIMITS

In addition to the nominal size and pitch of a tap, there is another important dimensional factor to be considered in selecting a ground thread tap for a given job. This is the matter of the H and L pitch diameter tap limits. H (HIGH) means high above basic pitch diameter, and L (LOW) means below basic pitch diameter. Tap limits have been established to provide a choice in the selection of the tap size best suited to produce the class of thread desired.

Figure 1 illustrates the numbering system and the .0005" diameter increment separation between successive limits. Since the starting point is basic pitch diameter, dividing the limit number by two establishes, in thousandths of an inch, the amount the maximum tap diameter is above the basic in the H series. It also shows the amount the minimum tap pitch diameter is under basic in the L series.

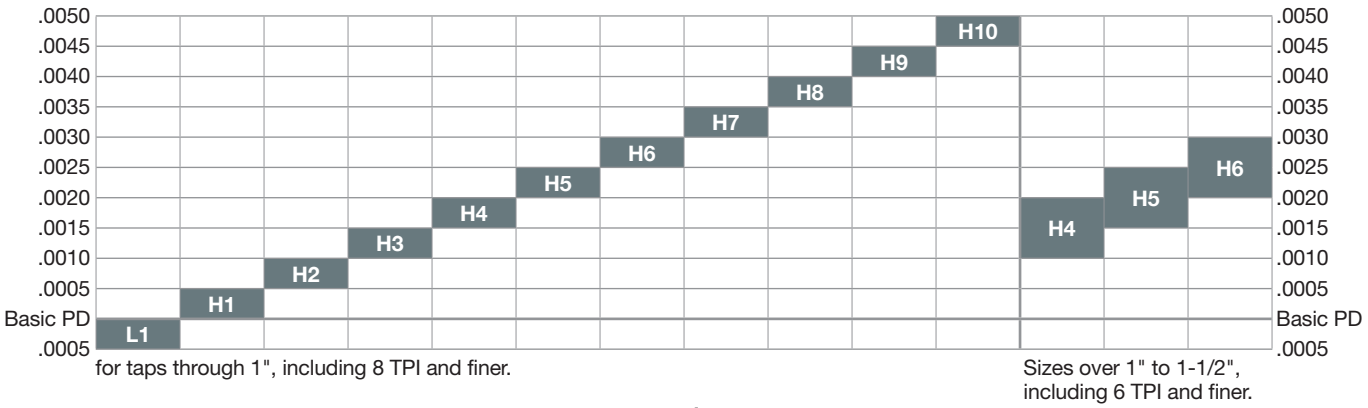
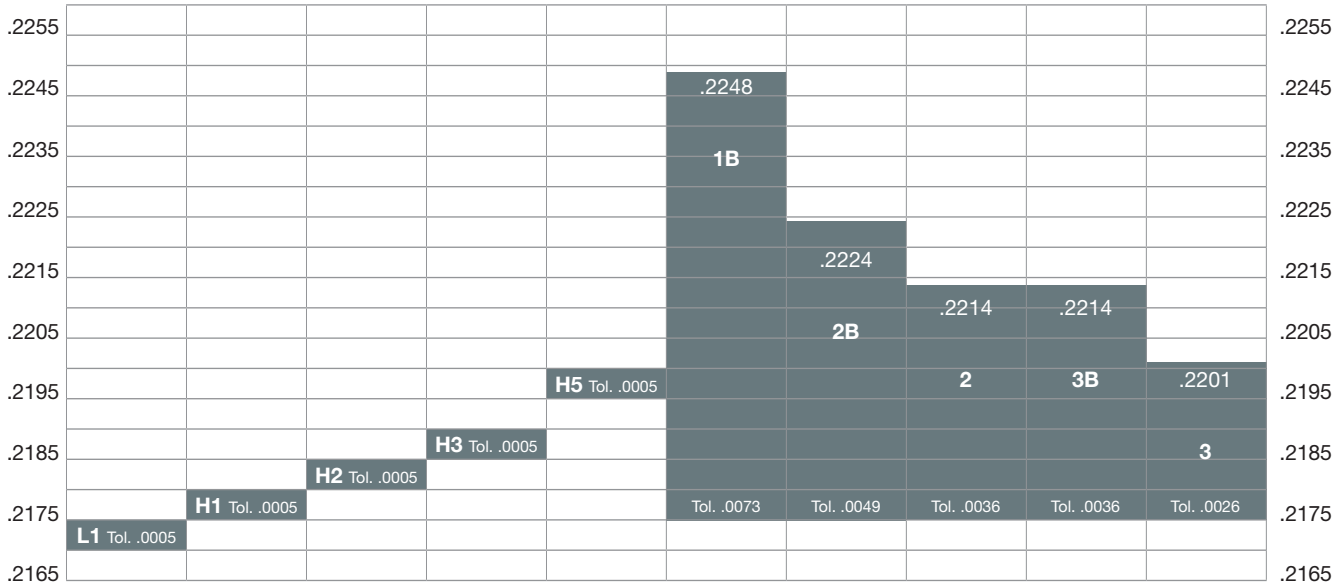


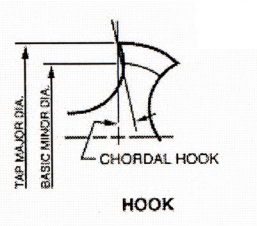
Figure 1

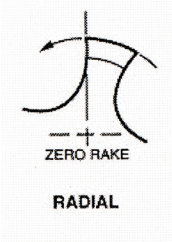
Figure 2 illustrates the positioning of the tap limits in relation to the various classes of threads for a 1/4 to 20 size.

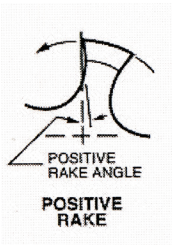


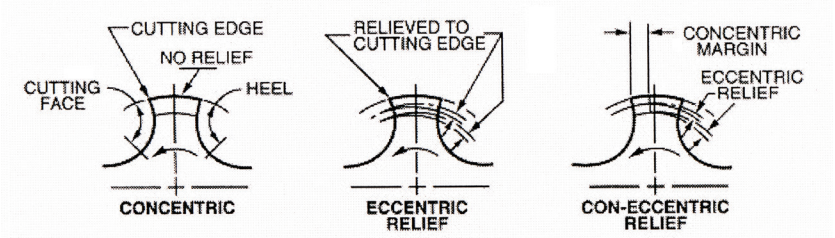
MATERIAL HOOK/RAKE ANGLE

Material	Hook or Rake Angle	Treatment Suggestion
Aluminum (Wrought)	11° - 15° Hook	Chrome, TICN
Aluminum (wWe Casting)	8° - 10° Rake	TICN, CrN
Aluminum Bronze	0° - 3° Rake	Nitride, TICN
Duralumin	12° - 14° Hook	TiAIN+WC/C, CrN
Brass	0° - 3° Rake	Bright, TICN
Cast Brass	2° - 5° Rake	Nitride, TICN
Naval Brass	0° - 3° Rake	Nitride
Bronze (Free Machining)	2° - 6° Hook	Bright, TICN, Nitride
Manganese Bronze	0° - 3° Rake	Nitride, TICN
Naval Bronze	2° - 6° Hook	Bright, TICN
Silicon Bronze	0° - 3° Rake	Nitride, TICN
Tungsten	5° - 10° Rake	Tin
Cast Iron (Gray)	0° - 3° Rake	Nitride, TICN
Ductile Iron	3° - 6° Hook	Nitride Oxide, Tin, TICN
Mallable Iron	3° Rake	Nitride Oxide, Tin, TICN
Ferro-tic	0° - 3° Negative Rake	Bright
Copper (Pure)	18° Hook	TiAIN+WC/C, CrN, N+O
Beryllium Copper	12° - 14° Hook	TiAIN+WC/C, CrN, Nitride
Copper-Nickel	12° Hook	Nitride, TiCN
Magnesium	18° - 20° Hook	CrN
Monel (Steel Casting)	12° - 15° Hook	Nitride, TICN, CrN
Nitralloy	0° Rake	Nitride, TICN
Nylon	5° - 8° Hook	Nitride, Tin
Plastic (Thermoplastic)	5° - 8° Hook	Nitride, Tin
Plastic (Thermosetting)	0° - 3° Rake	TiCN
Fiberglass	0° - 3° Rake	TiCN
Carbon Steel	10° - 12° Hook	Oxide, Nitride, Tin
Cold Rolled Steel	10° - 12° Hook	Oxide, Nitride, Tin
Forged Steel	10° - 12° Hook	Oxide, Nitride, Tin
Leaded Steel	8° - 12° Hook	Oxide, Nitride, Tin
Stainless Steel (Free Machining)	4° - 8° Hook	Nitride, Tin, TiCN
Stainless Steel (Prec Hardening)	5° - 8° Rake	Nitride, Tin, TICN
Tool Steel	0° - 3° Rake	Nitride, Tin, TiCN
Powdered Metal (Sintered)	0° Rake	TiCN
Titanium	15° - 20° Hook	Oxide, Nitride, CrN
Inconel (600)	12° - 15° Hook	Nitride + Oxide, CrN
Inconel (718)	5° - 10° Hook	Nitride + Oxide, CrN
Inconel (925)	3° - 5° Rake	Alcrona
Hastaloy B	12° - 15° Hook	CrN
Hastaloy C	5° - 10° Hook	CrN









TAP DRILL FORMULAS

Tap Drill Sizes - Cutting Taps

$$\text{Drilled Hole Size (inches)} = \text{Basic Major Dia. of Thread (inches)} - \frac{.013 \times \%\text{ of Full Thread}}{\text{No. of Threads per Inch}}$$

$$\text{Drilled Hole Size (mm)} = \text{Basic Major Dia. of Thread (mm)} - \frac{\%\text{ of Full Thread} \times \text{mm Pitch}}{76.98}$$

Note: Enter % of full thread in percent form (75% = 75, not 0.75)

Tap Drill Sizes - Thread Forming Taps

$$\text{Drilled Hole Size (inches)} = \text{Basic Major Dia. of Thread (inches)} - \frac{.0068 \times \%\text{ of Full Thread}}{\text{No. of Threads per Inch}}$$

$$\text{Drilled Hole Size (mm)} = \text{Basic Major Dia. of Thread (mm)} - \frac{\%\text{ of Full Thread} \times \text{mm Pitch}}{147.06}$$

Acme Tap Drill Size Formulas

Class of Fit 2G, 3G, 4G

Min. Hole Size	=	Nominal O.D.	–	Pitch
Max. Hole Size	=	Min. Hole Size	+	(.05 x Pitch)

Class of Fit 2C, 3C, 4C

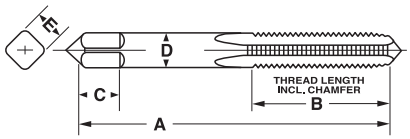
Min. Hole Size	=	Nominal O.D.	–	Pitch + (.1 x Pitch)
Max. Hole Size	=	Min. Hole Size	+	(.05 x Pitch)

$$\text{Note: Pitch} = \frac{1}{\text{No. Threads per Inch}}$$

$$\text{RPM} = \frac{\text{SFM}}{.26 \times \text{Tap O.D.}}$$

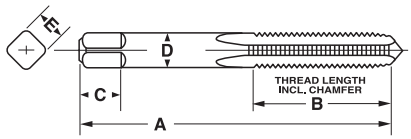
To use this formula for metric, convert metric size to inch equivalent by multiplying metric dimension by .03937.

STANDARD TAP DIMENSIONS Table 302 - Up to 1" Diameter



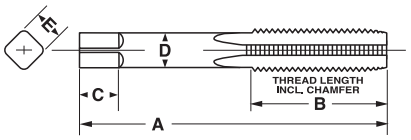
Size #0-12 Machine Screw
Sizes 1.6-6.3mm

STYLE-1



Size #14 Machine Screw
Sizes 7-10mm

STYLE-2



Sizes larger than 3/8"
Sizes 12mm and larger

STYLE-3

Nominal Diameter Range - Inches		Mach. Screw Size Number	Nominal Fractional Diameter (Inches)	Nominal Metric Diameter (Millimeters)	Style*	Tap Dimensions - Inches				
Over	To (Incl.)					A Overall Length	B Thread Length	C Square Length	D Shank Diameter	E Size of Square
.052	.065	0	1/16	M1.6	1	1-5/8	5/16	3/16	.141	.110
.065	.078	1	—	M1.8	1	1-11/16	3/8	3/16	.141	.110
.078	.091	2	—	M2, M2.2	1	1-3/4	7/16	3/16	.141	.110
.091	.104	3	3/32	M2.5	1	1-13/16	1/2	3/16	.141	.110
.104	.117	4	—	—	1	1-7/8	9/16	3/16	.141	.110
.117	.130	5	1/8	M3, M3.15	1	1-15/16	5/8	3/16	.141	.110
.130	.145	6	—	M3.5	1	2	11/16	3/16	.141	.110
.145	.171	8	5/32	M4	1	2-1/8	3/4	1/4	.168	.131
.171	.197	10	3/16	M4.5, M5	1	2-3/8	7/8	1/4	.194	.152
.197	.223	12	7/32	—	1	2-3/8	15/16	9/32	.220	.165
.223	.260	14	1/4	M6, M6.3	2	2-1/2	1	5/16	.255	.191
.260	.323	—	5/16	M7, M8	2	2-23/32	1-1/8	3/8	.318	.238
.323	.395	—	3/8	M10	2	2-15/16	1-1/4	7/16	.381	.286
.395	.448	—	7/16	—	3	3-5/32	1-7/16	13/32	.323	.242
.448	.510	—	1/2	M12, M12.5	3	3-3/8	1-21/32	7/16	.367	.275
.510	.573	—	9/16	M14	3	3-19/32	1-21/32	1/2	.429	.322
.573	.635	—	5/8	M16	3	3-13/16	1-13/16	9/16	.480	.360
.635	.709	—	11/16	M18	3	4-1/32	1-13/16	5/8	.542	.406
.709	.760	—	3/4	—	3	4-1/4	2	11/16	.590	.442
.760	.823	—	13/16	M20	3	4-15/32	2	11/16	.652	.489
.823	.885	—	7/8	M22	3	4-11/16	2-7/32	3/4	.697	.523
.885	.948	—	15/16	M24	3	4-29/32	2-7/32	3/4	.760	.570
.948	1.010	—	1	M25	3	5-1/8	2-1/2	13/16	.800	.600
1.010	1.073	—	1-1/16	M27	3	5-1/8	2-1/2	7/8	.896	.672

* Styles shown are for ground thread taps.

Notes:

1) Special ground thread taps are made to limits shown in USCTI Table 331 for Unified Inch Screw Threads and USCTI Table 341 for Metric M-Profile Screw Threads.

2) Ground thread taps, sizes .395" and smaller, have external center on thread end (may be removed on bottoming taps).

3) For eccentricity tolerances of tap elements refer to Table 317, published by the United States Cutting Tool Institute.

STANDARD TAP DIMENSIONS Table 302/303 - Over 1" Diameter

Nominal Diameter Range - Inches		Nominal Fractional Diameter (Inches)	Nominal Metric Diameter (Millimeters)	Style	Table 302 Long Length					Table 303 Short Length			
Over	To (Incl.)				D Shank Diameter	A Overall Length	B Thread Length	C Square Length	E Size of Square	A Overall Length	B Thread Length	C Square Length	E Size of Square
1.010	1.073	1-1/16	M27	3	.896	5-1/8	2-1/2	7/8	.672	4	1-1/2	7/8	.672
1.073	1.135	1-1/8		3	.896	5-7/16	2-9/16	7/8	.672	4	1-1/2	7/8	.672
1.135	1.198	1-3/16	M30	3	1.021	5-7/16	2-9/16	1	.766	4	1-1/2	1	.766
1.198	1.260	1-1/4		3	1.021	5-3/4	2-9/16	1	.766	4	1-1/2	1	.766
1.260	1.323	1-5/16	M33	3	1.108	5-3/4	2-9/16	1-1/16	.831	4	1-1/2	1	.831
1.323	1.385	1-3/8		3	1.108	6-1/16	3	1-1/16	.831	4	1-1/2	1	.831
1.385	1.448	1-7/16	M36	3	1.233	6-1/16	3	1-1/8	.925	4	1-1/2	1	.925
1.448	1.510	1-1/2		3	1.233	6-3/8	3	1-1/8	.925	4	1-1/2	1	.925
1.510	1.635	1-5/8	M39	3	1.305	6-11/16	3-3/16	1-1/8	.979	5	2	1-1/8	.979
1.635	1.760	1 3/4	M42	3	1.430	7	3-3/16	1-1/4	1.072	5	2	1-1/4	1.072
1.760	1.885	1-7/8		3	1.519	7-5/16	3-9/16	1-1/4	1.139	5	2	1-1/4	1.139
1.885	2.010	2	M48	3	1.644	7-5/8	3-9/16	1-3/8	1.233	5	2	1-3/8	1.233
2.010	2.135	2-1/8		3	1.769	8	3-9/16	1-3/8	1.327	5-1/4	2	1-3/8	1.327
2.135	2.260	2-1/4	M56	3	1.894	8-1/4	3-9/16	1-7/16	1.420	5-1/4	2	1-7/16	1.420
2.260	2.385	2-3/8		3	2.019	8-1/2	4	1-7/16	1.514	5-1/4	2	1-7/16	1.514
2.385	2.510	2-1/2		3	2.100	8-3/4	4	1-1/2	1.575	5-1/4	2	1-1/2	1.575
2.510	2.635	2-5/8	M64	3	2.225	8-3/4	4	1-1/2	1.669	5-1/2	2	1-1/2	1.575
2.635	2.760	2-3/4		3	2.350	9-1/4	4	1-9/16	1.762	5-1/2	2	1-1/2	1.575
2.760	2.885	2-7/8	M72	3	2.475	9-1/4	4	1	1.856	5-1/2	2	1-1/2	1.575
2.885	3.010	3		3	2.543	9-3/4	4-9/16	1-5/8	1.907	5-1/2	2	1-1/2	1.575
3.010	3.135	3-1/8		3	2.668	9-3/4	4-9/16	1-5/8	2.001	5-3/4	2	1-1/2	1.575
3.135	3.260	3-1/4	M80	3	2.793	10	4-9/16	1-3/4	2.095	5-3/4	2	1-1/2	1.575
3.260	3.385	3-3/8		3	2.883	10	4-9/16	1-3/4	2.162	5-3/4	2	1-1/2	1.575
3.385	3.510	3-1/2		3	3.008	10-1/4	4-15/16	2	2.256	5-3/4	2	1-1/2	1.575
3.510	3.635	3-5/8	M90	3	3.133	10-1/4	4-15/16	2	2.350	6	2	1-3/4	1.575
3.635	3.760	3-3/4		3	3.217	10-1/2	5-5/16	2-1/8	2.413	6	2	1-3/4	1.575
3.760	3.885	3-7/8		3	3.342	10-1/2	5-5/16	2-1/8	2.506	6	2	1-3/4	1.575
3.885	4.010	4	M100	3	3.467	10-3/4	5-5/16	2-1/4	2.600	6	2	1-3/4	1.575

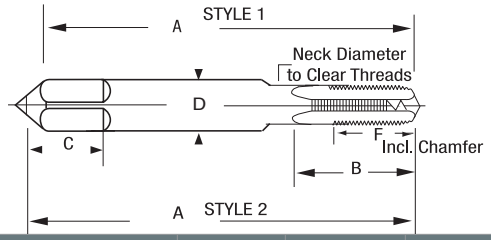
Short length blanks, 2.385" diameter through 4.010", have a 2.100" shank diameter.

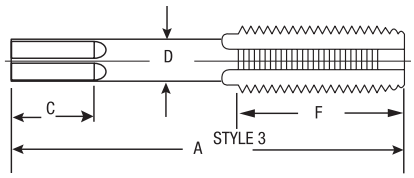
Note: Unless otherwise specified, special taps over 1.010" to 1.510" diameter inclusive, having 14 or more threads per inch or 1.75 millimeter pitch and finer, and sizes over 1.510" diameter with 10 or more threads per inch or 2.5 millimeter pitch and finer, are made to general dimensions, Table 303, United States Cutting Tool Institute (USCTI) standards.

STANDARD TAP DIMENSIONS Over 4" to 6" Diameter

Nominal Fractional Diameter (Inches)	Style	Long Length					Short Length				
		D Shank Diameter	A Overall Length	B Thread Length	C Square Length	E Size of Square	D Shank Diameter	A Overall Length	B Thread Length	C Square Length	E Size of Square
4-1/4	3	3.467	10-3/4	5-5/16	2-1/4	2.600	2.100	6	2	1-3/4	1.575
4-1/2	3	3.825	10-3/4	5-5/16	2-1/4	2.868	2.100	6	2	1-3/4	1.575
4-3/4	3	3.950	10-3/4	5-5/16	2-1/4	2.965	2.100	6	2	1-3/4	1.575
5	3	4.200	11-3/4	5-1/2	2-1/2	3.150	3.467	6-1/2	2-1/2	2	2.600
5-1/4	3	4.450	11-3/4	5-1/2	2-1/2	3.340	3.467	6-1/2	2-1/2	2	2.600
5-1/2	3	4.700	12	5-3/4	2-3/4	3.525	3.467	6-1/2	2-1/2	2	2.600
5-3/4	3	4.950	12	5-3/4	2-3/4	3.715	3.467	6-1/2	2-1/2	2	2.600
6	3	5.200	12-1/4	6	2-3/4	3.900	3.715	7	3	2	2.785

SHORT THREAD LENGTH TAP DIMENSIONS Table 302A

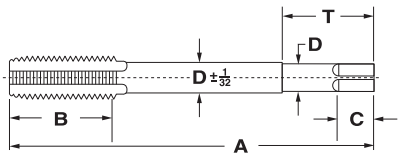




Nominal Diameter Range - Inches		Machine Screw Size Number	Nominal Fractional Diameter (Inches)	Nominal Metric Diameter (Millimeters)	Style	Tap Dimensions					
Over	To (Incl.)					A Overall Length	B* Length	C Square Length	D Shank Diameter	E Square Size	F** Thread Length
.104	.117	4	—	—	1	1-7/8	9/16	3/16	.141	.110	5/16
.117	.130	5	1/8	M3, M3.15	1	1-15/16	5/8	3/16	.141	.110	5/16
.130	.145	6	—	M3.5	1	2	11/16	3/16	.141	.110	3/8
.145	.171	8	5/32	M4	1	2-1/8	3/4	1/4	.168	.131	3/8
.171	.197	10	3/16	M4.5, M5	1	2-3/8	7/8	1/4	.194	.152	1/2
.197	.223	12	7/32	—	1	2-3/8	15/16	9/32	.220	.165	1/2
.223	.260	14	1/4	M6, M6.3	2	2-1/2	1	5/16	.255	.191	5/8
.260	.323		5/16	M7, M8	2	2-23/32	1-1/8	3/8	.318	.238	11/16
.323	.395		3/8	M10	2	2-15/16	1-1/4	7/16	.381	.286	3/4
.395	.448		7/16	—	3	3-5/32	*	13/32	.323	.242	7/8
.448	.510		1/2	M12, M12.5	3	3-3/8	*	7/16	.367	.275	15/16
.510	.573		9/16	M14	3	3-19/32	*	1/2	.429	.322	1
.573	.635		5/8	M16	3	3-13/16	*	9/16	.480	.360	1-3/32
.635	.709		11/16	M18	3	4-1/32	*	5/8	.542	.406	1-3/32
.709	.760		3/4	—	3	4-1/4	*	11/16	.590	.442	1-7/32
.760	.823		13/16	M20	3	4-15/32	*	11/16	.652	.489	1-7/32
.823	.885		7/8	M22	3	4-11/16	*	3/4	.697	.523	1-11/32
.885	.948		15/16	M24	3	4-29/32	*	3/4	.760	.570	1-11/32
.948	1.010		1	M25	3	5-1/8	*	13/16	.800	.600	1-1/2

* "B" based on Table 302, column B and shall be no less than minimum Table 302 thread length.
** "F" based on the length of 12 pitches of the UNC series.
Notes: 1) "F" is minimum value and has no tolerance. 2) Unless otherwise specified, all tolerances are in accordance with Table 302.

EXTENSION TAP DIMENSIONS Table 303A



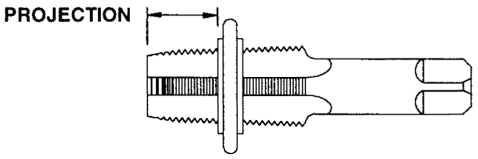
The "T" length of the shank diameter of extension taps is ground to close tolerances, whereas the remaining portion of the shank has ordinary bar tolerances. In special applications where the shank is used with a bushing, the entire shank length may be ground to close tolerance upon request.

Size	B Thread Length	D Shank Diameter	C Square Length	Square Size	T Ground Shank Size
6	11/16	.141	3/16	.110	1-1/8
8	3/4	.168	1/4	.131	1-1/4
10	7/8	.194	1/4	.152	1-3/8
1/4	1	.255	5/16	.191	1-1/2
1/4*	1	.185	1/4	.138	1-1/2
5/16	1-1/8	.318	3/8	.238	1-9/16
5/16*	1-1/8	.240	9/32	.180	1-9/16
3/8	1-1/4	.381	7/16	.286	1-5/8
3/8*	1-1/4	.275	3/8	.206	1-5/8
7/16	1-7/16	.323	13/32	.242	1-11/16

Size	B Thread Length	D Shank Diameter	C Square Length	Square Size	T Ground Shank Size
1/2	1-21/32	.367	7/16	.275	1-11/16
9/16	1-21/32	.429	1/2	.322	1-7/8
5/8	1-13/16	.480	9/16	.360	2
3/4	2	.590	11/16	.442	2-1/4
7/8	2-7/32	.697	3/4	.523	2-1/2
1	2-1/2	.800	13/16	.600	2-5/8
1-1/8	2-9/16	.896	7/8	.672	2-3/4
1-1/4	2-9/16	1.021	1	.766	2-7/8
1-3/8	3	1.108	1-1/16	.831	3
1-1/2	3	1.233	1-1/8	.925	3

*Small shank

TAPER PIPE TAP, THREAD LIMITS, GROUND THREAD



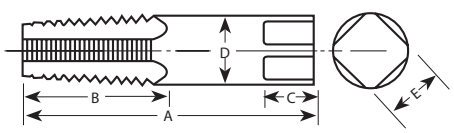
NPT - American National Standard Taper Pipe Threaded Form
ANPT - Aeronautical National Standard Taper Pipe Threaded Form
NPFT - Dryseal American National Standard Taper Pipe Threaded Form

Tap Thread Limits						Reference Dimensions	
Nominal Size Inches	Threads Per Inch	Projection* Inches	Projection Tolerances + or -	Taper Per Foot Limits		L1 Length	Tap Drill Size** NPT, ANPT, NPTF
				Minimum	Maximum		
1/16	27	.312	.063	.719	.781	.160	C
1/8	27	.312	.063	.719	.781	.1615	Q
1/4	18	.459	.063	.719	.781	.2278	7/18
3/8	18	.454	.063	.719	.781	.240	9/16
1/2	14	.579	.063	.719	.781	.320	45/64
3/4	14	.565	.063	.719	.781	.339	29/32
1	11-1/2	.678	.094	.719	.781	.400	1-9/64
1-1/4	11-1/2	.686	.094	.719	.781	.420	1-31/64
1-1/2	11-1/2	.699	.094	.719	.781	.420	1-23/32
2	11-1/2	.667	.094	.719	.781	.436	2-3/16
2-1/2	8	.925	.094	.734	.781	.682	2-39/64
3	8	.925	.094	.734	.781	.766	3-15/64
3-1/2	8	.938	.125	.734	.781	.821	—
4	8	.950	.125	.734	.781	.844	—

* Distance small end of tap projects through L1 Taper Thread Ring Gage.
** Recommended size given permits direct tapping without reaming the hole, but only give a full thread for approx. the L1 length.
Lead Tolerance: A maximum lead deviation of plus or minus .0005" within any two threads not farther than 1" is permitted.

PIPE TAP DIMENSIONS Table 311

Straight and Taper



Nominal Size Inches	Standard Projection	Minimum Projection	Length Overall A	Length of Thread B	Length of Square C	Diameter of Shank D	Size of Square E
1/16	.312 ± .0625	Flush ("0" Proj.)	2-1/8	11/16	3/8	.3125	.234
1/8	.312 ± .0625	Flush ("0" Proj.)	2-1/8	3/4	3/8	.3125	.234
1/8	.312 ± .0625	Flush ("0" Proj.)	2-1/8	3/4	3/8	.4375	.328
1/4	.459 ± .0625	.218	2-7/16	1-1/16	7/16	.5625	.421
3/8	.454 ± .0625	.150	2-9/16	1-1/16	1/2	.7000	.531
1/2	.579 ± .0625	.260	3-1/8	1-3/8	5/8	.6875	.515
3/4	.565 ± .0625	.245	3-1/4	1-3/8	11/16	.9063	.679
1	.678 ± .0937	.275	3-3/4	1-3/4	13/16	1.1250	.843
1-1/4	.686 ± .0937	.285	4	1-3/4	15/16	1.3125	.984
1-1/2	.699 ± .0937	.300	4-1/4	1-3/4	1	1.5000	1.125
2	.667 ± .0937	.267	4-1/2	1-3/4	1-1/8	1.8750	1.406
2-1/2	.925 ± .0937	.525	5-1/2	2-9/16	1-1/4	2.2500	1.687
3	.925 ± .0937	525	6	2-5/8	1-3/8	2.6250	1.968
3-1/2	.938 ± .125	.525	6-1/2	2-11/16	1-1/2	2.8125	2.108
4	.950 ± .125	.525	6-3/4	2-3/4	1-5/8	3.0000	2.250

TAP RECOMMENDATIONS & THREAD LIMITS

For Classes 2B & 3B – Machine Screw & Fractional Sizes

Size	Recommended Tap for Class of Thread						Tap Recommendations and Thread Limits		
	Class 2B			Class 3B			Minimum All Classes (Basic)	Maximum Class 2B	Maximum Class 3B
	H Limit	Minimum	Maximum	H Limit	Minimum	Maximum			
#0-80 UNF	H2	.0524	.0529	H1	.0519	.0524	.0519	.0542	.0536
#1-64 UNC	H2	.0634	.0639	H1	.0629	.0634	.0629	.0655	.0648
#1-72 UNF	H2	.0645	.0650	H1	.0640	.0645	.0640	.0665	.0659
#2-56 UNC	H2	.0749	.0754	H1	.0744	.0749	.0744	.0772	.0765
#2-64 UNF	H2	.0764	.0769	H1	.0759	.0764	.0759	.0786	.0779
#3-48 UNC	H2	.0860	.0865	H1	.0855	.0860	.0855	.0885	.0877
#3-56 UNF	H2	.0879	.0884	H1	.0874	.0879	.0874	.0902	.0895
#4-40 UNC	H2	.0963	.0968	H2	.0963	.0968	.0958	.0991	.0982
#4-48 UNF	H2	.0990	.0995	H1	.0985	.0990	.0985	.1016	.1008
#5-40 UNC	H2	.1093	.1098	H2	.1093	.1098	.1088	.1121	.1113
#5-44 UNF	H2	.1107	.1112	H1	.1102	.1107	.1102	.1134	.1126
#6-32 UNC	H3	.1187	.1192	H2	.1182	.1187	.1177	.1214	.1204
#6-40 UNF	H2	.1223	.1228	H2	.1223	.1228	.1218	.1252	.1243
#8-32 UNC	H3	.1447	.1452	H2	.1442	.1447	.1437	.1475	.1465
#8-36 UNF	H2	.1465	.1470	H2	.1465	.1470	.1460	.1496	.1487
#10-24 UNC	H3	.1639	.1644	H3	.1639	.1644	.1629	.1672	.1661
#10-32 UNF	H3	.1707	.1712	H2	.1702	.1707	.1697	.1736	.1726
#12-24 UNC	H3	.1899	.1904	H3	.1899	.1904	.1889	.1933	.1922
#12-28 UNF	H3	.1938	.1942	H3	.1938	.1942	.1928	.1970	.1959
1/4-20 UNC	H5	.2195	.2200	H3	.2185	.2190	.2175	.2224	.2211
1/4-28 UNF	H4	.2283	.2288	H3	.2278	.2283	.2268	.2311	.2300
5/16-18 UNC	H5	.2784	.2789	H3	.2774	.2779	.2764	.2817	.2803
5/16-24 UNF	H4	.2869	.2874	H3	.2864	.2869	.2854	.2902	.2890
3/8-16 UNC	H5	.3364	.3369	H3	.3354	.3359	.3344	.3401	.3387
3/8-24 UNF	H4	.3494	.3499	H3	.3489	.3494	.3479	.3528	.3516
7/16-14 UNC	H5	.3931	.3936	H3	.3921	.3926	.3911	.3972	.3957
7/16-20 UNF	H5	.4070	.4075	H3	.4060	.4065	.4050	.4104	.4091
1/2-13 UNC	H5	.4520	.4525	H3	.4510	.4515	.4500	.4565	.4548
1/2-20 UNF	H5	.4695	.4700	H3	.4685	.4690	.4675	.4731	.4717
9/16-12 UNC	H5	.5104	.5109	H3	.5094	.5099	.5084	.5152	.5135
9/16-18 UNF	H5	.5284	.5289	H3	.5274	.5279	.5264	.5323	.5308
5/8-11 UNC	H5	.5680	.5685	H3	.5670	.5675	.5660	.5732	.5714
5/8-18 UNF	H5	.5909	.5914	H3	.5899	.5904	.5889	.5949	.5934
3/4-10 UNC	H5	.6870	.6875	H5	.6870	.6875	.6850	.6927	.6907
3/4-16 UNF	H5	.7114	.7119	H3	.7104	.7109	.7094	.7159	.7143
7/8-9 UNC	H6	.8053	.8058	H4	.8043	.8048	.8028	.8110	.8089
7/8-14 UNF	H6	.8311	.8316	H4	.8301	.8306	.8286	.8356	.8339
1-8 UNC	H6	.9213	.9218	H4	.9203	.9208	.9188	.9276	.9254
1-12 UNF	H6	.9484	.9489	H4	.9474	.9479	.9459	.9535	.9516
1-14 UNS	H6	.9561	.9566	H4	.9551	.9556	.9536	.9609	.9590
1 1/8-7 UNC	H8	1.0352	1.0357	H4	1.0332	1.0337	1.0322	1.0416	1.0393
1 1/8-12 UNF	H6	1.0739	1.0749	H4	1.0719	1.0729	1.0709	1.0787	1.0768
1 1/4-7 UNC	H8	1.1622	1.1632	H4	1.1582	1.1592	1.1572	1.1668	1.1644
1 1/4-12 UNF	H6	1.1989	1.1999	H4	1.1969	1.1979	1.1959	1.2039	1.2019
1 3/8-6 UNC	H8	1.2717	1.2727	H4	1.2677	1.2687	1.2667	1.2771	1.2745
1 3/8-12 UNF	H6	1.3239	1.3249	H4	1.3219	1.3229	1.3209	1.3291	1.3270
1 1/2-6 UNC	H8	1.3967	1.3977	H4	1.3927	1.3937	1.3917	1.4022	1.3996
1 1/2-12 UNF	H6	1.4489	1.4499	H4	1.4469	1.4479	1.4459	1.4542	1.4522

METRIC TAP THREAD LIMITS Table 337

Nominal Dia. mm	Pitch mm	Major Diameter (Inches)			Basic	Pitch Diameter Limits (Inches)							
		Basic	Min.	Max.		D3		D4		D5		D6	
						Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1.6	0.35	.0630	.0641	.0651	.0541	.0550	.0556	—	—	—	—	—	—
2	0.4	.0787	.0800	.0810	.0685	.0695	.0700	—	—	—	—	—	—
2.5	0.45	.0984	.0998	.1008	.0869	.0879	.0885	—	—	—	—	—	—
3	0.5	.1181	.1197	.1207	.1053	.1063	.1069	—	—	—	—	—	—
3.5	0.6	.1378	.1397	.1407	.1224	—	—	.1237	.1245	—	—	—	—
4	0.7	.1575	.1597	.1613	.1396	—	—	.1408	.1416	—	—	—	—
4.5	0.75	.1772	.1795	.1811	.1580	—	—	.1593	.1600	—	—	—	—
5	0.8	.1969	.1994	.2010	.1764	—	—	.1776	.1784	—	—	—	—
6	1	.2362	.2394	.2410	.2106	—	—	—	—	.2122	.2132	—	—
7	1	.2756	.2787	.2804	.2500	—	—	—	—	.2516	.2526	—	—
8	1.25	.3150	.3189	.3214	.2830	—	—	—	—	.2843	.2856	—	—
10	1.5	.3937	.3987	.4009	.3554	—	—	—	—	—	—	.3572	.3584
12	1.75	.4724	.4780	.4805	.4277	—	—	—	—	—	—	.4295	.4308

Nominal Dia. mm	Pitch mm	Major Diameter (Inches)			Basic	Pitch Diameter Limits (Inches)					
		Basic	Min.	Max.		D7		D8		D9	
						Min.	Max.	Min.	Max.	Min.	Max.
14	2	.5512	.5575	.5600	.5000	.5020	.5036	—	—	—	—
16	2	.6299	.6362	.6387	.5788	.5808	.5824	—	—	—	—
20	2.5	.7874	.7953	.7978	.7235	.7254	.7271	—	—	—	—
24	3	.9449	.9547	.9583	.8682	—	—	.8706	.8722	—	—
30	3.5	1.1811	1.1921	1.1961	1.0916	—	—	—	—	1.0942	1.0962
36	4	1.4173	1.4299	1.4339	1.3150	—	—	—	—	1.3176	1.3197

Basic pitch diameter is the same as minimum pitch diameter of Internal Thread Class 6H - Table 21, ANSI B1.13M-1979

METRIC TAP LIMITS

Table 341

HSG: High Speed Ground

D: Pitch Diameter is above basic (Go Gage)

DU: Pitch diameter is below basic

Each .0005" represents one D number.

The number following “D” or “DU” signifies the number of .0005" steps above or below basic pitch diameter.

(Go Gage)

DU1 = Basic minus .0005" = MIN PD
MIN PD plus Tol = MAX PD
D1 = Basic plus .0005" = MAX PD
MAX PD minus Tol = MIN PD
D2 = Basic plus .0010" = MAX PD
MAX PD minus Tol = MIN PD
D3 = Basic plus .0015" = MAX PD
MAX PD minus Tol = MIN PD
D4 = Basic plus .0020" = MAX PD
MAX PD minus Tol = MIN PD

Pitch mm	Tolerance			
	M1.6 - M6 Inclusive	Over M6 - M25 Inclusive	Over M25 - M90 Inclusive	Over M90
0.3	.0006	.0006	.0008	.0008
0.35	.0006	.0006	.0008	.0008
0.4	.0006	.0006	.0008	.0010
0.45	.0006	.0008	.0008	.0010
0.5	.0006	.0008	.0010	.0010
0.6	.0008	.0008	.0010	.0010
0.7	.0008	.0008	.0010	.0010
0.75	.0008	.0010	.0010	.0012
0.8	.0008	.0010	.0010	.0012
0.9	.0008	.0010	.0010	.0012
1	.0010	.0010	.0012	.0012
1.25	.0010	.0012	.0012	.0016
1.5	.0010	.0012	.0012	.0016
1.75	.0010	.0012	.0016	.0016
2	—	.0016	.0016	.0016
2.5	—	.0016	.0016	.0020
3	—	.0016	.0020	.0020
3.5	—	.0016	.0020	.0020
4	—	.0020	.0020	.0025
4.5	—	.0020	.0020	.0025
5	—	—	.0025	.0025
5.5	—	—	.0025	.0025
6	—	—	.0025	.0025

METRIC TAP RECOMMENDATIONS For Classes of Threads

Size mm	Pitch mm	Recommended Tap for Class of Thread		Pitch Diameter Limits for Class of Thread (mm)		
		4H	6H	Minimum (Basic)	Maximum 4H	Maximum 6H
M1.5	0.35	D1	D2	1.273	1.326	1.358
M1.6	0.35	D1	D3	1.373	1.426	1.458
M1.8	0.35	D1	D3	1.573	1.626	1.658
M2	0.45	D1	D2	1.708	1.768	1.803
M2	0.40	D1	D3	1.740	1.796	1.830
M2.2	0.45	D1	D3	1.908	1.968	2.003
M2.3	0.40	D1	D2	2.040	2.096	2.130
M2.5	0.45	D1	D3	2.208	2.268	2.303
M2.6	0.45	D1	D2	2.308	2.368	2.403
M3	0.60	D1	D2	2.610	2.681	2.722
M3	0.50	D1	D3	2.675	2.738	2.775
M3.5	0.60	D1	D4	3.110	3.181	3.222
M4	0.75	D2	D3	3.513	3.588	3.631
M4	0.70	D2	D4	3.545	3.620	3.663
M4.5	0.75	D2	D4	4.013	4.088	4.131
M5	1.00	D2	D3	4.350	4.440	4.490
M5	0.90	D2	D3	4.415	4.501	4.549
M5	0.80	D2	D4	4.480	4.560	4.605
M5.5	0.90	D2	D3	4.915	5.002	5.050
M6	1.00	D3	D5	5.350	5.445	5.500
M6	0.75	D3	D4	5.513	5.598	5.645
M7	1.00	D3	D5	6.350	6.445	6.500
M7	0.75	D2	D4	6.513	6.598	6.645
M8	1.25	D3	D5	7.188	7.288	7.348
M8	1.00	D3	D5	7.350	7.445	7.500
M9	1.25	D3	D5	8.188	8.288	8.348
M9	1.00	D3	D5	8.350	8.445	8.500
M10	1.50	D3	D6	9.026	9.138	9.206
M10	1.25	D3	D5	9.188	9.288	9.348
M10	1.00	D3	D5	9.350	9.445	9.500
M11	1.50	D3	D5	10.026	10.138	10.206
M12	1.75	D3	D6	10.863	10.988	11.063
M12	1.50	D3	D5	11.026	11.144	11.216
M12	1.25	D3	D5	11.188	11.300	11.368
M14	2.00	D3	D7	12.701	12.833	12.913
M14	1.50	D3	D6	13.026	13.144	13.216
M14	1.25	D3	D5	13.188	13.300	13.368
M16	2.00	D4	D7	14.701	14.833	14.913

These are general tap recommendations to produce the Class of Thread indicated in average materials when used with reasonable care. However, if the tap specified does not give a satisfactory gage fit in the work, please consult the factory.

METRIC MET-FLO TAP DRILLS

Size	75% Thread	65% Thread	55% Thread	Tap Size	75% Thread	65% Thread	55% Thread	Tap Size
M1.6 x .35	.057	.058	.059	1.45 mm	.056	.057	.058	#54
M1.7 x .35	.061	.062	.063	1.55 mm	.060	.061	.062	#53
M2 x .4	.072	.073	.074	1.85 mm	.071	.072	.073	1.80 mm
M2.5 x .45	.091	.092	.093	2.30 mm	.089	.090	.091	#43
M2.6 x .45	.095	.096	.097	2.40 mm	.093	.094	.095	2.35 mm
M3 x .5	.110	.111	.112	#35	.108	.109	.110	2.75 mm
M3.5 x .6	.128	.129	.130	#30	.126	.127	.128	3.2 mm
M4 x .7	.145	.146	.148	3.7 mm	.144	.145	.147	#27
M5 x .8	.183	.184	.185	#14	.181	.182	.184	4.6 mm
M6 x 1	.218	.220	.222	5.5 mm	.216	.218	.220	5.5 mm
M8 x 1.25	.291	.294	.296	7.4 mm	.289	.291	.294	7.3 mm
M10 x 1	.375	.377	.379	9.5 mm	.373	.375	.377	9.5 mm
M10 x 1.25	.370	.373	.375	9.4 mm	.368	.370	.373	9.3 mm
M10 x 1.5	.365	.368	.371	9.3 mm	.362	.365	.368	9.2 mm
M12 x 1.75	.439	.442	.446	7/16"	.436	.439	.443	11.0 mm
M14 x 1.25	.527	.530	.532	13.4 mm	.525	.528	.530	13.3 mm
M14 x 1.5	.522	.525	.528	13.3 mm	.519	.522	.525	13.2 mm
M14 x 2	.512	.516	.520	13.0 mm	.509	.513	.517	12.9 mm
M16 x 1.5	.601	.604	.607	15.3 mm	.598	.601	.604	15.2 mm
M16 x 2	.591	.595	.599	15.0 mm	.588	.592	.596	14.9 mm
M18 x 1.5	.680	.683	.686	17.3 mm	.677	.680	.683	17.2 mm

METRIC TAP RECOMMENDATIONS For Classes of Threads

Size mm	Pitch mm	Recommended Tap for Class of Thread		Pitch Diameter Limits for Class of Thread (mm)		
		4H	6H	Minimum (Basic)	Maximum 4H	Maximum 6H
M16	1.50	D3	D6	15.026	15.144	15.216
M17	1.50	D3	D5	16.026	16.144	16.216
M18	2.50	D4	D7	16.376	16.516	16.600
M18	2.00	D4	D6	16.701	16.833	16.913
M18	1.50	D3	D6	17.026	17.144	17.216
M19	2.50	D4	D6	17.376	17.516	17.600
M20	2.50	D4	D7	18.376	18.516	18.600
M20	2.00	D4	D6	18.701	18.833	18.913
M20	1.50	D3	D6	19.026	19.144	19.216
M22	2.50	D4	D7	20.376	20.516	20.600
M22	2.00	D4	D6	20.701	20.833	20.913
M22	1.50	D3	D6	21.026	21.144	21.216
M24	3.00	D4	D8	22.051	22.221	22.316
M24	2.00	D4	D7	22.701	22.841	22.925
M24	1.50	D3	D5	23.026	23.151	23.226
M25	2.00	D4	D7	23.701	23.841	23.925
M25	1.50	D3	D5	24.026	24.151	24.226
M26	3.00	D5	D8	24.051	24.221	24.316
M27	3.00	D5	D8	25.051	25.221	25.316
M27	2.00	D5	D7	25.701	25.841	25.925
M28	3.00	D5	D8	26.051	26.221	26.316
M28	2.00	D5	D7	26.701	26.841	26.925
M30	3.50	D5	D9	27.727	27.907	28.007
M30	3.00	D5	D8	28.051	28.221	28.316
M30	2.00	D5	D7	28.701	28.841	28.925
M32	3.50	D5	D9	29.727	29.907	30.007
M32	2.00	D5	D7	30.701	30.841	30.925
M33	3.50	D5	D9	30.727	30.900	31.007
M33	3.00	D5	D8	31.051	31.221	31.316
M33	2.00	D5	D7	31.701	31.841	31.925
M34	3.50	D5	D9	31.727	31.907	32.007
M36	4.00	D5	D9	33.402	33.592	33.702
M36	3.00	D5	D8	34.051	34.221	34.316
M36	2.00	D5	D7	34.701	34.841	34.925
M38	4.00	D5	D9	35.402	35.592	35.702
M39	4.00	D6	D9	36.402	36.592	36.702
M39	3.00	D6	D8	37.051	37.221	37.316
M39	2.00	D6	D7	37.701	37.841	37.925

These are general tap recommendations to produce the Class of Thread indicated in average materials when used with reasonable care. However, if the tap specified does not give a satisfactory gage fit in the work, please consult the factory.

SFM/RPM Equations

SFM = 0.26 x RPM x Tool Diameter

$$RPM = \frac{3.82 \times SFM}{\text{Tool Diameter}}$$

Factors to be considered when determining tapping speeds:

- Material to be tapped
- Depth of hole
- Length of chamfer on tap
- Pitch of thread
- Percentage of full thread to be cut
- Lubrication
- Machine equipment and rigidity
- Horizontal or vertical tapping

TABLE OF SPEED FOR TAPS

Machine Screw and Fractional Sizes

Tap Size (UNC/ UNF)	Taper Pipe (NPT/ NPTF)	Surface Feet Per Minute (SFM)																	
		5'	10'	15'	20'	25'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	150'
		Revolutions Per Minute (RPM)																	
0 (.060)		318	637	955	1273	1592	1910	2546	3183	3820	4456	5093	5729	6366	7003	7639	8276	8913	9549
1 (.073)		273	546	819	1046	1308	1570	2093	2617	3140	3663	4186	4710	5233	5756	6279	6805	7326	7849
2 (.086)		212	424	637	888	1110	1333	1777	2221	2665	3109	3554	3999	4442	4886	5330	5774	6218	6662
3 (.099)		191	382	573	772	964	1157	1543	1929	2315	2701	3086	3472	3858	4244	4629	5015	5401	5787
4 (.112)		174	347	521	682	853	1023	1364	1705	2046	2387	2728	3069	3411	3751	4092	4434	4775	5116
5 (.125)		147	294	441	611	764	917	1222	1528	1833	2139	2445	2750	3056	3361	3667	3973	4278	4584
6 (.138)		136	273	409	553	691	829	1106	1382	1659	1935	2212	2488	2766	3042	3318	3595	3871	4148
8 (.164)		119	239	358	466	583	699	932	1165	1398	1631	1864	2097	2330	2563	2796	3029	3262	3495
10 (.190)		101	201	302	402	502	603	804	1005	1205	1406	1607	1808	2009	2210	2411	2612	2813	3014
12 (.216)		87	174	260	354	442	531	707	884	1061	1238	1415	1592	1769	1945	2122	2300	2476	2653
14 (.242)		79	158	237	316	395	474	631	789	947	1105	1263	1421	1579	1736	1894	2052	2210	2368
1/4		76	153	229	306	382	458	611	764	917	1070	1222	1375	1528	1681	1833	1986	2139	2292
5/16	1/16	62	123	185	245	306	367	489	611	733	856	978	1100	1222	1345	1467	1589	1711	1833
3/8		50	101	151	204	255	305	407	509	611	713	815	917	1019	1120	1222	1324	1426	1528
7/16	1/8	43	87	130	175	219	262	349	437	524	611	698	786	873	960	1048	1135	1222	1310
1/2		38	76	115	153	191	229	305	382	458	535	611	688	764	840	917	993	1070	1146
9/16	1/4	34	68	102	137	172	206	274	342	410	478	547	616	683	752	820	888	952	1020
5/8		32	64	96	122	153	183	244	306	367	428	489	550	611	672	733	794	856	917
11/16	3/8	28	55	83	111	138	167	222	278	333	389	444	500	556	611	667	722	778	833
3/4		25	51	76	102	128	153	203	255	305	357	407	458	509	560	611	662	713	764
7/8	1/2	22	43	65	87	109	131	175	218	262	306	350	392	437	480	524	568	611	655
1"		19	38	57	76	96	115	153	191	230	268	305	344	382	420	458	497	535	573
1 1/8	3/4	17	34	51	68	84	102	136	170	204	238	272	306	340	373	407	441	475	509
1 1/4		15	31	46	61	76	92	122	153	183	214	244	275	305	336	367	397	428	458
1 3/8	1	14	28	42	56	69	83	111	139	167	194	222	250	278	306	333	361	389	417
1 1/2		13	25	38	51	63	76	102	127	153	178	204	229	255	280	305	331	356	382
1 5/8		12	23	35	47	59	71	94	118	141	165	188	212	235	259	282	306	329	353
1 3/4	1 1/4	11	22	33	44	55	65	87	109	131	153	175	196	218	240	262	284	306	327
1 7/8	1 1/2	10	20	30	41	51	61	81	102	122	143	163	183	204	224	244	265	285	306
2"		9	19	29	38	48	57	76	96	115	134	153	172	191	210	229	248	267	287

Metric Sizes

Tap Size (UNC/ UNF)	Taper Pipe (NPT/ NPTF)	Surface Feet Per Minute (SFM)																	
		5'	10'	15'	20'	25'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	150'
		Revolutions Per Minute (RPM)																	
M1	.0394	490	979	1469	1959	2449	2938	3918	4897	5877	6856	7836	8815	9795	10774	11754	12733	13713	14692
M2	.0787	242	484	725	967	1209	1451	1934	2418	2901	3385	3868	4352	4835	5319	5803	6286	6770	7253
M3	.1181	162	324	486	647	809	971	1295	1619	1942	2266	2590	2914	3237	3561	3885	4208	4532	4856
M3.5	.1378	138	277	415	554	692	830	1107	1384	1661	1938	2214	2491	2768	3045	3322	3599	3875	4152
M4	.1575	122	243	365	487	608	730	973	1217	1460	1703	1946	2190	2433	2676	2920	3163	3406	3650
M5	.1969	97	194	291	388	495	582	776	970	1163	1357	1551	17445	1939	2133	2327	2521	2715	2909
M6	.2362	81	162	243	324	405	486	647	809	971	1133	1295	1457	1619	1784	1942	2104	2266	2428
M7	.2756	69	138	208	277	346	415	554	692	830	969	1107	1246	1384	1522	1661	1799	1938	2076
M8	.3150	61	121	182	243	303	364	485	606	728	849	970	1091	1213	1334	1455	1577	1698	1819
M10	.3937	48	97	145	194	242	291	388	485	582	679	776	873	970	1067	1163	1260	1357	1454
M12	.4724	40	81	121	162	202	243	324	405	486	567	647	728	809	890	971	1052	1133	1214
M14	.5512	35	69	104	139	173	208	277	347	416	485	555	624	693	763	865	901	971	1040
M16	.6299	30	61	91	121	152	182	243	303	364	424	485	546	606	667	728	788	849	910
M18	.7087	27	54	81	108	135	162	216	269	323	377	431	485	539	493	6477	700	754	808
M20	.7874	24	49	73	97	121	146	194	243	291	340	355	437	485	534	582	631	680	728
M22	.8661	22	44	66	88	110	132	176	221	265	309	353	397	441	485	529	573	618	662
M24	.9449	20	40	61	81	101	121	162	202	243	283	323	364	404	445	485	526	566	606

MATERIAL SPECIFIC Recommended Speed Tables

Stainless Steel

Material Types	Free Machining	Ferritic	Austenitic	Martensitic	Precipitation Hardened	
Material Examples	303, 303SE, 416, 420F, 430F	405, 430	302, 304, 316, 329, 436 <275	403, 410, 420, 431	15-5PH 17-4PH 17-7PH	
Hardness BHN RC	<250 <23	<260 <26	<28 —	<275 <28	<275 <28	350-440 <48
Thread Forming Taps	50-100 SFM	70-100 SFM	—	—	—	—
Carbide Taps	—	—	20-35 SFM	—	—	—
HSS	15-35 SFM	25-35 SFM	—	15-35 SFM	15-35 SFM	—
SuperTuf DM	—	—	—	—	12-20 SFM	12-20 SFM
SuperTuf SS	25-50 SFM	25-50 SFM	25-50 SFM	25-50 SFM	—	—

Carbon Steel

Material Types	Free Machining	Low Carbon	Alloy-Low Carbon	Medium Carbon	High Carbon	Alloy-High Carbon	Tool Steel	
Material Examples	1118, 1114, 1212, 12L14, 12L15, 1215	1008, 1010, 1011, 1015, 1018, 1029	3310, 4620, 4820, 8620	1030, 1035, 1040, 4045, 1050	1050, 1065, 1070, 1080, 1090	4140, 4150, 4340	01, A-2, D-2, H-13, P-20	
Hardness BHN RC	<180 <20	<180 <20	<240 <24	<275 <28	<300 <32	<390 <42	<340 <35	350-440 <48
Thread Forming Taps	120-180 SFM	60-129 SFM	50-90 SFM	—	—	—	—	—
Carbide Taps	—	—	—	—	—	—	—	—
HSS	45-65 SFM	20-45 SFM	20-30 SFM	15-35 SFM	20-30 SFM	12-19 SFM	15-25 SFM	10-20 SFM
SuperTuf DM	—	—	—	—	—	10-20 SFM	10-20 SFM	
SuperTuf SS	25-80 SFM	25-80 SFM	20-50 SFM	20-50 SFM	20-50 SFM	—	—	—

Cast Iron & Sintered Metals

Material Types	Pearlitic-Martensitic	Martensitic (Malleable)	Martensitic (Ductile)	Martensitic (Malleable)	Precipitation (Malleable)	Austenitic (Gray)	Austenitic (Ductile)	Austenitic (Ductile)
Material Examples	100-70-03	120-90-02	53004, 60003, 60000	70002, 70003	80002, 90001	ASTM A436 Type 1-6	ASTM A439 TYPE D-2 D-2C, D-5, D3A, D5B	ASTM A439 Type D-2B D-3, D-4
Hardness BHN	240-300	270-300	200-255	220-260	240-320	100-250	120-200	140-275
Carbide Taps	15-26 SFM	12-20 SFM	35-45 SFM	30-40 SFM	29-30 SFM	35-60 SFM	20-30 SFM	15-25 SFM
HSS	12-20 SFM	9-15 SFM	25-35 SFM	23-30 SFM	20-23 SFM	25-45 SFM	15-23 SFM	13-20 SFM

Titanium

Material Types	Commercial Pure	& - Alloy		& - Alloy
Material Examples	99.5, 99.2, 98.9	6AI-4V		6AI4V ELT 6AI-6V-2Sn
Hardness BHN RC	<275 <28	300-350 <36	300-400 <42	330-420 <45
HSS	12-23 SFM	9-15 SFM	8-15 SFM	4-7 SFM
SuperTuf TI	10-30 SFM	15-20 SFM	10-20 SFM	5-7 SFM

MATERIAL SPECIFIC Recommended Speed Tables

Aluminum

Material Types	Unalloyed	Wrought	Cast (Sand)	Die Castings
Material Examples	1000 Series	2000, 3000, 5000, 6000, 7000 Series	308, 319, 328, 365	360, 380, 383, 390, 392 50-125
Hardness BHN	<30	30-80	40-100	—
Thread Forming Taps	240 SFM	200-250 SFM	180-200 SFM	180-300 SFM
Carbide Taps	240-360 SFM	250-375 SFM	200-300 SFM	300-450 SFM
HSS	90 SFM	75-95 SFM	65-75 SFM	65-110 SFM
SuperTuf AL	30-80 SFM	40-65 SFM	40-65 SFM	40-65 SFM

Cast Iron & Sintered Metals

Material Types	Pearlitic-Ferritic	Pearlitic (Gray)	Pearlitic (Malleable)	Pearlitic with Free Carbide	
Material Examples	ASTM A48: Class 25	ASTM A48: Classes 30, 35, 40	40010, 43010, 45006, 45008, 48005, 50005	ASTM A48: Classes 45, 50	ASTM A48: Classes 55, 60
Hardness BHN	160-200	190-220	160-200	220-260	250-320
Carbide Taps	140-210 SFM	120-180 SFM	100-150 SFM	80-120 SFM	50-75 SFM
HSS	35-50 SFM	30-45 SFM	30-35 SFM	20-30 SFM	12-19 SFM

Brass/Bronze Alloys

Material Types	—
Material Examples	—
HSS	30-80 SFM

Copper Alloys

Material Types	—
Material Examples	—
HSS	80-200 SFM

Nickel Alloys

Material Types	Nickel Alloys	Nickel Alloys	Nickel Alloys	High Temp Alloys (Nickel Base)	High Temp Alloys (Nickel Base)	High Temp Alloys (Nickel Base)	High Temp Alloys (Nickel Base)	High Temp Alloys (Nickel Base)	High Temp Alloys (Nickel Base)
Material Examples	Nickel 200, 201, 205	Monel 400, 401, 404	Duranickel Monel K800	Inconnel 700718	Waspaloy Rene41	Hastaloy BC, G, X	Inconnel 600 Inconnel 500700	Haynes 25188	A286, Inconnel 800
Hardness BHN RC	80-170 <20	115-240 <24	150-360 <38	200-300 <30	300-400 <42	140-220 <23	240-310 <32	180-270 <28	180-230 <23
HSS	15-20 SFM	8-20 SFM	4-9 SFM	6-9 SFM	4-8 SFM	8-11 SFM	5-7 SFM	4-7 SFM	11-15 SFM
SuperTuf NI	8-15 SFM	10-30 SFM	5-20 SFM	8-15 SFM	5-20 SFM	—	8-15 SFM	10-15 SFM	5-20 SFM

SURFACE TREATMENTS

Regal Cutting Tools offers many surface treatments which provide higher surface hardness to resist wear and make your taps resistant to galling or chip loading.

Surface Treatments		Benefits & Applications
Titanium Nitride	**#25**	Provides increased surface hardness, adhesive (lower C.O.F.) resistance and tool life.
Nitride Treatment	**#33**	Provides increased surface hardness. Recommended general purpose surface treatment for increasing tool life in a wide variety of applications.
Steam Oxide Treatment	**#43**	Acts as a solid lubricant and also retains liquid lubricant at cutting edges. Prevents chip welding, reduces friction, and acts as thermal insulator between the tap and the workpiece.
Nitride & Steam Oxide Combination	**#53**	This combination of both surface treatments affords the characteristics of both treatments.
Chrome Plate Over Nitride	**#64**	An effective treatment when tapping nonferrous metals and some soft steels.
Chrome Plate	**#74**	Adds lubricating and heat dissipation qualities at the cutting edge. Excellent for nonferrous materials and soft steel.
Chromium Nitride	**#82**	The combination of toughness and lubricity makes this an excellent coating for forming taps.
Titanium Carbo Nitride	**#85**	Developed for machining difficult steel alloys. Adds life to tools in high speed machining.
Titanium Aluminum Nitride	**#88**	Coating with hardness to resist abrasive materials and heat resistant for better tool life.
Aluminum Titanium Nitride	**#95**	A multi-layer coating. Excellent for machining cast iron, stainless steel and nickel based alloys.

Note: Other coatings available upon request.

HSS Surface Treatment Application Guide

		Surface Treatment Suitability						
Type	**Class (Speed compared to uncoated)**	**TiN (+50%)**	**TiCN (+50%)**	**AlTiN (+50%)**	**Cr (+100%)**	**Nitride**	**Oxide**	**Nitride, Oxide**
Steels	Carbon, plain, low alloy, free cutting, heat treatable	Best	Best	Good	NR	Good	Good	Good
Stainless Steels	Heat Treatable to 44 RC	Best	Best	Best	NR	Good	Good	Good
Tool Steels	Non-Heat Treatable	Best	Best	Best	NR	Good	Good	Good
Cast Irons	Gray	Best	Best	Best	NR	Good	Good	Good
	Malleable	Best	Best	Best	NR	Fair	Fair	Good
	Nodular/Ductile	Best	Best	Best	NR	Fair	Fair	Good
Aluminums	Wrought	NR	Best	NR	Good	Good	NR	NR
	Cast	NR	Good	NR	Fair	Good	NR	NR
Coppers	Pure	NR	Best	NR	Good	Good	NR	NR
Brasses	Wrought Alloy	Fair	Best	Fair	Good	NR	NR	NR
Bronzes	Cast Alloy	Fair	Best	Fair	Good	Good	NR	NR
Zincs	Wrought	NR	Best	NR	Good	Good	NR	NR
	Cast	Fair	Good	NR	Good	NR	NR	NR
Magnesiums	Wrought	NR	Best	NR	Good	Good	NR	NR
	Cast	NR	Good	NR	Good	NR	NR	NR
Titaniums	Pure	NR	Best	Good	Fair	Good	Good	Good
	Alloy	NR	Best	Good	Fair	Fair	Fair	Good
High	Nickel Base	Good	Best	Best	NR	Fair	Fair	Fair
Temperature	Iron Based	Better	Best	Best	NR	Fair	Fair	Fair
Alloys	Cobalt Based	Good	Best	Best	NR	Fair	Fair	Fair
Plastics	Hard	Fair	Good	Good	Fair	Good	NR	NR

Best = First Choice among all commercially available coatings.

Better = Great Choice; while not the best choice, this marks a solid selection that will provide additional benefit over a "good" coating.

Good = Good Choice; this provides a significant performance benefit over an uncoated tool, and may improve tool life, productivity, size, finish, etc., or a combination of benefits.

Fair = Fair Choice among all commercially available coatings as this provides benefits over uncoated tool, but may not be as cost-justifiable.

NR = Not Recommended; not compatible with the selected material and will likely perform worse then an uncoated tool.

TERMS & CONDITIONS OF SALE

1. AGREEMENT AND LIMITATIONS. The agreement between Seller and Buyer ("Sales Contract") with respect to the sale of goods shall consist exclusively of the terms appearing herein. Seller objects to and shall not be bound by additional or different terms, whether printed or otherwise, in Buyer's purchase order or in any other communication from Buyer to Seller. Such additions and differences in terms shall be considered material and Seller's terms and conditions shall govern. The Sales Contract shall be for the benefit of Seller and Buyer and not for the benefit of any other person. Prior courses of dealing, trade usage and verbal agreements not reduced to a writing signed by Seller, to the extent they modify, add to or detract from the Sales Contract, shall not be binding on Seller.

2. TERMINATION OR MODIFICATION. The Sales Contract may be modified or terminated only upon Seller's express written consent. If all or part of the Sales Contract is terminated, Buyer, in the absence of a contrary written agreement signed by Seller, shall pay termination charges based upon expenses and costs incurred in the production of the goods to the date such termination is accepted by Seller including, without limitation, expenses of disposing of materials on hand or on order from suppliers and losses resulting from such disposition, plus a reasonable profit, except that any goods completed on or before Seller's acceptance of such termination shall be accepted and paid for in full by Buyer.

3. PRICE AND PAYMENT. Fulfillment of Buyer's order is contingent upon the availability of materials. The price of the goods sold pursuant to the Sales Contract shall be based upon Seller's price in effect at the time of shipment and any acceptance of the order will be on the basis of the freight rates now in effect. In the event of an increase or decrease in the applicable freight charges before the material is shipped, such changes in freight charges will be for the account of Buyer. Price advances, discounts, extras and terms and conditions are subject to changes without notice. Any sales or other tax or duty that Seller may be required to collect or pay upon the sale of the goods will be added to the quoted price. If such amount is not included in an invoice for the goods, it may be invoiced separately later. If the Sales Contact is for more than one unit of goods, the goods may be shipped in several lots at the discretion of Seller, and each such shipment shall be paid for separately. Seller may require full or partial payment or payment guarantee in advance of shipment whenever, in its opinion, the financial condition of Buyer so warrants. In addition, Seller may at any time or times, suspend performance of any order or require payment in cash, security or other adequate assurance satisfactory to Seller when, in Seller's opinion, the financial condition of Buyer warrants such action.

   BLANKET ORDER WITH SCHEDULED RELEASES

   (a) Stock Item. Blanket orders of stock items with scheduled releases are predicated on total units released for shipment within the specified period. All blanket orders will be adjusted for price levels based on actual releases within the specified period.

   (b) Special Items. In the event Buyer has not taken delivery by the end of the specified period of all special items covered by a blanket order with scheduled releases, Seller shall, on that date, ship the remaining number of special items and invoice the Buyer accordingly. Any deviation from the policy set forth in (a) or (b) above must have prior written approval signed by Seller's authorized representative.

   TERMS

   Terms of payment, minimum order charges, broken package charges, and transportation charges are as set forth. C.O.D. shipments are not entitled to a cash discount or prepaid transportation. Shipment of specials may be 10% over/under quantity ordered unless otherwise stated on the order. All prices are F.O.B. shipping point. Methods and route of shipment are at Seller's discretion unless the Buyer supplies explicit instruction. Seller may assess a delinquency charge of 1–1 1/2% per month on invoices not paid within stated terms.

4. TAXES. Prices do not include federal, state or local taxes. Buyer shall pay to Seller, in addition to the price of the goods, all applicable taxes and other governmental charges upon the production, sale, delivery or use of the goods, to the extent required or not forbidden by law to be collected by Seller from Buyer, unless Buyer furnished Seller with valid exemption certificates acceptable to the appropriate taxing authorities before the date of acknowledgment.

5. RISK OF LOSS. Delivery shall occur, and risk of loss shall pass to Buyer, upon delivery of the material to a carrier at the point of shipment. Transportation shall be at Buyer's sole risk and expense, and any claim for loss or damage in transit shall be against the carrier only.

6. DELIVERY AND QUANTITIES.

   (a) Promises of delivery from stock are subject to prior sales. Delivery dates are not guaranteed but are estimated on the basis of immediate receipt by Seller of all information to be furnished by Buyer and the absence of delay, direct or indirect, resulting from or contributed to by circumstances beyond Seller's reasonable control. Seller shall in good faith endeavor to meet estimated delivery dates. Seller shall not be liable to Buyer for damages as a result of any delay caused or contributed to by circumstances beyond Seller's reasonable control. If the goods are non-catalog goods, Seller may ship overages or underages to the extent of 10%) of quantity ordered, and Buyer shall pay for such quantity supplied based upon the unit price of the goods. Seller shall not be required to maintain closer control of quantity, unless specifically agreed to by Seller in writing. Quantities of all items may be determined by weight. Any claims for shortage must be made within 10 days from the date of receipt of the goods by Buyer, and in every case the weights found in any particular shipment, including tare, must be given and Seller advised as to the method used by Buyer in computing the count of parts.

   (b) In the event that Buyer is unable to accept delivery of the goods at time of shipment, Seller shall invoice Buyer for the full purchase price as if shipment had been made and (i) if Seller is able to store such goods in its own facilities, Buyer will pay Seller the reasonable handling and storage charges for the period of such storage, and (ii) if Seller is unable to store such goods in its own facilities, Seller reserves the right to arrange handling and storage in a suitable bonded warehouse for the Buyer at Buyer's expense. In cases where handling and storage become necessary, it shall be Buyer's responsibility to notify Seller when shipment is to be made. Seller will make necessary arrangements for shipment at Buyer's expense.

7. RETURNED GOODS. Goods may not be returned. If Seller consents in writing to the return of goods for any reason, however, Buyer assumes all risk of loss of such returned goods until actual receipt by Seller.

8. INSPECTION. Buyer shall inspect the goods immediately upon the receipt thereof.

9. WARRANTY. Seller warrants to original equipment manufacturers, distributors and industrial and commercial users ("Buyer") of its products that each new product manufactured or supplied by Seller shall be commercially free from defects in material and workmanship at the time of shipment of the goods. All claims for allegedly defective goods must be made within 10 days after Buyer learns of such alleged defects limited to a maximum period of one year from the date of sale by Seller. All claims not made in writing and received by Seller within such 10-day period shall be deemed waived. Seller's sole obligation under this warranty is limited to furnishing without additional charge a replacement, or at its option, repairing or issuing credit for any product which shall be returned freight prepaid to the plant designated by a Seller representative and which upon inspection is determined by Seller to be defective in material or workmanship. Complete information as to operating conditions, machine setup, and application of cutting fluid should accompany any product returned for inspection. The provisions of this Warranty shall not apply to any Seller product which has been subjected to misuse, abuse, improper operating conditions (machine setup or application of cutting fluid), or which has been repaired or altered if such repair or alteration in the judgment of Seller would adversely affect performance of the product. THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Seller's sole liability on any claim of any kind, whether in contract, tort or otherwise, for any loss or damage arising out of, connected with, or resulting from the manufacture, sale, delivery or use of the products sold hereunder shall in no case exceed the cost of replacement or repair as provided herein. EVEN IF THE REPAIR OR REPLACEMENT REMEDY SHALL BE DEEMED TO HAVE FAILED OF ITS ESSENTIAL PURPOSE UNDER SECTION 2-719 OF THE UNIFORM COMMERCIAL CODE, SELLER SHALL HAVE NO LIABILITY TO BUYER FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, SUCH AS LOST PROFITS, LOST REVENUE, DAMAGE TO OTHER EQUIPMENT OR LIABILITY OR INJURY TO A THIRD PARTY. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. There are no other warranties, expressed or implied, made by Seller except the warranty against defects in material and workmanship set forth above. Unless authorized in writing by a corporate officer or vice president, no agent, employee or representative of Seller has any authority to bind Seller to any affirmation, representation or warranty concerning the goods sold under the sales contract and such affirmation, representation or warranty has not formed a part of the basis of the bargain and shall be unenforceable.

10. REMEDIES AND LIMITATION OF LIABILITY. In the event Buyer claims Seller has breached any of its obligations under the Sales Contract, whether of warranty or otherwise, Seller may request the return of goods and tender to Buyer, at Seller's option, a replacement shipment of goods or the purchase price theretofore paid by Buyer. If Seller so requests the return of the goods, the goods will be redelivered to Seller in accordance with Seller's instructions and at Buyer's expense. If Seller so determines, a refund of the purchase price paid by Buyer shall be made only upon actual receipt of the goods by Seller. Except as herein provided, Seller shall have no further obligation under the Sales Contract. The remedies contained in this paragraph and paragraph 9 hereof shall constitute the sole recourse of Buyer against Seller for breach of any of Seller's obligations under the Sales Contract, whether of warranty or otherwise. In no event shall Seller be liable for incidental, consequential or special damages, nor shall Seller's liability on any claim for damages arising out of or connected with the Sales Contract or the manufacture, sale, delivery or use of the goods exceed the purchase price of the goods.

11. TECHNICAL ADVICE. Any technical advice furnished, or recommendation made by Seller or any representative of Seller concerning any use or application of any of the goods is believed to be reliable, but Seller makes no warranty, express or implied, on results to be obtained. Buyer assumes all responsibility for loss or damage resulting from the handling or use of any of the goods.

12. FORCE MAJEURE. Seller shall not be liable for failure to perform its obligations under the Sales Contract in whole or in part caused by the occurrence of any contingencies beyond the control either of Seller or of suppliers to Seller, including but not limited to acts of God; acts of Buyer; acts of any government or agency thereof or civil or military authority, fires, accidents, explosions, strikes or other labor disputes, earthquakes, storms, judicial action, floods, war (whether an actual declaration thereof is made or not), sabotage, riot, delays in transportation, lack of or inability to obtain raw materials, components, labor, fuel or supplies, technical failure, or other circumstances beyond Seller's reasonable control, whether similar or dissimilar to the foregoing. If any such contingency occurs, Seller may allocate goods and deliveries among Seller's customers.

13. ASSIGNMENT AND DELEGATION. No right or interest in the Sales Contract shall be assigned by Buyer without Seller's prior written consent, and no delegation of any obligation owed, or of the performance of any obligation by Buyer shall be made without Seller's prior written consent. Any attempted assignment or delegation shall be wholly void and totally ineffective for all purposes unless made in conformity with this paragraph.

14. CHANGES. Seller may, at any time without notice, make changes (whether in design, materials, improvements or otherwise) in any catalog goods, and may discontinue the manufacture of any catalog goods, all in its sole discretion, without incurring any obligations of any kind as a result thereof, whether for failure to fill an order of Buyer or otherwise.

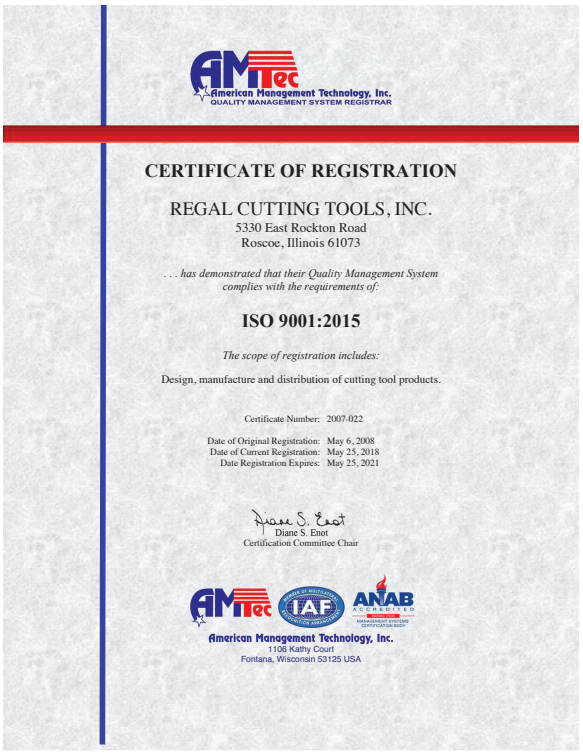
15. SEVERABILITY. If any term, clause or provision contained in the Sales Contract is declared or held invalid by a court of competent jurisdiction, such declaration or holding shall not affect the validity of any other term, clause or provision contained herein.

16. GOVERNING LAW AND LIMITATION.

   (a) The formation and performance of the Sales Contract shall be governed by the Uniform Commercial Code as adopted in the State of Illinois. Whenever a term defined by said Uniform Commercial Code is used in the Sales Contract, the definition contained in said Uniform Commercial Code controls. Any action for breach of the Sales Contract must be commenced within one year after the cause of action accrued, and all such claims shall be barred thereafter notwithstanding any statutory period of limitations to the contrary.

   (b) The Sales Contract shall be deemed to have been made at Roscoe, Illinois, and shall be interpreted and the rights and liabilities of the parties hereto determined in accordance with the laws of Illinois. Seller represents that the goods will be produced in compliance with the Fair Labor Standards Act of 1938, as amended. Buyer hereby agrees to the jurisdiction of any state or federal court located within Winnebago County, Illinois. Buyer waives any objection based on forum non conveniens and any objection to venue of any action instituted hereunder, and consents to the granting of such legal or equitable relief as is deemed appropriate by a court of competent jurisdiction. The rights and obligations of Seller and Buyer shall not be governed by the provisions of the United Nations Convention on Contracts for the International Sales of Goods; and

   (c) BUYER AGREES TO PAY ALL OF SELLER'S COSTS AND EXPENSES OF COLLECTION AND LITIGATION, INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES AND COSTS.



American Management Technology, Inc.
QUALITY MANAGEMENT SYSTEM REGISTRAR

CERTIFICATE OF REGISTRATION

REGAL CUTTING TOOLS, INC.
5330 East Rockton Road
Roscoe, Illinois 61073

. . . has demonstrated that their Quality Management System complies with the requirements of:

ISO 9001:2015

The scope of registration includes:

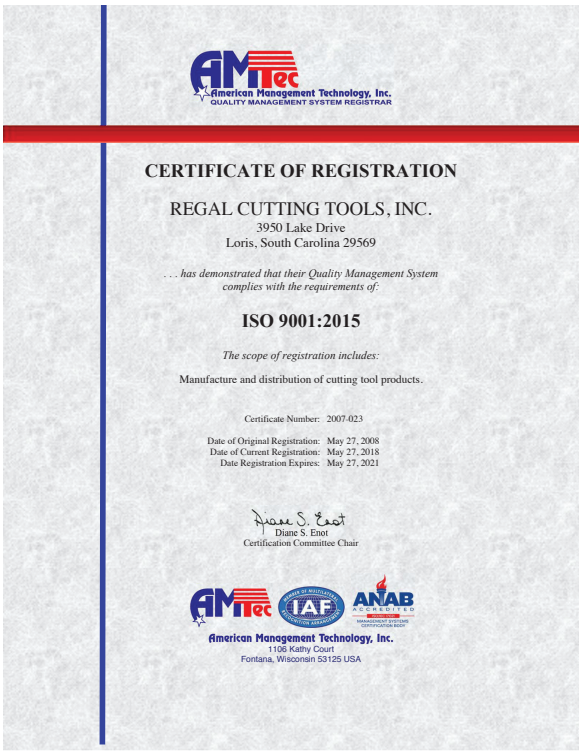
Design, manufacture and distribution of cutting tool products.

Certificate Number: 2007-022

Date of Original Registration: May 6, 2008
Date of Current Registration: May 25, 2018
Date Registration Expires: May 25, 2021

Diane S. Enot
Certification Committee Chair

American Management Technology, Inc.
1106 Kathy Court
Fontana, Wisconsin 53125 USA



American Management Technology, Inc.
QUALITY MANAGEMENT SYSTEM REGISTRAR

CERTIFICATE OF REGISTRATION

REGAL CUTTING TOOLS, INC.
3950 Lake Drive
Loris, South Carolina 29569

. . . has demonstrated that their Quality Management System complies with the requirements of:

ISO 9001:2015

The scope of registration includes:

Manufacture and distribution of cutting tool products.

Certificate Number: 2007-023

Date of Original Registration: May 27, 2008
Date of Current Registration: May 27, 2018
Date Registration Expires: May 27, 2021

Diane S. Enot
Certification Committee Chair

American Management Technology, Inc.
1106 Kathy Court
Fontana, Wisconsin 53125 USA

WARRANTY

Regal Cutting Tools ("Seller") warrants to original equipment manufacturers, distributors and industrial and commercial users ("Buyer") of its products that each new product manufactured or supplied by Seller shall be commercially free from defects in material and workmanship at the time of shipment of the goods. All claims for allegedly defective goods must be made within 10 days after Buyer learns of such alleged defects limited to a maximum period of one year from the date of sale by Seller. All claims not made in writing and received by Seller within such 10-day period shall be deemed waived. Seller's sole obligation under this warranty is limited to furnishing without additional charge a replacement, or at its option, repairing or issuing credit for any product which shall be returned freight prepaid to the plant designated by a Seller representative and which upon inspection is determined by Seller to be defective in material or workmanship. Complete information as to operating conditions, machine setup, and application of cutting fluid should accompany any product returned for inspection. The provisions of this Warranty shall not apply to any Seller product which has been subjected to misuse, abuse, improper operating conditions (machine setup or application of cutting fluid), or which has been repaired or altered if such repair or alteration in the judgment of Seller would adversely affect performance of the product. THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Seller's sole liability on any claim of any kind, whether in contract, tort or otherwise, for any loss or damage arising out of, connected with, or resulting from the manufacture, sale, delivery or use of the products sold hereunder shall in no case exceed the cost of replacement or repair as provided herein. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. There are no other warranties, expressed or implied, made by Seller except the warranty against defects in material and workmanship set forth above. Unless authorized in writing by a corporate officer or vice president, no agent, employee or representative of Seller has any authority to bind Seller to any affirmation, representation or warranty concerning the goods sold under the sales contract and such affirmation, representation or warranty has not formed a part of the basis of the bargain and shall be unenforceable.

⚠WARNING

Cutting tools may shatter if broken. Wear safety glasses and use safeguards. Grinding this product may produce a dust containing chemicals known to the state of California to cause cancer. Please refer to the Safety Data Sheet. A copy of the SDS can be obtained at www.regalcuttingtools.com.

SPECIAL DRILLS FROM REGAL CUTTING TOOLS

QUICK DELIVERY SPECIAL GAGES
STANDARD NC, NF & NEF
60° THREAD FORMS

GAGES ALSO AVAILABLE
FOR ALL SPECIAL TAPS

Fast Delivery Special Taps

The key to Regal's successful Fast Delivery Special Program has always been the use of semi-finished blanks. Unfluted blanks are stocked and ready to be fluted, thread ground, and chamfered to meet specific requirements on a timely basis.

Special Features:

- Surface Treatments
- K-grinds
- Interrupted Threads
- Multiple Leads

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How to Order Special Acmes

Be prepared with this information:

- Nominal size
- Threads per inch
- Right hand or left hand thread
- Class of fit (if not to commercial standards)
- Tapping depth
- Material to be tapped
- Diameter of the hole before tapping
- Will tap be backed out of hole?
- Type of tapping machine used
- Are taps to be used for sizing only of rough chased threads?
- Will fixture used affect length of tap?

REGAL CUTTING TOOLS

5330 E. Rockton Road • Roscoe, IL 61073
800-435-2948 • Fax: 800-992-1674

www.regalcuttingtools.com

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ISA
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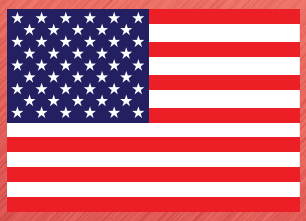

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