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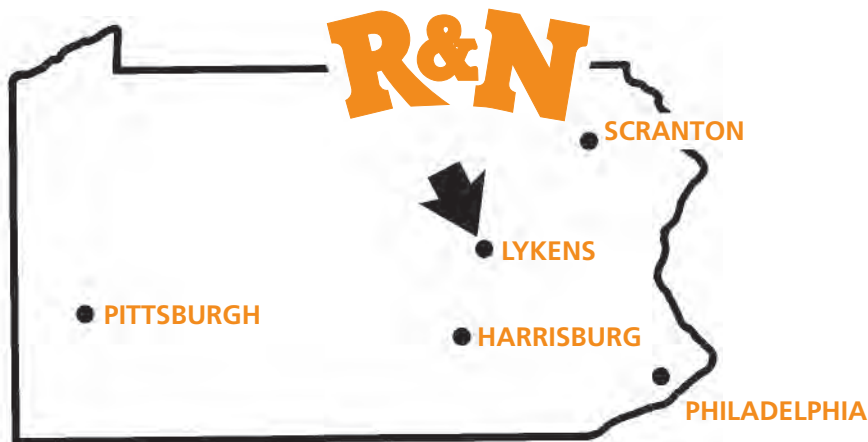
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## HAND TAPS MACHINE SCREW SIZES

LIST 106A

Taper  
 Plug  
 Bottom



TAP SIZE	SERIES DESIG.	NO. OF FLUTES	H LIMIT	106A			
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER	SET EDP NUMBER
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2 - 56	NC	3	H-2	<a href="#">10421</a>	<a href="#">10422</a>	<a href="#">10423</a>	<a href="#">10420</a>
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4 - 36	NS	2	H-1	<a href="#">11111</a>	<a href="#">11112</a>	<a href="#">11113</a>	<a href="#">11110</a>
4 - 36	NS	2	H-2	<a href="#">11121</a>	<a href="#">11122</a>	<a href="#">11123</a>	<a href="#">11120</a>
4 - 36	NS	3	H-1	<a href="#">11211</a>	<a href="#">11212</a>	<a href="#">11213</a>	<a href="#">11210</a>
4 - 36	NS	3	H-2	<a href="#">11221</a>	<a href="#">11222</a>	<a href="#">11223</a>	<a href="#">11220</a>
5 - 40	NC	2	H-1	<a href="#">11711</a>	<a href="#">11712</a>	<a href="#">11713</a>	<a href="#">11710</a>
5 - 40	NC	2	H-2	<a href="#">11721</a>	<a href="#">11722</a>	<a href="#">11723</a>	<a href="#">11720</a>

See page 87 for Tap Recommendations for Classes 2B & 3B.  
 See page 89 for Tap Dimensions.

## HAND TAPS MACHINE SCREW SIZES (CONTINUED)

LIST 106A

Taper  
Plug  
Bottom



TAP SIZE	SERIES DESIG.	NO. OF FLUTES	H LIMIT	106A			
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER	SET EDP NUMBER
5 - 40	NC	3	H-1	<a href="#">11811</a>	<a href="#">11812</a>	<a href="#">11813</a>	<a href="#">11810</a>
5 - 40	NC	3	H-2	<a href="#">11821</a>	<a href="#">11822</a>	<a href="#">11823</a>	<a href="#">11820</a>
5 - 44	NF	2	H-1	<a href="#">11911</a>	<a href="#">11912</a>	<a href="#">11913</a>	<a href="#">11910</a>
5 - 44	NF	2	H-2	<a href="#">11921</a>	<a href="#">11922</a>	<a href="#">11923</a>	<a href="#">11920</a>
5 - 44	NF	3	H-1	<a href="#">12011</a>	<a href="#">12012</a>	<a href="#">12013</a>	<a href="#">12010</a>
5 - 44	NF	3	H-2	<a href="#">12021</a>	<a href="#">12022</a>	<a href="#">12023</a>	<a href="#">12020</a>
6 - 32	NC	2	H-1	<a href="#">12111</a>	<a href="#">12112</a>	<a href="#">12113</a>	<a href="#">12110</a>
6 - 32	NC	2	H-2	<a href="#">12121</a>	<a href="#">12122</a>	<a href="#">12123</a>	<a href="#">12120</a>
6 - 32	NC	2	H-3	<a href="#">12131</a>	<a href="#">12132</a>	<a href="#">12133</a>	<a href="#">12130</a>
6 - 32	NC	3	H-1	<a href="#">12211</a>	<a href="#">12212</a>	<a href="#">12213</a>	<a href="#">12210</a>
6 - 32	NC	3	H-2	<a href="#">12221</a>	<a href="#">12222</a>	<a href="#">12223</a>	<a href="#">12220</a>
6 - 32	NC	3	H-3	<a href="#">12231</a>	<a href="#">12232</a>	<a href="#">12233</a>	<a href="#">12230</a>
6 - 40	NF	2	H-1	<a href="#">12311</a>	<a href="#">12312</a>	<a href="#">12313</a>	<a href="#">12310</a>
6 - 40	NF	2	H-2	<a href="#">12321</a>	<a href="#">12322</a>	<a href="#">12323</a>	<a href="#">12320</a>
6 - 40	NF	3	H-1	<a href="#">12411</a>	<a href="#">12412</a>	<a href="#">12413</a>	<a href="#">12410</a>
6 - 40	NF	3	H-2	<a href="#">12421</a>	<a href="#">12422</a>	<a href="#">12423</a>	<a href="#">12420</a>
8 - 32	NC	2	H-1	<a href="#">12511</a>	<a href="#">12512</a>	<a href="#">12513</a>	<a href="#">12510</a>
8 - 32	NC	2	H-2	<a href="#">12521</a>	<a href="#">12522</a>	<a href="#">12523</a>	<a href="#">12520</a>
8 - 32	NC	2	H-3	<a href="#">12531</a>	<a href="#">12532</a>	<a href="#">12533</a>	<a href="#">12530</a>
8 - 32	NC	3	H-1	<a href="#">12611</a>	<a href="#">12612</a>	<a href="#">12613</a>	<a href="#">12610</a>
8 - 32	NC	3	H-2	<a href="#">12621</a>	<a href="#">12622</a>	<a href="#">12623</a>	<a href="#">12620</a>
8 - 32	NC	3	H-3	<a href="#">12631</a>	<a href="#">12632</a>	<a href="#">12633</a>	<a href="#">12630</a>
8 - 32	NC	4	H-1	<a href="#">12711</a>	<a href="#">12712</a>	<a href="#">12713</a>	<a href="#">12710</a>
8 - 32	NC	4	H-2	<a href="#">12721</a>	<a href="#">12722</a>	<a href="#">12723</a>	<a href="#">12720</a>
8 - 32	NC	4	H-3	<a href="#">12731</a>	<a href="#">12732</a>	<a href="#">12733</a>	<a href="#">12730</a>
8 - 36	NF	2	H-1	<a href="#">12811</a>	<a href="#">12812</a>	<a href="#">12813</a>	<a href="#">12810</a>
8 - 36	NF	2	H-2	<a href="#">12821</a>	<a href="#">12822</a>	<a href="#">12823</a>	<a href="#">12820</a>
8 - 36	NF	3	H-1	<a href="#">12911</a>	<a href="#">12912</a>	<a href="#">12913</a>	<a href="#">12910</a>
8 - 36	NF	3	H-2	<a href="#">12921</a>	<a href="#">12922</a>	<a href="#">12923</a>	<a href="#">12920</a>
8 - 36	NF	4	H-1	<a href="#">13011</a>	<a href="#">13012</a>	<a href="#">13013</a>	<a href="#">13010</a>
8 - 36	NF	4	H-2	<a href="#">13021</a>	<a href="#">13022</a>	<a href="#">13023</a>	<a href="#">13020</a>
10 - 24	NC	2	H-1	<a href="#">13111</a>	<a href="#">13112</a>	<a href="#">13113</a>	<a href="#">13110</a>
10 - 24	NC	2	H-2	<a href="#">13121</a>	<a href="#">13122</a>	<a href="#">13123</a>	<a href="#">13120</a>
10 - 24	NC	2	H-3	<a href="#">13131</a>	<a href="#">13132</a>	<a href="#">13133</a>	<a href="#">13130</a>
10 - 24	NC	3	H-1	<a href="#">13211</a>	<a href="#">13212</a>	<a href="#">13213</a>	<a href="#">13210</a>
10 - 24	NC	3	H-2	<a href="#">13221</a>	<a href="#">13222</a>	<a href="#">13223</a>	<a href="#">13220</a>



## HAND TAPS MACHINE SCREW SIZES (CONTINUED)

LIST 106A

Taper  
 Plug  
 Bottom



TAP SIZE	SERIES DESIG.	NO. OF FLUTES	H LIMIT	106A			
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER	SET EDP NUMBER
10 - 24	NC	3	H-3	<a href="#">13231</a>	<a href="#">13232</a>	<a href="#">13233</a>	<a href="#">13230</a>
10 - 24	NC	4	H-1	<a href="#">13311</a>	<a href="#">13312</a>	<a href="#">13313</a>	<a href="#">13310</a>
10 - 24	NC	4	H-2	<a href="#">13321</a>	<a href="#">13322</a>	<a href="#">13323</a>	<a href="#">13320</a>
10 - 24	NC	4	H-3	<a href="#">13331</a>	<a href="#">13332</a>	<a href="#">13333</a>	<a href="#">13330</a>
10 - 32	NF	2	H-1	<a href="#">13411</a>	<a href="#">13412</a>	<a href="#">13413</a>	<a href="#">13410</a>
10 - 32	NF	2	H-2	<a href="#">13421</a>	<a href="#">13422</a>	<a href="#">13423</a>	<a href="#">13420</a>
10 - 32	NF	2	H-3	<a href="#">13431</a>	<a href="#">13432</a>	<a href="#">13433</a>	<a href="#">13430</a>
10 - 32	NF	3	H-1	<a href="#">13511</a>	<a href="#">13512</a>	<a href="#">13513</a>	<a href="#">13510</a>
10 - 32	NF	3	H-2	<a href="#">13521</a>	<a href="#">13522</a>	<a href="#">13523</a>	<a href="#">13520</a>
10 - 32	NF	3	H-3	<a href="#">13531</a>	<a href="#">13532</a>	<a href="#">13533</a>	<a href="#">13530</a>
10 - 32	NF	4	H-1	<a href="#">13611</a>	<a href="#">13612</a>	<a href="#">13613</a>	<a href="#">13610</a>
10 - 32	NF	4	H-2	<a href="#">13621</a>	<a href="#">13622</a>	<a href="#">13623</a>	<a href="#">13620</a>
10 - 32	NF	4	H-3	<a href="#">13631</a>	<a href="#">13632</a>	<a href="#">13633</a>	<a href="#">13630</a>
12 - 24	NC	4	H-1	<a href="#">13711</a>	<a href="#">13712</a>	<a href="#">13713</a>	<a href="#">13710</a>
12 - 24	NC	4	H-3	<a href="#">13731</a>	<a href="#">13732</a>	<a href="#">13733</a>	<a href="#">13730</a>
12 - 28	NF	4	H-1	<a href="#">13811</a>	<a href="#">13812</a>	<a href="#">13813</a>	<a href="#">13810</a>
12 - 28	NF	4	H-3	<a href="#">13831</a>	<a href="#">13832</a>	<a href="#">13833</a>	<a href="#">13830</a>
14 - 20	NS	4	H-3	<a href="#">13931</a>	<a href="#">13932</a>	<a href="#">13933</a>	<a href="#">13930</a>
14 - 24	NS	4	H-3	<a href="#">14031</a>	<a href="#">14032</a>	<a href="#">14033</a>	<a href="#">14030</a>

**Penta Relief** – Special thread geometry that allows for freer cutting. Available in Standard Taps in List Numbers 106A in size #10 with 2 & 3 Flutes and larger sizes, 103, 102C, 402VPR, 402VMR, 403V, 403VM, 407VPR and 407VMR.

## HAND TAPS FRACTIONAL SIZES

LIST 103

Taper  
Plug  
Bottom



TAP SIZE	SERIES DESIG.	NO. OF FLUTES	H LIMIT	103			
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER	SET EDP NUMBER
1/4 - 20	NC	2	H-1		<a href="#">24012</a>	<a href="#">24013</a>	
1/4 - 20	NC	2	H-2	<a href="#">24021</a>	<a href="#">24022</a>	<a href="#">24023</a>	<a href="#">24020</a>
1/4 - 20	NC	2	H-3	<a href="#">24031</a>	<a href="#">24032</a>	<a href="#">24033</a>	<a href="#">24030</a>
1/4 - 20	NC	2	H-5		<a href="#">24052</a>	<a href="#">24053</a>	
1/4 - 20	NC	3	H-1	<a href="#">24111</a>	<a href="#">24112</a>	<a href="#">24113</a>	<a href="#">24110</a>
1/4 - 20	NC	3	H-2	<a href="#">24121</a>	<a href="#">24122</a>	<a href="#">24123</a>	<a href="#">24120</a>
1/4 - 20	NC	3	H-3	<a href="#">24131</a>	<a href="#">24132</a>	<a href="#">24133</a>	<a href="#">24130</a>
1/4 - 20	NC	3	H-5	<a href="#">24151</a>	<a href="#">24152</a>	<a href="#">24153</a>	<a href="#">24150</a>
1/4 - 20	NC	4	L-1	<a href="#">24291</a>	<a href="#">24292</a>	<a href="#">24293</a>	<a href="#">24290</a>
1/4 - 20	NC	4	H-1	<a href="#">24211</a>	<a href="#">24212</a>	<a href="#">24213</a>	<a href="#">24210</a>
1/4 - 20	NC	4	H-2	<a href="#">24221</a>	<a href="#">24222</a>	<a href="#">24223</a>	<a href="#">24220</a>
1/4 - 20	NC	4	H-3	<a href="#">24231</a>	<a href="#">24232</a>	<a href="#">24233</a>	<a href="#">24230</a>
1/4 - 20	NC	4	H-5	<a href="#">24251</a>	<a href="#">24252</a>	<a href="#">24253</a>	<a href="#">24250</a>
1/4 - 28	NF	2	H-1	<a href="#">24311</a>	<a href="#">24312</a>	<a href="#">24313</a>	<a href="#">24310</a>
1/4 - 28	NF	2	H-2	<a href="#">24321</a>	<a href="#">24322</a>	<a href="#">24323</a>	<a href="#">24320</a>
1/4 - 28	NF	2	H-3	<a href="#">24331</a>	<a href="#">24332</a>	<a href="#">24333</a>	<a href="#">24330</a>
1/4 - 28	NF	2	H-4	<a href="#">24341</a>	<a href="#">24342</a>	<a href="#">24343</a>	<a href="#">24340</a>
1/4 - 28	NF	3	H-1		<a href="#">24412</a>		
1/4 - 28	NF	3	H-2	<a href="#">24421</a>	<a href="#">24422</a>	<a href="#">24423</a>	<a href="#">24420</a>
1/4 - 28	NF	3	H-3	<a href="#">24431</a>	<a href="#">24432</a>	<a href="#">24433</a>	<a href="#">24430</a>
1/4 - 28	NF	3	H-4	<a href="#">24441</a>	<a href="#">24442</a>	<a href="#">24443</a>	<a href="#">24440</a>
1/4 - 28	NF	4	H-1	<a href="#">24511</a>	<a href="#">24512</a>	<a href="#">24513</a>	<a href="#">24510</a>
1/4 - 28	NF	4	H-2	<a href="#">24521</a>	<a href="#">24522</a>	<a href="#">24523</a>	<a href="#">24520</a>
1/4 - 28	NF	4	H-3	<a href="#">24531</a>	<a href="#">24532</a>	<a href="#">24533</a>	<a href="#">24530</a>
1/4 - 28	NF	4	H-4	<a href="#">24541</a>	<a href="#">24542</a>	<a href="#">24543</a>	<a href="#">24540</a>
5/16 - 18	NC	2	H-1		<a href="#">24612</a>	<a href="#">24613</a>	
5/16 - 18	NC	2	H-2	<a href="#">24621</a>	<a href="#">24622</a>	<a href="#">24623</a>	<a href="#">24620</a>
5/16 - 18	NC	2	H-3	<a href="#">24631</a>	<a href="#">24632</a>	<a href="#">24633</a>	<a href="#">24630</a>
5/16 - 18	NC	2	H-5		<a href="#">24652</a>	<a href="#">24653</a>	
5/16 - 18	NC	3	H-1		<a href="#">24712</a>		
5/16 - 18	NC	3	H-2		<a href="#">24722</a>	<a href="#">24723</a>	
5/16 - 18	NC	3	H-3	<a href="#">24731</a>	<a href="#">24732</a>	<a href="#">24733</a>	<a href="#">24730</a>
5/16 - 18	NC	3	H-5		<a href="#">24752</a>	<a href="#">24753</a>	
5/16 - 18	NC	4	L-1	<a href="#">24891</a>	<a href="#">24892</a>	<a href="#">24893</a>	<a href="#">24890</a>
5/16 - 18	NC	4	H-1	<a href="#">24811</a>	<a href="#">24812</a>	<a href="#">24813</a>	<a href="#">24810</a>
5/16 - 18	NC	4	H-2	<a href="#">24821</a>	<a href="#">24822</a>	<a href="#">24823</a>	<a href="#">24820</a>

See page 87 for Tap Recommendations for Classes 2B & 3B.  
See page 89 for Tap Dimensions.

## HAND TAPS FRACTIONAL SIZES (CONTINUED)

LIST 103

Taper  
 Plug  
 Bottom



TAP SIZE	SERIES DESIG.	NO. OF FLUTES	H LIMIT	103			
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER	SET EDP NUMBER
5/16 - 18	NC	4	H-3	<a href="#">24831</a>	<a href="#">24832</a>	<a href="#">24833</a>	<a href="#">24830</a>
5/16 - 18	NC	4	H-5	<a href="#">24851</a>	<a href="#">24852</a>	<a href="#">24853</a>	<a href="#">24850</a>
5/16 - 24	NF	2	H-1		<a href="#">24912</a>	<a href="#">24913</a>	
5/16 - 24	NF	2	H-2		<a href="#">24922</a>	<a href="#">24923</a>	
5/16 - 24	NF	2	H-3	<a href="#">24931</a>	<a href="#">24932</a>	<a href="#">24933</a>	<a href="#">24930</a>
5/16 - 24	NF	2	H-4		<a href="#">24942</a>	<a href="#">24943</a>	
5/16 - 24	NF	3	H-1		<a href="#">25012</a>	<a href="#">25013</a>	
5/16 - 24	NF	3	H-2		<a href="#">25022</a>	<a href="#">25023</a>	
5/16 - 24	NF	3	H-3	<a href="#">25031</a>	<a href="#">25032</a>	<a href="#">25033</a>	<a href="#">25030</a>
5/16 - 24	NF	3	H-4	<a href="#">25041</a>	<a href="#">25042</a>	<a href="#">25043</a>	<a href="#">25040</a>
5/16 - 24	NF	4	H-1	<a href="#">25111</a>	<a href="#">25112</a>	<a href="#">25113</a>	<a href="#">25110</a>
5/16 - 24	NF	4	H-2	<a href="#">25121</a>	<a href="#">25122</a>	<a href="#">25123</a>	<a href="#">25120</a>
5/16 - 24	NF	4	H-3	<a href="#">25131</a>	<a href="#">25132</a>	<a href="#">25133</a>	<a href="#">25130</a>
5/16 - 24	NF	4	H-4	<a href="#">25141</a>	<a href="#">25142</a>	<a href="#">25143</a>	<a href="#">25140</a>
3/8 - 16	NC	3	H-1	<a href="#">25211</a>	<a href="#">25212</a>	<a href="#">25213</a>	<a href="#">25210</a>
3/8 - 16	NC	3	H-2	<a href="#">25221</a>	<a href="#">25222</a>	<a href="#">25223</a>	<a href="#">25220</a>
3/8 - 16	NC	3	H-3	<a href="#">25231</a>	<a href="#">25232</a>	<a href="#">25233</a>	<a href="#">25230</a>
3/8 - 16	NC	3	H-5	<a href="#">25251</a>	<a href="#">25252</a>	<a href="#">25253</a>	<a href="#">25250</a>
3/8 - 16	NC	4	L-1	<a href="#">25391</a>	<a href="#">25392</a>	<a href="#">25393</a>	<a href="#">25390</a>
3/8 - 16	NC	4	H-1	<a href="#">25311</a>	<a href="#">25312</a>	<a href="#">25313</a>	<a href="#">25310</a>
3/8 - 16	NC	4	H-2	<a href="#">25321</a>	<a href="#">25322</a>	<a href="#">25323</a>	<a href="#">25320</a>
3/8 - 16	NC	4	H-3	<a href="#">25331</a>	<a href="#">25332</a>	<a href="#">25333</a>	<a href="#">25330</a>
3/8 - 16	NC	4	H-5	<a href="#">25351</a>	<a href="#">25352</a>	<a href="#">25353</a>	<a href="#">25350</a>
3/8 - 24	NF	3	H-1		<a href="#">25412</a>		
3/8 - 24	NF	3	H-2	<a href="#">25421</a>	<a href="#">25422</a>	<a href="#">25423</a>	<a href="#">25420</a>
3/8 - 24	NF	3	H-3	<a href="#">25431</a>	<a href="#">25432</a>	<a href="#">25433</a>	<a href="#">25430</a>
3/8 - 24	NF	3	H-4		<a href="#">25442</a>	<a href="#">25443</a>	
3/8 - 24	NF	4	H-1	<a href="#">25511</a>	<a href="#">25512</a>	<a href="#">25513</a>	<a href="#">25510</a>
3/8 - 24	NF	4	H-2	<a href="#">25521</a>	<a href="#">25522</a>	<a href="#">25523</a>	<a href="#">25520</a>
3/8 - 24	NF	4	H-3	<a href="#">25531</a>	<a href="#">25532</a>	<a href="#">25533</a>	<a href="#">25530</a>
3/8 - 24	NF	4	H-4	<a href="#">25541</a>	<a href="#">25542</a>	<a href="#">25543</a>	<a href="#">25540</a>
7/16 - 14	NC	3	H-1		<a href="#">25612</a>	<a href="#">25613</a>	
7/16 - 14	NC	3	H-2		<a href="#">25622</a>	<a href="#">25623</a>	
7/16 - 14	NC	3	H-3	<a href="#">25631</a>	<a href="#">25632</a>	<a href="#">25633</a>	<a href="#">25630</a>
7/16 - 14	NC	3	H-5	<a href="#">25651</a>	<a href="#">25652</a>	<a href="#">25653</a>	<a href="#">25650</a>
7/16 - 14	NC	4	L-1	<a href="#">25791</a>	<a href="#">25792</a>	<a href="#">25793</a>	<a href="#">25790</a>

**Penta Relief** – Special thread geometry that allows for freer cutting. Available in Standard Taps in List Numbers 106A in size #10 with 2 & 3 Flutes and larger sizes, 103, 102C, 402VPR, 402VMPR, 403V, 403VM, 407VPR and 407VMPR.

## HAND TAPS FRACTIONAL SIZES (CONTINUED)

LIST 103

Taper  
Plug  
Bottom



TAP SIZE	SERIES DESIG.	NO. OF FLUTES	H LIMIT	103			
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER	SET EDP NUMBER
7/16 - 14	NC	4	H-1	<a href="#">25711</a>	<a href="#">25712</a>	<a href="#">25713</a>	<a href="#">25710</a>
7/16 - 14	NC	4	H-2	<a href="#">25721</a>	<a href="#">25722</a>	<a href="#">25723</a>	<a href="#">25720</a>
7/16 - 14	NC	4	H-3	<a href="#">25731</a>	<a href="#">25732</a>	<a href="#">25733</a>	<a href="#">25730</a>
7/16 - 14	NC	4	H-5	<a href="#">25751</a>	<a href="#">25752</a>	<a href="#">25753</a>	<a href="#">25750</a>
7/16 - 20	NF	3	H-1		25812		
7/16 - 20	NF	3	H-2		25822		
7/16 - 20	NF	3	H-3	<a href="#">25831</a>	<a href="#">25832</a>	<a href="#">25833</a>	<a href="#">25830</a>
7/16 - 20	NF	3	H-5		<a href="#">25852</a>	<a href="#">25853</a>	
7/16 - 20	NF	4	H-1	<a href="#">25911</a>	<a href="#">25912</a>	<a href="#">25913</a>	<a href="#">25910</a>
7/16 - 20	NF	4	H-2	<a href="#">25921</a>	<a href="#">25922</a>	<a href="#">25923</a>	<a href="#">25920</a>
7/16 - 20	NF	4	H-3	<a href="#">25931</a>	<a href="#">25932</a>	<a href="#">25933</a>	<a href="#">25930</a>
7/16 - 20	NF	4	H-5	<a href="#">25951</a>	<a href="#">25952</a>	<a href="#">25953</a>	<a href="#">25950</a>
1/2 - 13	NC	3	H-1	<a href="#">26011</a>	<a href="#">26012</a>	<a href="#">26013</a>	<a href="#">26010</a>
1/2 - 13	NC	3	H-2	<a href="#">26021</a>	<a href="#">26022</a>	<a href="#">26023</a>	<a href="#">26020</a>
1/2 - 13	NC	3	H-3	<a href="#">26031</a>	<a href="#">26032</a>	<a href="#">26033</a>	<a href="#">26030</a>
1/2 - 13	NC	3	H-5	<a href="#">26051</a>	<a href="#">26052</a>	<a href="#">26053</a>	<a href="#">26050</a>
1/2 - 13	NC	4	L-1	<a href="#">26191</a>	<a href="#">26192</a>	<a href="#">26193</a>	<a href="#">26190</a>
1/2 - 13	NC	4	H-1	<a href="#">26111</a>	<a href="#">26112</a>	<a href="#">26113</a>	<a href="#">26110</a>
1/2 - 13	NC	4	H-2	<a href="#">26121</a>	<a href="#">26122</a>	<a href="#">26123</a>	<a href="#">26120</a>
1/2 - 13	NC	4	H-3	<a href="#">26131</a>	<a href="#">26132</a>	<a href="#">26133</a>	<a href="#">26130</a>
1/2 - 13	NC	4	H-5	<a href="#">26151</a>	26152	<a href="#">26153</a>	<a href="#">26150</a>
1/2 - 20	NF	3	H-1		26212		
1/2 - 20	NF	3	H-2	<a href="#">26221</a>	<a href="#">26222</a>	<a href="#">26223</a>	<a href="#">26220</a>
1/2 - 20	NF	3	H-3	<a href="#">26231</a>	<a href="#">26232</a>	<a href="#">26233</a>	<a href="#">26230</a>
1/2 - 20	NF	3	H-5	<a href="#">26251</a>	<a href="#">26252</a>	<a href="#">26253</a>	<a href="#">26250</a>
1/2 - 20	NF	4	H-1	<a href="#">26311</a>	<a href="#">26312</a>	<a href="#">26313</a>	<a href="#">26310</a>
1/2 - 20	NF	4	H-2	<a href="#">26321</a>	<a href="#">26322</a>	<a href="#">26323</a>	<a href="#">26320</a>
1/2 - 20	NF	4	H-3	<a href="#">26331</a>	<a href="#">26332</a>	<a href="#">26333</a>	<a href="#">26330</a>
1/2 - 20	NF	4	H-5	<a href="#">26351</a>	<a href="#">26352</a>	<a href="#">26353</a>	<a href="#">26350</a>

See page 87 for Tap Recommendations for Classes 2B & 3B.  
See page 89 for Tap Dimensions.

## HAND TAPS FRACTIONAL SIZES (CONTINUED)

LIST 103

Taper  
 Plug  
 Bottom



TAP SIZE	SERIES DESIG.	NO. OF FLUTES	H LIMIT	103			
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER	SET EDP NUMBER
9/16 - 12	NC	4	H-1	<a href="#">26411</a>	<a href="#">26412</a>	<a href="#">26413</a>	<a href="#">26410</a>
9/16 - 12	NC	4	H-2	<a href="#">26421</a>	<a href="#">26422</a>	<a href="#">26423</a>	<a href="#">26420</a>
9/16 - 12	NC	4	H-3	<a href="#">26431</a>	<a href="#">26432</a>	<a href="#">26433</a>	<a href="#">26430</a>
9/16 - 12	NC	4	H-5	<a href="#">26451</a>	<a href="#">26452</a>	<a href="#">26453</a>	<a href="#">26450</a>
9/16 - 18	NF	4	H-1	<a href="#">26511</a>	<a href="#">26512</a>	<a href="#">26513</a>	<a href="#">26510</a>
9/16 - 18	NF	4	H-2	<a href="#">26521</a>	<a href="#">26522</a>	<a href="#">26523</a>	<a href="#">26520</a>
9/16 - 18	NF	4	H-3	<a href="#">26531</a>	<a href="#">26532</a>	<a href="#">26533</a>	<a href="#">26530</a>
9/16 - 18	NF	4	H-5	<a href="#">26551</a>	<a href="#">26552</a>	<a href="#">26553</a>	<a href="#">26550</a>
5/8 - 11	NC	4	H-1	<a href="#">26611</a>	<a href="#">26612</a>	<a href="#">26613</a>	<a href="#">26610</a>
5/8 - 11	NC	4	H-2	<a href="#">26621</a>	<a href="#">26622</a>	<a href="#">26623</a>	<a href="#">26620</a>
5/8 - 11	NC	4	H-3	<a href="#">26631</a>	<a href="#">26632</a>	<a href="#">26633</a>	<a href="#">26630</a>
5/8 - 11	NC	4	H-5	<a href="#">26651</a>	<a href="#">26652</a>	<a href="#">26653</a>	<a href="#">26650</a>
5/8 - 18	NF	4	H-1	<a href="#">26711</a>	<a href="#">26712</a>	<a href="#">26713</a>	<a href="#">26710</a>
5/8 - 18	NF	4	H-2	<a href="#">26721</a>	<a href="#">26722</a>	<a href="#">26723</a>	<a href="#">26720</a>
5/8 - 18	NF	4	H-3	<a href="#">26731</a>	<a href="#">26732</a>	<a href="#">26733</a>	<a href="#">26730</a>
5/8 - 18	NF	4	H-5	<a href="#">26751</a>	<a href="#">26752</a>	<a href="#">26753</a>	<a href="#">26750</a>
11/16 - 11	NS	4	H-3	<a href="#">26831</a>	<a href="#">26832</a>	<a href="#">26833</a>	<a href="#">26830</a>
11/16 - 16	NS	4	H-3	<a href="#">26931</a>	<a href="#">26932</a>	<a href="#">26933</a>	<a href="#">26930</a>
3/4 - 10	NC	4	H-1	<a href="#">27011</a>	<a href="#">27012</a>	<a href="#">27013</a>	<a href="#">27010</a>
3/4 - 10	NC	4	H-2	<a href="#">27021</a>	<a href="#">27022</a>	<a href="#">27023</a>	<a href="#">27020</a>
3/4 - 10	NC	4	H-3	<a href="#">27031</a>	<a href="#">27032</a>	<a href="#">27033</a>	<a href="#">27030</a>
3/4 - 10	NC	4	H-5	<a href="#">27051</a>	<a href="#">27052</a>	<a href="#">27053</a>	<a href="#">27050</a>
3/4 - 16	NF	4	H-1	<a href="#">27111</a>	<a href="#">27112</a>	<a href="#">27113</a>	<a href="#">27110</a>
3/4 - 16	NF	4	H-2	<a href="#">27121</a>	<a href="#">27122</a>	<a href="#">27123</a>	<a href="#">27120</a>
3/4 - 16	NF	4	H-3	<a href="#">27131</a>	<a href="#">27132</a>	<a href="#">27133</a>	<a href="#">27130</a>
3/4 - 16	NF	4	H-5	<a href="#">27151</a>	<a href="#">27152</a>	<a href="#">27153</a>	<a href="#">27150</a>
7/8 - 9	NC	4	H-1	<a href="#">27211</a>	<a href="#">27212</a>	<a href="#">27213</a>	<a href="#">27210</a>
7/8 - 9	NC	4	H-2	<a href="#">27221</a>	<a href="#">27222</a>	<a href="#">27223</a>	<a href="#">27220</a>
7/8 - 9	NC	4	H-4	<a href="#">27241</a>	<a href="#">27242</a>	<a href="#">27243</a>	<a href="#">27240</a>
7/8 - 9	NC	4	H-6	<a href="#">27261</a>	<a href="#">27262</a>	<a href="#">27263</a>	<a href="#">27260</a>
7/8 - 14	NF	4	H-1	<a href="#">27311</a>	<a href="#">27312</a>	<a href="#">27313</a>	<a href="#">27310</a>
7/8 - 14	NF	4	H-2	<a href="#">27321</a>	<a href="#">27322</a>	<a href="#">27323</a>	<a href="#">27320</a>
7/8 - 14	NF	4	H-4	<a href="#">27341</a>	<a href="#">27342</a>	<a href="#">27343</a>	<a href="#">27340</a>
7/8 - 14	NF	4	H-6	<a href="#">27361</a>	<a href="#">27362</a>	<a href="#">27363</a>	<a href="#">27360</a>
1 - 8	NC	4	H-1	<a href="#">27411</a>	<a href="#">27412</a>	<a href="#">27413</a>	<a href="#">27410</a>
1 - 8	NC	4	H-2	<a href="#">27421</a>	<a href="#">27422</a>	<a href="#">27423</a>	<a href="#">27420</a>
1 - 8	NC	4	H-4	<a href="#">27441</a>	<a href="#">27442</a>	<a href="#">27443</a>	<a href="#">27440</a>
1 - 8	NC	4	H-6	<a href="#">27461</a>	<a href="#">27462</a>	<a href="#">27463</a>	<a href="#">27460</a>
1 - 12	NF	4	H-1	<a href="#">27511</a>	<a href="#">27512</a>	<a href="#">27513</a>	<a href="#">27510</a>
1 - 12	NF	4	H-2	<a href="#">27521</a>	<a href="#">27522</a>	<a href="#">27523</a>	<a href="#">27520</a>

## HAND TAPS FRACTIONAL SIZES (CONTINUED)

LIST 103

Taper  
Plug  
Bottom



TAP SIZE	SERIES DESIG.	NO. OF FLUTES	H LIMIT	103			
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER	SET EDP NUMBER
1 - 12	NF	4	H-4	<a href="#">27541</a>	<a href="#">27542</a>	<a href="#">27543</a>	<a href="#">27540</a>
1 - 12	NF	4	H-6	<a href="#">27561</a>	<a href="#">27562</a>	<a href="#">27563</a>	<a href="#">27560</a>
1 - 14	NS	4	H-1	<a href="#">27611</a>	<a href="#">27612</a>	<a href="#">27613</a>	<a href="#">27610</a>
1 - 14	NS	4	H-2	<a href="#">27621</a>	<a href="#">27622</a>	<a href="#">27623</a>	<a href="#">27620</a>
1 - 14	NS	4	H-4	<a href="#">27641</a>	<a href="#">27642</a>	<a href="#">27643</a>	<a href="#">27640</a>
1 - 14	NS	4	H-6	<a href="#">27661</a>	<a href="#">27662</a>	<a href="#">27663</a>	<a href="#">27660</a>
1 1/8 - 7	NC	4	H-4	<a href="#">27741</a>	<a href="#">27742</a>	<a href="#">27743</a>	<a href="#">27740</a>
1 1/8 - 7	NC	4	H-8	<a href="#">27781</a>	<a href="#">27782</a>	<a href="#">27783</a>	<a href="#">27780</a>
1 1/8 - 12	NF	4	H-4	<a href="#">27841</a>	<a href="#">27842</a>	<a href="#">27843</a>	<a href="#">27840</a>
1 1/8 - 12	NF	4	H-6	<a href="#">27861</a>	<a href="#">27862</a>	<a href="#">27863</a>	<a href="#">27860</a>
1 1/4 - 7	NC	4	H-4	<a href="#">27941</a>	<a href="#">27942</a>	<a href="#">27943</a>	<a href="#">27940</a>
1 1/4 - 7	NC	4	H-8	<a href="#">27981</a>	<a href="#">27982</a>	<a href="#">27983</a>	<a href="#">27980</a>
1 1/4 - 12	NF	6	H-4	<a href="#">28041</a>	<a href="#">28042</a>	<a href="#">28043</a>	<a href="#">28040</a>
1 1/4 - 12	NF	6	H-6	<a href="#">28061</a>	<a href="#">28062</a>	<a href="#">28063</a>	<a href="#">28060</a>
1 3/8 - 6	NC	4	H-4	<a href="#">28141</a>	<a href="#">28142</a>	<a href="#">28143</a>	<a href="#">28140</a>
1 3/8 - 6	NC	4	H-8	<a href="#">28181</a>	<a href="#">28182</a>	<a href="#">28183</a>	<a href="#">28180</a>
1 3/8 - 12	NF	6	H-4	<a href="#">28241</a>	<a href="#">28242</a>	<a href="#">28243</a>	<a href="#">28240</a>
1 3/8 - 12	NF	6	H-6	<a href="#">28261</a>	<a href="#">28262</a>	<a href="#">28263</a>	<a href="#">28260</a>
1 1/2 - 6	NC	4	H-4	<a href="#">28341</a>	<a href="#">28342</a>	<a href="#">28343</a>	<a href="#">28340</a>
1 1/2 - 6	NC	4	H-8	<a href="#">28381</a>	<a href="#">28382</a>	<a href="#">28383</a>	<a href="#">28380</a>
1 1/2 - 12	NF	6	H-4	<a href="#">28441</a>	<a href="#">28442</a>	<a href="#">28443</a>	<a href="#">28440</a>
1 1/2 - 12	NF	6	H-6	<a href="#">28461</a>	<a href="#">28462</a>	<a href="#">28463</a>	<a href="#">28460</a>

**Penta Relief** – Special thread geometry that allows for freer cutting. Available in Standard Taps in List Numbers 106A in size #10 with 2 & 3 Flutes and larger sizes, 103, 102C, 402VPR, 402VMPPR, 403V, 403VM, 407VPR and 407VMPPR.

## HAND TAPS LARGE DIAMETER

LIST 103

Taper  
 Plug  
 Bottom



**NOTE:** 302 Long Series, 303 Short Series

TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	BLANK STYLE	H LIMIT	103		
					TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER
1 1/16 - 12	NS	4	302	H-4	<a href="#">90011</a>	<a href="#">90012</a>	<a href="#">90013</a>
1 1/8 - 8	8N	4	302	H-4	<a href="#">90041</a>	<a href="#">90042</a>	<a href="#">90043</a>
1 3/16 - 12	NS	6	302	H-4	<a href="#">90081</a>	<a href="#">90082</a>	<a href="#">90083</a>
1 1/4 - 8	8N	4	302	H-4	<a href="#">90141</a>	<a href="#">90142</a>	<a href="#">90143</a>
1 5/16 - 12	NS	6	302	H-4	<a href="#">90241</a>	<a href="#">90242</a>	<a href="#">90243</a>
1 3/8 - 8	8N	4	302	H-4	<a href="#">90341</a>	<a href="#">90342</a>	<a href="#">90343</a>
1 1/2 - 8	8N	4	302	H-4	<a href="#">90441</a>	<a href="#">90442</a>	<a href="#">90443</a>
1 5/8 - 5 1/2	NS	6	302	G331 H-7	<a href="#">90571</a>	<a href="#">90572</a>	<a href="#">90573</a>
1 5/8 - 8	8N	6	302	G331 H-6	<a href="#">90521</a>	<a href="#">90522</a>	<a href="#">90523</a>
1 5/8 - 12	12N	6	303	G331 H-6	<a href="#">90561</a>	<a href="#">90562</a>	<a href="#">90563</a>
1 3/4 - 5	NC	6	302	G331 H-7	<a href="#">90621</a>	<a href="#">90622</a>	<a href="#">90623</a>
1 3/4 - 8	8N	6	302	G331 H-6	<a href="#">90761</a>	<a href="#">90762</a>	<a href="#">90763</a>
1 3/4 - 12	12N	6	303	G331 H-6	<a href="#">90961</a>	<a href="#">90962</a>	<a href="#">90963</a>
1 7/8 - 5	NS	6	302	G331 H-7	<a href="#">91071</a>	<a href="#">91072</a>	<a href="#">91073</a>
1 7/8 - 8	8N	6	302	G331 H-6	<a href="#">91161</a>	<a href="#">91162</a>	<a href="#">91163</a>
1 7/8 - 12	12N	6	303	G331 H-6	<a href="#">91261</a>	<a href="#">91262</a>	<a href="#">91263</a>
2 - 4 1/2	NC	6	302	G331 H-7	<a href="#">90821</a>	<a href="#">90822</a>	<a href="#">90823</a>
2 - 8	8N	6	302	G331 H-6	<a href="#">91361</a>	<a href="#">91362</a>	<a href="#">91363</a>
2 - 12	12N	6	303	G331 H-6	<a href="#">91461</a>	<a href="#">91462</a>	<a href="#">91463</a>

**NOTE:** Larger sizes and optional pitches, consult factory for price and delivery.

## HAND TAPS MACHINE SCREW AND FRACTIONAL SIZES SEMI BOTTOMING

LIST 125

2 - 2 1/2 Thread Chamfer



**NOTE:** Please specify if points on thread end are to be removed.

TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	EDP NUMBER	
			H-3	H-4
6 - 32	NC	3	12235	
8 - 32	NC	4	12735	
10 - 24	NC	4	13335	
10 - 32	NF	4	13635	
12 - 24	NC	4	13735	
12 - 28	NF	4	13835	
1/4 - 20	NC	4	24235	
1/4 - 28	NF	4	24535	
5/16 - 18	NC	4	24835	
5/16 - 24	NF	4	25135	
3/8 - 16	NC	4	25335	
3/8 - 24	NF	4	25535	
7/16 - 14	NC	4	25735	
7/16 - 20	NF	4	25935	
1/2 - 13	NC	4	26135	
1/2 - 20	NF	4	26335	
9/16 - 12	NC	4	26435	
9/16 - 18	NF	4	26535	
5/8 - 11	NC	4	26635	
5/8 - 18	NF	4	26735	
3/4 - 10	NC	4	27035	
3/4 - 16	NF	4	27135	
7/8 - 9	NC	4		27245
7/8 - 14	NF	4		27345
1 - 8	NC	4		27445
1 - 12	NF	4		27545
1 - 14	NS	4		27645

See page 87 for Tap Recommendations for Classes 2B & 3B.  
See page 89 for Tap Dimensions.



## SPIRAL POINT TAPS MACHINE SCREW SIZES

**LIST 106C**

**Spiral Point Plug  
 Spiral Point Bottom**



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	STYLE	EDP NUMBER		
				H-1	H-2	H-3
0 - 80	NF	2	SPPT PLUG	<a href="#">14112</a>	<a href="#">14122</a>	
0 - 80	NF	2	SPPT BOTT	14113	14123	
1 - 64	NC	2	SPPT PLUG	14212	14222	
1 - 64	NC	2	SPPT BOTT	14213	14223	
1 - 72	NF	2	SPPT PLUG	14312	14322	
1 - 72	NF	2	SPPT BOTT	14313	14323	
2 - 56	NC	2	SPPT PLUG	14412	14422	
2 - 56	NC	2	SPPT BOTT	14413	14423	
2 - 64	NF	2	SPPT PLUG	14512	14522	
2 - 64	NF	2	SPPT BOTT	14513	14523	
3 - 48	NC	2	SPPT PLUG	14612	14622	
3 - 48	NC	2	SPPT BOTT	14613	14623	
3 - 56	NF	2	SPPT PLUG	14712	14722	
3 - 56	NF	2	SPPT BOTT	14713	14723	
4 - 40	NC	2	SPPT PLUG	14912	14922	
4 - 40	NC	2	SPPT BOTT	14913	14923	
4 - 48	NF	2	SPPT PLUG	15012	15022	
4 - 48	NF	2	SPPT BOTT	15013	15023	
4 - 36	NS	2	SPPT PLUG	14812	14822	
4 - 36	NS	2	SPPT BOTT	14813	14823	
5 - 40	NC	2	SPPT PLUG	15112	15122	
5 - 40	NC	2	SPPT BOTT	15113	15123	
5 - 44	NF	2	SPPT PLUG	15212	15222	
5 - 44	NF	2	SPPT BOTT	15213	15223	
6 - 32	NC	2	SPPT PLUG	<a href="#">15312</a>	<a href="#">15322</a>	<a href="#">15332</a>
6 - 32	NC	2	SPPT BOTT	<a href="#">15313</a>	<a href="#">15323</a>	<a href="#">15333</a>
6 - 40	NF	2	SPPT PLUG	15412	15422	
6 - 40	NF	2	SPPT BOTT	15413	15423	
8 - 32	NC	2	SPPT PLUG	<a href="#">15512</a>	<a href="#">15522</a>	<a href="#">15532</a>
8 - 32	NC	2	SPPT BOTT	<a href="#">15513</a>	<a href="#">15523</a>	<a href="#">15533</a>
8 - 36	NF	2	SPPT PLUG	<a href="#">15612</a>	<a href="#">15622</a>	<a href="#">15632</a>
8 - 36	NF	2	SPPT BOTT	<a href="#">15613</a>	<a href="#">15623</a>	<a href="#">15633</a>
10 - 24	NC	2	SPPT PLUG	15712	<a href="#">15722</a>	<a href="#">15732</a>
10 - 24	NC	2	SPPT BOTT	<a href="#">15713</a>	<a href="#">15723</a>	<a href="#">15733</a>
10 - 32	NF	2	SPPT PLUG	<a href="#">15812</a>	<a href="#">15822</a>	<a href="#">15832</a>
10 - 32	NF	2	SPPT BOTT	<a href="#">15813</a>	<a href="#">15823</a>	<a href="#">15833</a>
12 - 24	NC	2	SPPT PLUG	15912		15932
12 - 24	NC	2	SPPT BOTT	15913		15933
12 - 28	NF	2	SPPT PLUG	16012		16032
12 - 28	NF	2	SPPT BOTT	16013		16033
14 - 20	NS	2	SPPT PLUG			16132
14 - 24	NS	2	SPPT PLUG			16232

## SPIRAL POINT TAPS FRACTIONAL SIZES

LIST 102C

Spiral Point Plug  
Spiral Point Bottom



TAP SIZE	SERIES DESIG.	NO. OF FLUTES	STYLE	EDP NUMBER					
				L-1	H-1	H-2	H-3	H-4	H-5
1/4 - 20	NC	2	SPPT PLUG	<a href="#">32592</a>	<a href="#">32512</a>	<a href="#">32522</a>	<a href="#">32532</a>		<a href="#">32552</a>
1/4 - 20	NC	2	SPPT BOTT				<a href="#">32533</a>		
1/4 - 20	NC	3	SPPT PLUG		<a href="#">32612</a>	<a href="#">32622</a>	<a href="#">32632</a>		<a href="#">32652</a>
1/4 - 20	NC	3	SPPT BOTT				<a href="#">32633</a>		
1/4 - 28	NF	2	SPPT PLUG		<a href="#">32712</a>	<a href="#">32722</a>	<a href="#">32732</a>	<a href="#">32742</a>	
1/4 - 28	NF	2	SPPT BOTT				<a href="#">32733</a>		
1/4 - 28	NF	3	SPPT PLUG		<a href="#">32812</a>	<a href="#">32822</a>	<a href="#">32832</a>	<a href="#">32842</a>	
1/4 - 28	NF	3	SPPT BOTT				<a href="#">32833</a>		
5/16 - 18	NC	2	SPPT PLUG	<a href="#">32992</a>	<a href="#">32912</a>	<a href="#">32922</a>	<a href="#">32932</a>		<a href="#">32952</a>
5/16 - 18	NC	2	SPPT BOTT				<a href="#">32933</a>		
5/16 - 18	NC	3	SPPT PLUG		<a href="#">33012</a>	<a href="#">33022</a>	<a href="#">33032</a>		<a href="#">33052</a>
5/16 - 18	NC	3	SPPT BOTT				<a href="#">33033</a>		
5/16 - 24	NF	2	SPPT PLUG		<a href="#">33112</a>	<a href="#">33122</a>	<a href="#">33132</a>	<a href="#">33142</a>	
5/16 - 24	NF	2	SPPT BOTT				<a href="#">33133</a>		
5/16 - 24	NF	3	SPPT PLUG		<a href="#">33212</a>	<a href="#">33222</a>	<a href="#">33232</a>	<a href="#">33242</a>	
5/16 - 24	NF	3	SPPT BOTT				<a href="#">33233</a>		
3/8 - 16	NC	3	SPPT PLUG	<a href="#">33392</a>	<a href="#">33312</a>	<a href="#">33322</a>	<a href="#">33332</a>		<a href="#">33352</a>
3/8 - 16	NC	3	SPPT BOTT				<a href="#">33333</a>		
3/8 - 24	NF	3	SPPT PLUG		<a href="#">33412</a>	<a href="#">33422</a>	<a href="#">33432</a>	<a href="#">33442</a>	
3/8 - 24	NF	3	SPPT BOTT				<a href="#">33433</a>		
7/16 - 14	NC	3	SPPT PLUG	<a href="#">33592</a>	<a href="#">33512</a>	<a href="#">33522</a>	<a href="#">33532</a>		<a href="#">33552</a>
7/16 - 14	NC	3	SPPT BOTT				<a href="#">33533</a>		
7/16 - 20	NF	3	SPPT PLUG		<a href="#">33612</a>	<a href="#">33622</a>	<a href="#">33632</a>		<a href="#">33652</a>
7/16 - 20	NF	3	SPPT BOTT				<a href="#">33633</a>		
1/2 - 13	NC	3	SPPT PLUG	<a href="#">33792</a>	<a href="#">33712</a>	<a href="#">33722</a>	<a href="#">33732</a>		<a href="#">33752</a>
1/2 - 13	NC	3	SPPT BOTT				<a href="#">33733</a>		
1/2 - 20	NF	3	SPPT PLUG		<a href="#">33812</a>	<a href="#">33822</a>	<a href="#">33832</a>		<a href="#">33852</a>
1/2 - 20	NF	3	SPPT BOTT				<a href="#">33833</a>		
9/16 - 12	NC	3	SPPT PLUG		<a href="#">33912</a>	<a href="#">33922</a>	<a href="#">33932</a>		<a href="#">33952</a>
9/16 - 12	NC	3	SPPT BOTT				<a href="#">33933</a>		
9/16 - 18	NF	3	SPPT PLUG		<a href="#">34012</a>	<a href="#">34022</a>	<a href="#">34032</a>		<a href="#">34052</a>
9/16 - 18	NF	3	SPPT BOTT				<a href="#">34033</a>		
5/8 - 11	NC	3	SPPT PLUG		<a href="#">34112</a>	<a href="#">34122</a>	<a href="#">34132</a>		<a href="#">34152</a>
5/8 - 11	NC	3	SPPT BOTT				<a href="#">34133</a>		
5/8 - 18	NF	3	SPPT PLUG		<a href="#">34212</a>	<a href="#">34222</a>	<a href="#">34232</a>		<a href="#">34252</a>
5/8 - 18	NF	3	SPPT BOTT				<a href="#">34233</a>		
11/16 - 11	NS	3	SPPT PLUG				<a href="#">34332</a>		
11/16 - 11	NS	3	SPPT BOTT				<a href="#">34333</a>		
11/16 - 16	NS	3	SPPT PLUG				<a href="#">34432</a>		
11/16 - 16	NS	3	SPPT BOTT				<a href="#">34433</a>		
3/4 - 10	NC	3	SPPT PLUG		<a href="#">34512</a>	<a href="#">34522</a>	<a href="#">34532</a>		<a href="#">34552</a>
3/4 - 10	NC	3	SPPT BOTT				<a href="#">34533</a>		
3/4 - 16	NF	3	SPPT PLUG		<a href="#">34612</a>	<a href="#">34622</a>	<a href="#">34632</a>		<a href="#">34652</a>
3/4 - 16	NF	3	SPPT BOTT				<a href="#">34633</a>		
7/8 - 9	NC	3	SPPT PLUG					<a href="#">34852</a>	
7/8 - 9	NC	4	SPPT PLUG					<a href="#">34842</a>	
7/8 - 14	NF	3	SPPT PLUG					<a href="#">34952</a>	
7/8 - 14	NF	4	SPPT PLUG					<a href="#">34942</a>	
1 - 8	NC	3	SPPT PLUG					<a href="#">35052</a>	
1 - 8	NC	4	SPPT PLUG					<a href="#">35042</a>	
1 - 12	NF	4	SPPT PLUG					<a href="#">35142</a>	
1 - 14	NS	4	SPPT PLUG					<a href="#">35242</a>	

## TIN COATED SPIRAL POINT PLUG TAPS

**LIST 106C TIN COATED  
 LIST 102C TIN COATED**

**Machine Screw Sizes  
 Fractional Sizes**



TAP SIZE	SERIES DESIGNATION	NO. OF FLUTES	EDP NUMBER	
			H-2	H-3
<b>MACHINE SCREW SIZES</b>				
0 - 80	NF	2	99674	
2 - 56	NC	2	99675	
3 - 48	NC	2	99676	
3 - 56	NF	2	99677	
4 - 40	NC	2	99513	
4 - 48	NF	2	99514	
5 - 40	NC	2	99515	
5 - 44	NF	2	99516	
6 - 32	NC	2	<u>99517</u>	<u>99518</u>
6 - 40	NF	2	99519	
8 - 32	NC	2	<u>99520</u>	<u>99521</u>
8 - 36	NF	2	99522	
10 - 24	NC	2	<u>99523</u>	<u>99524</u>
10 - 32	NF	2	<u>99525</u>	<u>99526</u>
12 - 24	NC	2		99527
12 - 28	NF	2		99528
<b>FRACTIONAL SIZES</b>				
1/4 - 20	NC	2	<u>99529</u>	<u>99530</u>
1/4 - 20	NC	3	<u>99531</u>	<u>99532</u>
1/4 - 28	NF	2	<u>99533</u>	<u>99534</u>
1/4 - 28	NF	3	<u>99535</u>	<u>99536</u>
5/16 - 18	NC	2	<u>99537</u>	<u>99538</u>
5/16 - 18	NC	3	<u>99539</u>	<u>99540</u>
5/16 - 24	NF	2	<u>99541</u>	<u>99542</u>
5/16 - 24	NF	3		<u>99543</u>
3/8 - 16	NC	3	<u>99544</u>	<u>99545</u>
3/8 - 24	NF	3	<u>99546</u>	<u>99547</u>
7/16 - 14	NC	3		<u>99548</u>
7/16 - 20	NF	3		99549
1/2 - 13	NC	3		99550
1/2 - 20	NF	3		<u>99551</u>
9/16 - 12	NC	3		99552
9/16 - 18	NF	3		99553
5/8 - 11	NC	3		<u>99554</u>
5/8 - 18	NF	3		99555
3/4 - 10	NC	3		99556
3/4 - 16	NF	3		99557

POA - Contact the plant for pricing on TiN Coated Taps.

## SLOW SPIRAL FLUTED 30° MACHINE SCREW TAPS

LIST 101S

Plug  
Bottom



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	STYLE	EDP NUMBER		
				H-1	H-2	H-3
3 - 48	NC	2	PLUG	18512	18522	
3 - 48	NC	2	BOTT	18513	18523	
3 - 56	NF	2	PLUG	18612	18622	
3 - 56	NF	2	BOTT	18613	18623	
4 - 40	NC	2	PLUG	18712	18722	
4 - 40	NC	2	BOTT	18713	18723	
4 - 48	NF	2	PLUG	18812	18822	
4 - 48	NF	2	BOTT	18813	18823	
5 - 40	NC	2	PLUG	18912	18922	
5 - 40	NC	2	BOTT	18913	18923	
5 - 44	NF	2	PLUG	19012	19022	
5 - 44	NF	2	BOTT	19013	19023	
6 - 32	NC	2	PLUG	19112		19132
6 - 32	NC	2	BOTT	19113		19133
6 - 40	NF	2	PLUG	19212	19222	
6 - 40	NF	2	BOTT	19213	19223	
8 - 32	NC	2	PLUG	19312		19332
8 - 32	NC	2	BOTT	19313		19333
8 - 36	NF	2	PLUG	19412	19422	
8 - 36	NF	2	BOTT	19413	19423	
10 - 24	NC	2	PLUG	19512		19532
10 - 24	NC	2	BOTT	19513		19533
10 - 32	NF	2	PLUG	19612		19632
10 - 32	NF	2	BOTT	19613		19633
12 - 24	NC	2	PLUG	19712		19732
12 - 24	NC	2	BOTT	19713		19733
12 - 28	NF	2	PLUG	19812		19832
12 - 28	NF	2	BOTT	19813		19833

**Penta Relief** – Special thread geometry that allows for freer cutting. Available in Standard Taps in List Numbers 106A in size #10 with 2 & 3 Flutes and larger sizes, 103, 102C, 402VPR, 402VMPPR, 403V, 403VM, 407VP and 407VMPPR.

## SLOW SPIRAL FLUTED 30° FRACTIONAL TAPS

LIST 106S

Plug  
Bottom



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	STYLE	EDP NUMBER		
				H-1	H-3	H-5
1/4 - 20	NC	2	PLUG	<a href="#">29012</a>	<a href="#">29032</a>	<a href="#">29052</a>
1/4 - 20	NC	2	BOTT	<a href="#">29013</a>	<a href="#">29033</a>	<a href="#">29053</a>
1/4 - 20	NC	3	PLUG	<a href="#">29112</a>	<a href="#">29132</a>	<a href="#">29152</a>
1/4 - 20	NC	3	BOTT	<a href="#">29113</a>	<a href="#">29133</a>	<a href="#">29153</a>
1/4 - 28	NF	2	PLUG	29212	29232	
1/4 - 28	NF	2	BOTT	29213	29233	
1/4 - 28	NF	3	PLUG	29312	29332	
1/4 - 28	NF	3	BOTT	29313	29333	
5/16 - 18	NC	2	PLUG	<a href="#">29412</a>	<a href="#">29432</a>	<a href="#">29452</a>
5/16 - 18	NC	2	BOTT	<a href="#">29413</a>	<a href="#">29433</a>	<a href="#">29453</a>
5/16 - 18	NC	3	PLUG	<a href="#">29512</a>	<a href="#">29532</a>	<a href="#">29552</a>
5/16 - 18	NC	3	BOTT	<a href="#">29513</a>	<a href="#">29533</a>	<a href="#">29553</a>
5/16 - 24	NF	2	PLUG	29612	29632	
5/16 - 24	NF	2	BOTT	29613	29633	
5/16 - 24	NF	3	PLUG	29712	29732	
5/16 - 24	NF	3	BOTT	29713	29733	
3/8 - 16	NC	3	PLUG	<a href="#">29812</a>	<a href="#">29832</a>	<a href="#">29852</a>
3/8 - 16	NC	3	BOTT	<a href="#">29813</a>	<a href="#">29833</a>	<a href="#">29853</a>
3/8 - 24	NF	3	PLUG	29912	29932	
3/8 - 24	NF	3	BOTT	29913	29933	
7/16 - 14	NC	3	PLUG	<a href="#">30012</a>	<a href="#">30032</a>	<a href="#">30052</a>
7/16 - 14	NC	3	BOTT	<a href="#">30013</a>	<a href="#">30033</a>	<a href="#">30053</a>
7/16 - 20	NF	3	PLUG	<a href="#">30112</a>	<a href="#">30132</a>	<a href="#">30152</a>
7/16 - 20	NF	3	BOTT	<a href="#">30113</a>	<a href="#">30133</a>	<a href="#">30153</a>
1/2 - 13	NC	3	PLUG	<a href="#">30212</a>	<a href="#">30232</a>	<a href="#">30252</a>
1/2 - 13	NC	3	BOTT	<a href="#">30213</a>	<a href="#">30233</a>	<a href="#">30253</a>
1/2 - 20	NF	3	PLUG	<a href="#">30312</a>	<a href="#">30332</a>	<a href="#">30352</a>
1/2 - 20	NF	3	BOTT	<a href="#">30313</a>	<a href="#">30333</a>	<a href="#">30353</a>
9/16 - 12	NC	3	PLUG		30362	
9/16 - 12	NC	3	BOTT		30363	
9/16 - 18	NF	3	PLUG		30367	
9/16 - 18	NF	3	BOTT		30368	
5/8 - 11	NC	3	PLUG		30372	
5/8 - 11	NC	3	BOTT		30373	
5/8 - 18	NF	3	PLUG		30382	
5/8 - 18	NF	3	BOTT		30383	
3/4 - 10	NC	4	PLUG		30392	
3/4 - 10	NC	4	BOTT		30393	
3/4 - 16	NF	4	PLUG		30397	
3/4 - 16	NF	4	BOTT		30398	

## HEAVY DUTY SPIRAL FLUTED 45° MACHINE SCREW TAPS

LIST 101HD

Plug  
Bottom



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	STYLE	EDP NUMBER		
				H-1	H-2	H-3
3 - 48	NC	2	PLUG	64001	64002	
3 - 48	NC	2	BOTT	64003	64004	
3 - 56	NF	2	PLUG	64011	64012	
3 - 56	NF	2	BOTT	64013	64014	
4 - 40	NC	2	PLUG	64021	64022	
4 - 40	NC	2	BOTT	64023	64024	
4 - 48	NF	2	PLUG	64031	64032	
4 - 48	NF	2	BOTT	64033	64034	
5 - 40	NC	2	PLUG	64041	64042	
5 - 40	NC	2	BOTT	64043	64044	
5 - 44	NF	2	PLUG	64051	64052	
5 - 44	NF	2	BOTT	64053	64054	
6 - 32	NC	2	PLUG	64061		64062
6 - 32	NC	2	BOTT	64063		64064
6 - 40	NF	2	PLUG	64071	64072	
6 - 40	NF	2	BOTT	64073	64074	
8 - 32	NC	2	PLUG	64081		64082
8 - 32	NC	2	BOTT	64083		64084
8 - 36	NF	2	PLUG	64091	64092	
8 - 36	NF	2	BOTT	64093	64094	
10 - 24	NC	3	PLUG	64101		64102
10 - 24	NC	3	BOTT	64103		64104
10 - 32	NF	3	PLUG	64111		64112
10 - 32	NF	3	BOTT	64113		64114
12 - 24	NC	3	PLUG	64121		64122
12 - 24	NC	3	BOTT	64123		64124
12 - 28	NF	3	PLUG	64131		64132
12 - 28	NF	3	BOTT	64133		64134

See page 87 for Tap Recommendations for Classes 2B & 3B.  
See page 89 for Tap Dimensions.

## HEAVY DUTY SPIRAL FLUTED 45° FRACTIONAL TAPS

LIST 106HD

Plug  
Bottom



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	STYLE	EDP NUMBER			
				H-1	H-3	H-4	H-5
1/4 - 20	NC	3	PLUG	<a href="#">64141</a>	<a href="#">64142</a>		<a href="#">64143</a>
1/4 - 20	NC	3	BOTT	<a href="#">64144</a>	<a href="#">64145</a>		<a href="#">64146</a>
1/4 - 28	NF	3	PLUG	64151	64152		
1/4 - 28	NF	3	BOTT	64153	64154		
5/16 - 18	NC	3	PLUG	<a href="#">64161</a>	<a href="#">64162</a>		<a href="#">64163</a>
5/16 - 18	NC	3	BOTT	<a href="#">64164</a>	<a href="#">64165</a>		<a href="#">64166</a>
5/16 - 24	NF	3	PLUG	64171	64172		
5/16 - 24	NF	3	BOTT	64173	64174		
3/8 - 16	NC	3	PLUG	<a href="#">64181</a>	<a href="#">64182</a>		<a href="#">64183</a>
3/8 - 16	NC	3	BOTT	<a href="#">64184</a>	<a href="#">64185</a>		<a href="#">64186</a>
3/8 - 24	NF	3	PLUG	64191	64192		
3/8 - 24	NF	3	BOTT	64193	64194		
7/16 - 14	NC	3	PLUG	<a href="#">64201</a>	<a href="#">64202</a>		<a href="#">64203</a>
7/16 - 14	NC	3	BOTT	<a href="#">64204</a>	<a href="#">64205</a>		<a href="#">64206</a>
7/16 - 20	NF	3	PLUG	<a href="#">64211</a>	<a href="#">64212</a>		<a href="#">64213</a>
7/16 - 20	NF	3	BOTT	<a href="#">64214</a>	<a href="#">64215</a>		<a href="#">64216</a>
1/2 - 13	NC	3	PLUG	<a href="#">64221</a>	<a href="#">64222</a>		<a href="#">64223</a>
1/2 - 13	NC	3	BOTT	<a href="#">64224</a>	<a href="#">64225</a>		<a href="#">64226</a>
1/2 - 20	NF	3	PLUG	<a href="#">64231</a>	<a href="#">64232</a>		<a href="#">64233</a>
1/2 - 20	NF	3	BOTT	<a href="#">64234</a>	<a href="#">64235</a>		<a href="#">64236</a>
9/16 - 12	NC	3	PLUG		<a href="#">64241</a>		<a href="#">64242</a>
9/16 - 12	NC	3	BOTT		<a href="#">64243</a>		<a href="#">64244</a>
9/16 - 18	NF	3	PLUG	64251	64252		
9/16 - 18	NF	3	BOTT	64253	64254		
5/8 - 11	NC	4	PLUG		<a href="#">64261</a>		<a href="#">64262</a>
5/8 - 11	NC	4	BOTT		<a href="#">64263</a>		<a href="#">64264</a>
5/8 - 18	NF	4	PLUG	64271	64272		
5/8 - 18	NF	4	BOTT	64273	64274		
3/4 - 10	NC	4	PLUG		<a href="#">64281</a>		<a href="#">64282</a>
3/4 - 10	NC	4	BOTT		<a href="#">64283</a>		<a href="#">64284</a>
3/4 - 16	NF	4	PLUG	64291	64292		
3/4 - 16	NF	4	BOTT	64293	64294		
7/8 - 9	NC	4	PLUG			64295	
7/8 - 9	NC	4	BOTT			64297	
1 - 8	NC	4	PLUG			64298	
1 - 8	NC	4	BOTT			64299	

## FAST SPIRAL FLUTED 52° MACHINE SCREW TAPS

LIST 101F

Plug  
Bottom



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	STYLE	EDP NUMBER		
				H-1	H-2	H-3
3 - 48	NC	2	PLUG	19912	19922	
3 - 48	NC	2	BOTT	19913	19923	
3 - 56	NF	2	PLUG	20012	20022	
3 - 56	NF	2	BOTT	20013	20023	
4 - 40	NC	2	PLUG	20112	20122	
4 - 40	NC	2	BOTT	20113	20123	
4 - 48	NF	2	PLUG	20212	20222	
4 - 48	NF	2	BOTT	20213	20223	
5 - 40	NC	2	PLUG	20312	20322	
5 - 40	NC	2	BOTT	20313	20323	
5 - 44	NF	2	PLUG	20412	20422	
5 - 44	NF	2	BOTT	20413	20423	
6 - 32	NC	3	PLUG	20512		20532
6 - 32	NC	3	BOTT	20513		20533
6 - 40	NF	3	PLUG	20612	20622	
6 - 40	NF	3	BOTT	20613	20623	
8 - 32	NC	3	PLUG	20712		20732
8 - 32	NC	3	BOTT	20713		20733
8 - 36	NF	3	PLUG	20812	20822	
8 - 36	NF	3	BOTT	20813	20823	
10 - 24	NC	3	PLUG	20912		20932
10 - 24	NC	3	BOTT	20913		20933
10 - 32	NF	3	PLUG	21012		21032
10 - 32	NF	3	BOTT	21013		21033
12 - 24	NC	3	PLUG	21112		21132
12 - 24	NC	3	BOTT	21113		21133
12 - 28	NF	3	PLUG	21212		21232
12 - 28	NF	3	BOTT	21213		21233

See page 87 for Tap Recommendations for Classes 2B & 3B.  
See page 89 for Tap Dimensions.



## FAST SPIRAL FLUTED 52° FRACTIONAL TAPS

**LIST 106F**

**Plug  
Bottom**



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	STYLE	EDP NUMBER		
				H-1	H-3	H-5
1/4 - 20	NC	3	PLUG	<a href="#">28501</a>	<a href="#">28507</a>	<a href="#">28511</a>
1/4 - 20	NC	3	BOTT	<a href="#">28502</a>	<a href="#">28508</a>	<a href="#">28512</a>
1/4 - 28	NF	3	PLUG	28517	28521	
1/4 - 28	NF	3	BOTT	28518	28522	
5/16 - 18	NC	3	PLUG	<a href="#">28531</a>	<a href="#">28537</a>	<a href="#">28539</a>
5/16 - 18	NC	3	BOTT	<a href="#">28532</a>	<a href="#">28538</a>	<a href="#">28541</a>
5/16 - 24	NF	3	PLUG	28547	28551	
5/16 - 24	NF	3	BOTT	28548	28552	
3/8 - 16	NC	3	PLUG	<a href="#">28561</a>	<a href="#">28577</a>	<a href="#">28581</a>
3/8 - 16	NC	3	BOTT	<a href="#">28562</a>	<a href="#">28578</a>	<a href="#">28582</a>
3/8 - 24	NF	3	PLUG	28587	28591	
3/8 - 24	NF	3	BOTT	28588	28592	
7/16 - 14	NC	4	PLUG	<a href="#">28601</a>	<a href="#">28607</a>	<a href="#">28611</a>
7/16 - 14	NC	4	BOTT	<a href="#">28602</a>	<a href="#">28608</a>	<a href="#">28612</a>
7/16 - 20	NF	4	PLUG	<a href="#">28617</a>	<a href="#">28621</a>	<a href="#">28627</a>
7/16 - 20	NF	4	BOTT	<a href="#">28618</a>	<a href="#">28622</a>	<a href="#">28628</a>
1/2 - 13	NC	4	PLUG	<a href="#">28631</a>	<a href="#">28637</a>	<a href="#">28641</a>
1/2 - 13	NC	4	BOTT	<a href="#">28632</a>	<a href="#">28638</a>	<a href="#">28642</a>
1/2 - 20	NF	4	PLUG	<a href="#">28647</a>	<a href="#">28651</a>	<a href="#">28657</a>
1/2 - 20	NF	4	BOTT	<a href="#">28648</a>	<a href="#">28652</a>	<a href="#">28658</a>
9/16 - 12	NC	4	PLUG		28667	28671
9/16 - 12	NC	4	BOTT		28668	28672
9/16 - 18	NF	4	PLUG	28677	28681	
9/16 - 18	NF	4	BOTT	28678	28682	
5/8 - 11	NC	4	PLUG		28697	28701
5/8 - 11	NC	4	BOTT		28698	28702
5/8 - 18	NF	4	PLUG	28707	28711	
5/8 - 18	NF	4	BOTT	28708	28712	
3/4 - 10	NC	4	PLUG		28727	28731
3/4 - 10	NC	4	BOTT		28728	28732
3/4 - 16	NF	4	PLUG	28737	28741	
3/4 - 16	NF	4	BOTT	28738	28742	

## OVERSIZE HAND TAPS MACHINE SCREW SIZES

LIST 115A

Plug  
Bottom



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	STYLE	EDP NUMBER		
				H-6	H-7	H-11
4 - 40	NC	3	PLUG	<a href="#">21362</a>	<a href="#">21372</a>	<a href="#">21382</a>
4 - 40	NC	3	BOTT	<a href="#">21363</a>	<a href="#">21373</a>	<a href="#">21383</a>
4 - 48	NF	3	PLUG	21462	21472	
4 - 48	NF	3	BOTT	21463	21473	
5 - 40	NC	3	PLUG	<a href="#">21562</a>	<a href="#">21572</a>	<a href="#">21582</a>
5 - 40	NC	3	BOTT	<a href="#">21563</a>	<a href="#">21573</a>	<a href="#">21583</a>
5 - 44	NF	3	PLUG	21662	21672	
5 - 44	NF	3	BOTT	21663	21673	
6 - 32	NC	3	PLUG	<a href="#">21762</a>	<a href="#">21772</a>	<a href="#">21782</a>
6 - 32	NC	3	BOTT	<a href="#">21763</a>	<a href="#">21773</a>	<a href="#">21783</a>
6 - 40	NF	3	PLUG	21862	21872	
6 - 40	NF	3	BOTT	21863	21873	
8 - 32	NC	3	PLUG	<a href="#">21962</a>	<a href="#">21972</a>	<a href="#">21982</a>
8 - 32	NC	3	BOTT	<a href="#">21963</a>	<a href="#">21973</a>	<a href="#">21983</a>
8 - 36	NF	3	PLUG	22062	22072	
8 - 36	NF	3	BOTT	22063	22073	
10 - 24	NC	3	PLUG	<a href="#">22162</a>	<a href="#">22172</a>	<a href="#">22182</a>
10 - 24	NC	3	BOTT	<a href="#">22163</a>	<a href="#">22173</a>	<a href="#">22183</a>
10 - 32	NF	3	PLUG	<a href="#">22262</a>	<a href="#">22272</a>	<a href="#">22282</a>
10 - 32	NF	3	BOTT	<a href="#">22263</a>	<a href="#">22273</a>	<a href="#">22283</a>

### OVERSIZE PRICING POLICY (Based on one shipment)

Applies to regular and spiral point, machine screw and fractional size taps only.

In addition to H-6, H-7 and H-11, machine screw taps and +.005 over basic (H-11) fractional size taps.

Oversize taps H-1 through H-12 take standard prices when minimum quantity is as shown in the table below.

TAP SIZE	MINIMUM QUANTITY FOR STANDARD PRICE
No. 0 through 1/2" .....	144
9/16 through 1" .....	48

See page 89 for Tap Dimensions.

## OVERSIZE SPIRAL POINT TAPS MACHINE SCREW SIZES

LIST 115

Spiral Point Plug  
 Spiral Point Bottom



	TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	STYLE	EDP NUMBER		
					H-6	H-7	H-11
	4 - 40	NC	2	SPPT PLUG	<a href="#">22362</a>	<a href="#">22372</a>	<a href="#">22382</a>
	4 - 40	NC	2	SPPT BOTT	22364	22374	
	4 - 48	NF	2	SPPT PLUG	22462	22472	
	4 - 48	NF	2	SPPT BOTT	22464	22474	
	5 - 40	NC	2	SPPT PLUG	<a href="#">22562</a>	<a href="#">22572</a>	<a href="#">22582</a>
	5 - 40	NC	2	SPPT BOTT	22564	22574	
	5 - 44	NF	2	SPPT PLUG	22662	22672	
	5 - 44	NF	2	SPPT BOTT	22664	22674	
	6 - 32	NC	2	SPPT PLUG	<a href="#">22762</a>	<a href="#">22772</a>	<a href="#">22782</a>
	6 - 32	NC	2	SPPT BOTT	22764	22774	
	6 - 40	NF	2	SPPT PLUG	22862	22872	
	6 - 40	NF	2	SPPT BOTT	22864	22874	
	8 - 32	NC	2	SPPT PLUG	<a href="#">22962</a>	<a href="#">22972</a>	<a href="#">22982</a>
	8 - 32	NC	2	SPPT BOTT	22964	22974	
	8 - 36	NF	2	SPPT PLUG	23062	23072	
	8 - 36	NF	2	SPPT BOTT	23064	23074	
	10 - 24	NC	2	SPPT PLUG	<a href="#">23162</a>	<a href="#">23172</a>	<a href="#">23182</a>
	10 - 24	NC	2	SPPT BOTT	23164	23174	
	10 - 32	NF	2	SPPT PLUG	<a href="#">23262</a>	<a href="#">23272</a>	<a href="#">23282</a>
	10 - 32	NF	2	SPPT BOTT	23264	23274	

### OVERSIZE PRICING POLICY (Based on one shipment)

Applies to regular and spiral point, machine screw and fractional size taps only.

In addition to H-6, H-7 and H-11, machine screw taps and +.005 over basic (H-11) fractional size taps.

Oversize taps H-1 through H-12 take standard prices when minimum quantity is as shown in the table below.

TAP SIZE	MINIMUM QUANTITY FOR STANDARD PRICE
No. 0 through 1/2" .....	144
9/16 through 1" .....	48

See page 89 for Tap Dimensions.

## + .005 OVERSIZE HAND AND SPIRAL POINT FRACTIONAL TAPS

LIST 110

Plug  
Bottom  
Spiral Point Plug



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	H LIMIT +.005	110		
				PLUG EDP NUMBER	BOTTOM EDP NUMBER	SPPT PLUG EDP NUMBER
1/4 - 20	NC	4	H-11	40573	40575	
1/4 - 20	NC	2	H-11			40474
1/4 - 28	NF	4	H-11	40773	40775	
1/4 - 28	NF	2	H-11			40674
5/16 - 18	NC	4	H-11	40973	40975	
5/16 - 18	NC	3	H-11			40874
5/16 - 24	NF	4	H-11	41173	41175	
5/16 - 24	NF	3	H-11			41074
3/8 - 16	NC	4	H-11	41373	41375	
3/8 - 16	NC	3	H-11			41274
3/8 - 24	NF	4	H-11	41573	41575	
3/8 - 24	NF	3	H-11			41474
7/16 - 14	NC	4	H-11	41773	41775	
7/16 - 14	NC	3	H-11			41674
7/16 - 20	NF	4	H-11	41973	41975	
7/16 - 20	NF	3	H-11			41874
1/2 - 13	NC	4	H-11	42173	42175	
1/2 - 13	NC	3	H-11			42074
1/2 - 20	NF	4	H-11	42373	42375	
1/2 - 20	NF	3	H-11			42274
5/8 - 11	NC	4	H-11	42401	42402	
5/8 - 11	NC	3	H-11			42403
5/8 - 18	NF	4	H-11	42411	42412	
5/8 - 18	NF	3	H-11			42413
3/4 - 10	NC	4	H-11	42421	42422	
3/4 - 10	NC	3	H-11			42423
3/4 - 16	NF	4	H-11	42431	42432	
3/4 - 16	NF	3	H-11			42433
7/8 - 9	NC	4	H-11	42441	42442	
7/8 - 14	NF	4	H-11	42451	42452	
1 - 8	NC	4	H-11	42461	42462	

### OVERSIZE PRICING POLICY (Based on one shipment)

Applies to regular and spiral point, machine screw and fractional size taps only.  
In addition to H-6, H-7 and H-11, machine screw taps and +.005 over basic (H-11) fractional size taps.  
Oversize taps H-1 through H-12 take standard prices when minimum quantity is as shown in the table below.

TAP SIZE	MINIMUM QUANTITY FOR STANDARD PRICE
No. 0 through 1/2" .....	144
9/16 through 1" .....	48

## FLUTELESS SPIRAL POINT MACHINE SCREW TAPS

LIST 105C

Spiral Point Plug



TAP SIZE	SERIES DESIGN.	STYLE	EDP NUMBER		
			H-1	H-2	H-3
3 - 48	NC	SPPT PLUG	36712	36722	
3 - 56	NF	SPPT PLUG		36822	
4 - 40	NC	SPPT PLUG	37012	37022	
4 - 48	NF	SPPT PLUG		37122	
4 - 36	NS	SPPT PLUG		36922	
5 - 40	NC	SPPT PLUG		37222	
5 - 44	NF	SPPT PLUG		37322	
6 - 32	NC	SPPT PLUG		37422	37432
6 - 40	NF	SPPT PLUG		37522	
8 - 32	NC	SPPT PLUG		37622	37632
10 - 24	NC	SPPT PLUG		37822	37832
10 - 32	NF	SPPT PLUG	<a href="#">37912</a>	<a href="#">37922</a>	<a href="#">37932</a>
12 - 24	NC	SPPT PLUG			38032
12 - 28	NF	SPPT PLUG			38132
14 - 20	NS	SPPT PLUG			38232

## FLUTELESS SPIRAL POINT FRACTIONAL TAPS

LIST 104C

Spiral Point Plug



TAP SIZE	SERIES DESIGN.	STYLE	EDP NUMBER	
			H-3	H-5
1/4 - 20	NC	SPPT PLUG	<a href="#">35432</a>	<a href="#">35452</a>
1/4 - 28	NF	SPPT PLUG	35532	
5/16 - 18	NC	SPPT PLUG	<a href="#">35632</a>	<a href="#">35652</a>
5/16 - 24	NF	SPPT PLUG	35732	
3/8 - 16	NC	SPPT PLUG	<a href="#">35832</a>	<a href="#">35852</a>
3/8 - 24	NF	SPPT PLUG	35932	
7/16 - 14	NC	SPPT PLUG	<a href="#">36032</a>	<a href="#">36052</a>
7/16 - 20	NF	SPPT PLUG	36132	
1/2 - 13	NC	SPPT PLUG	36232	
1/2 - 20	NF	SPPT PLUG	36332	

## INTERRUPTED THREAD FRACTIONAL TAPS

LIST 108

Taper  
Plug  
Bottom



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	H LIMIT	108		
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER
1/4 - 20	NC	3	H-3	<a href="#">39231</a>	<a href="#">39232</a>	<a href="#">39233</a>
1/4 - 28	NF	3	H-3	<a href="#">39331</a>	<a href="#">39332</a>	<a href="#">39333</a>
5/16 - 18	NC	3	H-3	<a href="#">39431</a>	<a href="#">39432</a>	<a href="#">39433</a>
5/16 - 24	NF	3	H-3	<a href="#">39531</a>	<a href="#">39532</a>	<a href="#">39533</a>
3/8 - 16	NC	3	H-3	<a href="#">39631</a>	<a href="#">39632</a>	<a href="#">39633</a>
3/8 - 24	NF	3	H-3	<a href="#">39731</a>	<a href="#">39732</a>	<a href="#">39733</a>
1/2 - 13	NC	3	H-3		39742	39743
1/2 - 20	NF	3	H-3		39762	39763
5/8 - 11	NC	3	H-3		39772	39773

## INTERRUPTED THREAD SPIRAL POINT FRACTIONAL TAPS

LIST 109

Spiral Point Plug



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	H LIMIT	109
				SPPT PLUG EDP NUMBER
1/4 - 20	NC	3	H-3	<a href="#">39832</a>
1/4 - 28	NF	3	H-3	<a href="#">39932</a>
5/16 - 18	NC	3	H-3	<a href="#">40032</a>
5/16 - 24	NF	3	H-3	<a href="#">40132</a>
3/8 - 16	NC	3	H-3	<a href="#">40232</a>
3/8 - 24	NF	3	H-3	<a href="#">40332</a>
1/2 - 13	NC	3	H-3	<a href="#">40342</a>
1/2 - 20	NF	3	H-3	<a href="#">40352</a>
5/8 - 11	NC	3	H-3	<a href="#">40362</a>
3/4 - 10	NC	3	H-3	<a href="#">40372</a>

See page 89 for Tap Dimensions.

## EXTENSION TAPS 6" O/A MACHINE SCREW SIZES

LIST 107

Plug  
 Bottom  
 Spiral Point Plug



Large Shank with approx. 3/4" Gap

TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	H LIMIT	107		
				PLUG EDP NUMBER	BOTTOM EDP NUMBER	SPPT PLUG EDP NUMBER
6 - 32	NC	3	H-3	38632	38633	
6 - 32	NC	2	H-3			38532
8 - 32	NC	3	H-3	38832	38833	
8 - 32	NC	2	H-3			38732
10 - 24	NC	3	H-3	39024	39025	
10 - 24	NC	2	H-3			38924
10 - 32	NF	3	H-3	39032	39033	
10 - 32	NF	2	H-3			38932

## NUT TAPS FRACTIONAL SIZES

LIST 111A

Taper  
 Plug



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	H LIMIT	OVERALL LENGTH	111A	
					TAPER EDP NUMBER	PLUG EDP NUMBER
1/4 - 20	NC	4	H-3	5"	<a href="#">42531</a>	<a href="#">42532</a>
1/4 - 28	NF	4	H-3	5"	<a href="#">42631</a>	<a href="#">42632</a>
5/16 - 18	NC	4	H-3	5 1/2"	<a href="#">42731</a>	<a href="#">42732</a>
5/16 - 24	NF	4	H-3	5 1/2"	<a href="#">42831</a>	<a href="#">42832</a>
3/8 - 16	NC	4	H-3	6"	<a href="#">42931</a>	<a href="#">42932</a>
3/8 - 24	NF	4	H-3	6"	<a href="#">43031</a>	<a href="#">43032</a>
7/16 - 14	NC	4	H-3	6 1/2"	<a href="#">43131</a>	<a href="#">43132</a>
7/16 - 20	NF	4	H-3	6 1/2"	<a href="#">43231</a>	<a href="#">43232</a>
1/2 - 13	NC	4	H-3	7"	<a href="#">43331</a>	<a href="#">43332</a>
1/2 - 20	NF	4	H-3	7"	<a href="#">43431</a>	<a href="#">43432</a>
5/8 - 11	NC	4	H-3	8"	<a href="#">43531</a>	<a href="#">43532</a>
5/8 - 18	NF	4	H-3	8"	<a href="#">43631</a>	<a href="#">43632</a>
3/4 - 10	NC	4	H-3	9"	<a href="#">43731</a>	<a href="#">43732</a>
3/4 - 16	NF	4	H-3	9"	<a href="#">43831</a>	<a href="#">43832</a>
7/8 - 9	NC	4	H-4	10"	<a href="#">43941</a>	<a href="#">43942</a>
7/8 - 14	NF	4	H-4	10"	<a href="#">44041</a>	<a href="#">44042</a>
1 - 8	NC	4	H-4	11"	<a href="#">44141</a>	<a href="#">44142</a>
1 - 14	NS	4	H-4	11"	<a href="#">44241</a>	<a href="#">44242</a>

\*For larger quantity prices, consult factory.

## PULLEY TAPS FRACTIONAL SIZES

LIST 112P  
PULLEY

Plug



TAP SIZE	SERIES DESIGN.	OVERALL LENGTH	NO. OF FLUTES	H LIMIT	SHANK DIAMETER	112P
						PLUG EDP NUMBER
1/4 - 20	NC	4"	4	H-3	.255	<a href="#">45022</a>
1/4 - 20	NC	6"	4	H-3	.255	<a href="#">45032</a>
1/4 - 20	NC	8"	4	H-3	.255	<a href="#">45042</a>
1/4 - 28	NF	6"	4	H-3	.255	<a href="#">44432</a>
5/16 - 18	NC	4"	4	H-3	.318	<a href="#">45122</a>
5/16 - 18	NC	6"	4	H-3	.318	<a href="#">45132</a>
5/16 - 18	NC	8"	4	H-3	.318	<a href="#">45142</a>
5/16 - 24	NF	6"	4	H-3	.318	<a href="#">44532</a>
3/8 - 16	NC	4"	4	H-3	.381	<a href="#">45618</a>
3/8 - 16	NC	6"	4	H-3	.381	<a href="#">45232</a>
3/8 - 16	NC	8"	4	H-3	.381	<a href="#">45242</a>
3/8 - 16	NC	10"	4	H-3	.381	<a href="#">45252</a>
3/8 - 16	NC	12"	4	H-3	.381	<a href="#">45262</a>
3/8 - 24	NF	6"	4	H-3	.381	<a href="#">44632</a>
7/16 - 14	NC	6"	4	H-3	.444	<a href="#">45332</a>
7/16 - 14	NC	8"	4	H-3	.444	<a href="#">45342</a>
7/16 - 14	NC	10"	4	H-3	.444	<a href="#">45352</a>
7/16 - 14	NC	12"	4	H-3	.444	<a href="#">45362</a>
7/16 - 20	NF	6"	4	H-3	.444	<a href="#">44732</a>
1/2 - 13	NC	6"	4	H-3	.507	<a href="#">45432</a>
1/2 - 13	NC	8"	4	H-3	.507	<a href="#">45442</a>
1/2 - 13	NC	10"	4	H-3	.507	<a href="#">45452</a>
1/2 - 13	NC	12"	4	H-3	.507	<a href="#">45472</a>
1/2 - 20	NF	6"	4	H-3	.507	<a href="#">44832</a>
5/8 - 11	NC	6"	4	H-3	.633	<a href="#">45532</a>
5/8 - 11	NC	8"	4	H-3	.633	<a href="#">45542</a>
5/8 - 11	NC	10"	4	H-3	.633	<a href="#">45552</a>
5/8 - 11	NC	12"	4	H-3	.633	<a href="#">45562</a>
5/8 - 11	NC	14"	4	H-3	.633	<a href="#">45572</a>
3/4 - 10	NC	6"	4	H-3	.759	<a href="#">45622</a>
3/4 - 10	NC	8"	4	H-3	.759	<a href="#">45632</a>
3/4 - 10	NC	10"	4	H-3	.759	<a href="#">45652</a>
3/4 - 10	NC	12"	4	H-3	.759	<a href="#">45662</a>
3/4 - 10	NC	14"	4	H-3	.759	<a href="#">45672</a>
7/8 - 9	NC	6"	4	H-4	.885	<a href="#">45810</a>
7/8 - 9	NC	8"	4	H-4	.885	<a href="#">45812</a>
7/8 - 9	NC	10"	4	H-4	.885	<a href="#">45814</a>
1 - 8	NC	8"	4	H-4	1.011	<a href="#">45842</a>
1 - 8	NC	10"	4	H-4	1.011	<a href="#">45852</a>
1 - 8	NC	12"	4	H-4	1.011	<a href="#">45862</a>

\*For larger quantity prices, consult factory.



## PULLEY TAPS SPIRAL POINT MACHINE SCREW AND FRACTIONAL SIZES

**LIST 112SP  
PULLEY**

**Spiral Point Plug**



TAP SIZE	SERIES DESIGN.	OVERALL LENGTH	NO. OF FLUTES	H LIMIT	112SP
					SPPT PLUG EDP NUMBER
4 - 40	NC	4"	2	H-2	<a href="#">38322</a>
4 - 48	NF	4"	2	H-2	<a href="#">38323</a>
5 - 40	NC	4"	2	H-2	<a href="#">38308</a>
6 - 32	NC	4"	2	H-3	<a href="#">38325</a>
6 - 32	NC	6"	2	H-3	<a href="#">38532</a>
8 - 32	NC	4"	2	H-3	<a href="#">38329</a>
8 - 32	NC	6"	2	H-3	<a href="#">38732</a>
10 - 24	NC	4"	2	H-3	<a href="#">38346</a>
10 - 24	NC	6"	2	H-3	<a href="#">38924</a>
10 - 32	NF	4"	2	H-3	<a href="#">38394</a>
10 - 32	NF	6"	2	H-3	<a href="#">38932</a>
1/4 - 20	NC	4"	2	H-3	<a href="#">45704</a>
1/4 - 20	NC	6"	2	H-3	<a href="#">45701</a>
1/4 - 20	NC	8"	2	H-3	<a href="#">45708</a>
1/4 - 28	NF	6"	2	H-3	<a href="#">45724</a>
5/16 - 18	NC	4"	2	H-3	<a href="#">45714</a>
5/16 - 18	NC	6"	2	H-3	<a href="#">45706</a>
5/16 - 18	NC	8"	2	H-3	<a href="#">45710</a>
5/16 - 24	NF	6"	2	H-3	<a href="#">45731</a>
3/8 - 16	NC	4"	3	H-3	<a href="#">45718</a>
3/8 - 16	NC	6"	3	H-3	<a href="#">45711</a>
3/8 - 16	NC	8"	3	H-3	<a href="#">45728</a>
3/8 - 24	NF	6"	3	H-3	<a href="#">45734</a>
7/16 - 14	NC	6"	3	H-3	<a href="#">45713</a>
7/16 - 20	NF	6"	3	H-3	<a href="#">45715</a>
1/2 - 13	NC	6"	3	H-3	<a href="#">45716</a>
1/2 - 13	NC	8"	3	H-3	<a href="#">45782</a>
1/2 - 20	NF	6"	3	H-3	<a href="#">45717</a>
5/8 - 11	NC	6"	3	H-3	<a href="#">45721</a>
5/8 - 11	NC	8"	3	H-3	<a href="#">45929</a>
3/4 - 10	NC	6"	3	H-3	<a href="#">45774</a>
3/4 - 10	NC	8"	3	H-3	<a href="#">45776</a>

\*For larger quantity prices, consult factory.

## SMALL SHANK EXTENSION TAPS

LIST 113P  
EXTENSION

Plug



TAP SIZE	SERIES DESIGN.	OVERALL LENGTH	NO. OF FLUTES	H LIMIT	SHANK DIAMETER	113P
						PLUG EDP NUMBER
6 - 32	NC	6"	3	H-3	.097	<a href="#">38332</a>
8 - 32	NC	6"	3	H-3	.123	<a href="#">38331</a>
10 - 24	NC	6"	3	H-3	.136	<a href="#">38342</a>
10 - 32	NF	6"	3	H-3	.136	<a href="#">39014</a>
1/4 - 20	NC	4"	4	H-3	.185	<a href="#">45612</a>
1/4 - 20	NC	6"	4	H-3	.185	<a href="#">45681</a>
1/4 - 28	NF	6"	4	H-3	.185	<a href="#">45719</a>
5/16 - 18	NC	4"	4	H-3	.240	<a href="#">45614</a>
5/16 - 18	NC	6"	4	H-3	.240	<a href="#">45683</a>
5/16 - 24	NF	6"	4	H-3	.240	<a href="#">45631</a>
3/8 - 16	NC	4"	4	H-3	.275	<a href="#">45779</a>
3/8 - 16	NC	6"	4	H-3	.275	<a href="#">45685</a>
3/8 - 16	NC	8"	4	H-3	.275	<a href="#">45686</a>
3/8 - 24	NF	6"	4	H-3	.275	<a href="#">45641</a>
1/2 - 13	NC	4"	4	H-3	.367	<a href="#">45748</a>
1/2 - 13	NC	6"	4	H-3	.367	<a href="#">45687</a>
1/2 - 13	NC	8"	4	H-3	.367	<a href="#">45668</a>
1/2 - 20	NF	6"	4	H-3	.367	<a href="#">45661</a>
5/8 - 11	NC	6"	4	H-3	.480	<a href="#">45689</a>
5/8 - 11	NC	8"	4	H-3	.480	<a href="#">45952</a>
5/8 - 18	NF	6"	4	H-3	.480	<a href="#">44956</a>
3/4 - 10	NC	6"	4	H-3	.590	<a href="#">45831</a>
3/4 - 10	NC	8"	4	H-3	.590	<a href="#">45832</a>
3/4 - 10	NC	10"	4	H-3	.590	<a href="#">45834</a>
3/4 - 16	NF	6"	4	H-3	.590	<a href="#">45789</a>
7/8 - 9	NC	6"	4	H-4	.697	<a href="#">45741</a>
7/8 - 9	NC	8"	4	H-4	.697	<a href="#">45761</a>
7/8 - 9	NC	10"	4	H-4	.697	<a href="#">45771</a>
7/8 - 9	NC	12"	4	H-4	.697	<a href="#">45772</a>
1 - 8	NC	6"	4	H-4	.800	<a href="#">45839</a>
1 - 8	NC	8"	4	H-4	.800	<a href="#">45841</a>
1 - 8	NC	10"	4	H-4	.800	<a href="#">45851</a>
1 - 8	NC	12"	4	H-4	.800	<a href="#">45859</a>

\*For larger quantity prices, consult factory.

## SMALL SHANK SPIRAL POINT EXTENSION TAPS

LIST 113SP  
EXTENSION

Spiral Point Plug



TAP SIZE	SERIES DESIGN.	OVERALL LENGTH	NO. OF FLUTES	H LIMIT	SHANK DIAMETER	113SP
						SPPT PLUG EDP NUMBER
4 - 40	NC	4"	2	H-2	.080	<a href="#">38302</a>
4 - 48	NF	4"	2	H-2	.080	<a href="#">38304</a>
5 - 40	NC	4"	2	H-2	.093	<a href="#">38312</a>
6 - 32	NC	4"	2	H-3	.097	<a href="#">38324</a>
6 - 32	NC	6"	2	H-3	.097	<a href="#">38326</a>
8 - 32	NC	4"	2	H-3	.123	<a href="#">38328</a>
8 - 32	NC	6"	2	H-3	.123	<a href="#">38330</a>
10 - 24	NC	4"	2	H-3	.136	<a href="#">38341</a>
10 - 24	NC	6"	2	H-3	.136	<a href="#">38343</a>
10 - 32	NF	4"	2	H-3	.136	<a href="#">38992</a>
10 - 32	NF	6"	2	H-3	.136	<a href="#">39012</a>
1/4 - 20	NC	4"	2	H-3	.185	<a href="#">45619</a>
1/4 - 20	NC	6"	2	H-3	.185	<a href="#">45732</a>
1/4 - 28	NF	6"	2	H-3	.185	<a href="#">45722</a>
5/16 - 18	NC	4"	2	H-3	.240	<a href="#">45753</a>
5/16 - 18	NC	6"	2	H-3	.240	<a href="#">45737</a>
5/16 - 24	NF	6"	2	H-3	.240	<a href="#">45723</a>
3/8 - 16	NC	4"	3	H-3	.275	<a href="#">45778</a>
3/8 - 16	NC	6"	3	H-3	.275	<a href="#">45742</a>
3/8 - 16	NC	8"	3	H-3	.275	<a href="#">45738</a>
3/8 - 24	NF	6"	3	H-3	.275	<a href="#">45743</a>
7/16 - 14	NC	6"	3	H-3	.323	<a href="#">45792</a>
7/16 - 20	NF	6"	3	H-3	.323	<a href="#">45745</a>
1/2 - 13	NC	4"	3	H-3	.367	<a href="#">45744</a>
1/2 - 13	NC	6"	3	H-3	.367	<a href="#">45747</a>
1/2 - 13	NC	8"	3	H-3	.367	<a href="#">45665</a>
1/2 - 20	NF	6"	3	H-3	.367	<a href="#">45749</a>
5/8 - 11	NC	6"	3	H-3	.480	<a href="#">45752</a>
5/8 - 11	NC	8"	3	H-3	.480	<a href="#">45932</a>
5/8 - 18	NF	6"	3	H-3	.480	<a href="#">45922</a>
3/4 - 10	NC	6"	3	H-3	.590	<a href="#">45756</a>
3/4 - 10	NC	8"	3	H-3	.590	<a href="#">45835</a>
3/4 - 10	NC	10"	3	H-3	.590	<a href="#">45783</a>
3/4 - 16	NF	6"	3	H-3	.590	<a href="#">45784</a>

\*For larger quantity prices, consult factory.

## TAPER PIPE TAPS REGULAR & ECONOMY GROUND THREADS

LIST 120G  
LIST 120DS  
LIST 120C

NPT Ground Thread Regular  
NPTF Ground Thread Regular  
NPT Economy Ground Thread Regular



TAP SIZE	NO. OF FLUTES	120G	120DS	120C
		NPT REGULAR EDP NUMBER	NPTF REGULAR EDP NUMBER	NPT ECONOMY EDP NUMBER
1/16 - 27	4	<a href="#">46102</a>	46202	-
1/8 - 27	4	<a href="#">46104</a>	<a href="#">46204</a>	<a href="#">46004</a>
1/8 - 27	5	<a href="#">46106</a>	<a href="#">46206</a>	<a href="#">46006</a>
1/8 - 27 sm sh*	4	<a href="#">46107</a>	<a href="#">46207</a>	<a href="#">46007</a>
1/8 - 27 sm sh*	5	<a href="#">46108</a>	<a href="#">46208</a>	<a href="#">46008</a>
1/4 - 18	4	<a href="#">46110</a>	<a href="#">46210</a>	<a href="#">46010</a>
1/4 - 18	5	<a href="#">46112</a>	<a href="#">46212</a>	<a href="#">46012</a>
3/8 - 18	4	<a href="#">46116</a>	<a href="#">46216</a>	<a href="#">46016</a>
3/8 - 18	5	<a href="#">46118</a>	<a href="#">46218</a>	<a href="#">46018</a>
1/2 - 14	4	<a href="#">46122</a>	<a href="#">46222</a>	<a href="#">46022</a>
1/2 - 14	5	<a href="#">46124</a>	<a href="#">46224</a>	<a href="#">46024</a>
3/4 - 14	5	<a href="#">46128</a>	<a href="#">46228</a>	<a href="#">46028</a>
1 - 11 1/2	5	<a href="#">46132</a>	<a href="#">46232</a>	<a href="#">46032</a>
1 1/4 - 11 1/2	5	<a href="#">46136</a>	<a href="#">46236</a>	<a href="#">46036</a>
1 1/2 - 11 1/2	7	<a href="#">46138</a>	<a href="#">46240</a>	<a href="#">46040</a>
2 - 11 1/2	7	<a href="#">46144</a>	<a href="#">46244</a>	<a href="#">46044</a>
2 1/2 - 8	7	<a href="#">46148</a>	<a href="#">46248</a>	<a href="#">46048</a>
3 - 8	8	<a href="#">46152</a>	<a href="#">46252</a>	<a href="#">46052</a>
3 1/2 - 8	8	<a href="#">46158</a>	<a href="#">46258</a>	<a href="#">46058</a>
4 - 8	8	<a href="#">46160</a>	<a href="#">46260</a>	<a href="#">46060</a>

\*Small Shank .3125

See page 92 for Pipe Tap Dimensions.

**NOTE: ECONOMY GROUND THREAD PIPE TAPS** are economical Production Taps made here to the same general thread specifications as Ground Thread Taps. Economy Thread Pipe Taps are supplied with Oxide Surface Treatment only.

## TAPER PIPE TAPS HIGH HOOK REGULAR THREAD

LIST 120GH  
 LIST 120DSH

NPT Ground Thread Regular  
 NPTF Ground Thread Regular



TAP SIZE	NO. OF FLUTES	120GH	120DSH
		NPT REGULAR EDP NUMBER	NPTF REGULAR EDP NUMBER
1/16 - 27	4	<a href="#">46442</a>	<a href="#">46443</a>
1/8 - 27	4	<a href="#">46446</a>	<a href="#">46447</a>
1/8 - 27	5	<a href="#">46450</a>	<a href="#">46451</a>
1/8 - 27 sm sh*	4	<a href="#">46454</a>	<a href="#">46455</a>
1/8 - 27 sm sh*	5	<a href="#">46456</a>	<a href="#">46457</a>
1/4 - 18	4	<a href="#">46460</a>	<a href="#">46461</a>
1/4 - 18	5	<a href="#">46462</a>	<a href="#">46463</a>
3/8 - 18	4	<a href="#">46466</a>	<a href="#">46467</a>
3/8 - 18	5	<a href="#">46468</a>	<a href="#">46469</a>
1/2 - 14	4	<a href="#">46472</a>	<a href="#">46473</a>
1/2 - 14	5	<a href="#">46474</a>	<a href="#">46475</a>
3/4 - 14	5	<a href="#">46478</a>	<a href="#">46479</a>
1 - 11 1/2	5	46482	46483
1 1/4 - 11 1/2	5	46486	46487
1 1/2 - 11 1/2	7	46490	46491
2 - 11 1/2	7	46494	46495

## BRITISH INTERNAL STRAIGHT PIPE TAPS FOR MECHANICAL JOINTS

LIST 122P  
 BSPP

Ground Thread Regular Plug  
 Ground Thread Regular Bottom  
 (British Parallel Pipe 55° Whitworth - Full Form)

Reference BS2779



TAP SIZE	NO. OF FLUTES	HOLE SIZE	122P	
			BSPP PLUG EDP NUMBER	BSPP BOTTOM EDP NUMBER
1/8 - 28 (G 1/8)	4	.3372 - .3488	<a href="#">47050</a>	<a href="#">47051</a>
1/4 - 19 (G 1/4)	4	.4505 - .4680	<a href="#">47052</a>	<a href="#">47053</a>
3/8 - 19 (G 3/8)	4	.5885 - .6060	<a href="#">47054</a>	<a href="#">47055</a>
1/2 - 14 (G 1/2)	4	.7335 - .7548	<a href="#">47056</a>	<a href="#">47057</a>
3/4 - 14 (G 3/4)	5	.9495 - .9707	<a href="#">47058</a>	<a href="#">47059</a>
1 - 11 (G 1)	5	1.1926 - 1.2178	<a href="#">47060</a>	<a href="#">47061</a>
1 1/4 - 11 (G 1 1/4)	5	1.5335 - 1.5887	<a href="#">47062</a>	<a href="#">47063</a>
1 1/2 - 11 (G 1 1/2)	7	1.7655 - 1.7907	<a href="#">47064</a>	<a href="#">47065</a>
2 - 11 (G 2)	7	2.2306 - 2.2558	<a href="#">47066</a>	<a href="#">47067</a>

\*Small Shank .3125

## TAPER PIPE TAPS HIGH HOOK INTERRUPTED THREAD

LIST 114GH  
LIST 114DSH

NPT Ground Thread Interrupted  
NPTF Ground Thread Interrupted



TAP SIZE	NO. OF FLUTES	114GH	114DSH
		NPT INTERRUPTED EDP NUMBER	NPTF INTERRUPTED EDP NUMBER
1/8 - 27	5	<a href="#">46452</a>	<a href="#">46453</a>
1/8 - 27 sm sh*	5	<a href="#">46458</a>	<a href="#">46459</a>
1/4 - 18	5	<a href="#">46464</a>	<a href="#">46465</a>
3/8 - 18	5	<a href="#">46470</a>	<a href="#">46471</a>
1/2 - 14	5	<a href="#">46476</a>	<a href="#">46477</a>
3/4 - 14	5	<a href="#">46480</a>	<a href="#">46481</a>
1 - 11 1/2	5	46484	46485
1 1/4 - 11 1/2	5	46488	46489
1 1/2 - 11 1/2	7	46492	46493
2 - 11 1/2	7	46496	46497

## BRITISH INTERNAL TAPER PIPE TAPS FOR PRESSURE TIGHT JOINTS REGULAR GROUND THREAD

LIST 123  
BSPT (R<sub>c</sub>)

Reference: BS21 ISO 7/1

2 1/2 - 3 Threads Chamfer

(British Taper Pipe 55° Whitworth - Full Form)



TAP SIZE	NO. OF FLUTES	BSPT (R <sub>c</sub> ) STANDARD PROJECTIONS	DRILL DIAMETER		123
			WITHOUT REAMER	WITH REAMER	BSPT EDP NUMBER
1/8 - 28 (R <sub>c</sub> 1/8)	4	.206 ± .035	8.40MM	8.00MM	<a href="#">47070</a>
1/4 - 19 (R <sub>c</sub> 1/4)	4	.304 ± .050	11.20MM	10.80MM	<a href="#">47074</a>
3/8 - 19 (R <sub>c</sub> 3/8)	4	.306 ± .050	14.75MM	14.25MM	<a href="#">47078</a>
1/2 - 14 (R <sub>c</sub> 1/2)	4	.416 ± .070	18.25MM	17.75MM	<a href="#">47080</a>
3/4 - 14 (R <sub>c</sub> 3/4)	5	.413 ± .070	23.75MM	23.00MM	<a href="#">47082</a>
1 - 11 (R <sub>c</sub> 1)	5	.525 ± .080	30.00MM	29.00MM	<a href="#">47084</a>
1 1/4 - 11 (R <sub>c</sub> 1 1/4)	5	.524 ± .080	38.50MM	37.50MM	<a href="#">47086</a>
1 1/2 - 11 (R <sub>c</sub> 1 1/2)	7	.524 ± .090	44.50MM	43.50MM	<a href="#">47088</a>

\*Small Shank .3125

## TAPER PIPE TAPS GROUND & ECONOMY GROUND INTERRUPTED THREADS

LIST 114G  
 LIST 114DS  
 LIST 114C

NPT Ground Thread Interrupted  
 NPTF Ground Thread Interrupted  
 NPT Economy Ground Thread Interrupted



TAP SIZE	NO. OF FLUTES	114G	114DS	114C
		NPT INTERRUPTED EDP NUMBER	NPTF INTERRUPTED EDP NUMBER	NPT ECONOMY EDP NUMBER
1/16 - 27	5	<a href="#">46602</a>	<a href="#">46702</a>	-
1/8 - 27	5	<a href="#">46604</a>	<a href="#">46704</a>	<a href="#">46504</a>
1/8 - 27 sm sh*	5	<a href="#">46606</a>	<a href="#">46706</a>	<a href="#">46506</a>
1/4 - 18	5	<a href="#">46612</a>	<a href="#">46712</a>	<a href="#">46512</a>
3/8 - 18	5	<a href="#">46618</a>	4671	<a href="#">46518</a>
1/2 - 14	5	<a href="#">46624</a>	<a href="#">46724</a>	<a href="#">46524</a>
3/4 - 14	5	<a href="#">46628</a>	<a href="#">46728</a>	<a href="#">46528</a>
1 - 11 1/2	5	<a href="#">46632</a>	46732	46532
1 1/4 - 11 1/2	5	<a href="#">46636</a>	<a href="#">46736</a>	<a href="#">46536</a>
1 1/2 - 11 1/2	7	<a href="#">46640</a>	46740	46540
2 - 11 1/2	7	<a href="#">46644</a>	<a href="#">46744</a>	<a href="#">46544</a>

## TAPER PIPE TAPS PTF SAE SHORT PROJECTION REGULAR & INTERRUPTED THREADS

LIST 121DS  
 LIST 115DS

PTF SAE Ground Thread Regular  
 PTF SAE Ground Thread Interrupted



TAP SIZE	NO. OF FLUTES	121DS	NO. OF FLUTES	115DS
		PTF SAE REGULAR EDP NUMBER		PTF SAE INTERRUPTED EDP NUMBER
1/16 - 27	4	<a href="#">47001</a>	-	-
1/8 - 27	4	<a href="#">47003</a>	5	47107
1/8 - 27 sm sh*	4	<a href="#">47007</a>	5	47111
1/4 - 18	4	<a href="#">47009</a>	5	47113
3/8 - 18	4	<a href="#">47015</a>	5	47119
1/2 - 14	4	<a href="#">47021</a>	5	47125
3/4 - 14	5	<a href="#">47027</a>	5	47129
1 - 11 1/2	5	<a href="#">47031</a>	5	47133
1 1/4 - 11 1/2	5	<a href="#">47035</a>	5	47137
1 1/2 - 11 1/2	7	<a href="#">47039</a>	7	47141
2 - 11 1/2	7	<a href="#">47043</a>	7	47145

\*Small Shank .3125

## TAPER PIPE TAPS CAST IRON DESIGN REGULAR THREAD

LIST 120GCI  
LIST 120DSCI  
LIST 121DSCI

NPT Ground Thread Regular  
NPTF Ground Thread Regular  
PTF SAE Ground Thread Regular

Stocked with Nitride Surface Treatment



TAP SIZE	NO. OF FLUTES	120GCI	120DSCI	121DSCI
		NPT REGULAR EDP NUMBER	NPTF REGULAR EDP NUMBER	PTF SAE REGULAR EDP NUMBER
1/16 - 27	4	<a href="#">46162</a>	<a href="#">46262</a>	<a href="#">47068</a>
1/8 - 27	4	<a href="#">46164</a>	<a href="#">46264</a>	<a href="#">47069</a>
1/4 - 18	4	<a href="#">46170</a>	<a href="#">46270</a>	<a href="#">47071</a>
3/8 - 18	4	<a href="#">46176</a>	<a href="#">46276</a>	<a href="#">47075</a>
1/2 - 14	4	<a href="#">46182</a>	<a href="#">46282</a>	<a href="#">47081</a>
3/4 - 14	5	<a href="#">46188</a>	<a href="#">46288</a>	<a href="#">47087</a>
1 - 11 1/2	5	<a href="#">46192</a>	<a href="#">46292</a>	<a href="#">47091</a>
1 1/4 - 11 1/2	5	<a href="#">46196</a>	<a href="#">46296</a>	<a href="#">47095</a>
1 1/2 - 11 1/2	7	<a href="#">46198</a>	<a href="#">46298</a>	<a href="#">47098</a>
2 - 11 1/2	7	<a href="#">46199</a>	<a href="#">46299</a>	<a href="#">47099</a>

## TAPER PIPE TAPS BOTTOM CHAMFER REGULAR THREAD

LIST 120GB  
LIST 120DSB

NPT Ground Thread Regular Bottom  
NPTF Ground Thread Regular Bottom



TAP SIZE	NO. OF FLUTES	120GB	120DSB
		NPT REGULAR EDP NUMBER	NPTF REGULAR EDP NUMBER
1/16 - 27	4	<a href="#">46101</a>	<a href="#">46201</a>
1/8 - 27	4	<a href="#">46105</a>	<a href="#">46205</a>
1/4 - 18	4	<a href="#">46111</a>	<a href="#">46211</a>
3/8 - 18	4	<a href="#">46117</a>	<a href="#">46217</a>
1/2 - 14	4	<a href="#">46123</a>	<a href="#">46223</a>
3/4 - 14	5	<a href="#">46130</a>	<a href="#">46230</a>
1 - 11 1/2	5	<a href="#">46133</a>	<a href="#">46233</a>
1 1/4 - 11 1/2	5	<a href="#">46137</a>	<a href="#">46237</a>
1 1/2 - 11 1/2	7	<a href="#">46139</a>	<a href="#">46239</a>
2 - 11 1/2	7	<a href="#">46145</a>	<a href="#">46245</a>



## TAPER PIPE TAPS CAST IRON DESIGN INTERRUPTED THREAD

LIST 114GCI  
 LIST 114DSCI  
 LIST 115DSCI

NPT Ground Thread Interrupted  
 NPTF Ground Thread Interrupted  
 PTF SAE Ground Thread Interrupted

Stocked with Nitride Surface Treatment



TAP SIZE	NO. OF FLUTES	114GCI	114DSCI	115DSCI
		NPT INTERRUPTED EDP NUMBER	NPTF INTERRUPTED EDP NUMBER	PTF SAE INTERRUPTED EDP NUMBER
1/8 - 27	5	<a href="#">46654</a>	<a href="#">46754</a>	<a href="#">47157</a>
1/4 - 18	5	<a href="#">46662</a>	<a href="#">46762</a>	<a href="#">47163</a>
3/8 - 18	5	<a href="#">46668</a>	<a href="#">46768</a>	<a href="#">47169</a>
1/2 - 14	5	<a href="#">46674</a>	<a href="#">46774</a>	<a href="#">47175</a>
3/4 - 14	5	<a href="#">46678</a>	<a href="#">46778</a>	<a href="#">47179</a>
1 - 11 1/2	5	<a href="#">46682</a>	<a href="#">46782</a>	<a href="#">47183</a>
1 1/4 - 11 1/2	5	<a href="#">46686</a>	<a href="#">46786</a>	<a href="#">47187</a>
1 1/2 - 11 1/2	7	<a href="#">46690</a>	<a href="#">46790</a>	<a href="#">47191</a>
2 - 11 1/2	7	<a href="#">46694</a>	<a href="#">46794</a>	<a href="#">47195</a>

## TAPER PIPE TAPS SMALL SHANK (.480) INTERRUPTED THREAD

LIST 118GI  
 LIST 118DSI

NPT Ground Thread Interrupted  
 NPTF Ground Thread Interrupted



TAP SIZE	NO. OF FLUTES	OVERALL LENGTH	THREAD LENGTH	118GI	118DSI
				NPT INTERRUPTED EDP NUMBER	NPTF INTERRUPTED EDP NUMBER
1/4 - 18	5	3-1/16	1-1/16	<a href="#">46421</a>	<a href="#">46426</a>
3/8 - 18	5	3-1/16	1-1/16	<a href="#">46423</a>	<a href="#">46428</a>
1/2 - 14	5	3-3/8	1-3/8	<a href="#">46425</a>	<a href="#">46430</a>

See page 92 for Pipe Tap Dimensions.

## TAPER PIPE TAPS SPIRAL FLUTED 15° SPIRAL REGULAR THREAD

LIST 120GS  
LIST 120DSS

NPT Ground Thread Regular  
NPTF Ground Thread Regular



TAP SIZE	NO. OF FLUTES	120GS	120DSS
		NPT REGULAR EDP NUMBER	NPTF REGULAR EDP NUMBER
1/8 - 27	4	<a href="#">46801</a>	<a href="#">46802</a>
1/4 - 18	4	<a href="#">46803</a>	<a href="#">46804</a>
3/8 - 18	4	<a href="#">46805</a>	<a href="#">46806</a>
1/2 - 14	4	<a href="#">46807</a>	<a href="#">46808</a>
3/4 - 14	5	<a href="#">46809</a>	<a href="#">46810</a>
1 - 11 1/2	5	46811	46812

## TAPER & STRAIGHT PIPE TAPS SMALL SHANK (.480) REGULAR THREAD

LIST 118G  
LIST 118DS  
LIST 118BG  
LIST 118BF

NPT Ground Thread Regular  
NPTF Ground Thread Regular  
NPS Ground Thread Regular  
NPSF Ground Thread Regular



TAP SIZE	NO. OF FLUTES	OVERALL LENGTH	THREAD LENGTH	118G	118DS	118BG	118BF
				NPT REGULAR EDP NO.	NPTF REGULAR EDP NO.	NPS REGULAR EDP NO.	NPSF REGULAR EDP NO.
1/4 - 18	5	3-1/16	1-1/16	<a href="#">46401</a>	<a href="#">46406</a>	<a href="#">46411</a>	<a href="#">46416</a>
3/8 - 18	5	3-1/16	1-1/16	<a href="#">46403</a>	<a href="#">46408</a>	<a href="#">46413</a>	<a href="#">46418</a>
1/2 - 14	5	3-3/8	1-3/8	<a href="#">46405</a>	<a href="#">46410</a>	<a href="#">46415</a>	<a href="#">46420</a>

**NOTE:** When ordering Pipe Taps please specify the material being tapped such as Cast Iron, Bronze, Stainless Steel & etc. so that the proper tap design and surface treatment can be furnished.

**SPECIAL PROJECTION TAPER PIPE TAPS – STRAIGHT FLUTE** 1/16" to 3/4" Taper Pipe Taps with standard projection tolerances are priced at the standard catalog price when 12 or more are ordered. Quantities less than 12 will receive special pricing. 1" through 2" Taper Pipe Taps with standard projection tolerances are priced at the standard catalog price when 6 or more are ordered. Quantities less than 6 will receive special pricing.

**“CONTRU” RELIEF TAPER PIPE TAPS:** Taper Pipe Taps with “Contru” relief are designed to eliminate the stop marks and to tap true round holes in Cast Iron, Mild Steel, Brass, Bronze and Aluminum. “Contru” relieved Taper Pipe Taps are furnished at the standard catalog price in plug chamfer only.

## TAPER PIPE TAPS 4" & 6" OVERALL LENGTH REGULAR & INTERRUPTED THREADS

**LIST 126G  
 LIST 126DS  
 LIST 126GI  
 LIST 126DSI**

**NPT Ground Thread Regular  
 NPTF Ground Thread Regular  
 NPT Ground Thread Interrupted  
 NPTF Ground Thread Interrupted**



TAP SIZE	NO. OF FLUTES	OVERALL LENGTH	126G	126DS	126GI	126DSI
			NPT REGULAR EDP NUMBER	NPTF REGULAR EDP NUMBER	NPT INTERRUPTED EDP NUMBER	NPTF INTERRUPTED EDP NUMBER
1/16 - 27	4	4"	<a href="#">46312</a>	<a href="#">46313</a>	-	-
1/16 - 27	4	6"	<a href="#">46314</a>	<a href="#">46315</a>	-	-
1/8 - 27	4	4"	<a href="#">46316</a>	<a href="#">46317</a>	-	-
1/8 - 27	4	6"	<a href="#">46318</a>	<a href="#">46319</a>	-	-
1/8 - 27	5	6"	-	-	<a href="#">46361</a>	<a href="#">46363</a>
1/4 - 18	4	4"	<a href="#">46322</a>	<a href="#">46323</a>	-	-
1/4 - 18	4	6"	<a href="#">46324</a>	<a href="#">46325</a>	-	-
1/4 - 18	5	6"	-	-	<a href="#">46366</a>	<a href="#">46368</a>
3/8 - 18	4	6"	<a href="#">46338</a>	<a href="#">46339</a>	-	-
3/8 - 18	5	6"	-	-	<a href="#">46371</a>	<a href="#">46373</a>
1/2 - 14	4	6"	<a href="#">46342</a>	<a href="#">46343</a>	-	-
1/2 - 14	5	6"	-	-	<a href="#">46376</a>	<a href="#">46378</a>
3/4 - 14	5	6"	<a href="#">46354</a>	<a href="#">46355</a>	-	-
3/4 - 14	5	6"	-	-	<a href="#">46381</a>	<a href="#">46383</a>

## STRAIGHT PIPE TAPS REGULAR & ECONOMY GROUND THREADS

**LIST 120BG  
 LIST 120BF  
 LIST 120B**

**NPS Ground Thread Regular  
 NPSF Ground Thread Regular  
 NPS Economy Ground Thread Regular**



TAP SIZE	NO. OF FLUTES	120BG	120BF	120B
		NPS REGULAR EDP NUMBER	NPSF REGULAR EDP NUMBER	NPS ECONOMY EDP NUMBER
1/8 - 27	4	<a href="#">46941</a>	<a href="#">46961</a>	<a href="#">46901</a>
1/8 - 27 sm sh*	4	<a href="#">46942</a>	<a href="#">46962</a>	<a href="#">46902</a>
1/4 - 18	4	<a href="#">46943</a>	<a href="#">46963</a>	<a href="#">46903</a>
3/8 - 18	4	<a href="#">46945</a>	<a href="#">46965</a>	<a href="#">46905</a>
1/2 - 14	4	<a href="#">46947</a>	<a href="#">46967</a>	<a href="#">46907</a>
3/4 - 14	5	<a href="#">46949</a>	<a href="#">46969</a>	<a href="#">46909</a>
1 - 11 1/2	5	<a href="#">46951</a>	<a href="#">46971</a>	<a href="#">46911</a>
1 1/4 - 11 1/2	5	<a href="#">46953</a>	<a href="#">46972</a>	-
1 1/2 - 11 1/2	7	<a href="#">46955</a>	<a href="#">46974</a>	-
2 - 11 1/2	7	<a href="#">46957</a>	<a href="#">46976</a>	-

\*Small Shank .3125

## H.S.S. COMBINED TAPS AND DRILLS

### LIST 19

### Ground Thread - Class 2B & 6H Fit



TAP SIZE	SERIES DESIG.	THREAD LIMIT	NO. OF FLUTES	OVERALL LENGTH	THREAD LENGTH	DRILL LENGTH	DRILL DIA.	SHANK DIA.	SQUARE SIZE	EDP NUMBER
<b>MACHINE SCREW SIZES</b>										
4 - 40	NC	H-2	2	1-7/8	3/8	1/4	.0910	.141	.110X3/16	<a href="#">16140</a>
4 - 48	NF	H-2	2	1-7/8	3/8	1/4	.0945	.141	.110X3/16	<a href="#">16141</a>
5 - 40	NC	H-2	2	1-15/16	13/32	9/32	.1040	.141	.110X3/16	<a href="#">16142</a>
5 - 44	NF	H-2	2	1-15/16	13/32	9/32	.1060	.141	.110X3/16	<a href="#">16143</a>
6 - 32	NC	H-3	2	2	7/16	5/16	.1110	.141	.110X3/16	<a href="#">16144</a>
6 - 40	NF	H-2	2	2	7/16	5/16	.1170	.141	.110X3/16	<a href="#">16145</a>
8 - 32	NC	H-3	2	2-1/8	1/2	3/8	.1375	.168	.131X1/4	<a href="#">16146</a>
8 - 36	NF	H-2	2	2-1/8	1/2	3/8	.1405	.168	.131X1/4	<a href="#">16147</a>
10 - 24	NC	H-3	2	2-3/8	5/8	13/32	.1545	.194	.152X1/4	<a href="#">16148</a>
10 - 32	NF	H-3	2	2-3/8	5/8	13/32	.1635	.194	.152X1/4	<a href="#">16149</a>
12 - 24	NC	H-3	2	2-3/8	21/32	15/32	.1805	.220	.165X9/32	<a href="#">16150</a>
12 - 28	NF	H-3	2	2-3/8	21/32	15/32	.1860	.220	.165X9/32	<a href="#">16151</a>
<b>FRACTIONAL SIZES</b>										
1/4 - 20	NC	H-5	2	2-1/2	25/32	17/32	.2080	.255	.191X5/16	<a href="#">16152</a>
1/4 - 28	NF	H-4	2	2-1/2	25/32	17/32	.2200	.255	.191X5/16	<a href="#">16153</a>
5/16 - 18	NC	H-5	2	2-27/32	15/16	11/16	.2660	.318	.238X3/8	<a href="#">16154</a>
5/16 - 24	NF	H-4	2	2-27/32	15/16	11/16	.2770	.318	.238X3/8	<a href="#">16155</a>
3/8 - 16	NC	H-5	2	3-3/8	1-1/16	13/16	.3225	.381	.286X7/16	<a href="#">16156</a>
3/8 - 24	NF	H-4	2	3-3/8	1-1/16	13/16	.3395	.381	.286X7/16	<a href="#">16157</a>
7/16 - 14	NC	H-5	2	3-3/4	1-1/4	1	.3770	.323	.242X13/32	<a href="#">16158</a>
7/16 - 20	NF	H-5	2	3-3/4	1-1/4	1	.3955	.323	.242X13/32	<a href="#">16159</a>
1/2 - 13	NC	H-5	2	4-1/16	1-3/8	1-1/8	.4350	.367	.275X7/16	<a href="#">16160</a>
1/2 - 20	NF	H-5	2	4-1/16	1-3/8	1-1/8	.4580	.367	.275X7/16	<a href="#">16161</a>
<b>METRIC SIZES</b>										
M3X0.5	-	D-3	2	1-15/16	13/32	9/32	.1015	.141	.110X3/16	<a href="#">16162</a>
M3.5X0.6	-	D-4	2	2	7/16	5/16	.1178	.141	.110X3/16	<a href="#">16164</a>
M4X0.7	-	D-4	2	2-1/8	1/2	3/8	.1340	.168	.131X1/4	<a href="#">16166</a>
M5X0.8	-	D-4	2	2-3/8	5/8	13/32	.1700	.194	.152X1/4	<a href="#">16168</a>
M6X1.0	-	D-5	2	2-1/2	25/32	17/32	.2030	.255	.191X5/16	<a href="#">16170</a>
M8X1.0	-	D-5	2	2-27/32	15/16	11/16	.2820	.318	.238X3/8	<a href="#">16172</a>
M8X1.25	-	D-5	2	2-27/32	15/16	11/16	.2730	.318	.238X3/8	<a href="#">16173</a>
M10X1.25	-	D-5	2	3-3/8	1-1/16	13/16	.3521	.381	.286X7/16	<a href="#">16176</a>
M10X1.5	-	D-6	2	3-3/8	1-1/16	13/16	.3440	.381	.286X7/16	<a href="#">16177</a>
M12X1.25	-	D-5	2	4-1/16	1-3/8	1-1/8	.4310	.367	.275X7/16	<a href="#">1618</a>
M12X1.75	-	D-6	2	4-1/16	1-3/8	1-1/8	.4140	.367	.275X7/16	<a href="#">16181</a>

The Combined Taps and Drills are manufactured to produce a 65% Height of Thread.  
The Drill Point is 118° and the Spiral Flutes have approximately 22° Helix Angle.  
Recommended for applications having through holes up to twice the depth of the Tap's Nominal Diameter.

## STI STRAIGHT FLUTE TAPS

LIST 130

Plug  
Bottom



TAP SIZE	NO. OF FLUTES	PLUG STI EDP NUMBER				BOTTOM STI EDP NUMBER			
		H-1	H-2	H-3	H-4	H-1	H-2	H-3	H-4
2 - 56	3	52014	52022			52013	52023		
4 - 40	3	54012	54022			54013	54023		
5 - 40	3	54112	54122			54113	54123		
6 - 32	3		54222	54232			54223	54233	
6 - 40	3	54312	54322			54313	54323		
8 - 32	3		54422	54432			54423	54433	
10 - 24	3		54522	54532			54523	54533	
10 - 32	3		54622	54632			54623	54633	
12 - 24	3		54722	54732			54723	54733	
1/4 - 20	3		54822	54832			54823	54833	
1/4 - 28	3		54922	54932			54923	54933	
5/16 - 18	4			55032	55042			55033	55043
5/16 - 24	4		55122	55132			55123	55133	
3/8 - 16	4			55232	55242			55233	55243
3/8 - 24	4		55322	55332			55323	55333	
7/16 - 14	4			55432	55442			55433	55443
7/16 - 20	4			55532	55542			55533	55543
1/2 - 13	4			55632	55642			55633	55643
1/2 - 20	4			55732	55742			55733	55743
5/8 - 11	4			55752				55753	
5/8 - 18	4			55762				55763	
3/4 - 10	4			55772				55773	
3/4 - 16	4			55782				55783	
7/8 - 9	4				55792				55793
7/8 - 14	4				55802				55803
1 - 8	4				55812				55813
1 - 14	4				55822				55823

## STI SPIRAL POINT TAPS

LIST 131

Spiral Point Plug



TAP SIZE	NO. OF FLUTES	SPPT PLUG STI EDP NUMBER			
		H-1	H-2	H-3	H-4
2 - 56	2	53014	53022		
4 - 40	2	56012	56022		
5 - 40	2	56112	56122		
6 - 32	2		56222	56232	
6 - 40	2	56312	56322		
8 - 32	2		56422	56432	
10 - 24	2		56522	56532	
10 - 32	2		56622	56632	
12 - 24	2		56722	56732	
1/4 - 20	2		56822	56832	
1/4 - 28	2		56922	56932	
5/16 - 18	3			57032	57042
5/16 - 24	3		57122	57132	
3/8 - 16	3			57232	57242
3/8 - 24	3		57322	57332	
7/16 - 14	3			57432	57442
7/16 - 20	3			57532	57542
1/2 - 13	3			57632	57642
1/2 - 20	3			57732	57742

## STI FAST SPIRAL FLUTED TAPS

LIST 136

Plug  
Bottom



TAP SIZE	NO. OF FLUTES	PLUG STI EDP NUMBER				BOTTOM STI EDP NUMBER			
		H-1	H-2	H-3	H-4	H-1	H-2	H-3	H-4
2 - 56	2	70012	70022			70013	70023		
4 - 40	3	70112	70122			70113	70123		
5 - 40	3	70212	70222			70213	70223		
6 - 32	3		70322	70332			70323	70333	
6 - 40	3	70412	70422			70413	70423		
8 - 32	3		70522	70532			70523	70533	
10 - 24	3		70622	70632			70623	70633	
10 - 32	3		70722	70732			70723	70733	
1/4 - 20	3		70822	70832			70823	70833	
1/4 - 28	3		70922	70932			70923	70933	
5/16 - 18	3			71032	71042			71033	71043
5/16 - 24	3		71122	71132			71123	71133	
3/8 - 16	4			71232	71242			71233	71243
3/8 - 24	4		71322	71332			71323	71333	
7/16 - 14	4			71432	71442			71433	71443
7/16 - 20	4			71532	71542			71533	71543
1/2 - 13	4			71632	71642			71633	71643
1/2 - 20	4			71732	71742			71733	71743

## METRIC STI STRAIGHT FLUTE TAPS

LIST 130M

Plug  
Bottom



TAP SIZE	NO. OF FLUTES	PLUG STI EDP NUMBER		BOTTOM STI EDP NUMBER					
		CLASS 4H 5H FIT	CLASS 5H FIT	CLASS 4H 5H FIT	CLASS 5H FIT				
M2.2X0.45	3	<a href="#">72012</a>	D1	<a href="#">72012</a>	D1	<a href="#">72013</a>	D1	<a href="#">72013</a>	D1
M2.5X0.45	3	<a href="#">72112</a>	D1	<a href="#">72112</a>	D1	<a href="#">72113</a>	D1	<a href="#">72113</a>	D1
M3X0.5	3	<a href="#">72212</a>	D1	<a href="#">72212</a>	D1	<a href="#">72213</a>	D1	<a href="#">72213</a>	D1
M3.5X0.6	3	<a href="#">72312</a>	D1	<a href="#">72322</a>	D2	<a href="#">72313</a>	D1	<a href="#">72323</a>	D2
M4X0.7	3	<a href="#">72412</a>	D1	<a href="#">72422</a>	D2	<a href="#">72413</a>	D1	<a href="#">72423</a>	D2
M5X0.8	3	<a href="#">72512</a>	D1	<a href="#">72522</a>	D2	<a href="#">72513</a>	D1	<a href="#">72523</a>	D2
M6X1.0	3	<a href="#">72622</a>	D2	<a href="#">72632</a>	D3	<a href="#">72623</a>	D2	<a href="#">72633</a>	D3
M8X1.0	4	<a href="#">72722</a>	D2	<a href="#">72732</a>	D3	<a href="#">72723</a>	D2	<a href="#">72733</a>	D3
M8X1.25	4	<a href="#">72822</a>	D2	<a href="#">72832</a>	D3	<a href="#">72823</a>	D2	<a href="#">72833</a>	D3
M10X1.0	4	<a href="#">72922</a>	D2	<a href="#">72932</a>	D3	<a href="#">72923</a>	D2	<a href="#">72933</a>	D3
M10X1.25	4	<a href="#">73022</a>	D2	<a href="#">73032</a>	D3	<a href="#">73023</a>	D2	<a href="#">73033</a>	D3
M10X1.5	4	<a href="#">73132</a>	D3	<a href="#">73142</a>	D4	<a href="#">73133</a>	D3	<a href="#">73143</a>	D4
M12X1.25	4	<a href="#">73232</a>	D3	<a href="#">73242</a>	D4	<a href="#">73233</a>	D3	<a href="#">73243</a>	D4
M12X1.5	4	<a href="#">73332</a>	D3	<a href="#">73352</a>	D5	<a href="#">73333</a>	D3	<a href="#">73353</a>	D5
M12X1.75	4	<a href="#">73432</a>	D3	<a href="#">73452</a>	D5	<a href="#">73433</a>	D3	<a href="#">73453</a>	D5
M14X2.0	4	<a href="#">73542</a>	D4	<a href="#">73552</a>	D5	<a href="#">73543</a>	D4	<a href="#">73553</a>	D5
M14X1.5	4	<a href="#">73632</a>	D3	<a href="#">73652</a>	D5	<a href="#">73633</a>	D3	<a href="#">73653</a>	D5
M16X2.0	4	<a href="#">73742</a>	D4	<a href="#">73752</a>	D5	<a href="#">73743</a>	D4	<a href="#">73753</a>	D5
M16X1.5	4	<a href="#">73832</a>	D3	<a href="#">73852</a>	D5	<a href="#">73833</a>	D3	<a href="#">73853</a>	D5
M18X2.5	4	<a href="#">73942</a>	D4	<a href="#">73962</a>	D6	<a href="#">73943</a>	D4	<a href="#">73963</a>	D6
M18X1.5	4	<a href="#">74032</a>	D3	<a href="#">74052</a>	D5	<a href="#">74033</a>	D3	<a href="#">74053</a>	D5
M20X2.5	4	74142	D4	<a href="#">74162</a>	D6	<a href="#">74143</a>	D4	<a href="#">74163</a>	D6



## METRIC STI SPIRAL POINT TAPS

LIST 131M

Spiral Point Plug



TAP SIZE	NO. OF FLUTES	SPPT PLUG STI EDP NUMBER			
		CLASS 4H 5H FIT		CLASS 5H FIT	
M2.2X0.45	2	<a href="#">72017</a>	D1	<a href="#">72017</a>	D1
M2.5X0.45	2	<a href="#">72117</a>	D1	<a href="#">72117</a>	D1
M3X0.5	2	<a href="#">72217</a>	D1	<a href="#">72217</a>	D1
M3.5X0.6	2	<a href="#">72317</a>	D1	<a href="#">72327</a>	D2
M4X0.7	2	<a href="#">72417</a>	D1	<a href="#">72427</a>	D2
M5X0.8	2	<a href="#">72517</a>	D1	<a href="#">72527</a>	D2
M6X1.0	2	<a href="#">72627</a>	D2	<a href="#">72637</a>	D3
M8X1.0	3	<a href="#">72727</a>	D2	<a href="#">72737</a>	D3
M8X1.25	3	<a href="#">72827</a>	D2	<a href="#">72837</a>	D3
M10X1.0	3	<a href="#">72927</a>	D2	<a href="#">72937</a>	D3
M10X1.25	3	<a href="#">73027</a>	D2	<a href="#">73037</a>	D3
M10X1.5	3	<a href="#">73137</a>	D3	<a href="#">73147</a>	D4
M12X1.25	3	<a href="#">73237</a>	D3	<a href="#">73247</a>	D4
M12X1.5	3	<a href="#">73337</a>	D3	<a href="#">73357</a>	D5
M12X1.75	3	<a href="#">73437</a>	D3	<a href="#">73457</a>	D5

## METRIC STI FAST SPIRAL FLUTED TAPS

LIST 136M

Plug Bottom



TAP SIZE	NO. OF FLUTES	PLUG STI EDP NUMBER				BOTTOM STI EDP NUMBER			
		CLASS 4H 5H FIT		CLASS 5H FIT		CLASS 4H 5H FIT		CLASS 5H FIT	
M2.2X0.45	2	<a href="#">72018</a>	D1	<a href="#">72018</a>	D1	<a href="#">72019</a>	D1	<a href="#">72019</a>	D1
M2.5X0.45	2	<a href="#">72118</a>	D1	<a href="#">72118</a>	D1	<a href="#">72119</a>	D1	<a href="#">72119</a>	D1
M3X0.5	3	<a href="#">72218</a>	D1	<a href="#">72218</a>	D1	<a href="#">72219</a>	D1	<a href="#">72219</a>	D1
M3.5X0.6	3	<a href="#">72318</a>	D1	<a href="#">72328</a>	D2	<a href="#">72319</a>	D1	<a href="#">72329</a>	D2
M4X0.7	3	<a href="#">72418</a>	D1	<a href="#">72428</a>	D2	<a href="#">72419</a>	D1	<a href="#">72429</a>	D2
M5X0.8	3	<a href="#">72518</a>	D1	<a href="#">72528</a>	D2	<a href="#">72519</a>	D1	<a href="#">72529</a>	D2
M6X1.0	3	<a href="#">72628</a>	D2	<a href="#">72638</a>	D3	<a href="#">72629</a>	D2	<a href="#">72639</a>	D3
M8X1.0	3	<a href="#">72728</a>	D2	<a href="#">72738</a>	D3	<a href="#">72729</a>	D2	<a href="#">72739</a>	D3
M8X1.25	3	<a href="#">72828</a>	D2	<a href="#">72838</a>	D3	<a href="#">72829</a>	D2	<a href="#">72839</a>	D3
M10X1.0	4	<a href="#">72928</a>	D2	<a href="#">72938</a>	D3	<a href="#">72929</a>	D2	<a href="#">72939</a>	D3
M10X1.25	4	<a href="#">73028</a>	D2	<a href="#">73038</a>	D3	<a href="#">73029</a>	D2	<a href="#">73039</a>	D3
M10X1.5	4	<a href="#">73138</a>	D3	<a href="#">73148</a>	D4	<a href="#">73139</a>	D3	<a href="#">73149</a>	D4
M12X1.25	4	<a href="#">73238</a>	D3	<a href="#">73248</a>	D4	<a href="#">73239</a>	D3	<a href="#">73249</a>	D4
M12X1.5	4	<a href="#">73338</a>	D3	<a href="#">73358</a>	D5	<a href="#">73339</a>	D3	<a href="#">73359</a>	D5
M12X1.75	4	<a href="#">73438</a>	D3	<a href="#">73458</a>	D5	<a href="#">73439</a>	D3	<a href="#">73459</a>	D5

## SCREW THREAD INSERT (STI) TAP DRILL CHART

NOMINAL THREAD SIZE (COARSE SERIES)	SUGGESTED DRILL SIZE (INCH)		NOMINAL THREAD SIZE	SUGGESTED DRILL SIZE (INCH)	
	ALUMINUM	STEEL, MAGNESIUM PLASTIC		ALUMINUM	STEEL, MAGNESIUM PLASTIC
M2.2X0.45	#42 (.0935)	#42 (.0935)	2 (.086)-56	3/32 (.0938)	#41 (.0960)
M2.5X0.45	#37 (.1040)	#37 (.1040)	3 (.099)-48	#36 (.1065)	7/64 (.1094)
M3X0.5	1/8 (.1250)	1/8 (.1250)	4 (.112)-40	#31 (.1200)	#31 (.1200)
M3.5X0.6	#27 (.1440)	#26 (.1470)	5 (.125)-40	3.4mm (.1339)	#29 (.1360)
M4X0.7	#19 (.1660)	#19 (.1660)	6 (.138)-32	#26 (.1470)	#25 (.1495)
M5X0.8	#5 (.2055)	#4 (.2090)	8 (.164)-32	#17 (.1730)	#16 (.1770)
M6X1	D (.2460)	1/4 (.2500)	10 (.190)-24	13/64 (.2031)	#5 (.2055)
M7X1	L (.2900)	L (.2900)	12 (.216)-24	#1 (.2280)	#1 (.2280)
M8X1.25	21/64 (.3281)	Q (.3320)	1/4 (.2500)-20	H (.2660)	H (.2660)
M10X1.5	Z (.4130)	Z (.4130)	5/16 (.3125)-18	Q (.3320)	Q (.3320)
M12X1.75	31/64 (.4844)	1/2 (.5000)	3/8 (.3750)-16	X (.3970)	X (.3970)
M14X2	37/64 (.5781)	37/64 (.5781)	7/16 (.4375)-14	29/64 (.4531)	29/64 (.4531)
M16X2	21/32 (.6562)	21/32 (.6562)	1/2 (.5000)-13	33/64 (.5156)	17/32 (.5312)
M18X2.5	47/64 (.7344)	47/64 (.7344)	9/16 (.5625)-12	37/64 (.5781)	19/32 (.5938)
M20X2.5	13/16 (.8125)	13/16 (.8125)	5/8 (.6250)-11	21/32 (.6562)	21/32 (.6562)
M22X2.5	57/64 (.8906)	57/64 (.8906)	3/4 (.7500)-10	25/32 (.7812)	25/32 (.7812)
M24X3	63/64 (.9844)	63/64 (.9844)	7/8 (.8750)-9	29/32 (.9062)	29/32 (.9062)
M27X3	1-3/32 (1.0938)	1-3/32 (1.0938)	1 (1.0000)-8	1-1/32 (1.0312)	1-1/32 (1.0312)
M30X3.5	1-7/32 (1.1288)	1-7/32 (1.1288)	1-1/8 (1.1250)-7	1-11/64 (1.1719)	1-11/64 (1.1719)
M33X3.5	1-11/32 (1.3438)	1-11/32 (1.3438)	1-1/4 (1.2500)-7	1-19/64 (1.2969)	1-19/64 (1.2969)
M36X4	1-29/64 (1.4531)	1-15/32 (1.4688)	1-3/8 (1.3750)-6	1-27/64 (1.4219)	1-27/64 (1.4219)
M39X4	1-37/64 (1.5781)	1-37/64 (1.5781)	1-1/2 (1.5000)-6	1-35/64 (1.5469)	1-35/64 (1.5469)
<b>(FINE SERIES)</b>					
M8X1	21/64 (.3281)	21/64 (.3281)	3 (.099)-56	#37 (.1040)	#36 (.1065)
M10X1	Y (.4040)	13/32 (.4062)	4 (.112)-48	3mm (.1181)	#31 (.1200)
M10X1.25	Y (.4040)	13/32 (.4062)	6 (.138)-40	#26 (.1470)	#25 (.1495)
M12X1.25	31/64 (.4844)	31/64 (.4844)	8 (.164)-36	#17 (.1730)	#16 (.1770)
M12X1.5	31/64 (.4844)	1/2 (.5000)	10 (.190)-32	#7 (.2010)	13/64 (.2031)
M14X1.5	9/16 (.5625)	37/64 (.5781)	1/4 (.2500)-28	G (.2610)	6.7mm (.2638)
M16X1.5	41/64 (.6406)	21/32 (.6562)	5/16 (.3125)-24	21/64 (.3281)	21/64 (.3281)
M18X1.5	23/32 (.7188)	47/64 (.7344)	3/8 (.3750)-24	25/64 (.3906)	25/64 (.3906)
M20X1.5	51/64 (.7969)	13/16 (.8125)	7/16 (.4375)-20	29/64 (.4531)	29/64 (.4531)
M22X1.5	7/8 (.8750)	57/64 (.8906)	1/2 (.5000)-20	33/64 (.5156)	33/64 (.5156)
M18X2	47/64 (.7344)	47/64 (.7344)	9/16 (.5625)-18	37/64 (.5781)	37/64 (.5781)
M20X2	13/16 (.8125)	13/16 (.8125)	5/8 (.6250)-18	41/64 (.6406)	41/64 (.6406)
M22X2	57/64 (.8906)	57/64 (.8906)	3/4 (.7500)-16	49/64 (.7656)	49/64 (.7656)
M24X2	31/32 (.9688)	31/32 (.9688)	7/8 (.8750)-14	57/64 (.8906)	57/64 (.8906)
M27X2	1-5/64 (1.0781)	1-3/32 (1.0938)	1 (1.0000)-14	1-1/64 (1.0156)	1-1/32 (1.0312)
M30X2	1-13/64 (1.2031)	1-13/64 (1.2031)	1 (1.0000)-12	1-1/64 (1.0156)	1-1/32 (1.0312)
M33X2	1-5/16 (1.3125)	1-21/64 (1.3281)	1-1/8 (1.1250)-12	1-9/64 (1.1406)	1-5/32 (1.1562)
M36X2	1-7/16 (1.4375)	1-7/16 (1.4375)	1-1/4 (1.2500)-12	1-17/64 (1.2656)	1-9/32 (1.2812)
M39X2	1-35/64 (1.5469)	1-9/16 (1.5625)	1-3/8 (1.3750)-12	1-25/64 (1.3906)	1-13/32 (1.4062)
M36X3	1-29/64 (1.4531)	1-29/64 (1.4531)	1-1/2 (1.5000)-12	1-33/64 (1.5156)	1-17/32 (1.5312)
M39X3	1-9/16 (1.5625)	1-9/16 (1.5625)			

# THREAD FORMER SELECTION CHART

TAP SIZE	SERIES DESIGN.	CLASS 2			CLASS 3			CLASS 2B			CLASS 3B						
		H LIMIT	HOLE SIZE		H LIMIT	HOLE SIZE		H LIMIT	HOLE SIZE		H LIMIT	HOLE SIZE					
			75%	65%		55%	75%		65%	55%		75%	65%	55%	75%	65%	55%
0 - 80	NF	H-3	.0539	.0545	.0551	H-2	.0537	.0543	.0549	H-3	.0542	.0548	.0554	H-3	.0539	.0545	.0551
1 - 64	NC	H-3	.0653	.0660	.0668	H-2	.0651	.0658	.0666	H-4	.0657	.0664	.0672	H-3	.0653	.0660	.0668
1 - 72	NF	H-3	.0662	.0668	.0675	H-2	.0659	.0665	.0672	H-4	.0665	.0671	.0678	H-3	.0662	.0668	.0675
2 - 56	NC	H-3	.0772	.0779	.0788	H-3	.0769	.0776	.0785	H-4	.0776	.0783	.0792	H-3	.0772	.0779	.0788
2 - 64	NF	H-3	.0783	.0790	.0798	H-2	.0781	.0788	.0796	H-4	.0787	.0794	.0802	H-3	.0784	.0791	.0799
3 - 48	NC	H-3	.0886	.0895	.0905	H-3	.0883	.0892	.0902	H-4	.0890	.0899	.0909	H-3	.0886	.0895	.0905
3 - 56	NF	H-3	.0901	.0909	.0918	H-3	.0898	.0906	.0915	H-4	.0905	.0913	.0922	H-3	.0901	.0909	.0918
4 - 40	NC	H-3	.0995	.1005	.1018	H-3	.0991	.1001	.1014	H-4	.0999	.1009	.1022	H-3	.0995	.1005	.1018
4 - 48	NF	H-3	.1016	.1025	.1035	H-3	.1013	.1022	.1032	H-4	.1020	.1029	.1039	H-3	.1016	.1025	.1035
5 - 40	NC	H-3	.1124	.1135	.1147	H-3	.1120	.1131	.1143	H-4	.1128	.1139	.1151	H-4	.1124	.1135	.1147
5 - 44	NF	H-3	.1136	.1144	.1156	H-3	.1133	.1141	.1153	H-4	.1141	.1149	.1161	H-3	.1137	.1145	.1157
6 - 32	NC	H-4	.1221	.1234	.1250	H-3	.1217	.1230	.1246	H-5	.1226	.1239	.1255	H-4	.1221	.1234	.1250
6 - 40	NF	H-3	.1254	.1264	.1277	H-3	.1250	.1260	.1273	H-4	.1259	.1269	.1282	H-4	.1254	.1264	.1277
8 - 32	NC	H-4	.1480	.1493	.1509	H-3	.1476	.1489	.1505	H-5	.1486	.1499	.1515	H-4	.1481	.1494	.1510
8 - 36	NF	H-4	.1498	.1510	.1524	H-3	.1495	.1507	.1521	H-5	.1504	.1516	.1530	H-4	.1499	.1511	.1525
10 - 24	NC	H-4	.1686	.1704	.1724	H-3	.1682	.1700	.1720	H-5	.1691	.1709	.1729	H-4	.1686	.1704	.1724
10 - 32	NF	H-4	.1739	.1753	.1769	H-3	.1735	.1749	.1765	H-5	.1745	.1759	.1775	H-4	.1740	.1754	.1770
12 - 24	NC	H-4	.1945	.1963	.1984	H-3	.1941	.1959	.1980	H-5	.1951	.1969	.1990	H-4	.1945	.1963	.1984
12 - 28	NF	H-4	.1977	.1992	.2010	H-3	.1973	.1988	.2006	H-5	.1983	.1998	.2016	H-4	.1977	.1992	.2010
1/4 - 20	NC	H-5	.2242	.2263	.2288	H-4	.2237	.2258	.2283	H-6	.2248	.2269	.2294	H-5	.2242	.2263	.2288
1/4 - 28	NF	H-4	.2316	.2331	.2350	H-3	.2312	.2327	.2346	H-5	.2322	.2337	.2356	H-4	.2317	.2332	.2351
5/16 - 18	NC	H-5	.2837	.2861	.2888	H-4	.2832	.2856	.2883	H-6	.2843	.2867	.2894	H-5	.2836	.2860	.2887
5/16 - 24	NF	H-4	.2908	.2926	.2947	H-3	.2904	.2922	.2943	H-5	.2916	.2934	.2955	H-4	.2910	.2928	.2949
3/8 - 16	NC	H-6	.3425	.3452	.3483	H-4	.3419	.3446	.3477	H-7	.3431	.3458	.3489	H-5	.3424	.3451	.3482
3/8 - 24	NF	H-4	.3532	.3550	.3572	H-3	.3528	.3546	.3568	H-6	.3540	.3558	.3580	H-5	.3534	.3552	.3574
7/16 - 14	NC	H-6	.4000	.4033	.4069	H-5	.3994	.4027	.4063	H-7	.4006	.4039	.4075	H-6	.3999	.4032	.4068
7/16 - 20	NF	H-5	.4113	.4135	.4160	H-4	.4108	.4130	.4155	H-6	.4122	.4144	.4169	H-5	.4115	.4137	.4162
1/2 - 13	NC	H-6	.4598	.4631	.4670	H-5	.4590	.4623	.4662	H-8	.4604	.4637	.4676	H-6	.4596	.4629	.4668
1/2 - 20	NF	H-5	.4737	.4759	.4785	H-4	.4732	.4754	.4780	H-7	.4747	.4769	.4795	H-5	.4740	.4762	.4788
9/16 - 12	NC	H-7	.5187	.5224	.5267	H-5	.5179	.5216	.5259	H-8	.5193	.5230	.5273	H-6	.5184	.5221	.5264
9/16 - 18	NF	H-5	.5333	.5358	.5386	H-4	.5328	.5353	.5381	H-7	.5342	.5367	.5395	H-5	.5335	.5360	.5388
5/8 - 11	NC	H-7	.5773	.5812	.5859	H-5	.5765	.5804	.5851	H-8	.5780	.5819	.5866	H-6	.5771	.5810	.5857
5/8 - 18	NF	H-5	.5958	.5982	.6011	H-4	.5953	.5977	.6006	H-7	.5968	.5992	.6021	H-6	.5960	.5984	.6013
3/4 - 10	NC	H-7	.6973	.7017	.7068	H-6	.6963	.7007	.7058	H-9	.6979	.7023	.7074	H-7	.6969	.7013	.7064
3/4 - 16	NF	H-6	.7171	.7198	.7231	H-4	.7165	.7192	.7225	H-8	.7181	.7208	.7241	H-6	.7173	.7200	.7233
14mm	1.25mm	H-5	.5253	.5275	.5301	H-4	.5248	.5270	.5296	H6	.5262	.5284	.5310	H-5	.5255	.5277	.5303

## THREAD FORMING TAPS MACHINE SCREW SIZES

LIST 16B

**Plug  
Bottom**

Stocked with Nitride Surface Treatment



TAP SIZE	SERIES DESIGN.	STYLE	EDP NUMBER									
			H-2	H-3	H-4	H-5	H-6	H-7	H-8	H-9	H-10	
0 - 80	NF	PLUG	58022	58032	58042	58052	58062	58072				
0 - 80	NF	BOTT	58023	58033	58043	58053	58063	58073				
1 - 64	NC	PLUG	58122	58132	58142	58152	58162	58172				
1 - 64	NC	BOTT	58123	58133	58143	58153	58163	58173				
1 - 72	NF	PLUG	58222	58232	58242	58252	58262	58272				
1 - 72	NF	BOTT	58223	58233	58243	58253	58263	58273				
2 - 56	NC	PLUG	58322	58332	58342	58352	58362	58372				
2 - 56	NC	BOTT	58323	58333	58343	58353	58363	58373				
2 - 64	NF	PLUG	58422	58432	58442	58452	58462	58472				
2 - 64	NF	BOTT	58423	58433	58443	58453	58463	58473				
3 - 48	NC	PLUG	58522	58532	58542	58552	58562	58572				
3 - 48	NC	BOTT	58523	58533	58543	58553	58563	58573				
3 - 56	NF	PLUG	58622	58632	58642	58652	58662	58672				
3 - 56	NF	BOTT	58623	58633	58643	58653	58663	58673				
4 - 40	NC	PLUG	58722	58732	58742	58752	58762	58772				
4 - 40	NC	BOTT	58723	58733	58743	58753	58763	58773				
4 - 48	NF	PLUG	58822	58832	58842	58852	58862	58872				
4 - 48	NF	BOTT	58823	58833	58843	58853	58863	58873				
5 - 40	NC	PLUG	58922	58932	58942	58952	58962	58972				
5 - 40	NC	BOTT	58923	58933	58943	58953	58963	58973				
5 - 44	NF	PLUG	59022	59032	59042	59052	59062	59072				
5 - 44	NF	BOTT	59023	59033	59043	59053	59063	59073				
6 - 32	NC	PLUG	<a href="#">59122</a>	<a href="#">59132</a>	<a href="#">59142</a>	<a href="#">59152</a>	<a href="#">59162</a>	<a href="#">59172</a>	<a href="#">59182</a>	<a href="#">59192</a>	<a href="#">59194</a>	
6 - 32	NC	BOTT	<a href="#">59123</a>	<a href="#">59133</a>	<a href="#">59143</a>	<a href="#">59153</a>	<a href="#">59163</a>	<a href="#">59173</a>	<a href="#">59183</a>	<a href="#">59193</a>	<a href="#">59195</a>	
6 - 40	NF	PLUG	<a href="#">59222</a>	<a href="#">59232</a>	<a href="#">59242</a>	<a href="#">59252</a>	<a href="#">59262</a>	<a href="#">59272</a>	<a href="#">59282</a>	<a href="#">59292</a>	<a href="#">59294</a>	
6 - 40	NF	BOTT	<a href="#">59223</a>	<a href="#">59233</a>	<a href="#">59243</a>	<a href="#">59253</a>	<a href="#">59263</a>	<a href="#">59273</a>	<a href="#">59283</a>	<a href="#">59293</a>	<a href="#">59295</a>	
8 - 32	NC	PLUG	<a href="#">59322</a>	<a href="#">59332</a>	<a href="#">59342</a>	<a href="#">59352</a>	<a href="#">59362</a>	<a href="#">59372</a>	<a href="#">59382</a>	<a href="#">59392</a>	<a href="#">59394</a>	
8 - 32	NC	BOTT	<a href="#">59323</a>	<a href="#">59333</a>	<a href="#">59343</a>	<a href="#">59353</a>	<a href="#">59363</a>	<a href="#">59373</a>	<a href="#">59383</a>	<a href="#">59393</a>	<a href="#">59395</a>	
8 - 36	NF	PLUG	<a href="#">59422</a>	<a href="#">59432</a>	<a href="#">59442</a>	<a href="#">59452</a>	<a href="#">59462</a>	<a href="#">59472</a>	<a href="#">59482</a>	<a href="#">59492</a>	<a href="#">59494</a>	
8 - 36	NF	BOTT	<a href="#">59423</a>	<a href="#">59433</a>	<a href="#">59443</a>	<a href="#">59453</a>	<a href="#">59463</a>	<a href="#">59473</a>	<a href="#">59483</a>	<a href="#">59493</a>	<a href="#">59495</a>	
10 - 24	NC	PLUG	<a href="#">59522</a>	<a href="#">59532</a>	<a href="#">59542</a>	<a href="#">59552</a>	<a href="#">59562</a>	<a href="#">59572</a>	<a href="#">59582</a>	<a href="#">59592</a>	<a href="#">59594</a>	
10 - 24	NC	BOTT	<a href="#">59523</a>	<a href="#">59533</a>	<a href="#">59543</a>	<a href="#">59553</a>	<a href="#">59563</a>	<a href="#">59573</a>	<a href="#">59583</a>	<a href="#">59593</a>	<a href="#">59595</a>	
10 - 32	NF	PLUG	<a href="#">59622</a>	<a href="#">59632</a>	<a href="#">59642</a>	<a href="#">59652</a>	<a href="#">59662</a>	<a href="#">59672</a>	<a href="#">59682</a>	<a href="#">59692</a>	<a href="#">59694</a>	
10 - 32	NF	BOTT	<a href="#">59623</a>	<a href="#">59633</a>	<a href="#">59643</a>	<a href="#">59653</a>	<a href="#">59663</a>	<a href="#">59673</a>	<a href="#">59683</a>	<a href="#">59693</a>	<a href="#">59695</a>	
12 - 24	NC	PLUG	<a href="#">59722</a>	<a href="#">59732</a>	<a href="#">59742</a>	<a href="#">59752</a>	<a href="#">59762</a>	<a href="#">59772</a>	<a href="#">59782</a>	<a href="#">59792</a>	<a href="#">59794</a>	
12 - 24	NC	BOTT	<a href="#">59723</a>	<a href="#">59733</a>	<a href="#">59743</a>	<a href="#">59753</a>	<a href="#">59763</a>	<a href="#">59773</a>	<a href="#">59783</a>	<a href="#">59793</a>	<a href="#">59795</a>	
12 - 28	NF	PLUG	<a href="#">59822</a>	<a href="#">59832</a>	<a href="#">59842</a>	<a href="#">59852</a>	<a href="#">59862</a>	<a href="#">59872</a>	<a href="#">59882</a>	<a href="#">59892</a>	<a href="#">59894</a>	
12 - 28	NF	BOTT	<a href="#">59823</a>	<a href="#">59833</a>	<a href="#">59843</a>	<a href="#">59853</a>	<a href="#">59863</a>	<a href="#">59873</a>	<a href="#">59883</a>	<a href="#">59893</a>	<a href="#">59895</a>	

**NOTE:** No.'s 0-1-2-3-4-5 standard with no lube groove. No. 6 machine screw size taps and larger are furnished standard with a single vent groove. Vent grooves on No. 2 through No. 5 size taps and/or any additional vent grooves on larger taps, will be furnished for an added charge of 5% per groove up to a maximum charge of 15%.

**NOTE:** 48 pitch and finer offered with standard two thread chamfer only. Bottoming style with points removed, plug style with points left on.

## THREAD FORMING TAPS FRACTIONAL SIZES

**LIST 16B**

**Plug  
Bottom**

Stocked with Nitride Surface Treatment



TAP SIZE	SERIES DES.	STYLE	EDP NUMBER									
			H-2	H-3	H-4	H-5	H-6	H-7	H-8	H-9	H-10	
1/4 - 20	NC	PLUG	<a href="#">59922</a>	<a href="#">59932</a>	<a href="#">59942</a>	<a href="#">59952</a>	<a href="#">59962</a>	<a href="#">59972</a>	<a href="#">59982</a>	<a href="#">59992</a>	<a href="#">59994</a>	
1/4 - 20	NC	BOTT	<a href="#">59923</a>	<a href="#">59933</a>	<a href="#">59943</a>	<a href="#">59953</a>	<a href="#">59963</a>	<a href="#">59973</a>	<a href="#">59983</a>	<a href="#">59993</a>	<a href="#">59995</a>	
1/4 - 28	NF	PLUG	<a href="#">60022</a>	<a href="#">60032</a>	<a href="#">60042</a>	<a href="#">60052</a>	<a href="#">60062</a>	<a href="#">60072</a>	<a href="#">60082</a>	<a href="#">60092</a>	<a href="#">60094</a>	
1/4 - 28	NF	BOTT	<a href="#">60023</a>	<a href="#">60033</a>	<a href="#">60043</a>	<a href="#">60053</a>	<a href="#">60063</a>	<a href="#">60073</a>	<a href="#">60083</a>	<a href="#">60093</a>	<a href="#">60095</a>	
5/16 - 18	NC	PLUG	<a href="#">60122</a>	<a href="#">60132</a>	<a href="#">60142</a>	<a href="#">60152</a>	<a href="#">60162</a>	<a href="#">60172</a>	<a href="#">60182</a>	<a href="#">60192</a>	<a href="#">60194</a>	
5/16 - 18	NC	BOTT	<a href="#">60123</a>	<a href="#">60133</a>	<a href="#">60143</a>	<a href="#">60153</a>	<a href="#">60163</a>	<a href="#">60173</a>	<a href="#">60183</a>	<a href="#">60193</a>	<a href="#">60195</a>	
5/16 - 24	NF	PLUG	<a href="#">60222</a>	<a href="#">60232</a>	<a href="#">60242</a>	<a href="#">60252</a>	<a href="#">60262</a>	<a href="#">60272</a>	<a href="#">60282</a>	<a href="#">60292</a>	<a href="#">60294</a>	
5/16 - 24	NF	BOTT	<a href="#">60223</a>	<a href="#">60233</a>	<a href="#">60243</a>	<a href="#">60253</a>	<a href="#">60263</a>	<a href="#">60273</a>	<a href="#">60283</a>	<a href="#">60293</a>	<a href="#">60295</a>	
			H-4	H-5	H-6	H-7	H-8	H-9	H-10	H-11	H-12	
3/8 - 16	NC	PLUG	<a href="#">60442</a>	<a href="#">60452</a>	<a href="#">60462</a>	<a href="#">60472</a>	<a href="#">60482</a>	<a href="#">60492</a>	<a href="#">60494</a>	<a href="#">60496</a>	<a href="#">60498</a>	
3/8 - 16	NC	BOTT	<a href="#">60443</a>	<a href="#">60453</a>	<a href="#">60463</a>	<a href="#">60473</a>	<a href="#">60483</a>	<a href="#">60493</a>	<a href="#">60495</a>	<a href="#">60497</a>	<a href="#">60499</a>	
3/8 - 24	NF	PLUG	<a href="#">60642</a>	<a href="#">60652</a>	<a href="#">60662</a>	<a href="#">60672</a>	<a href="#">60682</a>	<a href="#">60692</a>	<a href="#">60694</a>	<a href="#">60696</a>	<a href="#">60698</a>	
3/8 - 24	NF	BOTT	<a href="#">60643</a>	<a href="#">60653</a>	<a href="#">60663</a>	<a href="#">60673</a>	<a href="#">60683</a>	<a href="#">60693</a>	<a href="#">60695</a>	<a href="#">60697</a>	<a href="#">60699</a>	
7/16 - 14	NC	PLUG	<a href="#">60842</a>	<a href="#">60852</a>	<a href="#">60862</a>	<a href="#">60872</a>	<a href="#">60882</a>	<a href="#">60892</a>	<a href="#">60894</a>	<a href="#">60896</a>	<a href="#">60898</a>	
7/16 - 14	NC	BOTT	<a href="#">60843</a>	<a href="#">60853</a>	<a href="#">60863</a>	<a href="#">60873</a>	<a href="#">60883</a>	<a href="#">60893</a>	<a href="#">60895</a>	<a href="#">60897</a>	<a href="#">60899</a>	
7/16 - 20	NF	PLUG	<a href="#">61042</a>	<a href="#">61052</a>	<a href="#">61062</a>	<a href="#">61072</a>	<a href="#">61082</a>	<a href="#">61092</a>	<a href="#">61094</a>	<a href="#">61096</a>	<a href="#">61098</a>	
7/16 - 20	NF	BOTT	<a href="#">61043</a>	<a href="#">61053</a>	<a href="#">61063</a>	<a href="#">61073</a>	<a href="#">61083</a>	<a href="#">61093</a>	<a href="#">61095</a>	<a href="#">61097</a>	<a href="#">61099</a>	
1/2 - 13	NC	PLUG	<a href="#">61242</a>	<a href="#">61252</a>	<a href="#">61262</a>	<a href="#">61272</a>	<a href="#">61282</a>	<a href="#">61292</a>	<a href="#">61294</a>	<a href="#">61296</a>	<a href="#">61298</a>	
1/2 - 13	NC	BOTT	<a href="#">61243</a>	<a href="#">61253</a>	<a href="#">61263</a>	<a href="#">61273</a>	<a href="#">61283</a>	<a href="#">61293</a>	<a href="#">61295</a>	<a href="#">61297</a>	<a href="#">61299</a>	
1/2 - 20	NF	PLUG	<a href="#">61442</a>	<a href="#">61452</a>	<a href="#">61462</a>	<a href="#">61472</a>	<a href="#">61482</a>	<a href="#">61492</a>	<a href="#">61494</a>	<a href="#">61496</a>	<a href="#">61498</a>	
1/2 - 20	NF	BOTT	<a href="#">61443</a>	<a href="#">61453</a>	<a href="#">61463</a>	<a href="#">61473</a>	<a href="#">61483</a>	<a href="#">61493</a>	<a href="#">61495</a>	<a href="#">61497</a>	<a href="#">61499</a>	
9/16 - 12	NC	PLUG	<a href="#">61642</a>	<a href="#">61652</a>	<a href="#">61662</a>	<a href="#">61672</a>	<a href="#">61682</a>	<a href="#">61692</a>	<a href="#">61694</a>	<a href="#">61696</a>	<a href="#">61698</a>	
9/16 - 12	NC	BOTT	<a href="#">61643</a>	<a href="#">61653</a>	<a href="#">61663</a>	<a href="#">61673</a>	<a href="#">61683</a>	<a href="#">61693</a>	<a href="#">61695</a>	<a href="#">61697</a>	<a href="#">61699</a>	
9/16 - 18	NF	PLUG	<a href="#">61842</a>	<a href="#">61852</a>	<a href="#">61862</a>	<a href="#">61872</a>	<a href="#">61882</a>	<a href="#">61892</a>	<a href="#">61894</a>	<a href="#">61896</a>	<a href="#">61898</a>	
9/16 - 18	NF	BOTT	<a href="#">61843</a>	<a href="#">61853</a>	<a href="#">61863</a>	<a href="#">61873</a>	<a href="#">61883</a>	<a href="#">61893</a>	<a href="#">61895</a>	<a href="#">61897</a>	<a href="#">61899</a>	
5/8 - 11	NC	PLUG	<a href="#">62042</a>	<a href="#">62052</a>	<a href="#">62062</a>	<a href="#">62072</a>	<a href="#">62082</a>	<a href="#">62092</a>	<a href="#">62094</a>	<a href="#">62096</a>	<a href="#">62098</a>	
5/8 - 11	NC	BOTT	<a href="#">62043</a>	<a href="#">62053</a>	<a href="#">62063</a>	<a href="#">62073</a>	<a href="#">62083</a>	<a href="#">62093</a>	<a href="#">62095</a>	<a href="#">62097</a>	<a href="#">62099</a>	
5/8 - 18	NF	PLUG	<a href="#">62242</a>	<a href="#">62252</a>	<a href="#">62262</a>	<a href="#">62272</a>	<a href="#">62282</a>	<a href="#">62292</a>	<a href="#">62294</a>	<a href="#">62296</a>	<a href="#">62298</a>	
5/8 - 18	NF	BOTT	<a href="#">62243</a>	<a href="#">62253</a>	<a href="#">62263</a>	<a href="#">62273</a>	<a href="#">62283</a>	<a href="#">62293</a>	<a href="#">62295</a>	<a href="#">62297</a>	<a href="#">62299</a>	
3/4 - 10	NC	PLUG			<a href="#">62412</a>	<a href="#">62422</a>	<a href="#">62432</a>	<a href="#">62442</a>	<a href="#">62452</a>		<a href="#">62472</a>	
3/4 - 10	NC	BOTT			<a href="#">62413</a>	<a href="#">62423</a>	<a href="#">62433</a>	<a href="#">62443</a>	<a href="#">62453</a>		<a href="#">62473</a>	
3/4 - 16	NF	PLUG			<a href="#">62512</a>	<a href="#">62522</a>	<a href="#">62532</a>	<a href="#">62542</a>	<a href="#">62552</a>		<a href="#">62572</a>	
3/4 - 16	NF	BOTT			<a href="#">62513</a>	<a href="#">62523</a>	<a href="#">62533</a>	<a href="#">62543</a>	<a href="#">62553</a>		<a href="#">62573</a>	

**NOTE:** No.'s 0-1-2-3-4-5 standard with no lube groove. No. 6 machine screw size taps and larger are furnished standard with a single vent groove. Vent grooves on No. 2 through No. 5 size taps and/or any additional vent grooves on larger taps, will be furnished for an added charge of 5% per groove up to a maximum charge of 15%.

**NOTE:** 48 pitch and finer offered with standard two thread chamfer only. Bottoming style with points removed, plug style with points left on.

## METRIC THREAD FORMING TAPS

LIST 16M

Plug  
Bottom

Stocked with Nitride Surface Treatment



TAP SIZE	PITCH DIAMETER LIMIT		16M	
	CLASS 6H FIT	CLASS 4H FIT	PLUG EDP NUMBER	BOTTOM EDP NUMBER
M2X0.4	D5		62611	<a href="#">62612</a>
M2X0.4		D3	62613	62614
M2.5X0.45	D6		62617	<a href="#">62618</a>
M2.5X0.45		D3	62619	<a href="#">62620</a>
M3X0.5	D6		62621	<a href="#">62622</a>
M3X0.5		D3	62623	62624
M3.5X0.6	D7		<a href="#">62627</a>	<a href="#">62628</a>
M3.5X0.6		D4	<a href="#">62629</a>	<a href="#">62630</a>
M4X0.7	D7		<a href="#">62631</a>	<a href="#">62632</a>
M4X0.7		D4	62633	62634
M5X0.8	D8		<a href="#">62637</a>	<a href="#">62638</a>
M5X0.8		D4	62639	62640
M6X1.0	D9		<a href="#">62641</a>	<a href="#">62642</a>
M6X1.0		D5	62643	62644
M8X1.25	D10		<a href="#">62647</a>	<a href="#">62648</a>
M8X1.25		D5	<a href="#">62649</a>	<a href="#">62650</a>
M10X1.5	D11		<a href="#">62651</a>	<a href="#">62652</a>
M10X1.5		D6	<a href="#">62653</a>	<a href="#">62654</a>

## METRIC THREAD FORMERS TOLERANCES & HOLE SIZES

TAP SIZE	PITCH DIAMETER LIMIT	PROBABLE DRILL SIZE	TAP SIZE	PITCH DIAMETER LIMIT	PROBABLE DRILL SIZE
	CLASS 6H FIT			CLASS 4H FIT	
M2X0.4	D5	1.85mm	M2X0.4	D3	1.80mm
M2.5X0.45	D6	2.35mm	M2.5X0.45	D3	2.30mm
M3X0.5	D6	2.80mm	M3X0.5	D3	2.75mm
M3.5X0.6	D7	3.25mm	M3.5X0.6	D4	3.20mm
M4X0.7	D7	3.70mm	M4X0.7	D4	#27
M5X0.8	D8	4.70mm	M5X0.8	D4	4.60mm
M6X1.0	D9	5.50mm	M6X1.0	D5	5.50mm
M8X1.25	D10	7.40mm	M8X1.25	D5	7.30mm
M10X1.5	D11	9.25mm	M10X1.5	D6	9.20mm

To convert millimeters to inches, multiply by .03937

## METRIC SPARK PLUG TAPS

LIST 121

Taper  
Plug  
Bottom



TAP SIZE	NO. OF FLUTES	H LIMIT	121			
			TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER	SET EDP NUMBER
M14X1.25	4	H-3	<a href="#">35031</a>	<a href="#">35032</a>	<a href="#">35033</a>	<a href="#">35030</a>
M18X1.5	4	H-3	<a href="#">35131</a>	35132	35133	<a href="#">35130</a>

## METRIC HAND TAPS

LIST 100M  
CLASS 6H FIT

Taper  
Plug  
Bottom



TAP SIZE	PITCH DIAMETER LIMIT	NO. OF FLUTES	100M			
			TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER	SET EDP NUMBER
M1.6X0.35	D3	2	<a href="#">62702</a>	<a href="#">62700</a>	<a href="#">62701</a>	<a href="#">62703</a>
M1.8X0.35	D2	2	<a href="#">62706</a>	<a href="#">62704</a>	<a href="#">62705</a>	<a href="#">62707</a>
M2X0.4	D3	3	<a href="#">62710</a>	<a href="#">62708</a>	62709	62717
M2.2X0.45	D2	3	<a href="#">62711</a>	<a href="#">62712</a>	<a href="#">62713</a>	<a href="#">62724</a>
M2.5X0.45	D3	3	<a href="#">62716</a>	<a href="#">62714</a>	<a href="#">62715</a>	<a href="#">62728</a>
M3X0.5	D3	3	62720	62718	<a href="#">62719</a>	<a href="#">62732</a>
M3.5X0.6	D4	3	<a href="#">62721</a>	<a href="#">62722</a>	<a href="#">62723</a>	<a href="#">62736</a>
M4X0.7	D4	4	<a href="#">62725</a>	<a href="#">62726</a>	62727	62740
M4.5X0.75	D4	4	<a href="#">62729</a>	<a href="#">62730</a>	<a href="#">62731</a>	<a href="#">62744</a>
M5X0.8	D4	4	<a href="#">62733</a>	<a href="#">62734</a>	62735	62748
M6X1.0	D5	4	<a href="#">62737</a>	<a href="#">62738</a>	62739	62752
M6.3X1.0	D5	4	<a href="#">62741</a>	<a href="#">62742</a>	<a href="#">62743</a>	<a href="#">62756</a>
M7X1.0	D5	4	<a href="#">62745</a>	<a href="#">62746</a>	<a href="#">62747</a>	<a href="#">62760</a>
M8X1.25	D5	4	<a href="#">62749</a>	<a href="#">62750</a>	<a href="#">62751</a>	<a href="#">62764</a>
M10X1.5	D6	4	<a href="#">62753</a>	<a href="#">62754</a>	<a href="#">62755</a>	<a href="#">62768</a>
M12X1.75	D6	4	<a href="#">62757</a>	<a href="#">62758</a>	<a href="#">62759</a>	<a href="#">62769</a>
M14X2.0	D7	4	<a href="#">62761</a>	<a href="#">62762</a>	<a href="#">62763</a>	<a href="#">62794</a>
M16X2.0	D7	4	<a href="#">62765</a>	<a href="#">62766</a>	<a href="#">62767</a>	<a href="#">62795</a>
M18X2.5	D7	4	<a href="#">62772</a>	<a href="#">62770</a>	<a href="#">62771</a>	<a href="#">62796</a>
M20X2.5	D7	4	<a href="#">62773</a>	<a href="#">62774</a>	<a href="#">62775</a>	<a href="#">62797</a>
M22X2.5	D6	4	<a href="#">62776</a>	<a href="#">62777</a>	<a href="#">62778</a>	<a href="#">62798</a>
M24X3.0	D8	4	<a href="#">62779</a>	<a href="#">62780</a>	62781	62799
M27X3.0	D9	4	<a href="#">62782</a>	<a href="#">62783</a>	<a href="#">62784</a>	<a href="#">62801</a>
M30X3.5	D9	4	<a href="#">62785</a>	<a href="#">62786</a>	<a href="#">62787</a>	<a href="#">62802</a>
M33X3.5	D9	4	<a href="#">62788</a>	<a href="#">62789</a>	<a href="#">62790</a>	<a href="#">62803</a>
M36X4.0	D9	4	<a href="#">62791</a>	<a href="#">62792</a>	<a href="#">62793</a>	<a href="#">62805</a>

## METRIC POPULAR SPECIAL HAND TAPS

LIST 100MOS

Taper  
Plug  
Bottom



STYLE 1 - M1.5 THROUGH M5				STYLE 2 - M6 THROUGH M10			STYLE 3 - M12 THROUGH M39		
TAP SIZE	PITCH DIA. LIMIT	NO. OF FLUTES	TAP BLANK SIZE	100MOS					
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER			
M1.5X0.35	D1	2	#0	<a href="#">81001</a>	<a href="#">81002</a>	<a href="#">81003</a>			
M1.5X0.35	D2	2	#0	<a href="#">81007</a>	<a href="#">81008</a>	<a href="#">81009</a>			
M1.6X0.35	D1	2	#0	<a href="#">81011</a>	<a href="#">81012</a>	<a href="#">81013</a>			
M1.6X0.35	D2	2	#0	<a href="#">81017</a>	<a href="#">81018</a>	<a href="#">81019</a>			
M1.8X0.35	D1	2	#1	<a href="#">81027</a>	<a href="#">81028</a>	<a href="#">81029</a>			
M2X0.45	D1	3	#2	<a href="#">81051</a>	<a href="#">81052</a>	<a href="#">81053</a>			
M2X0.45	D2	3	#2	<a href="#">81057</a>	<a href="#">81058</a>	<a href="#">81059</a>			
M2X0.4	D1	3	#2	<a href="#">81037</a>	<a href="#">81038</a>	<a href="#">81039</a>			
M2X0.4	D2	3	#2	<a href="#">81041</a>	<a href="#">81042</a>	<a href="#">81043</a>			
M2.2X0.45	D1	3	#2	<a href="#">81061</a>	<a href="#">81062</a>	<a href="#">81063</a>			
M2.3X0.4	D1	2	#3	<a href="#">81071</a>	<a href="#">81072</a>	<a href="#">81073</a>			
M2.3X0.4	D2	2	#3	<a href="#">81077</a>	<a href="#">81078</a>	<a href="#">81079</a>			
M2.5X0.45	D1	3	#3	<a href="#">81081</a>	<a href="#">81082</a>	<a href="#">81083</a>			
M2.5X0.45	D2	3	#3	<a href="#">81087</a>	<a href="#">81088</a>	<a href="#">81089</a>			
M2.6X0.45	D1	3	#3	<a href="#">81097</a>	<a href="#">81098</a>	<a href="#">81099</a>			
M2.6X0.45	D2	3	#3	<a href="#">81101</a>	<a href="#">81102</a>	<a href="#">81103</a>			
M3X0.6	D1	3	#5	<a href="#">81121</a>	<a href="#">81122</a>	<a href="#">81123</a>			
M3X0.6	D2	3	#5	<a href="#">81127</a>	<a href="#">81128</a>	<a href="#">81129</a>			
M3X0.5	D1	3	#5	<a href="#">81107</a>	<a href="#">81108</a>	<a href="#">81109</a>			
M3X0.5	D2	3	#5	<a href="#">81111</a>	<a href="#">81112</a>	<a href="#">81113</a>			
M3.5X0.6	D1	3	#6	<a href="#">81131</a>	<a href="#">81132</a>	<a href="#">81133</a>			
M3.5X0.6	D2	3	#6	<a href="#">81137</a>	<a href="#">81138</a>	<a href="#">81139</a>			
M4X0.75	D2	4	#8	<a href="#">81161</a>	<a href="#">81162</a>	<a href="#">81163</a>			
M4X0.75	D3	4	#8	<a href="#">81167</a>	<a href="#">81168</a>	<a href="#">81169</a>			
M4X0.7	D2	4	#8	<a href="#">81147</a>	<a href="#">81148</a>	<a href="#">81149</a>			
M4X0.7	D3	4	#8	<a href="#">81151</a>	<a href="#">81152</a>	<a href="#">81153</a>			
M4.5X0.75	D2	4	#10	<a href="#">81171</a>	<a href="#">81172</a>	<a href="#">81173</a>			
M4.5X0.75	D3	4	#10	<a href="#">81177</a>	<a href="#">81178</a>	<a href="#">81179</a>			
M5X1.0	D2	4	#10	<a href="#">81211</a>	<a href="#">81212</a>	<a href="#">81213</a>			
M5X1.0	D3	4	#10	<a href="#">81217</a>	<a href="#">81218</a>	<a href="#">81219</a>			
M5X0.9	D2	4	#10	<a href="#">81201</a>	<a href="#">81202</a>	<a href="#">81203</a>			
M5X0.9	D3	4	#10	<a href="#">81207</a>	<a href="#">81208</a>	<a href="#">81209</a>			
M5X0.8	D2	4	#10	<a href="#">81187</a>	<a href="#">81188</a>	<a href="#">81189</a>			
M5X0.8	D3	4	#10	<a href="#">81191</a>	<a href="#">81192</a>	<a href="#">81193</a>			
M5.5X0.9	D2	4	#12	<a href="#">81221</a>	<a href="#">81222</a>	<a href="#">81223</a>			
M5.5X0.9	D3	4	#12	<a href="#">81227</a>	<a href="#">81228</a>	<a href="#">81229</a>			

See page 89 for Tap Dimensions.



## METRIC POPULAR SPECIAL HAND TAPS (CONTINUED)

LIST 100MOS

Taper  
 Plug  
 Bottom



STYLE 1 - M1.5 THROUGH M5

STYLE 2 - M6 THROUGH M10

STYLE 3 - M12 THROUGH M39

TAP SIZE	PITCH DIA. LIMIT	NO. OF FLUTES	TAP BLANK SIZE	100MOS		
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER
M6X1.0	D3	4	1/4"	<a href="#">81241</a>	<a href="#">81242</a>	<a href="#">81243</a>
M6X0.75	D2	4	1/4"	<a href="#">81231</a>	<a href="#">81232</a>	<a href="#">81233</a>
M6X0.75	D3	4	1/4"	<a href="#">81237</a>	<a href="#">81238</a>	<a href="#">81239</a>
M7X1.0	D3	4	5/16"	<a href="#">81261</a>	<a href="#">81262</a>	<a href="#">81263</a>
M7X0.75	D2	4	5/16"	<a href="#">81251</a>	<a href="#">81252</a>	<a href="#">81253</a>
M7X0.75	D4	4	5/16"	<a href="#">81257</a>	<a href="#">81258</a>	<a href="#">81259</a>
M8X1.25	D3	4	5/16"	<a href="#">81281</a>	<a href="#">81282</a>	<a href="#">81283</a>
M8X1.0	D3	4	5/16"	<a href="#">81271</a>	<a href="#">81272</a>	<a href="#">81273</a>
M8X1.0	D5	4	5/16"	<a href="#">81277</a>	<a href="#">81278</a>	<a href="#">81279</a>
M9X1.25	D3	4	3/8"	<a href="#">81301</a>	<a href="#">81302</a>	<a href="#">81303</a>
M9X1.25	D5	4	3/8"	<a href="#">81307</a>	<a href="#">81308</a>	<a href="#">81309</a>
M9X1.0	D3	4	3/8"	<a href="#">81291</a>	<a href="#">81292</a>	<a href="#">81293</a>
M9X1.0	D5	4	3/8"	<a href="#">81297</a>	<a href="#">81298</a>	<a href="#">81299</a>
M10X1.5	D3	4	3/8"	<a href="#">81331</a>	<a href="#">81332</a>	<a href="#">81333</a>
M10X1.5	D5	4	3/8"	<a href="#">81337</a>	<a href="#">81338</a>	<a href="#">81339</a>
M10X1.25	D3	4	3/8"	<a href="#">81321</a>	<a href="#">81322</a>	<a href="#">81323</a>
M10X1.25	D5	4	3/8"	<a href="#">81327</a>	<a href="#">81328</a>	<a href="#">81329</a>
M10X1.0	D3	4	3/8"	<a href="#">81311</a>	<a href="#">81312</a>	<a href="#">81313</a>
M10X1.0	D5	4	3/8"	<a href="#">81317</a>	<a href="#">81318</a>	<a href="#">81319</a>
M11X1.5	D3	4	7/16"	<a href="#">81344</a>	<a href="#">81345</a>	<a href="#">81346</a>
M11X1.5	D5	4	7/16"	<a href="#">81347</a>	<a href="#">81348</a>	<a href="#">81349</a>
M12X1.75	D3	4	1/2"	<a href="#">81371</a>	<a href="#">81372</a>	<a href="#">81373</a>
M12X1.75	D5	4	1/2"	<a href="#">81377</a>	<a href="#">81378</a>	<a href="#">81379</a>
M12X1.5	D3	4	1/2"	<a href="#">81361</a>	<a href="#">81362</a>	<a href="#">81363</a>
M12X1.5	D5	4	1/2"	<a href="#">81367</a>	<a href="#">81368</a>	<a href="#">81369</a>
M12X1.25	D3	4	1/2"	<a href="#">81351</a>	<a href="#">81352</a>	<a href="#">81353</a>
M12X1.25	D5	4	1/2"	<a href="#">81357</a>	<a href="#">81358</a>	<a href="#">81359</a>
M14X2.0	D3	4	9/16"	<a href="#">81407</a>	<a href="#">81408</a>	<a href="#">81409</a>
M14X2.0	D5	4	9/16"	<a href="#">81411</a>	<a href="#">81412</a>	<a href="#">81413</a>
M14X1.5	D3	4	9/16"	<a href="#">81397</a>	<a href="#">81398</a>	<a href="#">81399</a>
M14X1.5	D5	4	9/16"	81401	81402	<a href="#">81403</a>
M14X1.25	D5	4	9/16"	<a href="#">81391</a>	<a href="#">81392</a>	<a href="#">81393</a>
M15X1.5	D3	4	5/8"	<a href="#">81421</a>	<a href="#">81422</a>	<a href="#">81423</a>
M15X1.5	D5	4	5/8"	<a href="#">81427</a>	<a href="#">81428</a>	<a href="#">81429</a>

See page 89 for Tap Dimensions.

## METRIC POPULAR SPECIAL HAND TAPS (CONTINUED)

LIST 100MOS

Taper  
Plug  
Bottom



STYLE 1 - M1.5 THROUGH M5

STYLE 2 - M6 THROUGH M10

STYLE 3 - M12 THROUGH M39

TAP SIZE	PITCH DIA. LIMIT	NO. OF FLUTES	TAP BLANK SIZE	100MOS		
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER
M16X2.0	D4	4	5/8"	<a href="#">81441</a>	<a href="#">81442</a>	<a href="#">81443</a>
M16X2.0	D6	4	5/8"	<a href="#">81447</a>	<a href="#">81448</a>	<a href="#">81449</a>
M16X1.5	D3	4	5/8"	<a href="#">81431</a>	<a href="#">81432</a>	<a href="#">81433</a>
M16X1.5	D5	4	5/8"	<a href="#">81437</a>	<a href="#">81438</a>	<a href="#">81439</a>
M17X1.5	D3	4	11/16"	<a href="#">81547</a>	<a href="#">81548</a>	<a href="#">81549</a>
M17X1.5	D5	4	11/16"	<a href="#">81551</a>	<a href="#">81552</a>	<a href="#">81553</a>
M18X2.5	D4	4	11/16"	<a href="#">81577</a>	<a href="#">81578</a>	<a href="#">81579</a>
M18X2.5	D6	4	11/16"	<a href="#">81581</a>	<a href="#">81582</a>	<a href="#">81583</a>
M18X2.0	D4	4	11/16"	<a href="#">81567</a>	<a href="#">81568</a>	<a href="#">81569</a>
M18X2.0	D6	4	11/16"	<a href="#">81571</a>	<a href="#">81572</a>	<a href="#">81573</a>
M18X1.5	D5	4	11/16"	<a href="#">81561</a>	<a href="#">81562</a>	<a href="#">81563</a>
M19X2.5	D4	4	3/4"	<a href="#">81591</a>	<a href="#">81592</a>	<a href="#">81593</a>
M19X2.5	D6	4	3/4"	<a href="#">81597</a>	<a href="#">81598</a>	<a href="#">81599</a>
M20X2.5	D4	4	13/16"	<a href="#">81621</a>	<a href="#">81622</a>	<a href="#">81623</a>
M20X2.5	D6	4	13/16"	<a href="#">81627</a>	<a href="#">81628</a>	<a href="#">81629</a>
M20X2.0	D4	4	13/16"	<a href="#">81611</a>	<a href="#">81612</a>	<a href="#">81613</a>
M20X2.0	D6	4	13/16"	<a href="#">81617</a>	<a href="#">81618</a>	<a href="#">81619</a>
M20X1.5	D3	4	13/16"	<a href="#">81601</a>	<a href="#">81602</a>	<a href="#">81603</a>
M20X1.5	D5	4	13/16"	<a href="#">81607</a>	<a href="#">81608</a>	<a href="#">81609</a>
M22X2.5	D4	4	7/8"	<a href="#">81657</a>	<a href="#">81658</a>	<a href="#">81659</a>
M22X2.0	D4	4	7/8"	<a href="#">81647</a>	<a href="#">81648</a>	<a href="#">81649</a>
M22X2.0	D6	4	7/8"	<a href="#">81651</a>	<a href="#">81652</a>	<a href="#">81653</a>
M22X1.5	D3	4	7/8"	<a href="#">81637</a>	<a href="#">81638</a>	<a href="#">81639</a>
M22X1.5	D5	4	7/8"	<a href="#">81641</a>	<a href="#">81642</a>	<a href="#">81643</a>
M24X3.0	D4	4	15/16"	<a href="#">81687</a>	<a href="#">81688</a>	<a href="#">81689</a>
M24X2.0	D4	4	15/16"	<a href="#">81677</a>	<a href="#">81678</a>	<a href="#">81679</a>
M24X2.0	D8	4	15/16"	<a href="#">81681</a>	<a href="#">81682</a>	<a href="#">81683</a>
M24X1.5	D3	4	15/16"	<a href="#">81667</a>	<a href="#">81668</a>	<a href="#">81669</a>
M24X1.5	D5	4	15/16"	<a href="#">81671</a>	<a href="#">81672</a>	<a href="#">81673</a>
M25X2.0	D4	4	1"	<a href="#">81707</a>	<a href="#">81708</a>	<a href="#">81709</a>
M25X2.0	D8	4	1"	<a href="#">81711</a>	81712	81713
M25X1.5	D3	4	1"	<a href="#">81697</a>	<a href="#">81698</a>	<a href="#">81699</a>
M25X1.5	D5	4	1"	<a href="#">81701</a>	<a href="#">81702</a>	<a href="#">81703</a>
M26X3.0	D5	4	1-1/16"	<a href="#">81717</a>	<a href="#">81718</a>	<a href="#">81719</a>
M26X3.0	D9	4	1-1/16"	<a href="#">81721</a>	<a href="#">81722</a>	<a href="#">81723</a>
M27X3.0	D5	4	1-1/16"	<a href="#">81737</a>	<a href="#">81738</a>	<a href="#">81739</a>

## METRIC POPULAR SPECIAL HAND TAPS (CONTINUED)

LIST 100MOS

Taper  
Plug  
Bottom



STYLE 1 - M1.5 THROUGH M5

STYLE 2 - M6 THROUGH M10

STYLE 3 - M12 THROUGH M39

TAP SIZE	PITCH DIA. LIMIT	NO. OF FLUTES	TAP BLANK SIZE	100MOS		
				TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER
M27X2.0	D5	4	1-1/16"	<a href="#">81727</a>	<a href="#">81728</a>	<a href="#">81729</a>
M27X2.0	D7	4	1-1/16"	<a href="#">81731</a>	<a href="#">81732</a>	<a href="#">81733</a>
M28X3.0	D5	4	1-1/8"	<a href="#">81757</a>	<a href="#">81758</a>	<a href="#">81759</a>
M28X3.0	D9	4	1-1/8"	<a href="#">81761</a>	<a href="#">81762</a>	<a href="#">81763</a>
M28X2.0	D5	4	1-1/8"	<a href="#">81747</a>	<a href="#">81748</a>	<a href="#">81749</a>
M28X2.0	D7	4	1-1/8"	<a href="#">81751</a>	<a href="#">81752</a>	<a href="#">81753</a>
M30X3.5	D5	4	1-3/16"	<a href="#">81787</a>	<a href="#">81788</a>	<a href="#">81789</a>
M30X3.0	D5	4	1-3/16"	<a href="#">81777</a>	<a href="#">81778</a>	<a href="#">81779</a>
M30X3.0	D9	4	1-3/16"	<a href="#">81781</a>	<a href="#">81782</a>	<a href="#">81783</a>
M30X2.0	D5	4	1-3/16"	<a href="#">81767</a>	<a href="#">81768</a>	<a href="#">81769</a>
M30X2.0	D7	4	1-3/16"	<a href="#">81771</a>	<a href="#">81772</a>	<a href="#">81773</a>
M32X3.5	D5	4	1-1/4"	<a href="#">81807</a>	<a href="#">81808</a>	<a href="#">81809</a>
M32X3.5	D9	4	1-1/4"	<a href="#">81811</a>	<a href="#">81812</a>	<a href="#">81813</a>
M32X2.0	D5	6	1-1/4"	<a href="#">81797</a>	<a href="#">81798</a>	<a href="#">81799</a>
M32X2.0	D7	6	1-1/4"	<a href="#">81801</a>	<a href="#">81802</a>	<a href="#">81803</a>
M33X3.5	D5	4	1-5/16"	<a href="#">81837</a>	<a href="#">81838</a>	<a href="#">81839</a>
M33X3.0	D5	4	1-5/16"	<a href="#">81827</a>	<a href="#">81828</a>	<a href="#">81829</a>
M33X3.0	D9	4	1-5/16"	<a href="#">81831</a>	<a href="#">81832</a>	<a href="#">81833</a>
M33X2.0	D5	4	1-5/16"	<a href="#">81817</a>	<a href="#">81818</a>	<a href="#">81819</a>
M33X2.0	D9	4	1-5/16"	<a href="#">81821</a>	<a href="#">81822</a>	<a href="#">81823</a>
M34X3.5	D5	4	1-3/8"	<a href="#">81847</a>	<a href="#">81848</a>	<a href="#">81849</a>
M34X3.5	D9	4	1-3/8"	<a href="#">81851</a>	<a href="#">81852</a>	<a href="#">81853</a>
M36X4.0	D5	4	1-7/16"	<a href="#">81877</a>	<a href="#">81878</a>	<a href="#">81879</a>
M36X3.0	D5	4	1-7/16"	<a href="#">81867</a>	<a href="#">81868</a>	<a href="#">81869</a>
M36X3.0	D9	4	1-7/16"	<a href="#">81871</a>	<a href="#">81872</a>	<a href="#">81873</a>
M36X2.0	D5	4	1-7/16"	<a href="#">81857</a>	<a href="#">81858</a>	<a href="#">81859</a>
M36X2.0	D7	4	1-7/16"	<a href="#">81861</a>	<a href="#">81862</a>	<a href="#">81863</a>
M38X4.0	D5	4	1-1/2"	<a href="#">81887</a>	<a href="#">81888</a>	<a href="#">81889</a>
M38X4.0	D9	4	1-1/2"	<a href="#">81891</a>	<a href="#">81892</a>	<a href="#">81893</a>
M39X4.0	D6	6	1-5/8"	<a href="#">81917</a>	<a href="#">81918</a>	<a href="#">81919</a>
M39X4.0	D10	6	1-5/8"	<a href="#">81921</a>	81922	81923
M39X3.0	D6	6	1-5/8"	<a href="#">81901</a>	<a href="#">81902</a>	<a href="#">81903</a>
M39X3.0	D8	6	1-5/8"	<a href="#">81907</a>	<a href="#">81908</a>	<a href="#">81909</a>
M39X3.0	D9	6	1-5/8"	<a href="#">81911</a>	<a href="#">81912</a>	<a href="#">81913</a>
M39X2.0	D6	6	1-5/8"	<a href="#">81897</a>	<a href="#">81898</a>	<a href="#">81899</a>

See page 89 for Tap Dimensions.

## METRIC POPULAR SPECIAL SPIRAL POINT TAPS

LIST 102MOS

Spiral Point Plug



STYLE 1 - M1.5 THROUGH M5		STYLE 2 - M6 THROUGH M10			STYLE 3 - M12 THROUGH M16	
TAP SIZE	PITCH DIA. LIMIT	NO. OF FLUTES	TAP BLANK SIZE	102MOS		
				SPPT PLUG EDP NUMBER		
M2X0.45	D1	2	#2	<a href="#">82052</a>		
M2X0.45	D2	2	#2	<a href="#">82058</a>		
M2X0.4	D1	2	#2	<a href="#">82038</a>		
M2X0.4	D2	2	#2	<a href="#">82042</a>		
M2.2X0.45	D1	2	#2	<a href="#">82062</a>		
M2.3X0.4	D1	2	#3	<a href="#">82072</a>		
M2.3X0.4	D2	2	#3	<a href="#">82078</a>		
M2.5X0.45	D1	2	#3	<a href="#">82082</a>		
M2.5X0.45	D2	2	#3	<a href="#">82088</a>		
M2.6X0.45	D1	2	#3	<a href="#">82098</a>		
M2.6X0.45	D2	2	#3	<a href="#">82102</a>		
M3X0.6	D1	2	#5	<a href="#">82122</a>		
M3X0.6	D2	2	#5	<a href="#">82128</a>		
M3X0.5	D1	2	#5	<a href="#">82108</a>		
M3X0.5	D2	2	#5	<a href="#">82112</a>		
M3.5X0.6	D1	2	#6	<a href="#">82132</a>		
M3.5X0.6	D2	2	#6	<a href="#">82138</a>		
M4X0.75	D2	2	#8	<a href="#">82162</a>		
M4X0.75	D3	2	#8	<a href="#">82168</a>		
M4X0.7	D2	2	#8	<a href="#">82148</a>		
M4X0.7	D3	2	#8	<a href="#">82152</a>		
M4.5X0.75	D2	2	#10	<a href="#">82172</a>		
M4.5X0.75	D3	2	#10	<a href="#">82178</a>		
M5X1.0	D2	2	#10	<a href="#">82212</a>		
M5X1.0	D3	2	#10	<a href="#">82218</a>		
M5X0.9	D2	2	#10	<a href="#">82202</a>		
M5X0.9	D3	2	#10	<a href="#">82208</a>		
M5X0.8	D2	2	#10	<a href="#">82192</a>		
M5X0.8	D3	2	#10	<a href="#">82194</a>		
M5.5X0.9	D2	2	#12	<a href="#">82222</a>		
M5.5X0.9	D3	2	#12	<a href="#">82228</a>		
M6X1.0	D3	2	1/4"	<a href="#">82242</a>		
M6X0.75	D2	2	1/4"	<a href="#">82232</a>		
M6X0.75	D3	2	1/4"	<a href="#">82238</a>		
M7X1.0	D3	2	5/16"	<a href="#">82262</a>		
M7X0.75	D2	2	5/16"	<a href="#">82252</a>		

## METRIC POPULAR SPECIAL SPIRAL POINT TAPS (CONTINUED)

LIST 102MOS

Spiral Point Plug



STYLE 1 - M1.5 THROUGH M5		STYLE 2 - M6 THROUGH M10			STYLE 3 - M12 THROUGH M16
TAP SIZE	PITCH DIA. LIMIT	NO. OF FLUTES	TAP BLANK SIZE	102MOS	
				SPPT PLUG EDP NUMBER	
M7X0.75	D4	2	5/16"	<a href="#">82258</a>	
M8X1.25	D3	2	5/16"	<a href="#">82282</a>	
M8X1.0	D3	2	5/16"	<a href="#">82272</a>	
M8X1.0	D5	2	5/16"	<a href="#">82278</a>	
M9X1.25	D3	3	3/8"	<a href="#">82302</a>	
M9X1.25	D5	3	3/8"	<a href="#">82308</a>	
M9X1.0	D3	3	3/8"	<a href="#">82292</a>	
M9X1.0	D5	3	3/8"	<a href="#">82298</a>	
M10X1.5	D3	3	3/8"	<a href="#">82332</a>	
M10X1.5	D5	3	3/8"	<a href="#">82338</a>	
M10X1.25	D3	3	3/8"	<a href="#">82322</a>	
M10X1.25	D5	3	3/8"	<a href="#">82328</a>	
M10X1.0	D3	3	3/8"	<a href="#">82312</a>	
M10X1.0	D5	3	3/8"	<a href="#">82318</a>	
M11X1.5	D3	3	7/16"	<a href="#">82348</a>	
M11X1.5	D5	3	7/16"	<a href="#">82352</a>	
M12X1.75	D3	3	1/2"	<a href="#">82378</a>	
M12X1.75	D5	3	1/2"	<a href="#">82382</a>	
M12X1.5	D3	3	1/2"	<a href="#">82368</a>	
M12X1.5	D5	3	1/2"	<a href="#">82372</a>	
M12X1.25	D3	3	1/2"	<a href="#">82358</a>	
M12X1.25	D5	3	1/2"	<a href="#">82362</a>	
M14X2.0	D3	3	9/16"	<a href="#">82412</a>	
M14X2.0	D5	3	9/16"	<a href="#">82419</a>	
M14X1.5	D3	3	9/16"	<a href="#">82402</a>	
M14X1.5	D5	3	9/16"	<a href="#">82408</a>	
M14X1.25	D5	3	9/16"	<a href="#">82398</a>	
M15X1.5	D3	3	5/8"	<a href="#">82428</a>	
M15X1.5	D5	3	5/8"	<a href="#">82432</a>	
M16X2.0	D4	3	5/8"	<a href="#">82448</a>	
M16X2.0	D6	3	5/8"	<a href="#">82452</a>	
M16X1.5	D3	3	5/8"	8243	
M16X1.5	D5	3	5/8"	<a href="#">82442</a>	

See page 89 for Tap Dimensions.

## METRIC SPIRAL POINT PLUG STYLE TAPS

LIST 102M  
CLASS 6H FIT

Spiral Point Plug



TAP SIZE	PITCH DIAMETER LIMIT	NO. OF FLUTES	102M
			SPPT PLUG EDP NUMBER
M1.6X0.35	D3	2	62800
M1.8X0.35	D2	2	62804
M2X0.4	D3	2	62808
M2.2X0.45	D2	2	62812
M2.5X0.45	D3	2	62814
M3X0.5	D3	2	62818
M3.5X0.6	D4	2	62822
M4X0.7	D4	2	62826
M4.5X0.75	D4	2	62830
M5X0.8	D4	2	62834
M6X1.0	D5	2	62838
M6.3X1.0	D5	2	62842
M7X1.0	D5	2	62846
M8X1.25	D5	2	62850
M10X1.5	D6	3	62854
M12X1.75	D6	3	62858
M14X2.0	D7	3	62862
M16X2.0	D7	3	62866
M18X2.5	D7	3	62870
M20X2.5	D7	3	62874

## METRIC 52° FAST SPIRAL FLUTED HAND TAPS

LIST 100F  
CLASS 6H FIT

Plug  
Bottom



TAP SIZE	PITCH DIAMETER LIMIT	NO. OF FLUTES	100F	
			PLUG EDP NUMBER	BOTTOM EDP NUMBER
M3X0.5	D3	2	<a href="#">62900</a>	<a href="#">62901</a>
M3.5X0.6	D4	3	<a href="#">62910</a>	<a href="#">62911</a>
M4X0.7	D4	3	<a href="#">62920</a>	<a href="#">62921</a>
M5X0.8	D4	3	<a href="#">62930</a>	<a href="#">62931</a>
M6X1.0	D5	3	<a href="#">62940</a>	<a href="#">62941</a>
M8X1.25	D5	3	<a href="#">62950</a>	<a href="#">62951</a>
M10X1.5	D6	3	<a href="#">62960</a>	<a href="#">62961</a>
M12X1.75	D6	4	<a href="#">62970</a>	<a href="#">62971</a>

## METRIC 6" O/A PULLEY AND SMALL SHANK EXTENSION TAPS

LIST 112M  
CLASS 6H FIT

Plug



TAP SIZE	PITCH DIAMETER LIMIT	NO. OF FLUTES	SHANK DIAMETER	112M
				PLUG EDP NUMBER
M4X0.7	D4	4	.168	<a href="#">45800</a>
M4X0.7	D4	4	.123	<a href="#">45804</a>
M5X0.8	D4	4	.194	<a href="#">45808</a>
M5X0.8	D4	4	.136	<a href="#">45813</a>
M6X1.0	D5	4	.255	<a href="#">45816</a>
M6X1.0	D5	4	.185	<a href="#">45821</a>
M8X1.25	D5	4	.318	<a href="#">45825</a>
M8X1.25	D5	4	.240	<a href="#">45829</a>
M10X1.5	D6	4	.381	<a href="#">45833</a>
M10X1.5	D6	4	.275	<a href="#">45837</a>
M12X1.75	D6	4	.507	<a href="#">45843</a>
M12X1.75	D6	4	.367	<a href="#">45845</a>
M14X2.0	D7	4	.570	<a href="#">45849</a>
M14X2.0	D7	4	.429	<a href="#">45853</a>
M16X2.0	D7	4	.633	<a href="#">45857</a>
M16X2.0	D7	4	.480	<a href="#">45861</a>

## METRIC 6" O/A SPPT PULLEY AND SMALL SHANK EXTENSION TAPS

LIST 113M  
CLASS 6H FIT

Spiral Point Plug



TAP SIZE	PITCH DIAMETER LIMIT	NO. OF FLUTES	SHANK DIAMETER	113M
				SPPT PLUG EDP NUMBER
M4X0.7	D4	2	.168	<a href="#">45900</a>
M4X0.7	D4	2	.123	<a href="#">45904</a>
M5X0.8	D4	2	.194	<a href="#">45908</a>
M5X0.8	D4	2	.136	<a href="#">45912</a>
M6X1.0	D5	2	.255	<a href="#">45916</a>
M6X1.0	D5	2	.185	<a href="#">45921</a>
M8X1.25	D5	2	.318	<a href="#">45925</a>
M8X1.25	D5	2	.240	<a href="#">45928</a>
M10X1.5	D6	3	.381	<a href="#">45933</a>
M10X1.5	D6	3	.275	<a href="#">45937</a>
M12X1.75	D6	3	.507	<a href="#">45941</a>
M12X1.75	D6	3	.367	<a href="#">45945</a>
M14X2.0	D7	3	.570	<a href="#">45949</a>
M14X2.0	D7	3	.429	<a href="#">45953</a>
M16X2.0	D7	3	.633	<a href="#">45957</a>
M16X2.0	D7	3	.480	<a href="#">45961</a>

\*For larger quantity prices, consult factory.

## METRIC +.005 OVERSIZE HAND AND SPIRAL POINT TAPS

LIST 110M

Plug  
Bottom  
Spiral Point Plug



TAP SIZE	NO. OF FLUTES	H LIMIT (+ .005)	110M		
			PLUG EDP NUMBER	BOTTOM EDP NUMBER	SPPT PLUG EDP NUMBER
M3X0.5	3	H-11	65002	65003	
M3X0.5	2	H-11			65102
M3.5X0.6	3	H-11	65012	65013	
M3.5X0.6	2	H-11			65112
M4X0.7	4	H-11	65022	65023	
M4X0.7	2	H-11			65122
M5X0.8	4	H-11	65032	65033	
M5X0.8	2	H-11			65132
M6X1.0	4	H-11	65042	65043	
M6X1.0	2	H-11			65142
M8X1.25	4	H-11	65052	65053	
M8X1.25	2	H-11			65152
M10X1.5	4	H-11	65062	65063	
M10X1.5	3	H-11			65162
M12X1.75	4	H-11	65072	65073	
M12X1.75	3	H-11			65172

## METRIC PREMIUM STEEL STRAIGHT FLUTE TAPS WITH PENTA RELIEF

LIST 403VM  
CNC DESIGN  
CLASS 6H FIT

Plug  
Bottom  
PENTA



TAP SIZE	PITCH DIAMETER LIMIT	NO. OF FLUTES	403VM	
			PLUG EDP NUMBER	BOTTOM EDP NUMBER
			M3X0.5	D3
M3.5X0.6	D4	3	86012	86013
M4X0.7	D4	3	86022	86023
M5X0.8	D4	3	86032	86033
M6X1.0	D5	3	86042	86043
M8X1.25	D5	3	86052	86053
M10X1.5	D6	3	86062	86063
M12X1.75	D6	3	86072	86073
M14X2.0	D7	3	86082	86083
M16X2.0	D7	3	86092	86093



## METRIC PREMIUM STEEL SPIRAL POINT TAPS

**LIST 402VM**  
 CNC DESIGN  
 CLASS 6H FIT

**Spiral Point Plug**



STYLE 1 - M3 THROUGH M5		STYLE 2 - M6 THROUGH M10		STYLE 3 - M12 THROUGH M16	
TAP SIZE	PITCH DIAMETER LIMIT	NO. OF FLUTES	402VM		
			SPPT PLUG EDP NUMBER		
M3X0.5	D3	2	86202		
M3.5X0.6	D4	3	86212		
M4X0.7	D4	3	86222		
M5X0.8	D4	3	86232		
M6X1.0	D5	3	86242		
M8X1.25	D5	3	86252		
M10X1.5	D6	3	86262		
M12X1.75	D6	3	86272		
M14X2.0	D7	3	86282		
M16X2.0	D7	3	86292		

## METRIC PREMIUM STEEL HEAVY DUTY SPIRAL FLUTED TAPS

**LIST 406VM**  
 CNC DESIGN  
 CLASS 6H FIT

**Plug Bottom**



STYLE 1 - M3 THROUGH M5		STYLE 2 - M6 THROUGH M10		STYLE 3 - M12 THROUGH M16	
TAP SIZE	PITCH DIAMETER LIMIT	NO. OF FLUTES	406VM		
			PLUG EDP NUMBER	BOTTOM EDP NUMBER	
M3X0.5	D3	2	<a href="#">86402</a>	<a href="#">86403</a>	
M3.5X0.6	D4	3	<a href="#">86412</a>	<a href="#">86413</a>	
M4X0.7	D4	3	<a href="#">86422</a>	<a href="#">86423</a>	
M5X0.8	D4	3	<a href="#">86432</a>	<a href="#">86433</a>	
M6X1.0	D5	3	<a href="#">86442</a>	<a href="#">86443</a>	
M8X1.25	D5	3	<a href="#">86452</a>	<a href="#">86453</a>	
M10X1.5	D6	3	<a href="#">86462</a>	<a href="#">86463</a>	
M12X1.75	D6	3	<a href="#">86472</a>	<a href="#">86473</a>	
M14X2.0	D7	3	<a href="#">86482</a>	<a href="#">86483</a>	
M16X2.0	D7	3	<a href="#">86492</a>	<a href="#">86493</a>	

**Penta Relief** – Special thread geometry that allows for freer cutting. Available in Standard Taps in List Numbers 106A in size #10 with 2 & 3 Flutes and larger sizes, 103, 102C, 402VPR, 402VMPR, 403V, 403VM, 407VPR and 407VMPR.

See page 90 for Tap Dimensions.

**HIGH  
VANADIUM  
PENTA  
BLUE**

## METRIC PREMIUM STEEL SPIRAL POINT TAPS WITH PENTA RELIEF

**LIST 402VMR  
CNC DESIGN  
CLASS 6H FIT**

**Spiral Point Plug**



**PENTA**

**STYLE 1 - M3 THROUGH M5**

**STYLE 2 - M6 THROUGH M10**

**STYLE 3 - M12 THROUGH M16**

TAP SIZE	PITCH DIAMETER LIMIT	NO. OF FLUTES	BRIGHT	PENTA BLUE
			SPPT PLUG EDP NUMBER	SPPT PLUG EDP NUMBER
M3X0.5	D3	2	<a href="#">86203</a>	<a href="#">86205</a>
M3.5X0.6	D4	3	<a href="#">86213</a>	<a href="#">86215</a>
M4X0.7	D4	3	<a href="#">86223</a>	<a href="#">86225</a>
M5X0.8	D4	3	<a href="#">86233</a>	<a href="#">86235</a>
M6X1.0	D5	3	<a href="#">86243</a>	<a href="#">86245</a>
M8X1.25	D5	3	<a href="#">86253</a>	<a href="#">86255</a>
M10X1.5	D6	3	<a href="#">86263</a>	<a href="#">86265</a>
M12X1.75	D6	3	<a href="#">86273</a>	<a href="#">86275</a>
M14X2.0	D7	3	<a href="#">86283</a>	<a href="#">86285</a>
M16X2.0	D7	3	<a href="#">86293</a>	<a href="#">86295</a>

**HIGH  
VANADIUM  
PENTA  
BLUE**

## METRIC PREMIUM STEEL SLOW SPIRAL FLUTED TAPS WITH PENTA RELIEF

**LIST 407VMR  
CNC DESIGN  
CLASS 6H FIT**

**Modified Bottom 3 to 3-1/2 Thread Chamfer  
Bottom 1 to 2 Thread Chamfer**



**PENTA**

**STYLE 1 - M3 THROUGH M5**

**STYLE 2 - M6 THROUGH M10**

**STYLE 3 - M12 THROUGH M16**

TAP SIZE	PITCH DIA. LIMIT	NO. OF FLUTES	BRIGHT		PENTA BLUE	
			MOD. BOTT EDP NUMBER	BOTTOM EDP NUMBER	MOD. BOTT EDP NUMBER	BOTTOM EDP NUMBER
M3X0.5	D3	2	<a href="#">86602</a>	<a href="#">86603</a>	<a href="#">86604</a>	<a href="#">86605</a>
M3.5X0.6	D4	3	<a href="#">86612</a>	<a href="#">86613</a>	<a href="#">86614</a>	<a href="#">86615</a>
M4X0.7	D4	3	<a href="#">86622</a>	<a href="#">86623</a>	<a href="#">86624</a>	<a href="#">86625</a>
M5X0.8	D4	3	<a href="#">86632</a>	<a href="#">86633</a>	<a href="#">86634</a>	<a href="#">86635</a>
M6X1.0	D5	3	<a href="#">86642</a>	<a href="#">86643</a>	<a href="#">86644</a>	<a href="#">86645</a>
M8X1.25	D5	3	<a href="#">86652</a>	<a href="#">86653</a>	<a href="#">86654</a>	<a href="#">86655</a>
M10X1.5	D6	3	<a href="#">86662</a>	<a href="#">86663</a>	<a href="#">86664</a>	<a href="#">86665</a>
M12X1.75	D6	3	<a href="#">86672</a>	<a href="#">86673</a>	<a href="#">86674</a>	<a href="#">86675</a>
M14X2.0	D7	3	<a href="#">86682</a>	<a href="#">86683</a>	<a href="#">86684</a>	<a href="#">86685</a>
M16X2.0	D7	3	<a href="#">86692</a>	<a href="#">86693</a>	<a href="#">86694</a>	<a href="#">86695</a>

Modified Bottom Taps have points on the thread end for sizes up to and including M10 & 3/8". Please specify when ordering if the points are to be removed.

See page 90 for Tap Dimensions.

## PREMIUM STEEL STRAIGHT FLUTE TAPS WITH PENTA RELIEF

**LIST 403V**  
CNC DESIGN

**Plug  
Bottom**

**PENTA**



**STYLE 1 - #4 THROUGH #10**

**STYLE 2 - 1/4 THROUGH 3/8**

**STYLE 3 - 7/16 THROUGH 3/4**

TAP SIZE	SERIES DESIGN.	H LIMIT	NO. OF FLUTES	403V	
				PLUG EDP NUMBER	BOTTOM EDP NUMBER
4 - 40	NC	H-2	3	<a href="#">84402</a>	<a href="#">84403</a>
5 - 40	NC	H-2	3	<a href="#">84405</a>	<a href="#">84406</a>
6 - 32	NC	H-3	3	<a href="#">84412</a>	<a href="#">84413</a>
8 - 32	NC	H-3	3	<a href="#">84422</a>	<a href="#">84423</a>
10 - 24	NC	H-3	3	<a href="#">84432</a>	<a href="#">84433</a>
10 - 32	NF	H-3	3	<a href="#">84442</a>	<a href="#">84443</a>
1/4 - 20	NC	H-3	3	<a href="#">84452</a>	<a href="#">84453</a>
1/4 - 20	NC	H-5	3	<a href="#">84462</a>	<a href="#">84463</a>
1/4 - 28	NF	H-3	3	<a href="#">84472</a>	<a href="#">84473</a>
5/16 - 18	NC	H-3	3	<a href="#">84482</a>	<a href="#">84483</a>
5/16 - 18	NC	H-5	3	<a href="#">84492</a>	<a href="#">84493</a>
5/16 - 24	NF	H-3	3	<a href="#">84502</a>	<a href="#">84503</a>
3/8 - 16	NC	H-3	3	<a href="#">84512</a>	<a href="#">84513</a>
3/8 - 16	NC	H-5	3	<a href="#">84522</a>	<a href="#">84523</a>
3/8 - 24	NF	H-3	3	<a href="#">84532</a>	<a href="#">84533</a>
7/16 - 14	NC	H-3	3	<a href="#">84542</a>	<a href="#">84543</a>
7/16 - 14	NC	H-5	3	<a href="#">84552</a>	<a href="#">84553</a>
7/16 - 20	NF	H-3	3	<a href="#">84562</a>	<a href="#">84563</a>
1/2 - 13	NC	H-3	3	<a href="#">84572</a>	<a href="#">84573</a>
1/2 - 13	NC	H-5	3	<a href="#">84582</a>	<a href="#">84583</a>
1/2 - 20	NF	H-3	3	<a href="#">84592</a>	<a href="#">84593</a>
9/16 - 12	NC	H-3	3	<a href="#">84602</a>	<a href="#">84603</a>
9/16 - 12	NC	H-5	3	<a href="#">84612</a>	<a href="#">84613</a>
9/16 - 18	NF	H-3	3	<a href="#">84622</a>	<a href="#">84623</a>
5/8 - 11	NC	H-3	3	<a href="#">84632</a>	<a href="#">84633</a>
5/8 - 11	NC	H-5	3	<a href="#">84642</a>	<a href="#">84643</a>
5/8 - 18	NF	H-3	3	<a href="#">84652</a>	<a href="#">84653</a>
3/4 - 10	NC	H-3	3	<a href="#">84662</a>	<a href="#">84663</a>
3/4 - 10	NC	H-5	3	<a href="#">84672</a>	<a href="#">84673</a>
3/4 - 16	NF	H-3	3	<a href="#">84682</a>	<a href="#">84683</a>

**Penta Relief** – Special thread geometry that allows for freer cutting. Available in Standard Taps in List Numbers 106A in size #10 with 2 & 3 Flutes and larger sizes, 103, 102C, 402VPR, 402VMPP, 403V, 403VM, 407VPR and 407VMPP.

**Penta Blue** – Combination of special PENTA Relief and Blue Diamond Surface Treatment.

## PREMIUM STEEL SPIRAL POINT TAPS

LIST 402V  
CNC DESIGN

Spiral Point Plug



STYLE 1 - #4 THROUGH #10

STYLE 2 - 1/4 THROUGH 3/8

STYLE 3 - 7/16 THROUGH 3/4

TAP SIZE	SERIES DESIGN.	H LIMIT	NO. OF FLUTES	402V
				SPPT PLUG EDP NUMBER
4 - 40	NC	H-2	2	<a href="#">84800</a>
5 - 40	NC	H-2	2	<a href="#">84799</a>
6 - 32	NC	H-3	3	<a href="#">84801</a>
8 - 32	NC	H-3	3	<a href="#">84803</a>
10 - 24	NC	H-3	3	<a href="#">84805</a>
10 - 32	NF	H-3	3	<a href="#">84807</a>
1/4 - 20	NC	H-3	3	<a href="#">84809</a>
1/4 - 20	NC	H-5	3	<a href="#">84812</a>
1/4 - 28	NF	H-3	3	<a href="#">84814</a>
5/16 - 18	NC	H-3	3	<a href="#">84816</a>
5/16 - 18	NC	H-5	3	<a href="#">84818</a>
5/16 - 24	NF	H-3	3	<a href="#">84821</a>
3/8 - 16	NC	H-3	3	<a href="#">84823</a>
3/8 - 16	NC	H-5	3	<a href="#">84825</a>
3/8 - 24	NF	H-3	3	<a href="#">84827</a>
7/16 - 14	NC	H-3	3	<a href="#">84829</a>
7/16 - 14	NC	H-5	3	<a href="#">84832</a>
7/16 - 20	NF	H-3	3	<a href="#">84834</a>
1/2 - 13	NC	H-3	3	<a href="#">84836</a>
1/2 - 13	NC	H-5	3	<a href="#">84838</a>
1/2 - 20	NF	H-3	3	<a href="#">84841</a>
9/16 - 12	NC	H-3	3	<a href="#">84843</a>
9/16 - 12	NC	H-5	3	<a href="#">84845</a>
9/16 - 18	NF	H-3	3	<a href="#">84847</a>
5/8 - 11	NC	H-3	3	<a href="#">84849</a>
5/8 - 11	NC	H-5	3	<a href="#">84852</a>
5/8 - 18	NF	H-3	3	<a href="#">84854</a>
3/4 - 10	NC	H-3	3	<a href="#">84856</a>
3/4 - 10	NC	H-5	3	<a href="#">84858</a>
3/4 - 16	NF	H-3	3	<a href="#">84861</a>

See page 90 for Tap Dimensions.

## PREMIUM STEEL HEAVY DUTY SPIRAL FLUTED TAPS

**LIST 406V**  
CNC DESIGN

**Plug  
Bottom**



STYLE 1 - #4 THROUGH #10

STYLE 2 - 1/4 THROUGH 3/8

STYLE 3 - 7/16 THROUGH 3/4

TAP SIZE	SERIES DESIGN.	H LIMIT	NO. OF FLUTES	406V	
				PLUG EDP NUMBER	BOTTOM EDP NUMBER
4 - 40	NC	H-2	2	<a href="#">84992</a>	<a href="#">84993</a>
5 - 40	NC	H-2	2	<a href="#">84998</a>	<a href="#">84999</a>
6 - 32	NC	H-3	3	<a href="#">85001</a>	<a href="#">85002</a>
8 - 32	NC	H-3	3	<a href="#">85003</a>	<a href="#">85004</a>
10 - 24	NC	H-3	3	<a href="#">85005</a>	<a href="#">85006</a>
10 - 32	NF	H-3	3	<a href="#">85007</a>	<a href="#">85008</a>
1/4 - 20	NC	H-3	3	<a href="#">85009</a>	<a href="#">85011</a>
1/4 - 20	NC	H-5	3	<a href="#">85012</a>	<a href="#">85013</a>
1/4 - 28	NF	H-3	3	<a href="#">85014</a>	<a href="#">85015</a>
5/16 - 18	NC	H-3	3	<a href="#">85016</a>	<a href="#">85017</a>
5/16 - 18	NC	H-5	3	<a href="#">85018</a>	<a href="#">85019</a>
5/16 - 24	NF	H-3	3	<a href="#">85021</a>	<a href="#">85022</a>
3/8 - 16	NC	H-3	3	<a href="#">85023</a>	<a href="#">85024</a>
3/8 - 16	NC	H-5	3	<a href="#">85025</a>	<a href="#">85026</a>
3/8 - 24	NF	H-3	3	<a href="#">85027</a>	<a href="#">85028</a>
7/16 - 14	NC	H-3	3	<a href="#">85029</a>	<a href="#">85031</a>
7/16 - 14	NC	H-5	3	<a href="#">85032</a>	<a href="#">85033</a>
7/16 - 20	NF	H-3	3	<a href="#">85034</a>	<a href="#">85035</a>
1/2 - 13	NC	H-3	3	<a href="#">85036</a>	<a href="#">85037</a>
1/2 - 13	NC	H-5	3	<a href="#">85038</a>	<a href="#">85039</a>
1/2 - 20	NF	H-3	3	<a href="#">85041</a>	<a href="#">85042</a>
9/16 - 12	NC	H-3	3	<a href="#">85043</a>	<a href="#">85044</a>
9/16 - 12	NC	H-5	3	<a href="#">85045</a>	<a href="#">85046</a>
9/16 - 18	NF	H-3	3	<a href="#">85047</a>	<a href="#">85048</a>
5/8 - 11	NC	H-3	3	<a href="#">85049</a>	<a href="#">85051</a>
5/8 - 11	NC	H-5	3	<a href="#">85052</a>	<a href="#">85053</a>
5/8 - 18	NF	H-3	3	<a href="#">85054</a>	<a href="#">85055</a>
3/4 - 10	NC	H-3	3	<a href="#">85056</a>	<a href="#">85057</a>
3/4 - 10	NC	H-5	3	<a href="#">85058</a>	<a href="#">85059</a>
3/4 - 16	NF	H-3	3	<a href="#">85061</a>	<a href="#">85062</a>

See page 90 for Tap Dimensions.

**HIGH  
VANADIUM  
PENTA  
BLUE**

## PREMIUM STEEL SPIRAL POINT TAPS WITH PENTA RELIEF

**LIST 402VPR  
CNC DESIGN**

**Spiral Point Plug**



### PENTA

STYLE 1 - #4 THROUGH #10		STYLE 2 - 1/4 THROUGH 3/8			STYLE 3 - 7/16 THROUGH 3/4	
TAP SIZE	SERIES DESIGN.	H LIMIT	NO. OF FLUTES	BRIGHT	PENTA BLUE	
				SPPT PLUG EDP NUMBER	SPPT PLUG EDP NUMBER	
4 - 40	NC	H-2	2	<a href="#">86902</a>	<a href="#">86903</a>	
5 - 40	NC	H-2	2	<a href="#">86906</a>	<a href="#">86907</a>	
6 - 32	NC	H-3	3	<a href="#">86910</a>	<a href="#">86911</a>	
8 - 32	NC	H-3	3	<a href="#">86914</a>	<a href="#">86915</a>	
10 - 24	NC	H-3	3	<a href="#">86918</a>	<a href="#">86919</a>	
10 - 32	NF	H-3	3	<a href="#">86920</a>	<a href="#">86921</a>	
1/4 - 20	NC	H-3	3	<a href="#">86922</a>	<a href="#">86923</a>	
1/4 - 20	NC	H-5	3	<a href="#">86924</a>	<a href="#">86925</a>	
1/4 - 28	NF	H-3	3	<a href="#">86926</a>	<a href="#">86927</a>	
5/16 - 18	NC	H-3	3	<a href="#">86928</a>	<a href="#">86929</a>	
5/16 - 18	NC	H-5	3	<a href="#">86930</a>	<a href="#">86931</a>	
5/16 - 24	NF	H-3	3	<a href="#">86932</a>	<a href="#">86933</a>	
3/8 - 16	NC	H-3	3	<a href="#">86934</a>	<a href="#">86935</a>	
3/8 - 16	NC	H-5	3	<a href="#">86936</a>	<a href="#">86937</a>	
3/8 - 24	NF	H-3	3	<a href="#">86938</a>	<a href="#">86939</a>	
7/16 - 14	NC	H-3	3	<a href="#">86940</a>	<a href="#">86941</a>	
7/16 - 14	NC	H-5	3	<a href="#">86942</a>	<a href="#">86943</a>	
7/16 - 20	NF	H-3	3	<a href="#">86944</a>	<a href="#">86945</a>	
1/2 - 13	NC	H-3	3	<a href="#">86946</a>	<a href="#">86947</a>	
1/2 - 13	NC	H-5	3	<a href="#">86948</a>	<a href="#">86949</a>	
1/2 - 20	NF	H-3	3	<a href="#">86950</a>	<a href="#">86951</a>	
9/16 - 12	NC	H-3	3	<a href="#">86952</a>	<a href="#">86953</a>	
9/16 - 12	NC	H-5	3	<a href="#">86954</a>	<a href="#">86955</a>	
9/16 - 18	NF	H-3	3	<a href="#">86956</a>	<a href="#">86957</a>	
5/8 - 11	NC	H-3	3	<a href="#">86958</a>	<a href="#">86959</a>	
5/8 - 11	NC	H-5	3	<a href="#">86960</a>	<a href="#">86961</a>	
5/8 - 18	NF	H-3	3	<a href="#">86962</a>	<a href="#">86963</a>	
3/4 - 10	NC	H-3	3	<a href="#">86964</a>	<a href="#">86965</a>	
3/4 - 10	NC	H-5	3	<a href="#">86966</a>	<a href="#">86967</a>	
3/4 - 16	NF	H-3	3	<a href="#">86968</a>	<a href="#">86969</a>	

See page 90 for Tap Dimensions.

**Penta Relief** – Special thread geometry that allows for freer cutting. Available in Standard Taps in List Numbers 106A in size #10 with 2 & 3 Flutes and larger sizes, 103, 102C, 402VPR, 402VMPP, 403V, 403VM, 407VPR and 407VMPP.

**Penta Blue** – Combination of special PENTA Relief and Blue Diamond Surface Treatment.

**HIGH  
 VANADIUM  
 PENTA  
 BLUE**

## PREMIUM STEEL SLOW SPIRAL FLUTED TAPS WITH PENTA RELIEF

**LIST 407VPR  
 CNC DESIGN**

**Modified Bottom 3 to 3-1/2 Thread Chamfer  
 Bottom 1 to 2 Thread Chamfer**



### PENTA

**STYLE 1 - #4 THROUGH #10      STYLE 2 - 1/4 THROUGH 3/8      STYLE 3 - 7/16 THROUGH 3/4**

TAP SIZE	SERIES DESIGN.	H LIMIT	NO. OF FLUTES	BRIGHT		PENTA BLUE	
				MOD. BOTT EDP NUMBER	BOTTOM EDP NUMBER	MOD. BOTT EDP NUMBER	BOTTOM EDP NUMBER
4 - 40	NC	H-2	2	<a href="#">86702</a>	<a href="#">86703</a>	<a href="#">86704</a>	<a href="#">86705</a>
5 - 40	NC	H-2	2	<a href="#">86706</a>	<a href="#">86707</a>	<a href="#">86708</a>	<a href="#">86709</a>
6 - 32	NC	H-3	3	<a href="#">86710</a>	<a href="#">86711</a>	<a href="#">86712</a>	<a href="#">86713</a>
8 - 32	NC	H-3	3	<a href="#">86714</a>	<a href="#">86715</a>	<a href="#">86716</a>	<a href="#">86717</a>
10 - 24	NC	H-3	3	<a href="#">86718</a>	<a href="#">86719</a>	<a href="#">86720</a>	<a href="#">86721</a>
10 - 32	NF	H-3	3	<a href="#">86722</a>	<a href="#">86723</a>	<a href="#">86724</a>	<a href="#">86725</a>
1/4 - 20	NC	H-3	3	<a href="#">86734</a>	<a href="#">86735</a>	<a href="#">86736</a>	<a href="#">86737</a>
1/4 - 20	NC	H-5	3	<a href="#">86738</a>	<a href="#">86739</a>	<a href="#">86740</a>	<a href="#">86741</a>
1/4 - 28	NF	H-3	3	<a href="#">86742</a>	<a href="#">86743</a>	<a href="#">86744</a>	<a href="#">86745</a>
5/16 - 18	NC	H-3	3	<a href="#">86746</a>	<a href="#">86747</a>	<a href="#">86748</a>	<a href="#">86749</a>
5/16 - 18	NC	H-5	3	<a href="#">86750</a>	<a href="#">86751</a>	<a href="#">86752</a>	<a href="#">86753</a>
5/16 - 24	NF	H-3	3	<a href="#">86754</a>	<a href="#">86755</a>	<a href="#">86756</a>	<a href="#">86757</a>
3/8 - 16	NC	H-3	3	<a href="#">86758</a>	<a href="#">86759</a>	<a href="#">86760</a>	<a href="#">86761</a>
3/8 - 16	NC	H-5	3	<a href="#">86762</a>	<a href="#">86763</a>	<a href="#">86764</a>	<a href="#">86765</a>
3/8 - 24	NF	H-3	3	<a href="#">86766</a>	<a href="#">86767</a>	<a href="#">86768</a>	<a href="#">86769</a>
7/16 - 14	NC	H-3	3	<a href="#">86770</a>	<a href="#">86771</a>	<a href="#">86772</a>	<a href="#">86773</a>
7/16 - 14	NC	H-5	3	<a href="#">86774</a>	<a href="#">86775</a>	<a href="#">86776</a>	<a href="#">86777</a>
7/16 - 20	NF	H-3	3	<a href="#">86778</a>	<a href="#">86779</a>	<a href="#">86780</a>	<a href="#">86781</a>
1/2 - 13	NC	H-3	3	<a href="#">86782</a>	<a href="#">86783</a>	<a href="#">86784</a>	<a href="#">86785</a>
1/2 - 13	NC	H-5	3	<a href="#">86786</a>	<a href="#">86787</a>	<a href="#">86788</a>	<a href="#">86789</a>
1/2 - 20	NF	H-3	3	<a href="#">86790</a>	<a href="#">86791</a>	<a href="#">86792</a>	<a href="#">86793</a>
9/16 - 12	NC	H-3	3	<a href="#">86794</a>	<a href="#">86795</a>	<a href="#">86796</a>	<a href="#">86797</a>
9/16 - 12	NC	H-5	3	<a href="#">86798</a>	<a href="#">86799</a>	<a href="#">86802</a>	<a href="#">86803</a>
9/16 - 18	NF	H-3	3	<a href="#">86804</a>	<a href="#">86805</a>	<a href="#">86806</a>	<a href="#">86807</a>
5/8 - 11	NC	H-3	3	<a href="#">86808</a>	<a href="#">86809</a>	<a href="#">86810</a>	<a href="#">86811</a>
5/8 - 11	NC	H-5	3	<a href="#">86812</a>	<a href="#">86813</a>	<a href="#">86814</a>	<a href="#">86815</a>
5/8 - 18	NF	H-3	3	<a href="#">86816</a>	<a href="#">86817</a>	<a href="#">86818</a>	<a href="#">86819</a>
3/4 - 10	NC	H-3	3	<a href="#">86820</a>	<a href="#">86821</a>	<a href="#">86822</a>	<a href="#">86823</a>
3/4 - 10	NC	H-5	3	<a href="#">86824</a>	<a href="#">86825</a>	<a href="#">86826</a>	<a href="#">86827</a>
3/4 - 16	NF	H-3	3	<a href="#">86828</a>	<a href="#">86829</a>	<a href="#">86830</a>	<a href="#">86831</a>

Modified Bottom Taps have points on the thread end for sizes up to and including M10 & 3/8". Please specify when ordering if the points are to be removed.

**Penta Relief** – Special thread geometry that allows for freer cutting. Available in Standard Taps in List Numbers 106A in size #10 with 2 & 3 Flutes and larger sizes, 103, 102C, 402VPR, 402VMPP, 403V, 403VM, 407VPR and 407VMPP.

**Penta Blue** – Combination of special PENTA Relief and Blue Diamond Surface Treatment.

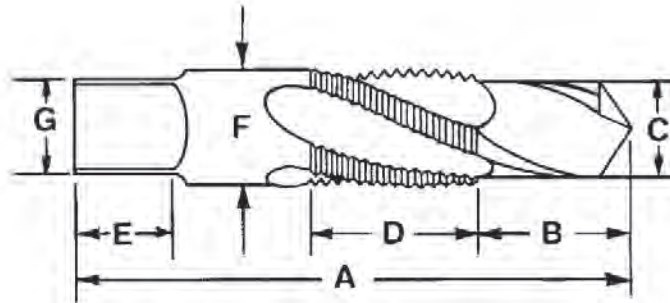
## H.S.S. COMBINED PIPE TAPS AND DRILLS

LIST 18

NPT  
NPTF



TAP SIZE	18	
	NPT EDP NUMBER	NPTF EDP NUMBER
1/16 - 27	<a href="#">63010</a>	<a href="#">63012</a>
1/8 - 27	<a href="#">63020</a>	<a href="#">63022</a>
1/4 - 18	<a href="#">63030</a>	<a href="#">63032</a>
3/8 - 18	<a href="#">63040</a>	<a href="#">63042</a>
1/2 - 14	<a href="#">63050</a>	<a href="#">63052</a>
3/4 - 14	<a href="#">63060</a>	<a href="#">63062</a>
1 - 11 1/2	<a href="#">63070</a>	<a href="#">63072</a>



## COMBINED TAPER PIPE TAPS AND DRILLS GENERAL DIMENSIONS

TAP SIZE	NO. OF FLUTES	A O/A LENGTH	B DRILL LENGTH	C		D THREAD LENGTH	E SQUARE LENGTH	F SHANK DIAMETER	G SQUARE SIZE
				DRILL SIZE	DRILL DIAMETER				
1/16 - 27	4	2 13/16	11/16	D	.2460	11/16	3/8	.312	.234
1/8 - 27	4	2 7/8	3/4	R	.3390	3/4	3/8	.437	.328
1/4 - 18	4	3 5/16	7/8	7/16	.4375	1 1/16	7/16	.562	.421
3/8 - 18	4	3 1/2	15/16	37/64	.5781	1 1/16	1/2	.700	.531
1/2 - 14	4	4 3/8	1 1/4	45/64	.7031	1 3/8	5/8	.687	.515
3/4 - 14	5	4 9/16	1 5/16	59/64	.9219	1 3/8	11/16	.906	.679
1 - 11 1/2	5	5 3/8	1 5/8	1 5/32	1.1563	1 3/4	13/16	1.125	.843



## DUO-ACME TANDEM STYLE TAPS

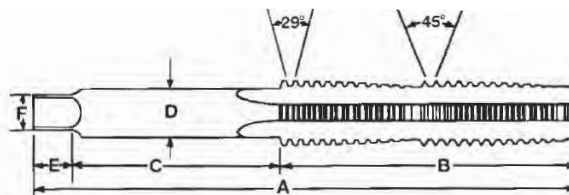
**LIST 29**  
**RIGHT HAND**

**NA2G Ground Thread**



Reiff & Nestor "DUO-ACME" Tandem Style Taps adequately fill the need for Standard "off-the-shelf" Acme Taps. They perform Off-hand, as well as Production Tapping where applicable. The "DUO-ACME" tap is a combination Roughing and Finishing Tap. The Roughing section has a free cutting 45° Thread Form with controlled chip loading. The Finishing section then cuts a "split chip" as it sizes the 29° Thread Form. The listed "Maximum" should not be exceeded unless approved by our application engineers.

TAP SIZE	NO. OF FLUTES	29
		NA2G EDP NUMBER
1/2 - 10	4	<a href="#">63110</a>
5/8 - 8	4	<a href="#">63120</a>
3/4 - 6	4	<a href="#">63130</a>
7/8 - 6	4	<a href="#">63140</a>
1 - 5	4	<a href="#">63150</a>
1 1/8 - 5	4	<a href="#">63160</a>
1 1/4 - 5	4	<a href="#">63170</a>
1 3/8 - 4	4	<a href="#">63180</a>
1 1/2 - 4	4	<a href="#">63190</a>



## DUO-ACME TANDEM STYLE TAPS GENERAL DIMENSIONS

TAP SIZE	A OVERALL LENGTH	B THREAD LENGTH	C SHANK LENGTH	D SHANK DIAMETER	E SQUARE LENGTH	F SQUARE ACROSS FLATS	MAX. DEPTH OF STEEL OR BRONZE NUT	MAX. DEPTH OF BRASS OR CAST IRON NUT
1/2 - 10	5	2 5/8	1 15/16	.381	7/16	.286	1	1 1/2
5/8 - 8	6 5/8	3 1/2	2 9/16	.480	9/16	.360	1 1/4	1 7/8
3/4 - 6	8	4 1/2	2 7/8	.573	5/8	.430	1 1/2	2 1/4
7/8 - 6	9	4 1/2	3 13/16	.684	11/16	.513	1 3/4	2 5/8
1 - 5	10 1/2	6	3 3/4	.760	3/4	.570	2	3
1 1/8 - 5	11	6	4 1/8	.896	7/8	.672	2 1/4	3 3/8
1 1/4 - 5	12	6	5	1.021	1	.766	2 1/2	3 3/4
1 3/8 - 4	12 5/8	6 1/2	5 1/16	1.108	1 1/16	.831	2 3/4	4 1/8
1 1/2 - 4	13	6 1/2	5 7/16	1.108	1 1/16	.831	3	4 1/2

## LEFT HAND TAPS MACHINE SCREW & FRACTIONAL SIZES

**LIST 117**  
LEFT HAND

**Taper  
Plug  
Bottom**



TAP SIZE	SERIES DESIGN.	NO. OF FLUTES	H LIMIT	117		
				LEFT HAND TAPER EDP NUMBER	LEFT HAND PLUG EDP NUMBER	LEFT HAND BOTTOM EDP NUMBER
6 - 32	NC	3	H-3	<a href="#">80001</a>	<a href="#">80002</a>	<a href="#">80003</a>
6 - 40	NF	3	H-2	<a href="#">80007</a>	<a href="#">80008</a>	<a href="#">80009</a>
8 - 32	NC	4	H-3	<a href="#">80011</a>	<a href="#">80012</a>	<a href="#">80013</a>
8 - 36	NF	4	H-2	<a href="#">80017</a>	<a href="#">80018</a>	<a href="#">80019</a>
10 - 24	NC	4	H-3	<a href="#">80021</a>	<a href="#">80022</a>	<a href="#">80023</a>
10 - 32	NF	4	H-3	<a href="#">80027</a>	<a href="#">80028</a>	<a href="#">80029</a>
1/4 - 20	NC	4	H-3	<a href="#">80031</a>	<a href="#">80032</a>	<a href="#">80033</a>
1/4 - 28	NF	4	H-3	<a href="#">80037</a>	<a href="#">80038</a>	<a href="#">80039</a>
5/16 - 18	NC	4	H-3	<a href="#">80041</a>	<a href="#">80042</a>	<a href="#">80043</a>
5/16 - 24	NF	4	H-3	<a href="#">80047</a>	<a href="#">80048</a>	<a href="#">80049</a>
3/8 - 16	NC	4	H-3	<a href="#">80051</a>	<a href="#">80052</a>	<a href="#">80053</a>
3/8 - 24	NF	4	H-3	<a href="#">80057</a>	<a href="#">80058</a>	<a href="#">80059</a>
7/16 - 14	NC	4	H-3	<a href="#">80061</a>	<a href="#">80062</a>	<a href="#">80063</a>
7/16 - 20	NF	4	H-3	<a href="#">80067</a>	<a href="#">80068</a>	<a href="#">80069</a>
1/2 - 13	NC	4	H-3	<a href="#">80071</a>	<a href="#">80072</a>	<a href="#">80073</a>
1/2 - 20	NF	4	H-3	<a href="#">80077</a>	<a href="#">80078</a>	<a href="#">80079</a>
9/16 - 12	NC	4	H-3	<a href="#">80081</a>	<a href="#">80082</a>	<a href="#">80083</a>
9/16 - 18	NF	4	H-3	<a href="#">80087</a>	<a href="#">80088</a>	<a href="#">80089</a>
5/8 - 11	NC	4	H-3	<a href="#">80091</a>	<a href="#">80092</a>	<a href="#">80093</a>
5/8 - 18	NF	4	H-3	<a href="#">80097</a>	<a href="#">80098</a>	<a href="#">80099</a>
11/16 - 11	NS	4	H-3	<a href="#">80101</a>	<a href="#">80102</a>	<a href="#">80103</a>
11/16 - 16	NS	4	H-3	<a href="#">80107</a>	<a href="#">80108</a>	<a href="#">80109</a>
3/4 - 10	NC	4	H-3	<a href="#">80111</a>	<a href="#">80112</a>	<a href="#">80113</a>
3/4 - 16	NF	4	H-3	<a href="#">80117</a>	<a href="#">80118</a>	<a href="#">80119</a>
7/8 - 9	NC	4	H-4	<a href="#">80121</a>	<a href="#">80122</a>	<a href="#">80123</a>
7/8 - 14	NF	4	H-4	<a href="#">80127</a>	<a href="#">80128</a>	<a href="#">80129</a>
1 - 8	NC	4	H-4	<a href="#">80131</a>	<a href="#">80132</a>	<a href="#">80133</a>
1 - 12	NF	4	H-4	<a href="#">80137</a>	<a href="#">80138</a>	<a href="#">80139</a>
1 - 14	NS	4	H-4	<a href="#">80141</a>	<a href="#">80142</a>	<a href="#">80143</a>
1 1/8 - 7	NC	4	H-4	<a href="#">80147</a>	<a href="#">80148</a>	<a href="#">80149</a>
1 1/8 - 12	NF	4	H-4	<a href="#">80151</a>	<a href="#">80152</a>	<a href="#">80153</a>
1 1/4 - 7	NC	4	H-4	<a href="#">80157</a>	<a href="#">80158</a>	<a href="#">80159</a>
1 1/4 - 12	NF	6	H-4	<a href="#">80161</a>	<a href="#">80162</a>	<a href="#">80163</a>
1 3/8 - 6	NC	4	H-4	<a href="#">80167</a>	<a href="#">80168</a>	<a href="#">80169</a>
1 3/8 - 12	NF	6	H-4	<a href="#">80171</a>	<a href="#">80172</a>	<a href="#">80173</a>
1 1/2 - 6	NC	4	H-4	<a href="#">80177</a>	<a href="#">80178</a>	<a href="#">80179</a>
1 1/2 - 12	NF	6	H-4	<a href="#">80181</a>	<a href="#">80182</a>	<a href="#">80183</a>

See page 89 for Tap Dimensions.

## NATIONAL EXTRA FINE PITCH (NEF) HAND TAPS

LIST 116

Taper  
 Plug  
 Bottom



TAP SIZE	H LIMIT	NO. OF FLUTES	116		
			TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER
12 - 32	H-3	4	<a href="#">83001</a>	<a href="#">83002</a>	<a href="#">83003</a>
1/4 - 32	H-3	4	<a href="#">83007</a>	<a href="#">83008</a>	<a href="#">83009</a>
1/4 - 32	H-5	4	<a href="#">84007</a>	<a href="#">84008</a>	<a href="#">84009</a>
5/16 - 32	H-3	4	<a href="#">83011</a>	<a href="#">83012</a>	<a href="#">83013</a>
5/16 - 32	H-5	4	<a href="#">84011</a>	<a href="#">84012</a>	<a href="#">84013</a>
3/8 - 32	H-3	4	<a href="#">83017</a>	<a href="#">83018</a>	<a href="#">83019</a>
3/8 - 32	H-5	4	<a href="#">84017</a>	<a href="#">84018</a>	<a href="#">84019</a>
7/16 - 28	H-3	4	<a href="#">83021</a>	<a href="#">83022</a>	<a href="#">83023</a>
7/16 - 28	H-5	4	<a href="#">84021</a>	<a href="#">84022</a>	<a href="#">84023</a>
1/2 - 28	H-3	4	<a href="#">83027</a>	<a href="#">83028</a>	<a href="#">83029</a>
1/2 - 28	H-5	4	<a href="#">84027</a>	<a href="#">84028</a>	<a href="#">84029</a>
9/16 - 24	H-3	4	<a href="#">83031</a>	<a href="#">83032</a>	<a href="#">83033</a>
9/16 - 24	H-5	4	<a href="#">84031</a>	<a href="#">84032</a>	<a href="#">84033</a>
5/8 - 24	H-3	6	<a href="#">83037</a>	<a href="#">83038</a>	<a href="#">83039</a>
5/8 - 24	H-5	6	<a href="#">84037</a>	<a href="#">84038</a>	<a href="#">84039</a>
11/16 - 24	H-3	6	<a href="#">83041</a>	<a href="#">83042</a>	<a href="#">83043</a>
11/16 - 24	H-5	6	<a href="#">84041</a>	<a href="#">84042</a>	<a href="#">84043</a>
3/4 - 20	H-3	6	<a href="#">83047</a>	<a href="#">83048</a>	<a href="#">83049</a>
3/4 - 20	H-5	6	<a href="#">84047</a>	<a href="#">84048</a>	<a href="#">84049</a>
13/16 - 20	H-3	6	<a href="#">83051</a>	<a href="#">83052</a>	<a href="#">83053</a>
13/16 - 20	H-5	6	<a href="#">84051</a>	<a href="#">84052</a>	<a href="#">84053</a>
7/8 - 20	H-3	6	<a href="#">83057</a>	<a href="#">83058</a>	<a href="#">83059</a>
7/8 - 20	H-5	6	<a href="#">84057</a>	<a href="#">84058</a>	<a href="#">84059</a>
15/16 - 20	H-3	6	<a href="#">83061</a>	<a href="#">83062</a>	<a href="#">83063</a>
15/16 - 20	H-5	6	<a href="#">84061</a>	<a href="#">84062</a>	<a href="#">84063</a>
1 - 20	H-3	6	<a href="#">83067</a>	<a href="#">83068</a>	<a href="#">83069</a>
1 - 20	H-5	6	<a href="#">84067</a>	<a href="#">84068</a>	<a href="#">84069</a>
1 1/16 - 18	H-4	6	<a href="#">83071</a>	<a href="#">83072</a>	<a href="#">83073</a>
1 1/16 - 18	H-3	6	<a href="#">84071</a>	<a href="#">84072</a>	<a href="#">84073</a>
1 1/16 - 18	H-6	6	<a href="#">84271</a>	<a href="#">84272</a>	<a href="#">84273</a>
1 1/8 - 18	H-4	6	<a href="#">83077</a>	<a href="#">83078</a>	<a href="#">83079</a>
1 1/8 - 18	H-3	6	<a href="#">84077</a>	<a href="#">84078</a>	<a href="#">84079</a>
1 1/8 - 18	H-6	6	<a href="#">84277</a>	<a href="#">84278</a>	<a href="#">84279</a>
1 3/16 - 18	H-4	6	<a href="#">83081</a>	<a href="#">83082</a>	<a href="#">83083</a>
1 3/16 - 18	H-3	6	<a href="#">84081</a>	<a href="#">84082</a>	<a href="#">84083</a>
1 3/16 - 18	H-6	6	<a href="#">84281</a>	<a href="#">84282</a>	<a href="#">84283</a>
1 1/4 - 18	H-4	6	<a href="#">83087</a>	<a href="#">83088</a>	<a href="#">83089</a>
1 1/4 - 18	H-3	6	<a href="#">84087</a>	<a href="#">84088</a>	<a href="#">84089</a>
1 1/4 - 18	H-6	6	<a href="#">84287</a>	<a href="#">84288</a>	<a href="#">84289</a>
1 5/16 - 18	H-4	6	<a href="#">83091</a>	<a href="#">83092</a>	<a href="#">83093</a>
1 5/16 - 18	H-3	6	<a href="#">84091</a>	<a href="#">84092</a>	<a href="#">84093</a>

NOTE: Consult factory for larger quantities.

## NATIONAL EXTRA FINE PITCH (NEF) HAND TAPS (CONTINUED)

LIST 116

Taper  
 Plug  
 Bottom



TAP SIZE	H LIMIT	NO. OF FLUTES	116		
			TAPER EDP NUMBER	PLUG EDP NUMBER	BOTTOM EDP NUMBER
1 5/16 - 18	H-6	6	<a href="#">84291</a>	<a href="#">84292</a>	<a href="#">84293</a>
1 3/8 - 18	H-4	6	<a href="#">83097</a>	<a href="#">83098</a>	<a href="#">83099</a>
1 3/8 - 18	H-3	6	<a href="#">84097</a>	<a href="#">84098</a>	<a href="#">84099</a>
1 3/8 - 18	H-6	6	<a href="#">84297</a>	<a href="#">84298</a>	<a href="#">84299</a>
1 7/16 - 18	H-4	6	<a href="#">83101</a>	<a href="#">83102</a>	<a href="#">83103</a>
1 7/16 - 18	H-3	6	<a href="#">84101</a>	<a href="#">84102</a>	<a href="#">84103</a>
1 7/16 - 18	H-6	6	<a href="#">84301</a>	<a href="#">84302</a>	<a href="#">84303</a>
1 1/2 - 18	H-4	6	<a href="#">83107</a>	<a href="#">83108</a>	<a href="#">83109</a>
1 1/2 - 18	H-3	6	<a href="#">84107</a>	<a href="#">84108</a>	<a href="#">84109</a>
1 1/2 - 18	H-6	6	<a href="#">84307</a>	<a href="#">84308</a>	<a href="#">84309</a>

See page 89 for Tap Dimensions.

QUALITY TAPS SINCE 1912  
[www.rntap.com](http://www.rntap.com)

## BATTERED BOLT OR PIPE THREADS RESTORED QUICKLY WITH NU-TRIX WITHOUT CHANGING FIT

A few easy passes with the appropriate land of NU-TRIX over the damaged face of a bolt or pipe thread will restore the thread without reducing the diameter. As only the displaced metal is removed, the original fit is preserved. Any bolt or pipe of the corresponding thread number, regardless of diameter, may be repaired instantly with NU-TRIX.

For restoring bolt threads, eight assorted sizes of National Fine and National Coarse threads on each of two NU-TRIX Bolt Thread Restorers provide sixteen thread sizes in all. For external pipe threads, a set of three NU-TRIX Pipe Thread Restorers provide five pipe thread sizes; a companion set restores the same number of internal pipe thread sizes.

A set of nine NU-TRIX Thread Restorers is a valuable part of every machinist's or pipefitter's kit. Their small price is quickly repaid in time saved in repairing battered threads.

A #9 Metric NU-TRIX is now offered which provides eight common metric pitches.

APPLICATION	NU-TRIX NO.	THREAD SIZES ON EACH	EDP NUMBER
FOR BOLTS	No. 1	11, 12, 13, 14, 16, 18, 20 and 24	<a href="#">63400</a>
	No. 2	9, 10, 12, 16, 20, 27, 28 and 32	<a href="#">63410</a>
	No. 1 & No. 2 Set	<a href="#">63400</a> & <a href="#">63410</a>	<a href="#">63405</a>
FOR PIPE (EXTERNAL)	No. 3	8 and 10	<a href="#">63420</a>
	No. 4	8 and 11 1/2	<a href="#">63430</a>
	No. 5	10 and 14	<a href="#">63440</a>
FOR PIPE (INTERNAL)	No. 6	8 and 10	<a href="#">63450</a>
	No. 7	8 and 11 1/2	<a href="#">63460</a>
	No. 8	10 and 14	<a href="#">63470</a>
METRIC NU-TRIX FOR BOLTS	No. 9	Metric Pitches 0.8, 1.0, 1.25, 1.50, 1.75, 2.0, 2.5, and 3.0	<a href="#">63480</a>

### NU-TRIX

- #1
- #2
- #9



### NU-TRIX

- #3
- #4
- #5



### NU-TRIX

- #6
- #7
- #8





**TABLE 27**

**SPECIAL**

**MACHINE SCREW TAP PRICE LIST**

Special High Speed Steel Ground Thread Machine Screw Taps. These prices do not apply to taps with special features of any type, except that they may be either right or left hand, with regular or optional flutes.

TAP SIZE	LIST PRICE															ADD FOR SPPT	ADD FOR SPFL
	1	2	3-5	6-8	9-11	12-23	24-47	48-71	72-95	96-143	144-239	240-479	480-719	720-999	1000+		
00-120	\$288.14	\$208.92	\$152.68	\$117.26	\$94.45	\$84.68	\$75.66	\$69.88	\$67.02	\$63.44	\$59.54	\$57.79	\$56.27	\$55.71	\$54.28	\$5.49	
00-90	169.60	205.04	148.63	113.52	90.63	80.91	71.84	66.34	63.12	59.54	56.91	54.28	53.51	53.46	53.30	5.49	
0	251.82	174.60	119.08	79.62	60.64	51.27	43.62	37.96	34.56	30.92	28.49	27.03	25.52	24.16	17.04	3.70	
1	250.86	172.54	116.62	80.25	58.85	48.92	41.78	36.17	32.25	29.06	26.60	24.76	23.27	22.32	15.70	3.42	
2	248.37	171.13	115.23	78.58	57.54	47.41	40.37	34.22	30.92	27.46	25.21	23.27	21.91	20.83	14.66	3.05	\$9.43
3	236.99	160.56	106.23	69.70	51.27	40.72	34.22	29.31	26.18	22.74	20.46	18.64	17.64	15.67	11.26	2.42	7.33
4	227.57	151.67	98.60	62.73	46.03	36.58	29.31	25.52	21.50	18.50	17.64	15.67	14.78	13.31	9.39	1.99	5.94
5	227.57	151.67	98.60	62.73	46.03	36.58	29.31	25.52	21.50	18.50	17.64	15.67	14.78	13.31	9.39	1.99	5.94
6	224.55	148.76	95.80	60.29	43.62	34.22	26.60	22.74	18.95	16.58	14.78	13.31	11.92	11.03	7.15	1.51	4.83
7	224.55	148.76	95.80	60.29	43.62	34.22	26.60	22.74	18.95	16.58	14.78	13.31	11.92	11.03	9.81	1.51	
8	224.55	148.76	95.80	60.29	43.62	33.42	26.60	22.74	18.95	16.58	14.78	13.31	11.92	11.03	7.50	1.51	4.83
9	225.02	149.28	95.80	60.29	43.62	34.22	27.03	22.74	18.95	16.58	15.18	13.31	12.26	11.03	10.18	1.70	
10	225.02	149.28	95.80	60.29	43.62	34.22	27.03	22.74	18.95	16.58	15.18	13.31	12.26	11.03	7.49	1.70	4.93
12	231.64	155.16	100.58	64.51	46.03	35.58	29.06	24.16	20.83	17.64	15.18	13.31	12.26	11.03	7.68	1.70	4.93
14	233.27	157.65	102.87	66.96	47.92	37.96	30.92	26.60	23.27	19.95	17.64	15.67	14.78	13.31	9.39	1.95	5.94

Prices on chart apply when taps are moderately oversize, but may not apply if amount oversize is excessive. If machine screw taps are more than .006" oversize, use next larger size.

For left hand spiral flute refer to Home Office for pricing.

**SCHEDULE A SECTION 1  
SPECIAL FEATURES**

Add charge below for grinding an ETTCO Notch, or APEX GROOVE in standard taps. Also add for grinding neck in back of threads. #0 thru #12 the charge below applies for the first 1/4" length of neck, add again for each 1/2" additional length of neck. Taps larger than #12 add charge for each 1/2" length of neck. Add again for each 1/2" additional length.

QUANTITY	DIAMETER OF TAP – AMOUNT TO CHARGE PER TAP			
	#0 - 5/16"	3/8" - 1/2"	9/16" - 1"	1 1/8" - 1 1/2"
1	\$38.83	\$40.75	\$42.71	\$44.80
2	20.24	21.16	22.11	23.21
3 - 5	13.96	14.63	15.37	16.04
6 - 8	7.68	8.05	8.47	8.87
9 - 11	6.29	6.49	6.81	7.11
12 - 23	4.62	4.87	5.09	5.23
24 - 47	3.12	3.21	3.25	5.23
48 - 71	2.05	2.26	2.29	5.23
72 - 95	1.44	1.44	1.44	5.23
96 - 143	1.04	1.04	1.04	5.23
144 +	0.47	0.47	1.04	5.23



## TABLE 25 (302) DIMENSIONS SPECIAL FRACTIONAL SIZE TAP PRICE LIST

Special High Speed Steel Ground Thread Taps are priced below. On sizes 1 1/16" and larger, consult Table 26 before selecting prices. These prices do not apply to taps with special features of any type except that they may be either right or left hand with listed flutes. 1/4" & 5/16" 2, 3, 4 Fl. - 3/8" to 1/2" 3, 4 Fl. - 9/16" to 3/4" 3, 4, 6 Fl. - 13/16" to 1 1/2" 4, 6 Fl. - 1 9/16" and larger 6, 8 Fl.

TAP SIZE	LIST PRICE											ADD FOR SPPT*	ADD FOR SPFL*	ADD FOR INT*
	1	2	3-5	6-8	9-11	12-23	24-47	48-71	72-95	96-143	144-239			
1/4	\$233.03	\$156.65	\$102.53	\$65.93	\$47.41	\$37.03	\$30.42	\$25.52	\$22.32	\$18.95	\$16.58	\$1.84	\$4.37	\$4.93
5/16	234.49	158.30	103.93	67.29	48.92	38.45	31.82	27.03	23.75	20.46	18.04	1.99	4.90	5.49
3/8	242.96	165.74	112.83	74.05	52.09	42.73	35.24	29.31	26.18	22.32	20.46	2.42	5.74	6.38
7/16	259.68	178.89	121.00	85.56	60.20	50.07	42.20	36.18	32.68	29.31	26.70	3.21	7.69	8.89
1/2	266.93	183.92	126.39	89.67	65.93	55.53	46.20	40.20	37.20	33.22	30.67	3.90	9.12	10.69
9/16	272.12	189.51	131.42	94.78	71.04	61.02	51.56	45.61	42.24	38.69	36.18	4.64	9.49	12.43
5/8	282.97	198.49	140.79	105.13	81.37	70.32	61.02	55.05	50.56	46.59	44.24	6.03	11.81	13.69
11/16	292.87	207.21	148.76	114.95	89.67	77.62	67.89	61.82	57.54	53.68	51.17	6.81	14.07	16.44
3/4	304.24	217.69	161.11	127.67	100.15	86.26	77.41	71.04	66.41	63.05	60.44	8.26	16.72	19.53
13/16	315.62	229.99	172.50	137.81	112.08	98.11	88.76	82.83	78.27	74.45	71.96	10.02	20.25	23.64
7/8	334.28	242.13	185.34	151.63	122.93	108.07	98.76	92.70	88.22	84.26	82.00	11.61	23.14	27.00
15/16	338.84	246.71	189.87	156.06	127.42	112.59	103.15	97.23	92.70	88.76	86.26	12.18	24.55	28.60
1	369.53	272.12	213.24	180.94	152.59	133.85	124.45	118.64	114.06	109.96	102.65	15.63	30.80	35.96
1 1/16, 1 1/8	415.48	312.94	252.94	217.70	189.43	170.42	161.11	155.20	150.21	146.81	133.85	20.95	41.85	
1 3/16, 1 1/4	467.00	357.54	294.44	260.68	235.56	215.61	200.25	173.81				26.88	53.73	
1 5/16	495.99	385.59	316.76	283.59	257.69	238.00	201.29					30.39	60.44	
1 3/8	519.77	408.87	338.99	305.94	280.12	260.68	223.72					33.55	67.32	
1 7/16, 1 1/2	617.13	523.89	431.15	384.49	354.10	327.60	288.61					43.32	86.63	
1 5/8	681.46	588.31	492.74	446.32	416.08	389.09	350.34					50.01	100.07	
1 3/4	717.25	624.07	527.03	480.35	450.35	423.37	384.49					54.96		
1 7/8	825.50	730.12	607.27	561.79	527.50	504.76	459.10					65.73		
2	861.37	765.87	641.53	595.96	561.79	538.85	493.36					70.44	140.89	
2 1/8	926.98	831.61	704.27	658.67	624.45	601.75	555.93							
2 1/4	1150.11	1035.32	876.14	796.34	750.85	728.16	682.52					97.54		
2 3/8	1208.57	1089.42	928.09	848.23	802.67	779.96	734.30							
2 1/2	1286.08	1166.88	1002.19	922.40	876.68	853.89	808.24					115.50		
2 5/8	1377.65	1257.78	1089.77	1013.38	964.35	941.49	896.06					127.92		
2 3/4	1697.08	1495.09	1235.81	1144.58	1092.32	1075.84	1030.58							
2 7/8	1770.28	1567.64	1305.76	1214.52	1169.04	1146.11	1100.60					157.14		
3	1874.29	1671.60	1405.21	1314.12	1268.45	1245.65	1200.01							
3 1/8	1936.40	1801.66	1529.58	1438.50	1392.80	1369.88	1324.43							
3 1/4	2108.94	1906.65	1629.63	1538.58	1492.85	1470.01	1424.42							
3 3/8	2220.98	2018.94	1737.39	1646.23	1600.59	1577.81	1532.17							
3 1/2	2658.61	2404.79	2098.14	1915.58	1847.19	1778.92								
3 5/8	2790.31	2528.19	2224.55	2042.09	1973.62	1905.38								
3 3/4	2927.31	2680.16	2355.49	2173.16	2104.75	2036.46								
3 7/8	3074.75	2812.48	2496.46	2314.08	2245.63	2177.25								
4	3228.49	2966.38	2646.61	2461.28	2392.83	2324.39								

**NOTE ALL:\***  
 \* 13/16" and larger spiral fluted taps  
 \* Interrupted taps 13/16" and larger  
 \* Left hand spiral fluted taps  
 \* REFER TO HOME OFFICE FOR PRICING

**NOTE:** Prices for larger quantities on application.



**TABLE 26 (303)**

**SPECIAL**

**TAP PRICE LIST SHORT SERIES DIMENSIONS**

*Special High Speed Steel Ground Thread Taps to Table 26 (short) dimensions are used on fine pitch taps 1 1/16" through 1 1/2" major diameter with 14 or more threads per inch and on taps larger than 1 1/2" with 10 threads per inch. These prices do not apply to taps with special features of any type except that they may be either right or left handed with regular or optional flutes.*

TAP SIZE	LIST PRICE								
	1	2	3-5	6-8	9-11	12-23	24-47	48-71	72-95
1 1/16	\$375.16	\$277.80	\$218.62	\$186.38	\$158.62	\$139.46	\$130.51	\$123.94	\$119.54
1 1/8									
1 3/16	418.62	315.59	255.83	220.06	191.85	173.00	164.10	157.33	130.54
1 1/4									
1 5/16	451.84	324.57	280.12	246.87	221.00	201.77	186.38	164.53	
1 3/8									
1 7/16	488.06	377.75	309.13	276.03	250.40	230.62	193.89		
1 1/2									
1 5/8	583.42	467.63	392.81	358.12	331.10	310.80	272.12		
1 3/4	631.17	538.47	444.60	397.99	367.82	340.86	302.08		
1 7/8	663.05	569.83	475.23	428.56	398.63	371.55	332.63		
2	695.57	602.99	506.32	450.72	429.59	402.70	363.77		
2 1/8	827.22	731.92	608.85	563.33	529.18	506.32	460.60		
2 1/4	891.57	796.90	671.09	625.20	591.36	568.43	522.87		
2 3/8	944.35	848.91	720.81	675.34	641.02	618.19	572.73		
2 1/2	1104.11	984.87	827.98	748.29	702.62	675.54	634.29		
2 5/8	1162.42	1043.32	883.99	804.25	758.55	735.82	690.18		
2 3/4	1218.74	1099.74	937.90	858.15	812.48	789.78	618.39		
2 7/8	1276.20	1157.22	992.84	902.75	867.30	844.58	799.04		
3	1347.82	1228.52	1061.14	981.37	935.73	913.03	867.30		
3 1/8	1429.74	1310.58	1139.45	1059.62	1013.98	991.35	945.74		
3 1/4	1684.10	1481.67	1223.41	1132.21	1086.08	1063.83	1018.16		
3 3/8	1764.95	1562.28	1300.56	1209.41	1163.74	1141.09	1095.48		
3 1/2	1848.77	1646.44	1380.92	1289.64	1244.06	1221.36	1175.64		
3 5/8	1937.50	1733.45	1464.28	1373.09	1327.85	1304.69	1259.41		
3 3/4	2029.03	1826.66	1553.44	1462.21	1416.69	1394.02	1348.28		
3 7/8	2128.35	1925.80	1648.42	1557.47	1511.45	1488.60	1443.18		
4	2231.83	2029.03	1747.26	1656.07	1610.41	1510.97	1467.59		

**NOTE:** Prices for larger quantities on application.





**TABLE 34  
 SPECIAL GROUND THREAD PIPE TAP PRICE LIST**

1/16-1/8"	NPT NPS	NPT	NPT NPS	NPT	NPT	1/4"	NPT NPS	NPT	NPT NPS	NPT	NPT
QUANTITY	2 <sup>1</sup> / <sub>8</sub> " O/A	4" O/A	6" O/A	8" O/A	10" O/A	QUANTITY	2 <sup>7</sup> / <sub>16</sub> " O/A	4" O/A	6" O/A	8" O/A	10" O/A
1	\$241.37	\$241.37	\$263.82	\$269.01	\$356.20	1	\$254.16	\$254.16	\$272.13	\$292.55	\$383.41
2	167.44	167.44	186.98	192.49	261.58	2	178.29	178.29	195.28	214.28	282.29
3-5	119.52	119.52	140.41	146.08	207.16	3-5	130.89	130.89	148.93	169.25	229.41
6-8	82.53	82.53	106.23	112.13	167.51	6-8	95.80	95.80	114.77	136.51	190.49
9-11	61.20	61.20	83.45	89.31	137.66	9-11	74.43	74.43	92.05	111.76	157.99
12-23	51.27	51.27	73.05	78.99	121.76	12-23	63.49	63.49	81.60	98.61	139.87
24-47	44.24	44.24	64.51	70.27	111.20	24-47	54.10	54.10	72.56	89.90	129.92
48-71	38.46	38.45	58.35	64.56	104.30	48-71	48.39	48.39	66.43	84.18	123.01
72-95	35.22	35.22	54.10	60.20	99.03	72-95	45.54	45.54	62.73	79.84	117.79
96-143	31.23	31.23	50.23	56.55		96-143	41.78	41.78	58.85	76.29	
144-239	29.31	29.31	48.39	54.25		144-239	39.86	39.86	56.50	73.93	
240-479	27.46	27.46	46.51	91.23		240-479	37.96	37.96	54.53	69.28	
480-719	25.52	25.52	44.65	50.80		480-719	36.17	36.17	53.16		
720	24.76	24.76	43.62	49.60		720	35.22	35.22	51.77		

**ADD TO ABOVE FOR EACH PIECE:**

INTERRUPTED THREAD	10.02	10.02	17.64	19.62	28.59	INTERRUPTED THREAD	14.23	14.23	20.83	27.69	34.75
SPIRAL FLUTE	8.67	8.67	15.28			SPIRAL FLUTE	10.64	10.64	14.90		

3/8"	NPT NPS	NPT	NPT NPS	NPT	NPT	1/2"	NPT NPS	NPT NPS	NPT	NPT	NPT
QUANTITY	2 <sup>9</sup> / <sub>16</sub> " O/A	4" O/A	6" O/A	8" O/A	10" O/A	QUANTITY	3 <sup>1</sup> / <sub>8</sub> " O/A	6" O/A	8" O/A	10" O/A	12" O/A
1	\$273.14	\$273.14	\$289.77	\$318.59	\$421.15	1	\$300.55	\$342.67	\$378.47	\$505.75	\$538.09
2	194.37	194.37	211.21	234.96	314.56	2	216.22	254.21	285.40	385.93	418.32
3-5	147.09	147.09	166.88	191.20	260.56	3-5	171.62	210.14	241.68	331.32	363.70
6-8	115.23	115.23	133.75	158.97	223.87	6-8	139.44	179.20	207.91	293.22	325.65
9-11	91.10	91.10	107.98	132.07	191.49	9-11	112.02	152.68	181.10	263.84	296.21
12-23	78.65	78.65	94.83	117.62	169.77	12-23	97.66	134.69	163.18	241.35	273.72
24-47	70.18	70.18	86.26	108.88	159.24	24-47	89.17	125.19	154.45	223.87	256.26
48-71	64.51	64.51	80.62	103.16	152.32	48-71	83.45	119.52	148.72	198.89	231.28
72-95	59.73	59.73	75.90	98.86		72-95	78.65	115.73	144.40		
96-143	56.50	56.50	73.05	95.26		96-143	74.92	112.02	140.83		
144-239	54.10	54.10	70.18	92.91		144-239	73.05	104.43	133.82		
240-479	52.12	52.12	65.46	88.26		240-479	68.30				
480-719	50.23	50.23				480-719					
720	49.35	49.35				720					

**ADD TO ABOVE FOR EACH PIECE:**

INTERRUPTED THREAD	17.51	17.51	23.06	30.92	38.91	INTERRUPTED THREAD	24.07	36.84	46.79	57.59	66.96
SPIRAL FLUTE	15.06	15.06	19.70			SPIRAL FLUTE	20.58	31.30			



## TABLE 34 (CONTINUED) SPECIAL GROUND THREAD PIPE TAP PRICE LIST

3/4"		NPT NPS	NPT NPS	NPT	NPT	NPT	1"		NPT NPS	NPT NPS	NPT	NPT	NPT
QUANTITY	3 1/4" O/A	6" O/A	8" O/A	10" O/A	12" O/A	QUANTITY	3 3/4" O/A	6" O/A	8" O/A	10" O/A	12" O/A	QUANTITY	12" O/A
1	\$351.52	\$417.56	\$493.82	\$631.69	\$712.35	1	\$421.27	\$504.34	\$597.13	\$781.96	\$908.25		
2	258.38	319.89	388.81	510.50	614.91	2	316.76	400.40	512.67	684.52	808.33		
3-5	211.07	275.54	336.99	450.75	538.01	3-5	268.70	348.46	445.95	632.43	708.36		
6-8	179.03	239.77	303.95	412.73	486.78	6-8	235.56	315.26	401.55	556.39	658.38		
9-11	150.60	211.52	278.45	383.29	453.71	9-11	210.14	289.99	372.89	523.35	620.88		
12-23	131.89	192.29	258.97	360.84	424.31	12-23	190.25	270.22	358.16	493.94	595.92		
24-47	122.93	183.41	222.18	318.35	381.85	24-47	175.05	233.03	310.60	451.47	545.97		
48-71	116.62	177.57				48-71	153.09						
72-95	112.08	172.50											
96-143	108.60	169.00											
144-239	101.11	161.52											
<b>ADD TO ABOVE FOR EACH PIECE:</b>													
<b>INTERRUPTED THREAD</b>	35.32	56.83	77.79	96.62	115.91	<b>INTERRUPTED THREAD</b>	30.67	46.75	62.13	78.28	94.62		
<b>SPIRAL FLUTE</b>	30.39	48.26	66.72			<b>SPIRAL FLUTE</b>	45.88						
1 1/4"		NPT NPS		1 1/2"		NPT NPS		2"		NPT NPS			
QUANTITY	4" O/A	QUANTITY	4 1/4" O/A	QUANTITY	4 1/2" O/A	QUANTITY	4 1/2" O/A	QUANTITY	4 1/2" O/A	QUANTITY	4 1/2" O/A	QUANTITY	4 1/2" O/A
1	\$512.99	1	\$640.45	1	\$812.48	1	\$812.48	1	\$812.48	1	\$812.48	1	\$812.48
2	407.40	2	551.94	2	721.29	2	721.29	2	721.29	2	721.29	2	721.29
3-5	355.41	3-5	481.40	3-5	630.04	3-5	630.04	3-5	630.04	3-5	630.04	3-5	630.04
6-8	322.23	6-8	434.87	6-8	584.49	6-8	584.49	6-8	584.49	6-8	584.49	6-8	584.49
9-11	296.41	9-11	404.65	9-11	550.24	9-11	550.24	9-11	550.24	9-11	550.24	9-11	550.24
12-23	276.49	12-23	377.75	12-23	527.50	12-23	527.50	12-23	527.50	12-23	527.50	12-23	527.50
24-47	239.57	24-47	338.94	24-47	481.89	24-47	481.89	24-47	481.89	24-47	481.89	24-47	481.89
<b>ADD TO ABOVE FOR EACH PIECE:</b>													
<b>INTERRUPTED THREAD</b>	47.89			<b>INTERRUPTED THREAD</b>	67.49			<b>INTERRUPTED THREAD</b>	96.50				
<b>SPIRAL FLUTE</b>	71.79			<b>SPIRAL FLUTE</b>	101.61			<b>SPIRAL FLUTE</b>	156.04				
		2 1/2" NPT 5 1/2" O/A		3" NPT 6" O/A		3 1/2" NPT 6 1/2" O/A		4" NPT 6 3/4" O/A					
QUANTITY	ECONOMY	GRD. THD.	ECONOMY	GRD. THD.	ECONOMY	GRD. THD.	ECONOMY	GRD. THD.	ECONOMY	GRD. THD.	QUANTITY	ECONOMY	GRD. THD.
1	\$976.72	\$1,229.05	\$1,398.64	\$1,764.90	\$1,676.27	\$2,168.91	\$2,232.71	\$2,900.56			1	\$976.72	\$1,229.05
2	862.83	1115.20	1204.62	1571.13	1481.91	1975.28	1981.88	2649.78			2	862.83	1115.20
3-5	748.71	1001.01	1010.97	1378.71	1288.71	1781.39	1788.30	2456.07			3-5	748.71	1001.01
6-8	669.02	921.24	919.80	1286.17	1197.38	1690.26	1606.27	2273.62			6-8	669.02	921.24
9-11	623.31	875.76	874.16	1240.53	1151.89	1644.68	1537.30	2205.20			9-11	623.31	875.76
12-23	600.49	852.91	851.35	1217.81	1128.49	1621.89	1468.99	2136.79			12-23	600.49	852.91
24-47	554.98	807.33	805.65	1172.14	1083.56	1576.59					24-47	554.98	807.33
<b>ADD TO ABOVE FOR EACH PIECE:</b>													
<b>INTERRUPTED THREAD</b>	105.37			153.01			205.70			278.84			



## SPECIAL GROUND THREAD MACHINE SCREW SIZE EXTENSION TAP PRICE LIST

#4 QTY.	O.A.L. 4"	O.A.L. 6"	#6 QTY.	O.A.L. 4"	O.A.L. 6"	#8 QTY.	O.A.L. 4"	O.A.L. 6"	#10 QTY.	O.A.L. 4"	O.A.L. 6"
	1	\$251.47		\$268.28	1		\$244.84	\$259.39		1	\$244.05
2	174.32	189.43	2	167.68	180.55	2	166.88	179.66	2	165.88	176.49
3-5	124.14	139.77	3-5	117.52	130.84	3-5	116.74	130.00	3-5	115.74	126.80
6-8	81.88	98.28	6-8	75.55	89.80	6-8	74.81	88.93	6-8	73.88	85.93
9-11	60.58	75.55	9-11	54.25	67.08	9-11	53.52	66.24	9-11	52.58	63.21
12-23	50.89	65.94	12-23	44.57	57.46	12-23	43.83	56.63	12-23	42.87	53.61
24-47	43.44	56.98	24-47	37.13	48.51	24-47	36.36	47.68	24-47	35.43	44.66
48-71	37.80	51.36	48-71	31.46	42.87	48-71	30.72	42.02	48-71	29.77	39.02
72-95	34.30	48.33	72-95	27.99	39.86	72-95	27.22	39.01	72-95	26.31	36.00
96	30.90	44.76	96	24.58	36.28	96	23.85	35.43	96	22.90	32.40
<b>FOR SPIRAL POINT ADD TO EACH PIECE:</b>											
	2.73	5.40		2.64	4.42		2.55	4.25		2.44	3.77

## TABLE 33 SPECIAL GROUND THREAD PULLEY TAP PRICE LIST

1/4" QTY.	O.A.L. 4"	O.A.L. 6"	O.A.L. 8"	O.A.L. 10"	O.A.L. 12"	5/16" QTY.	O.A.L. 4"	O.A.L. 6"	O.A.L. 8"	O.A.L. 10"	O.A.L. 12"
	1	\$231.97	\$243.72	\$265.17	\$274.83		\$284.33	1	\$232.71	\$243.72	\$266.25
2	158.47	167.84	184.57	192.91	201.90	2	159.24	167.84	185.34	194.51	203.48
3-5	110.71	120.48	135.80	143.45	154.52	3-5	111.44	120.48	136.32	145.02	156.12
6-8	74.33	85.43	99.81	105.06	114.29	6-8	75.09	85.43	100.61	106.55	115.78
9-11	53.04	62.73	75.90	80.83	89.50	9-11	53.80	62.73	76.37	82.35	91.01
12-23	43.33	52.73	64.98	69.07	76.33	12-23	44.10	52.73	65.53	70.52	77.81
24-47	35.91	43.62	55.53	60.32	67.56	24-47	36.64	43.62	56.55	61.81	69.07
48-71	30.24	37.96	49.48	54.55	61.81	48-71	30.99	37.96	50.56	56.08	63.32
72-95	26.78	35.22	45.06	50.21	57.46	72-95	27.52	35.22	45.61	51.73	58.99
96	23.36	31.23	41.28	46.64	53.89	96	24.12	31.23	42.24	48.16	55.41
<b>FOR SPIRAL POINT ADD TO EACH PIECE:</b>											
	2.45	3.90	5.19	5.94	7.06		2.63	3.90	5.19	6.14	7.26

3/8" QTY.	O.A.L. 4"	O.A.L. 6"	O.A.L. 8"	O.A.L. 10"	O.A.L. 12"	7/16" QTY.	O.A.L. 4"	O.A.L. 6"	O.A.L. 8"	O.A.L. 10"	O.A.L. 12"
	1	\$233.37	\$247.97	\$273.18	\$283.97		\$292.61	1	\$262.86	\$255.07	\$279.50
2	159.88	172.56	190.88	201.29	210.22	2	182.13	177.78	197.92	211.07	224.06
3-5	112.12	124.84	141.24	153.76	162.85	3-5	124.22	130.89	148.25	163.59	177.98
6-8	75.76	89.66	108.07	118.99	122.19	6-8	88.77	96.67	114.95	128.95	143.80
9-11	54.47	66.96	82.83	93.24	97.41	9-11	63.41	74.05	89.67	103.15	116.02
12-23	44.76	57.54	70.32	79.36	84.23	12-23	53.28	63.49	77.41	89.30	100.15
24-47	37.30	48.39	61.02	69.98	75.48	24-47	45.43	54.10	67.89	79.98	91.26
48-71	31.67	42.73	55.05	63.44	69.72	48-71	39.39	48.92	61.82	74.00	84.73
72-95	28.16	39.44	49.36	59.50	65.38	72-95	35.91	44.65	57.54	69.42	80.24
<b>FOR SPIRAL POINT ADD TO EACH PIECE:</b>											
	2.73	4.57	6.06	7.19	8.19		3.12	5.35	7.03	8.89	10.49



## TABLE 33 SPECIAL GROUND THREAD PULLEY TAP PRICE LIST (CON'T)

1/2"	O.A.L. 4"	O.A.L. 6"	O.A.L. 8"	O.A.L. 10"	O.A.L. 12"	9/16"	O.A.L. 4"	O.A.L. 6"	O.A.L. 8"	O.A.L. 10"	O.A.L. 12"
QTY.						QTY.					
1	\$270.86	\$257.54	\$286.27	\$298.39	\$317.17	1	-	\$286.27	\$305.52	\$328.31	\$342.48
2	187.83	180.09	204.28	216.06	228.98	2	-	201.87	219.26	236.15	250.32
3-5	130.29	133.33	156.71	168.53	182.35	3-5	-	150.68	169.65	187.87	202.06
6-8	93.57	99.18	121.89	133.85	148.76	6-8	-	107.91	127.14	145.40	158.61
9-11	69.84	75.90	96.25	108.07	119.98	9-11	-	83.94	101.21	116.87	130.38
12-23	59.41	65.46	82.27	94.18	105.13	12-23	-	73.09	87.39	101.69	115.20
24-47	50.09	56.91	72.89	84.73	95.80	24-47	-	63.93	78.24	92.54	106.02
48-71	44.10	51.27	67.06	78.92	89.67	48-71	-	57.91	72.21	86.50	100.03
<b>FOR SPIRAL POINT ADD TO EACH PIECE:</b>											
	3.90	5.67	7.69	9.55	11.19		-	6.31	8.47	10.65	12.63

5/8"	O.A.L. 6"	O.A.L. 8"	O.A.L. 10"	O.A.L. 12"	O.A.L. 14"	3/4"	O.A.L. 6"	O.A.L. 8"	O.A.L. 10"	O.A.L. 12"	O.A.L. 14"
QTY.						QTY.					
1	\$273.52	\$318.84	\$342.95	\$366.80	\$382.64	1	\$303.58	\$342.31	\$372.72	\$391.55	\$419.78
2	196.40	230.61	249.80	268.70	284.58	2	221.58	244.99	274.68	293.42	315.26
3-5	148.93	184.57	203.13	223.19	238.00	3-5	174.40	203.05	227.92	246.87	267.50
6-8	116.62	150.21	171.05	187.37	202.14	6-8	140.04	171.20	192.29	211.07	234.49
9-11	92.42	121.89	142.63	158.62	174.86	9-11	114.13	143.19	164.53	183.41	208.76
12-23	80.62	107.14	123.94	139.82	155.20	12-23	100.34	124.36	145.21	164.10	189.43
24-47	72.12	97.23	114.58	130.87	145.60	24-47	91.21	115.23	135.80	154.69	173.49
48-71	65.93	91.26	108.60	124.92	139.82	48-71	85.15	109.20	129.75	148.76	151.63
72-95	61.73	87.26	104.06	119.98	135.28	72-95					
<b>FOR SPIRAL POINT ADD TO EACH PIECE:</b>											
	7.65	11.52	14.07	16.47	18.74		10.45	14.07	17.21	20.09	22.92

7/8"	O.A.L. 6"	O.A.L. 8"	O.A.L. 10"	O.A.L. 12"	1"	O.A.L. 6"	O.A.L. 8"	O.A.L. 10"	O.A.L. 12"
QUANTITY					QUANTITY				
1	\$394.75	\$434.65	\$477.46	\$505.30	1	\$405.14	\$472.38	\$519.93	\$556.97
2	288.23	322.11	357.66	385.47	2	298.58	352.52	398.78	435.81
3-5	234.20	269.29	303.04	330.85	3-5	244.55	297.89	339.02	376.07
6-8	197.51	228.41	264.96	292.82	6-8	207.87	259.87	300.99	338.00
9-11	165.14	196.06	235.57	263.41	9-11	175.45	230.44	271.57	308.60
12-23	141.16	174.32	213.07	240.89	12-23	153.80	207.99	249.06	286.11
24-47	132.88	163.76	195.60	223.43	24-47	143.26	190.49	206.59	243.61
<b>FOR SPIRAL POINT ADD TO EACH PIECE:</b>									
	14.10	18.06	22.20	25.83		15.38	21.60	26.90	31.76

## SURFACE TREATMENTS

A full array of surface treatments and coatings are available to enhance the taps performance depending on application and material being tapped. Listed below are the standard treatments we offer. Please consult factory for price and delivery on the new coatings Reiff & Nestor Company now has to offer for tapping all the exotic materials.

**NITRIDE\*\*** Recommended where abrasive or wearing conditions exist. It may be used for ferrous, nonferrous, or nonmetallic materials.

**NO. "5"** Is very effective where an anti-galling characteristic is required, combined with high wear resistance. Recommended for use in ferrous materials.

**NO. "0"** This treatment imparts a lubricant retaining surface that has high anti-galling characteristics. It is recommended for use in ferrous materials.

**CHROME** A special Bright Hard Chrome plating process developed to increase tap life and impart an anti-galling surface to taps. It is recommended for use in all materials.

**CONIT\*** Developed for use where extremely abrasive or wear-inducing, materials are encountered, both ferrous and nonferrous.

**BLUE DIAMOND** Is a specially treated electro chemical surface designed to eliminate surface welding when tapping soft stringy materials.

**TITANIUM NITRIDE (PVD)** Is also available upon request. (Prices for this treatment are available from our Sales Department.)

**MULTICOAT C3** Multilayer Coating recommended for machining softer materials such as titanium, aluminum, and copper alloys, Good anti-galling properties, (Consult factory for pricing.)

**MULTICOAT C4** Multilayer Coating having high hardness and anti-wear properties. Recommended for tapping tool steel, mold steel, and other heat treated materials. (Consult factory for pricing.)

\* The Conit treatment has been broken down into progressive degrees of surface concentration called Conit-1, Conit-2, Conit-3 and Conit-6 — the larger number indicating the greater wear resistance.

\*\* The Nitride treatment has been broken down into progressive degrees, as found applicable to various materials and tapping conditions. These treatments are: 1-N, 2-N, 3-N and 6-N. For ferrous, nonferrous and nonmetallic materials which cause dulling of the tools because of their abrasive characteristic. The numbers are individual specifications applied by our engineers for particular applications.

**TABLE 301B – THREAD SERIES DESIGNATIONS**

STANDARD TAP MARKING	PRODUCT THREAD DESIGNATION	THREAD SERIES	REFERENCES AMERICAN NATIONAL STANDARDS (ANSI/ASME)
ACME-C	ACME-C	Acme threads, centralizing	B1.5
ACME-G	ACME-G	Acme thread, general purpose (See also "STUB ACME")	B1.5
AMO	AMO	American Standard microscope objective threads	B1.11
NPT	ANPT	Aeronautical National Form taper pipe threads	(MIL-P-7105B)
BUTT	BUTT	Buttress Threads, pull type	B1.9
PUSH-BUTT	PUSH-BUTT	Buttress Threads, push type	B1.9
F-PTF	F-PTF	Dryseal fine taper pipe thread series	B1.20.3 (Appendix C)
M	M	Metric Screw Threads - M Profile with basic ISO 68 profile	B1.13M, B1.18M
MJ	MJ	Metric Screw Threads - MJ Profile with rounded root of radius 0.15011P to 0.18042P	B1.21M
MJS	MJS	Metric Screw Threads - MJ Profile, special series Class 5 interference fit Internal Threads	B1.12
NC	NC5IF	- Entire ferrous material range	
NC	NC5INF	- Entire nonferrous material range	
NGO (RH or LH)	NGO	National gas outlet threads	ANSI/CGA V-1 (B57.1)
NGS	NGS	National gas straight threads	ANSI/CGA V-1 (B57.1)
NGT	NGT	National gas taper threads	ANSI/CGA V-1 (B57.1)
NH	NH	American Standard hose coupling threads of full form	B2.4
NPS	NPSC	American Standard straight pipe threads in pipe couplings	B1.20.1
NPSF	NPSF	Dryseal American Standard fuel internal straight pipe threads	B1.20.3
NPSH	NPSH	American Standard straight hose coupling threads for joining to American Standard taper pipe threads	B2.4
NPSI	NPSI	Dryseal American Standard intermediate internal straight pipe threads	B1.20.3
NPSL	NPSL	American Standard straight pipe threads for loose-fitting mechanical joints with locknuts	B1.20.1
NPS	NPSM	American Standard straight pipe threads for free-fitting mechanical joints for fixtures	B1.20.2
NPT	NPT	American Standard taper pipe threads for general use	B1.20.1
NPTF	NPTF	Dryseal American Standard taper pipe threads	B1.20.3
NPTR	NPTR	American Standard taper pipe threads for railing joints	B1.20.1
PTF SHORT	PTF-SAE SHORT	Dryseal SAE short taper pipe threads	B1.20.3
PTF SPL SHORT	PTF-SPL SHORT	Dryseal special short taper pipe threads	B1.20.3 (Appendix C)
PTF SPL	PTF-SPL EXTRA		
X-SHORT	SHORT	Dryseal special extra short taper threads (See also "SPL-PTF")	B1.20.3 (Appendix C)
M	S	ISO Miniature screw threads 0.25 to 1.4mm inc.	
SGT	SGT	Special gas taper threads	ANSI/CGA V-1 (B57.1)
SPL-PTF	SPL-PTF	Dryseal special taper pipe threads	B1.20.3 (Appendix C)
STUB ACME	STUB ACME	Stub Acme threads	B1.8
STUB ACME M1	STUB ACME M1	Stub Acme Modified Form 1	B1.8
STUB ACME M2	STUB ACME M2	Stub Acme Modified Form 2	B1.8
N	UN	Unified inch screw thread, constant-pitch series	B1.1
NC	UNC	Unified inch screw thread, coarse-pitch series	B1.1
NF	UNF	Unified inch screw thread, fine-pitch series	B1.1
NEF	UNEF	Unified inch screw thread, extra-fine pitch series	B1.1
N	UNJ	Unified inch screw thread, constant-pitch series, with rounded root of radius 0.15011P to 0.18042P. (Ext. thd. only)	B1.15 (Draft) MIL-S-8879A
NC	UNJC	Unified inch screw thread, coarse-pitch series, with rounded root of radius 0.15011P to 0.18042P. (Ext. thd. only)	B1.15 (Draft) MIL-S-8879A



## TABLE 301B – THREAD SERIES DESIGNATIONS (CONTINUED)

STANDARD TAP MARKING	PRODUCT THREAD DESIGNATION	THREAD SERIES	REFERENCES AMERICAN NATIONAL STDS. (ANSI/ASME)
NF	UNJF	Unified Inch Screw Thread, fine pitch series, with rounded root of radius 0.15011P to 0.18042P. (Ext. thd. only.)	B1.15 (Draft), MIL-S-8879 A
NEF	UNJEF	Unified Inch Screw Thread, extra-fine pitch series, with rounded root of radius 0.15011P to 0.18042P. (Ext. thd. only.)	B1.15 (Draft), MIL-S-8879A
N	UNR	Unified Inch Screw Thread, constant pitch series, with rounded root of radius not less than 0.108P. (Ext. thd. only.)	B1.1
NC	UNRC	Unified Inch Screw Thread, coarse thread series, with rounded root of radius not less than 0.108P. (Ext. thd. only.)	B1.1
NF	UNRF	Unified Inch Screw Thread, fine pitch series, with rounded root of radius not less than 0.108P. (Ext. thd. only.)	B1.1
NEF	UNREF	Unified Inch Screw Thread, extra-fine pitch series, with rounded root of radius not less than 0.108P. (Ext. thd. only.)	B1.1
UNM	UNM	Unified miniature thread series	B1.10
NS	UNS	Unified Inch Screw Thread, special diameter pitch, or length of engagement.	B1.1

## TABLE 301B – THREAD SERIES DESIGNATIONS – BRITISH SCREW THREADS

STD. TAP & DIE MARK.	PROD. THD. DESIGNATION	THREAD SERIES	REFERENCE BRITISH STANDARD
BA	BA	British Association	BS93
BSC	BSC	British cycle	BS811
BSF	BSF	British WHITWORTH Fine	BS84
BSW	BSW	British WHITWORTH Coarse	BS84
OBSOLETE	BSPP	British Straight Pipe	OBSOLETE
OBSOLETE	BSPT	British Taper Pipe	OBSOLETE
WHIT	WHIT	British WHITWORTH Special	BS84
STD. TAP MARKING*	BRITISH PIPE THREADS		
G 1/4	G	British Internal Straight Pipe for Mechanical Joints	BS2779
Rc 1/4	Rc	British Internal Taper Pipe for Pressure Tight Joints	BS21
Rp 1/4	Rp	British Internal Straight Pipe for Pressure Tight Joints	BS21

## METRIC THREAD LIMITS

### TABLE 337 – STANDARD METRIC TAPS – GROUND THREAD

NOMINAL SIZE mm	PITCH mm	MAJOR DIAMETER INCHES			STANDARD PITCH DIAMETER LIMITS INCHES														
		BASIC	MIN.	MAX.	BASIC PITCH DIAMETER	D-3 LIMITS		D-4 LIMITS		D-5 LIMITS		D-6 LIMITS		D-7 LIMITS		D-8 LIMITS		D-9 LIMITS	
						MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
1.6	0.35	.062992	.0641	.0651	.054042	.0550	.0556												
2	0.4	.078740	.0801	.0811	.068511	.0695	.0701												
2.5	0.45	.098425	.0999	.1009	.086918	.0879	.0885												
3	0.5	.118110	.1198	.1208	.105324	.1063	.1069												
3.5	0.6	.137795	.1397	.1407	.122452			.1237	.1245										
4	0.7	.157480	.1597	.1613	.139580			.1408	.1416										
5	0.8	.196850	.1994	.2010	.176393			.1776	.1784										
6	1	.236220	.2395	.2411	.210648					.2122	.2132								
8	1.25	.314960	.3189	.3214	.282995					.2843	.2855								
10	1.5	.393700	.3985	.4010	.355343							.3572	.3584						
12	1.75	.472440	.4780	.4805	.427690							.4295	.4307						
14	2	.551180	.5575	.5600	.500037									.5020	.5036				
16	2	.629920	.6363	.6388	.578777									.5807	.5823				
20	2.5	.787400	.7954	.7979	.723471									.7254	.7270				
24	3	.944880	.9544	.9583	.868165												.8706	.8722	
30	3.5	1.181100	1.1922	1.1961	1.091599														1.0942 1.0962
36	4	1.417320	1.4300	1.4339	1.315034														1.3176 1.3196

\*Examples to show location of size designation

## TAPPING SPEED GUIDE

MATERIALS			SPEED FEET PER MINUTE	MATERIALS			SPEED FEET PER MINUTE
Aluminum Alloys			90-100	(Steel, Cont.) Carbon Steel, Plain	Annealed	40-80	
Brass			60-100		Tempered	15-40	
Bronze			40-60	Cast, Carbon	Annealed	40-50	
Copper			40-60		Tempered	30	
High Temperature Alloys			Cobalt Base	Cast, Corrosion Resistant,	Annealed	20-30	
					Iron Base	as Cast	20-25
					Nickel Base	Low Alloy	Annealed
Iron	Ductile	Annealed	60	Precipitation Hardening,	Tempered	15-25	
		as Cast	30		Stainless	Treated	10-15
		Tempered	15-20			Annealed	15-45
	Gray,	Annealed	80		Tempered	15-25	
		As Cast	35-60		Annealed	45-75	
	Malleable		60	Tool Steels, High Speed	Annealed	15-25	
Magnesium Alloys		Heat Treated	25-50	Water Hardening	Annealed	50	
		Annealed	175	Ultra High Strength Steels	Annealed	35	
Manganese			20		Normalized	20	
Molybdenum Alloys		Stress Relieved	50		Tempered	3-7	
Monel		Annealed	20	Maraging Steels	Annealed	20-15	
Nickel Alloys		Annealed	25		Maraged	5-10	
Plastics,	Reinforced		25	Tantalum Alloys, Stress Relieved		3	
	Thermoplastics		50	Titanium Alloys, Commercial Pure,	Annealed	40-60	
	Thermosetting Plastics		50	Alpha & Alpha Beta Alloys,	Annealed	10-25	
Steels,	Alloys, Annealed or Cold Drawn		40-60	Tungsten Alloys, Pressed & Sintered		50	
	Quenched & Tempered		15-35	Zinc Alloys	Die Cast	150	
	Armor Plate		10				

## CONVERSION TABLE, SURFACE FEET PER MINUTE TO REVOLUTIONS PER MINUTE

SPEED FEET PER MINUTE	20	25	30	40	50	60	70	80	90	100	110	120	130	140	150
TAP SIZE	REVOLUTIONS PER MINUTE														
0	1273	1592	1910	2546	3183	3820	4456	5093	5730	6366	7003	7639	8276	8913	9549
1	1047	1308	1570	2093	2617	3140	3663	4186	4710	5233	5756	6279	6808	7326	7849
2	888	1110	1333	1777	2221	2665	3109	3554	3999	4442	4886	5330	5774	6218	6662
3	772	964	1157	1543	1929	2315	2701	3086	3472	3858	4244	4629	5015	5401	5787
4	682	853	1023	1364	1705	2046	2387	2728	3069	3411	3751	4092	4434	4775	5116
5	611	764	917	1222	1528	1833	2139	2445	2750	3056	3361	3667	3973	4278	4584
6	553	691	829	1106	1382	1658	1934	2211	2487	2764	3040	3316	3592	3869	4145
8	466	583	699	932	1165	1398	1631	1864	2097	2330	2563	2796	3029	3262	3495
10	401	502	603	804	1005	1205	1406	1607	1808	2009	2210	2411	2612	2813	3014
12	354	442	531	707	884	1061	1238	1415	1592	1769	1945	2122	2300	2476	2653
1/4	306	382	458	611	764	917	1070	1222	1375	1528	1681	1833	1986	2139	2292
5/16	245	306	367	489	611	733	856	978	1100	1222	1345	1467	1589	1711	1833
3/8	204	255	306	407	509	611	713	815	917	1019	1120	1222	1324	1426	1528
7/16	175	219	262	349	437	524	611	698	786	873	960	1048	1135	1222	1310
1/2	153	191	229	306	382	458	535	611	688	764	840	917	993	1070	1146
9/16	137	172	206	275	344	412	481	550	619	687	756	825	893	963	1031
5/8	122	153	183	244	306	367	428	489	550	611	672	733	794	856	917
3/4	102	128	153	203	255	306	357	407	458	509	560	611	662	713	764
7/8	87	109	131	175	218	262	306	350	392	437	480	524	568	611	655
1	76	96	115	153	191	230	268	306	344	382	420	458	497	535	573





## TAP RECOMMENDATIONS FOR CLASSES 2, 3, 2B & 3B UNIFIED AND AMERICAN SCREW THREADS

NUMBERED SIZES											
SIZE	THREADS PER INCH		RECOMMENDED TAP FOR CLASS OF THREAD				PITCH DIAMETER LIMITS FOR CLASS OF THREAD				
	NC	NF	CLASS 2	CLASS 3	CLASS 2B	CLASS 3B	MIN. ALL CLASSES (BASIC)	MAX. CLASS 2	MAX. CLASS 3	MAX. CLASS 2B	MAX. CLASS 3B
0		80	GH1	GH1	GH2	GH1	.0519	.0536	.0532	.0542	.0536
1	64		GH1	GH1	GH2	GH1	.0629	.0648	.0643	.0655	.0648
1		72	GH1	GH1	GH2	GH1	.0640	.0658	.0653	.0665	.0659
2	56		GH1	GH1	GH2	GH1	.0744	.0764	.0759	.0772	.0765
2		64	GH1	GH1	GH2	GH1	.0759	.0778	.0773	.0786	.0779
3	48		GH1	GH1	GH2	GH1	.0855	.0877	.0871	.0885	.0877
3		56	GH1	GH1	GH2	GH1	.0874	.0894	.0889	.0902	.0895
4	40		GH2	GH1	GH2	GH2	.0958	.0982	.0975	.0991	.0982
4		48	GH1	GH1	GH2	GH1	.0985	.1007	.1001	.1016	.1008
5	40		GH2	GH1	GH2	GH2	.1088	.1112	.1105	.1121	.1113
5		44	GH1	GH1	GH2	GH1	.1102	.1125	.1118	.1134	.1126
6	32		GH2	GH1	GH3	GH2	.1177	.1204	.1196	.1214	.1204
6		40	GH2	GH1	GH2	GH2	.1218	.1242	.1235	.1252	.1243
8	32		GH2	GH1	GH3	GH2	.1437	.1464	.1456	.1475	.1465
8		36	GH2	GH1	GH2	GH2	.1460	.1485	.1478	.1496	.1487
10	24		GH3	GH1	GH3	GH3	.1629	.1662	.1653	.1672	.1661
10		32	GH2	GH1	GH3	GH2	.1697	.1724	.1716	.1736	.1726
12	24		GH3	GH1	GH3	GH3	.1889	.1922	.1913	.1933	.1922
12		28	GH3	GH1	GH3	GH3	.1928	.1959	.1950	.1970	.1959
FRACTIONAL SIZES											
SIZE	THREADS PER INCH		RECOMMENDED TAP FOR CLASS OF THREAD				PITCH DIAMETER LIMITS FOR CLASS OF THREAD				
	NC AND UNC	NF AND UNF	CLASS 2	CLASS 3	CLASS 2B	CLASS 3B	MIN. ALL CLASSES (BASIC)	MAX. CLASS 2	MAX. CLASS 3	MAX. CLASS 2B	MAX. CLASS 3B
1/4	20		GH3	GH2	GH5	GH3	.2175	.2211	.2201	.2223	.2211
1/4		28	GH3	GH1	GH4	GH3	.2268	.2299	.2290	.2311	.2300
5/16	18		GH3	GH2	GH5	GH3	.2764	.2805	.2794	.2817	.2803
5/16		24	GH3	GH1	GH4	GH3	.2854	.2887	.2878	.2902	.2890
3/8	16		GH3	GH2	GH5	GH3	.3344	.3389	.3376	.3401	.3387
3/8		24	GH3	GH1	GH4	GH3	.3479	.3512	.3503	.3528	.3516
7/16	14		GH5	GH3	GH5	GH3	.3911	.3960	.3947	.3972	.3957
7/16		20	GH3	GH1	GH5	GH3	.4050	.4086	.4076	.4104	.4091
1/2	13		GH5	GH3	GH5	GH3	.4500	.4552	.4537	.4565	.4548
1/2		20	GH3	GH1	GH5	GH3	.4675	.4711	.4701	.4731	.4717
9/16	12		GH5	GH3	GH5	GH3	.5084	.5140	.5124	.5152	.5135
9/16		18	GH3	GH2	GH5	GH3	.5264	.5305	.5294	.5323	.5308
5/8	11		GH5	GH3	GH5	GH3	.5660	.5719	.5702	.5732	.5714
5/8		18	GH3	GH2	GH5	GH3	.5889	.5930	.5919	.5949	.5934
3/4	10		GH5	GH3	GH5	GH5	.6850	.6914	.6895	.6927	.6907
3/4		16	GH3	GH2	GH5	GH3	.7094	.7139	.7126	.7159	.7143
7/8	9		GH6	GH4	GH6	GH4	.8028	.8098	.8077	.8110	.8089
7/8		14	GH4	GH2	GH6	GH4	.8286	.8335	.8322	.8356	.8339
1	8		GH6	GH4	GH6	GH4	.9188	.9264	.9242	.9276	.9254
1		12	GH4	GH2	GH6	GH4	.9459	.9515	.9499	.9535	.9516
1	14 NS		GH4	GH2	GH6	GH4	.9536	.9585	.9572	.9609	.9590
1 1/8	7		GH8	GH4	GH8	GH4	1.0322	1.0407	1.0381	1.0416	1.0393
1 1/8		12	GH4	GH4	GH6	GH4	1.0709	1.0765	1.0749	1.0787	1.0768
1 1/4	7		GH8	GH4	GH8	GH4	1.1572	1.1657	1.1631	1.1668	1.1644
1 1/4		12	GH4	GH4	GH6	GH4	1.1959	1.2015	1.1999	1.2039	1.2019
1 3/8	6		GH8	GH4	GH8	GH4	1.2667	1.2768	1.2738	1.2771	1.2745
1 3/8		12	GH4	GH4	GH6	GH4	1.3209	1.3265	1.3249	1.3291	1.3270
1 1/2	6		GH8	GH4	GH8	GH4	1.3917	1.4018	1.3988	1.4022	1.3996
1 1/2		12	GH4	GH4	GH6	GH4	1.4459	1.4515	1.4499	1.4542	1.4522

The above recommended taps normally 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, a choice of some other limit tap will be necessary.

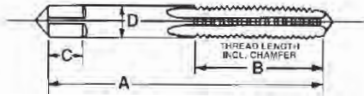


## TAP DRILL SIZES AND PERCENTAGE OF THREADS

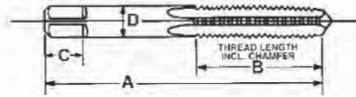
TAP		TAP DRILL	DECIM. EQUIV.	THEOR. % OF THREAD	TAP		TAP DRILL	DECIM. EQUIV.	THEOR. % OF THREAD	TAP		TAP DRILL	DECIM. EQUIV.	THEOR. % OF THREAD
NOM. SIZE	TPI				NOM. SIZE	TPI				NOM. SIZE	TPI			
0	80	#56 3/64	.0465 .0469	83 81	1/4	20	13/64	.2031	72	5/8	18	9/16	.5625	87
1	64	#54 #53	.0550 .0595	89 67			#6 #5	.2040 .2055	71 69			7/8	20	37/64
1	72	#53 1/16	.0595 .0625	75 58	1/4	28	#3 7/32	.2130 .2188	80 67	5/8	24	37/64	.5781	87
2	56	#51 #50 #49	.0670 .0700 .0730	82 69 56			7/32 #2	.2188 .2210	77 71			5/8	28	19/32
2	64	#50 #49	.0700 .0730	79 64	5/16	18	F G	.2570 .2610	77 71	11/16	12	19/32 39/64	.5938 .6094	87 72
3	48	#48 5/64 #47 #46 #45	.0760 .0781 .0785 .0810 .0820	85 77 76 67 63			F G H	.2570 .2610 .2660	85 79 72			5/8	32	19/32
3	56	#48 #45 #44	.0810 .0820 .0860	78 73 56	5/16	24	H I J	.2660 .2720 .2770	86 75 66	11/16	28	21/32	.6562	67
4	40	#44 #43 #42 3/32	.0860 .0890 .0935 .0938	80 71 57 56			I J	.2720 .2770	75 66			11/16	32	21/32
4	48	#43 #42 3/32 #41	.0890 .0935 .0938 .0960	85 68 67 59	5/16	36	J K 9/32	.2770 .2810 .2812	77 68 67	3/4	10	41/64 21/32	.6406 .6562	84 72
5	40	#40 #39 #38 #37	.0980 .0995 .1015 .1040	83 79 72 65			K 9/32	.2810 .2812	68 67			3/4	12	21/32 43/64
5	44	#38 #37 #36	.1015 .1040 .1065	80 71 63	5/16	32	K 9/32	.2810 .2812	78 77	3/4	16	11/16	.6875	77
6	32	#37 #36 7/64 #35 #34 #33	.1040 .1065 .1094 .1100 .1110 .1130	84 78 70 69 67 62			9/32	.2812	67			3/4	20	45/64
6	40	#34 #33 #32	.1110 .1130 .1160	83 77 68	3/8	16	7.25mm 5/16 O	.2854 .3125 .3160	75 77 73	3/4	28	23/32	.7188	67
8	32	#29	.1360	69			P Q	.3230 .3320	80 66			13/16	12	47/64
8	36	#29 #28 9/64	.1360 .1405 .1406	78 65 65	3/8	20	5/16 P Q	.3125 .3230 .3320	77 80 66	13/16	16	3/4	.7500	77
10	24	#27 #26 #25 #24 #23	.1440 .1470 .1495 .1520 .1540	85 79 75 70 66			Q R	.3320 .3390	66 67			13/16	20	49/64
10	32	5/32 #22 #21 #20	.1562 .1570 .1590 .1610	83 81 76 71	3/8	24	R 11/32	.3390 .3438	78 67	13/16	28	25/32	.7812	67
12	24	11/64 #17 #16 #15	.1719 .1730 .1770 .1800	82 79 72 67			11/32	.3438	67			13/16	32	25/32
12	28	#16 #15 #14 #13	.1770 .1800 .1820 .1850	84 78 73 67	3/8	36	S T 23/64	.3480 .3580 .3594	75 86 84	7/8	14	51/64	.7969	84
12	32	#14 #13 3/16 #12	.1820 .1850 .1875 .1890	84 76 70 67			T S	.3580 .3480	86 75			7/8	12	25/32
1/4	20	#9 #8 #7	.1960 .1990 .2010	83 79 75	7/16	14	3/8 V W	.3750 .3770 .3860	77 75 79	7/8	16	13/16	.8125	77
					7/16	16	V W 25/64	.3770 .3860 .3906	75 79 72			7/8	20	53/64
					7/16	20	W 25/64	.3860 .3906	79 72	7/8	28	27/32	.8438	67
					7/16	28	Y	.4040	72	7/8	32	27/32	.8438	77
					7/16	32	Y 13/32	.4040 .4062	83 77	15/16	12	27/32	.8438	87
					1/2	12	Z	.4130	80	15/16	16	55/64	.8594	72
					1/2	13	27/64	.4219	72	15/16	20	57/64	.8906	72
					1/2	16	7/16	.4375	77	15/16	28	29/32	.9062	67
					1/2	20	29/64	.4531	72	15/16	32	29/32	.9062	77
					1/2	28	15/32	.4688	67	1	8	7/8	.8750	77
					1/2	32	15/32	.4688	77	1	12	29/32	.9062	87
					9/16	12	15/32	.4688	87	1	14	59/64	.9219	72
					9/16	16	1/2	.5000	77	1	16	59/64	.9219	84
					9/16	18	0.5062	.5062	69	1	16	0.9274	.9274	78
					9/16	20	1/2	.5000	87	1	20	15/16	.9375	77
					9/16	24	0.5062	.5062	78	1	20	61/64	.9531	72
					9/16	28	33/64	.5156	72	1	28	31/32	.9688	67
					9/16	32	33/64	.5156	87	1	32	31/32	.9688	77
					9/16	36	0.5203	.5203	78	1 1/16	8	59/64	.9219	87
					9/16	40	17/32	.5312	67	1 1/16	12	0.9274	.9274	83
					9/16	44	0.5263	.5263	78	1 1/16	16	15/16	.9375	77
					9/16	48	17/32	.5312	77	1 1/16	20	31/32	.9688	87
					5/8	11	17/32	.5312	79	1 1/16	24	63/64	.9844	72
					5/8	12	35/64	.5469	72	1 1/16	28	1	1.0000	77
					5/8	16	9/16	.5625	77	1 1/16	32	1	1.0000	87
							0.5687	.5687	69	1 1/16	40	11/64	1.0156	72

## STANDARD TAP DIMENSIONS, GROUND THREAD

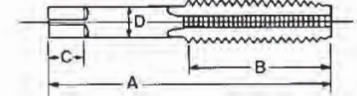
### General Dimensions



STYLE 1



STYLE 2

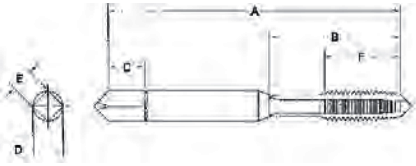


STYLE 3

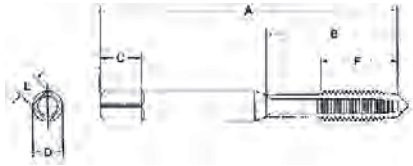
NOMINAL DIAMETER RANGE - INCHES		MACHINE SCREW SIZE NO.	NOMINAL FRACTIONAL DIAMETER INCHES	NOMINAL METRIC DIAMETER MILLIMETER	STYLE*	TAP DIMENSIONS - INCHES				
OVER	TO (INCL.)					O/A LENGTH A	THD. LGTH. B	SQ. LGTH. C	SHANK DIA. D	SIZE OF SQ. E
.052	.065	0	1/16	M1.6	1	1 5/8	5/16	3/16	.141	.110
.065	.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
1.073	1.135		1 1/8		3	5 7/16	2 9/16	7/8	.896	.672
1.135	1.198		1 3/16	M30	3	5 7/16	2 9/16	1	1.021	.766
1.198	1.260		1 1/4		3	5 3/4	2 9/16	1	1.021	.766
1.260	1.323		1 5/16	M33	3	5 3/4	2 9/16	1 1/16	1.108	.831
1.323	1.385		1 3/8		3	6 1/16	3	1 1/16	1.108	.831
1.385	1.448		1 7/16	M36	3	6 1/16	3	1 1/8	1.233	.925
1.448	1.510		1 1/2		3	6 3/8	3	1 1/8	1.233	.925
1.510	1.635		1 5/8	M39	3	6 11/16	3 3/16	1 1/8	1.305	.979
1.635	1.760		1 3/4	M42	3	7	3 3/16	1 1/4	1.430	1.072
1.760	1.885		1 7/8		3	7 5/16	3 9/16	1 1/4	1.519	1.139
1.885	2.010		2	M48	3	7 5/8	3 9/16	1 3/8	1.644	1.233
2.010	2.135		2 1/8		3	8	3 9/16	1 3/8	1.769	1.327
2.135	2.260		2 1/4	M56	3	8 1/4	3 9/16	1 7/16	1.894	1.420
2.260	2.385		2 3/8		3	8 1/2	4	1 7/16	2.019	1.514
2.385	2.510		2 1/2		3	8 3/4	4	1 1/2	2.100	1.575
2.510	2.635		2 5/8	M64	3	8 3/4	4	1 1/2	2.225	1.669
2.635	2.760		2 3/4		3	9 1/4	4	1 9/16	2.350	1.762
2.760	2.885		2 7/8	M72	3	9 1/4	4	1 9/16	2.475	1.856
2.885	3.010		3		3	9 3/4	4 9/16	1 5/8	2.543	1.907
3.010	3.135		3 1/8		3	9 3/4	4 9/16	1 5/8	2.668	2.001
3.135	3.260		3 1/4	M80	3	10	4 9/16	1 3/4	2.793	2.095

\*Styles shown are for Ground Thread Taps.

## CNC DESIGN TAP DIMENSIONS, GROUND THREAD



STYLE 1



STYLE 2



STYLE 3

NOMINAL DIAMETER RANGE - INCHES		MACHINE SCREW SIZE NO.	NOMINAL FRACTIONAL DIAMETER INCHES	NOMINAL METRIC DIAMETER MILLIMETER	STYLE	TAP DIMENSIONS - INCHES				
OVER	TO (INCL.)					OVERALL LENGTH A	THREAD LENGTH F	REACH B	SHANK DIAMETER D	SQUARE SIZE C/E
.104	.117	4			1	1-7/8	5/16	25/32	.141	3/16X.110
.117	.130	5	1/8	M3, M3.15	1	1-15/16	5/16	25/32	.141	3/16X.110
.130	.145	6		M3.5	1	2	3/8	13/16	.141	3/16X.110
.145	.171	8	5/32	M4	1	2-1/8	3/8	7/8	.168	1/4X.131
.171	.197	10	3/16	M4.5, M5	1	2-3/8	1/2	1	.194	1/4X.152
.197	.223	12	7/32		1	2-3/8	1/2	1-1/16	.220	9/32X.165
.223	.260	14	1/4	M6, M6.3	2	2-1/2	5/8	1-1/8	.255	5/16X.191
.260	.323		5/16	M7, M8	2	2-23/32	11/16	1-1/4	.318	3/8X.238
.323	.395		3/8	M10	2	2-15/16	3/4	1-5/16	.381	7/16X.286
.395	.448		7/16		3	3-5/32	7/8	-	.323	13/32X.242
.448	.510		1/2	M12, M12.5	3	3-3/8	15/16	-	.367	7/16X.275
.510	.573		9/16	M14	3	3-19/32	1	-	.429	1/2X.322
.573	.635		5/8	M16	3	3-13/16	1-1/8	-	.480	9/16X.360
.635	.709		11/16	M18	3	4-1/32	1-3/16	-	.542	5/8X.406
.709	.760		3/4		3	4-1/4	1-1/4	-	.590	11/16X.422



## METRIC TAP DRILL SIZES AND PERCENTAGES OF THREADS

TAP SIZE	TAP DRILL	DECIMAL EQUIV.	THEOR. % OF THREAD	TAP SIZE	TAP DRILL	DECIMAL EQUIV.	THEOR. % OF THREAD	TAP SIZE	TAP DRILL	DECIMAL EQUIV.	THEOR. % OF THREAD
M1.6X3.5	1.25mm	.0492	77	M8X1.25	I	.2720	67	M22X1.5	20.5mm	.8071	77
	1.3mm	.0512	66	M8X1	7mm	.2756	77	M24X3	13/16	.8125	70
	#55	.0520	61		J	.2770	74		21mm	.8268	77
M1.8X.35	1.45mm	.0571	77	M10X1.5	8.5mm	.3346	77	M24X2	27/32	.8438	66
	1.5mm	.0591	66	M10X1.25	R	.3390	71		22mm	.8661	77
	#53	.0595	64		8.75mm	.3445	77	7/8	.8750	68	
M2X.4	1.6mm	.0630	77	M12X1.75	S	.3480	71	M27X3	24mm	.9449	77
	#52	.0635	74		13/32	.4062	74	61/64	.9531	72	
M2.2X.45	1.75mm	.0689	77	M12X1.25	Z	.4130	66	M27X2	25mm	.9843	77
	#50	.0700	72		27/64	.4219	79		63/64	.9844	77
M2.5X.45	2.05mm	.0807	77	M14X2	11mm	.4331	62	M30X3.5	26.5mm	1.0433	77
	#45	.0820	71		12mm	.4724	77		1 1/16	1.0625	66
M3X.5	2.5mm	.0984	77	M14X1.5	31/64	.4844	65	M30X2	28mm	1.1024	77
	#39	.0995	73		12.5mm	.4921	77		1 7/64	1.1094	70
M3.5X.6	2.9mm	.1142	77	M16X2	1/2	.5000	67	M33X3.5	29.5mm	1.1614	77
	#32	.1160	71		14mm	.5512	77		1 11/64	1.1719	71
M4X.7	3.3mm	.1299	77	M16X1.5	9/16	.5625	66	M33X2	31mm	1.2205	77
	3.4mm	.1339	66		14.5mm	.5709	77		1 15/64	1.2344	63
	#29	.1360	60		37/64	.5781	68		32mm	1.2598	77
M4.5X.75	3.75mm	.1476	77	M18X2.5	15.5mm	.6102	77	M36X4	1 17/64	1.2656	74
	#25	.1495	72		5/8	.6250	65		1 19/64	1.2969	78
M5X.8	4.2mm	.1654	77	M18X1.5	16.5mm	.6496	77	M36X3	33mm	1.2992	77
	#18	.1695	67		21/32	.6562	68		1 5/16	1.3125	68
M6X1	5mm	.1969	77	M20X2.5	17.5mm	.6890	77	M39X4	1 3/8	1.3750	78
	#8	.1990	73		45/64	.7031	66		35mm	1.3780	77
M7X1	6mm	.2362	77	M20X1.5	18.5mm	.7283	77	M39X3	1 25/64	1.3906	71
	B	.2380	74		47/64	.7344	69		36mm	1.4173	77
M8X1.25	6.75mm	.2657	77	M22X2.5	19.5mm	.7677	77	1 27/64	1.4219	74	
	6.8mm	.2677	74		25/32	.7812	66				

## PIPE TAP DRILL SIZES

TAP SIZE	*NPT		*NPTF		STRAIGHT	
	TAP DRILL	DECIMAL EQUIV.	TAP DRILL	DECIMAL EQUIV.	TAP DRILL	DECIMAL EQUIV.
1/16	D	.2460	D	.2460	1/4	.2500
1/8	Q	.3320	R	.3390	11/32	.3438
1/4	7/16	.4375	7/16	.4375	7/16	.4375
3/8	9/16	.5625	37/64	.5781	37/64	.5781
1/2	45/64	.7031	45/64	.7031	23/32	.7188
3/4	29/32	.9062	59/64	.9219	59/64	.9219
1	1 9/64	1.1406	1 5/32	1.1562	1 5/32	1.1562
1 1/4	1 31/64	1.4844	1 1/2	1.5000	1 1/2	1.5000
1 1/2	1 47/64	1.7344	1 47/64	1.7344	1 3/4	1.7500
2	2 13/64	2.2031	2 7/32	2.2188	2 7/32	2.2188
2 1/2	2 5/8	2.6250	2 41/64	2.6406	2 21/32	2.6562
3			3 17/64	3.2656		

\*For tapping without reaming.

## STANDARD PIPE TAP DIMENSIONS, STRAIGHT AND TAPER, GROUND THREAD



DIMENSIONS IN INCHES

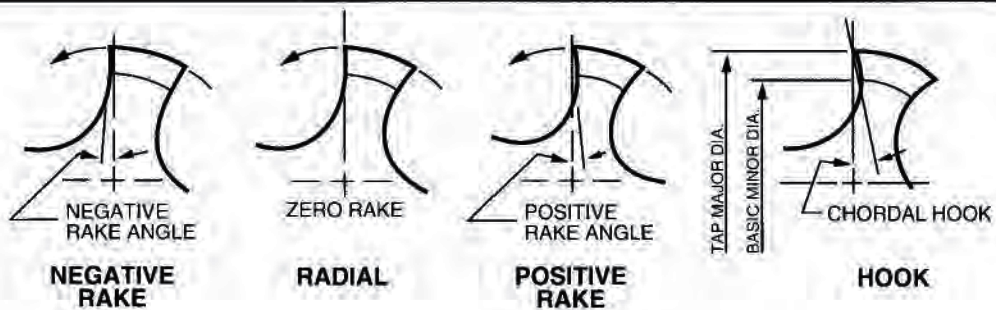
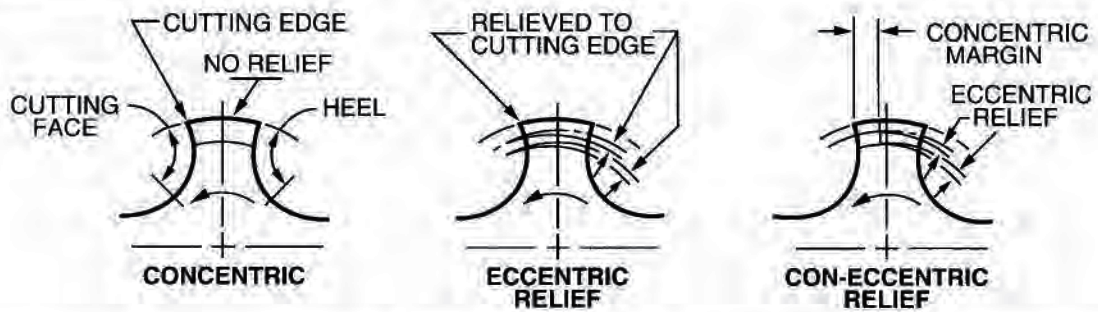
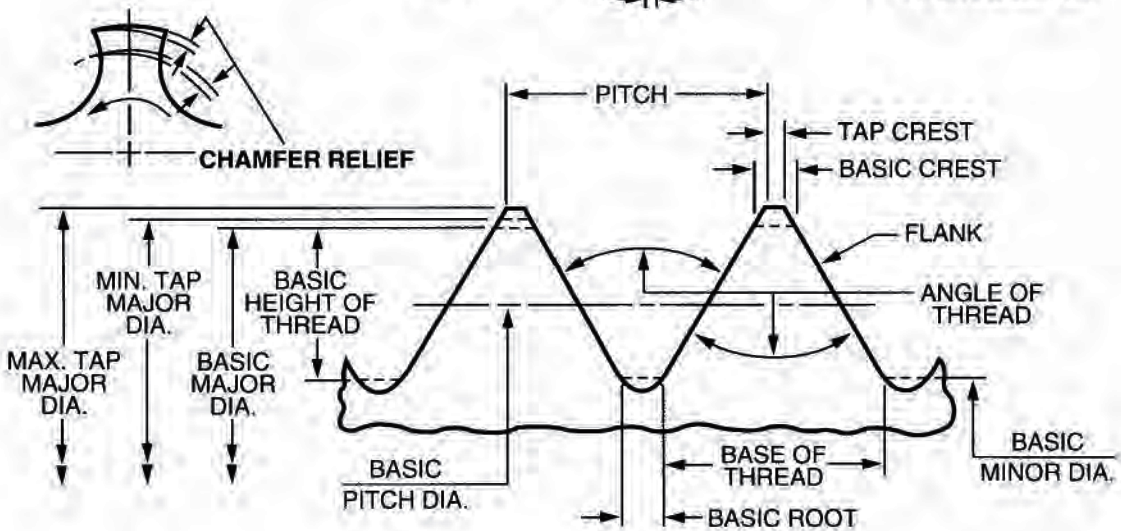
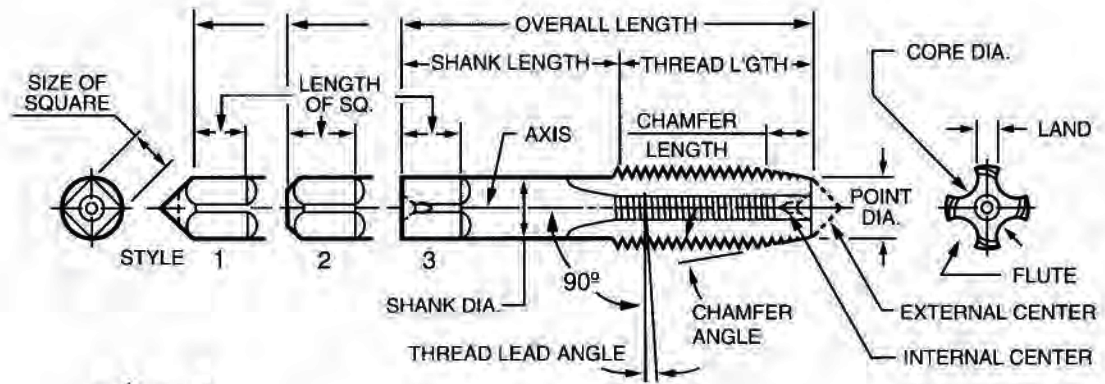
NOMINAL SIZE INCHES	DIMENSIONS IN INCHES				
	LENGTH OVERALL A	LENGTH OF THREAD B	LENGTH OF SQUARE C	DIAMETER OF SHANK D	SIZE OF SQUARE E
1/16	2 1/8	11/16	3/8	.3125	.234
1/8 Small Shank	2 1/8	3/4	3/8	.3125	.234
1/8 Large Shank	2 1/8	3/4	3/8	.4375	.328
1/4	2 7/16	1 1/16	7/16	.5625	.421
3/8	2 9/16	1 1/16	1/2	.7000	.531
1/2	3 1/8	1 3/8	5/8	.6875	.515
3/4	3 1/4	1 3/8	11/16	.9063	.679
1	3 3/4	1 3/4	13/16	1.1250	.843
1 1/4	4	1 3/4	15/16	1.3125	.984
1 1/2	4 1/4	1 3/4	1	1.5000	1.125
2	4 1/2	1 3/4	1 1/8	1.8750	1.406
2 1/2	5 1/2	2 9/16	1 1/4	2.2500	1.687
3	6	2 5/8	1 3/8	2.6250	1.968
3 1/2	6 1/2	2 11/16	1 1/2	2.8125	2.108
4	6 3/4	2 3/4	1 5/8	3.0000	2.250

## TAPER PIPE TAPS THREAD LIMITS

NOMINAL SIZE INCHES	THREADS PER INCH	STANDARD PROJECTION NPT & NPTF			PTF SAE SHORT PROJECTION		
		PROJECTION THROUGH L1 RING GAGE	THICKNESS OF L1 RING GAGE	RUN OF THREAD	PROJECTION THROUGH L1 RING GAGE	THICKNESS OF L1 RING GAGE	RUN OF THREAD
1/16	27	.312	.160	.472	.2405±.019	.160	.4005
1/8	27	.312	.1615	.4735	.2405±.019	.1615	.4020
1/4	18	.459	.2278	.6868	.3610±.028	.2278	.5888
3/8	18	.454	.240	.694	.3610±.028	.240	.6010
1/2	14	.579	.320	.899	.4645±.036	.320	.7845
3/4	14	.565	.339	.904	.4645±.036	.339	.8035
1	11 1/2	.678	.400	1.078	.5652±.044	.400	.9652
1 1/4	11 1/2	.686	.420	1.106	.5652±.044	.420	.9852
1 1/2	11 1/2	.699	.420	1.119	.5652±.044	.420	.9852
2	11 1/2	.667	.436	1.103	.5652±.044	.436	1.0012
2 1/2	8	.925	.682	1.607	.8125±.062	.682	1.4945
3	8	.925	.766	1.691	.8125±.062	.766	1.5785
3 1/2	8	.938	.821	1.759			
4	8	.950	.844	1.794			

Projection & Thickness L1 Ring Gage = Run Gage Measurement in Inches

## TAP NOMENCLATURE





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