

## M42 COBALT TAPS & TiN COATED

### Type 24-RNC Gold Oxide Type 24-RNCN TiN Coated Fractional - Taps for Hardened Steel and Iron

- M42 plug taps for tapping through holes in mold steel and hardened steel with Rockwell C hardness between C30 – C45.
  - Titanium coated M42 plug taps last twice as long as uncoated taps, titanium coatings lubricity produces smooth threads.
- For use in cast iron, brass, bronze, armor plate with a Rockwell C hardness between C30 – C45 and hard plastics

Part #	TIN Part #	Thread Size	Thread Length	Overall Length	Shank Diameter	Drill Bit Size	# of Flutes	Pitch Limit Diameter	Qty Per Pack
10052	13802	4-40	5/16"	1-7/8"	0.1405	#43	3	H2	3
10072	13822	5-40	5/16"	1-15/16"	0.1405	#38	3	H2	3
10092	13842	6-32	3/8"	2"	0.1405	#36	3	H3	3
10112	13862	8-32	3/8"	2-1/8"	0.1675	#29	3	H3	3
10132	13882	10-24	1/2"	2-3/8"	0.1935	#25	3	H3	3
10142	13892	10-32	1/2"	2-3/8"	0.1935	#21	3	H3	3
10172	13922	1/4-20	5/8"	2-1/2"	0.2545	#7	3	H3	3
10182	13932	1/4-28	5/8"	2-1/2"	0.2545	#3	3	H3	3
10192	13942	5/16-18	11/16"	2-23/32"	0.3175	F	4	H3	3
10202	13952	5/16-24	11/16"	2-23/32"	0.3175	I	4	H3	3
10212	13962	3/8-16	3/4"	2-15/16"	0.3805	5/16"	4	H3	3
10222	13972	3/8-24	3/4"	2-15/16"	0.3805	Q	4	H3	3
10232	13982	7/16-14	7/8"	3-5/32"	0.3225	U	4	H3	3
10242	13992	7/16-20	7/8"	3-5/32"	0.3225	25/64"	4	H3	3
10272	14002	1/2-13	15/16"	3-3/8"	0.3665	27/64"	4	H3	3
10282	14012	1/2-20	15/16"	3-3/8"	0.3665	29/64"	4	H3	3
10292	14042	5/8-11	1-3/32"	3-13/16"	0.4795	17/32"	4	H3	1
10302	14052	5/8-18	1-3/32"	3-13/16"	0.4795	37/64"	4	H3	1
10312	14062	3/4-10	1-7/32"	4-1/4"	0.5895	21/32"	4	H3	1
10322	14072	3/4-16	1-7/32"	4-1/4"	0.5895	11/16"	4	H3	1

## HSS STRAIGHT FLUTE HAND TAPS

### Machine Screw / Fractional - Ground Thread

#### Types 23-UB, Type 24-UB & Type 25-UB Gold Oxide Types 23-UBN, Type 24-UBN & Type 25-UBN TiN Coated

#### Types 23, Type 24 & Type 25 Bright Finish

- The most common style of tap
- Can be used by hand or for tapping under power
- Versatile taps for use in general machine tapping or CNC tapping applications
- Use for through hole or blind hole tapping.



**Type 23-UB - Taper**

Gold Oxide - low temperature stress relief that enhances lubricity, reduces friction and increases tap toughness.



**Type 24-UBN - Plug**

TiN coating - increases wear resistance by producing a higher surface hardness and exceptional lubricity resulting in longer tool life.



**Type 25 - Bottoming**  
Bright Finish

23-UB Taper Part#	24-UB Plug Part #	25-UB Bottoming Part #	23-UBN Taper Part #	24-UBN Plug Part #	25-UBN Bottoming Part #	23 Taper Part #	24 Plug Part #	25 Bottoming Part #	Size	# of Flutes	H Limit	QTY per/pack
72701	72702	72703	45981	45982	45983	71661	71662	71663	0-80	2	H1	3
72711	72712	72713	45991	45992	45993	71671	71672	71673	0-80	2	H2	3
72721	72722	72723	44101	44102	44103	71681	71682	71683	1-64	2	H1	3
72731	72732	72733	44111	44112	44113	71691	71692	71693	1-64	2	H2	3
72741	72742	72743	44121	44122	44123	71701	71702	71703	1-72	2	H1	3
72751	72752	72753	44131	44132	44133	71711	71712	71713	1-72	2	H2	3
72761	72762	72763	44141	44142	44143	71721	71722	71723	2-56	3	H1	3
<b>60660</b>	<b>60661</b>	<b>60662</b>	<b>46001</b>	<b>46002</b>	<b>46003</b>	<b>71231</b>	<b>71232</b>	<b>71233</b>	<b>2-56</b>	<b>3</b>	<b>H2</b>	<b>3</b>
72771	72772	72773	44151	44152	44153	71731	71732	71733	2-64	3	H2	3
72781	72782	72783	44161	44162	44163	71741	71742	71743	3-48	3	H1	3
<b>60680</b>	<b>60681</b>	<b>60682</b>	<b>46011</b>	<b>46012</b>	<b>46013</b>	<b>71251</b>	<b>71252</b>	<b>71253</b>	<b>3-48</b>	<b>3</b>	<b>H2</b>	<b>3</b>
60710	60711	60712	45931	45932	45933	71751	71752	71753	3-56	3	H2	3
<b>60700</b>	<b>60701</b>	<b>60702</b>	<b>46021</b>	<b>46022</b>	<b>46023</b>	<b>61001</b>	<b>61002</b>	<b>61003</b>	<b>4-40</b>	<b>3</b>	<b>H2</b>	<b>3</b>
60720	60721	60722	45951	45952	45953	61011	61012	61013	4-48	3	H2	3
72791	72792	72793	44191	44192	44193	71761	71762	71763	5-40	3	H1	3
<b>60730</b>	<b>60731</b>	<b>60732</b>	<b>46031</b>	<b>46032</b>	<b>46033</b>	<b>61021</b>	<b>61022</b>	<b>61023</b>	<b>5-40</b>	<b>3</b>	<b>H2</b>	<b>3</b>
60740	60741	60742	45971	45972	45973	61031	61032	61033	5-44	3	H2	3
72801	72802	72803	44211	44212	44213	71771	71772	71773	6-32	3	H1	3
72811	72812	72813	44221	44222	44223	71781	71782	71783	6-32	3	H2	3
<b>60750</b>	<b>60751</b>	<b>60752</b>	<b>46041</b>	<b>46042</b>	<b>46043</b>	<b>61041</b>	<b>61042</b>	<b>61043</b>	<b>6-32</b>	<b>3</b>	<b>H3</b>	<b>3</b>
72821	72822	72823	44231	44232	44233	71791	71792	71793	6-40	3	H1	3
<b>60760</b>	<b>60761</b>	<b>60762</b>	<b>46051</b>	<b>46052</b>	<b>46053</b>	<b>61051</b>	<b>61052</b>	<b>61053</b>	<b>6-40</b>	<b>3</b>	<b>H2</b>	<b>3</b>
72831	72832	72833	44241	44242	44243	71801	71802	71803	8-32	4	H1	3
72841	72842	72843	44251	44252	44253	71811	71812	71813	8-32	4	H2	3
<b>60770</b>	<b>60771</b>	<b>60772</b>	<b>46061</b>	<b>46062</b>	<b>46063</b>	<b>61061</b>	<b>61062</b>	<b>61063</b>	<b>8-32</b>	<b>4</b>	<b>H3</b>	<b>3</b>
<b>60780</b>	<b>60781</b>	<b>60782</b>	<b>46071</b>	<b>46072</b>	<b>46073</b>	<b>61071</b>	<b>61072</b>	<b>61073</b>	<b>8-36</b>	<b>4</b>	<b>H2</b>	<b>3</b>
72851	72852	72853	44261	44262	44263	71821	71822	71823	10-24	4	H1	3

Red Bold = most common used Taps

## HSS STRAIGHT FLUTE HAND TAPS

Machine Screw / Fractional - Ground Thread - Ultra Bor Super Premium

Types 23-UB, Type 24-UB & Type 25-UB **Gold Oxide**

Types 23-UBN, Type 24-UBN & Type 25-UBN **TiN Coated**

Types 23, Type 24 & Type 25 **Bright Finish**

- The most common style of tap
- Can be used by hand or for tapping under power
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**Type 23-UB - Taper**

**Gold Oxide** - low temperature stress relief that enhances lubricity, reduces friction and increases tap toughness.



**Type 24-UBN - Plug**

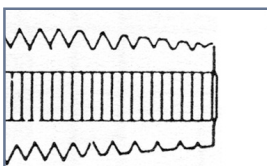
**TiN coating** - increases wear resistance by producing a higher surface hardness and exceptional lubricity resulting in longer tool life.



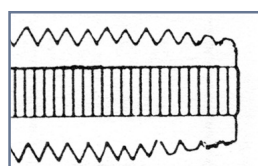
**Type 25 - Bottoming**  
Bright Finish

Red Bold = most common used Taps

23-UB Taper Part#	24-UB Plug Part #	25-UB Bottoming Part #	23-UBN Taper Part #	24-UBN Plug Part #	25-UBN Bottoming Part #	23 Taper Part #	24 Plug Part #	25 Bottoming Part #	Size	# of Flutes	H Limit	QTY per/pack
72861	72862	72863	44271	44272	44273	71831	71832	71833	10-24	4	H2	3
<b>60790</b>	<b>60791</b>	<b>60792</b>	<b>46081</b>	<b>46082</b>	<b>46083</b>	<b>61081</b>	<b>61082</b>	<b>61083</b>	<b>10-24</b>	<b>4</b>	<b>H3</b>	<b>3</b>
72871	72872	72873	44281	44282	44283	71841	71842	71843	10-32	4	H1	3
72881	72882	72883	44291	44292	44293	71851	71852	71853	10-32	4	H2	3
<b>60800</b>	<b>60801</b>	<b>60802</b>	<b>46091</b>	<b>46092</b>	<b>46093</b>	<b>61091</b>	<b>61092</b>	<b>61093</b>	<b>10-32</b>	<b>4</b>	<b>H3</b>	<b>3</b>
<b>60810</b>	<b>60811</b>	<b>60812</b>	<b>46101</b>	<b>46102</b>	<b>46103</b>	<b>61101</b>	<b>61102</b>	<b>61103</b>	<b>12-24</b>	<b>4</b>	<b>H3</b>	<b>3</b>
<b>60820</b>	<b>60821</b>	<b>60822</b>	<b>46111</b>	<b>46112</b>	<b>46113</b>	<b>61111</b>	<b>61112</b>	<b>61113</b>	<b>12-28</b>	<b>4</b>	<b>H3</b>	<b>3</b>
72891	72892	72893	44301	44302	44303	71861	71862	71863	1/4-20	4	H1	3
72901	72902	72903	44311	44312	44313	71871	71872	71873	1/4-20	4	H2	3
<b>60830</b>	<b>60831</b>	<b>60832</b>	<b>46121</b>	<b>46122</b>	<b>46123</b>	<b>61121</b>	<b>61122</b>	<b>61123</b>	<b>1/4-20</b>	<b>4</b>	<b>H3</b>	<b>3</b>
72911	72912	72913	44321	44322	44323	71881	71882	71883	1/4-20	4	H5	3
72921	72922	72923	44331	44332	44333	71891	71892	71893	1/4-28	4	H1	3
72931	72932	72933	44341	44342	44343	71901	71902	71903	1/4-28	4	H2	3
<b>60840</b>	<b>60841</b>	<b>60842</b>	<b>46131</b>	<b>46132</b>	<b>46133</b>	<b>61131</b>	<b>61132</b>	<b>61133</b>	<b>1/4-28</b>	<b>4</b>	<b>H3</b>	<b>3</b>
72941	72942	72943	44351	44352	44353	71911	71912	71913	1/4-28	4	H4	3
72951	72952	72953	44361	44362	44363	71921	71922	71923	5/16-18	4	H2	3
<b>60850</b>	<b>60851</b>	<b>60852</b>	<b>46141</b>	<b>46142</b>	<b>46143</b>	<b>61141</b>	<b>61142</b>	<b>61143</b>	<b>5/16-18</b>	<b>4</b>	<b>H3</b>	<b>3</b>
72961	72962	72963	44371	44372	44373	71931	71932	71933	5/16-18	4	H5	3
72971	72972	72973	44381	44382	44383	71941	71942	71943	5/16-24	4	H2	3
<b>60860</b>	<b>60861</b>	<b>60862</b>	<b>46151</b>	<b>46152</b>	<b>46153</b>	<b>61151</b>	<b>61152</b>	<b>61153</b>	<b>5/16-24</b>	<b>4</b>	<b>H3</b>	<b>3</b>
72981	72982	72983	44391	44392	44393	71951	71952	71953	5/16-24	4	H4	3
72991	72992	72993	44401	44402	44403	71961	71962	71963	3/8-16	4	H1	3
73001	73002	73003	44411	44412	44413	71971	71972	71973	3/8-16	4	H2	3
<b>60870</b>	<b>60871</b>	<b>60872</b>	<b>46161</b>	<b>46162</b>	<b>46163</b>	<b>61161</b>	<b>61162</b>	<b>61163</b>	<b>3/8-16</b>	<b>4</b>	<b>H3</b>	<b>3</b>
73011	73012	73013	44421	44422	44423	71981	71982	71983	3/8-16	4	H5	3
73021	73022	73023	44431	44432	44433	71991	71992	71993	3/8-24	4	H1	3
73031	73032	73033	44441	44442	44443	72001	72002	72003	3/8-24	4	H2	3
<b>60880</b>	<b>60881</b>	<b>60882</b>	<b>46171</b>	<b>46172</b>	<b>46173</b>	<b>61171</b>	<b>61172</b>	<b>61173</b>	<b>3/8-24</b>	<b>4</b>	<b>H3</b>	<b>3</b>
73041	73042	73043	44451	44452	44453	72011	72012	72013	3/8-24	4	H4	3
<b>60890</b>	<b>60891</b>	<b>60892</b>	<b>46181</b>	<b>46182</b>	<b>46183</b>	<b>61181</b>	<b>61182</b>	<b>61183</b>	<b>7/16-14</b>	<b>4</b>	<b>H3</b>	<b>3</b>
73051	73052	73053	44461	44462	44463	72021	72022	72023	7/16-14	4	H5	3
<b>60900</b>	<b>60901</b>	<b>60902</b>	<b>46191</b>	<b>46192</b>	<b>46193</b>	<b>61191</b>	<b>61192</b>	<b>61193</b>	<b>7/16-20</b>	<b>4</b>	<b>H3</b>	<b>3</b>
73061	73062	73063	44471	44472	44473	72031	72032	72033	7/16-20	4	H5	3
73071	73072	73073	44481	44482	44483	72041	72042	72043	1/2-13	4	H1	3
<b>60910</b>	<b>60911</b>	<b>60912</b>	<b>46201</b>	<b>46202</b>	<b>46203</b>	<b>61201</b>	<b>61202</b>	<b>61203</b>	<b>1/2-13</b>	<b>4</b>	<b>H3</b>	<b>3</b>
73081	73082	73083	44491	44492	44493	72051	72052	72053	1/2-13	4	H5	3
73091	73092	73093	44501	44502	44503	72061	72062	72063	1/2-20	4	H1	3
<b>60920</b>	<b>60921</b>	<b>60922</b>	<b>46211</b>	<b>46212</b>	<b>46213</b>	<b>61211</b>	<b>61212</b>	<b>61213</b>	<b>1/2-20</b>	<b>4</b>	<b>H3</b>	<b>3</b>
73101	73102	73103	44511	44512	44513	72071	72072	72073	1/2-20	4	H5	3
<b>60950</b>	<b>60951</b>	<b>60952</b>	<b>46221</b>	<b>46222</b>	<b>46223</b>	<b>55011</b>	<b>55012</b>	<b>55013</b>	<b>9/16-12</b>	<b>4</b>	<b>H3</b>	<b>1</b>



**TAPER**  
Type 23-UB, 23-UBN, 23  
Type 31-UB, 31-UBN, 31  
Eight to ten threads chamfered for easy  
thread starting in tough materials.



**PLUG**  
Type 24-UB, 24-UBN, 24  
Type 32-UB, 32-UBN, 32  
Three to five threads  
chamfered. For general use when tapping into  
the bottom of the hole is not critical. (This is the  
most widely used style.)

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**Types 23-UBN, Type 24-UBN & Type 25-UBN TiN Coated**

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**Type 24-UBN - Plug**

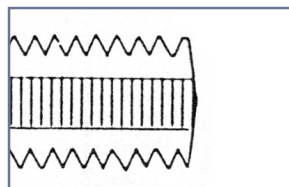
**TiN coating** - increases wear resistance by producing a higher surface hardness and exceptional lubricity resulting in longer tool life.



**Type 25 - Bottoming**  
Bright Finish

Red Bold = most common used Taps

23-UB Taper Part #	24-UB Plug Part #	25-UB Bottoming Part #	23-UBN Taper Part #	24-UBN Plug Part #	25-UBN Bottoming Part #	23 Taper Part #	24 Plug Part #	25 Bottoming Part #	Size	# of Flutes	H Limit	QTY per/pack
73111	73112	73113	44521	44522	44523	72081	72082	72083	9/16-12	4	H5	1
73121	73122	73123	44531	44532	44533	72091	72092	72093	9/16-18	4	H2	1
<b>60960</b>	<b>60961</b>	<b>60962</b>	<b>46231</b>	<b>46232</b>	<b>46233</b>	<b>55021</b>	<b>55022</b>	<b>55023</b>	<b>9/16-18</b>	<b>4</b>	<b>H3</b>	<b>1</b>
73131	73132	73133	44541	44542	44543	72101	72102	72103	9/16-18	4	H5	1
73141	73142	73143	44551	44552	44553	72111	72112	72113	5/8-11	4	H2	1
<b>60970</b>	<b>60971</b>	<b>60972</b>	<b>46241</b>	<b>46242</b>	<b>46243</b>	<b>55031</b>	<b>55032</b>	<b>55033</b>	<b>5/8-11</b>	<b>4</b>	<b>H3</b>	<b>1</b>
73151	73152	73153	44561	44562	44563	72121	72122	72123	5/8-11	4	H5	1
73161	73162	73163	44571	44572	44573	72131	72132	72133	5/8-18	4	H2	1
<b>60980</b>	<b>60981</b>	<b>60982</b>	<b>46251</b>	<b>46252</b>	<b>46253</b>	<b>55041</b>	<b>55042</b>	<b>55043</b>	<b>5/8-18</b>	<b>4</b>	<b>H3</b>	<b>1</b>
73171	73172	73173	44581	44582	44583	72141	72142	72143	5/8-18	4	H5	1
73181	73182	73183	44591	44592	44593	72151	72152	72153	11/16-11	4	H3	1
73191	73192	73193	44601	44602	44603	72161	72162	72163	11/16-16	4	H3	1
<b>60990</b>	<b>60991</b>	<b>60992</b>	<b>46261</b>	<b>46262</b>	<b>46263</b>	<b>55051</b>	<b>55052</b>	<b>55053</b>	<b>3/4-10</b>	<b>4</b>	<b>H3</b>	<b>1</b>
73201	73202	73203	44611	44612	44613	72171	72172	72173	3/4-10	4	H5	1
73211	73212	73213	44621	44622	44623	72181	72182	72183	3/4-16	4	H1	1
73221	73222	73223	44631	44632	44633	72191	72192	72193	3/4-16	4	H2	1
<b>61400</b>	<b>61401</b>	<b>61402</b>	<b>46271</b>	<b>46272</b>	<b>46273</b>	<b>55061</b>	<b>55062</b>	<b>55063</b>	<b>3/4-16</b>	<b>4</b>	<b>H3</b>	<b>1</b>
73231	73232	73233	44641	44642	44643	72201	72202	72203	3/4-16	4	H5	1
<b>61410</b>	<b>61411</b>	<b>61412</b>	<b>46281</b>	<b>46282</b>	<b>46283</b>	<b>55071</b>	<b>55072</b>	<b>55073</b>	<b>7/8-9</b>	<b>4</b>	<b>H4</b>	<b>1</b>
73241	73242	73243	44651	44652	44653	72211	72212	72213	7/8-9	4	H6	1
73251	73252	73253	44661	44662	44663	72221	72222	72223	7/8-14	4	H2	1
<b>61420</b>	<b>61421</b>	<b>61422</b>	<b>46291</b>	<b>46292</b>	<b>46293</b>	<b>55081</b>	<b>55082</b>	<b>55083</b>	<b>7/8-14</b>	<b>4</b>	<b>H4</b>	<b>1</b>
73261	73262	73263	44671	44672	44673	72231	72232	72233	7/8-14	4	H6	1
<b>61430</b>	<b>61431</b>	<b>61432</b>	<b>46301</b>	<b>46302</b>	<b>46303</b>	<b>55091</b>	<b>55092</b>	<b>55093</b>	<b>1"-8</b>	<b>4</b>	<b>H4</b>	<b>1</b>
73271	73272	73273	44681	44682	44683	72241	72242	72243	1"-8	4	H6	1
61440	61441	61442	46311	46312	46313	55101	55102	55103	1"-12	4	H4	1
27570	27571	27572	46321	46322	46323	55111	55112	55113	1"-14	4	H4	1
61450	61451	61452	46331	46332	46333	55121	55122	55123	1" 1/8-7	4	H4	1
61460	61461	61462	46341	46342	46343	55131	55132	55133	1" 1/8-12	4	H4	1
61470	61471	61472	46351	46352	46353	55141	55142	55143	1" 1/4-7	4	H4	1
61480	61481	61482	46361	46362	46363	55151	55152	55153	1" 1/4-12	6	H4	1
61490	61491	61492	46371	46372	46373	55161	55162	55163	1" 3/8-6	4	H4	1
61500	61501	61502	46381	46382	46383	55171	55172	55173	1" 3/8-12	6	H4	1
61510	61511	61512	46391	46392	46393	55181	55182	55183	1" 1/2-6	4	H4	1
61520	61521	61522	46401	46402	46403	55191	55192	55193	1" 1/2-12	6	H4	1



### BOTTOMING

**Type 25-UB, 25-UBN, 25-UBN, 33-UB, 33-UBN, 33-UBN**

One-and - two threads chamfered. To use after threads have been started for tapping to the bottom of a hole.